PLANNING COMMISSION MEETING AGENDA

April 1, 2025
6:00 PM
Email planning@centralpointoregon.gov
to request a Zoom link for virtual participation
www.centralpointoregon.gov

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10. Meeting Called to Order

20. Roll Call

30. Correspondence

40. Approval of Minutes

A. Approval of the March 4, 2025 Meeting Minutes

50. Public Appearances

60. Business

A. Anchor Church Conditional Use Permit

B. Gebhard Village Master Plan Application

C. Gebhard Village Tentative Subdivision Plan

70. Discussion Items

80. Administrative Reviews

90. Miscellaneous

100. Adjournment

Individuals wishing to attend a meeting via Zoom or needing special accommodations such as sign language, foreign language interpreters, or equipment for deaf and hard of hearing people must request such services at least 72 hours before the City Council meeting. To make your request, please contact the City Recorder at 541-423-1015 (voice) or by e-mail to meetings@centralpointoregon.gov.

Si necesita traductor en espanol o serviciis de discapacidades (ADA) para asistir a una junta publica de la caudad poor favor llame con 72 hora de anticipation al 541-664-3321 ext. 201.

PLANNING COMMISSION MEETING MINUTES

March 4, 2025
6:00 PM
Email planning@centralpointoregon.gov
to request a Zoom link for virtual participation
www.centralpointoregon.gov

1 Meeting Called to Order

2 Roll Call

The following members were present: Board Member Kay Harrison, Board Member Patrick Smith, Board Member Alicia Van Riggs, Board Member Royce Chambers

The following members were absent: Jim Mock

The following staff were also present: Stephanie Powers, Justin Gindlesperger

3 Correspondence

None.

4 Approval of Minutes

A. Approval of February 11, 2025 Minutes

Motion: Approve
Moved By: Kay Harrison **Seconded by:** Alicia Van Riggs
Roll Call: Members Kay Harrison, Patrick Smith, Alicia Van Riggs, Royce Chambers voted yes. None voted no.

5 Public Appearances

None.

6 Business

A. Anchor Church Conditional Use Permit

Chairperson Tom Van Voohrees read the Quasi-judicial Hearing Statement explaining the rules governing the public hearing for a Conditional Use Permit application. He asked Commissioners about ex-parte contacts, conflicts of interest and bias. There were none reported and no challenges from members of the public. Chairperson VanVoohrees opened the public hearing.

Community Planner III, Justin Gindlesperger, introduced the proposed Conditional Use Permit application to operate a church within an existing building in the Neighborhood Commercial zone. The site, he said, is an existing shopping center located at the intersection of North 10th and North 3rd Street. Mr. Gindlesperger explained that the use has been active for over a year but requires a Conditional Use Permit to consider impacts, such as traffic. The item, he said, was initially scheduled for a public hearing on February 4, 2025 but had to be rescheduled due to adverse weather conditions. Mr. Gindlesperger reported that the hearing had been duly noticed for this meeting. However, the applicant's agent submitted a written request to open the public hearing and continue it to the April 1, 2025 meeting.

The Planning Commission heard testimony from two members of the public who were present, as follows:

- Mark Anderson, the church pastor, introduced himself and spoke in favor of the proposed Conditional Use Permit application, and said he was available to answer questions of the Planning Commission. The Commission asked him how many days a week the church is in service. Mr. Anderson responded that Sundays are the only day service is held.

- Rick Aarons, a resident on Crater Lane, spoke in favor of the application, noting that he had observed the parking lot on Sundays when church is in session. He said it is never full and doesn't appear to be causing any issues with traffic or parking.

7 Discussion Items

None.

8 Administrative Reviews

None.

9 Miscellaneous

Planning Director, Stephanie Powers, provided a brief overview of land development applications and construction in the City. Commissioners had questions about the

status of Grocery Outlet and Goodwill on East Pine Street, as well as the Yellow Basket property on South Front Street.

Ms. Powers notified the Commissioners that there would be a Joint Study Session with the City Council and Citizen's Advisory Committee on April 21, 2025 to receive a report on a code audit and code concepts necessary to comply with Climate Friendly & Equitable Communities walkable design standards requirements. She said code updates would occur concurrent with the update of the City's Transportation System Plan, which is set to start later this year.

10 Adjournment

The meeting adjourned at 6:20 p.m.

The foregoing minutes of the March 4, 2025, Planning Commission meeting were approved by the Planning Commission at its meeting of _____, 2025.

Dated: _____

ATTEST:

_____

PLANNING
CITY OF CENTRAL POINT, OREGON

Staff Report

Anchor Church Conditional Use Permit
File No. CUP-24003

April 1, 2025

Item Summary

Consideration of a Conditional Use Permit application to allow a religious institution at 1775 N 10th Street. The project site is within the Neighborhood Commercial (C-N) commercial zoning district and is identified on the Jackson County Assessor's Map as 37S 2W 03AA Tax Lot 4300. **Applicant/Agent**: Cynthia Guthrie, AIA.

Staff Source

Justin Gindlesperger, Community Planner III

Background

The applicant is requesting a Conditional Use Permit (CUP) to operate a church in an existing office building on a property at 1775 N 10th Street in the Neighborhood Commercial (C-N) commercial zoning district. Central Point Municipal Code (CPMC) defines the term 'church' as a permanently located building wholly or partly used for the purpose of religious worship. As noted in the Project Narrative (Attachment "A"), the CUP is to allow Anchor Church to change the use of the existing building from a retail use in order to conduct Sunday worship/church services on site.

The public hearing for the conditional use permit was initially scheduled for February 4, 2025, but the hearing was canceled due to inclement weather and re-scheduled for March 4, 2025. Prior to the re-scheduled hearing, the Applicant informed staff of their inability to attend and requested the hearing be continued. At the March 4, 2025 meeting, the Planning Commission received testimony from two individuals before continuing the hearing to April 1, 2025.

At the April 1, 2025 Planning Commission meeting, staff will present the application along with a summary of the public testimony and recommend action for the Planning Commission's consideration based on evidence in the record and the criteria for Conditional Use Permit set forth in CPMC 17.76.

Project Description

The applicants are currently conducting church services on the property and the CUP application is necessary to bring the use into compliance with the CPMC. As part of the application, the applicant remodeled the interior of the building to accommodate the Sunday services.

Access
The site has an existing access along N 3rd Street, a public street. Frontage improvements are existing and no additional improvements are required.

Traffic Impacts
As noted above, services are only conducted on Sunday for approximately 50 attendees. Traffic from the site will not conflict with the weekday peak times on the adjacent streets. Based on the hours of operation and the number of trips from the church, a traffic impact analysis is not required and there are no anticipated traffic impacts associated with this use.

Building and Site Design
The church occupies approximately 3,700 square feet of an existing 8,100 square foot commercial building. The remaining floor area is occupied by an existing retail use, the Fair City Market. The uses are separated internally and utilize separate entrances, with Fair City entrance facing North and Anchor Church to the east. Prior to the church, this portion of the building was used for various retail uses, most recently the Horse Blanket. The applicants are not proposing any exterior modifications to the structure.

In accordance with CPMC 17.64, there are no minimum parking requirements in Central Point. Maximum parking standards apply. Churches may provide up to 13.3 spaces/1,000 square feet of floor area, or a maximum of 49 parking spaces for the 3,700 square foot church.

The site currently has 15 existing parking spaces and the adjacent property, under the same ownership as the subject property has an additional 27 parking spaces. There are no proposed alterations to the parking or landscaping areas.

Neighborhood Compatibility
Due to the existing development patterns and noise impacts of the area, the proposed church is not expected to conflict with or adversely impact the existing uses. The subject property is located near the intersection of N 10th Street and N 3rd Street with an existing commercial retail use adjacent to the church use. In addition, the church is conducting services on Sundays only and avoids peak weekday travel times.

Issues
There are three (3) issues relative to this application:

1. **Change of Occupancy.** The church use changes the occupancy of the building from a “B” category use (for business) to an “A-3” category use (for assembly). Per Building Department comments (Attachment “E”), the change requires a Change of Occupancy Permit to ensure the interior modifications are consistent with the Building Code.

   Comment: Staff recommends Condition of Approval No. 2 requiring the applicant to submit a detailed floor plan to the Building Division and obtain a Change of Occupancy Permit.

2. **Trash Enclosure.** As noted by the Rogue Disposal Staff Report (Attachment “H”), the existing trash enclosure on the property does not comply with current Rogue Disposal specifications. If the applicant proposes to have separate service from the adjacent use on site, the Applicant must coordinate the placement of the new trash containers with Rogue Disposal and comply with service area screening requirements in CPMC 17.75.042.

   Comment: Staff recommends Condition of Approval No. 3(a) requiring the Applicant to coordinate trash container locations with Rogue Disposal and Conditional of Approval No. 3(b) requiring the Applicant to comply with service area screening requirements.

3. **Public Comments.** The City received written comments (Attachment “I”) regarding parking and traffic impacts from the proposed use on the adjacent streets. Specifically, the comments are concerned with off-street parking for the church use and traffic conflicts at the intersection of N. 3rd Street and N. 10th Street, especially during AM and PM school pick up and drop off times for nearby Scenic Middle School.

   Comment: As noted in the Project Narrative (Attachment “A”), the church will conduct services on Sundays from 8 am to 12 pm for approximately 50 congregants. Sunday services avoid the peak traffic times on the adjacent streets, including weekday school pick up and drop off times.

   As noted above, the site provides 15 spaces with an additional 27 parking spaces on the adjacent site that is under the same ownership. Additional on-street public parking is available along N. 3rd Street, south of the project site across from Aurora Lane. On-street parking is restricted north of the site to avoid conflicts with the N 3rd Street/N 10th Street intersection.

   As a condition of approval, any modifications to the conditional use permit for the proposed church is subject to review in accordance with CPMC 17.09. This will include additional service days and service times.

Findings of Fact & Conclusions of Law

The Anchor Church Conditional Use Permit has been evaluated against the applicable Conditional Use Permit Criteria set forth in CPMC 17.76 and found to comply as conditioned and as evidenced in the Planning Department Findings of Fact (Attachments “D”).

Conditions of Approval

1. The applicant shall coordinate with the Building Division to obtain a Change of Occupancy Permit and comply with the requirements in the Oregon Specialty Structural Code.

2. The applicant shall coordinate with Rogue Valley Sewer Services and comply with the requirements set forth in the letter dated January 7, 2025 (Attachment “G”).

3. At the time separate trash service is established for the proposed use, the Applicant shall:

    a. Coordinate with Rogue Disposal and comply with the requirements set forth in the email dated January 7, 2025 (Attachment “H”); and

    b. Submit plans and construction details that demonstrate compliance with Screening for Service Area standards in CPMC 17.75.042(A)(6).

4. Any modifications to the conditional use permit, including but not limited to scheduled service days and times, shall be subject to review in accordance with CPMC 17.09, Modifications to Approved Plans and Conditions of Approval.

Attachments

Attachment “A” – Project Narrative
Attachment “B” – Site Plan
Attachment “C” – Floor Plan
Attachment “D” – Planning Department Findings of Fact
Attachment “E” – Building Division Staff Report, dated 01/07/2025
Attachment “F” – Fire District No. 3 Staff Report, dated 01/07/2025
Attachment “G” – Rogue Valley Sewer Services Staff Report, dated 01/07/2025
Attachment “H” – Rogue Disposal Staff Report, dated 01/07/2025
Attachment “I” – Public Comments, dated 01/27/2025
Attachment “J” – Resolution No. 927

Action

Open a public hearing and consider the proposed Conditional Use Permit application and 1) approve; 2) approve with revisions; or 3) deny the application.

Recommendation

Approve Resolution No. 927, a Resolution approving the Conditional Use Permit application for the Anchor Church.

Recommended Motion

I move to approve Resolution No. 927, a Resolution approving the Conditional Use Permit application for the Anchor Church per the Staff Report dated April 1, 2025.

CYNTHIA GUTHRIE ARCHITECT
4075 Cedar Lane Medford, Oregon 97501 Phone: 840-9190 Email: arch4clg@yahoo.com

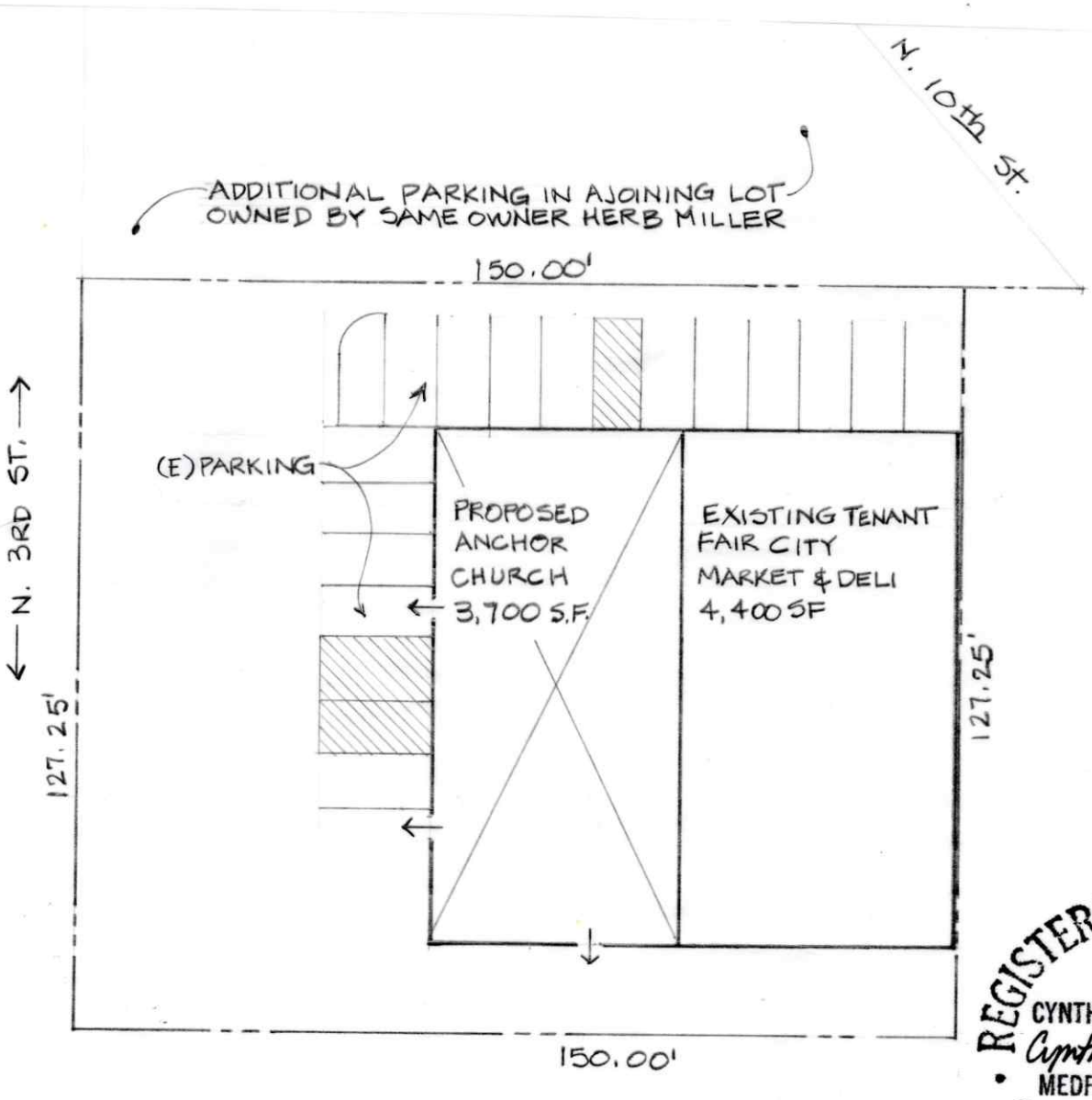
December 5, 2024

Hello:

This is a statement regarding the proposed Change of Occupancy at 1779 10th St. Central Point, Oregon from 'B' to 'A-3'. My Client, Anchor Church, is proposing to use this space as a Church for Sunday Services.

- They will use the existing 42 parking spaces provided on their and the adjoining lot (also owned by Herb Miller) and not exceed the maximum allowed of 49 spaces.
- The Trip Generation for this change is a Maximum of 50 congregants on Sundays from 8-12.
- New Maximum Occupant Load will be 200 with signage stating this from F.D.#3 posted near Exit.
- Based on the Occupancy of 200 or less, the existing Restrooms-(2) toilets/sinks in Women's, (1) toilet/sink in Men's meet required numbers of fixtures per Table 2902.1, 2022 OSSC
- Exit location, size, signage and emergency lighting all reviewed and approved for proposed 'A-3 'Occupancy by Jackson County Fire District #3 Deputy fire Marshal Mark Northrop. Exists will remain unobstructed and open to provide appropriate egress.
- Anchor Church will welcome yearly inspections from F.D.#3 for compliance

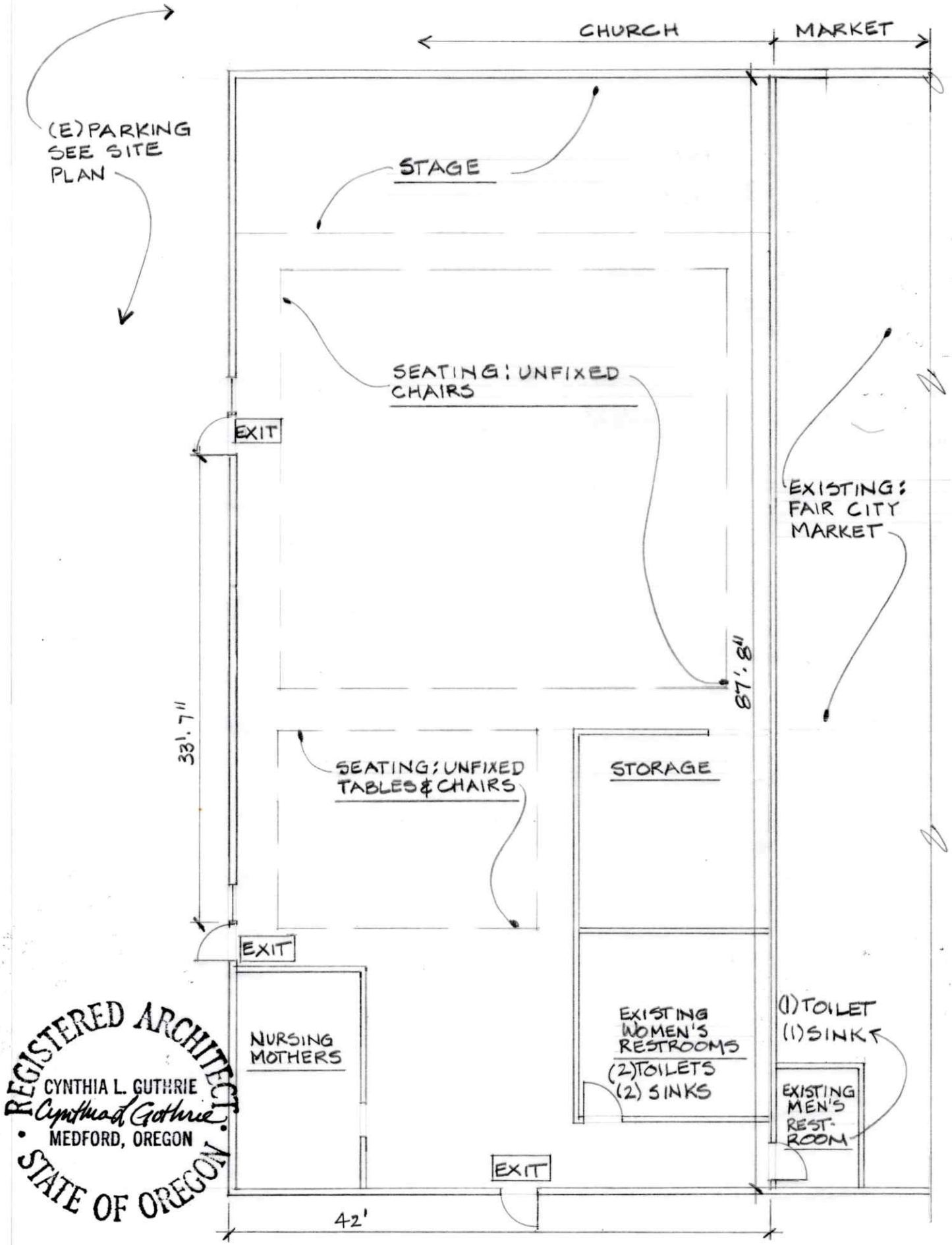
Thank you
Cynthia Guthrie, Architect



REGISTERED ARCHITECT
CYNTHIA L. GUTHRIE
Cynthia L Guthrie
MEDFORD, OREGON
STATE OF OREGON

SITE PLAN
SCALE: 1" = 30'

12/5/2024



REGISTERED ARCHITECT
CYNTHIA L. GUTHRIE
Cynthia L Guthrie
MEDFORD, OREGON
STATE OF OREGON

FLOOR PLAN: PROPOSED ANCHOR CHURCH

SCALE: 1" = 10'-0"

12/5/2024

N

PLANNING DEPARTMENT SUPPLEMENTAL FINDINGS OF FACT AND CONCLUSIONS OF LAW
File No.: CUP-24003

Consideration of a Conditional Use Permit for Anchor Church Change of Use

Applicant:	)	Findings of Fact
Cynthia Guthrie, AIA	)	and
4075 Cedar Lane	)	Conclusion of Law
Medford OR 97501	)	

PART 1
INTRODUCTION

The applicant is requesting to change the use of an existing commercial retail building to a religious institution in order to conduct Sunday worship/church services on site.

The project site is located within the Neighborhood Commercial (C-N) zoning district. Churches and other religious institutions are considered conditional uses in the CN zone, in accordance with CPMC 17.32.030.

A Conditional Use Permit (CUP) is processed using Type III application procedures. Type III procedures set forth in Section 17.05.400 provide the basis for decisions upon standards and criteria in the development code and the comprehensive plan, when appropriate.

The standards and criteria for CUP are set forth in CPMC 17.76. The following findings address each of the standards and criteria as applies to the proposed application for the Anchor Church change-of-use.

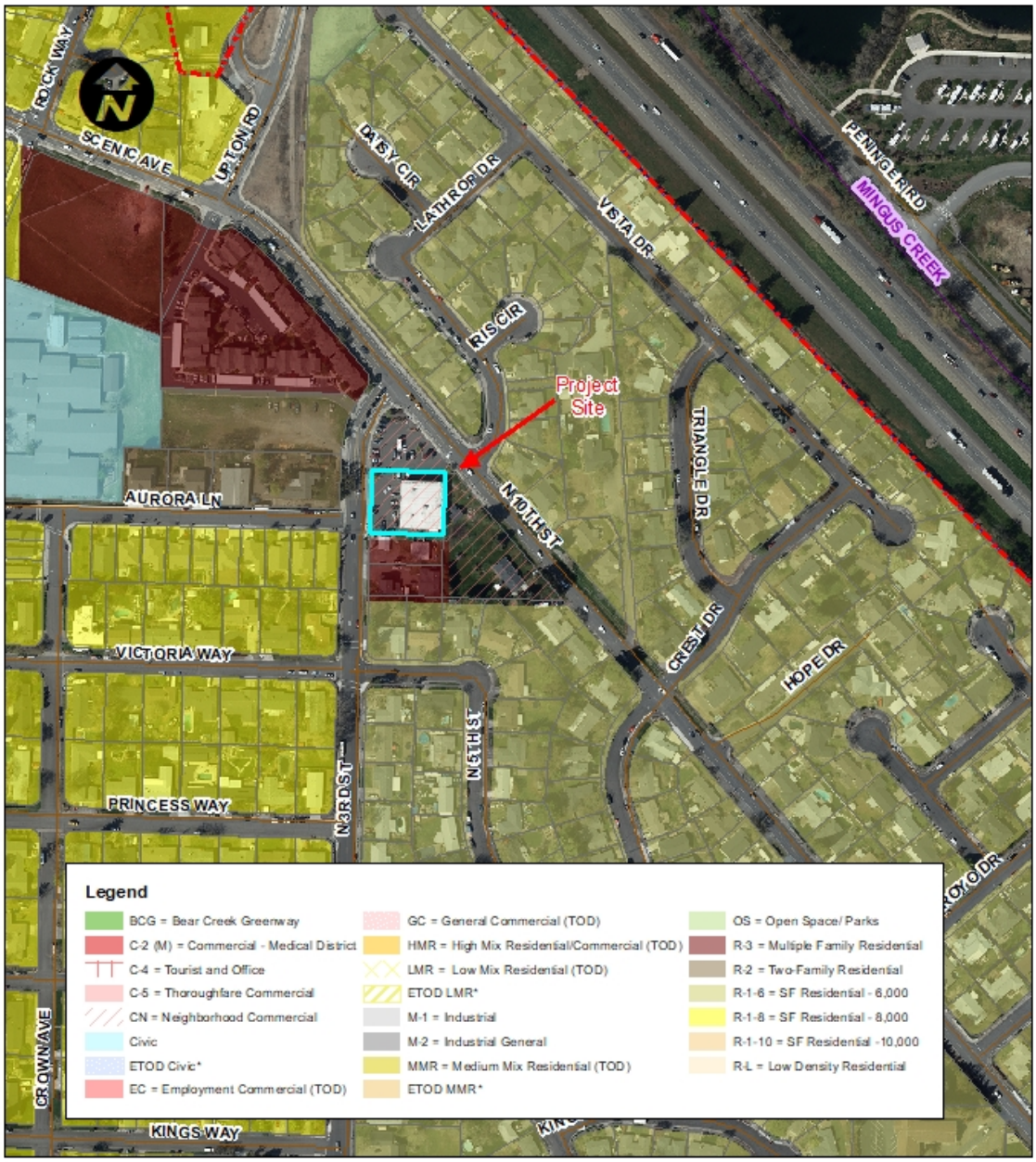
Figure 1. Vicinity Map

PLANNING

CITY OF CENTRAL POINT, OREGON

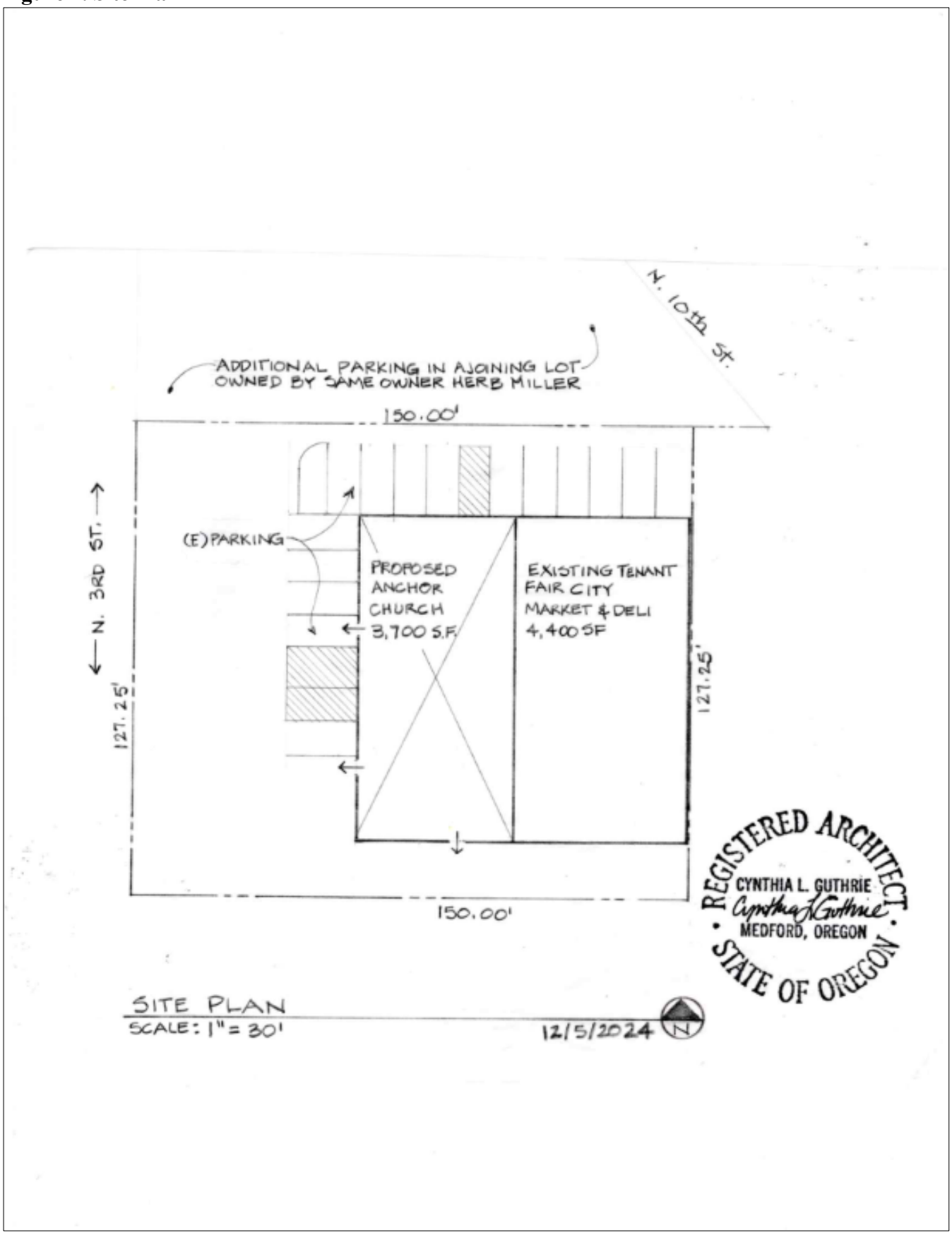
Anchor Church
Conditional Use Permit

Project Location Map
File No.: CUP-24003



Map Created By: J. Gindlesperger
Date: January 21, 2025

Figure 2. Site Plan



PART 2 – CHAPTER 17.76
CONDITIONAL USE PERMIT

In certain districts, conditional uses are permitted subject to the granting of a conditional use permit. Because of their unusual characteristics or the special attributes of the area in which they are to be located, conditional uses require special consideration so that they may be properly located with respect to the objectives of the zoning title and their effect on surrounding properties.

17.76.040 Findings and conditions.
The planning commission in granting a conditional use permit shall find as follows:

A. That the site for the proposed use is adequate in size and shape to accommodate the use and to meet all other development and lot requirements of the subject zoning district and all other provisions of this code;

Finding 17.76.040(A): *The CN zoning district does not have minimum lot area, width or depth requirements. There are no minimum setbacks. As shown on the Site Plan (Figure 2), the project site is currently developed with an existing commercial building, parking and circulation, landscape and frontage improvements. The application proposes to change the use of a portion of the existing building from commercial retail use to a church for assembly use. There are no proposed alterations to the exterior or size of the building, to parking or circulation, or landscape areas.*

Conclusion 17.76.040(A): *Consistent.*

B. That the site has adequate access to a public street or highway and that the street or highway is adequate in size and condition to effectively accommodate the traffic that is expected to be generated by the proposed use;

Finding 17.76.040(B): *As shown on the Site Plan (Figure 2), the site has direct access to N 3rd Street, a public street. N 3rd Street is classified as a Collector street. The proposed use will conduct services on Sundays, away from peak days and times for the area streets. Frontage improvements are existing and the application does not propose to alter the access location or width.*

Conclusion 17.76.040(B): *Consistent.*

C. That the proposed use will have no significant adverse effect on abutting property or the permitted use thereof. In making this determination, the commission shall consider the proposed location of improvements on the site; vehicular ingress, egress and internal circulation; setbacks; height of buildings and structures; walls and fences; landscaping; outdoor lighting; and signs;

Finding 17.76.040(C): *There are no proposed alterations to the exterior of the building, parking area, on-site circulation, or landscape areas. Modifications to the building are interior in order to accommodate the proposed change of use from commercial to a religious institution for church services.*

Conclusion 17.76.040(C): *Not applicable.*

D. That the establishment, maintenance or operation of the use applied for will comply with local, state and federal health and safety regulations and therefore will not be detrimental to the health, safety or general welfare of persons residing or working in the surrounding neighborhoods and will not be detrimental or injurious to the property and improvements in the neighborhood or to the general welfare of the community based on the review of those factors listed in subsection C of this section;

Finding 17.76.040(D): *As noted in the Building Department Staff Comments, dated January 7, 2025, the proposed change of use requires a Change of Occupancy permit. The commercial use is considered a "B" (business) use in the Oregon Specialty Code and the church is considered an "A-3" use for assembly. As a condition of approval, the Applicant must obtain a Change of Occupancy permit from the Building Department.*

Conclusion 17.76.040(D): *Complies as conditioned.*

E. That any conditions required for approval of the permit are deemed necessary to protect the public health, safety and general welfare and may include:

1. Adjustments to lot size or yard areas as needed to best accommodate the proposed use; provided the lots or yard areas conform to the stated minimum dimensions for the subject zoning district, unless a variance is also granted as provided for in Chapter 17.13,

2. Increasing street widths, modifications in street designs or addition of street signs or traffic signals to accommodate the traffic generated by the proposed use,

3. Adjustments to off-street parking requirements in accordance with any unique characteristics of the proposed use,

4. Regulation of points of vehicular ingress and egress,

5. Requiring landscaping, irrigation systems, lighting and a property maintenance program,

6. Regulation of signs and their locations,

7. Requiring fences, berms, walls, landscaping or other devices of organic or artificial composition to eliminate or reduce the effects of noise, vibrations, odors, visual incompatibility or other undesirable effects on surrounding properties,

8. Regulation of time of operations for certain types of uses if their operations may adversely affect privacy of sleep of persons residing nearby or otherwise conflict with other community or neighborhood functions,

9. Establish a time period within which the subject land use must be developed,

10. Requirement of a bond or other adequate assurance within a specified period of time,

11. Such other conditions that are found to be necessary to protect the public health, safety and general welfare,

12. In considering an appeal of an application for a conditional use permit for a home occupation, the planning commission shall review the criteria listed in Section 17.60.190.

Finding 17.76.040(E): *As shown on the Site Plan (Figure 2), the project site is currently developed with an existing commercial building, off-street parking, circulation, landscaping and street frontage improvements. The proposed change of use is from a retail commercial use to a religious institution/church. The proposed use operates on Sundays and does not generate as many trips as the previous use and avoids peak travel days and times. Modifications to the site are internal to the building to accommodate the new use and no changes are proposed for site layout. Any changes to the exterior of the building, including but not limited to signs, must obtain permits from the Building Department.*

As noted in the Rogue Disposal Staff Comments, dated January 7, 2025, the existing trash enclosure on the property does not comply with current Rogue Disposal specifications. If the applicant proposes to have separate service from the adjacent use on site, the Applicant must coordinate the placement of the new trash containers with Rogue Disposal and comply with service area screening requirements in CPMC 17.75.042.

Conclusion 17.76.040(E): *Complies as Conditioned.*

PART 3
SUMMARY CONCLUSION

As evidenced in Planning Department Findings of Fact, the proposed conditional use permit application for the church along North 3rd Street is, as conditioned in the Staff Report dated February 4, 2025, in compliance with the applicable criteria set forth in Title 17 of the Central Point Municipal Code.

Justin P. Gindlesperger

From: Derek Zwagerman
Sent: Tuesday, January 7, 2025 9:43 AM
To: Justin P. Gindlesperger
Subject: RE: Request for Comments - CUP-24003

If the conditional use permit is approved, a Change of Occupancy permit will be required.

The Change of Occupancy permit will be approved based on documentation already provided by Cynthia Guthrie, AIA and confirmed by DFM Northrop from JCFD 3.

Derek Zwagerman, P.E.
City of Central Point – Building Dept.
541-423-1024

From: Justin P. Gindlesperger <Justin.Gindlesperger@centralpointoregon.gov>
Sent: Tuesday, January 7, 2025 9:26 AM
To: Matt Samitore <Matt.Samitore@centralpointoregon.gov>; Greg Graves <Greg.Graves@centralpointoregon.gov>; Mike Ono <Mike.Ono@centralpointoregon.gov>; Stephanie Powers <stephanie.powers@centralpointoregon.gov>; Derek Zwagerman <Derek.Zwagerman@centralpointoregon.gov>; 'markn@jcfd3.com' <markn@jcfd3.com>; Mark Kimmelshue <mark.kimmelshue@centurylink.com>; 'David.McFadden@avistacorp.com' <David.McFadden@avistacorp.com>; Chadd Griffin <chadd.griffin@centralpointoregon.gov>; Ed Devries <Ed.Devries@pacifiCorp.com>; emalanche@roguedisposal.com; lbrown@roguedisposal.com; Nick Bakke <nbakke@rvss-or.gov>; 'chad.murders@ecso911.com' <chad.murders@ecso911.com>
Subject: Request for Comments - CUP-24003

Good morning,

The City received an application requesting approval for a Conditional Use Permit to change the use of a commercial building into a religious institution in the C-N, Neighborhood Commercial Zoning district. The property is located at 1775/1779 N. 10th Street and identified on the Jackson County Assessor's map as 37S 2W 03AA, Tax Lot 4300.

The complete application is available at: www.centralpointoregon.gov/cd/project/anchor-church-conditional-use-permit

Please review and submit comments or written reports setting forth any necessary conditions as required by your department/agency to the Planning Department no later than **Tuesday, January 21, 2025**. If no comments are received within the review period, it will be assumed that there are no comments.

Thank you for your time and consideration of this request. If you have questions, please let me know

Justin Gindlesperger, AICP, CFM
Community Planner III
Community Development
City of Central Point
140 South Third Street
Central Point, OR 97502
Desk: 541-664-3321 (x245)
Fax: 541-664-6384

Justin P. Gindlesperger

From: Mark Northrop <MarkN@jcfd3.com>
Sent: Tuesday, January 7, 2025 11:35 AM
To: Justin P. Gindlesperger; Matt Samitore; Greg Graves; Mike Ono; Stephanie Powers; Derek Zwagerman; Mark Kimmelshue; 'David.McFadden@avistacorp.com'; Chadd Griffin; Ed Devries; emalanche@roguedisposal.com; lbrown@roguedisposal.com; Nick Bakke; 'chad.murders@ecso911.com'
Subject: Re: Request for Comments - CUP-24003

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Fire District 3 has no comments and recommends approval.

DFM Mark Northrop, IAAI, CFI
Jackson County Fire District 3
8383 Agate Rd, White City, OR 97503
Markn@jcfd3.com
Office: 541.831.2776
Cell 541.660.7689
www.jcfd3.com

Together We're Better

From: Justin P. Gindlesperger <Justin.Gindlesperger@centralpointoregon.gov>
Sent: Tuesday, January 7, 2025 9:26 AM
To: Matt Samitore <Matt.Samitore@centralpointoregon.gov>; Greg Graves <Greg.Graves@centralpointoregon.gov>; Mike Ono <Mike.Ono@centralpointoregon.gov>; Stephanie Powers <stephanie.powers@centralpointoregon.gov>; Derek Zwagerman <Derek.Zwagerman@centralpointoregon.gov>; Mark Northrop <MarkN@jcfd3.com>; Mark

ROGUE VALLEY
SEWER SERVICES
CLEAN WATER - HEALTHY COMMUNITIES

January 7, 2025

City of Central Point Planning Department
155 South Second Street
Central Point, Oregon 97502

Re: CUP-24003 – 1775 & 1779 N 10th St, Map 37 2w 03AA TL 4300

There is an existing building is currently served by a 4 inch connection the existing 8 inch sewer main along N 3rd Street. The proposed change of use will not affect this service. However, there may be sewer SDC's owed to RVSS.

Rogue Valley Sewer Services requests that approval of this project be subject to the following conditions:

1. Applicant must submit architectural/plumbing plans for the calculation of related SDC fees.
2. Applicant must pay all related SDC's to RVSS prior to the issuance of Building permits.

Feel free to call me with any questions.

Sincerely,

Nicholas R Bakke, PE
District Engineer

Justin P. Gindlesperger

From: Josh Cole <jcole@roguedisposal.com>
Sent: Tuesday, January 7, 2025 11:13 AM
To: Justin P. Gindlesperger
Cc: Erin Malanche
Subject: 1775 N 10th St Central Point.
Attachments: Enclosure Requirments_Rogue 6.20.24.docx

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good morning, Justin.
We will need some changes made to this property moving forward. The trash enclosure is not to specs. Also, if they are going to be splitting the parking lot and running two separate services, they will need a new site approval for relocation of the Containers. I am attaching a copy of the current enclosure specs. Looking forward to working with you on this project. Please let me know when is a good time to go over the details. Thank you.

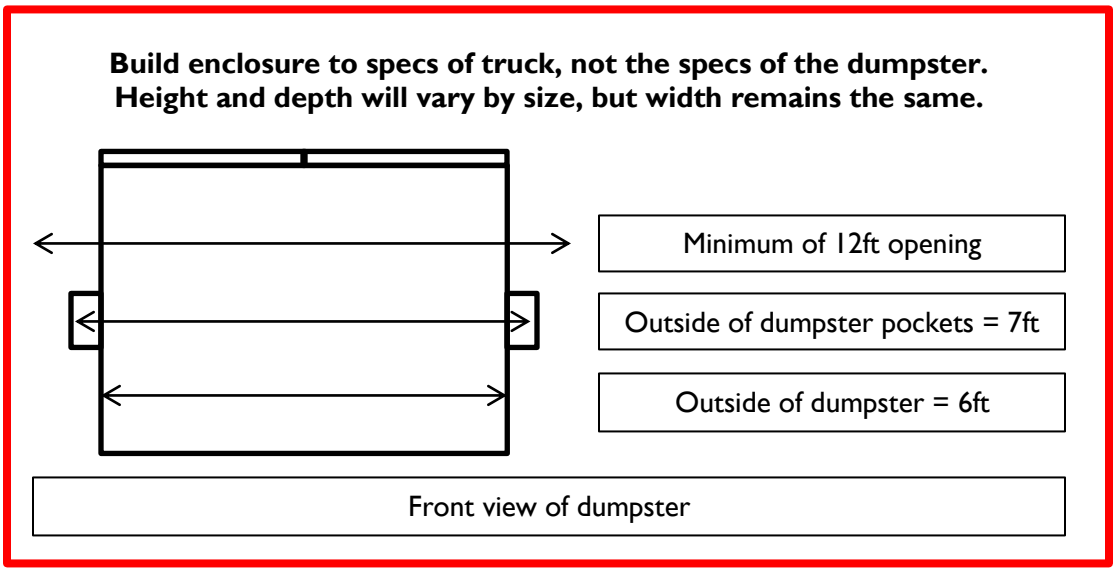
Josh Cole
Operations Supervisor
DIRECT | 541.494.5473
CELL | 541.324.9252

We do that!™

Understanding the Enclosure

All dumpsters are the same width, but their depth is different.

1. **Width of truck and dumpster**

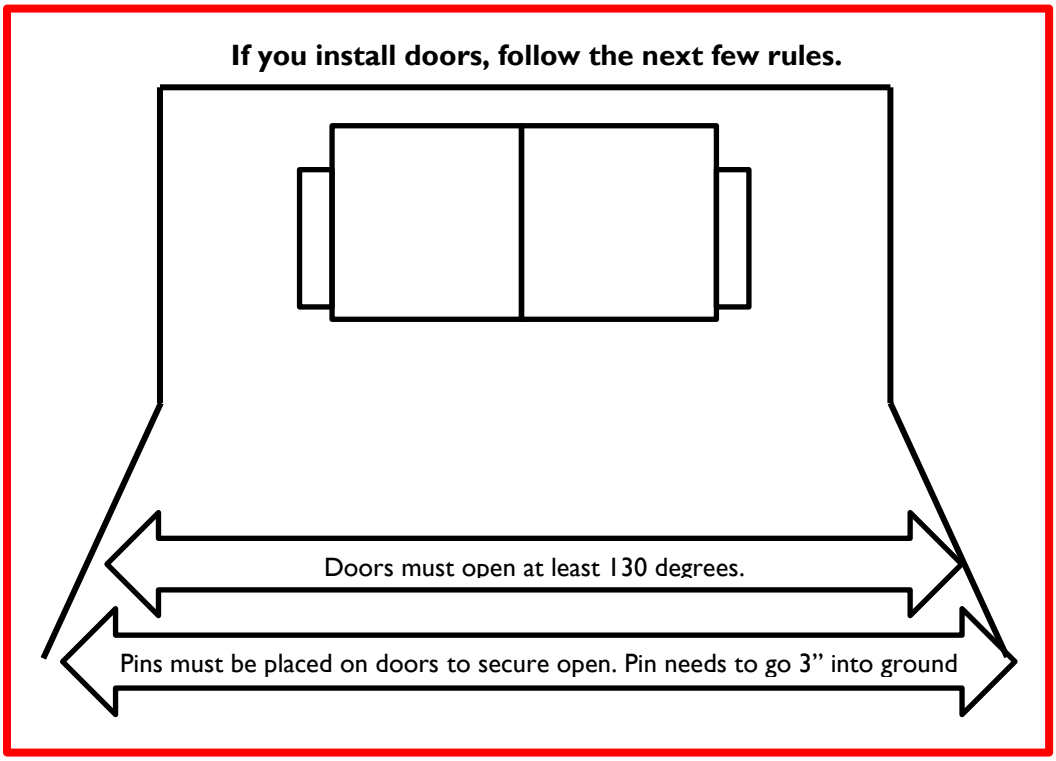


- Minimum **inside Width** Clearance: **12 ft wide**
- Minimum **Depth** Clearance: **10 ft deep**
- Minimum **Height** Clearance**: 14ft high**

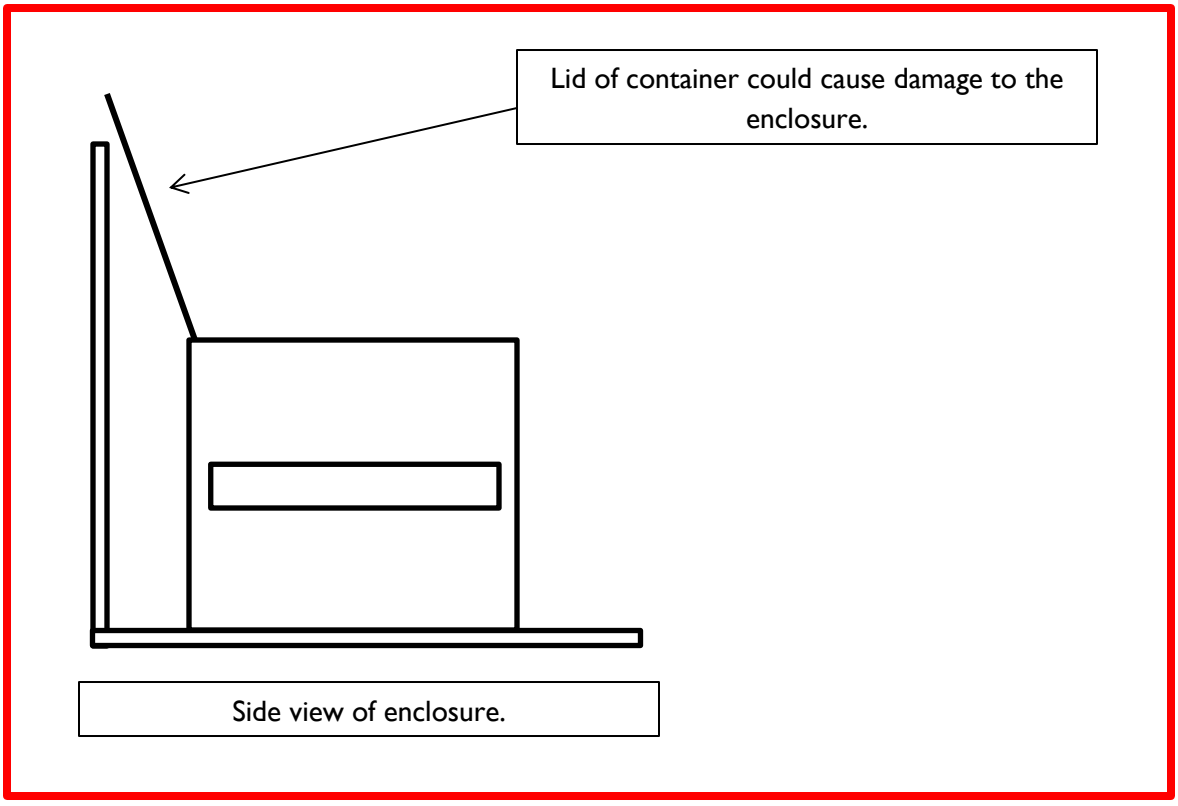
2. **Enclosure Placement**
   - Frontload truck needs direct access to enclosure – truck forks go straight into the pockets on the dumpster, truck cannot approach at an angle.
   - The front load truck needs overhead clearance to lift dumpster 25' into the air.

Notes: - The enclosure needs to allow for min of 1.5 ft clearance outside of the truck lift arms – min enclosure width is **12 feet. If you have enclosure gates, the 12 ft would apply to the space between the gates when propped fully open at 130 degrees.** If you have 2 dumpsters in the enclosure it needs to be a min of **24 feet wide, with no center pole – 12 ft wide minimum per opening.** The inside of the enclosure must have a curb to keep the container from hitting the back wall of the enclosure after the dumpster is emptied.

Top view of enclosure



3. Dumpster lids



Justin P. Gindlesperger

From: Keri Couvrette <kerigaye@icloud.com>
Sent: Monday, January 27, 2025 2:25 PM
To: planning group
Subject: Proposed religious institution located at 1779 N. 10th St.

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Planning Commission,
My concern with a church being at that site would be parking issues and higher traffic on that corner. Once the parking lot was full where would the other church goers park, in our neighborhoods where we park? That sometimes happens when the fairgrounds has a big events. As far as higher traffic, I don't know what their weekly activities would be but, that is an incredibly busy intersection/corner already during school days starting and ending and bigger school activities like concerts, graduations, and sometimes fairgrounds events, etc. I would oppose it if it makes any of those things worse.
Thank you
Sent from my iPhone

PLANNING COMMISSION RESOLUTION NO. 927

A RESOLUTION OF THE PLANNING COMMISSION APPROVING A CONDITIONAL USE PERMIT FOR A RELIGIOUS INSTITUTION ON PROPERTY LOCATED AT 1775 N 10TH STREET IN THE NEIGHBORHOOD COMMERCIAL ZONE (C-N).

(File No: CUP-24003)

WHEREAS, the applicant has submitted an application for approval of a Conditional Use Permit to change the use of an existing structure within the Neighborhood Commercial zone; and

WHEREAS, the project site is located at 1775 N 10th Street, which is identified on the Jackson County Assessor's Map as 37S 2W 12 03AA, Tax Lot 4300; and,

WHEREAS, religious institutions require a Conditional Use Permit in accordance with CPMC 17.32.030(C); and,

WHEREAS, on March 4, 2025 and April 1, 2025, at a duly noticed public hearing the City of Central Point Planning Commission considered the Applicant's request for a Conditional Use Permit, at which time it reviewed the record and heard testimony and comments on the application; and,

WHEREAS, the application has been found to be consistent with the approval criteria applicable to Conditional Use Permits in accordance with Section 17.76 of the Central Point Municipal Code as conditioned per the Staff Report dated April 1, 2025.

NOW, THEREFORE, BE IT RESOLVED that

Section 1: The City of Central Point Planning Commission hereby approves the Conditional Use Permit application File No. CUP-24003 subject to the conditions in the Staff Report dated April 1, 2025 (Exhibit 1).

Section 2: This decision is based upon the Planning Department Staff Report dated April 1, 2025, attached hereto as Exhibit 1, including all exhibits thereto.

PASSED by the Planning Commission and signed by me in authentication of its passage this 1st day of April, 2025

_____
Planning Commission Chair

ATTEST:

_____
City Representative

PLANNING
CITY OF CENTRAL POINT, OREGON

Staff Report

Gebhard Village
Master Plan Application
File No. MP-25001

April 1, 2025

Item Summary

Consideration of a Master Plan application for the development of Gebhard Village, a 67-lot/78-unit subdivision and development in the Eastside Transit Oriented Development (ETOD) Overlay, including residential lots, new public streets, stormwater management and public park and open space. The 8.18-acre site is located at 4922 Gebhard Road and is identified on the Jackson County Assessor's map as 37S 2W 02AA, Tax Lot 2800.
Applicant: Lowman Revocable Trust; **Agent**: Neathamer Surveying, Inc. (Bob Neathamer)
Associated Files: SUB-25001

Staff Source

Justin Gindlesperger, Community Planner III

Background

The proposed Gebhard Village Master Plan ("Master Plan") establishes a framework for a residential development within the Eastside Transit Oriented Development (ETOD) Overlay. The Master Plan provides land use and circulation patterns that are consistent with development on surrounding properties, including Willow Bend to the south (File No. 14004).

It is the applicant's objective to obtain master plan approval to facilitate development of a residential subdivision. The Master Plan serves as a blueprint to guide future development of the site. An application for a 67-lot tentative plat (File No. SUB-25001) is being reviewed concurrently with and is subject to compliance with the Master Plan. Once final plat is obtained, development of each lot will be reviewed to assure the site development and architectural features implement the Master Plan instructions.

Discussion:
The Gebhard Village Tentative Plan (Exhibit 1, Attachment "B") proposes 78 dwelling units that will be developed over two (2) phases. The project site is along Gebhard Road in the western portion of the ETOD. The abutting property in the ETOD to the south is under development as the Willow Bend Subdivision. The property to the northeast is developed with single-family residences in the R-3 zoning district. The properties to the southeast and to the west across Gebhard Road are undeveloped.

The proposal is within the minimum/maximum density allowed on the site by proposing 78 units on 5.56 net acres – subtracting proposed right-of-way as per Note 'f', Table 2, CPMC 17.65.050. The resulting 14 units/acre is consistent with the required 14-32 units/acre required in the MMR zone.

Building Design Plans
The Architectural Plans (Exhibit 6, Attachment "B") propose designs that are architecturally similar with the building designs in Willow Bend, Phase 1 to the south of the project site in order to "…integrate cues from the existing structures while creating new architectural elements to provide a pleasing combination of individuality and continuity." The designs are consistent with the standards in the TOD and provide architectural interest and variety among the structures.

Transportation and Circulation Plan
Primary access to the Master Plan area is provided from Gebhard Road to the west via two (2) Minor Residential Local Streets with 52-foot right-of-way width and one (1) Standard Local Street with a 60-foot right-of-way width. Additional circulation includes two (2) public alleys and public sidewalks.

Infrastructure and Utilities
The Utility Plan (Exhibit 2, Attachment "B") proposes connections to existing utility services in the area and provides connection to individual lots throughout the development. Stormwater management is provided for the development, treated onsite before connecting to existing City of Central Point facilities.

Issues

There are five (5) issues relative to this project as set forth below:

1. **Traffic Impacts.** In accordance with Section 17.05.900, a Traffic Impact Analysis for residential development is required when Average Daily Trips (ADT) exceed 250. Gebhard Village is estimated to generate 532 ADT and the TIA (Exhibit 5, Attachment "B") evaluates the impacts of the development at nearby intersections, including the Hamrick Road/Beebe Road intersection. Per the TIA, the Hamrick Road/Beebe Road intersection exceeds Central Point standards for intersection Level of Service (LOS).

   A supplemental letter to the TIA (Exhibit 13, Attachment "B"), identifies the number of trips that will access the Hamrick Road/Beebe Road intersection, contributing to the intersection exceeding the City's LOS standard.

   Comment:. As noted in the Parks and Public Works Staff Report (Attachment "D"), the Applicant is required to contribute funding to a traffic signal project in this location based on a proportional share of traffic generated. Staff recommends Condition of Approval No. 1(d)(v) requiring the applicant to provide a proportional share of the traffic signal installation project at Hamrick Road/Beebe Road as necessary to mitigate the impact

2. **Soil Contamination.** The Environmental Plan (Exhibit 11, Attachment "B") includes an Independent Cleanup Program Report (ICP) that assesses soil quality, identifying potential health risks associated with historical orchard and commercial chicken farm operations on the site, and a Soil Management Plan (SMP) that identifies mitigation measures since several of the sample sites on the property exceeded the risk-based concentration levels (RBCs).

Comment: The SMP recommends removing organics and vegetation from the site, mixing the top 12-inches of soil to distribute the concentration levels and site scarifying prior to final grading. Staff recommends Condition of Approval No. 1(b) requiring the applicant to submit final authorization that the soil remediation plan was completed and no further action on the site is required

3. **Shallow Wells.** The ETOD is identified as an area with shallow wells providing water supply to surrounding properties for domestic and agricultural uses. As noted in previous applications in the ETOD (see File No. 14004, MP-23002), construction of public utilities as part of the development process may impact the water table and shallow wells within the vicinity of the project site.

   Comment: The well reports identify multiple wells in the surrounding area, but do note the absence of wells on the subject property. Based on the conclusions of the analysis and the proposed development plans for Gebhard Village, the development is not anticipated to impact the water table or surrounding wells unless installation of water and sanitary sewer lines extend below the water table.

   Staff recommends Condition of Approval No. 1(d)(i) requiring the applicant to implement mitigation actions identified in the Well Survey Report (Exhibit 12, Attachment “B”) as necessary to avoid impacts to surrounding wells. Mitigation plans will be reviewed by the City Engineer during the Civil Improvement Plan review process prior to approval by the Public Works Department to assure there are no adverse impacts to the water table and shallow wells in the vicinity

4. **Agriculture Mitigation.** The ETOD is an area of the City that continues agricultural production with the presence of active farm uses. New developments in the ETOD must recognize these uses until the ETOD is completely annexed and developed out to urban uses.

   Comment: All development in the ETOD is required to acknowledge the presence of active farm uses in the area by recording a right-to-farm disclosure statement as a condition of final plat. Staff recommends Condition of Approval No. 1(c) requiring the applicant to record a right-to-farm disclosure statement prior to final plat of Sunnybrook Village.

5. **Housing Types**. CPMC 17.65.050, Table 1, requires developments in the TOD with more than 40 units to provide at least three (3) different housing types. The Master Plan identifies lots intended to accommodate four (4) different housing types as required by. These include: 1) Single Family Detached; 2) Duplexes; 3) Triplexes; and 4) Quadplexes. There are two issues of note relative to housing:

   a. Single Family Detached Dwellings. Per CPMC 17.65.050, Table 1, single family detached housing is, “Only permitted as a transition between lower density zones and/or when adjacent to an environmentally sensitive area.” The adjoining property is within the R-3 Multi-family Residential zoning district that requires a density of between 14 and 25 units per acre. As written, the adjoining property would need to

be in a lower density zone in order for single-family detached dwellings to be included in the Medium Mix Residential zone.

Comment: The adjoining property is developed with single-family homes at a density of approximately 8 units per acre. Staff finds that the proposed single-family lots in Gebhard Village offer a transition between existing lower density housing and the higher density housing proposed throughout the rest of Gebhard Village and into the remaining areas of the ETOD. No conditions of approval are recommended.

b. Plexes. CPMC 17.08.410(C)(2)(a) defines "plexes" as two or more attached units on a single lot. They may have single or multiple stories. They share common walls with other dwelling units, but not common floors or ceilings." Based on the project narrative, it appears that the proposed lots for triplexes and quadplexes within Gebhard Village will only accommodate 1 dwelling unit each.

Dwelling units attached along common side lot lines are classified as single-family residences, defined as "attached row houses" in CPMC 17.08.410(C)(1), because each unit is located on a separate lot, and they do not share common floors or ceilings with other dwelling units.

Comment: The Tentative Plan (Exhibit 1, Attachment "B") depicts lots that accommodate 'duplexes' with 2 dwelling units on each lot. Staff finds the housing types provided, including single-family detached, attached row houses, and duplexes, complies with CPMC 17.65.050, Table 1 for at least three (3) housing types within Gebhard Village. No conditions of approval are recommended.

Findings of Fact & Conclusions of Law

The Gebhard Village Master Plan has been evaluated against the applicable criteria set forth in CPMC 17.66 and found to comply as evidenced in the Gebhard Village Master Plan (Attachment "B"), the Applicant's Findings (Attachment "C"), the Planning Department Supplemental Findings (Attachment "D") and the Staff Report dated April 1, 2025.

Recommended Conditions of Approval

Approval of the Master Plan application shall be subject to the following:

1. Prior to final plat approval for any phase of the land division, the applicant shall:

    a. Provide a revised Tentative Plan that depicts the lots accommodating at least three (3) different housing types, consistent with CPMC 17.65.050, Table 1;

    b. Provide a copy of a "No Further Action' letter from DEQ indicating that remediation of on-site contamination is completed;

    c. Provide recorded copies of a right-to-farm disclosure, as required by CPMC 17.65.025(A); and,

d. Demonstrate compliance with the conditions listed in the Public Works Department Staff Report (Attachment “D”), including but not limited to:

    i. Submit and receive approval for Civil Improvement Drawings for infrastructure construction, including but not limited to, streets, landscape row and street trees, sidewalk, access approach, street lighting, and utilities with necessary shallow well mitigation.

    ii. Submit a stormwater management plan for the proposed demonstrating compliance with the MS4 Phase II stormwater quality standards.

    iii. Obtain a 1200-C permit from DEQ and provide a copy to the Public Works Department. The proposed development will disturb more than 5 acres and requires an erosion and sediment control permit (NPDES 1200-C) from the Department of Environmental Quality (DEQ).

    iv. Pay all System Development Charges and permit fees.

    v. Pay a proportional share of the traffic signal installation project at the Hamrick Road/Beebe Road intersection based on the impact at the time of development, or 2.3% of the project cost.

e. Coordinate with Fire District #3 to plan the location of and install fire lane signs and fire hydrants in accordance with Fire District #3 comments, dated March 12, 2025 (Attachment “E”).

f. Comply with conditions of approval listed in the Rogue Valley Sewer Staff Report, dated March 11, 2025 (Attachment “F”)

2. Any modifications to the site design, including but not limited to building designs, street layout, and density, shall be subject to review in accordance with CPMC 17.09, Modifications to Approved Plans and Conditions of Approval.

Attachments

Attachment “A” – Project Location Map
Attachment “B” – Gebhard Village Master Plan, January 23, 2025
Exhibit # 1 – Tentative Plan
Exhibit # 2 – Conceptual Utility Plan
Exhibit # 3 – Conceptual Grading and Drainage Plan
Exhibit # 4 – Adjacent Land Use Plan
Exhibit # 5 – Traffic Impact Analysis
Exhibit # 6 – Site Plan and Architectural Plan
Exhibit # 7 – Open Space Landscape Plan
Exhibit # 8 – Independent Cleanup Report
Exhibit # 9 – Soil Management Plan

Exhibit #10 – Wetland Delineation
Exhibit #11 – Shallow Well Report
Exhibit #12 – Shallow Well Report
Exhibit #13 – Traffic Impact Analysis Supplemental Letter, dated Feb 27, 2025
Attachment “C” – Applicant Findings of Fact
Attachment “D” – Planning Department Supplemental Findings of Fact
Attachment “E” – Parks and Public Works Staff Report, dated March 14, 2025
Attachment “F” – Fire District #3 Staff Report, dated March 12, 2025
Attachment “G” – Rogue Valley Sewer Services Staff Report, dated March 11, 2025
Attachment “H” – Resolution No. 931

Action

Conduct the public hearing and consider the Master Plan application. The Planning Commission may 1) approve; 2) approve with revisions; or 3) deny the application.

Recommendation

Approve the Master Plan application for Gebhard Village subject to the recommended conditions of approval set forth in the Staff Report dated April 1, 2025, and the Planning Department Findings of Fact.

Recommended Motion

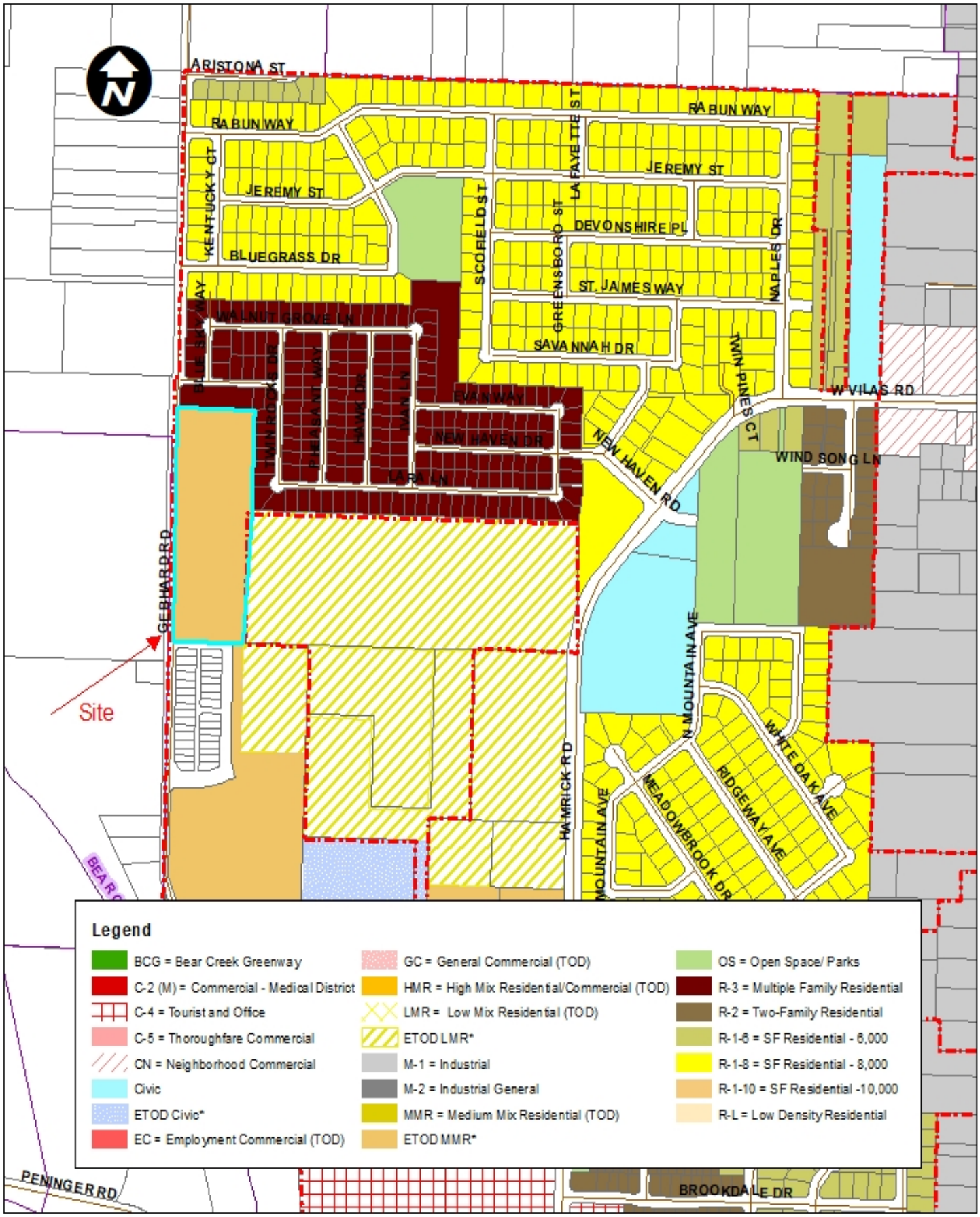
I move to approve Resolution No. 931, a Resolution approving the Gebhard Village Master Plan application per the Staff Report dated April 1, 2025.

PLANNING

CITY OF CENTRAL POINT, OREGON

File No.: MP-25001 & SUB-25001

Proposed Master Plan Application
& Subdivision Tentative Plan



Gebhard Village Subdivision

TRANSIT ORIENTED DEVELOPMENT (TOD) MASTER PLAN

January 23, 2025

Nathan Ruf, Senior Associate, CFM
Neathamer Surveying, Inc.

Table of Contents

Table of Contents ..... **ii**
List of Figures ..... **iv**
List of Exhibits ..... **v**
Preface ..... **vi**
1. Introduction **1**
1.1 Master Plan Duration 1
1.2 Site Location Map 1
1.3 Land Use, Minimum and Maximum Residential Densities 2
1.3 Identification of Adjacent Approved Master Plans 2
2. Site Analysis **3**
2.1 Master Utility Plan 4
2.2 Adjacent Land Use Plan 6
3. Transportation and Circulation Plan **7**
3.1 Public Street Standards | CPMC 17.67.040(A) 7
3.2 Parking Lot Driveways | CPMC 17.67.040(B) 8
3.3 On-Site Pedestrian and Bicycle Circulation | CPMC 17.67.040(C) 8
3.4 Traffic Impact Analysis Summary 8
4. Site Plan **9**
4.1 Adjacent Off-Site Structures and Uses | CPMC 17.67.050(A) 9
4.2 Natural Features | CPMC 17.67.050(B) 10
4.3 Topography | CPMC 17.67.050(C) 10
4.4 Solar Orientation | CPMC 17.67.050(D) 10
4.5 Existing Buildings on the Site | CPMC 17.67.050(E) 10
4.6 New Prominent Structures | CPMC 17.67.050(F) 10
4.7 Views | CPMC 17.67.050(G) 11
4.8 Adjoining Uses and Adjacent Services | CPMC 17.67.050(H) 11
4.9 Transitions in Density | CPMC 17.67.050(I) 11
4.10 Parking | CPMC 17.67.050(J) 11
4.11 Landscaping | CPMC 17.67.050(K) 11
4.12 Lighting | CPMC 17.67.050(L) 11
4.13 Signs | CPMC 17.67.050(M) 13
5. Recreation and Open Space Plan **13**
5.1 General | CPMC 17.67.060(A) 14

5.2 Parks and Open Space Location | CPMC 17.67.060(B)..... 15
5.3 Parks and Open Space Amount and Size | CPMC 17.67.060(C)..... 15
5.4 Parks and Open Space Design | CPMC 17.67.060(D)..... 15
6. Building Design Plan.....15
6.1 General Design Requirements | CPMC 17.67.070(A)..... 15
6.2 Architectural Character | CPMC 17.67.070(B).....16
6.3 Building Entries | CPMC 17.67.070(C).....18
6.4 Building Facades | CMPC 17.67.070(D).....18
6.5 Roofs | CPMC 17.67.070(E)..... 18
6.6 Exterior Building Lighting | CPMC 17.67.070(F).....18
6.7 Service Zones | CPMC 17.67.070(G).....19
6.8 Parking Structures | CPMC 17.67.070(H).....19
7. Transit Plan.....19
8. Environmental Plan.....20
8.1 Soil Management Plan..... 20
8.2 Wetland Delineation.....20
8.3 Shallow Well Assessment.....20
9. Exhibits..... 22

List of Figures

Figure 1 – Site Location Map
Figure 2 – Aerial with Site Identified
Figure 3 – Conceptual Sanitary Sewer and Water Plan (reduced scale)
Figure 4 – Conceptual Grading and Drainage Plan (reduced scale)
Figure 5 – Adjacent Land Use Plan (reduced scale)
Figure 6 – Site Plan (reduced scale)
Figure 7 – Existing Street Light along Gebhard Road (Willow Bend, Phase 1)
Figure 8 – Existing Street Light along Internal Streets (Willow Bend, Phase 1)
Figure 9 – Existing Street Light along Alleyways (Willow Bend, Phase 1)
Figure 10 – Open Space Landscape Plan (reduced scale)
Figure 11 – Open Space Landscape Plan Detail (reduced scale)
Figure 12 – Existing Residence (Willow Bend)
Figure 13 – Existing Residence (Willow Bend)
Figure 14 – Existing Residences (WIllow Bend, Under Construction)
Figure 15 – Exterior Building Lighting Example

List of Exhibits

Exhibit 1 – Tentative Plan
Exhibit 2 – Conceptual Sanitary Sewer and Water Plan
Exhibit 3 – Conceptual Grading and Drainage Plan
Exhibit 4 – Adjacent Land Use Plan
Exhibit 5 – Traffic Impact Analysis (TIA)
Exhibit 6 – Site and Architectural Plans
Exhibit 7 – Open Space Landscape Plan
Exhibit 8 – Independent Cleanup Program Report
Exhibit 9 – Soil Management Plan
Exhibit 10 – Wetland Delineation
Exhibit 11 – Well Survey Report (2016)
Exhibit 12 – Well Survey Report (2024)

Preface

The City of Central Point requires submittal of a Master Plan for land divisions or development that involve more than two (2) acres of land within the Transit Oriented Development (TOD) Overlay. As defined in the Central Point Municipal Code (CPMC) 17.08.010 a Master Plan is "*a long-term written and illustrated plan, prepared in accordance with Section 17.66.030(A)(1), providing overall guidance and instruction for the use and development of specific geographic areas within TOD overlays."* The purpose of this Master Plan is to document the vision and instructions for Gebhard Village Subdivision with such specificity that it can be applied as criteria for future land development applications including but not limited to Site Plan and Architectural Review for structures to be constructed on each of the lots.

There are eight (8) elements required in a TOD Master Plan per Section 17.66.030(B) as follows:

1. Introduction
2. Site Analysis Map
   2.1 Master Utility Plan
   2.2 Adjacent Land Use Plan
3. Transportation and Circulation Plan
4. Site Plan
5. Recreation and Open Space Plan
6. Building Design Plan
7. Transit Plan
8. Environmental Plan

This document is organized into sections addressing each of the required elements.

1. Introduction

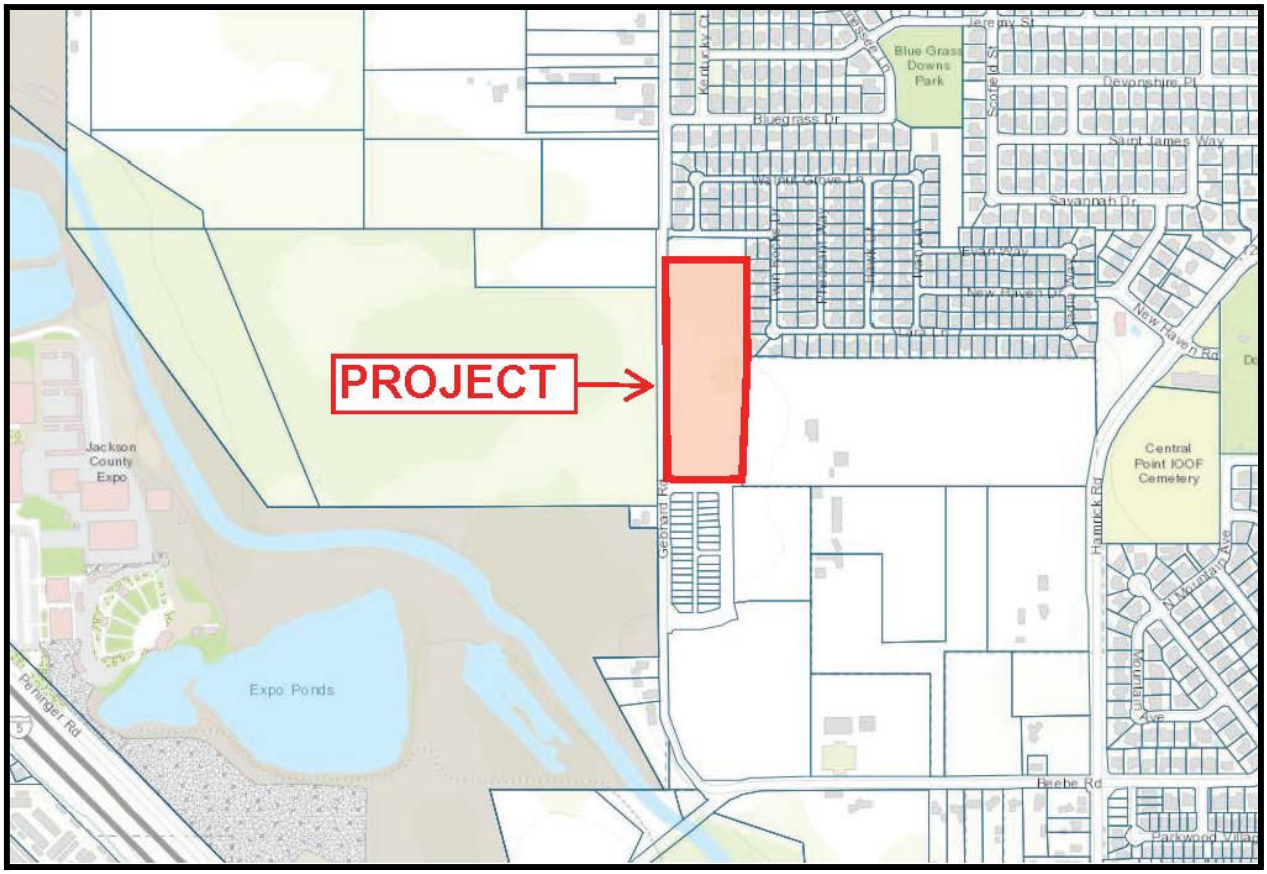
The subject property has a situs address of 4920 and 4922 Gebhard Road (being commonly known as Jackson County Assessment Map No. 37 2W 02AA, Tax Lot 2800). The property is proposed to be developed in its entirety, consisting of 78 total dwelling units with four different housing types: detached single-family dwellings, duplexes, triplexes and four-plexes. Refer to the Tentative Plat (Exhibit 1) for the proposed subdivision of the property.

1.1 Master Plan Duration

The project is proposed to be developed in two phases. Construction of both phases is estimated to be completed within five years from the approval date of this Master Plan, with the potential for a minimized timeframe if both phases are developed concurrently.

1.2 Site Location Map

Figure 1 - Site Location Map



1.3 Land Use, Minimum and Maximum Residential Densities

The property is zoned Medium Mix Residential (MMR) in the Eastside Transit Oriented Development District (ETOD). Pursuant to Table 2 of Section 17.65.050 of the CPMC, the MMR zoning district has a minimum density of 14 units per net acre and a maximum density of 32 units per net acre are allowed in the MMR zoning district.

There is a total of 8.18 gross acres in the project, 2.62 acres of which are to be dedicated as public streets, resulting in a total of 5.56 net acres. The following calculations were used to determine the minimum and maximum densities:

$$5.56\ net\ acres \quad x \quad 14\ units\ /\ net\ acre \quad = \quad 78\ units\ (minimum)$$
$$5.56\ net\ acres \quad x \quad 32\ units\ /\ net\ acre \quad = \quad 178\ units\ (maximum)$$

Seventy-eight units are being proposed, meeting the minimum required units as shown above.

Multiplex housing is a permitted use per said Table 2, while standard single-family housing is a limited use being *"permitted as a transition between lower density zones and/or when adjacent to an environmentally sensitive area."* The detached single-family housing units are being proposed as a transition between the existing detached single-family residences adjacent to the northeast, providing a buffer to the denser, multiplex units.

1.3 Identification of Adjacent Approved Master Plans

Located to the south of the subject project is the White Hawk TOD Master Plan. The first phase of which was developed and platted on June 14, 2023, as Willow Bend, Phase 1.

There are no other known Master Plans that have been approved and are adjacent to the site.

2. Site Analysis

Figure 2 - Aerial with Site Identified



The site is situated in the northeast region of the City of Central Point, with the Jackson County Expo lying just southwest of the project area. It is bound by Gebhard Road to the west along with vacant lands providing mountainous views further west thereof. To the south is Denson Street which was recently constructed with the first phase of development for the White Hawk Master Plan, consisting of 32 residential lots (vertical construction is underway). The northerly and northeasterly boundaries are adjacent to fully-developed, detached single-family residences and a private park. Adjacent to the southeast is a rural, large-tract single-family residence with a small orchard.

Several environmental challenges were discovered with the site in the early stages of the development process, including the discovery of contaminants in the soil, potential wetlands impacted by development and the presence of shallow wells in the vicinity. Refer to Section 8. Environmental Plan for additional information on these matters.

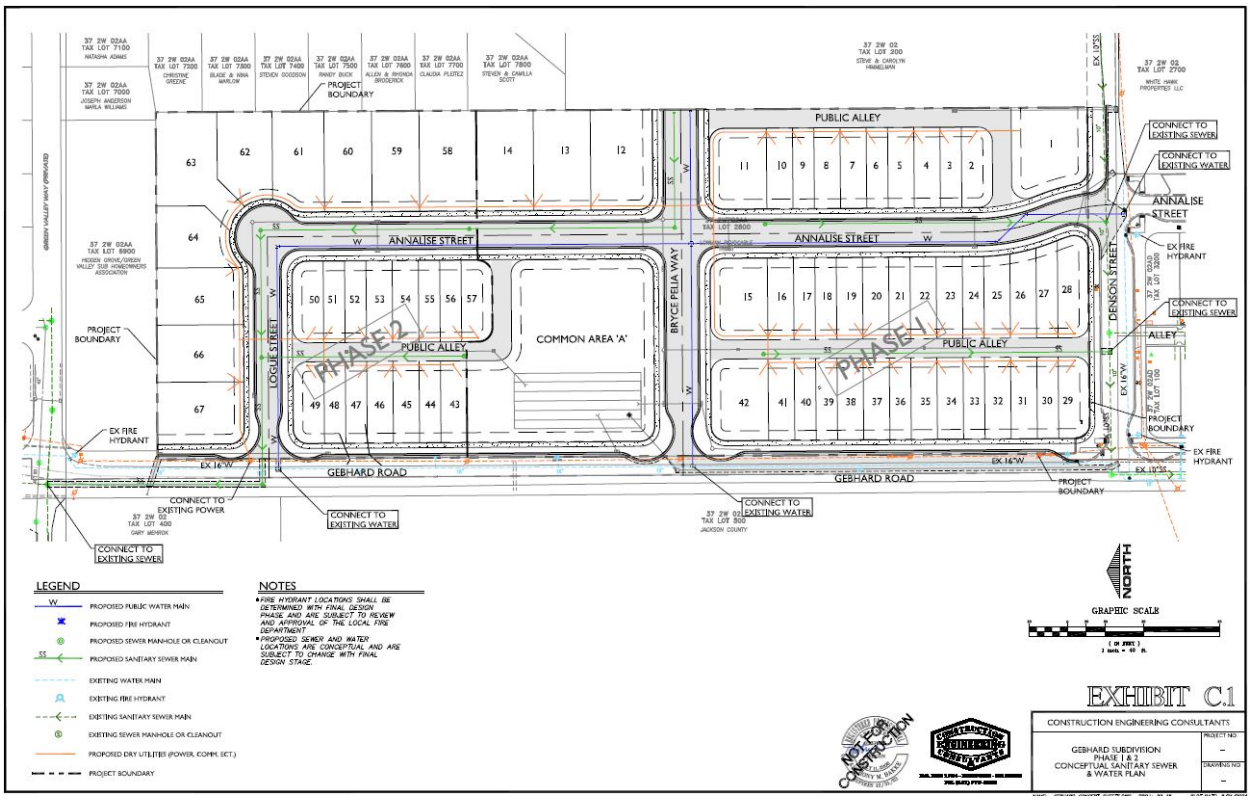
Size constraints of the property along with a planned street (proposed as Bryce Pelia Way) and existing streets that were recently constructed with Willow Bend, Phase 1, presented a unique

challenge for the project design and layout. Another consideration was the potential for a regional park which could have removed/reduced the open space requirements. However, it was ultimately determined that due to the uncertainty of the timeline and authorization for the regional park, it was prohibitive for the development to consider a regional park in the design. As a result, the proposal herein reflects current requirements for open space (proposed as Common Area "A").

2.1 Master Utility Plan

The following Figures 3 and 4 are reduced scale excerpts of the conceptual utility plans prepared by Construction Engineering Consultants (CEC). Refer to Exhibits 2 and 3 for the full-size plans. It should be noted that the proposed plans are conceptual in nature and are subject to changes discovered during the detailed phase of design.

Figure 3 - Conceptual Sanitary Sewer and Water Plan (reduced scale)

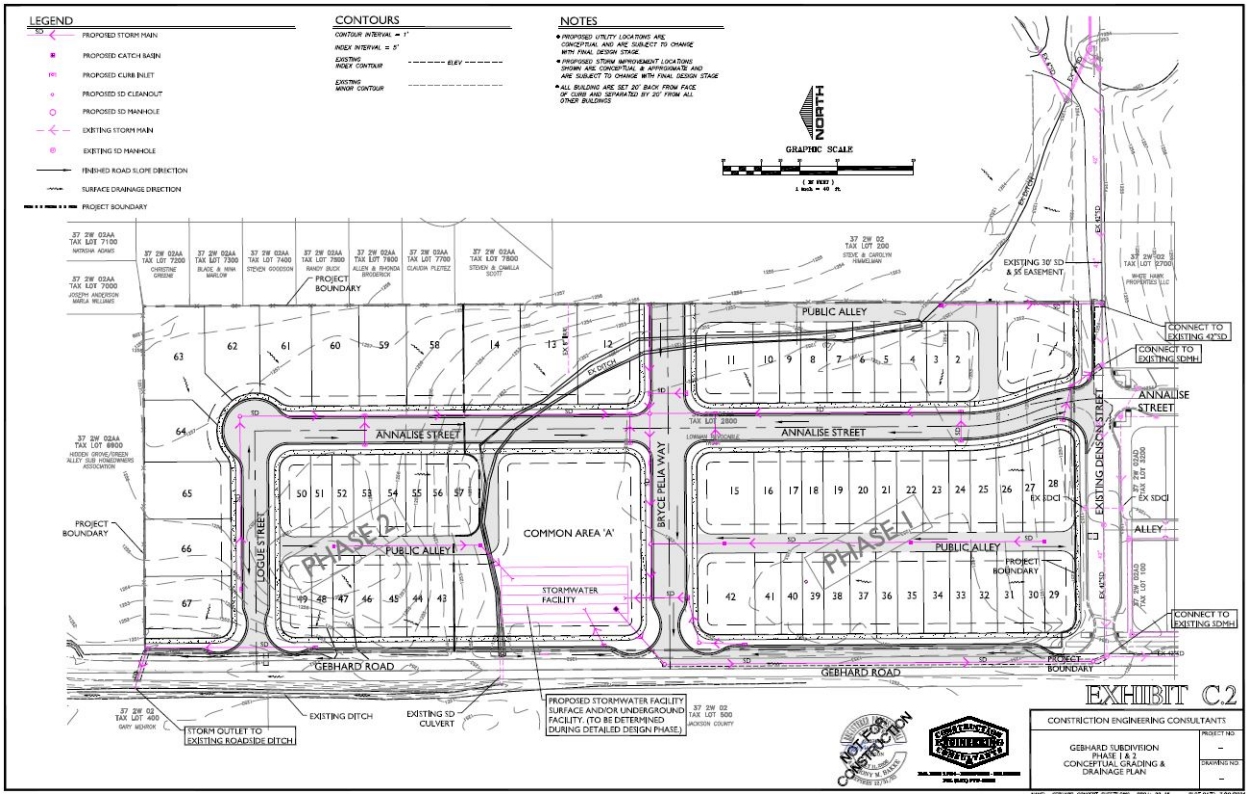


There are existing sewer and water mainlines located in Denson Street and Gebhard Road. The proposed sewer lines northerly of Bryce Pelia Way will connect to the manhole at the intersection of Gebhard and Green Valley Way, while those southerly of Bryce Pelia Way are intended to connect to the mainline in Denson Street.

Water is planned to connect at Denson street with two connections extending to Gebhard Road. Sewer and water stubs will terminate at the easterly end of Bryce Pelia Way.

Dry utilities (power, communication, etc.) will run within the proposed public utility easements(PUE) as shown above.

Figure 4 - Conceptual Grading and Drainage Plan (reduced scale)



Denson Street contains an existing 42” storm drain line that flows westerly to Gebhard Road, then southerly. The majority of stormwater runoff is intended to be collected and treated in a facility located within Common Area “A”; the outlet of which will connect to the existing manhole at the intersection of Denson Street and Gebhard Road. The facility may be above or below ground (or a combination thereof which is to be determined during the detailed design phase of the project).

A curb inlet near the northerly end of the project will direct runoff from east side of Gebhard Road to the existing roadside ditch which runs on the west side thereof. Also, there are two curb inlets at the southerly end of Annalise Street which are proposed to connect to the manhole at the intersection of Annalise and Denson Street.

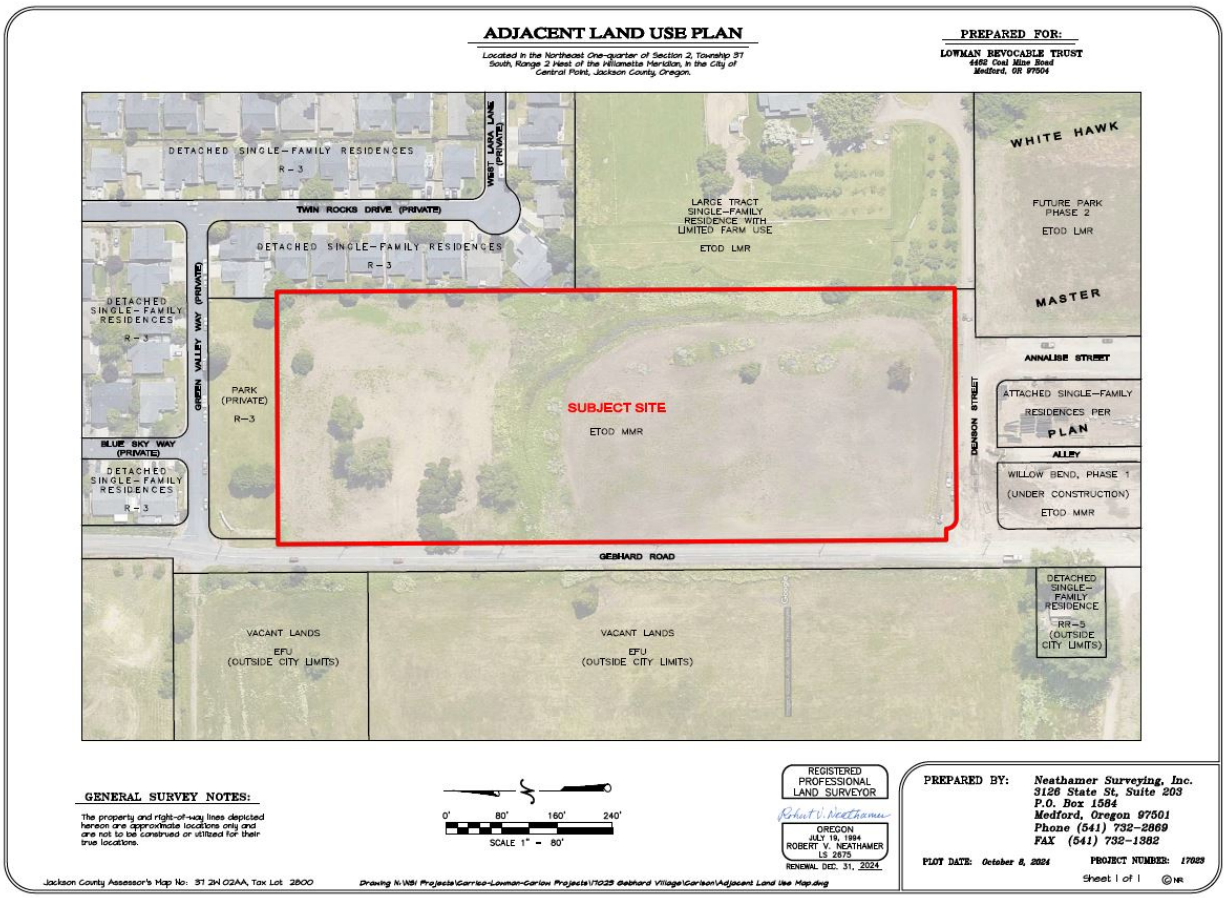
An area drain in the public alley near the southeast corner of the project will be constructed to gather runoff from the alleyway and the existing ditch located easterly thereof. The runoff will be directed southerly to the existing storm water line in Denson Street.

All proposed underground utilities will be constructed as outlined in Section 8. Environmental Plan to mitigate concerns related to shallow water wells.

2.2 Adjacent Land Use Plan

The following Figure 5 is a reduced scale excerpt of the Adjacent Land Use Plan. Refer to Exhibit 3 for the full-size plan.

Figure 5 - Adjacent Land Use Plan (reduced scale)



Green Valley Subdivision, a planned community consisting of fully-developed, detached single-family residences and an open space park, is adjacent to the north and northeast of the project area. Detached single-family lots were strategically located next to the existing residences to provide a buffer from the higher-density housing types proposed near the center and southerly portions of the project. This transitive housing layout will help to keep residential related activity to a similar level currently experienced in the existing neighborhood.

The property to the southeast is a larger tract of land zoned ETOD LMR that is currently being used for residential purposes with limited farming, including a small orchard and irrigated fields. Irrigation runoff from the adjacent property is currently being dispersed to the roadside ditch on

the west side of Gebhard Road, via an existing ditch that extends across the subject site. As the portion of the ditch on the subject site is intended to be filled and will no longer serve as an outlet for the runoff waters, an area drain is proposed to intercept the irrigation runoff and direct the water into the existing storm drain infrastructure in Denson Street. There is also a proposed curb inlet on the north side of the easterly extension of Bryce Pelia Way that will collect runoff waters. Refer to Exhibit 3 for additional information.

Adjacent to the south is Willow Bend, Phase 1 (being part of the White Hawk TOD Master Plan). The existing development shares similar characteristics as the proposed project. No uses were identified which would cause a need for remediation.

As the lands to the west are vacant, there are no uses that will be adversely impacted by the proposed development.

3. Transportation and Circulation Plan

The circulation plan for the project includes the creation of three streets (Annalise Street, Logue Street and Bryce Pelia Way) and three public alleys. Annalise Street and Logue Street are Minor Residential Local Streets with a 52-foot right-of-way using the standard detail ST-10 (bottom street section) of the Uniform Standards for Public Works Construction (USPWC). Bryce Pelia Way is a Standard Local Street with a 60-foot right-of-way using standard ST-15 (bottom street section) of the USPWC. All three alleys will be constructed to the ST-43 detail standard of the USPWC. The easterly side of Gebhard Way will be constructed to the modified 2 Lane Collector Street with a half-street right-of-way of 37 feet, as approved and constructed for the White Hawk TOD Master Plan southerly of this project.

Section 17.67.040 of the CPMC contains the adopted circulation and access standards. The following subsections 3.1 through 3.3 address the applicable items of the code as they pertain to the project.

3.1 Public Street Standards | CPMC 17.67.040(A)

The proposed lots along the northeasterly portion of the project abut an existing residential development without access to a street connection to satisfy the block perimeter and length thresholds of 2,000 feet and 600 feet per CPMC 17.67.040(A)(2) and (3). However, CPMC 17.67.040(A)(5)(b) allows modification to these standards due to, "... *existing development patterns on abutting property which preclude the logical connection of streets or accessways.*" As there is not a logical connection of streets or accessways on the abutting property, this block is allowed to exceed the block perimeter and length standards. All other remaining blocks meet said standards.

CPMC 17.67.040(A)(6) requires all utilities to be installed underground (except for access lids). The proposed utilities are intended to be installed underground as shown on the conceptual plans. Refer to Exhibits 2 and 3 for more information.

The only existing street connection adjacent to the project is Annalise Street, which has been designed to align with the existing right-of-way and extend northerly, meeting the requirement per CPMC 17.67.040(A)(7), which states, "*connections shall be provided between new streets in a TOD overlay and existing local and minor collector streets.*"

In addition to the sidewalks contained in the standard street details per the USPWS, a paved multi-use path is also being included on the east side of Gebhard Road to extend northerly from the existing pathway in the White Hawk TOD Master Plan. All pedestrian street crossings will be marked as required per CPMC 17.67.040(A)(8).

Two off-street pedestrian walkways are proposed within the Common Area "A" to provide an amenity in the open space area for the development. Said walkways have been designed to meet the requirements of CPMC 17.67.040(A)(9)(c), including having a minimum width of five feet with a two-foot horizontal clearance from the edge of the path. Refer to Exhibit 7 for additional information.

3.2 Parking Lot Driveways | CPMC 17.67.040(B)

No parking lots have been included as part of the project, thus CPMC 17.67.040(B) is not applicable.

3.3 On-Site Pedestrian and Bicycle Circulation | CPMC 17.67.040(C)

The open space Common Area "A" was centrally placed in the development in order to promote easily accessible pedestrian access. Sidewalks will be constructed throughout the development, with short distances to building entrances. As previously mentioned, a multi-use path and minor off-street trail has also been incorporated in the development to provide attractive access routes for pedestrians and cyclists, as required per CPMC 17.67.040(A)(9)(C). Decorative street lighting in a similar style that was used in Willow Bend, Phase 1 of White Hawk TOD Master Plan southerly of the project will be used to provide continuity for the area and illuminate the accessways.

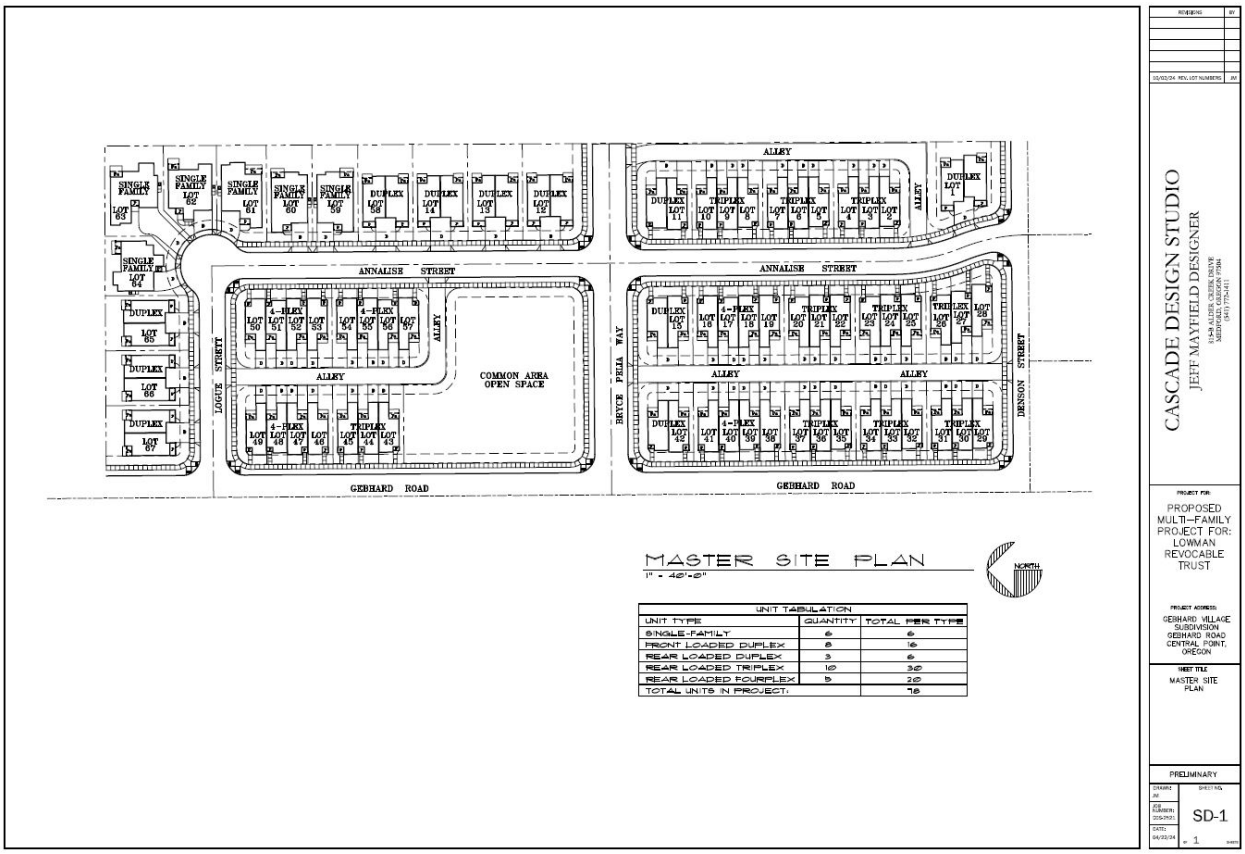
3.4 Traffic Impact Analysis Summary

A Traffic Impact Analysis was prepared by Southern Oregon Transportation Engineering, LLC, which assessed the proposed development and the impact to the area. Said analysis concluded that the *"... streets and intersections that serve the subject property will accommodate projected a.m. and p.m. peak hour traffic volumes without adverse transportation impacts."* Furthermore, the study determined that although the proposed intersection of Logue Street and Gebhard Road does not meet the required intersection spacing standard of 300 feet from Green Valley Way (proposed distance is approximately 235 feet), there were no safety concerns identified and the sight distance is shown to be adequate without the need for a center turn lane. Refer to Exhibit 5 for additional information.

4. Site Plan

The following Figure 6 is a reduced scale excerpt of the Site Plan. Refer to Exhibit 6 for the full-size plan.

Figure 6 - Site Plan (reduced scale)



Section 17.67.050 of the CPMC contains the adopted site design standards. The following subsections 4.1 through 4.13 address the applicable items of the code as they pertain to the project.

4.1 Adjacent Off-Site Structures and Uses | CPMC 17.67.050(A)

Refer to Section 2.2 Adjacent Land Use Plan hereinabove for a description of the existing surrounding uses and proposed measures to preserve and enhance the livability of those uses.

All utilities to be constructed as part of the development will adhere to the applicable standards as set forth in the City of Central Point Department of Public Works Standard Details for Public Works Construction, and will be constructed in such a way to not adversely impact neighboring uses.

4.2 Natural Features | CPMC 17.67.050(B)

There are a few mature trees located on the site as shown on the Tentative Plan (Exhibit 1). Said trees were considered during the design of the project. However, due to the size constraints of the property in conjunction with the required street and connection to Annalise Street to the south, many of the existing trees are located in the proposed rights-of-way and will not be able to be preserved. Efforts will be made to retain the walnut tree located at the northeast corner of proposed Lot 43.

Two small wetlands (totaling 0.1 acre) were identified on the project, but are not subject to state permit (and preservation) requirements. Refer to Section 8.2 Wetland Delineation hereinbelow for additional information.

To compensate for the loss of the trees and incorporate natural elements into the project, there are several plantings proposed in the open space common area as shown on the Landscape Plan (Exhibit 7).

4.3 Topography | CPMC 17.67.050(C)

The site is mostly flat with gradual slopes. As such, minimal grading and filling is anticipated, without the need for special building design accommodations. This approach is consistent with the neighboring properties which also share similar characteristics as the project.

4.4 Solar Orientation | CPMC 17.67.050(D)

The majority of the buildings in the project are east-west oriented structures which is consistent with the recommended solar orientation practices to take advantage of sunlight while also being able to control glare. Awnings and eaves have been designed to provide shading during the summer months (with the higher summer sun) while benefiting from passive solar heating during the winter months when the sun is lower.

4.5 Existing Buildings on the Site | CPMC 17.67.050(E)

There are no existing buildings located on the site.

4.6 New Prominent Structures | CPMC 17.67.050(F)

There are no public or civic buildings proposed for this development.

4.7 Views | CPMC 17.67.050(G)

The west-facing residences located adjacent to Gebhard Road will be able to benefit from the viewshed provided by the open space lands to the west. The project generally groups similar housing types to be across from one another (except in the transition area to the northeast), to promote a sense of coherence within the project.

4.8 Adjoining Uses and Adjacent Services | CPMC 17.67.050(H)

There are no commercial uses or services proposed within the development or neighboring properties. However, the surrounding, lower-density residential uses were considered during the design of the project and care was taken to reduce impacts to the neighboring properties by intentionally placing the lower-density housing types adjacent to these areas as a buffer.

4.9 Transitions in Density | CPMC 17.67.050(I)

As previously mentioned, density within the project was designed to integrate a variety of housing types while being harmonious with the surrounding uses. Refer to Section 1.3 Land Use, Minimum and Maximum Residential Densities and Section 2.2 Adjacent Land Use Plan for additional information.

4.10 Parking | CPMC 17.67.050(J)

Parking will be provided by attached residential garages which will be able to accommodate one or two vehicles, depending on the housing type and have been designed to meet the city code requirements. On-street parking will also be available. There are no parking structures/lots proposed for this development.

4.11 Landscaping | CPMC 17.67.050(K)

Each lot is intended to be landscaped to soften the appearance of the buildings. Drought resistant, native plantings shall be used with water-wise irrigation practices. Street trees will be installed in the planter strips consistent with the city requirements. Common Area “A” is intended to be landscaped as shown on Exhibit 7.

4.12 Lighting | CPMC 17.67.050(L)

Street lighting is proposed to be similar in style to those used in the neighboring Willow Bend, Phase 1, development. The following Figures 7, 8 and 9 demonstrate the existing lighting and and shall serve as an example of the design characteristics to be used in this development:

Figure 7 - Existing Street Light along Gebhard Road (Willow Bend, Phase 1)



Figure 8 - Existing Street Light along Internal Streets (Willow Bend, Phase 1)



Figure 9 - Existing Street Light along Alleyways (Willow Bend, Phase 1)



4.13 Signs | CPMC 17.67.050(M)

There are no signs proposed within the development other than the required street signage.

5. Recreation and Open Space Plan

The following Figures 10 and 11 are reduced scale excerpts of the Landscape Plan for the open space Common Area “A”. Refer to Exhibit 7 for the full-size plan.

Figure 10 - Open Space Landscape Plan (reduced scale)

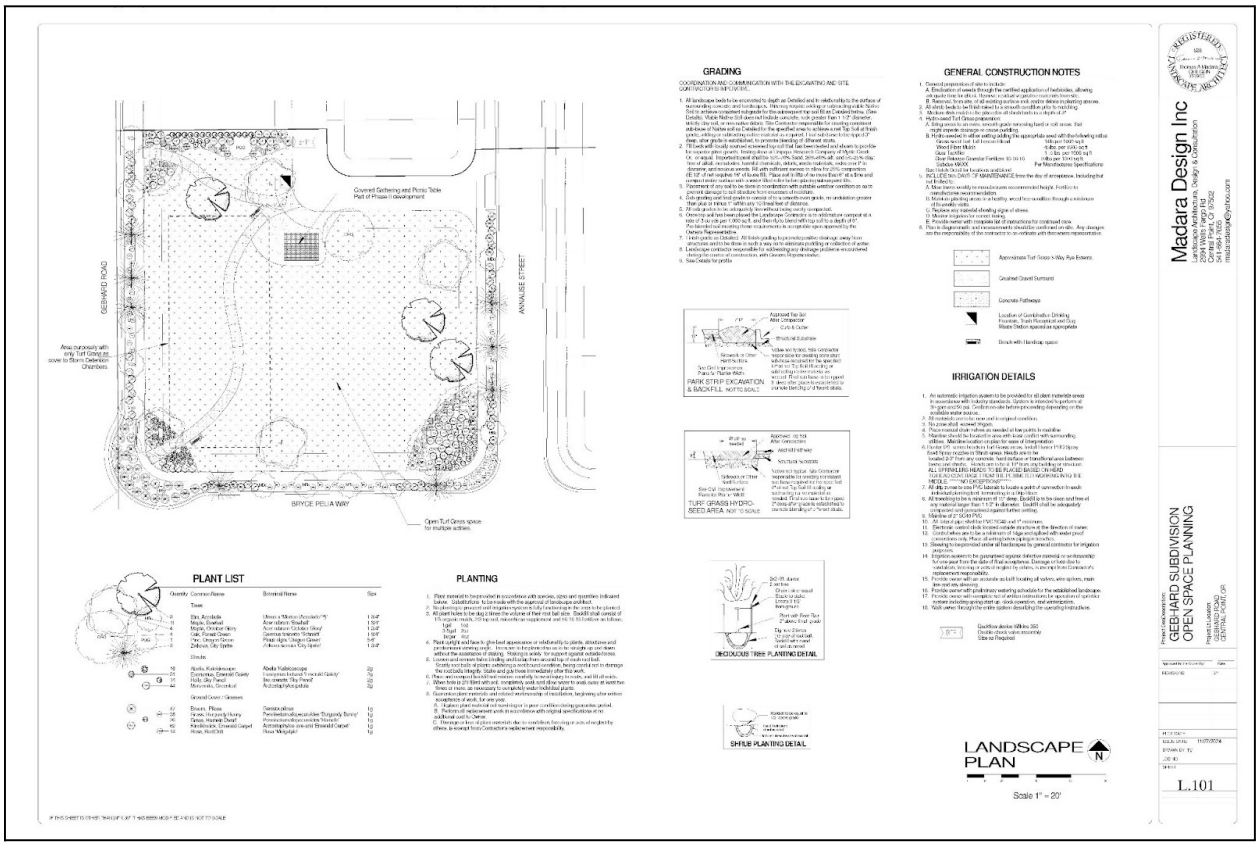
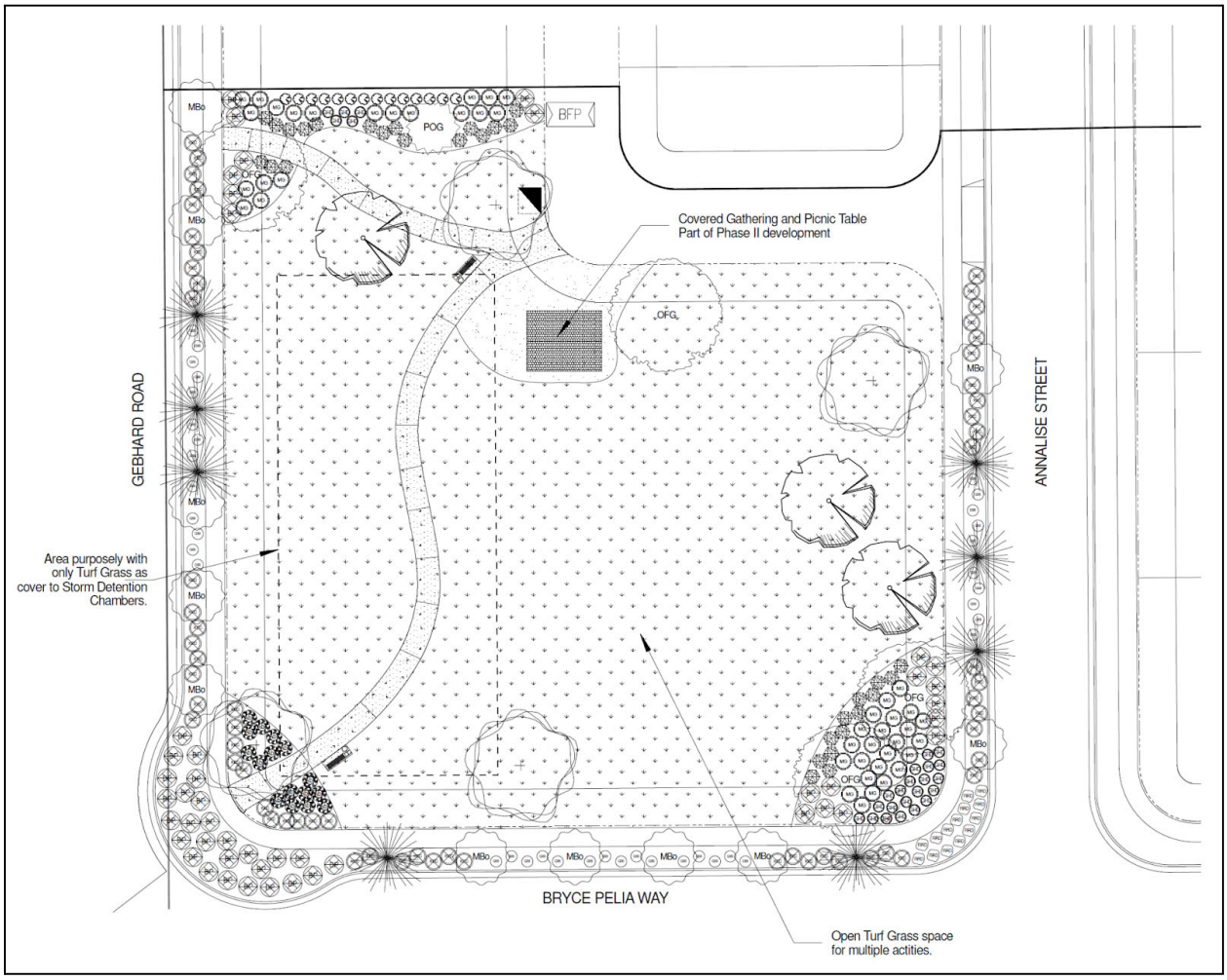


Figure 11 - Open Space Landscape Plan Detail (reduced scale)



Section 17.67.060 of the CPMC contains the adopted public parks and open space design standards. The following subsections 5.1 through 5.4 address the applicable items of the code as they pertain to the project.

5.1 General | CPMC 17.67.060(A)

The open space for the project has been designed in two phases to accommodate various activities. The first phase includes two concrete walkways providing pedestrian access through the open space, three turf grass areas of varying sizes, ornamental plantings, two benches with handicap spaces, a drinking fountain, recycle and disposal facilities. Phase two includes a graveled area with a covered gathering and picnic table.

In addition to recreational facilities, a majority of stormwater runoff is intended to be collected and treated in a detention facility located within Common Area “A”. The detention facility may be above or below ground (or a combination thereof which is to be determined during the detailed design phase of the project). Should the detention facility (or a portion thereof) be above ground,

the north-south walkway may be relocated as needed. Refer to Section 2.1 Master Utility Plan for additional information.

5.2 Parks and Open Space Location | CPMC 17.67.060(B)

The open space has been centrally located in the project to encourage safe, pedestrian friendly access to the park and recreation area for all of the residents. Vehicular access is also readily available as the park is surrounded by streets and an alley along a majority of its boundaries. The park has also been situated to be faced by four residences, being Lots 12 through 14 and Lot 57.

5.3 Parks and Open Space Amount and Size | CPMC 17.67.060(C)

There are a total of 78 proposed residential dwelling units. CPMC 17.67.060(C)(a) requires a minimum of 400 square feet of open space for each dwelling unit. The following calculation was used to determine the minimum required open space:

$$78\ dwelling\ units \quad x \quad 400\ square\ feet\ /\ dwelling\ unit \ = \ 31,200\ square\ feet\ (minimum)$$

Common Area “A” is comprised of 32,504 square feet, meeting the minimum requirement calculated hereinabove.

5.4 Parks and Open Space Design | CPMC 17.67.060(D)

A combination garbage/recycle bin and a drinking fountain have been included in the landscape plan for the open space area. Additionally, two benches (Phase 1) and a covered picnic shelter (Phase 2) have been implemented in the design, satisfying the criterion per CPMC 17.67.060(D)(1)(a) and (e). The proposed lighting contained in Section 4.12 Lighting will provide adequate illumination for safety and security of the open space and recreation area.

6. Building Design Plan

Section 17.67.070 of the CPMC contains the adopted building design standards. The following subsections 6.1 through 6.8 address the applicable items of the code as they pertain to the project.

6.1 General Design Requirements | CPMC 17.67.070(A)

Architectural Plans have been prepared and included as Exhibit 6. All building elements, including roof design, window placement, porch coverings, interior layouts, garage locations, architectural details and materials shall be constructed to be consistent with said plans. Earth tone color palettes shall be used for interior and exterior surfaces, with an emphasis placed on varying the colors on the exterior buildings to promote variety among the development.

Where possible, sustainable building practices shall be used. Examples of such practices include the installation of ductless heating and cooling systems, water efficient plumbing fixtures and Energy Star Certified appliances. Windows with screened openings shall be placed throughout the structures to allow for ventilation and summer heat dissipation.

Pedestrian access is encouraged by placing routes close to building entrances that connect to the public sidewalk system. A trail is proposed to encompass the open space area which will be centrally located for easy access for the residents.

6.2 Architectural Character | CPMC 17.67.070(B)

Willow Bend, Phase 1, of the White Hawk TOD Master Plan shares similar characteristics with this project, including two-story attached single-family dwellings. The intent of this development is to integrate cues from the existing structures while creating new architectural elements to provide a pleasing combination of individuality and continuity.

For example, similar siding materials have been incorporated, such as James Hardie horizontal lap siding and shingles that are present in the adjacent project. Also, street lighting is proposed to be similar to the existing development (as shown in Section 4.12 Lighting hereinabove).

New attributes such as sill and apron windows, cantilever outlookers, false louvered vent details and knee braces for the roof supports have been added to create architectural interest and variety among the structures. A variety of columnar wraps and railing styles are present for the covered porches to provide further differentiation.

The following Figures 12 through 14 demonstrate the architectural character of several of the existing structures recently constructed as part of the Willow Bend development.

Figure 12 - Existing Residence (Willow Bend)



Figure 13 - Existing Residence (Willow Bend)



Figure 14 - Existing Residences (WIllow Bend, Under Construction)



6.3 Building Entries | CPMC 17.67.070(C)

Buildings are oriented to have the primary entries facing the streets with concrete accessways extending from the sidewalk to the front door of each dwelling. Said entries shall be sheltered as shown on sheets A-1 through A-26 of the Architectural Plans, meeting the required four foot covered pedestrian access standard per CPMC 17.67.070(C)(1)(c) and porch requirements per CPMC 17.67.070(C)(3) .

6.4 Building Facades | CMPC 17.67.070(D)

As many of the proposed residential structures are multi-plex dwellings, much attention was focused on designing diversity within the building streetscape to avoid monotonous repetition. The alleyways made it possible to rear load all of the triplex and four-plex structures, placing the garage doors out of sight from street views. Main living areas for these dwellings were then arranged to be facing the streets, with large windows and extended trim detailing providing informal surveillance of the public spaces. Other elements that were included to add interest are pergola and metal coverings. Variations among the rooflines, garage doors (for those structures not rear-loaded) and windows were also integrated to create uniqueness among the building facades. Refer to the streetscapes shown on sheets A-1 through A-3 for the overall result of how these elements have been incorporated in the project.

6.5 Roofs | CPMC 17.67.070(E)

Roofs will be constructed as shown on sheets A-1 through A-26 of the Architectural Plans using architectural composition shingles with a minimum of a 30-year warranty. Roof slopes will be installed at a ratio of 5/12, with eaves extending past the building by a minimum of 12 inches.

6.6 Exterior Building Lighting | CPMC 17.67.070(F)

Exterior light fixtures on the buildings will incorporate the use of shrouds and directional lighting to highlight architectural interest, reduce glare and illuminate the surrounding area to create an inviting and safe atmosphere. Warm white (2700 to 3000K) or soft white (3000K - 3500K) lighting color temperatures shall be used. The following Figure 15 is an example of how lighting is proposed to be incorporated in the design.

Figure 15 - Exterior Building Lighting Example



(source: https://www.tollbrothers.com/blog/exterior-home-lighting-ideas/)

6.7 Service Zones | CPMC 17.67.070(G)

Any mechanical/utilities servicing the structures (e.g. HVAC equipment) shall be installed in inconspicuous areas as to not deter from the front facade of the structures. Landscaping will also be installed to provide a buffer to reduce the noise and reduce the visual presence of the equipment.

There are no delivery, loading or other service zones that are proposed to be integrated in the development.

6.8 Parking Structures | CPMC 17.67.070(H)

Attached garages are included for all proposed residential housing types. Garage doors were designed to integrate with the structures by utilizing a mixture of traditional and carriage style design elements as shown in sheets A-1 through A-26 of the Architectural Plans. All garage doors shall incorporate windows near the top sections of the doors in an effort to blend with the rest of the structure and minimize their visual impact.

7. Transit Plan

Pursuant to coordination with Rogue Valley Transportation District (RVTD), a transit stop is not required or needed as there is not an established route along Gebhard Road. Therefore, no transit facilities are proposed for this development.

8. Environmental Plan

The following sections 8.1 through 8.3 address environmental impacts that were discovered during the planning process and proposed mitigation measures.

8.1 Soil Management Plan

An Independent Cleanup Program Report (ICP) was prepared on July 27, 2018, by Cascadia Associates, LLC, to identify the potential health risk of arsenic and lead in soils due to historical uses on or near the property (a commercial chicken farm and orchards). The assessment was conducted and the report concluded, *"... the lead and arsenic present in the site soil will not present an unacceptable health risk."* The Department of Environmental Quality (DEQ) reviewed the ICP and requested the preparation of a Soil Management Plan (SMP) as there were a few locations that exceeded the regional background concentrations (RBCs). Refer to Exhibit 8 for additional information.

A SMP was prepared by Cascadia Associates, LLC, on May 16, 2019. As the average concentrations of lead and arsenic were found to be below the RBCs, the site preparation approach identified in the report was to mix the upper 12 inches of soil to distribute those areas of higher concentrations. The proposed mitigation includes the removal of organics, site scarifying and grading that will need to occur prior to development. Refer to Exhibit 9 for additional information.

8.2 Wetland Delineation

The site contains an existing drainage ditch located near the center of the project which prompted concerns of wetlands that may be impacted by development. A wetland delineation was prepared (identifying two small wetlands totalling approximately 0.10 acres) and sent to the Department of State Lands (DSL) for review. A letter of concurrence was issued by DSL on August 9, 2017, and reissued on May 16, 2023, which stated that the ditch and two wetlands identified on the delineation are exempt per Oregon Administrative Rule (OAR) 141-085-0515(6) and not subject to state permit requirements. Refer to Exhibit 10 for additional information.

The ditch and two identified wetland are intended to be filled, the source of water (irrigation runoff from the neighboring property) is proposed to be collected and routed into the storm drain system as outlined in Section 2. Site Analysis hereinabove.

8.3 Shallow Well Assessment

Two well surveys were performed by Apex Companies, LLC, near the project area. The first was conducted in 2016 for the White Hawk TOD Master Plan southerly of the project area. The second of which was conducted in 2024 for the Sunnybrook Development, being southeast of the project area.

Numerous wells were identified as being within the general vicinity. The closest well is located on the property adjacent to the east (being commonly known as Jackson County Assessment Map Number 37 2W 02, Tax Lot 200). Said well had a measured static water level of 22 feet below ground surface in the 2024 assessment (originally measured at 15 feet below ground surface in the 2016 report). The report found that a long-term lowering in the water table may be occurring.

The conceptual utility plans do not contain detailed information regarding the depths of the utilities for the proposed Gebhard Village development. However, preliminary analysis indicates the utilities will not extend into depths over 12 feet, which is well above the first encountered shallow well as indicated above.

Ultimately, the 2024 report concluded that it is unlikely the groundwater levels in local wells would be impacted by the Sunnybrook Development. As even fewer wells were identified within the Gebhard Village project area (with deeper water surface levels than those in the vicinity of the Sunnybrook Development), it is also unlikely that the subject development would have adverse impacts to the existing wells and groundwater levels. In the event the development does extend into the water table, the proposed mitigation measures as outlined in the 2024 report will be utilized.

Refer to Exhibits 11 and 12 for additional information.

9. Exhibits

EXHIBIT "1"

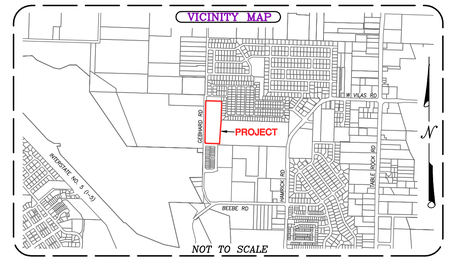
A TENTATIVE PLAN FOR:
GEBHARD VILLAGE SUBDIVISION

Located in the Northeast One-quarter of Section 2,
Township 37 South, Range 2 West of the Willamette
Meridian, in the City of Central Point,
Jackson County, Oregon.

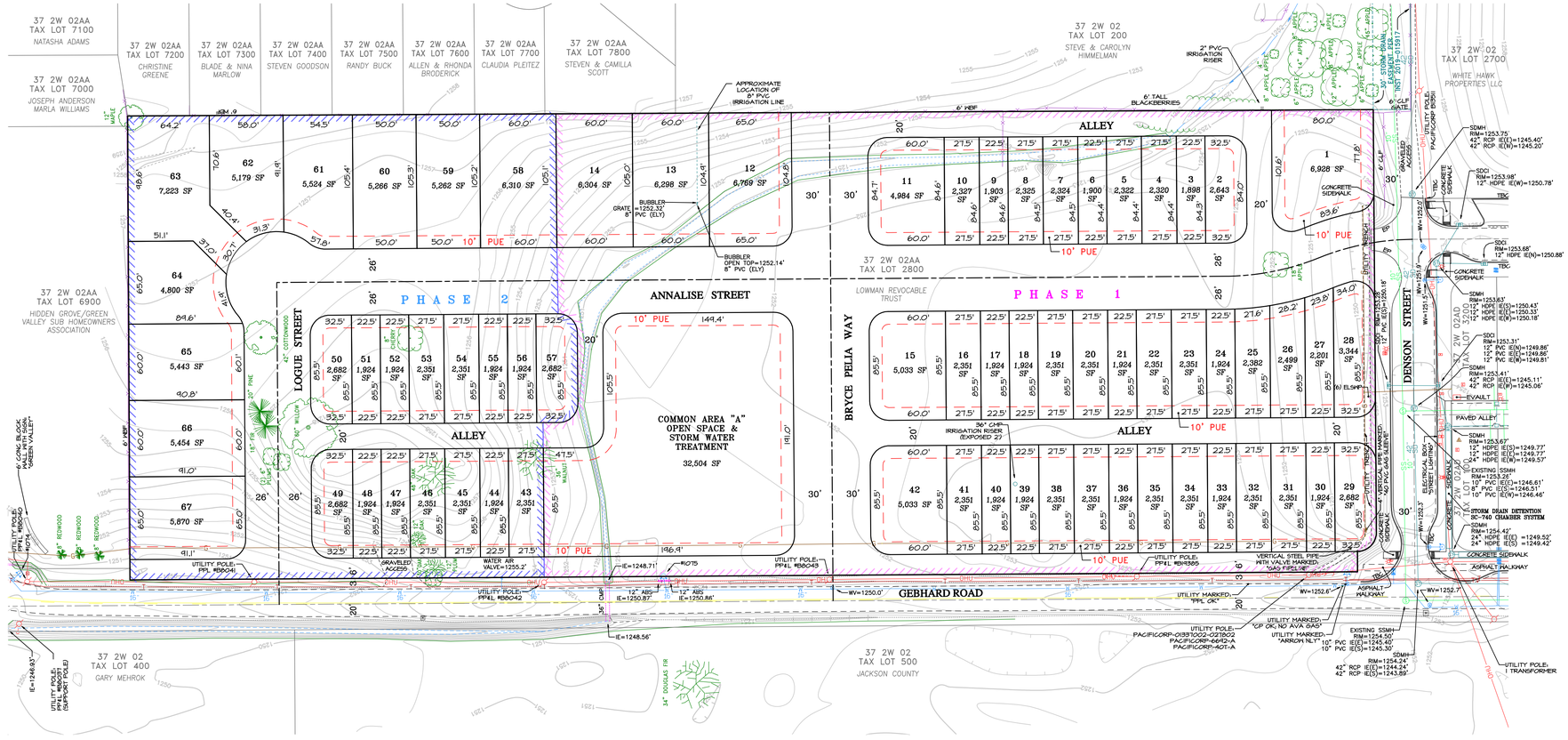
PREPARED FOR:

LOWMAN REVOCABLE TRUST
4462 Coal Mine Road
Medford, OR 97504

VICINITY MAP



NOT TO SCALE



LEGEND:

- G — Indicates a utility marked natural gas line.
- Indicates an existing natural gas valve.
- Indicates an existing natural gas lateral.
- Indicates an existing natural gas fiberglass placard.
- SS — Indicates a utility marked sanitary sewer line.
- Indicates an existing sanitary sewer manhole.
- Indicates an existing sanitary sewer cleanout.
- Indicates an existing sanitary sewer lateral.
- SD — Indicates a utility marked storm drain line.
- Indicates an existing storm drain manhole.
- Indicates an existing storm area drain.
- Indicates an existing mail box.
- Indicates an existing street light.
- Indicates an existing electric lateral.
- Indicates an existing electric meter box.
- Indicates an existing utility pole and guy anchor.
- OHU — Indicates an existing aerial utility line.
- OHE — Indicates an existing aerial electric line.
- E — Indicates a utility marked electric line.
- TV — Indicates a utility marked cable tv line.
- T — Indicates a utility marked telephone line.
- Indicates an existing telephone pedestal.
- W — Indicates a utility marked water line.
- Indicates an existing water meter.
- Indicates an existing water valve.
- Indicates an existing fire hydrant.
- Indicates an existing air release valve.
- Indicates an existing domestic irrigation box.
- Indicates a deciduous tree with drip-line diameter drawn to scale.
- Indicates a non-deciduous tree with drip-line diameter drawn to scale.
- wv=1000' — Indicates the elevation of the top of a valve nut for a water valve.
- Indicates centerline of an existing fence line as noted hereon.

ABBREVIATIONS:

- CLF= Indicates a chain link fence.
- CMP= Indicates an existing corrugated metal pipe.
- EP= Indicates the edge of a paved surface.
- EVAULT= Indicates an existing electrical vault.
- PVC= Indicates an existing polyvinyl chloride pipe.
- RCP= Indicates an existing re-enforced concrete pipe.
- SDCB= Indicates an existing storm drain area drain.
- SDAD= Indicates an existing storm sewer catch basin.
- SDCI= Indicates an existing storm sewer curb inlet.
- SDCO= Indicates an existing storm sewer cleanout.
- SDMH= Indicates an existing storm sewer manhole.
- SSCO= Indicates an existing sanitary sewer cleanout.
- SSMH= Indicates an existing sanitary sewer manhole.
- TBC= Indicates the top back of a curb line.
- TMH= Indicates an existing telephone manhole.
- WBF= Indicates a wood board fence.
- WPFL= Indicates a white painted fog line.
- WV= Indicates an existing water valve.
- N, NE, SW — Indicates a general direction: northerly, northeasterly, southwesterly, etcetera.

SCALE 1" = 50'
0 50 100 150

GENERAL SURVEY NOTES:

Contours: 0.5-foot contour interval; 1-foot index contour interval.

All existing underground utilities, as depicted hereon, were located within the tolerance zone, as marked on the ground by affected agencies and utility companies. Oregon Administrative Rules Chapter 952, Division 1, Definitions, 952-001-0010 (25), states: "tolerance zone" means the area within 24 inches surrounding the outside dimensions of all sides of an underground facility.

SURVEY REFERENCE NOTES:

Field and office equipment/software utilized: Trimble R10 GNSS equipment; Trimble S7 Robotic Instrument; Trimble TSC3 data collector with Trimble Access software; Trimble Business Center and Trimble Terramodel software.

Linear unit (horizontal): International Foot (ift).
Linear unit (vertical): U.S. Survey Foot (usft).
Vertical datum: North American Vertical Datum of 1988 (NAVD88)
Geodetic information:
Datum: North American Datum (NAD) of 1983 (2011) epoch 2010.00
System: Oregon Coordinate Reference System
Zone: Grants Pass-Ashland
Projection: Transverse Mercator
Latitude of grid origin: 41°45'00" N
Longitude of central meridian: 123°20'00" W
Northing at grid origin: 0.000 m
Easting at central meridian: 500,000.000 m (164,041.995 ift)
Scale factor on central meridian: 1.000 043 (exact)

All bearings and distances shown hereon are projected (grid) values based on the projection definition herein and above. This projection was utilized in order to minimize the difference between projected (grid) distances and horizontal (ground) distances at the topographic surface within the design area of this coordinate system.

The basis of bearings for this survey is Geodetic North. Note that the grid bearings shown or implied hereon do not equal Geodetic North due to meridian convergence.

Orthometric heights (elevations) are referenced to the NAVD88 datum and were attained via solution sets obtained from the NGS OPUS website for static GPS occupations utilizing said Trimble R10.

This survey was conducted utilizing the Global Navigation Satellite System (GNSS) referenced to the National Spatial Reference System (NSRS). Static data obtained at an arbitrary base station using a Trimble R10, was submitted to the NGS OPUS website. Utilizing the OPUS solution sets from said data, established NSRS coordinates at said base station, thence utilized a second R10 and RTK methods to establish NSRS coordinates on primary control and certain found monuments. Said NSRS coordinates were projected onto the Oregon Coordinate Reference System (OCRS), Grants Pass-Ashland zone.

From said established primary control, utilized said S7 and TSC3 data collector with Trimble Access, to establish secondary and tertiary control, tie remaining monuments and to capture topographic data.

REGISTERED PROFESSIONAL LAND SURVEYOR

Robert V. Neathamer

OREGON
JULY 19, 1994
ROBERT V. NEATHAMER
2675

Renewal Date 12/31/26

PREPARED BY: *Neathamer Surveying, Inc.*
3126 State St, Suite 203
P.O. Box 1584
Medford, Oregon 97501
Phone (541) 732-2869
FAX (541) 732-1382

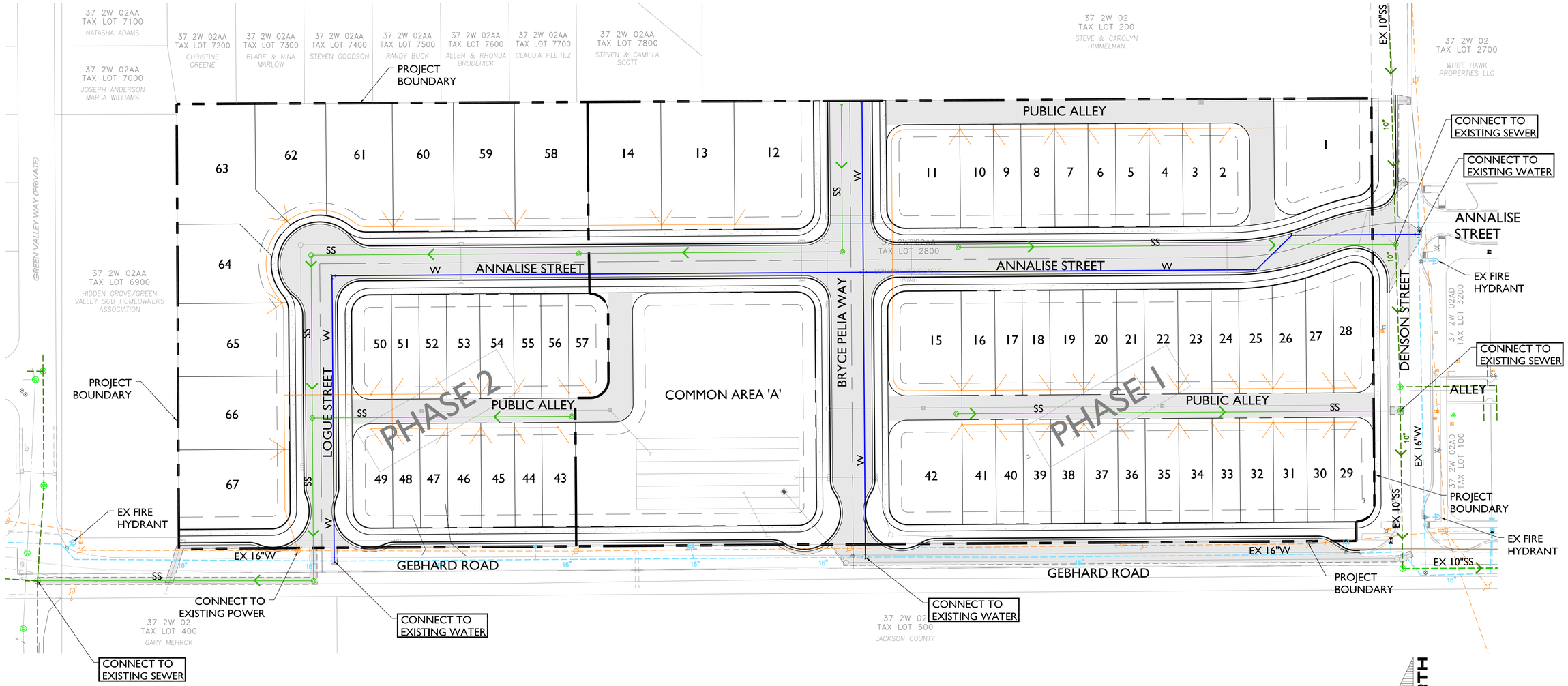
PLOT DATE: *January 23, 2025* **PROJECT NUMBER:** *17023*

Sheet 1 of 1 NR MN SL

Jackson County Assessor's Map No: 37 2W 02AA, Tax Lot 2800

Drawing N:\NSI Projects\Carrico-Lowman-Carlon Projects\17023 Gebhard Village\17023-20074 TP FP GS.pro

EXHIBIT "2"



LEGEND

- W — PROPOSED PUBLIC WATER MAIN
- PROPOSED FIRE HYDRANT
- PROPOSED SEWER MANHOLE OR CLEANOUT
- SS — PROPOSED SANITARY SEWER MAIN
- EXISTING WATER MAIN
- EXISTING FIRE HYDRANT
- EXISTING SANITARY SEWER MAIN
- EXISTING SEWER MANHOLE OR CLEANOUT
- PROPOSED DRY UTILITIES (POWER, COMM, ECT.)
- PROJECT BOUNDARY

NOTES

- *FIRE HYDRANT LOCATIONS SHALL BE DETERMINED WITH FINAL DESIGN PHASE AND ARE SUBJECT TO REVIEW AND APPROVAL OF THE LOCAL FIRE DEPARTMENT*
- *PROPOSED SEWER AND WATER LOCATIONS ARE CONCEPTUAL AND ARE SUBJECT TO CHANGE WITH FINAL DESIGN STAGE.*

NORTH

GRAPHIC SCALE

20 0 20 20 20 20

(IN FEET)
1 inch = 40 ft.

EXHIBIT C.1

REGISTERED PROFESSIONAL ENGINEER — OREGON — JULY 11, 2006 — ANTHONY M. BAKKE — EXPIRES 12/31/25

CONSTRUCTION ENGINEERING CONSULTANTS INC.
P.O. BOX 1724 - MEDFORD - OR 97501
PH. (541) 779-5268

CONSTRUCTION ENGINEERING CONSULTANTS

GEBHARD SUBDIVISION
PHASE 1 & 2
CONCEPTUAL SANITARY SEWER & WATER PLAN

PROJECT NO. –
DRAWING NO. –

NAME: _GEBHARD_CONCEPT_SHEETS.DWG PROJ.: 22-15 PLOT DATE: 8/21/2024

EXHIBIT "3"

LEGEND

- PROPOSED STORM MAIN
- PROPOSED CATCH BASIN
- PROPOSED CURB INLET
- PROPOSED SD CLEANOUT
- PROPOSED SD MANHOLE
- EXISTING STORM MAIN
- EXISTING SD MANHOLE
- FINISHED ROAD SLOPE DIRECTION
- SURFACE DRAINAGE DIRECTION
- PROJECT BOUNDARY

CONTOURS

CONTOUR INTERVAL = 1'

INDEX INTERVAL = 5'

EXISTING INDEX CONTOUR ------ ELEV ------

EXISTING MINOR CONTOUR ----------

NOTES

- PROPOSED UTILITY LOCATIONS ARE CONCEPTUAL AND ARE SUBJECT TO CHANGE WITH FINAL DESIGN STAGE.
- PROPOSED STORM IMPROVEMENT LOCATIONS SHOWN ARE CONCEPTUAL & APPROXIMATE AND ARE SUBJECT TO CHANGE WITH FINAL DESIGN STAGE
- ALL BUILDING ARE SET 20' BACK FROM FACE OF CURB AND SEPARATED BY 20' FROM ALL OTHER BUILDINGS

NORTH

GRAPHIC SCALE

20 0 20 20 20 20

(IN FEET)
1 inch = 40 ft.

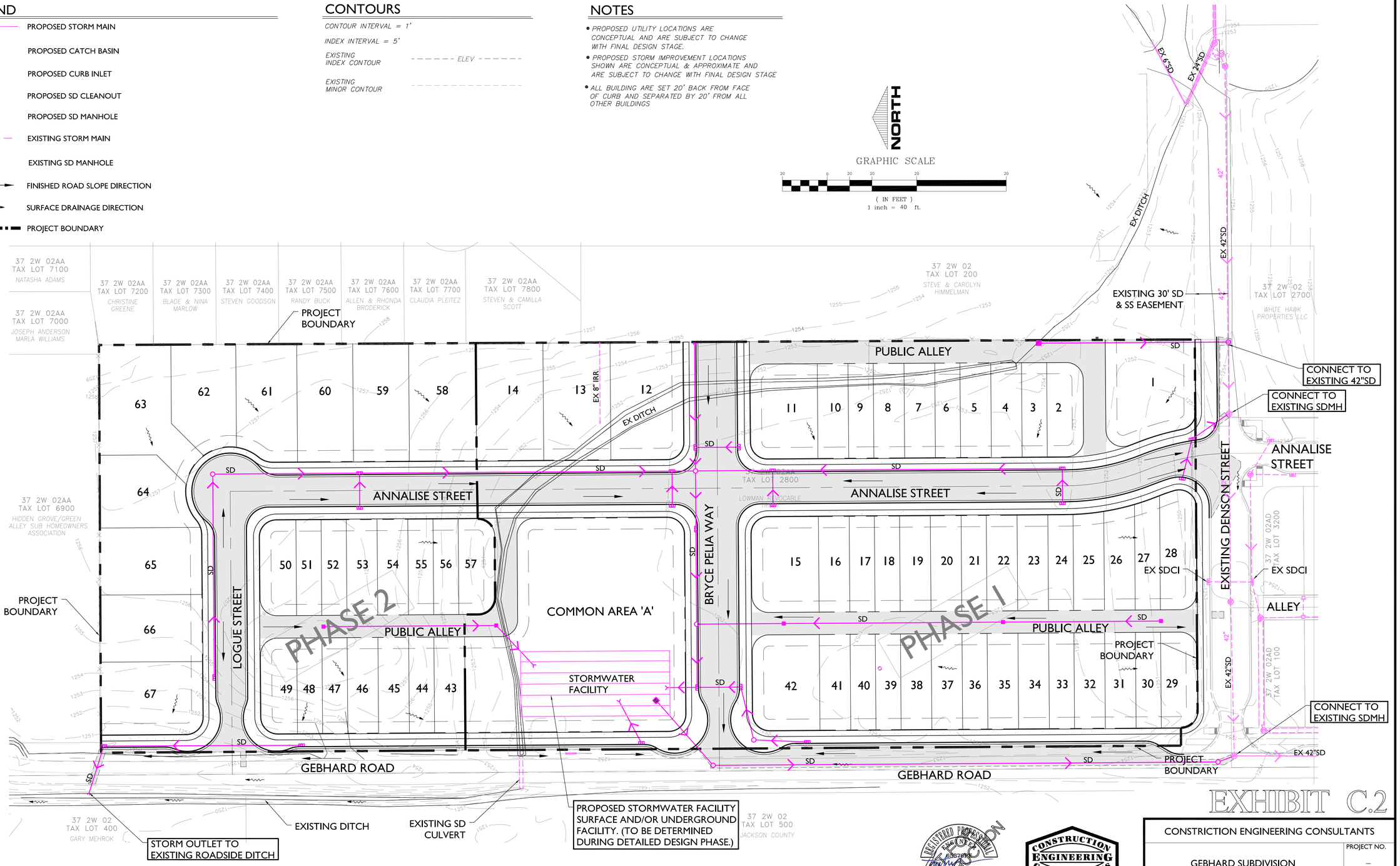


EXHIBIT C.2

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 11, 2006
ANTHONY M. BARKE
EXPIRES 12/31/25

CONSTRUCTION ENGINEERING CONSULTANTS INC.
P.O. BOX 1724 - MEDFORD - OR 97501
PH. (541) 779-5268

CONSTRICTION ENGINEERING CONSULTANTS

GEBHARD SUBDIVISION
PHASE 1 & 2
CONCEPTUAL GRADING & DRAINAGE PLAN

PROJECT NO. –

DRAWING NO. –

NAME: _GEBHARD_CONCEPT_SHEETS.DWG PROJ.: 22-15 PLOT DATE: 7/10/2024

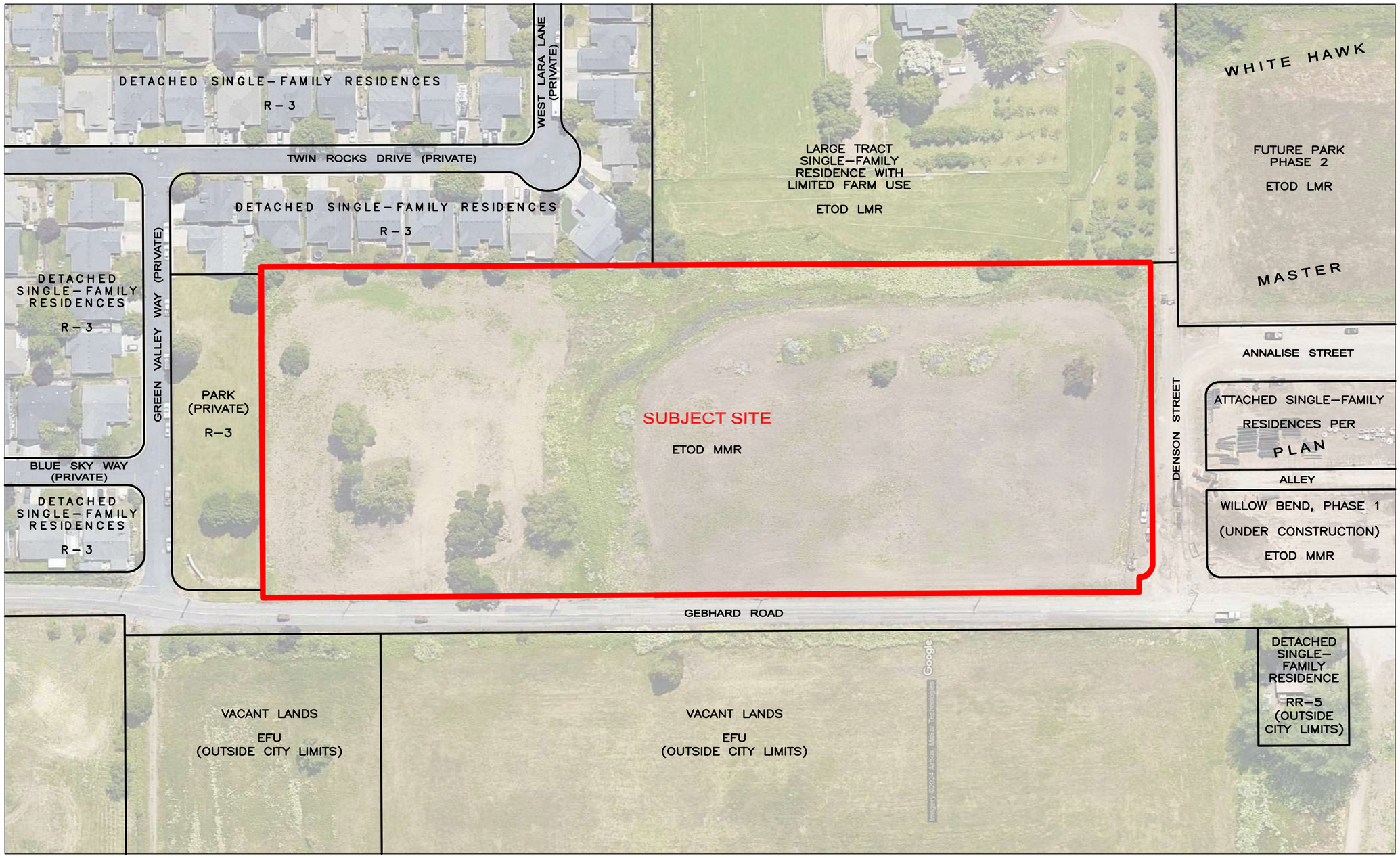
EXHIBIT "4"

ADJACENT LAND USE PLAN

Located in the Northeast One-quarter of Section 2, Township 37 South, Range 2 West of the Willamette Meridian, in the City of Central Point, Jackson County, Oregon.

PREPARED FOR:

LOWMAN REVOCABLE TRUST
4462 Coal Mine Road
Medford, OR 97504



GENERAL SURVEY NOTES:

The property and right-of-way lines depicted hereon are approximate locations only and are not to be construed or utilized for their true locations.

0' 80' 160' 240'

SCALE 1" = 80'

REGISTERED PROFESSIONAL LAND SURVEYOR

Robert V. Neathamer

OREGON
JULY 19, 1994
ROBERT V. NEATHAMER
LS 2675

RENEWAL DEC. 31, 2024

PREPARED BY: Neathamer Surveying, Inc.
3126 State St, Suite 203
P.O. Box 1584
Medford, Oregon 97501
Phone (541) 732-2869
FAX (541) 732-1382

PLOT DATE: October 8, 2024 PROJECT NUMBER: 17023

Jackson County Assessor's Map No: 37 2W 02AA, Tax Lot 2800

Drawing N:\NSI Projects\Carrico-Lowman-Carlow Projects\17023 Gebhard Village\Carlson\Adjacent Land Use Map.dwg

© NR

Gebhard Village Master Plan within ETOD Type III Application

Traffic Impact Analysis

October 2, 2024

Prepared By:



Transportation Engineering, LLC

Southern Oregon Transportation Engineering, LLC

Gebhard Village Master Plan within ETOD Type III Application

Traffic Impact Analysis

October 2, 2024

Prepared By:

Southern Oregon Transportation Engineering, LLC



TABLE OF CONTENTS

I. EXECUTIVE SUMMARY **5**

II. INTRODUCTION **7**
Background 7
Project Location 7
Project Description 7

III. EXISTING YEAR 2024 NO-BUILD CONDITIONS **10**
Site Conditions 10
Roadway Characteristics 10
Traffic Counts 10
Intersection Capacity and Level of Service 12
Year 2024 No-Build Intersection Operations 13
Year 2024 No-Build 95th Percentile Queuing 13
Crash History 14

IV. DESIGN YEAR 2027 NO-BUILD CONDITIONS **15**
Design Year 2027 No-Build Description 15
Design Year 2027 No-Build Intersection Operations 15
Design Year 2027 No-Build 95th Percentile Queuing 15

V. SITE TRAFFIC **18**
Trip Generation 18
Trip Distribution and Assignment 18

VI. DESIGN YEAR 2027 BUILD CONDITIONS **20**
Design Year 2027 Build Description 20
Design Year 2027 Build Intersection Operations 20
Design Year 2027 Build 95th Percentile Queuing 21
Access and Intersection Spacing 21
Sight Distance 22
Pedestrian and Bicyclist Circulation 23
Turn Lanes 23

VII. CONCLUSIONS **25**

LIST OF TABLES

Table 1: Roadway Classifications and Descriptions....10
Table 2: HCM Level of Service Designations for Stop-Controlled Intersections....12
Table 3: HCM Level of Service Designations for Signalized Intersections....12
Table 4: Year 2027 No-Build Intersection Operations....13
Table 5: Year 2027 No-Build 95th Percentile Queue Lengths....13
Table 6: Study Area Intersection Crash Rates, 2018-2022....14
Table 7: Crash History by Type, 2018-2022....14
Table 8: Design Year 2027 No-Build Intersection Operations....15
Table 9: Design Year 2027 No-Build 95th Percentile Queue Lengths....15
Table 10: Development Trip Generations....18
Table 11: Design Year 2027 Build Intersection Operations....20
Table 12: Design Year 2027 Build 95th Percentile Queue Lengths....21

FIGURES

FIGURE 1: Vicinity Map....8
FIGURE 2: Gebhard Village Conceptual Site Plan....9
FIGURE 3: Year 2024 No-Build Traffic Volumes....11
FIGURE 4: Design Year 2027 No-Build Traffic Volumes....17
FIGURE 5: Development Trip Distributions....19
FIGURE 6: Design Year 2027 Build Traffic Volumes....24

APPENDICES

APPENDIX A: TRAFFIC COUNT DATA, SEASONAL TREND TABLE, CRASH DATA

APPENDIX B: MODEL DATA, ITE TRIP GENERATION GRAPHS, VOLUME DEVELOPMENT

APPENDIX C: YEAR 2024 NO-BUILD SYNCHRO AND SIMTRAFFIC OUTPUT

APPENDIX D: DESIGN YEAR 2027 NO-BUILD SYNCHRO AND SIMTRAFFIC OUTPUT

APPENDIX E: DESIGN YEAR 2027 BUILD SYNCHRO AND SIMTRAFFIC OUTPUT

APPENDIX F: PRELIMINARY SIGNAL WARRANTS, TURN LANE GRAPHS

APPENDIX G: AGENCY REQUIREMENTS

I. EXECUTIVE SUMMARY

Summary

Southern Oregon Transportation Engineering, LLC prepared a traffic impact analysis for a proposed 78-unit residential subdivision (Gebhard Village) within the Eastside Transit Oriented Development (ETOD) overlay. The project site is located at 4920 and 4922 Gebhard Road on property identified on the Jackson County Assessor's Map as 372W02AA Tax Lot 2800 in Central Point, Oregon.

Proposed development includes six single family residential (SFR) detached, 22 SFR attached, and 50 multifamily residential (MFR) dwelling units for a total of 78 units. This is estimated to generate 530 average daily trips (ADT) with 37 trips occurring during the a.m. peak hour and 46 during the p.m. peak hour. Access at the time of development is proposed on Gebhard Road at two new local street intersections (Bryce Pelia Way and Logue Street) and one existing local street intersection (Denson Street). The existing Annalise Street will extend north through Gebhard Village as well. Future streets within the subdivision will extend east, north, and south.

Five study area intersections were evaluated under year 2024 no-build, design year 2027 no-build, and design year 2027 build conditions during the a.m. and p.m. peak hours.

Conclusions

The findings of the traffic impact analysis conclude that the proposed 78-unit Gebhard Village Subdivision can be approved without causing adverse impacts on the transportation system. The analysis evaluated street and intersection capacity, sight distance, queuing, crash history, turn lanes, signal warrants, and access spacing. A summary of results is provided below.

1. The two-way stop-controlled intersection of Beebe Road / Hamrick Road is shown to exceed City LOS "D" standards under all analysis scenarios. Signal warrants were not shown to be met under existing or design year no-build or build conditions, but a traffic signal is the City planned improvement in two to four years. With a traffic signal in place, the intersection will be adequately mitigated.
2. No safety concerns were identified as a result of 95th percentile queue lengths.
3. New local street intersections on Gebhard Road were shown to meet AASHTO recommended intersection sight distances. We recommend landscaping, above ground utilities, and site signing be located and maintained along the site frontage such that adequate sight distance is maintained.
4. No safety concerns were identified as a result of crash history within the study area.
5. Right and left turn lanes on Gebhard Road were evaluated under design year 2027 build conditions and not shown to be met (warranted).
6. The proposed new local street intersection of Logue Street / Gebhard Road is not shown to meet intersection spacing standards as set forth in the Public Works Standards and Specifications Table 300-4, which requires 300 feet between intersections on a Collector Street. The proposed location, however, is approximately 235 feet south of Green Valley Way and is not shown to have any safety concerns. Sight distance is shown to be adequate, there is no history of collisions along Gebhard Road, and a center turn lane is not shown to be warranted at the proposed location.

This analysis was undertaken to address issues of compliance with the City of Central Point Municipal Code (CCMC) 17.66.030(A)(1)(a), which requires developments on sites that involve two or more acres to provide a Master Plan. Master Plans are subject to Type III land use procedures.

The analysis complies with the City of Central Point and Jackson County Transportation System Plans. Based upon our analysis, streets and intersections that serve the subject property will accommodate projected a.m. and p.m. peak hour traffic volumes without adverse transportation impacts.

II. INTRODUCTION

Background

Southern Oregon Transportation Engineering, LLC prepared a traffic impact analysis for a proposed 78-unit residential subdivision (Gebhard Village) within the ETOD overly. The project site is located at 4920 and 4922 Gebhard Road in Central Point, Oregon.

A traffic impact analysis (TIA) is required by the City of Central Point in their land development code section 17.05.900 to address impacts for a Type III procedural application. The scope of the analysis includes evaluating development impacts within the local area to ensure performance standards are maintained and no safety concerns are identified.

Access at the time of development is proposed on Gebhard Road through two new local street intersections (Bryce Pelia Way and Logue Street) and Denson Street. Future streets within the subdivision will extend east, north, and south. Study area intersections include:

1. Beebe Road / Hamrick Road
2. Gebhard Road / Wilson Road
3. Denson Street / Gebhard Road
4. Future Bryce Pelia / Gebhard Road
5. Future Logue Street / Gebhard Road

Study area intersections were evaluated under year 2024 no-build, design year 2027 no-build, and design year 2027 build conditions during the a.m. and p.m. peak hours.

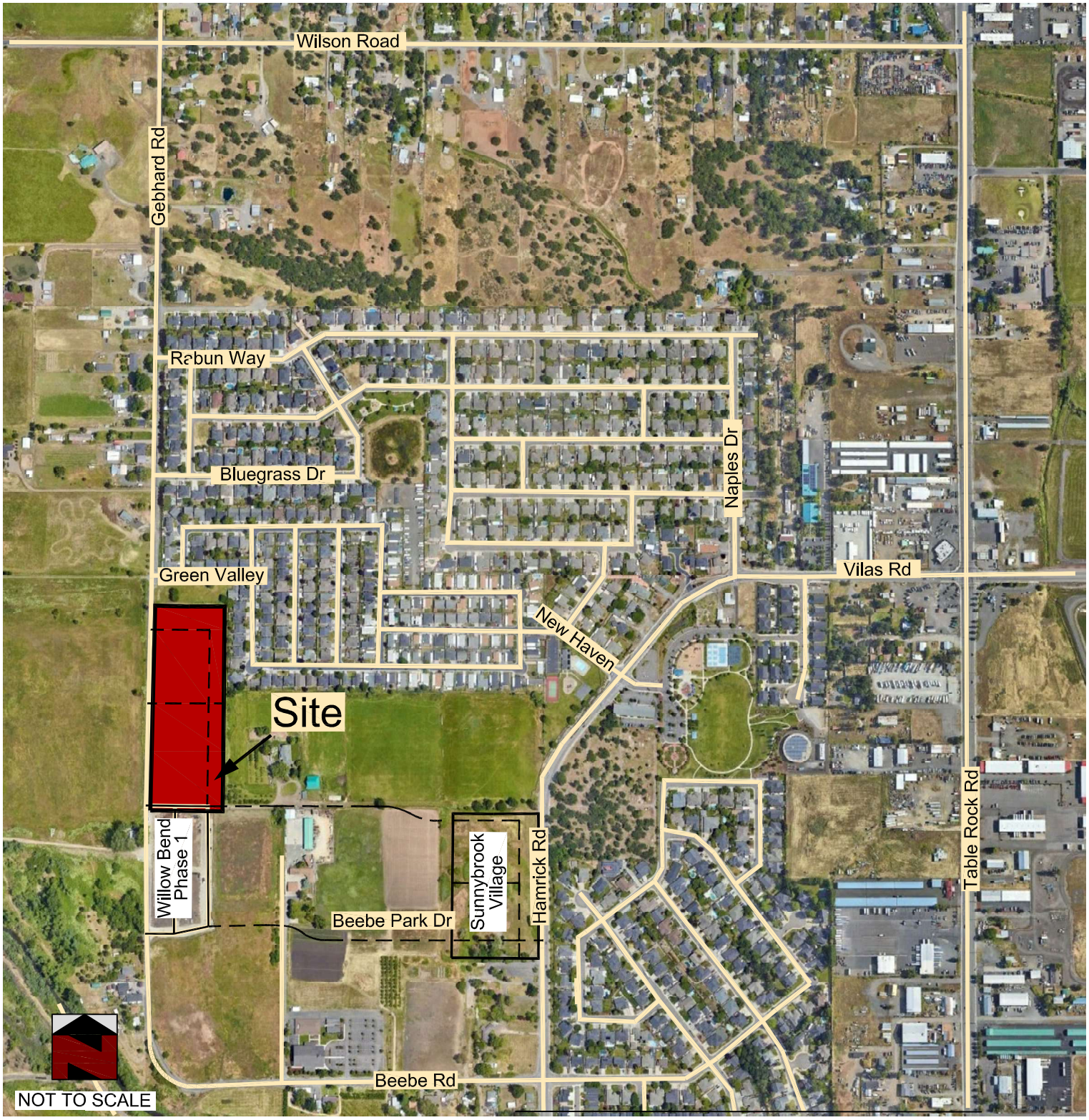
Project Location

The subject property is located along the east side of Gebhard Road, south of Green Valley Subdivision on Township 37S Range 2W Section 02AA, including Tax Lot 2800. Refer to Figure 1 for a vicinity map. Refer to Figure 2 for a conceptual site plan.

Project Description

The proposed Gebhard Village Master Plan is estimated to have 78 residential units consisting of single family residential (SFR) detached, SFR attached, and multifamily residential (MFR) dwelling units. The development is estimated to generate 530 ADT with 37 trips occurring during the a.m. peak hour and 46 during the p.m. peak hour. All trips are considered new trips on the transportation system. Build out is expected by year 2027.

Figure 1 : Vicinity Map

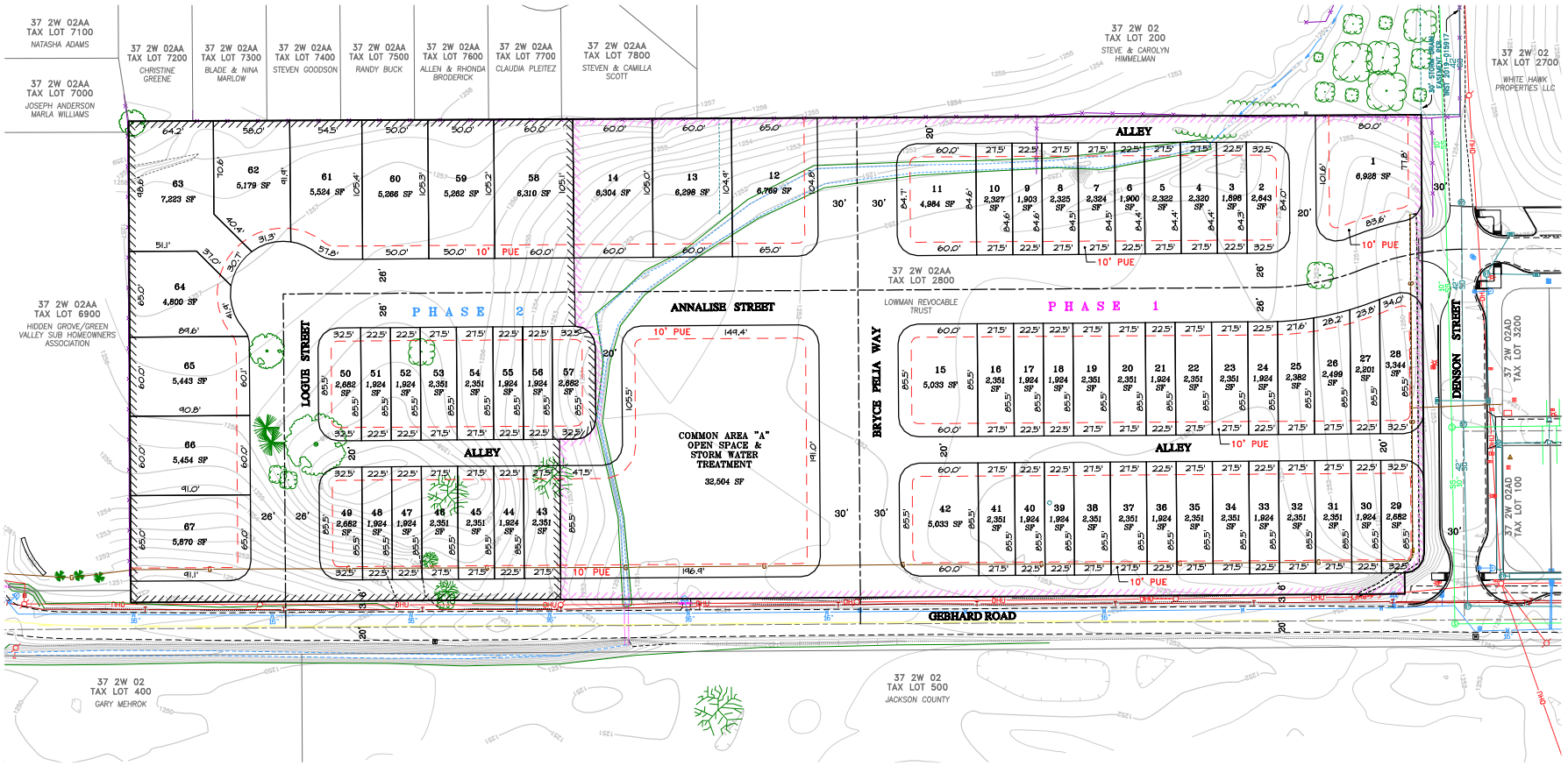


SOUTHERN OREGON TRANSPORTATION ENGINEERING, LLC

Medford, Oregon 97504
ph 541.941.4148 office 541.608.9923
email: Kim.parducci@gmail.com

Gebhard Village Subdivision
Master Site Plan (ETOD)
Traffic Impact Analysis
Central Point, Oregon

Figure 2 : Conceptual Site Plan



REDUCED SCALE

REGISTERED PROFESSIONAL LAND SURVEYOR

Robert V. Neathamer

OREGON
JULY 19, 1994
ROBERT V. NEATHAMER
2675

Renewal Date 12/31/24

III. EXISTING YEAR 2024 NO-BUILD CONDITIONS

Site Conditions

The subject property is located along the east side of Gebhard Road south of Green Valley Subdivision on 372W02AA, including Tax Lot 2800. The property is currently vacant. Access is proposed on Gebhard Road through two new local street intersections and one existing local street intersection (Denson Street) with future roadway stubs to the east, south, and north.

Roadway Characteristics

The project study area includes intersections along Gebhard Road and Beebe Road between Wilson Road and Hamrick Road. Table 1 provides a summary of existing roadway classifications and descriptions.

Table 1 - Roadway Classifications and Descriptions

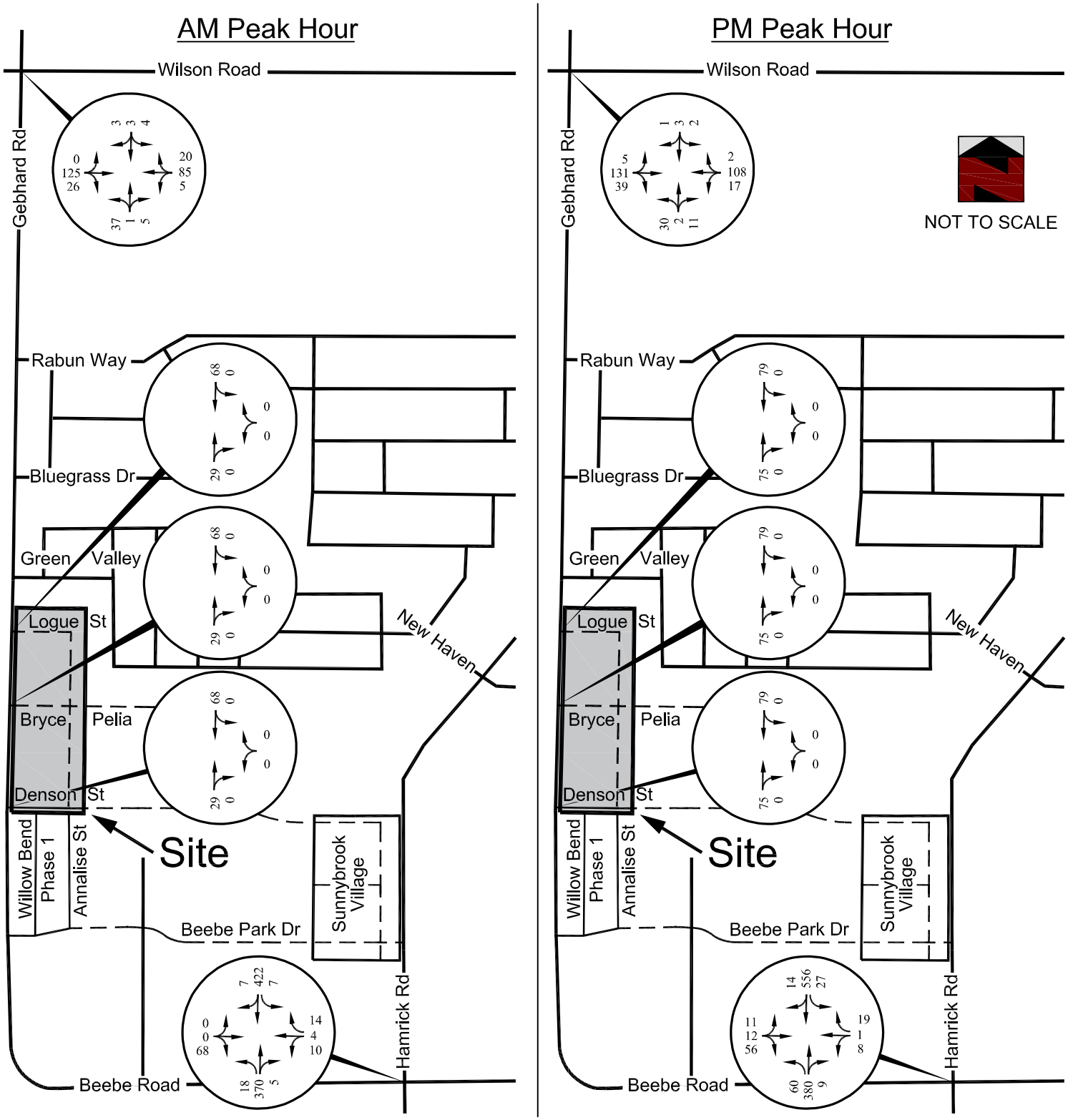
Roadway	Jurisdiction	Functional Classification	Lanes	Sidewalks / Bike Lanes	Speed (MPH)
Beebe Road, west of Hamrick	Central Point	Collector	2	No / No	40
Beebe Road, east of Hamrick	Central Point	Local	2	Yes / No	25
Hamrick Road, north of Biddle	Central Point	Minor Arterial	3	Partial / Yes	40
Gebhard Road	Central Point	Collector	2	No / No	40
Wilson Road	Jackson County	Rural Local	2	No / No	45
Logue Street	Central Point	Proposed Local	2	Yes / No	Proposed 25
Bryce Pelia Way	Central Point	Proposed Local	2	Yes / No	Proposed 25
Denson Street	Central Point	Local	2	Yes / No	25
Annalise Street	Central Point	Proposed Local	2	Yes / No	Proposed 25

MPH = miles per hour

Traffic Counts

Southern Oregon Transportation Engineering gathered manual traffic counts from 7:00-9:00 a.m. and 3:00-6:00 p.m. at the intersection of Beebe Road and Hamrick Road in March of 2023. Jackson County supplied a manual count at Gebhard Road and Wilson Road from June of 2023. Counts were seasonally adjusted to represent peak conditions, which account for fluctuations that occur throughout the year. Adjusted traffic volumes are provided in Figure 3 for year 2024 no-build conditions during the a.m. and p.m. peak hours. Refer to Appendix A for count data and the ODOT Seasonal Trend Table.

Figure 3: Year 2024 No-Build Traffic Volumes



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Gebhard Village Subdivision
Master Site Plan (ETOD)
Traffic Impact Analysis
Central Point, Oregon

Intersection Capacity and Level of Service

Intersection capacity calculations were conducted utilizing the methodologies presented in the *Highway Capacity Manual, 6th Edition*. Capacity and level of service calculations for unsignalized intersections were prepared using "SYNCHRO" 11 timing software.

Level of service quantifies the degree of comfort afforded to drivers as they travel through an intersection or along a roadway section. The level of service methodology was developed to quantify the quality of service of transportation facilities. Level of service is based on total delay, defined as the total elapsed time from when a vehicle stops at the end of a queue until the vehicle departs from the stop line. Level of service ranges from "A" to "F", with "A" indicating the most desirable condition and "F" indicating an unsatisfactory condition. The HCM LOS designations for stop-controlled and signalized intersections are provided in Tables 2 and 3.

Table 2 – HCM Level of Service Designations for Stop-Controlled Intersections

Level of Service	Delay Range
A	< 10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F	> 50

Table 3 – HCM Level of Service Designations for Signalized Intersections

Level of Service	Delay Range
A	< 10
B	>10 – 20
C	>20 – 35
D	>35 – 55
E	>55 – 80
F	> 80

Streets within the study area are maintained by City of Central Point and Jackson County. The City of Central Point requires all study area intersections to operate at level of service (LOS) "D" or better. Jackson County uses a volume-to-capacity (v/c) ratio performance standard with a minimum performance of 0.95 at Wilson Road / Gebhard Road. Mitigation is required when study area intersections exceed performance standards and operate worse than under no-build conditions.

Year 2024 No-Build Intersection Operations

Study area intersections were evaluated under year 2024 no-build conditions. Results are summarized in Table 4.

Table 4 - Year 2024 No-Build Intersection Operations

Intersection	Performance Standard	Traffic Control	A.M. Peak	P.M. Peak
Beebe Rd / Hamrick Rd	LOS D	TWSC	C, 23.9 sec WBLT	***E, 41.7 sec WBLT***
Gebhard Rd / Wilson Rd	V/C 0.95	TWSC	0.07 NB	0.10 NB

LOS = Level of Service, WBLT = westbound left/through, NB = northbound, TWSC = two-way stop control, sec = seconds
Note: Exceeded performance standards are shown in bold, italic

Results of the analysis show the intersection of Beebe Road / Hamrick Road exceeds the City LOS "D" performance standard under year 2024 no-build conditions during the p.m. peak hour. The intersection, however, is not shown to meet preliminary signal warrants at this time. All other study area intersections are shown to operate acceptably (within performance standards). Synchro output sheets are provided in Appendix C.

Year 2024 No-Build 95th Percentile Queuing

Queue lengths are reported as the average, maximum, or 95th percentile queue length. The 95th percentile queue length is used for design purposes and is the queue length reported in this analysis. Five simulations were run and averaged in SimTraffic to determine 95th percentile queue lengths at study area intersections under year 2023 no-build conditions during the a.m. and p.m. peak hours. Results are summarized in Table 5.

Table 5 - Year 2024 No-Build 95th Percentile Queue Lengths

Intersection	Movement	Available Link (ft)	A.M. Peak	P.M. Peak
Beebe / Hamrick Rd	EB Left/Through/Right	200	50	50
	WB Left/Through	150	50	25
	WB Right	150	25	50
	NB Left	300	25	50
	SB Left	200	25	50
Wilson / Gebhard Rd	EB Left/Through/Right	925	0	25
	WB Left/Through/Right	250	25	25
	NB Left/Through/Right	1320	50	50
	SB Left/Through/Right	175	50	25

EB = eastbound, WB = westbound, NB = northbound, SB = southbound
Note: Exceeded performance standards are shown in bold, italic

Results of the analysis show all study area 95th percentile queue lengths stay within available storage lengths under year 2024 no-build conditions. All reported queues are 50 feet or less. A full queuing and blocking report is provided in Appendix C.

Crash History

Crash data for the most recent five-year period was gathered from ODOT's online crash database. Results were gathered for the period of January 1, 2018 through December 31st, 2022. Crash data is gathered to identify crash patterns that could be attributable to geometric or operational deficiencies, or crash trends of a specific type that would indicate the need for further investigation. The crash rate at each intersection is also compared to the ODOT 90th percentile crash rate. Intersections that exceed the ODOT 90th percentile rate are flagged for further review. Tables 6 and 7 provide intersection crash rates and types of collisions at study area intersections. Intersections with no crashes in five years were not included. Full crash reports are provided in Appendix A.

Table 6 - Study Area Intersection Crash Rates, 2018-2022

Intersection	2018	2019	2020	2021	2022	Total Crashes	ADT	Crash Rate	ODOT 90th % Rate[1]
Beebe Rd / Hamrick	0	0	0	0	1	1	11,550	0.047	0.408[1]

[1] 90th Percentile Crash Rate from Exhibit 4-1 in ODOT's Analysis Procedures Manual v2
ADT=average daily traffic

Table 7 - Crash History by Type, 2018-2022

Intersection	Collision Type					Severity		
	Rear-End	Turning	Angle	Pedestrian/ Bicyclist	Other	Non-Injury	Injury	Fatal
Beebe Rd / Hamrick	1	0	0	0	0	0	1[1]	0

1. Injury A collision

Results of the crash analysis show one reported collision at the stop-controlled intersection of Beebe Road / Hamrick Road in the most recent five-year period. The collision occurred in late November of 2022 and was a rear-end collision in the southbound direction. It occurred at 4:00 p.m. on a clear, dry day. The cause was driver distraction. A driver traveling southbound was following too close and rear-ended a driver slowing down to pull into the left turn pocket. Both drivers experienced some form of injury, but the distracted driver had possible Type A injuries, which are more severe. A collision resulting from driver distraction is a random event not caused by traffic or any design flaws.

There were no reported collisions at the stop-controlled intersection of Wilson Road / Gebhard Road. Neither study area intersection is identified as a SPIS site. No further investigation is shown to be necessary.

IV. DESIGN YEAR 2027 NO-BUILD CONDITIONS

Design Year 2027 No-Build Description

Design year 2027 no-build conditions represent build year conditions for the study area without consideration of proposed development trips. This condition is evaluated to determine how a study area will be impacted by area background growth. Background growth in this report was developed using base and future year volumes in the Rogue Valley Council of Governments (RVCOG) Transportation Model. Streets in the local area were shown to have estimated annual growth rates ranging from 1.0% to 4.5%. Refer to Figure 4 for design year 2027 no-build traffic volumes during the a.m. and p.m. peak hours. Model data is provided in Appendix B.

Design Year 2027 No-Build Intersection Operations

Study area intersections were evaluated under design year 2027 no-build conditions during the a.m. and p.m. peak hours. Results are summarized in Table 8.

Table 8 – Design Year 2027 No-Build Intersection Operations

Intersection	Performance Standard	Traffic Control	A.M. Peak	P.M. Peak
Beebe Rd / Hamrick Rd	LOS D	TWSC	D, 25.5 sec WBLT	***E, 46.3 sec WBLT***
Gebhard Rd / Wilson Rd	V/C 0.95	TWSC	0.08 NB	0.12 NB

LOS = Level of Service, WBLT = westbound left/through, TWSC = two-way stop control, sec = seconds
Note: Exceeded performance standards are shown in bold, italic

Results of the analysis show the intersection of Beebe Road / Hamrick Road continues to exceed the City LOS "D" performance standard under design year 2027 no-build conditions during the p.m. peak hour. Preliminary signal warrants are still not shown to be met. All other study area intersections are shown to operate acceptably (within performance standards). Synchro output sheets are provided in Appendix D for further reference.

Design Year 2027 No-Build 95th Percentile Queuing

Five simulations were run and averaged in SimTraffic to determine 95th percentile queue lengths at study area intersections under design year 2027 no-build conditions. Results are summarized in Table 9 during the a.m. and p.m. peak hours.

Table 9 – Design Year 2027 No-Build 95th Percentile Queue Lengths

Intersection	Movement	Available Link (ft)	A.M. Peak	P.M. Peak
Beebe / Hamrick Rd	EB Left/Through/Right	200	50	75
	WB Left/Through	150	50	50
	WB Right	150	25	50
	NB Left	300	25	50
	SB Left	200	25	50

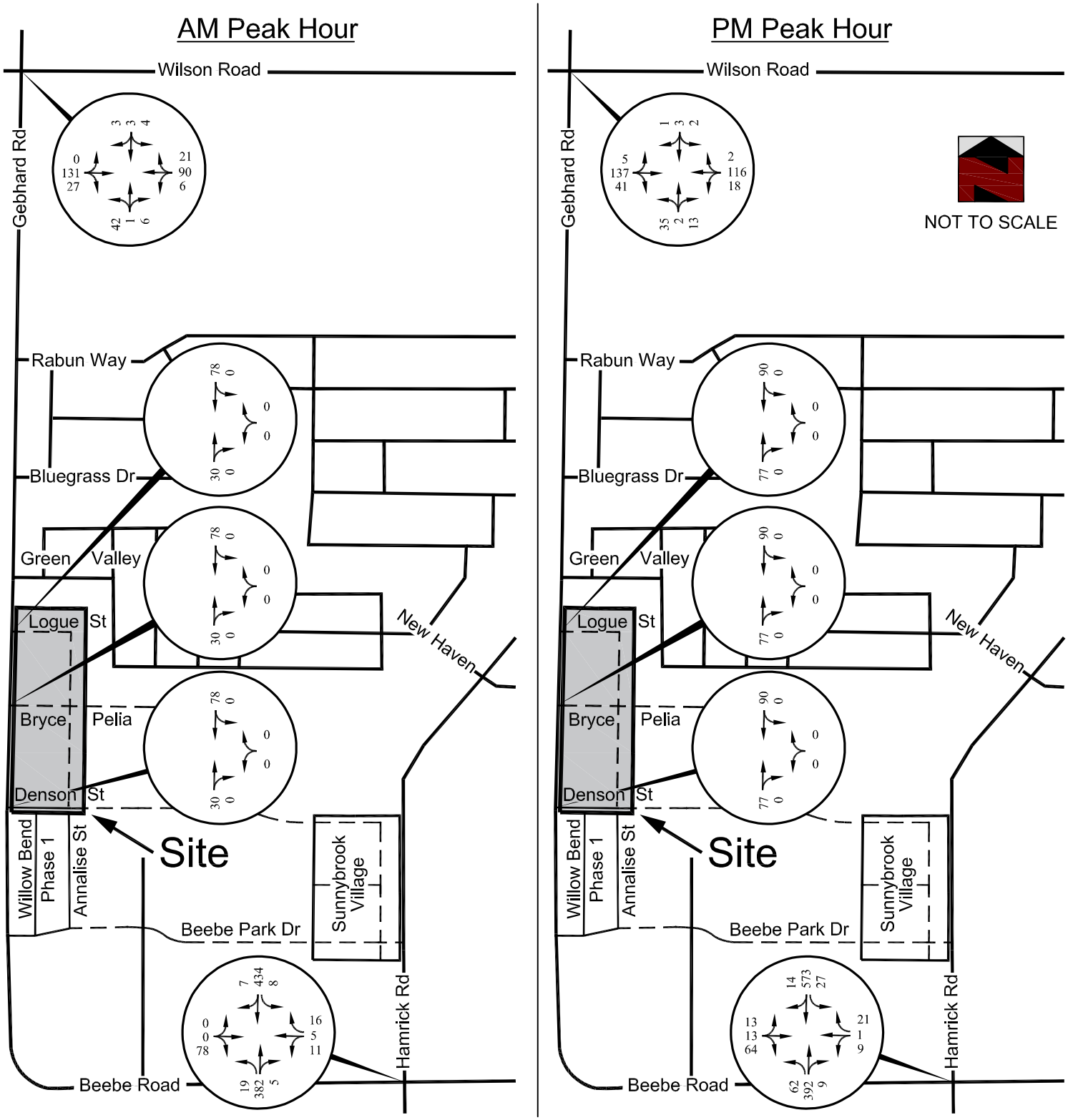
EB = eastbound, WB = westbound, NB = northbound, SB = southbound
Note: Exceeded performance standards are shown in bold, italic

Table 9 Continued – Design Year 2027 No-Build 95th Percentile Queue Lengths				
Intersection	**Movement**	**Available Link (ft)**	**A.M. Peak**	**P.M. Peak**
Wilson / Gebhard Rd	EB Left/Through/Right	925	0	25
	WB Left/Through/Right	250	25	25
	NB Left/Through/Right	1320	50	50
	SB Left/Through/Right	175	50	25

EB = eastbound, WB = westbound, NB = northbound, SB = southbound
Note: Exceeded performance standards are shown in bold, italic

Results of the analysis show all study area 95th percentile queue lengths continue to stay within available storage lengths under design year 2027 no-build conditions. The eastbound queue on Beebe Road at Hamrick Road increases from 50 feet to 75 feet as a result of background growth. All other queue lengths continue to be 50 feet or less. A full queuing and blocking report is provided in Appendix D.

Figure 4: Design Year 2027 No-Build Traffic Volumes



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email: Kim.parducci@gmail.com

Gebhard Village Subdivision
Master Site Plan (ETOD)
Traffic Impact Analysis
Central Point, Oregon

V. SITE TRAFFIC

Trip Generation

Trip generation calculations for the proposed 78-unit residential subdivision were prepared using the Institute of Transportation Engineers (ITE) *Trip Generation*, 11th Edition. An ITE rate was used for land use codes 210 – Single Family Detached Housing, 215 – Single Family Attached Housing, and 220 – Multifamily Housing (Low-Rise). All trips were considered new trips on the transportation system. A summary is provided in Table 10. ITE graphs are provided in Appendix B.

Table 10 – Development Trip Generations

Land Use	Unit	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
210-Single Family Detached	DU	6	76[1]	6[1]	2	4	7[1]	4	3
215-Single Family Attached	DU	22	117[1]	11	3	8	13	7	6
220-Multifamily Housing	DU	50	337	20	5	15	26	16	10
	Total	78	**530**	**37**	10	27	**46**	27	19

DU = dwelling unit
1. Trips calculated using fitted curve equation

Trip Distribution and Assignment

Development trips were distributed to/from the Gebhard Village Subdivision based on traffic movements on Gebhard Road at Wilson Road and on Beebe Road at Hamrick Road. This resulted in 35-40% to the north, 45-60% from the north, 55-60% to the south, and 40-65% from the south during the a.m. and p.m. peak hours. Once on the transportation system, trips were distributed according to existing splits from manual traffic counts at study area intersections. Those splits are provided below.

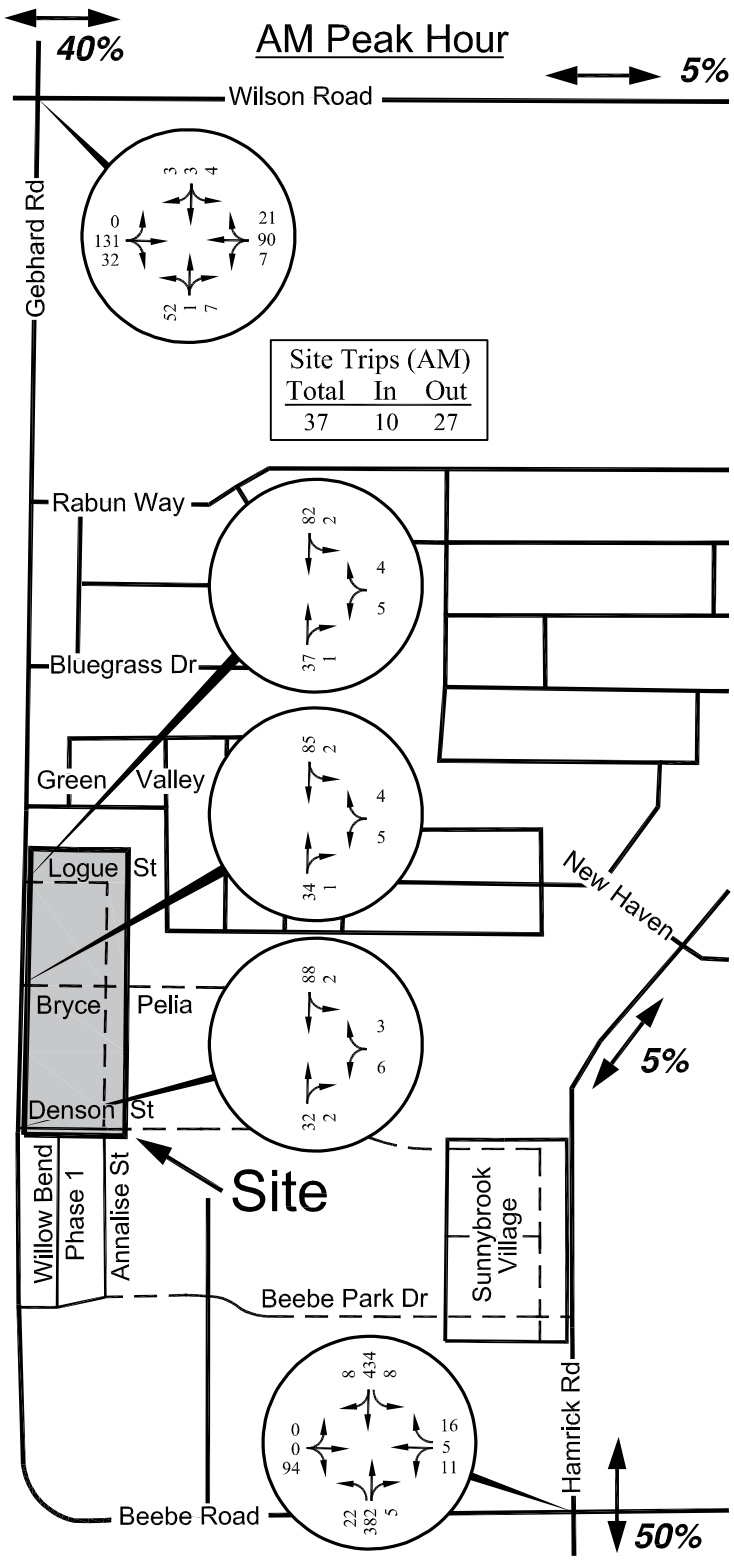
AM Peak Hour

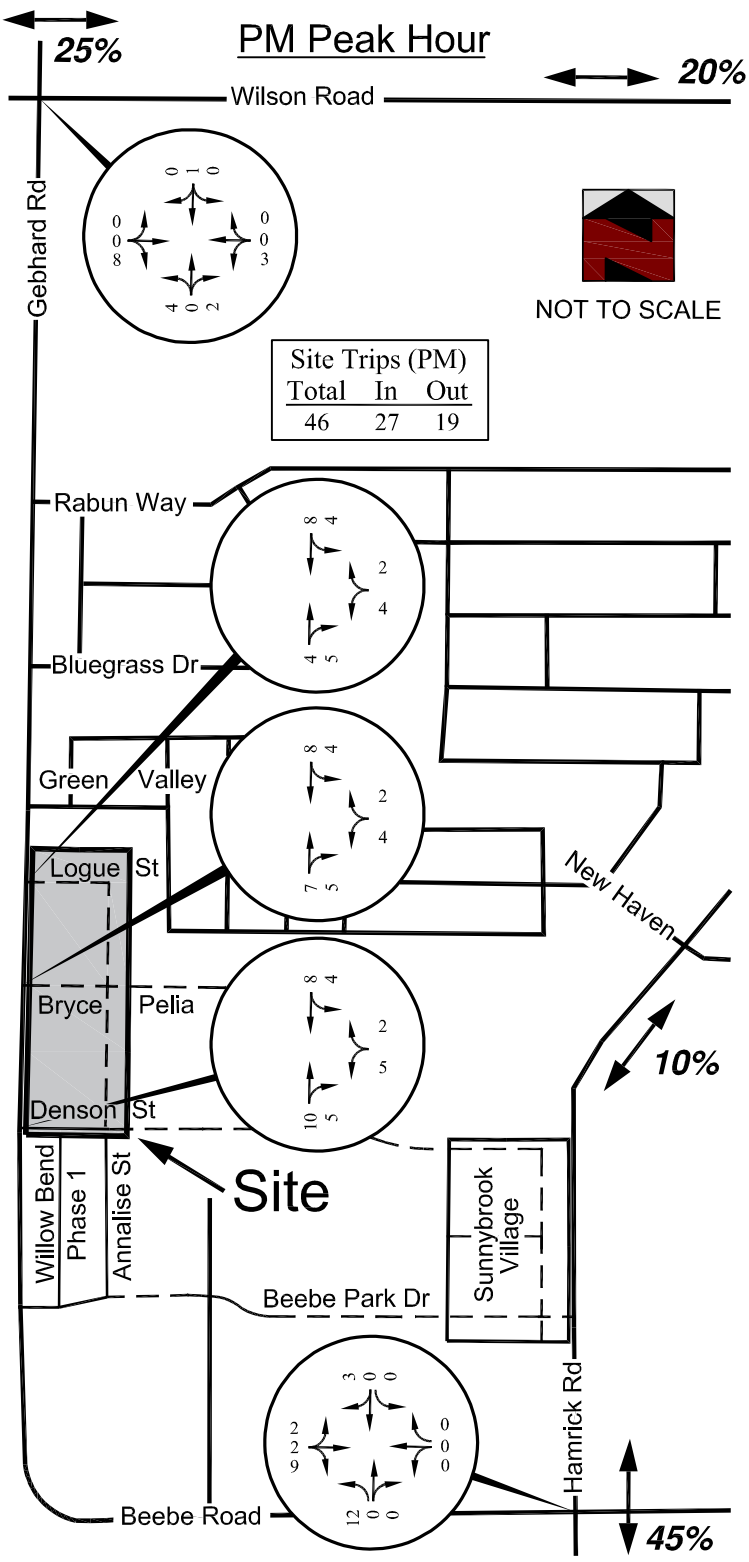
40% to/from the west on Wilson Rd
5% to/from the east on Wilson Rd
50% to/from the south on Hamrick Rd
5% to/from the north on Hamrick Rd
100%

PM Peak Hour

25% to/from the west on Wilson Rd
20% to/from the east on Wilson Rd
45% to/from the south on Hamrick Rd
10% to/from the north on Hamrick Rd
100%

Figure 5: Development Trips Distributions





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Gebhard Village Subdivision
Master Site Plan (ETOD)
Traffic Impact Analysis
Central Point, Oregon

VI. DESIGN YEAR 2027 BUILD CONDITIONS

Design Year 2027 Build Description

Build conditions represent no-build conditions for a study area with the addition of proposed development trips considered. Build conditions are compared to no-build conditions to determine what impacts and/or mitigation measures will result from proposed development. Build conditions in the design year 2027 scenario include development trips from the proposed Gebhard Village Subdivision. Refer to Figure 6 for design year 2027 build traffic volumes during the a.m. and p.m. peak hours.

Design Year 2027 Build Intersection Operations

Study area intersections were evaluated under design year 2027 build conditions. Results are summarized in Table 11.

Table 11 – Design Year 2027 Build Intersection Operations

Intersection	Performance Standard	Traffic Control	A.M. Peak	P.M. Peak
Beebe Rd / Hamrick Rd	LOS D	TWSC	D, 26.6 sec WBLT	***F, 51.7 sec WBLT***
Gebhard Rd / Wilson Rd	V/C 0.95	TWSC	0.10 NB	0.14 NB
Logue St / Gebhard St	LOS D	TWSC	A, 8.9 sec WB	A, 9.4 sec WB
Bryce Pelia / Gebhard St	LOS D	TWSC	A, 8.9 sec WB	A, 9.4 sec WB
Denson St / Gebhard St	LOS D	TWSC	A, 9.0 sec WB	A, 9.4 sec WB

LOS = Level of Service, WBLT = westbound left/through, EBLR = eastbound left/right, TWSC=two-way stop control, sec=seconds
Note: Exceeded performance standards are shown in bold, italic

Results of the analysis show the intersection of Beebe Road / Hamrick Road continues to exceed the City LOS "D" performance standard under design year 2027 build conditions during the p.m. peak hour. Preliminary signal warrants are not shown to be met under build conditions, mainly due to side street traffic being primarily right turns, but a traffic signal is planned by the City and expected to be in the 2027/2029 budget. When signal warrants are met, construction of a traffic signal will adequately mitigate intersection operations. We evaluated whether or not an all-way stop could be an interim measure, but the southbound and northbound movements were shown to fail operationally under this scenario. This is not concluded to be a viable interim option.

All other study area intersections are shown to operate acceptably (within performance standards) under design year 2027 build conditions during both peak hours. New local street intersections from the proposed development operate at LOS "A", and the intersection of Wilson Road / Gebhard Road continues to have more than 80% of available capacity for future development. Synchro output sheets are provided in Appendix E for further reference.

Design Year 2027 Build 95th Percentile Queuing

Five simulations were run and averaged in SimTraffic to determine 95th percentile queue lengths at study area intersections under design year 2027 build conditions. Results are summarized in Table 12 for a.m. and p.m. peak hours.

Table 12 – Design Year 2027 Build 95th Percentile Queue Lengths

Intersection	Movement	Available Link (ft)	A.M. Peak	P.M. Peak
Beebe / Hamrick Rd	EB Left/Through/Right	200	75	75
	WB Left/Through	150	50	50
	WB Right	150	50	50
	NB Left	300	25	50
	SB Left	200	25	25
Wilson / Gebhard Rd	EB Left/Through/Right	925	0	25
	WB Left/Through/Right	250	25	25
	NB Left/Through/Right	1320	50	50
	SB Left/Through/Right	175	50	25
Logue St / Gebhard Rd	WB Left/Right	100	50	25
	SB Left/Through	250	25	25
Bryce Pelia / Gebhard Rd	WB Left/Right	100	25	25
	SB Left/Through	400	0	25
Denson St / Gebhard Rd	WB Left/Right	100	25	25
	SB Left/Through	400	0	25

EB = eastbound, WB = westbound, NB = northbound, SB = southbound
Note: Exceeded performance standards are shown in bold, italic

Results of the analysis show no exceeded queue lengths at study area intersections under design year 2027 build conditions during the a.m. or p.m. peak hours. The eastbound queue on Beebe Road at Hamrick Road continues to be 75 feet. Full queuing and blocking reports are provided in Appendix E.

Access and Intersection Spacing

Access at the time of development will be provided from two new east-west local public street intersections on Gebhard Road and one existing local public street intersection. The two new intersections include Logue Street and Bryce Pelia Way. Denson Street already exists at the southern property line. Logue Street is proposed approximately 235 feet (measured centerline to centerline) south of Green Valley Way. Bryce Pelia Way is proposed approximately 435 feet south of Logue Street, and Denson Street is currently approximately 460 feet south of Bryce Pelia Way. Annalise Street is an existing north-south local street that will extend from the south property line north through the proposed Gebhard Village Subdivision. Denson Street and Bryce Pelia Way will stub to the east for future connections.

Gebhard Road is classified as a collector in the City of Central Point TSP. New east-west streets are proposed as local streets. The intersection spacing standard in the Public Works Standards and Specifications Table 300-4 for a local street onto a collector street is 300 feet. The proposed location

of Logue Street does not meet this intersection spacing standard, but adequate spacing is provided between Logue Street and Bryce Pelia Way, and between Bryce Pelia Way and Denson Street.

Sight Distance

Sight distance was measured in the field at the two new proposed east-west local streets on Gebhard Road and at the Denson Street intersection. Sight distance is provided at intersections to allow drivers adequate time to perceive other vehicles approaching the intersection and react in time to avoid collisions. The driver of a vehicle approaching an intersection should have an unobstructed view of the entire intersection. Likewise, stopped vehicles at intersections should have a sufficient view of the intersecting roadway to decide when to enter or cross without colliding with on-coming vehicles. Minimum sight distances are provided by the American Association of State Highways and Transportation Officials (AASHTO).

Departure sight triangles were considered for left and right turn movements. The length of the leg of the departure sight triangle along the major road for all stop-controlled movements is dependent upon the speed of the major roadway and perception-reaction times of drivers. The minimum stopping sight distance (SSD) represents the minimum sight distance required by AASHTO. The intersection sight distance (ISD) is considered the desirable sight distance by AASHTO. Gebhard Road carries a posted speed of 40 miles per hour (mph). AASHTO recommends a minimum SSD of 305 feet on a roadway with a posted speed of 40 mph. The ISD for left and right turns is 445 feet and 385 feet, respectively.

Gebhard Road in the project vicinity is straight and predominantly flat. There's a small vertical curve just south of Green Valley Way that bends to the east before straightening out, but cars can be seen through the curve and it doesn't appear to limit sight distance from the proposed Logue Street location. Sight distance was measured to be over 500 feet in both directions from Denson Street (currently signed Cleo Street in picture), proposed Bryce Pelia Way, and proposed Logue Street. This is shown to meet both minimum SSD and desirable ISD. We recommend landscaping, above ground utilities, and site signing be located and maintained along the site frontage such that adequate sight distance is maintained. Street visuals are provided below.

From Denson Street looking south



From Denson Street looking north



From proposed Bryce Pelia Way looking south



From proposed Bryce Pelia Way looking north



From proposed Logue Street looking south



From proposed Logue Street looking north



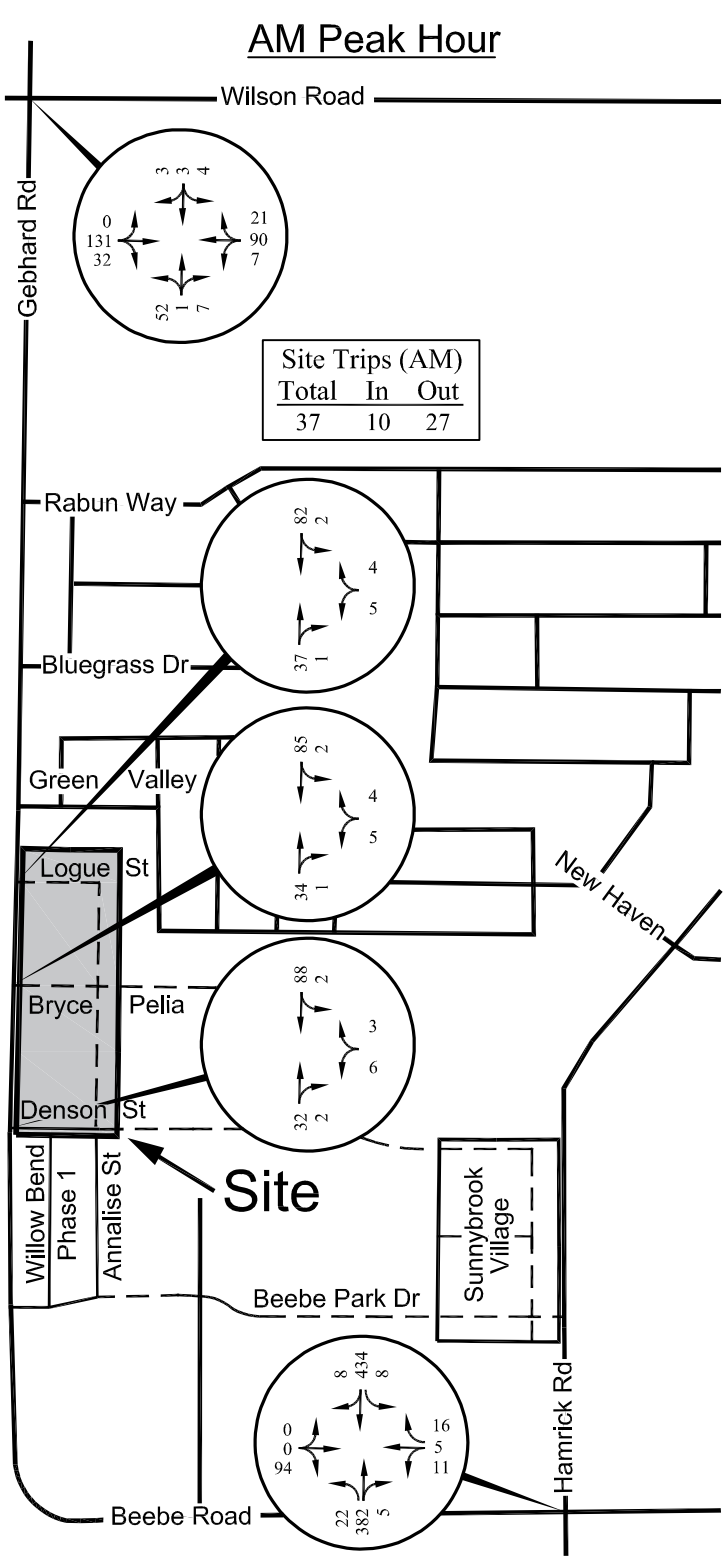
Pedestrian and Bicyclist Circulation

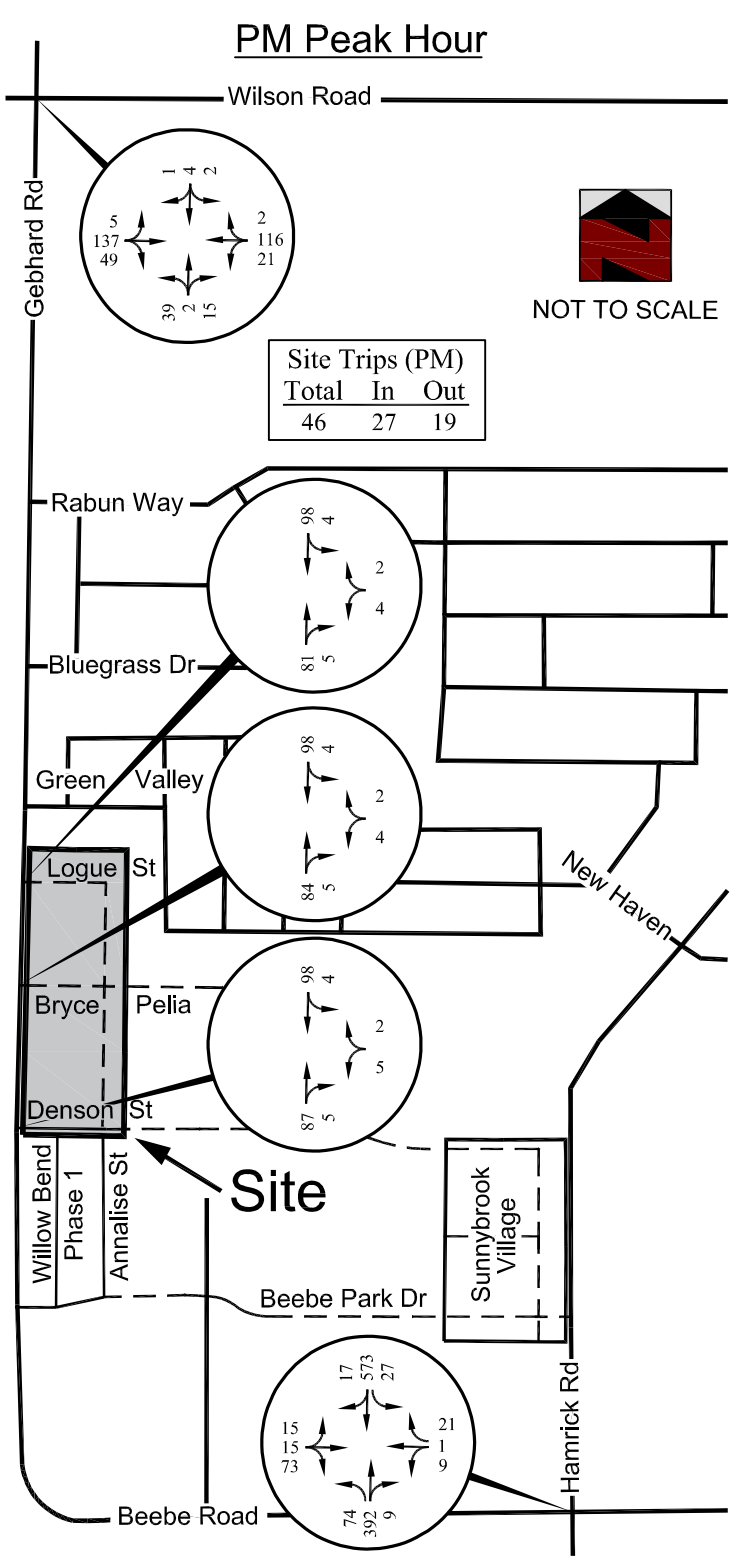
Gebhard Road in the project vicinity is a two-lane facility classified as a Collector. It has no sidewalks or striped bike lanes along the frontage of the development, but sidewalk and a raised multi-use path exist along the east side of Gebhard Road south of the proposed development. Frontage improvements along Gebhard Road for approximately 1,025 feet (along the proposed Gebhard Village Subdivision) will include sidewalk and a raised multi-use path to match improvements to the south. Additionally, new public streets within Gebhard Village will include curb, gutter, and sidewalk. Manual counts showed low pedestrian and bicycle volumes on Gebhard Road under current conditions, but this will increase as the area urbanizes and pedestrian and bicycle facilities extend further north and south.

Turn Lanes

Left and right turn lanes were evaluated at the Denson Street and Gebhard Road intersection under design year 2027 build conditions during the a.m. and p.m. peak hours because it had the highest volume of traffic. Criterion was not shown to be met (or warranted) for either a left or right turn lane. Turn lane graphs are provided in Appendix F.

Figure 6: Design Year 2027 Build Traffic Volumes





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Gebhard Village Subdivision
Master Site Plan (ETOD)
Traffic Impact Analysis
Central Point, Oregon

VII. CONCLUSIONS

Conclusions

The findings of the traffic impact analysis conclude that the proposed 78-unit Gebhard Village Master Plan Development can be approved without causing adverse impacts on the transportation system. The analysis evaluated street and intersection capacity, sight distance, queuing, crash history, turn lanes, signal warrants, and intersection spacing. A summary of results is provided below.

1. The two-way stop-controlled intersection of Beebe Road / Hamrick Road is shown to exceed City LOS "D" standards under all analysis scenarios. Signal warrants were not shown to be met under existing or design year no-build or build conditions, but a traffic signal is the City planned improvement in two to four years. With a traffic signal in place, the intersection will be adequately mitigated.
2. No safety concerns were identified as a result of 95th percentile queue lengths.
3. New local street intersections on Gebhard Road were shown to meet AASHTO recommended intersection sight distances. We recommend landscaping, above ground utilities, and site signing be located and maintained along the site frontage such that adequate sight distance is maintained.
4. No safety concerns were identified as a result of crash history within the study area.
5. Right and left turn lanes on Gebhard Road were evaluated under design year 2027 build conditions and not shown to be met (warranted).
6. The proposed new local street intersection of Logue Street / Gebhard Road is not shown to meet intersection spacing standards as set forth in the Public Works Standards and Specifications Table 300-4, which requires 300 feet between intersections on a Collector Street. The proposed location, however, is approximately 235 feet south of Green Valley Way and is not shown to have any safety concerns. Sight distance is shown to be adequate, there is no history of collisions along Gebhard Road, and a center turn lane is not shown to be warranted at the proposed location.

This analysis was undertaken to address issues of compliance with the City of Central Point Municipal Code (CCMC) 17.66.030(A)(1)(a), which requires developments on sites that involve two or more acres to provide a Master Plan. Master Plans are subject to Type III land use procedures. The analysis complies with the City of Central Point and Jackson County Transportation System Plans. Based upon our analysis, streets and intersections that serve the subject property will accommodate projected a.m. and p.m. peak hour traffic volumes without adverse transportation impacts.

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Gebhard Village Master Plan within ETOD Type III Application

Appendices A-G

October 2, 2024

Prepared By:



Transportation Engineering, LLC

Southern Oregon Transportation Engineering, LLC

Southern
Oregon
Transportation
Engineering, LLC

Appendix A

Traffic Count Data, Seasonal Trend Table, Crash Data

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North-South: Hamrick
East-West: Beebe
Weather: Sunny, Warm
Vehicle: All Vehicles

File Name : Hamrick-Beebe_2023
Site Code : 00000001
Start Date : 3/16/2023
Page No : 1

Groups Printed- All

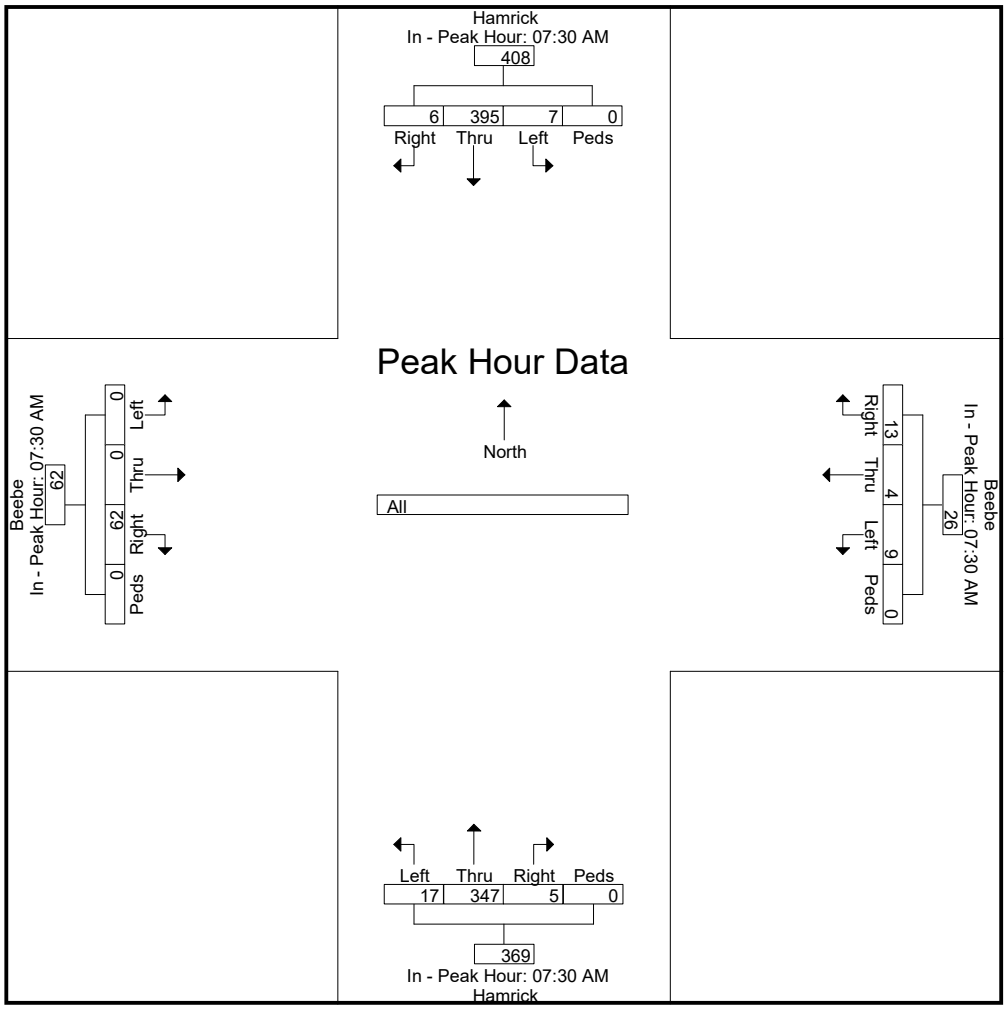
	Hamrick From North					Beebe From East					Hamrick From South					Beebe From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	60	0	1	62	1	0	3	0	4	2	55	1	0	58	1	0	15	0	16	140
07:15 AM	2	88	1	0	91	3	0	3	0	6	2	68	2	0	72	0	0	14	0	14	183
07:30 AM	1	127	2	0	130	1	0	3	0	4	1	95	2	0	98	0	0	22	0	22	254
07:45 AM	4	95	1	0	100	3	1	3	0	7	7	103	2	0	112	0	0	21	0	21	240
Total	8	370	4	1	383	8	1	12	0	21	12	321	7	0	340	1	0	72	0	73	817
08:00 AM	1	72	1	0	74	3	1	4	0	8	5	88	0	0	93	0	0	11	0	11	186
08:15 AM	1	101	2	0	104	2	2	3	0	7	4	61	1	0	66	0	0	8	0	8	185
08:30 AM	1	81	0	0	82	2	0	3	0	5	7	62	2	0	71	0	0	8	1	9	167
08:45 AM	1	91	2	0	94	1	1	2	0	4	5	74	6	0	85	1	0	10	0	11	194
Total	4	345	5	0	354	8	4	12	0	24	21	285	9	0	315	1	0	37	1	39	732
*** BREAK ***																					
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03:15 PM	6	113	3	0	122	1	1	4	0	6	11	76	2	0	89	1	0	8	0	9	226
03:30 PM	7	148	1	1	157	3	1	4	0	8	17	85	3	0	105	0	0	11	2	13	283
03:45 PM	3	121	2	1	127	2	0	4	0	6	12	90	3	1	106	4	4	12	0	20	259
Total	24	507	9	2	542	9	2	17	0	28	52	344	11	1	408	7	4	43	2	56	1034
04:00 PM	8	122	6	2	138	1	1	2	0	4	10	97	1	1	109	5	5	21	0	31	282
04:15 PM	4	123	2	0	129	2	0	5	0	7	15	83	1	0	99	1	1	8	0	10	245
04:30 PM	10	155	3	1	169	2	0	6	1	9	19	86	3	1	109	0	1	10	0	11	298
04:45 PM	4	129	4	0	137	2	0	6	0	8	7	92	2	0	101	0	0	13	0	13	259
Total	26	529	15	3	573	7	1	19	1	28	51	358	7	2	418	6	7	52	0	65	1084
05:00 PM	5	140	1	0	146	1	0	8	1	10	16	87	5	0	108	2	0	3	1	6	270
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05:45 PM	8	108	2	0	118	3	0	5	0	8	10	83	2	0	95	2	0	15	0	17	238
Total	31	458	7	0	496	12	0	22	1	35	56	338	17	0	411	4	3	46	4	57	999
Grand Total	93	2209	40	6	2348	44	8	82	2	136	192	1646	51	3	1892	19	14	250	7	290	4666
Apprch %	4	94.1	1.7	0.3		32.4	5.9	60.3	1.5		10.1	87	2.7	0.2		6.6	4.8	86.2	2.4		
Total %	2	47.3	0.9	0.1	50.3	0.9	0.2	1.8	0	2.9	4.1	35.3	1.1	0.1	40.5	0.4	0.3	5.4	0.2	6.2	

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North-South: Hamrick
East-West: Beebe
Weather: Sunny, Warm
Vehicle: All Vehicles

File Name : Hamrick-Beebe_2023
Site Code : 00000001
Start Date : 3/16/2023
Page No : 2

	Hamrick From North					Beebe From East					Hamrick From South					Beebe From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:30 AM					07:30 AM					07:30 AM					07:30 AM					
+0 mins.	1	127	2	0	130	1	0	3	0	4	1	95	2	0	98	0	0	22	0	22	
+15 mins.	4	95	1	0	100	3	1	3	0	7	7	103	2	0	112	0	0	21	0	21	
+30 mins.	1	72	1	0	74	3	1	4	0	8	5	88	0	0	93	0	0	11	0	11	
+45 mins.	1	101	2	0	104	2	2	3	0	7	4	61	1	0	66	0	0	8	0	8	
Total Volume	7	395	6	0	408	9	4	13	0	26	17	347	5	0	369	0	0	62	0	62	
% App. Total	1.7	96.8	1.5	0		34.6	15.4	50	0		4.6	94	1.4	0		0	0	100	0		
PHF	.438	.778	.750	.000	.785	.750	.500	.813	.000	.813	.607	.842	.625	.000	.824	.000	.000	.705	.000	.705	

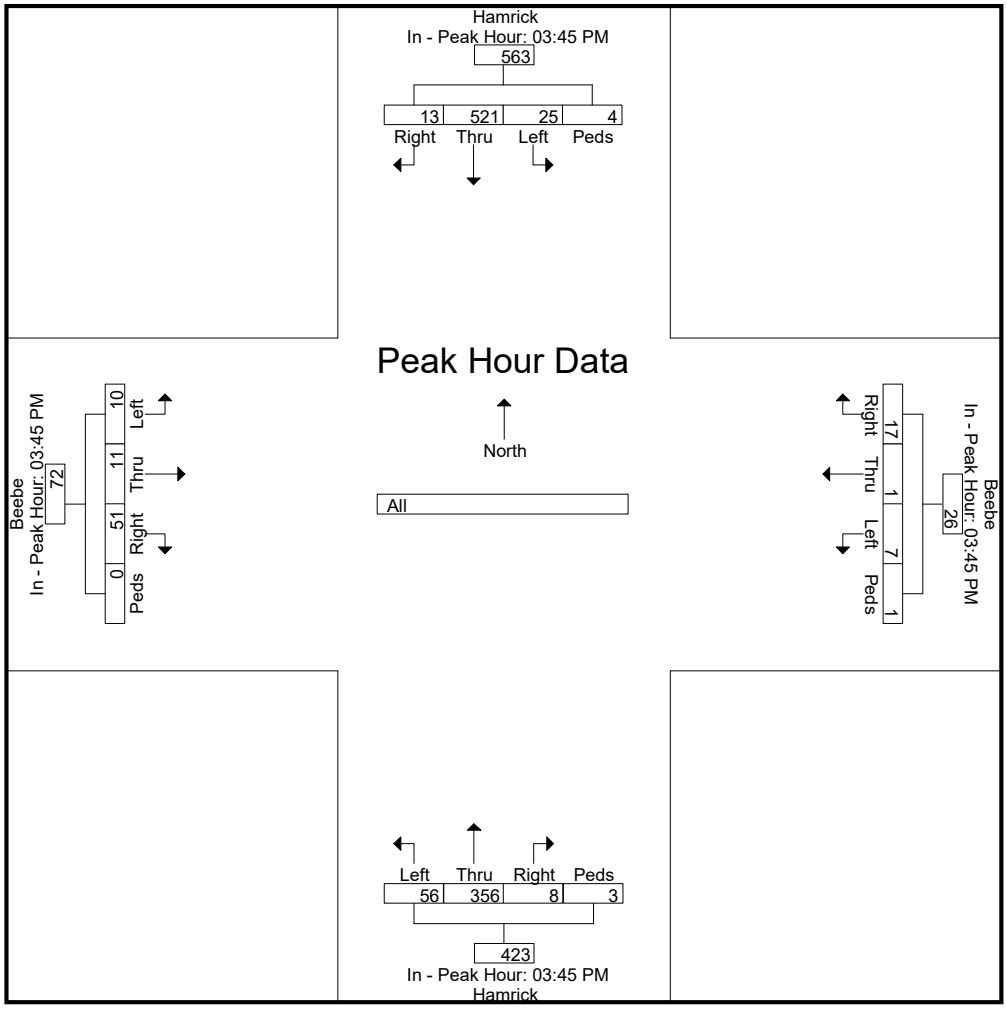


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North-South: Hamrick
East-West: Beebe
Weather: Sunny, Warm
Vehicle: All Vehicles

File Name : Hamrick-Beebe_2023
Site Code : 00000001
Start Date : 3/16/2023
Page No : 3

	Hamrick From North					Beebe From East					Hamrick From South					Beebe From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:45 PM to 04:30 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:45 PM					03:45 PM					03:45 PM					03:45 PM					
+0 mins.	3	121	2	1	127	2	0	4	0	6	12	90	3	1	106	4	4	12	0	20	
+15 mins.	8	122	6	2	138	1	1	2	0	4	10	97	1	1	109	5	5	21	0	31	
+30 mins.	4	123	2	0	129	2	0	5	0	7	15	83	1	0	99	1	1	8	0	10	
+45 mins.	10	155	3	1	169	2	0	6	1	9	19	86	3	1	109	0	1	10	0	11	
Total Volume	25	521	13	4	563	7	1	17	1	26	56	356	8	3	423	10	11	51	0	72	
% App. Total	4.4	92.5	2.3	0.7		26.9	3.8	65.4	3.8		13.2	84.2	1.9	0.7		13.9	15.3	70.8	0		
PHF	.625	.840	.542	.500	.833	.875	.250	.708	.250	.722	.737	.918	.667	.750	.970	.500	.550	.607	.000	.581	



JACKSON COUNTY ROADS
200 Antelope Road
White City, OR 97503

North-South: Gebhard Road
East-West: Wilson Road
Weather: Sunny, Warm
Vehicle: All Vehicles

File Name : Gebhard-Wilson_AM-PM 2023
Site Code : 00000003
Start Date : 6/5/2023
Page No : 1

Groups Printed- All

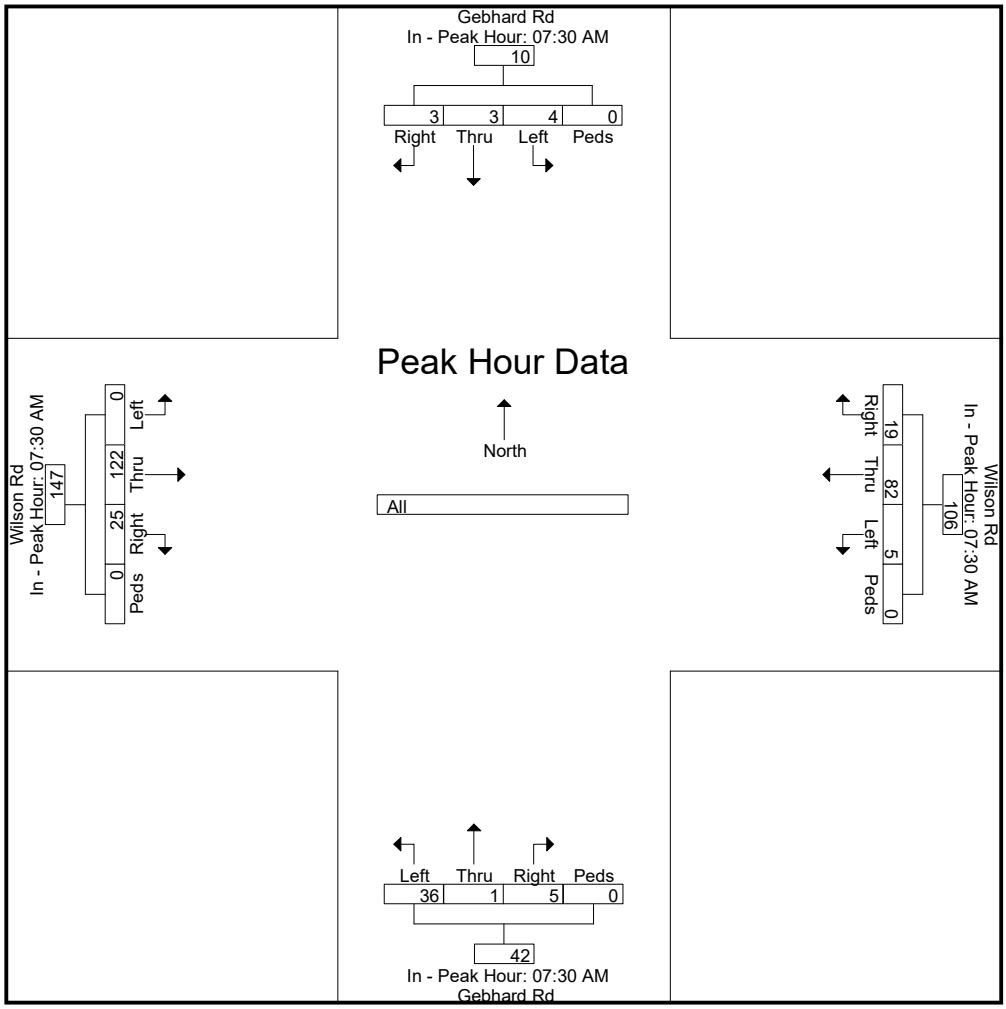
	Gebhard Rd From North					Wilson Rd From East					Gebhard Rd From South					Wilson Rd From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:15 AM	1	1	2	0	4	2	8	0	0	10	1	0	0	0	1	1	20	2	0	23	38
06:30 AM	0	0	0	0	0	1	10	0	0	11	6	0	2	0	8	0	36	1	0	37	56
06:45 AM	0	0	0	0	0	2	13	0	0	15	3	0	2	0	5	0	21	2	0	23	43
Total	1	1	2	0	4	5	31	0	0	36	10	0	4	0	14	1	77	5	0	83	137
07:00 AM	1	2	0	0	3	1	17	0	0	18	2	0	0	0	2	0	27	0	0	27	50
07:15 AM	1	2	1	0	4	2	23	1	0	26	7	0	4	0	11	0	27	4	0	31	72
07:30 AM	1	0	1	0	2	1	21	8	0	30	4	0	1	0	5	0	40	9	0	49	86
07:45 AM	2	2	0	0	4	0	21	11	0	32	5	0	1	0	6	0	25	6	0	31	73
Total	5	6	2	0	13	4	82	20	0	106	18	0	6	0	24	0	119	19	0	138	281
08:00 AM	0	1	0	0	1	2	21	0	0	23	15	0	2	0	17	0	34	3	0	37	78
08:15 AM	1	0	2	0	3	2	19	0	0	21	12	1	1	0	14	0	23	7	0	30	68
08:30 AM	1	1	0	0	2	2	13	0	0	15	6	0	1	0	7	0	27	3	0	30	54
08:45 AM	0	0	0	0	0	0	13	1	0	14	3	1	2	0	6	0	16	3	0	19	39
Total	2	2	2	0	6	6	66	1	0	73	36	2	6	0	44	0	100	16	0	116	239
*** BREAK ***																					
03:00 PM	0	0	1	0	1	3	19	1	0	23	6	0	3	0	9	0	26	4	0	30	63
03:15 PM	2	0	0	0	2	4	31	0	0	35	9	1	1	0	11	0	27	7	0	34	82
03:30 PM	1	0	1	0	2	6	27	3	0	36	11	0	2	0	13	1	30	11	0	42	93
03:45 PM	0	0	1	0	1	5	32	0	0	37	14	0	4	0	18	1	41	21	0	63	119
Total	3	0	3	0	6	18	109	4	0	131	40	1	10	0	51	2	124	43	0	169	357
04:00 PM	0	1	0	0	1	2	28	1	0	31	5	1	2	0	8	1	39	8	0	48	88
04:15 PM	1	1	0	0	2	3	19	1	0	23	4	1	1	0	6	3	20	3	0	26	57
04:30 PM	1	1	0	0	2	6	26	0	0	32	7	0	4	0	11	0	28	6	0	34	79
04:45 PM	0	1	1	0	2	2	31	3	0	36	7	0	0	0	7	1	27	4	0	32	77
Total	2	4	1	0	7	13	104	5	0	122	23	2	7	0	32	5	114	21	0	140	301
05:00 PM	0	0	0	0	0	4	31	3	0	38	3	0	2	0	5	2	20	9	0	31	74
05:15 PM	1	0	0	0	1	0	25	0	0	25	7	0	3	0	10	0	27	9	0	36	72
05:30 PM	0	0	0	0	0	3	27	0	0	30	10	0	5	1	16	1	16	9	0	26	72
05:45 PM	1	0	0	0	1	1	19	1	0	21	4	1	2	0	7	0	16	8	0	24	53
Total	2	0	0	0	2	8	102	4	0	114	24	1	12	1	38	3	79	35	0	117	271
Grand Total	15	13	10	0	38	54	494	34	0	582	151	6	45	1	203	11	613	139	0	763	1586
Apprch %	39.5	34.2	26.3	0		9.3	84.9	5.8	0		74.4	3	22.2	0.5		1.4	80.3	18.2	0		
Total %	0.9	0.8	0.6	0	2.4	3.4	31.1	2.1	0	36.7	9.5	0.4	2.8	0.1	12.8	0.7	38.7	8.8	0	48.1	

JACKSON COUNTY ROADS
200 Antelope Road
White City, OR 97503

North-South: Gebhard Road
East-West: Wilson Road
Weather: Sunny, Warm
Vehicle: All Vehicles

File Name : Gebhard-Wilson_AM-PM 2023
Site Code : 00000003
Start Date : 6/5/2023
Page No : 2

	Gebhard Rd From North					Wilson Rd From East					Gebhard Rd From South					Wilson Rd From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:30 AM					07:30 AM					07:30 AM					07:30 AM					
+0 mins.	1	0	1	0	2	1	21	8	0	30	4	0	1	0	5	0	40	9	0	49	
+15 mins.	2	2	0	0	4	0	21	11	0	32	5	0	1	0	6	0	25	6	0	31	
+30 mins.	0	1	0	0	1	2	21	0	0	23	15	0	2	0	17	0	34	3	0	37	
+45 mins.	1	0	2	0	3	2	19	0	0	21	12	1	1	0	14	0	23	7	0	30	
Total Volume	4	3	3	0	10	5	82	19	0	106	36	1	5	0	42	0	122	25	0	147	
% App. Total	40	30	30	0		4.7	77.4	17.9	0		85.7	2.4	11.9	0		0	83	17	0		
PHF	.500	.375	.375	.000	.625	.625	.976	.432	.000	.828	.600	.250	.625	.000	.618	.000	.763	.694	.000	.750	

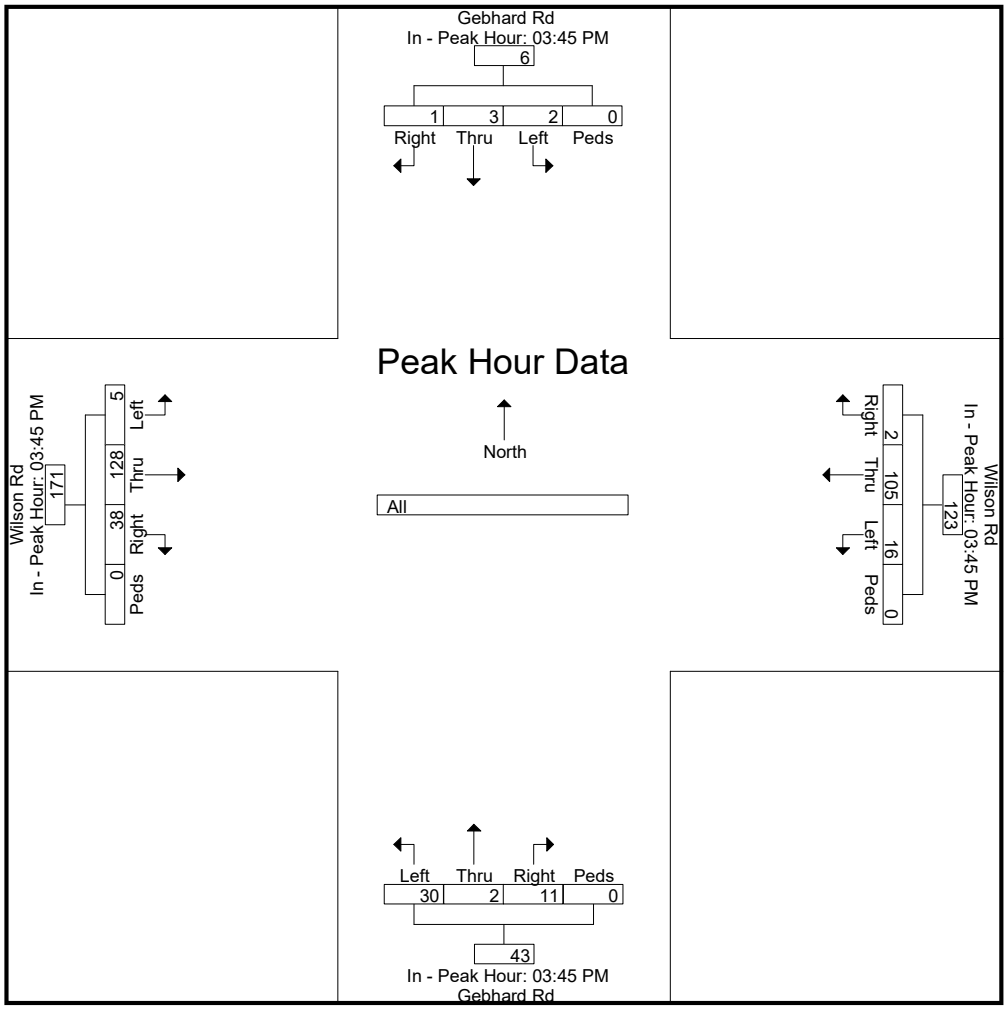


JACKSON COUNTY ROADS
200 Antelope Road
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North-South: Gebhard Road
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File Name : Gebhard-Wilson_AM-PM 2023
Site Code : 00000003
Start Date : 6/5/2023
Page No : 3

	Gebhard Rd From North					Wilson Rd From East					Gebhard Rd From South					Wilson Rd From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:45 PM to 04:30 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:45 PM					03:45 PM					03:45 PM					03:45 PM					
+0 mins.	0	0	1	0	1	5	32	0	0	37	14	0	4	0	18	1	41	21	0	63	
+15 mins.	0	1	0	0	1	2	28	1	0	31	5	1	2	0	8	1	39	8	0	48	
+30 mins.	1	1	0	0	2	3	19	1	0	23	4	1	1	0	6	3	20	3	0	26	
+45 mins.	1	1	0	0	2	6	26	0	0	32	7	0	4	0	11	0	28	6	0	34	
Total Volume	2	3	1	0	6	16	105	2	0	123	30	2	11	0	43	5	128	38	0	171	
% App. Total	33.3	50	16.7	0		13	85.4	1.6	0		69.8	4.7	25.6	0		2.9	74.9	22.2	0		
PHF	.500	.750	.250	.000	.750	.667	.820	.500	.000	.831	.536	.500	.688	.000	.597	.417	.780	.452	.000	.679	



SEASONAL TREND TABLE (Updated: 11/08/2023)																									Seasonal Trend Peak Period Factor
TREND	1-Jan	15-Jan	1-Feb	15-Feb	1-Mar	15-Mar	1-Apr	15-Apr	1-May	15-May	1-Jun	15-Jun	1-Jul	15-Jul	1-Aug	15-Aug	1-Sep	15-Sep	1-Oct	15-Oct	1-Nov	15-Nov	1-Dec	15-Dec	
INTERSTATE URBANIZED	1.0869	1.1041	1.0688	1.0335	1.0182	1.0028	0.9995	0.9962	0.9901	0.9840	0.9641	0.9443	0.9502	0.9562	0.9510	0.9458	0.9575	0.9692	0.9791	0.9891	1.0107	1.0324	1.0532	1.0739	0.9443
INTERSTATE NONURBANIZED	1.2459	1.2915	1.2286	1.1657	1.0907	1.0158	1.0059	0.9960	0.9728	0.9496	0.9128	0.8760	0.8650	0.8540	0.8612	0.8684	0.8905	0.9126	0.9488	0.9850	1.0336	1.0822	1.1717	1.2612	0.8540
COMMUTER	1.0905	1.0986	1.0636	1.0285	1.0162	1.0038	0.9959	0.9879	0.9814	0.9749	0.9631	0.9512	0.9614	0.9717	0.9608	0.9500	0.9548	0.9595	0.9634	0.9673	1.0090	1.0507	1.0733	1.0958	0.9500
COASTAL DESTINATION	1.2064	1.1715	1.1234	1.0753	1.0545	1.0337	1.0372	1.0407	1.0216	1.0024	0.9586	0.9147	0.8760	0.8372	0.8371	0.8370	0.8678	0.8985	0.9578	1.0170	1.0730	1.1290	1.1823	1.2357	0.8370
COASTAL DESTINATION ROUTE	1.3937	1.2897	1.2245	1.1594	1.1247	1.0901	1.0911	1.0921	1.0516	1.0111	0.9493	0.8875	0.8172	0.7469	0.7455	0.7440	0.7916	0.8391	0.9274	1.0158	1.1126	1.2094	1.3193	1.4291	0.7440
AGRICULTURE	1.4537	1.4624	1.3705	1.2786	1.2139	1.1492	1.1207	1.0923	1.0075	0.9226	0.8742	0.8258	0.8348	0.8439	0.8422	0.8405	0.7976	0.7547	0.8073	0.8598	1.0041	1.1484	1.3339	1.5194	0.7547
RECREATIONAL SUMMER	1.6049	1.5814	1.4924	1.4034	1.3208	1.2382	1.2380	1.2377	1.0939	0.9500	0.8669	0.7839	0.7392	0.6945	0.7065	0.7185	0.7404	0.7624	0.8468	0.9311	1.1270	1.3230	1.5054	1.6879	0.6945
RECREATIONAL SUMMER WINTER	1.0075	0.9570	0.9184	0.8799	0.9701	1.0603	1.0675	1.0747	1.0843	1.0939	1.0045	0.9151	0.8244	0.7336	0.7795	0.8254	0.9368	1.0482	1.1794	1.3105	1.4969	1.6833	1.3470	1.0108	0.7336
RECREATIONAL WINTER**	0.8059	0.6710	0.6475	0.6240	0.7462	0.8685	0.9307	0.9928	1.1496	1.3064	1.2173	1.1282	0.9996	0.8709	0.9526	1.0342	1.1225	1.2108	1.4061	1.6013	1.9826	2.3639	1.6332	0.9026	0.6240
SUMMER	1.2374	1.2352	1.1733	1.1114	1.0786	1.0459	1.0330	1.0202	0.9851	0.9500	0.9160	0.8819	0.8660	0.8501	0.8561	0.8620	0.8891	0.9161	0.9430	0.9698	1.0525	1.1352	1.2002	1.2653	0.8501
SUMMER < 2500	1.2836	1.2576	1.1943	1.1310	1.1011	1.0712	1.0448	1.0184	0.9633	0.9082	0.8861	0.8641	0.8609	0.8578	0.8695	0.8813	0.8874	0.8936	0.9165	0.9394	1.0500	1.1607	1.2535	1.3463	0.8578

* Seasonal Trend Table factors are based on previous year ATR data. The table is updated yearly.

* Grey shading indicates months were seasonal factor is greater than or less than 30%

****Use Recreation Winter Trend with Caution! ATR site was down for most of of 2022 due to loop issues and was estimated while the site was down**

	Commuter
16-Mar	1.0038
Peak	0.9500
Adj	1.057

	Commuter
5-Jun	0.9599
Peak	0.9500
Adj	1.010

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CONTINUOUS SYSTEM CRASH LISTING
BEEBE RD at HAMRICK RD, City of Central Point, Jackson County, 01/01/2018 to 12/31/2022
Total Crash Records = 1
*******CRASH DE-CODER V6.0.2 PRC REPORT PRINTABLE EQUIVALENT*******

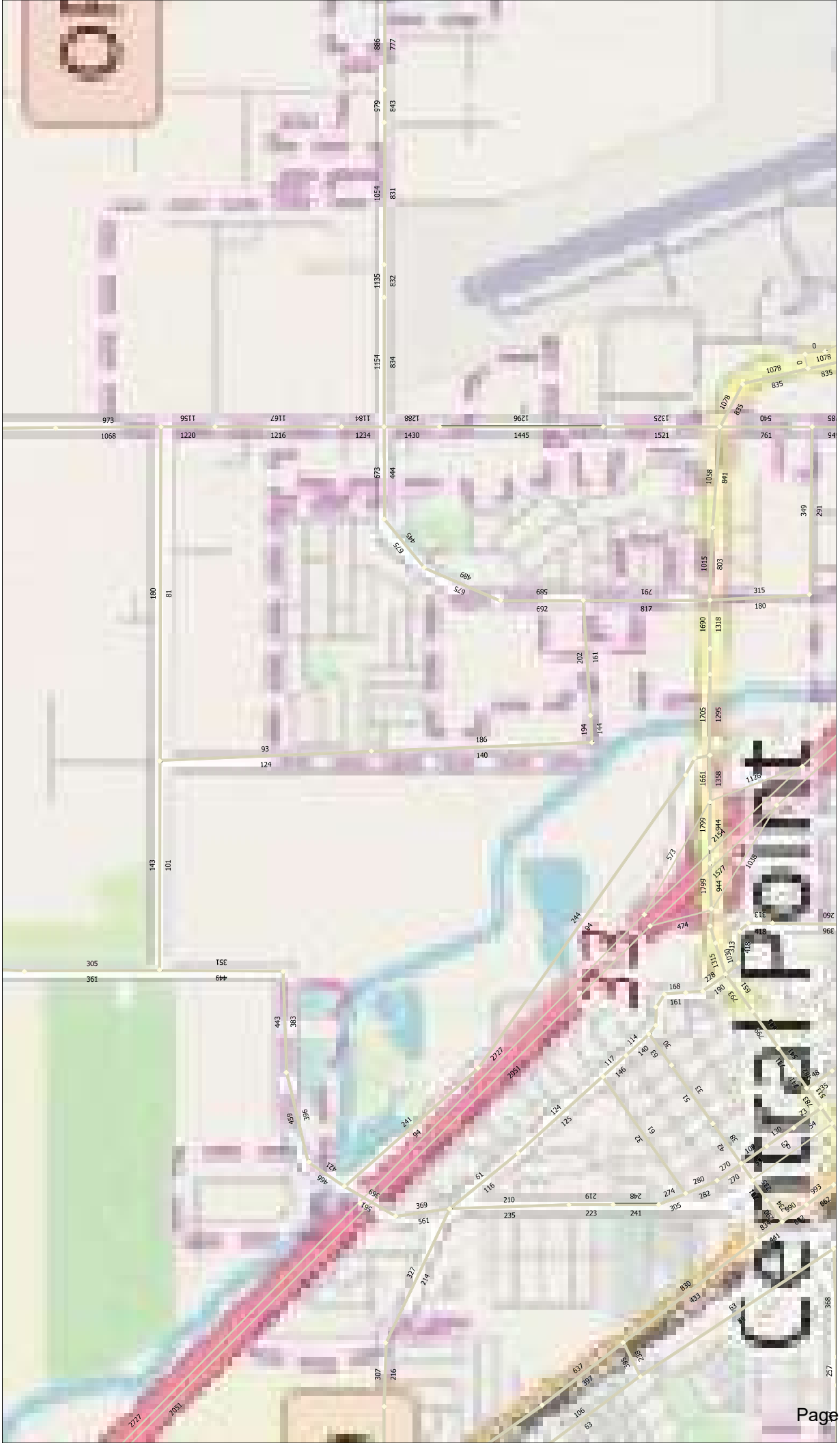
SER # / ID # / INVEST / RD DPT / UNLOC?	SPEED	ALCOHOL	DRUG	MARIJUANA	SCHL ZONE	WORK ZONE	DATE / DAY / TIME / LAT	COUNTY / CITY / URB AREA / LONG	RD # / FUNCTIONAL CLASS / COMPONENT / MILEAGE TYPE / MILEPOINT	CONN # / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (# LANES)	INT-REL / TRAF-CONTL	OFF RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	VEHICLE #	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	PARTC #	PARTC TYPE	INJURY SEVERITY	AGE	SEX	LICNS RES	NON-MTRST LOCATION	ERROR	ACTION VEHICLE (PARTICIPANT)	EVENT CRASH	EVENT VEHICLE	EVENT PARTICIPANT	CAUSE CRASH	CAUSE VEHICLE	CAUSE PARTICIPANT
02580 1972094 CITY N False	N	N	N	N	N	N	11/29/2022 Tuesday 4P 42.38284	Jackson Central Point MEDFORD UA -122.89297	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	BEEBE RD HAMRICK RD	INTER CN 03	CROSS () 0 ()	N STOP SIGN	N N	CLR DRY DAY	S-1STOP REAR INJ	3702092	NONE 0 PRVTE PSNGR CAR	STRGHT N-S	1	DRVR	INJA	22	M	OR-Y OR<25		043-Following Too Close 026-Faild Avoid Stop Veh	006-Slowed Down (038-Driver Distracted)				07-Followed too Closely 29-Fail avoid veh, Ahead	00-No Code	07-Followed too Closely 29-Fail avoid veh, Ahead
																	3702093	NONE 0 PRVTE PSNGR CAR	STOP N-S	1	DRVR	INJC	47	F	OR-Y OR<25		000-No Error	011-Stop In Traf-No Lturn (000-No Action)					00-No Code	00-No Code

Southern
Oregon
Transportation
Engineering, LLC

Appendix B

Model Data,
ITE Trip Generation Graphs,
Volume Development


OR 62


Central Point

Land Use: 210
Single-Family Detached Housing

Description

A single-family detached housing site includes any single-family detached home on an individual lot. A typical site surveyed is a suburban subdivision.

Specialized Land Use

Data have been submitted for several single-family detached housing developments with homes that are commonly referred to as patio homes. A patio home is a detached housing unit that is located on a small lot with little (or no) front or back yard. In some subdivisions, communal maintenance of outside grounds is provided for the patio homes. The three patio home sites total 299 dwelling units with overall weighted average trip generation rates of 5.35 vehicle trips per dwelling unit for weekday, 0.26 for the AM adjacent street peak hour, and 0.47 for the PM adjacent street peak hour. These patio home rates based on a small sample of sites are lower than those for single-family detached housing (Land Use 210), lower than those for single-family attached housing (Land Use 251), and higher than those for senior adult housing -- single-family (Land Use 251). Further analysis of this housing type will be conducted in a future edition of *Trip Generation Manual*.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

For 30 of the study sites, data on the number of residents and number of household vehicles are available. The overall averages for the 30 sites are 3.6 residents per dwelling unit and 1.5 vehicles per dwelling unit.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Arizona, California, Connecticut, Delaware, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Jersey, North Carolina, Ohio, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Vermont, Virginia, and West Virginia.

Source Numbers

100, 105, 114, 126, 157, 167, 177, 197, 207, 211, 217, 267, 275, 293, 300, 319, 320, 356, 357, 367, 384, 387, 407, 435, 522, 550, 552, 579, 598, 601, 603, 614, 637, 711, 716, 720, 728, 735, 868, 869, 903, 925, 936, 1005, 1007, 1008, 1010, 1033, 1066, 1077,1078, 1079

Single-Family Detached Housing
(210)

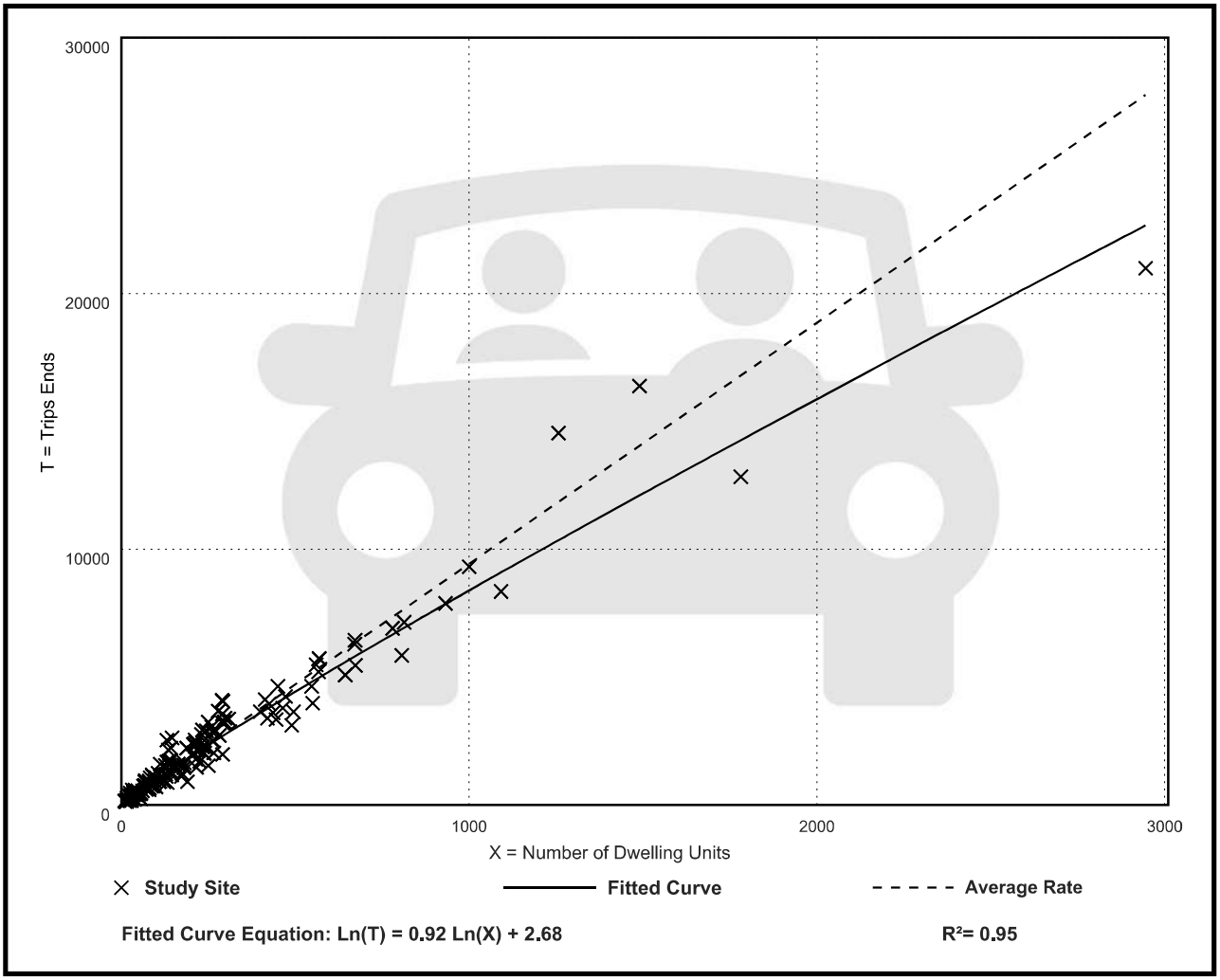
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.92 Ln(X) + 2.68

R^2= 0.95

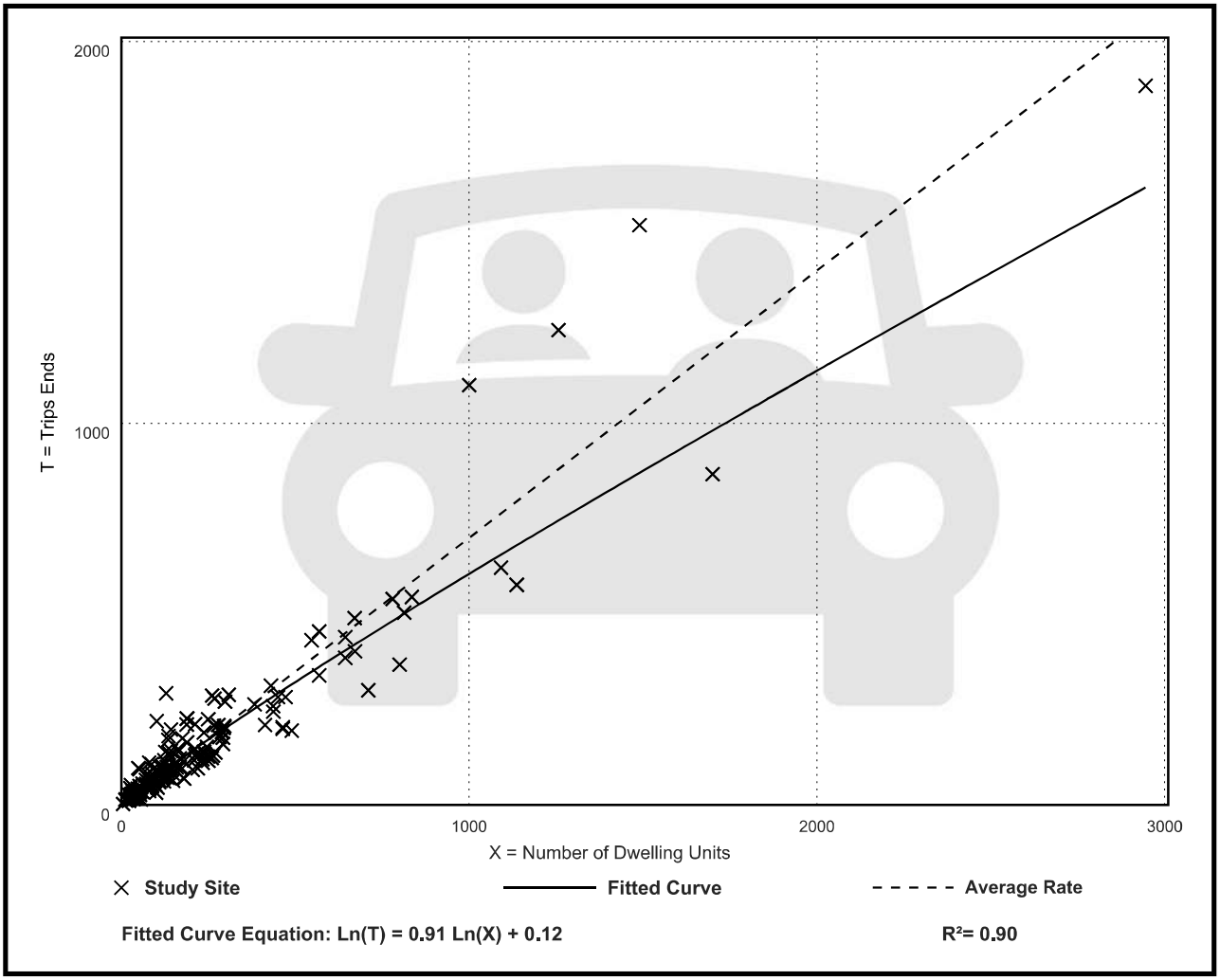
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 192
Avg. Num. of Dwelling Units: 226
Directional Distribution: 26% entering, 74% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



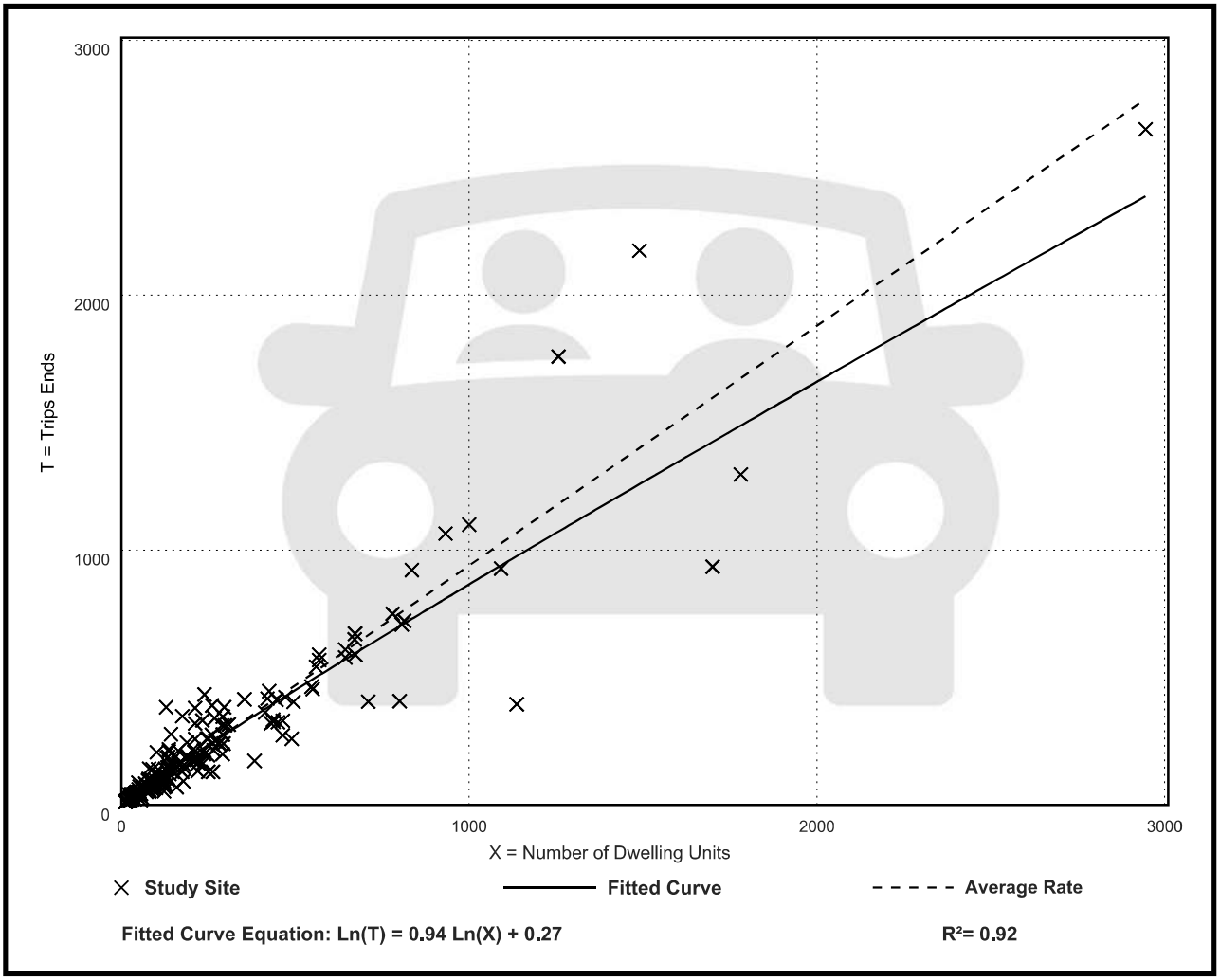
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 208
Avg. Num. of Dwelling Units: 248
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.94 Ln(X) + 0.27

R^2= 0.92

Land Use: 215
Single-Family Attached Housing

Description

Single-family attached housing includes any single-family housing unit that shares a wall with an adjoining dwelling unit, whether the walls are for living space, a vehicle garage, or storage space.

Additional Data

The database for this land use includes duplexes (defined as a single structure with two distinct dwelling units, typically joined side-by-side and each with at least one outside entrance) and townhouses/rowhouses (defined as a single structure with three or more distinct dwelling units, joined side-by-side in a row and each with an outside entrance).

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in British Columbia (CAN), California, Georgia, Illinois, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Dakota, Utah, Virginia, and Wisconsin.

Source Numbers

168, 204, 211, 237, 305, 306, 319, 321, 357, 390, 418, 525, 571, 583, 638, 735, 868, 869, 870, 896, 912, 959, 1009, 1046, 1056, 1058, 1077

Single-Family Attached Housing
(215)

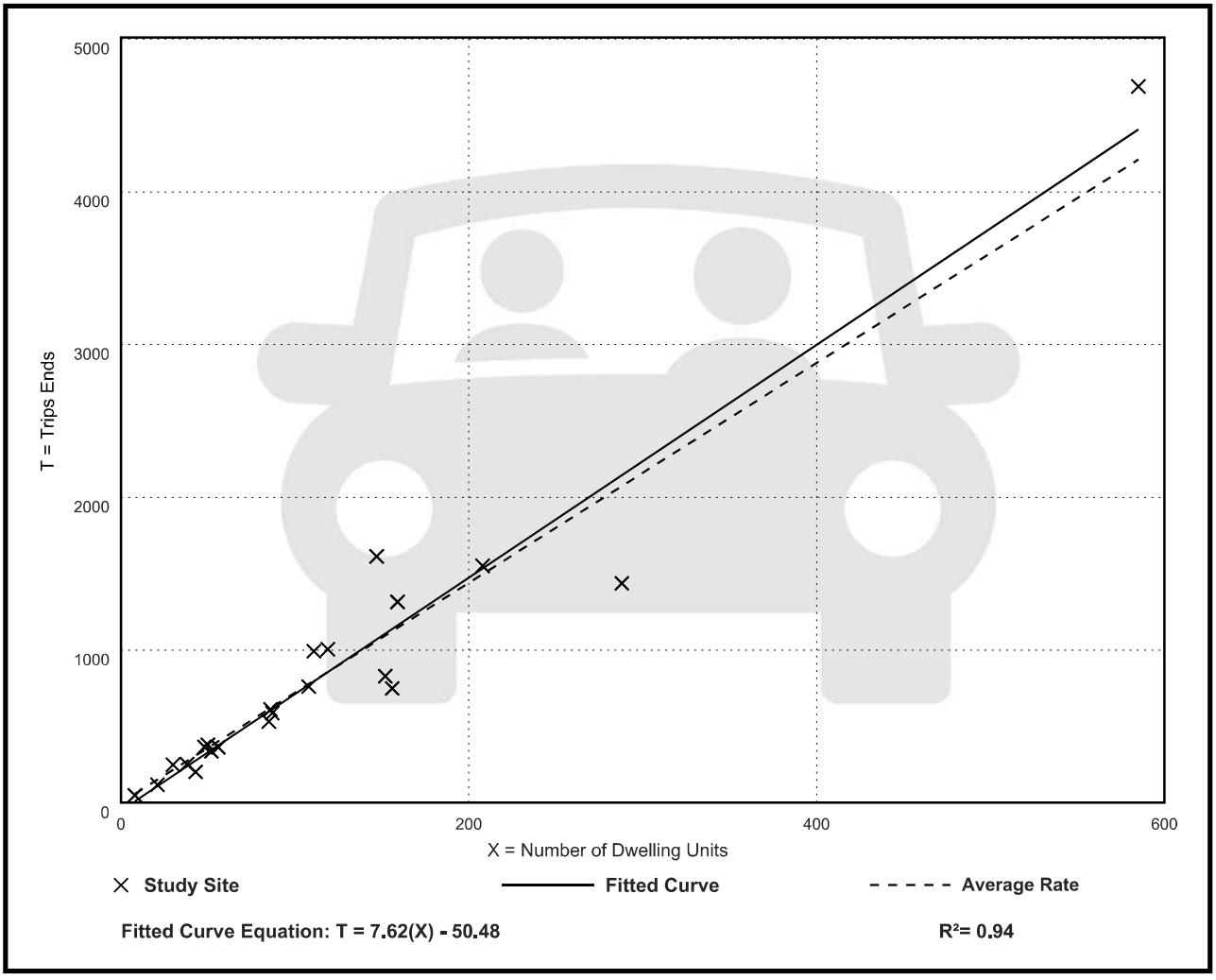
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



Fitted Curve Equation: T = 7.62(X) - 50.48

R^2= 0.94

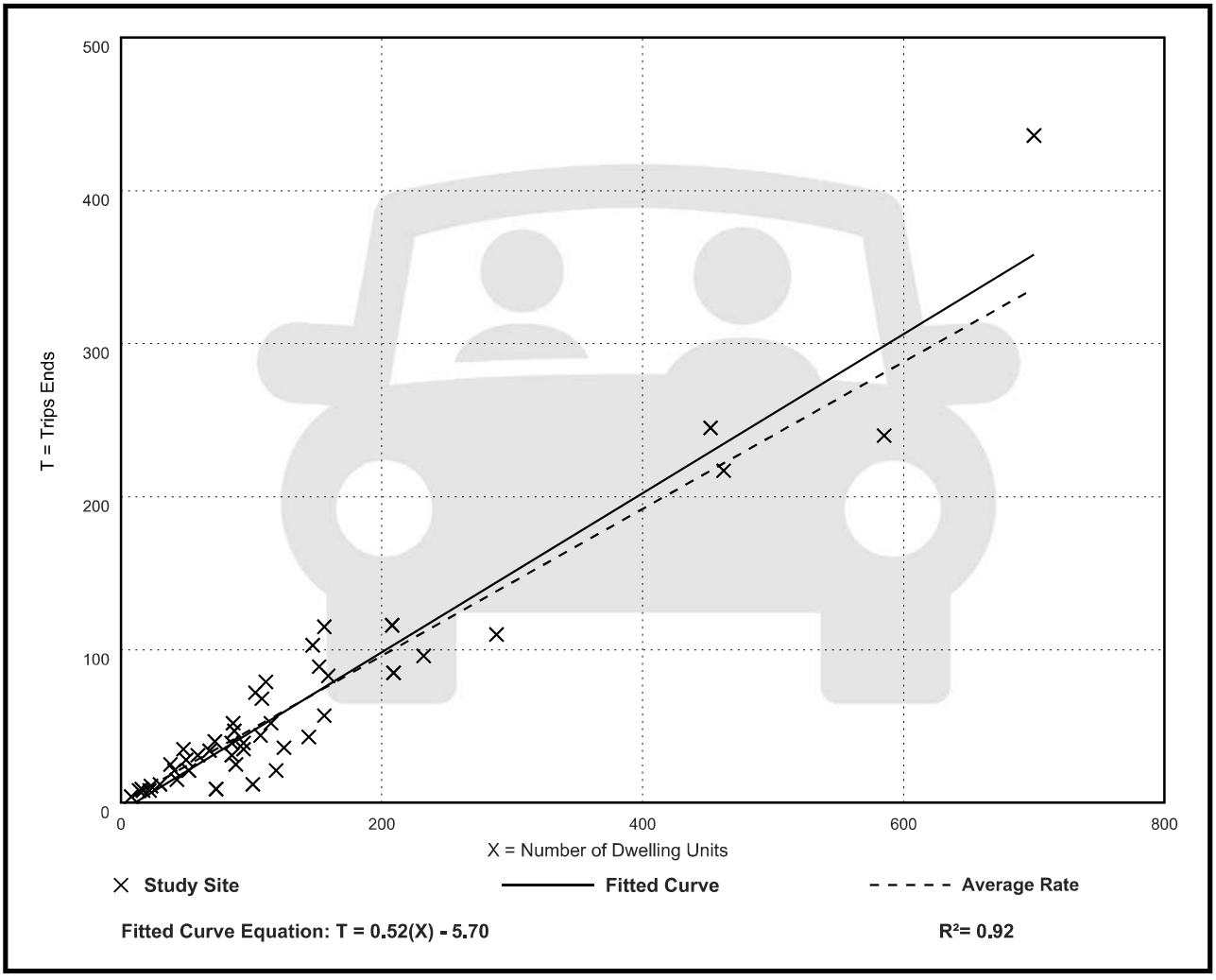
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 46
Avg. Num. of Dwelling Units: 135
Directional Distribution: 31% entering, 69% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



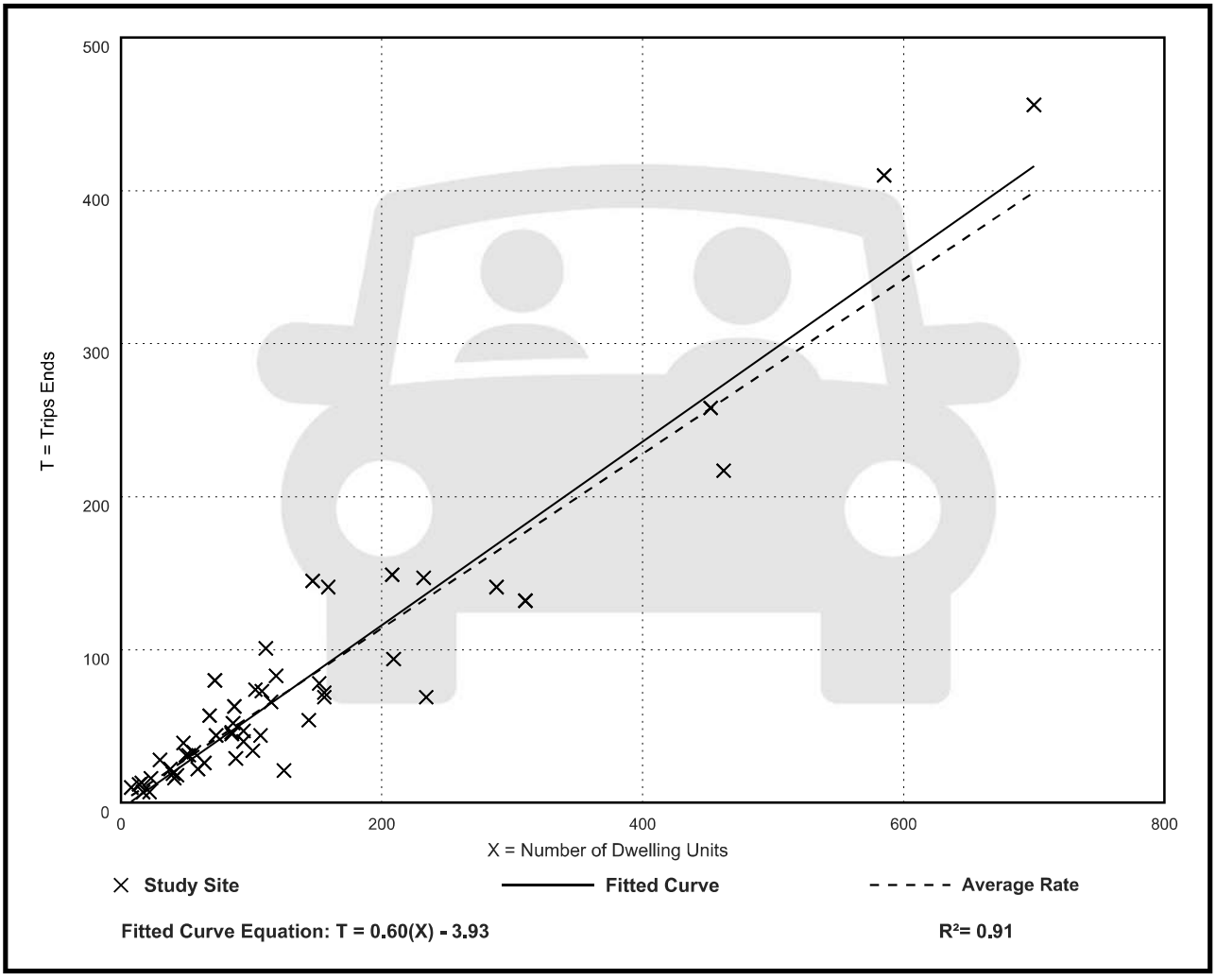
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 51
Avg. Num. of Dwelling Units: 136
Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



Land Use: 220
Multifamily Housing (Low-Rise)

Description

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have two or three floors (levels). Various configurations fit this description, including walkup apartment, mansion apartment, and stacked townhouse.

- A walkup apartment typically is two or three floors in height with dwelling units that are accessed by a single or multiple entrances with stairways and hallways.
- A mansion apartment is a single structure that contains several apartments within what appears to be a single-family dwelling unit.
- A fourplex is a single two-story structure with two matching dwelling units on the ground and second floors. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.
- A stacked townhouse is designed to match the external appearance of a townhouse. But, unlike a townhouse dwelling unit that only shares walls with an adjoining unit, the stacked townhouse units share both floors and walls. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.

Multifamily housing (mid-rise) (Land Use 221), multifamily housing (high-rise) (Land Use 222), affordable housing (Land Use 223), and off-campus student apartment (low-rise) (Land Use 225) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the three sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.72 residents per occupied dwelling unit.

For the two sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96.2 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip

generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

For the three sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.72 residents per occupied dwelling unit.

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in British Columbia (CAN), California, Delaware, Florida, Georgia, Illinois, Indiana, Maine, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, and Washington.

Source Numbers

188, 204, 237, 300, 305, 306, 320, 321, 357, 390, 412, 525, 530, 579, 583, 638, 864, 866, 896, 901, 903, 904, 936, 939, 944, 946, 947, 948, 963, 964, 966, 967, 1012, 1013, 1014, 1036, 1047, 1056, 1071, 1076

Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

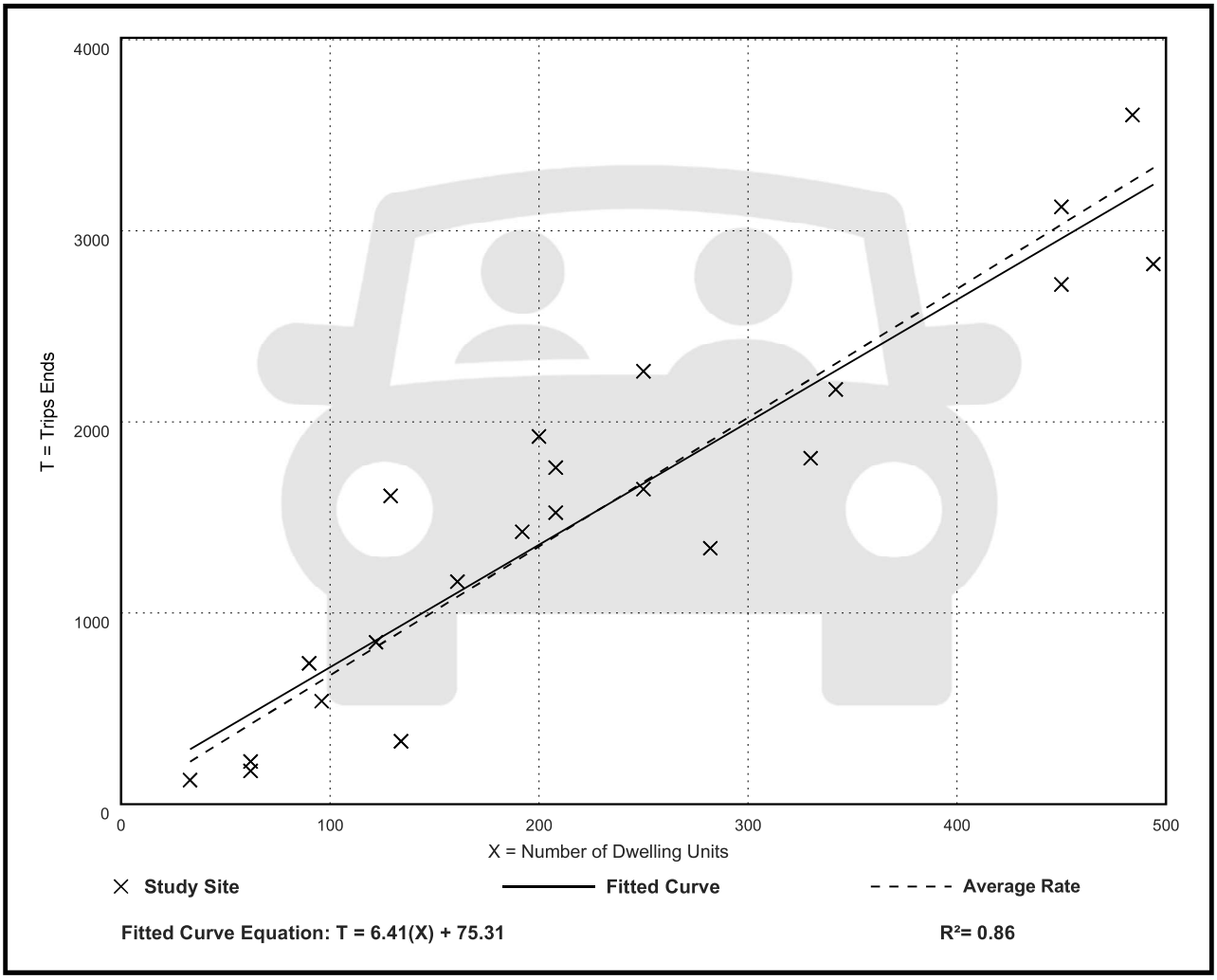
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 229
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Fitted Curve Equation: T = 6.41(X) + 75.31

R^2= 0.86

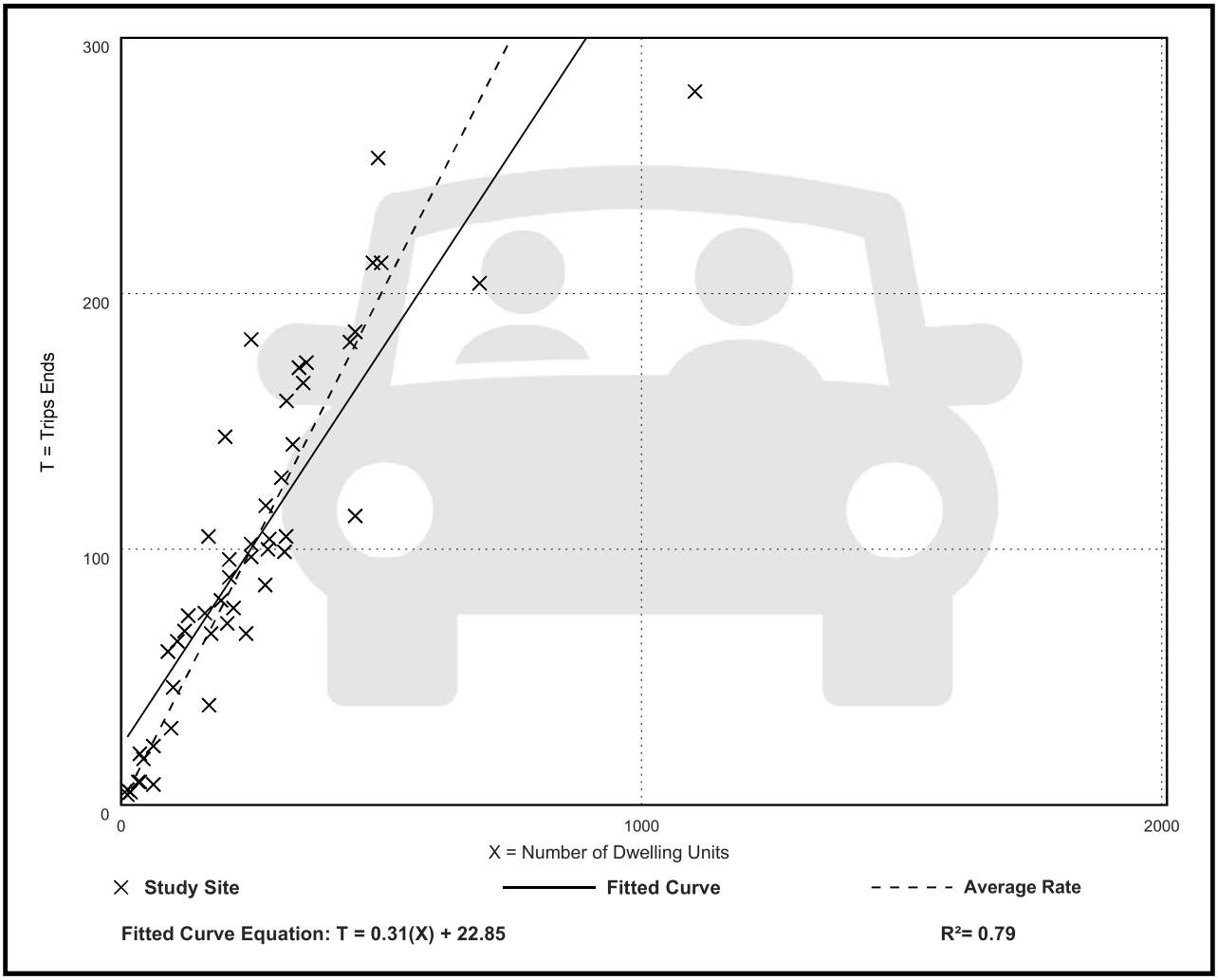
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



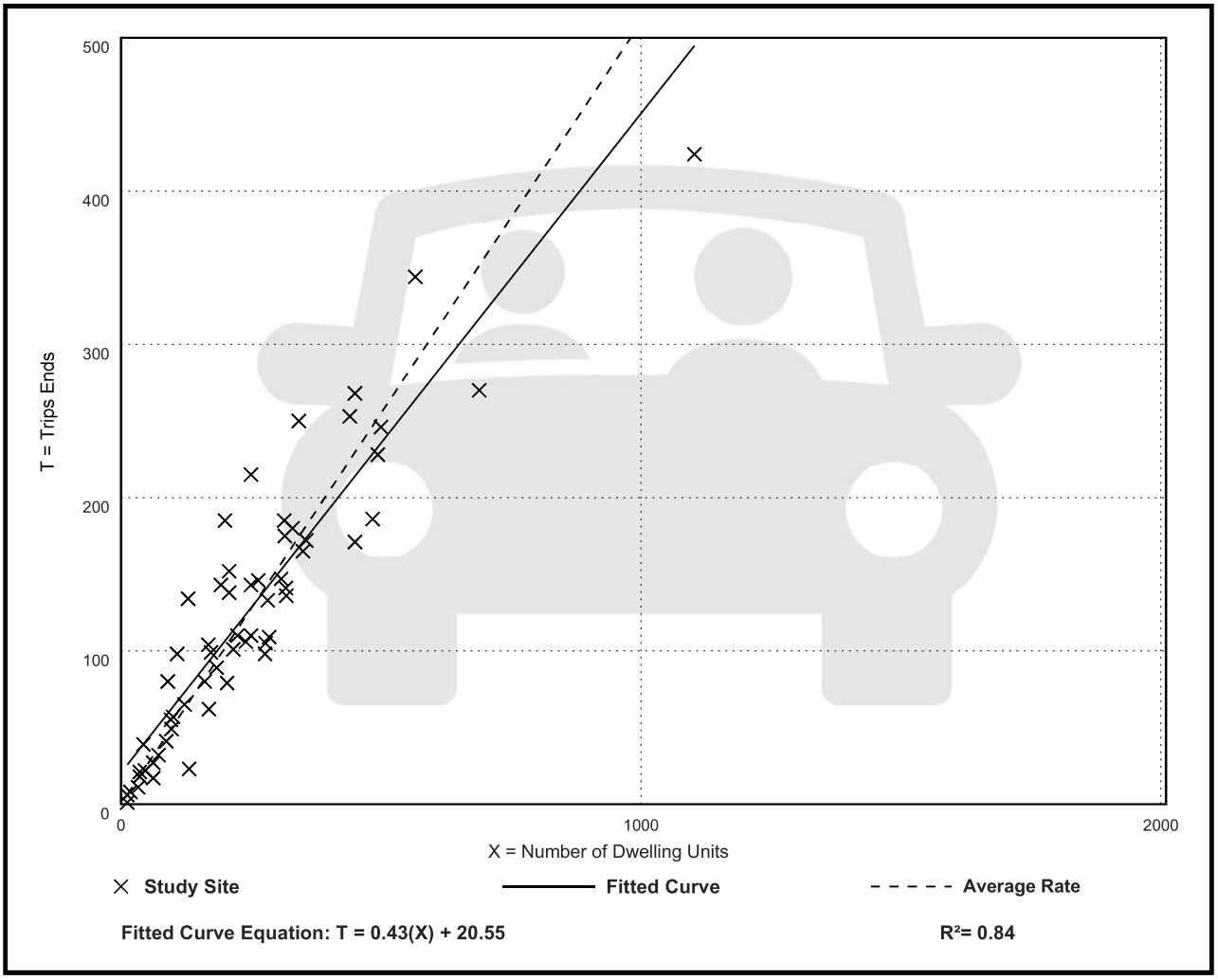
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 59
Avg. Num. of Dwelling Units: 241
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



2027-2042 Model Data

		575		691		
		0	575	0		
71	0	**PM**			0	71
	129	**Hamrick / Beebe**			71	
129	0	**Yr 2027**			0	129
		0	691	0		
		575		691		

		661		488		
		0	661	0		
75	0	**PM**			0	75
	249	**Hamrick / Beebe**			75	
249	0	**Yr 2042**			0	249
		0	488	0		
		661		488		

		2027	2042	Gowth
Growth	SB	575	661	1.009
2027-2042	NB	691	488	0.977
	EB	129	249	1.045
	WB	71	75	1.004

2027-2042 Model Data

		0		84		
		0	0	0		
130	0	**PM**			0	130
	66	**Gebhard / Wilson**			130	
66	0	**Yr 2010**			0	66
		0	84	0		
		0		84		

		0		93		
		0	0	0		
180	0	**PM**			0	180
	101	**Gebhard / Wilson**			180	
101	0	**Yr 2010**			0	101
		0	93	0		
		0		93		

		2010	2038	Gowth
Growth	SB	0	0	0.000
2010-2038	NB	84	93	1.004
	EB	66	101	1.015
	WB	130	180	1.022

Gebhard Village Subdivision Development

Year 2023 No-Build Raw Data - AM

		↓	10		20	←										
PHF 0.90	0-Ped		3	3	4	0-Ped										
121	0		6/5/2023			19	106									
	122		Gebhard / Wilson			82										
147	25		7:30-8:30am			5	131									
	0-Ped		36	1	5	0-Peds										
		→	33		42	↑										
		↓	62		27	←										
	0-Ped		0	62	0	0-Ped										
			6/5/2023			0	0									
			Logue St / Gebhard			0										
			7:30-8:30am			0	0									
	0-Ped		0	27	0	0-Peds										
		→	62		27	↑										
		↓	62		27	←										
	0-Ped		0	62	0	0-Ped										
			6/5/2023			0	0									
			Bryce Pelia / Gebhard			0										
			7:30-8:30am			0	0									
	0-Ped		0	27	0	0-Peds										
		→	62		27	↑										
		↓	62		27	←										
	0-Ped		0	62	0	0-Ped										
			6/5/2023			0	0									
			Denson St / Gebhard			0										
			7:30-8:30am			0	0									
	0-Ped		0	27	0	0-Peds								PHF 0.85		
		→	62		27	↑										
			62		27	←				↓	408		360	←		
			0	0	62	0-Ped				0-Ped	6	395	7	0-Ped		
0	0		PM			27	27	27	0	3/16/2023				13		
	0		Gebhard / Beebe Bend			0			0	Beebe / Hamrick				4		
0	0		7:30-8:30am			0	62	62	62	7:30-8:30am				9		
	0-Ped		0	0	0	0-Ped			0-Ped	17	347	5	0-Ped			
		→	0		0	↑			→	466		369	↑			

Adjusted Year 2024 No-Build Traffic Volumes - AM Peak Hour *Balanced*

		↓	10		21	←										
PHF 0.90	0-Ped		3	3	4	0-Ped										
124	0		Year 2024			20	109									
	125		Gebhard / Wilson			85										
151	26		7:30-8:30am			5	134									
	0-Ped		37	1	5	0-Peds										
		→	34		43	↑										
		↓	68		29	←										
	0-Ped		0	68	0	0-Ped										
			Year 2024			0	0									
			Logue St / Gebhard			0										
			7:30-8:30am			0	0									
	0-Ped		0	29	0	0-Peds										
		→	68		29	↑										
		↓	68		29	←										
	0-Ped		0	68	0	0-Ped										
			Year 2024			0	0									
			Bryce Pelia / Gebhard			0										
			7:30-8:30am			0	0									
	0-Ped		0	29	0	0-Peds										
		→	68		29	↑										
		↓	68		29	←										
	0-Ped		0	68	0	0-Ped										
			Year 2024			0	0									
			Denson St / Gebhard			0										
			7:30-8:30am			0	0									
	0-Ped		0	29	0	0-Peds								PHF 0.85		
		→	68		29	↑										
			68		29	←				↓	436		385	←		
			0	0	68	0-Ped				0-Ped	7	422	7	0-Ped		
0	0		Year 2024			29	29	29	0	Year 2024				14	0	
	0		Gebhard / Beebe Bend			0			0	Beebe / Hamrick				4		
0	0		7:30-8:30am			0	68	68	68	7:30-8:30am				10	0	
	0-Ped		0	0	0	0-Ped			0-Ped	18	370	5	0-Ped			
		→	0		0	↑			→	500		394	↑			

Growth Rates		
Growth	1.004	Gebhard
	1.015	Hamrick
	1.015	EB Wilson
	1.022	WB Wilson
	1.045	Beebe
	1.010	Hamrick
Seasonal Adj.		
3/16/2023	1.057	
6/5/2023	1.010	

Design Year 2027 No-Build Traffic Volumes - AM Peak Hour *Balanced*

PHF 0.90

				10		22													
				3	3	4													
135	0			**Design Yr 2027**			21	117											
	131			**Gebhard / Wilson**			90												
158	27			**7:30-8:30am**			6	141											
				42	1	6													
				35		49													
				78		30													
				0	78	0													
				Design Yr 2027			0	0											
				Logue St / Gebhard			0												
				7:30-8:30am			0	0											
				0	30	0													
				78		30													
				78		30													
				0	78	0													
				Design Yr 2027			0	0											
				Bryce Pelia / Gebhard			0												
				7:30-8:30am			0	0											
				0	30	0													
				78		30													
				78		30													
				0	78	0													
				Design Yr 2027			0	0											
				Denson St / Gebhard			0												
				7:30-8:30am			0	0											
				0	30	0													
				78		30													
				78		30													
				0	0	78													
0	0			**Design Yr 2027**			30	30	30	0									
	0			**Gebhard / Beebe Bend**			0			0									
0	0			**7:30-8:30am**			0	78	78	78									
				0	0	0													
				0		0													

Growth Rates

Growth	1.004 Gebhard
	1.015 Hamrick
	1.015 EB Wilson
	1.022 WB Wilson
	1.045 Beebe
	1.010 Hamrick

PHF 0.85

				449		398													
				7	434	8													
				Design Yr 2027															
				Beebe / Hamrick															
				7:30-8:30am															
				19	382	5													
				524		406													

Development Trip Distributions - AM Peak Hour

PHF 0.90

				0		0													
				0	0	0													
10	0			**Design Yr 2027**			0	1											
	0			**Gebhard / Wilson**			0												
5	5			**7:30-8:30am**			1	1											
				10	0	1													
				6		11													
				6		11													
				0	4	2													
				Design Yr 2027			4	9											
				Logue St / Gebhard			0												
				7:30-8:30am			5	3											
				0	7	1													
				9		8													
				9		8													
				0	7	2													
				Design Yr 2027			4	9											
				Bryce Pelia / Gebhard			0												
				7:30-8:30am			5	3											
				0	4	1													
				12		5													
				12		5													
				0	10	2													
				Design Yr 2027			3	9											
				Denson St / Gebhard			0												
				7:30-8:30am			6	4											
				0	2	2													
				16		4													
				16		4													
				0	0	16													
0	0			**Design Yr 2027**			4	4	4	0									
	0			**Gebhard / Beebe Bend**			0			0									
0	0			**7:30-8:30am**			0	16	16	16									
				0	0	0													
				0		0													

60% ↓ 40% ↑

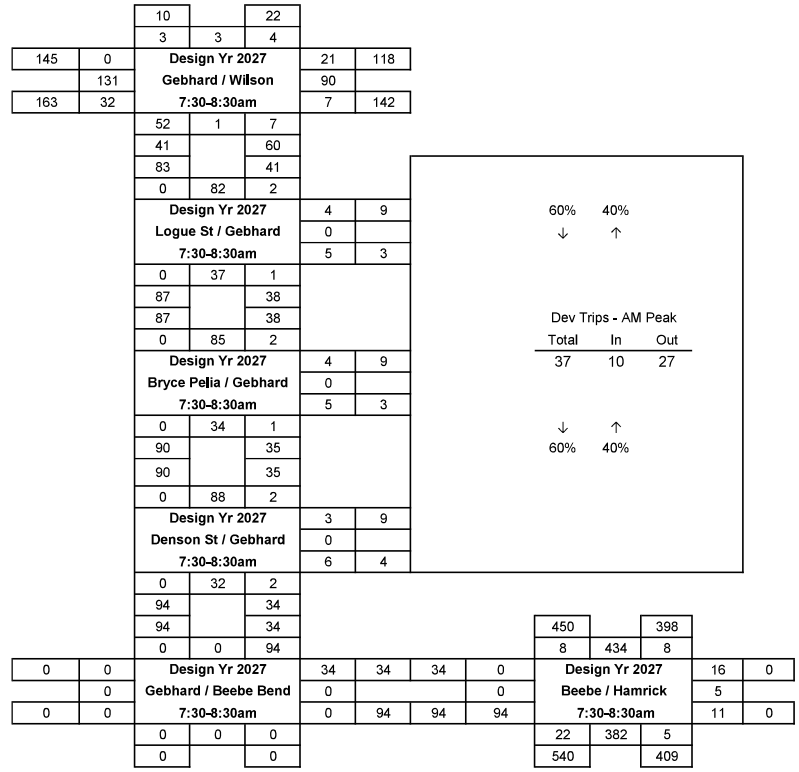
Dev Trips - AM Peak

Total	In	Out
37	10	27

↓ 60% ↑ 40%

				1		0													
				1	0	0													
				Design Yr 2027															
				Beebe / Hamrick															
				7:30-8:30am															
				3	0	0													
				16		3													

Design Year 2027 Build Traffic Volumes - AM Peak Hour



Gebhard Village Subdivision Development

Year 2023 No-Build Raw Data - PM

		↓	6		9	←																	
PHF 0.72	0-Ped		1	3	2	0-Ped																	
136	5		6/5/2023			2	123																
	128		Gebhard / Wilson			105																	
171	38		3:45-4:45pm			16	141																
	0-Ped	30	2	11	0-Peds																		
	→	57		43	↑																		
	↓	72		70	←																		
	0-Ped	0	72	0	0-Ped																		
		6/5/2023			0	0																	
		Logue St / Gebhard			0																		
		3:45-4:45pm			0	0																	
	0-Ped	0	70	0	0-Peds																		
	→	72		70	↑																		
	↓	72		70	←																		
	0-Ped	0	72	0	0-Ped																		
		6/5/2023			0	0																	
		Bryce Pelia / Gebhard			0																		
		3:45-4:45pm			0	0																	
	0-Ped	0	70	0	0-Peds																		
	→	72		70	↑																		
	↓	72		70	←																		
	0-Ped	0	72	0	0-Ped																		
		6/5/2023			0	0																	
		Denson St / Gebhard			0																		
		3:45-4:45pm			0	0																	
	0-Ped	0	70	0	0-Peds																		
	→	72		70	↑																		
		72		70	←						↓	559		383	←								
		0	0	72	0-Ped						4-Ped	13	521	25	1-Ped								
0	0		PM			70	70	70	10		3/16/2023				17	25							
	0		Gebhard / Beebe Bend			0			11		Beebe / Hamrick				1								
0	0		3:45-4:45pm			0	72	72	51		3:45-4:45pm				7	44							
	0-Ped	0	0	0	0-Ped						0-Ped	56	356	8	3-Ped								
	→	0		0	↑						→	579		420	↑								

PHF 0.91

Adjusted Year 2024 No-Build Traffic Volumes - PM Peak Hour *Balanced*

		↓	6		9	←																	
PHF 0.72	0-Ped		1	3	2	0-Ped																	
140	5		Year 2024			2	127																
	131		Gebhard / Wilson			108																	
175	39		3:45-4:45pm			17	144																
	0-Ped	30	2	11	0-Peds																		
	→	59		44	↑																		
	↓	79		75	←																		
	0-Ped	0	79	0	0-Ped																		
		Year 2024			0	0																	
		Logue St / Gebhard			0																		
		3:45-4:45pm			0	0																	
	0-Ped	0	75	0	0-Peds																		
	→	79		75	↑																		
	↓	79		75	←																		
	0-Ped	0	79	0	0-Ped																		
		Year 2024			0	0																	
		Bryce Pelia / Gebhard			0																		
		3:45-4:45pm			0	0																	
	0-Ped	0	75	0	0-Peds																		
	→	79		75	↑																		
	↓	79		75	←																		
	0-Ped	0	79	0	0-Ped																		
		Year 2024			0	0																	
		Denson St / Gebhard			0																		
		3:45-4:45pm			0	0																	
	0-Ped	0	75	0	0-Peds																		
	→	79		75	↑																		
		79		75	←						↓	597		410	←								
		0	0	79	0-Ped						4-Ped	14	556	27	1-Ped								
0	0		Year 2024			75	75	75	11		Year 2024				19	28							
	0		Gebhard / Beebe Bend			0			12		Beebe / Hamrick				1								
0	0		3:45-4:45pm			0	79	79	56		3:45-4:45pm				8	47							
	0-Ped	0	0	0	0-Ped						0-Ped	60	380	9	3-Ped								
	→	0		0	↑						→	620		448	↑								

PHF 0.91

Growth Rates

Growth	1.004 Gebhard
	1.015 Hamrick
	1.015 EB Wilson
	1.022 WB Wilson
	1.045 Beebe
	1.010 Hamrick
Seasonal Adj.	
3/16/2023	1.057
6/5/2023	1.010

Design Year 2027 No-Build Traffic Volumes - PM Peak Hour *Balanced*

PHF 0.72

			6		10									
			1	3	2									
152	5	**Design Yr 2027**			2	136								
	137	**Gebhard / Wilson**			116									
183	41	**3:45-4:45pm**			18	152								
			35	2	13									
			61		50									
			90		77									
			0	90	0									
		Design Yr 2027			0	0								
		Logue St / Gebhard			0									
		3:45-4:45pm			0	0								
			0	77	0									
			90		77									
			90		77									
			0	90	0									
		Design Yr 2027			0	0								
		Bryce Pelia / Gebhard			0									
		3:45-4:45pm			0	0								
			0	77	0									
			90		77									
			90		77									
			0	90	0									
		Design Yr 2027			0	0								
		Denson St / Gebhard			0									
		3:45-4:45pm			0	0								
			0	77	0									
			90		77									
			90		77									
			0	0	90									

Growth Rates

Growth	1.004 Gebhard
	1.015 Hamrick
	1.015 EB Wilson
	1.022 WB Wilson
	1.045 Beebe
	1.010 Hamrick

PHF 0.91

										615		426		
										14	573	27		
0	0	**Design Yr 2027**	77	77	77	13				**Design Yr 2027**			21	32
	0	**Gebhard / Beebe Bend**	0			13				**Beebe / Hamrick**			1	
0	0	**3:45-4:45pm**	0	90	90	64				**3:45-4:45pm**			9	49
										62	392	9		
										646		462		

Development Trip Distributions - PM Peak Hour

PHF 0.72

			1		0									
			0	1	0									
4	0	**Design Yr 2027**			0	3								
	0	**Gebhard / Wilson**			0									
8	8	**3:45-4:45pm**			3	2								
			4	0	2									
			12		6									
			12		6									
			0	8	4									
		Design Yr 2027			2	6								
		Logue St / Gebhard			0									
		3:45-4:45pm			4	9								
			0	4	5									
			12		9									
			12		9									
			0	8	4									
		Design Yr 2027			2	6								
		Bryce Pelia / Gebhard			0									
		3:45-4:45pm			4	9								
			0	7	5									
			12		12									
			12		12									
			0	8	4									
		Design Yr 2027			2	7								
		Denson St / Gebhard			0									
		3:45-4:45pm			5	9								
			0	10	5									
			13		15									
			13		15									
			0	0	13									
0	0	**Design Yr 2027**	15	15	15	2								
	0	**Gebhard / Beebe Bend**	0			2								
0	0	**3:45-4:45pm**	0	13	13	9								
										3		2		
										3	0	0		
		Design Yr 2027											0	0
		Beebe / Hamrick											0	
		3:45-4:45pm											0	2
										12	0	0		
										9		12		

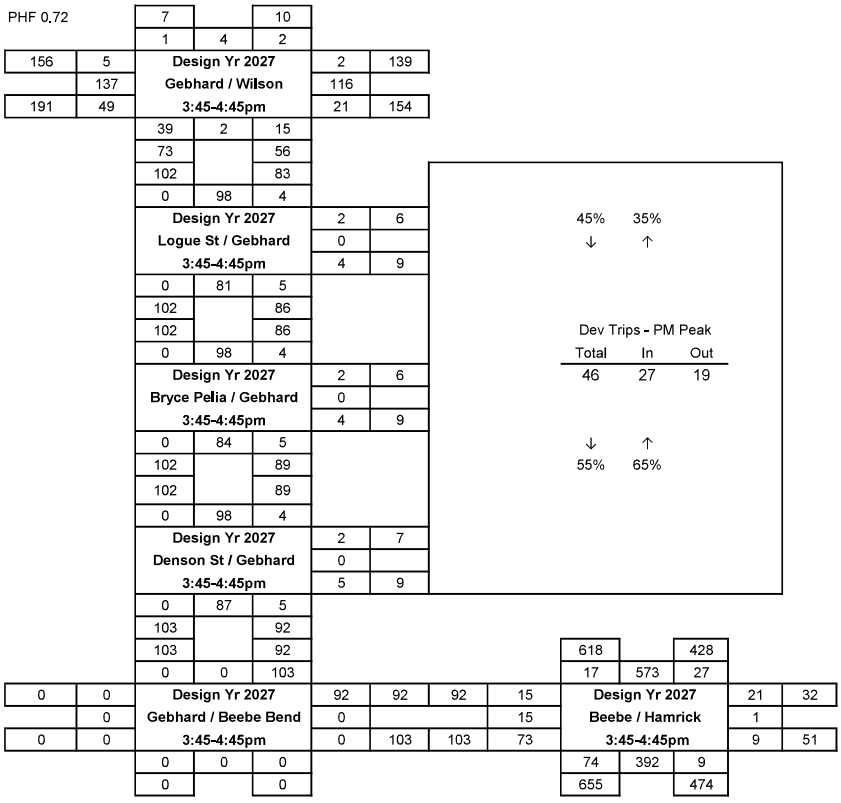
45% ↓ 35% ↑

Dev Trips - PM Peak

Total	In	Out
46	27	19

↓ 55% ↑ 65%

Design Year 2027 Build Traffic Volumes - PM Peak Hour



Southern
Oregon
Transportation
Engineering, LLC

Appendix C

Year 2024 No-Build
Synchro and SimTraffic Output

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	125	26	5	85	20	37	1	5	4	3	3
Future Vol, veh/h	0	125	26	5	85	20	37	1	5	4	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	4	2	2	4	0	2	0	2	0	0	0
Mvmt Flow	0	139	29	6	94	22	41	1	6	4	3	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	116	0	0	168	0	0	274	282	154	274	285	105
Stage 1	-	-	-	-	-	-	154	154	-	117	117	-
Stage 2	-	-	-	-	-	-	120	128	-	157	168	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1485	-	-	1410	-	-	678	630	892	683	628	955
Stage 1	-	-	-	-	-	-	848	774	-	892	803	-
Stage 2	-	-	-	-	-	-	884	794	-	850	763	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1485	-	-	1410	-	-	671	627	892	675	625	955
Mov Cap-2 Maneuver	-	-	-	-	-	-	671	627	-	675	625	-
Stage 1	-	-	-	-	-	-	848	774	-	892	799	-
Stage 2	-	-	-	-	-	-	873	790	-	843	763	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	10.6	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	690	1485	-	-	1410	-	-	721
HCM Lane V/C Ratio	0.069	-	-	-	0.004	-	-	0.015
HCM Control Delay (s)	10.6	0	-	-	7.6	0	-	10.1
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	68	10	4	14	18	370	5	7	422	7
Future Vol, veh/h	0	0	68	10	4	14	18	370	5	7	422	7
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	3	3	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	100	-	200	100	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	3	10	0	7	6	11	0	14	14	17
Mvmt Flow	0	0	75	11	4	15	20	407	5	8	464	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	944	939	468	972	942	411	476	0	0	415	0	0
Stage 1	484	484	-	450	450	-	-	-	-	-	-	-
Stage 2	460	455	-	522	492	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.23	7.2	6.5	6.27	4.16	-	-	4.24	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.327	3.59	4	3.363	2.254	-	-	2.326	-	-
Pot Cap-1 Maneuver	244	266	593	224	265	630	1066	-	-	1082	-	-
Stage 1	568	555	-	573	575	-	-	-	-	-	-	-
Stage 2	585	572	-	524	551	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	229	257	591	191	256	628	1062	-	-	1079	-	-
Mov Cap-2 Maneuver	229	257	-	191	256	-	-	-	-	-	-	-
Stage 1	555	549	-	560	562	-	-	-	-	-	-	-
Stage 2	555	559	-	454	545	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	17.4	0.4	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1062	-	-	591	206	628	1079	-	-
HCM Lane V/C Ratio	0.019	-	-	0.126	0.075	0.024	0.007	-	-
HCM Control Delay (s)	8.5	-	-	12	23.9	10.9	8.4	-	-
HCM Lane LOS	A	-	-	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	131	39	17	108	2	30	2	11	2	3	1
Future Vol, veh/h	5	131	39	17	108	2	30	2	11	2	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	4	2	2	4	0	2	0	2	0	0	0
Mvmt Flow	7	182	54	24	150	3	42	3	15	3	4	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	153	0	0	236	0	0	425	424	209	432	450	152
Stage 1	-	-	-	-	-	-	223	223	-	200	200	-
Stage 2	-	-	-	-	-	-	202	201	-	232	250	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1440	-	-	1331	-	-	540	525	831	537	508	900
Stage 1	-	-	-	-	-	-	780	723	-	806	739	-
Stage 2	-	-	-	-	-	-	800	739	-	775	704	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1440	-	-	1331	-	-	525	511	831	514	495	900
Mov Cap-2 Maneuver	-	-	-	-	-	-	525	511	-	514	495	-
Stage 1	-	-	-	-	-	-	775	719	-	801	724	-
Stage 2	-	-	-	-	-	-	778	724	-	753	700	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1	11.9	11.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	579	1440	-	-	1331	-	-	542
HCM Lane V/C Ratio	0.103	0.005	-	-	0.018	-	-	0.015
HCM Control Delay (s)	11.9	7.5	0	-	7.8	0	-	11.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	12	56	8	1	19	60	380	9	27	556	14
Future Vol, veh/h	11	12	56	8	1	19	60	380	9	27	556	14
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	3	3	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	100	-	200	100	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	2	13	0	11	2	11	22	15	7	7
Mvmt Flow	12	13	62	9	1	21	66	418	10	30	611	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1242	1238	615	1269	1243	422	630	0	0	431	0	0
Stage 1	675	675	-	553	553	-	-	-	-	-	-	-
Stage 2	567	563	-	716	690	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.22	7.23	6.5	6.31	4.12	-	-	4.25	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.23	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.23	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.318	3.617	4	3.399	2.218	-	-	2.335	-	-
Pot Cap-1 Maneuver	153	177	491	138	176	613	952	-	-	1062	-	-
Stage 1	447	456	-	498	518	-	-	-	-	-	-	-
Stage 2	512	512	-	404	449	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	136	159	489	104	158	611	948	-	-	1059	-	-
Mov Cap-2 Maneuver	136	159	-	104	158	-	-	-	-	-	-	-
Stage 1	414	441	-	462	480	-	-	-	-	-	-	-
Stage 2	459	475	-	333	435	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.5	20.9	1.2	0.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	948	-	-	292	108	611	1059	-	-
HCM Lane V/C Ratio	0.07	-	-	0.297	0.092	0.034	0.028	-	-
HCM Control Delay (s)	9.1	-	-	22.5	41.7	11.1	8.5	-	-
HCM Lane LOS	A	-	-	C	E	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.2	0.3	0.1	0.1	-	-

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:20	7:20	7:20	7:20	7:20	7:20
End Time	8:30	8:30	8:30	8:30	8:30	8:30
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1206	1252	1168	1200	1245	1214
Vehs Exited	1211	1247	1167	1213	1250	1218
Starting Vehs	32	27	31	38	35	31
Ending Vehs	27	32	32	25	30	26
Travel Distance (mi)	990	1046	966	1035	1050	1017
Travel Time (hr)	30.0	31.9	29.0	31.4	32.2	30.9
Total Delay (hr)	1.3	1.5	1.3	1.4	1.6	1.4
Total Stops	164	173	138	172	177	165
Fuel Used (gal)	26.8	28.4	26.5	28.2	28.7	27.7

Interval #0 Information Seeding

Start Time	7:20
End Time	7:30
Total Time (min)	10

Volumes adjusted by PHF, Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	341	360	336	332	352	345
Vehs Exited	340	355	327	328	356	341
Starting Vehs	32	27	31	38	35	31
Ending Vehs	33	32	40	42	31	34
Travel Distance (mi)	281	296	285	290	288	288
Travel Time (hr)	8.5	9.1	8.5	8.8	8.8	8.7
Total Delay (hr)	0.4	0.5	0.4	0.4	0.5	0.4
Total Stops	41	46	37	42	50	43
Fuel Used (gal)	7.5	7.9	7.7	8.0	8.0	7.8

Interval #2 Information Recording

Start Time	7:45
End Time	8:30
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	865	892	832	868	893	869
Vehs Exited	871	892	840	885	894	876
Starting Vehs	33	32	40	42	31	34
Ending Vehs	27	32	32	25	30	26
Travel Distance (mi)	709	749	681	744	762	729
Travel Time (hr)	21.5	22.8	20.5	22.6	23.4	22.2
Total Delay (hr)	0.9	1.0	0.9	1.1	1.1	1.0
Total Stops	123	127	101	130	127	121
Fuel Used (gal)	19.3	20.5	18.8	20.2	20.7	19.9

Intersection: 1: Gebhard Rd & Wilson Rd

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	26	49	36
Average Queue (ft)	1	21	12
95th Queue (ft)	11	45	36
Link Distance (ft)	3941	2868	1278
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Hamrick & Beebe Rd

Movement	EB	WB	WB	NB	SB	SB
Directions Served	LTR	LT	R	L	L	T
Maximum Queue (ft)	64	46	42	40	35	2
Average Queue (ft)	25	10	10	7	2	0
95th Queue (ft)	53	34	32	28	15	2
Link Distance (ft)	1664	656				531
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100	100	100	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 3: Gebhard Rd & Logue St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Gebhard Rd & Bryce Pelia

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 5: Gebhard Rd & Denson St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Zone Summary

Zone wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:35	3:35	3:35	3:35	3:35	3:35
End Time	4:45	4:45	4:45	4:45	4:45	4:45
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1456	1410	1428	1406	1393	1417
Vehs Exited	1461	1421	1419	1407	1403	1422
Starting Vehs	37	44	33	38	38	36
Ending Vehs	32	33	42	37	28	34
Travel Distance (mi)	1284	1230	1250	1244	1216	1245
Travel Time (hr)	39.5	37.6	38.3	38.3	37.2	38.2
Total Delay (hr)	2.4	2.2	2.2	2.3	2.0	2.2
Total Stops	213	206	211	226	185	209
Fuel Used (gal)	35.6	33.9	34.4	34.6	33.5	34.4

Interval #0 Information Seeding

Start Time	3:35
End Time	3:45
Total Time (min)	10

Volumes adjusted by PHF, Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	403	395	418	393	384	400
Vehs Exited	396	401	398	390	384	395
Starting Vehs	37	44	33	38	38	36
Ending Vehs	44	38	53	41	38	40
Travel Distance (mi)	338	359	357	352	347	350
Travel Time (hr)	10.3	11.1	11.1	10.8	10.5	10.8
Total Delay (hr)	0.6	0.7	0.8	0.6	0.6	0.7
Total Stops	46	57	56	63	49	53
Fuel Used (gal)	9.3	9.9	9.6	9.7	9.6	9.6

Interval #2 Information Recording

Start Time	4:00
End Time	4:45
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1053	1015	1010	1013	1009	1020
Vehs Exited	1065	1020	1021	1017	1019	1028
Starting Vehs	44	38	53	41	38	40
Ending Vehs	32	33	42	37	28	34
Travel Distance (mi)	946	871	893	892	869	894
Travel Time (hr)	29.1	26.6	27.2	27.4	26.7	27.4
Total Delay (hr)	1.8	1.5	1.4	1.6	1.4	1.5
Total Stops	167	149	155	163	136	154
Fuel Used (gal)	26.3	24.0	24.8	24.9	23.9	24.8

Intersection: 1: Gebhard Rd & Wilson Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	20	37	51	31
Average Queue (ft)	1	3	24	6
95th Queue (ft)	10	17	49	26
Link Distance (ft)	2483	3941	2868	1278
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Hamrick & Beebe Rd

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	L	T
Maximum Queue (ft)	78	43	40	53	10	52	13
Average Queue (ft)	30	8	12	21	0	9	0
95th Queue (ft)	59	28	36	47	7	35	7
Link Distance (ft)	1664	656			1417		531
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			100	100		100	
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 3: Gebhard Rd & Logue St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Gebhard Rd & Bryce Pelia

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 5: Gebhard Rd & Denson St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Zone Summary

Zone wide Queuing Penalty: 0

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Appendix D

Design Year 2027 No-Build Synchro and SimTraffic Output

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	131	27	6	90	21	42	1	6	4	3	3
Future Vol, veh/h	0	131	27	6	90	21	42	1	6	4	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	4	2	2	4	0	2	0	2	0	0	0
Mvmt Flow	0	146	30	7	100	23	47	1	7	4	3	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	123	0	0	176	0	0	290	298	161	291	302	112
Stage 1	-	-	-	-	-	-	161	161	-	126	126	-
Stage 2	-	-	-	-	-	-	129	137	-	165	176	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1477	-	-	1400	-	-	662	617	884	665	614	947
Stage 1	-	-	-	-	-	-	841	769	-	883	796	-
Stage 2	-	-	-	-	-	-	875	787	-	842	757	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1477	-	-	1400	-	-	655	614	884	656	611	947
Mov Cap-2 Maneuver	-	-	-	-	-	-	655	614	-	656	611	-
Stage 1	-	-	-	-	-	-	841	769	-	883	792	-
Stage 2	-	-	-	-	-	-	864	783	-	834	757	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	10.8	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	676	1477	-	-	1400	-	-	705
HCM Lane V/C Ratio	0.081	-	-	-	0.005	-	-	0.016
HCM Control Delay (s)	10.8	0	-	-	7.6	0	-	10.2
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	78	11	5	16	19	382	5	8	434	7
Future Vol, veh/h	0	0	78	11	5	16	19	382	5	8	434	7
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	3	3	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	100	-	200	100	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	3	10	0	7	6	11	0	14	14	17
Mvmt Flow	0	0	86	12	5	18	21	420	5	9	477	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	976	969	481	1007	972	424	489	0	0	428	0	0
Stage 1	499	499	-	465	465	-	-	-	-	-	-	-
Stage 2	477	470	-	542	507	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.23	7.2	6.5	6.27	4.16	-	-	4.24	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.327	3.59	4	3.363	2.254	-	-	2.326	-	-
Pot Cap-1 Maneuver	232	256	583	212	254	619	1054	-	-	1070	-	-
Stage 1	557	547	-	563	566	-	-	-	-	-	-	-
Stage 2	573	563	-	510	543	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	216	247	581	176	245	617	1050	-	-	1067	-	-
Mov Cap-2 Maneuver	216	247	-	176	245	-	-	-	-	-	-	-
Stage 1	544	540	-	550	553	-	-	-	-	-	-	-
Stage 2	540	550	-	431	536	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	18.3	0.4	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1050	-	-	581	193	617	1067	-	-
HCM Lane V/C Ratio	0.02	-	-	0.148	0.091	0.028	0.008	-	-
HCM Control Delay (s)	8.5	-	-	12.3	25.5	11	8.4	-	-
HCM Lane LOS	A	-	-	B	D	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.3	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	137	41	18	116	2	35	2	13	2	3	1
Future Vol, veh/h	5	137	41	18	116	2	35	2	13	2	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	4	2	2	4	0	2	0	2	0	0	0
Mvmt Flow	7	190	57	25	161	3	49	3	18	3	4	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	164	0	0	247	0	0	448	447	219	456	474	163
Stage 1	-	-	-	-	-	-	233	233	-	213	213	-
Stage 2	-	-	-	-	-	-	215	214	-	243	261	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1427	-	-	1319	-	-	521	509	821	518	492	887
Stage 1	-	-	-	-	-	-	770	716	-	794	730	-
Stage 2	-	-	-	-	-	-	787	729	-	765	696	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1427	-	-	1319	-	-	506	495	821	494	479	887
Mov Cap-2 Maneuver	-	-	-	-	-	-	506	495	-	494	479	-
Stage 1	-	-	-	-	-	-	765	712	-	789	715	-
Stage 2	-	-	-	-	-	-	765	714	-	741	692	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1	12.3	12
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	562	1427	-	-	1319	-	-	525
HCM Lane V/C Ratio	0.124	0.005	-	-	0.019	-	-	0.016
HCM Control Delay (s)	12.3	7.5	0	-	7.8	0	-	12
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	13	64	9	1	21	62	392	9	27	573	14
Future Vol, veh/h	13	13	64	9	1	21	62	392	9	27	573	14
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	3	3	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	100	-	200	100	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	2	13	0	11	2	11	22	15	7	7
Mvmt Flow	14	14	70	10	1	23	68	431	10	30	630	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1279	1274	634	1310	1279	435	649	0	0	444	0	0
Stage 1	694	694	-	570	570	-	-	-	-	-	-	-
Stage 2	585	580	-	740	709	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.22	7.23	6.5	6.31	4.12	-	-	4.25	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.23	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.23	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.318	3.617	4	3.399	2.218	-	-	2.335	-	-
Pot Cap-1 Maneuver	144	169	479	129	167	602	937	-	-	1051	-	-
Stage 1	436	447	-	488	509	-	-	-	-	-	-	-
Stage 2	501	503	-	392	440	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	127	151	477	94	149	600	933	-	-	1048	-	-
Mov Cap-2 Maneuver	127	151	-	94	149	-	-	-	-	-	-	-
Stage 1	403	432	-	451	470	-	-	-	-	-	-	-
Stage 2	445	465	-	314	425	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.8	22.5	1.2	0.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	933	-	-	279	98	600	1048	-	-
HCM Lane V/C Ratio	0.073	-	-	0.354	0.112	0.038	0.028	-	-
HCM Control Delay (s)	9.2	-	-	24.8	46.3	11.2	8.5	-	-
HCM Lane LOS	A	-	-	C	E	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.5	0.4	0.1	0.1	-	-

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:20	7:20	7:20	7:20	7:20	7:20
End Time	8:30	8:30	8:30	8:30	8:30	8:30
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1262	1214	1295	1279	1289	1268
Vehs Exited	1268	1210	1300	1276	1297	1271
Starting Vehs	36	32	40	27	28	30
Ending Vehs	30	36	35	30	20	29
Travel Distance (mi)	1042	1022	1111	1093	1096	1073
Travel Time (hr)	32.0	31.0	33.8	33.3	33.3	32.7
Total Delay (hr)	1.5	1.5	1.5	1.6	1.6	1.6
Total Stops	168	170	173	202	184	181
Fuel Used (gal)	28.8	28.2	29.9	30.3	29.9	29.4

Interval #0 Information Seeding

Start Time	7:20
End Time	7:30
Total Time (min)	10

Volumes adjusted by PHF, Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	344	349	359	343	354	349
Vehs Exited	337	349	348	339	354	347
Starting Vehs	36	32	40	27	28	30
Ending Vehs	43	32	51	31	28	35
Travel Distance (mi)	269	288	296	286	304	289
Travel Time (hr)	8.3	8.8	9.1	8.7	9.3	8.8
Total Delay (hr)	0.4	0.5	0.4	0.4	0.5	0.5
Total Stops	43	43	42	55	56	46
Fuel Used (gal)	7.4	7.9	8.0	7.8	8.3	7.9

Interval #2 Information Recording

Start Time	7:45
End Time	8:30
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	918	865	936	936	935	918
Vehs Exited	931	861	952	937	943	925
Starting Vehs	43	32	51	31	28	35
Ending Vehs	30	36	35	30	20	29
Travel Distance (mi)	774	734	815	807	791	784
Travel Time (hr)	23.7	22.2	24.8	24.6	24.0	23.8
Total Delay (hr)	1.1	1.0	1.1	1.2	1.1	1.1
Total Stops	125	127	131	147	128	132
Fuel Used (gal)	21.4	20.3	21.9	22.4	21.6	21.5

Intersection: 1: Gebhard Rd & Wilson Rd

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	21	50	31
Average Queue (ft)	1	27	9
95th Queue (ft)	9	49	31
Link Distance (ft)	3941	2868	1278
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Hamrick & Beebe Rd

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LT	R	L	L
Maximum Queue (ft)	63	47	54	44	34
Average Queue (ft)	24	12	10	8	2
95th Queue (ft)	48	36	33	31	15
Link Distance (ft)	1664	656			
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100	100	100
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Gebhard Rd & Logue St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Gebhard Rd & Bryce Pelia

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 5: Gebhard Rd & Denson St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Zone Summary

Zone wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:35	3:35	3:35	3:35	3:35	3:35
End Time	4:45	4:45	4:45	4:45	4:45	4:45
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1513	1418	1509	1505	1383	1464
Vehs Exited	1502	1430	1525	1505	1391	1470
Starting Vehs	35	53	57	39	41	43
Ending Vehs	46	41	41	39	33	41
Travel Distance (mi)	1355	1301	1330	1334	1227	1309
Travel Time (hr)	42.0	40.0	41.0	40.9	37.3	40.2
Total Delay (hr)	2.7	2.4	2.6	2.5	2.1	2.4
Total Stops	278	249	230	227	205	235
Fuel Used (gal)	37.7	36.2	36.8	36.8	33.7	36.2

Interval #0 Information Seeding

Start Time	3:35
End Time	3:45
Total Time (min)	10

Volumes adjusted by PHF, Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	440	392	433	429	413	422
Vehs Exited	429	402	449	409	406	420
Starting Vehs	35	53	57	39	41	43
Ending Vehs	46	43	41	59	48	46
Travel Distance (mi)	409	374	405	372	382	389
Travel Time (hr)	12.7	11.6	12.5	11.4	11.6	12.0
Total Delay (hr)	0.9	0.7	0.9	0.7	0.7	0.8
Total Stops	80	60	74	55	64	66
Fuel Used (gal)	11.4	10.5	11.3	10.1	10.6	10.8

Interval #2 Information Recording

Start Time	4:00
End Time	4:45
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1073	1026	1076	1076	970	1044
Vehs Exited	1073	1028	1076	1096	985	1052
Starting Vehs	46	43	41	59	48	46
Ending Vehs	46	41	41	39	33	41
Travel Distance (mi)	946	927	925	962	845	921
Travel Time (hr)	29.2	28.4	28.4	29.5	25.7	28.2
Total Delay (hr)	1.8	1.7	1.7	1.8	1.4	1.7
Total Stops	198	189	156	172	141	170
Fuel Used (gal)	26.3	25.7	25.5	26.7	23.2	25.5

Intersection: 1: Gebhard Rd & Wilson Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	11	33	50	36
Average Queue (ft)	0	3	26	6
95th Queue (ft)	5	19	48	26
Link Distance (ft)	2483	3941	2868	1278
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Hamrick & Beebe Rd

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	R	L	T
Maximum Queue (ft)	79	48	54	57	5	51	3
Average Queue (ft)	28	11	16	22	0	11	0
95th Queue (ft)	58	37	41	48	4	36	2
Link Distance (ft)	1664	656					531
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			100	100	200	100	
Storage Blk Time (%)		0					
Queuing Penalty (veh)		0					

Intersection: 3: Gebhard Rd & Logue St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Gebhard Rd & Bryce Pelia

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 5: Gebhard Rd & Denson St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Zone Summary

Zone wide Queuing Penalty: 0

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Appendix E

Design Year 2027 Build
Synchro and SimTraffic Output

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	131	32	7	90	21	52	1	7	4	3	3
Future Vol, veh/h	0	131	32	7	90	21	52	1	7	4	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	4	2	2	4	0	2	0	2	0	0	0
Mvmt Flow	0	146	36	8	100	23	58	1	8	4	3	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	123	0	0	182	0	0	295	303	164	297	310	112
Stage 1	-	-	-	-	-	-	164	164	-	128	128	-
Stage 2	-	-	-	-	-	-	131	139	-	169	182	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1477	-	-	1393	-	-	657	613	881	659	608	947
Stage 1	-	-	-	-	-	-	838	766	-	881	794	-
Stage 2	-	-	-	-	-	-	873	785	-	838	753	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1477	-	-	1393	-	-	649	609	881	649	604	947
Mov Cap-2 Maneuver	-	-	-	-	-	-	649	609	-	649	604	-
Stage 1	-	-	-	-	-	-	838	766	-	881	789	-
Stage 2	-	-	-	-	-	-	861	780	-	829	753	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	11	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	669	1477	-	-	1393	-	-	699
HCM Lane V/C Ratio	0.1	-	-	-	0.006	-	-	0.016
HCM Control Delay (s)	11	0	-	-	7.6	0	-	10.2
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	94	11	5	16	22	382	5	8	434	8
Future Vol, veh/h	0	0	94	11	5	16	22	382	5	8	434	8
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	3	3	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	100	-	200	100	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	3	10	0	7	6	11	0	14	14	17
Mvmt Flow	0	0	103	12	5	18	24	420	5	9	477	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	982	975	481	1022	979	424	490	0	0	428	0	0
Stage 1	499	499	-	471	471	-	-	-	-	-	-	-
Stage 2	483	476	-	551	508	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.23	7.2	6.5	6.27	4.16	-	-	4.24	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.327	3.59	4	3.363	2.254	-	-	2.326	-	-
Pot Cap-1 Maneuver	230	253	583	207	252	619	1053	-	-	1070	-	-
Stage 1	557	547	-	558	563	-	-	-	-	-	-	-
Stage 2	569	560	-	505	542	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	213	243	581	166	242	617	1049	-	-	1067	-	-
Mov Cap-2 Maneuver	213	243	-	166	242	-	-	-	-	-	-	-
Stage 1	542	540	-	543	548	-	-	-	-	-	-	-
Stage 2	534	545	-	412	535	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	18.8	0.5	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1049	-	-	581	184	617	1067	-	-
HCM Lane V/C Ratio	0.023	-	-	0.178	0.096	0.028	0.008	-	-
HCM Control Delay (s)	8.5	-	-	12.5	26.6	11	8.4	-	-
HCM Lane LOS	A	-	-	B	D	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.3	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	4	37	1	2	82
Future Vol, veh/h	5	4	37	1	2	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	4	40	1	2	89

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	134	41	0	0	41	0
Stage 1	41	-	-	-	-	-
Stage 2	93	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	860	1030	-	-	1568	-
Stage 1	981	-	-	-	-	-
Stage 2	931	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	859	1030	-	-	1568	-
Mov Cap-2 Maneuver	859	-	-	-	-	-
Stage 1	981	-	-	-	-	-
Stage 2	930	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	927	1568	-
HCM Lane V/C Ratio	-	-	0.011	0.001	-
HCM Control Delay (s)	-	-	8.9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	4	34	1	2	85
Future Vol, veh/h	5	4	34	1	2	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	4	37	1	2	92

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	134	38	0	0	38	0
Stage 1	38	-	-	-	-	-
Stage 2	96	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	860	1034	-	-	1572	-
Stage 1	984	-	-	-	-	-
Stage 2	928	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	859	1034	-	-	1572	-
Mov Cap-2 Maneuver	859	-	-	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	927	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	929	1572	-
HCM Lane V/C Ratio	-	-	0.011	0.001	-
HCM Control Delay (s)	-	-	8.9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	3	32	2	2	88
Future Vol, veh/h	6	3	32	2	2	88
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	3	35	2	2	96

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	136	36	0	0	37	0
Stage 1	36	-	-	-	-	-
Stage 2	100	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	857	1037	-	-	1574	-
Stage 1	986	-	-	-	-	-
Stage 2	924	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	856	1037	-	-	1574	-
Mov Cap-2 Maneuver	856	-	-	-	-	-
Stage 1	986	-	-	-	-	-
Stage 2	923	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	909	1574	-
HCM Lane V/C Ratio	-	-	0.011	0.001	-
HCM Control Delay (s)	-	-	9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	137	49	21	116	2	39	3	14	2	4	1
Future Vol, veh/h	5	137	49	21	116	2	39	3	14	2	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	4	2	2	4	0	2	0	2	0	0	0
Mvmt Flow	7	190	68	29	161	3	54	4	19	3	6	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	164	0	0	258	0	0	462	460	224	471	493	163
Stage 1	-	-	-	-	-	-	238	238	-	221	221	-
Stage 2	-	-	-	-	-	-	224	222	-	250	272	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1427	-	-	1307	-	-	510	501	815	506	480	887
Stage 1	-	-	-	-	-	-	765	712	-	786	724	-
Stage 2	-	-	-	-	-	-	779	723	-	759	688	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1427	-	-	1307	-	-	493	486	815	480	466	887
Mov Cap-2 Maneuver	-	-	-	-	-	-	493	486	-	480	466	-
Stage 1	-	-	-	-	-	-	760	708	-	781	707	-
Stage 2	-	-	-	-	-	-	753	706	-	732	684	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.2	12.7	12.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	547	1427	-	-	1307	-	-	504
HCM Lane V/C Ratio	0.142	0.005	-	-	0.022	-	-	0.019
HCM Control Delay (s)	12.7	7.5	0	-	7.8	0	-	12.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	15	73	9	1	21	74	392	9	27	573	17
Future Vol, veh/h	15	15	73	9	1	21	74	392	9	27	573	17
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	3	3	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	100	-	200	100	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	2	13	0	11	2	11	22	15	7	7
Mvmt Flow	16	16	80	10	1	23	81	431	10	30	630	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1305	1300	634	1344	1309	435	653	0	0	444	0	0
Stage 1	694	694	-	596	596	-	-	-	-	-	-	-
Stage 2	611	606	-	748	713	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.22	7.23	6.5	6.31	4.12	-	-	4.25	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.23	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.23	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.318	3.617	4	3.399	2.218	-	-	2.335	-	-
Pot Cap-1 Maneuver	138	163	479	122	161	602	934	-	-	1051	-	-
Stage 1	436	447	-	472	495	-	-	-	-	-	-	-
Stage 2	484	490	-	388	438	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	120	143	477	84	142	600	930	-	-	1048	-	-
Mov Cap-2 Maneuver	120	143	-	84	142	-	-	-	-	-	-	-
Stage 1	396	432	-	430	450	-	-	-	-	-	-	-
Stage 2	423	446	-	302	424	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.8	24.3	1.4	0.4
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	930	-	-	269	88	600	1048	-	-
HCM Lane V/C Ratio	0.087	-	-	0.421	0.125	0.038	0.028	-	-
HCM Control Delay (s)	9.2	-	-	27.8	51.7	11.2	8.5	-	-
HCM Lane LOS	A	-	-	D	F	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	2	0.4	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	2	81	5	4	98
Future Vol, veh/h	4	2	81	5	4	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	2	88	5	4	107

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	206	91	0	0	93	0
Stage 1	91	-	-	-	-	-
Stage 2	115	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	782	967	-	-	1501	-
Stage 1	933	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	780	967	-	-	1501	-
Mov Cap-2 Maneuver	780	-	-	-	-	-
Stage 1	933	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	834	1501	-
HCM Lane V/C Ratio	-	-	0.008	0.003	-
HCM Control Delay (s)	-	-	9.4	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	2	84	5	4	98
Future Vol, veh/h	4	2	84	5	4	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	2	91	5	4	107

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	209	94	0	0	96	0
Stage 1	94	-	-	-	-	-
Stage 2	115	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	779	963	-	-	1498	-
Stage 1	930	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	777	963	-	-	1498	-
Mov Cap-2 Maneuver	777	-	-	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	830	1498	-
HCM Lane V/C Ratio	-	-	0.008	0.003	-
HCM Control Delay (s)	-	-	9.4	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	2	87	5	4	98
Future Vol, veh/h	5	2	87	5	4	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	2	95	5	4	107

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	213	98	0	0	100	0
Stage 1	98	-	-	-	-	-
Stage 2	115	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	775	958	-	-	1493	-
Stage 1	926	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	773	958	-	-	1493	-
Mov Cap-2 Maneuver	773	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	818	1493	-
HCM Lane V/C Ratio	-	-	0.009	0.003	-
HCM Control Delay (s)	-	-	9.4	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:20	7:20	7:20	7:20	7:20	7:20
End Time	8:30	8:30	8:30	8:30	8:30	8:30
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1277	1264	1326	1272	1339	1295
Vehs Exited	1273	1260	1328	1283	1342	1297
Starting Vehs	38	28	36	47	38	36
Ending Vehs	42	32	34	36	35	33
Travel Distance (mi)	1077	1065	1119	1097	1143	1100
Travel Time (hr)	33.1	32.5	34.3	33.7	35.2	33.8
Total Delay (hr)	1.6	1.6	1.8	1.7	2.0	1.7
Total Stops	227	220	242	256	257	240
Fuel Used (gal)	29.7	29.0	31.0	30.6	31.7	30.4

Interval #0 Information Seeding

Start Time	7:20
End Time	7:30
Total Time (min)	10

Volumes adjusted by PHF, Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	336	372	354	358	378	360
Vehs Exited	344	360	357	373	367	361
Starting Vehs	38	28	36	47	38	36
Ending Vehs	30	40	33	32	49	34
Travel Distance (mi)	287	322	295	303	338	309
Travel Time (hr)	8.9	9.8	9.1	9.4	10.4	9.5
Total Delay (hr)	0.5	0.5	0.4	0.5	0.7	0.5
Total Stops	55	55	67	73	82	66
Fuel Used (gal)	7.8	8.6	8.3	8.5	9.5	8.6

Interval #2 Information Recording

Start Time	7:45
End Time	8:30
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	941	892	972	914	961	936
Vehs Exited	929	900	971	910	975	939
Starting Vehs	30	40	33	32	49	34
Ending Vehs	42	32	34	36	35	33
Travel Distance (mi)	790	742	823	794	805	791
Travel Time (hr)	24.2	22.7	25.3	24.3	24.8	24.3
Total Delay (hr)	1.2	1.1	1.3	1.1	1.3	1.2
Total Stops	172	165	175	183	175	175
Fuel Used (gal)	21.9	20.4	22.7	22.1	22.2	21.8

Intersection: 1: Gebhard Rd & Wilson Rd

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	26	65	36
Average Queue (ft)	1	27	8
95th Queue (ft)	11	50	30
Link Distance (ft)	3941	2868	1278
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Hamrick & Beebe Rd

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	L	T
Maximum Queue (ft)	84	39	46	37	25	27	5
Average Queue (ft)	31	10	12	6	1	2	0
95th Queue (ft)	63	33	34	27	11	15	3
Link Distance (ft)	1664	656			1417		531
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			100	100		100	
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 3: Gebhard Rd & Logue St

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	35	11
Average Queue (ft)	11	0
95th Queue (ft)	36	6
Link Distance (ft)	228	2868
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Gebhard Rd & Bryce Pelia

Movement	WB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	8
95th Queue (ft)	31
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Gebhard Rd & Denson St

Movement	WB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	9
95th Queue (ft)	31
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:35	3:35	3:35	3:35	3:35	3:35
End Time	4:45	4:45	4:45	4:45	4:45	4:45
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1474	1460	1490	1618	1501	1509
Vehs Exited	1493	1473	1507	1634	1513	1524
Starting Vehs	51	59	51	62	54	51
Ending Vehs	32	46	34	46	42	38
Travel Distance (mi)	1286	1323	1357	1464	1353	1356
Travel Time (hr)	39.5	40.9	42.1	45.7	42.1	42.1
Total Delay (hr)	2.3	2.5	2.7	3.2	2.8	2.7
Total Stops	223	280	278	309	281	273
Fuel Used (gal)	35.9	36.6	38.1	41.1	37.9	37.9

Interval #0 Information Seeding

Start Time	3:35
End Time	3:45
Total Time (min)	10

Volumes adjusted by PHF, Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	431	411	413	463	407	425
Vehs Exited	431	413	417	471	406	428
Starting Vehs	51	59	51	62	54	51
Ending Vehs	51	57	47	54	55	51
Travel Distance (mi)	367	387	396	442	383	395
Travel Time (hr)	11.2	12.0	12.4	13.9	12.1	12.3
Total Delay (hr)	0.7	0.8	0.9	1.0	0.9	0.9
Total Stops	56	78	84	91	84	78
Fuel Used (gal)	10.2	10.8	11.2	12.3	10.6	11.0

Interval #2 Information Recording

Start Time	4:00
End Time	4:45
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1043	1049	1077	1155	1094	1083
Vehs Exited	1062	1060	1090	1163	1107	1097
Starting Vehs	51	57	47	54	55	51
Ending Vehs	32	46	34	46	42	38
Travel Distance (mi)	920	936	961	1022	970	962
Travel Time (hr)	28.3	28.9	29.8	31.8	30.0	29.7
Total Delay (hr)	1.6	1.7	1.8	2.2	1.8	1.8
Total Stops	167	202	194	218	197	193
Fuel Used (gal)	25.7	25.8	26.9	28.8	27.2	26.9

Intersection: 1: Gebhard Rd & Wilson Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	21	57	67	31
Average Queue (ft)	0	5	26	6
95th Queue (ft)	8	27	54	27
Link Distance (ft)	2483	3941	2868	1278
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Hamrick & Beebe Rd

Movement	EB	WB	WB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	L	T	R
Maximum Queue (ft)	99	38	51	56	37	7	4
Average Queue (ft)	37	10	16	24	6	0	0
95th Queue (ft)	76	32	42	51	26	4	3
Link Distance (ft)	1664	656				531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			100	100	100		75
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 3: Gebhard Rd & Logue St

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	32	6
Average Queue (ft)	5	0
95th Queue (ft)	24	4
Link Distance (ft)	228	2868
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Gebhard Rd & Bryce Pelia

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	31	11
Average Queue (ft)	5	0
95th Queue (ft)	24	6
Link Distance (ft)	321	368
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Gebhard Rd & Denson St

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	35	5
Average Queue (ft)	6	0
95th Queue (ft)	27	4
Link Distance (ft)	321	379
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

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Appendix F

Preliminary Signal Warrants, Turn Lane Graphs

Oregon Department of Transportation

Transportation Development Branch

Transportation Planning Analysis Unit

Preliminary Traffic Signal Warrant Analysis[1]

Major Street:	Hamrick Road	**Minor Street:**	Beebe Road
Project:	Gebhard Village Subdivision	**City/County:**	Central Point/Jackson
Year:	Existing Year 2024	**Alternative:**	No-Build PM Peak

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
X	100 percent of standard warrants				
	70 percent of standard warrants[2]				

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	8850	12294	N
	Minor	1	2650	429	
Case B	Major	1	13300	12294	N
	Minor	1	1350	429	

Analyst and Date: KPW 10-24-2023 | Reviewer and Date:

[1] Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

[2] Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Analysis Procedures Manual

Oregon Department of Transportation

Transportation Development Branch

Transportation Planning Analysis Unit

Preliminary Traffic Signal Warrant Analysis[1]

Major Street:	Hamrick Road	**Minor Street:**	Beebe Road
Project:	Gebhard Village Subdivision	**City/County:**	Central Point/Jackson
Year:	Design Year 2027	**Alternative:**	No-Build PM Peak

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
X	100 percent of standard warrants				
	70 percent of standard warrants[2]				

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	8850	12671	N
	Minor	1	2650	479	
Case B	Major	1	13300	12671	N
	Minor	1	1350	479	

Analyst and Date: KPW 10-24-2023 | Reviewer and Date:

[1] Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

[2] Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Analysis Procedures Manual

Oregon Department of Transportation

Transportation Development Branch

Transportation Planning Analysis Unit

Preliminary Traffic Signal Warrant Analysis[1]

Major Street:	Hamrick Road	**Minor Street:**	Beebe Road
Project:	Gebhard Village Subdivision	**City/County:**	Central Point/Jackson
Year:	Design Year 2027	**Alternative:**	Build PM Peak

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
X	100 percent of standard warrants				
	70 percent of standard warrants[2]				

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	8850	12847	N
	Minor	1	2650	632	
Case B	Major	1	13300	12847	N
	Minor	1	1350	632	

Analyst and Date: KPW 10-24-2023 | Reviewer and Date:

[1] Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

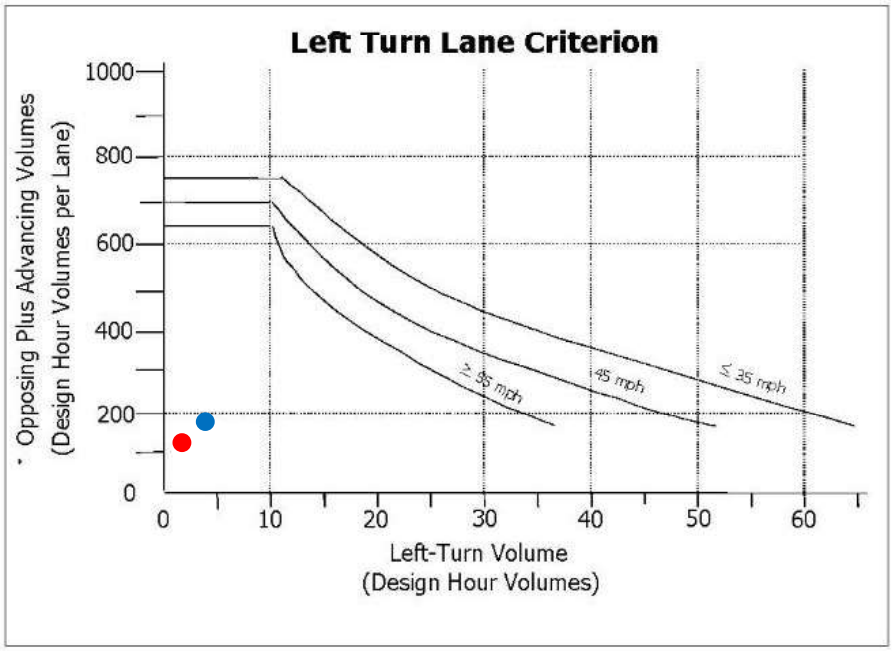
[2] Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Analysis Procedures Manual

Denson Street / Gebhard Road

Exhibit 7-1 Left Turn Lane Criterion (TTI)

Design Year 2027 Build, AM/PM Peak



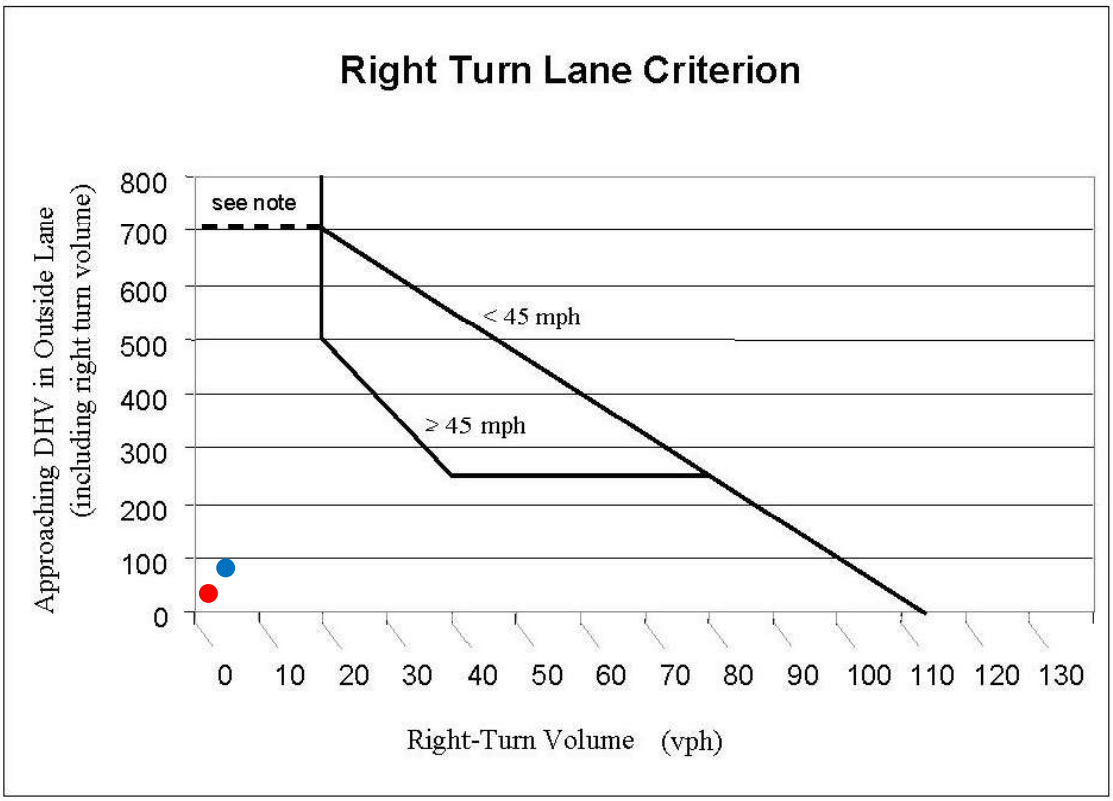
*(Advancing Volume/Number of Advancing Through Lanes) + (Opposing Volume/Number of Opposing Through Lanes)

AM Peak Hour
X = 4 VPH
Y= 195 VPH
Criterion: Not Met

PM Peak Hour
X = 2 VPH
Y= 124 VPH
Criterion: Not Met

Denson Street / Gebhard Road

Exhibit 7-2 Right Turn Lane Criterion | **Design Year 2027 Build, AM/PM Peak**



Note: If there is no right turn lane, a shoulder needs to be provided. If this intersection is in a rural area and is a connection to a public street, a right turn lane is needed.

AM Peak Hour	PM Peak Hour
X = 2 VPH	X = 5 VPH
Y= 34 VPH	Y= 93 VPH
Criterion: Not Met	Criterion: Not Met

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Appendix G

Agency Requirements

320.00.00 – Design

320.10.01 – Design Standards

The purpose of these standards is to provide a consistent policy under which certain physical aspects of street and related design and plan preparation will be observed by the engineer.

The Engineer should be aware that certain alternate street standards for the Transit Oriented District and Transit Oriented Corridor might apply to the design and construction streets in these areas of the city. These alternate standards are fully described in the Central Point TOD Design Requirements and Guidelines. They are also briefly described in lesser detail in these Standards and Specifications.

This section contains design standards to ensure the safe and efficient operation of each facility type for all users and the best use of public space. The requirements in this section are established as minimum standards to follow and apply to both new construction and reconstruction, except as otherwise specified.

Designs shall consider the needs of people with disabilities and the aged, such as visually impaired pedestrians and mobility impaired pedestrians. Every effort should be made to locate street hardware away from pedestrian locations and provide a surface free of bumps and cracks, which create safety and mobility problems. Smooth access ramps shall be provided where required. All designs shall conform to the current American Disabilities Act (ADA) or as adopted by the Oregon Department of Transportation (ODOT), Oregon Bicycle and Pedestrian Plan.

The determination of the pavement width and total right-of-way shall be based on the operational needs for each street as determined by a technical analysis. The technical analysis shall use demand volumes that reflect the maximum number of pedestrians, bicyclists, parked vehicles and motorized vehicle traffic expected when the area using the street is fully developed. Technical analysis shall take into consideration, transportation elements of the Comprehensive Plan, TOD, neighborhood plans, approved tentative plans as well as existing commercial and residential developments. All street designs shall be coordinated with the design of other new or existing infrastructure.

These standards set forth the minimum requirements for materials and street design.
The Public Works Director shall have discretion to require a higher or different standard for materials or design when in his judgment it is in the best interest of the public's health, safety and welfare when considering all aspects and circumstances of the project.

The minimum geometric requirements for all street classifications are defined in Tables 300 – 1 through 300 – 7.

320.10.02 – Traffic Impact Analysis

The purpose of this section is to assist in the determination of which road authorities participate in land use decisions, and to implement Section 660-012-0045(2)(e) of the State Transportation

Planning Rule that requires the city to adopt a process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities.
This chapter establishes the standards for when a proposal must be reviewed for potential traffic impacts; when a traffic impact analysis must be submitted with a development application in order to determine whether conditions are needed to minimize impacts to and protect transportation facilities; what must be in a traffic impact analysis; and who is qualified to prepare the study.

A traffic impact analysis shall be prepared by a traffic engineer or civil engineer licensed to practice in the state of Oregon with special training and experience in traffic engineering. If the road authority is the Oregon Department of Transportation (ODOT), consult ODOT's regional development review planner and OAR 734-051-180. If the road is the authority of Jackson County, consult Jackson County's road design requirements.

The Public Works Director may, at his/her discretion, waive the study of certain intersections when it is concluded that the impacts are not substantial.

320.10.03 – Traffic Impact Analysis Applicability

(1) The level of detail and scope of a traffic impact analysis (TIA) will vary with the size, complexity, and location of the proposed application. Prior to any TIA, the applicant shall submit sufficient information to the City for the Public Works Department to issue a scoping letter. If stipulations to reduce traffic are requested by an applicant, it must first be shown by means of an analysis that an unconditional approval is not possible without some form of mitigation to maintain an adequate LOS. This will determine whether a stipulation is necessary.

(2) Extent of Study Area:
The study area shall be defined by the Public Works Department in the scoping letter and shall address at least the following areas:

a) All proposed site access points;
b) Any intersection where the proposed development can be expected to Contribute 25 or more trips during the analysis peak period. Impacts of less than 25 peak period trips are not substantial and will not be included in the study area. This volume may be adjusted, at the discretion of the Public Works Department, for safety or unusual situations; and
c) Any intersections directly adjacent to the subject property.

(3) When required: TIA shall be required when a land use application involves one or more of the following actions:

a) A change in zoning or a plan amendment designation that generates 300 average daily trips (ADT) more than the current zoning;
b) Any proposed development or land use action that a road authority, including the city, Jackson County or ODOT, states may have operational or safety concerns along its facilities;
c) An increase in site traffic volume generation by 250 average daily trips (ADT) or more, or 25 Peak Hour Trips (PHT);

d) An increase in peak hour volume of a particular movement to and from the State highway by 20 percent or more;
e) An increase in use of adjacent streets by vehicles exceeding twenty thousand pounds gross vehicle weight by 10 vehicles or more per day;
f) The location of the access driveway does not meet minimum sight distance requirements, as determined by the city engineer, or is located where vehicles entering or leaving the property are restricted, or such vehicles queue or hesitate on the state highway, creating a safety hazard at the discretion of the community development director; or
g) A change in internal traffic patterns that, at the discretion of the Public Works Director, may cause safety problems, such as back-up onto a street or greater potential for traffic accidents.

(4) Submittals:
Provide two copies of the TIA for Public Works Department to review.

(5) Elements of Analysis:
A TIA shall be prepared by a Traffic Engineer or Civil Engineer licensed to practice in the State of Oregon with special training and experience in traffic engineering. The TIA shall be a thorough review of the effects a proposed use will have on the transportation system. The study area shall include all streets and intersections in the analysis, as defined in subsection (2) above. Traffic generated from a proposed site will be distributed throughout the transportation system using existing count data or the current transportation model used by the City. Any alternate distribution method must be based on data acceptable to the Public Works Department. The following checklist outlines what a TIA shall contain. Incomplete reports shall be returned to the applicant for completion without review:

a) The scoping letter as provided by the Public Works Department;
b) The Final TIA shall be signed and stamped by a Professional Civil or Traffic Engineer registered in the State of Oregon;
c) An executive summary, discussing the development, the major findings of the analysis, and the mitigation measures proposed;
d) A vicinity map of the proposed site and study area;
e) Project characteristics such as zoning, potential trip generations (unless stipulated to less than potential), proposed access(s), and other pertinent factors;
f) Street characteristics within the study area including functional classification, number of travel lanes, lane width, shoulder treatment, bicycle path corridors, and traffic control at intersections;
g) Description of existing transportation conditions including transit accessibility, accident history, pedestrian facilities, bicycle facilities, traffic signals, and overall traffic operations and circulation;
h) Peak period turning movement counts of at least two-hour minimums at study area intersections, less than 2 years old. These counts shall be adjusted to the design year of the project and consider seasonal traffic adjustments when required by the scoping letter;
i) A “Figure” showing existing peak period (AM, noon, or PM, whichever is largest) turning movement volumes at study area intersections, as shown in Example 1. Approved applications obtained from the City that have not built out but will impact study

area intersections shall be included as pipeline traffic. An appropriate adjustment factor shall be applied to existing count data if counts were taken during the off-peak season;
j) Potential “Project” trip generation using the most current edition of the ITE Trip Generation, as required by the Public Works Department at the time of scoping. Variations of trip rates will require the approval of the Public Works Department. Such approval will require submission of adequate supporting data prior to first submittal of the TIA;
k) A “Figure” illustrating project turning movement volumes at study area intersections for peak periods, as shown in Example 2. Adjustments made for pass-by traffic volumes shall follow the methodology outlined in the latest edition of the ITE Trip Generation, and shall not exceed 25% unless approved by the Public Works Director;
l) A “Figure” illustrating the combined traffic of existing, background, and project turning movement volumes at study area intersections for peak periods, as shown in Example 3;
m) Level of Service (LOS) analysis at study area intersections under the following conditions:

(A) Existing plus pipeline traffic
(B) Existing plus pipeline traffic and project traffic.

A table shall be prepared which illustrates all LOS results. The table shall show LOS conditions with corresponding vehicle delays for signalized intersections and the critical movement at unsignalized intersections. If the proposed use is scheduled to be completed in phases, a LOS analysis shall be prepared for each phase;
n) A mitigation plan if impacts to the study area reduce level of service (LOS) below minimums. Mitigation measures may include stipulations and/or construction of necessary transportation improvements. Mitigation measures shall be required to the extent that the transportation facilities, under City jurisdiction, operate at an acceptable level of service (LOS) with the addition of project traffic; and
o) Intersections under jurisdiction of another agency, but still within the City limits, shall be evaluated by either the City’s criteria or the other jurisdiction’s criteria, or both, whichever is considered applicable by the Public Works Department.

If the TIA is not consistent with the scoping letter (including any amendments) then the TIA will be returned to the applicant without review.

(6) Analysis criteria:

a) All trip distributions into and out of the transportation system must reflect existing traffic count data for consistency or follow the current transportation model used by the City. If alternate splits are used to distribute traffic then justification must be provided and approved by the Public Works Department prior to first submittal of the TIA.
b) If progression analysis is being evaluated or queuing between intersections is a concern, the peak period used in the analysis must be the same for every intersection along the street and reflect that of the most critical intersection being evaluated. If a common peak period is not requested by the Public Works Department, then the actual peak period of every intersection shall be used.
c) Counts performed must be a minimum of two hours and include the peak period for analysis purposes. All documentation shall be included in the TIA.
d) All supporting count data, LOS analyses, pass-by deductions, growth rates, traffic

distributions, or other engineering assumptions must be clearly defined and attached to the TIA when submitted in report form to the City for review.
e) All LOS analyses shall follow operational procedures per the current Highway Capacity Manual. Ideal saturation flow rates greater than 1800 vehicles per hour per lane should not be used unless otherwise measured in the project vicinity. Queue lengths shall be calculated at the 95th percentile where feasible. Actual peak hour factors should be used for each movement or lane grouping in the analysis. Peak hour factors over 0.90 shall not be used unless justified by specific counts at that location.
f) Signal timing used in capacity or progression analysis shall follow City timing plans and account for pedestrian crossing times, unless otherwise noted in the scoping letter.
g) Arrival Type 3 (random arrivals) shall be used unless a coordinated plan is in place during the peak period.

320.10.04 – Maintenance of level of Service D

Whenever level of service is determined to be below level D for arterials or collectors, development is not permitted unless the developer makes the roadway or other improvements necessary to maintain level of service D respectively.



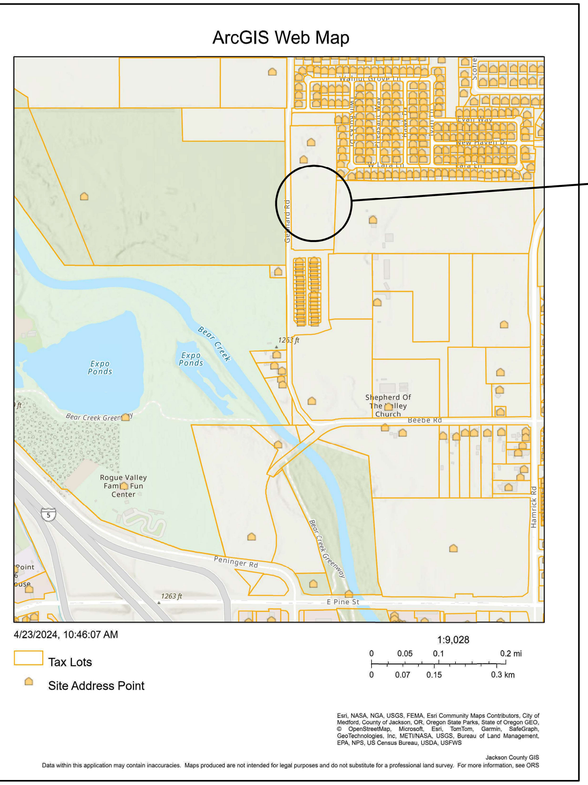
Southern Oregon
Transportation Engineering, LLC

Medford, Oregon 97504
Phone 541.608.9923 Fax 541.535.6873
Email: Kim.parducci@gmail.com

EXHIBIT "6"

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT. OREGON



VICINITY MAP

DRAWING INDEX

GENERAL

CD-1 COVER DRAWING, DRAWING INDEX

SITE

SD-1 MASTER SITE PLAN, UNIT TABULATION

ARCHITECTURAL

A-1 STREETSCAPES
A-2 STREETSCAPES
A-3 STREETSCAPES
A-4 SINGLE FAMILY 1860 FLOOR PLAN LOTS 59 & 60
A-5 SINGLE FAMILY 1860 ROOF PLANS AND ELEVATIONS LOTS 59 & 60
A-6 SINGLE FAMILY 2011 PLAN LOT 61
A-7 SINGLE FAMILY 1875 PLAN LOT 62
A-8 SINGLE FAMILY 2018 PLAN LOT 63
A-9 SINGLE FAMILY 1779 PLAN LOT 64
A-10 FRONT LOADED DUPLEX MAIN FLOOR AND ROOF PLANS
A-11 FRONT LOADED DUPLEX UPPER FLOOR AND ROOF PLANS
A-12 FRONT LOADED DUPLEX EXTERIOR ELEVATIONS
A-13 REAR LOADED DUPLEX MAIN AND UPPER FLOOR PLANS
A-14 REAR LOADED DUPLEX TYPE 'A' ROOF PLAN AND ELEVATIONS
A-15 REAR LOADED DUPLEX TYPE 'B' ROOF PLAN AND ELEVATIONS
A-16 REAR LOADED DUPLEX TYPE 'C' ROOF PLAN AND ELEVATIONS
A-17 TRIPLEX MAIN FLOOR PLANS
A-18 TRIPLEX UPPER FLOOR PLANS
A-19 TRIPLEX TYPE 'A' ROOF PLAN AND ELEVATIONS
A-20 TRIPLEX TYPE 'B' ROOF PLAN AND ELEVATIONS
A-21 TRIPLE TYPE 'C' ROOF PLAN AND ELEVATIONS
A-22 FOUR-PLEX MAIN FLOOR PLANS
A-23 FOUR-PLEX UPPER FLOOR PLANS
A-24 FOUR-PLEX TYPE 'A' ROOF PLAN AND ELEVATIONS
A-25 FOUR-PLEX TYPE 'B' ROOF PLAN AND ELEVATIONS
A-26 FOUR-PLEX TYPE 'C' ROOF PLAN AND ELEVATIONS

REVISIONS	BY

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

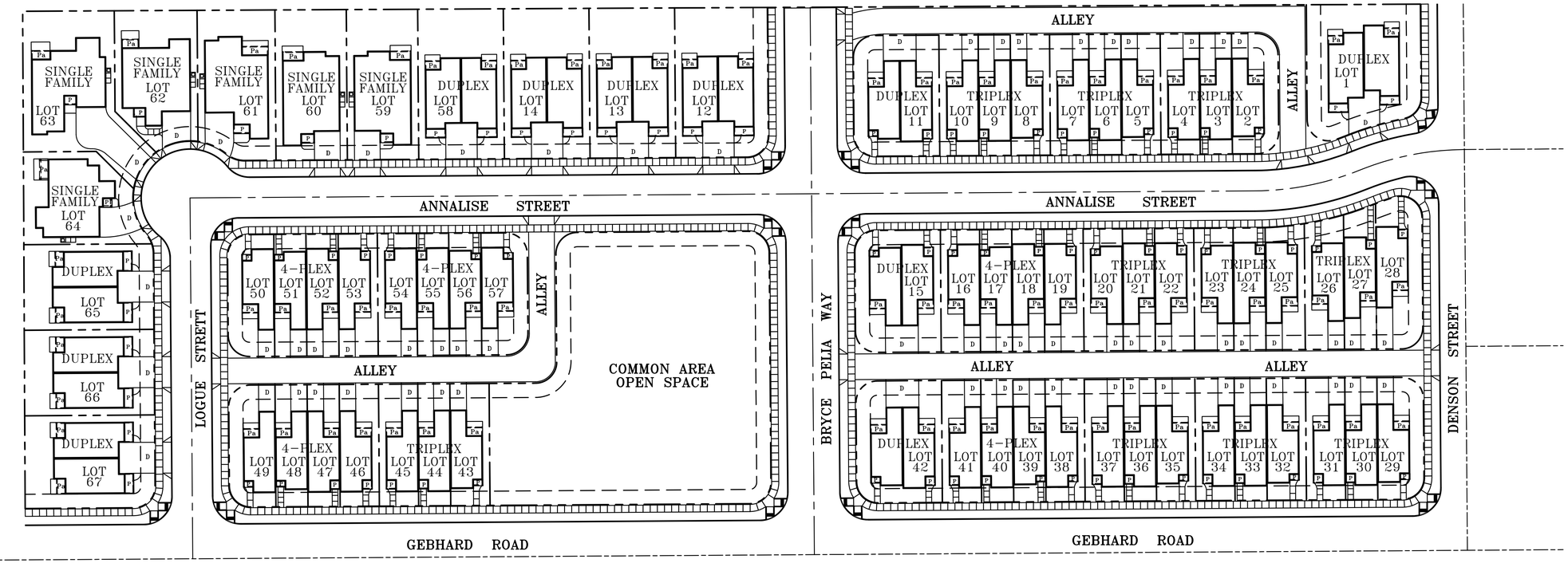
GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

MASTER SITE PLAN

PRELIMINARY

DRAWN: JM	SHEET NO. SD-1
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 1 SHEETS



MASTER SITE PLAN

1" = 40'-0"

NORTH

UNIT TABULATION		
UNIT TYPE	QUANTITY	TOTAL PER TYPE
SINGLE-FAMILY	6	6
FRONT LOADED DUPLEX	8	16
REAR LOADED DUPLEX	3	6
REAR LOADED TRIPLEX	10	30
REAR LOADED FOURPLEX	5	20
TOTAL UNITS IN PROJECT:		78

REVISIONS	BY
10/03/24 REV. LOT NUMBERS	JM

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

MASTER SITE PLAN

PRELIMINARY

DRAWN: JM	SHEET NO. SD-1
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 1 SHEETS

GEBHARD ROAD



LOT 67 • DUPLEX | LOT 66 • DUPLEX | LOT 65 • DUPLEX | LOT 64 • 1,779

NORTH SIDE LOGUE STREET



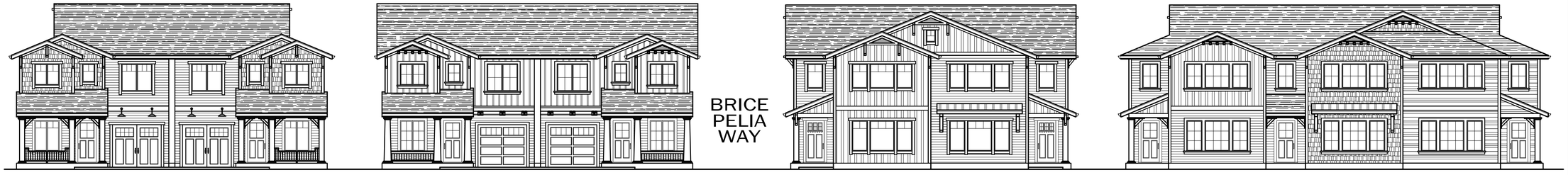
LOT 63 • 2,018 | LOT 62 • 1,875 | LOT 61 • 2,011

EAST SIDE ANNALISE STREET



LOT 60 • 1,860 | LOT 59 • 1,860 | LOT 58 • DUPLEX | LOT 14 • DUPLEX

EAST SIDE ANNALISE STREET



BRICE PELIA WAY

LOT 13 • DUPLEX | LOT 12 • DUPLEX | LOT 11 • DUPLEX | LOTS 8-10 • TRIPLEX

EAST SIDE ANNALISE STREET

STREETSCAPES

NO SCALE

REVISIONS	BY
10/03/24 REV. LOT NUMBERS	JM

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI–FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

STREETSCAPES

PRELIMINARY

DRAWN: JM	SHEET NO. A-1
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS



LOTS 5-7 • TRIPLEX

LOTS 2-4 • TRIPLEX

LOT 1 • DUPLEX

EAST SIDE ANNALISE STREET



LOTS 20-22 • TRIPLEX

LOTS 16-19 • FOURPLEX

LOT 15 • DUPLEX

WEST SIDE ANNALISE STREET



LOTS 26-28 • TRIPLEX

LOTS 23-25 • TRIPLEX

WEST SIDE ANNALISE STREET



LOTS 54-57 • FOURPLEX

LOTS 50-53 • FOURPLEX

WEST SIDE ANNALISE STREET

STREETSCAPES

NO SCALE

REVISIONS	BY
10/03/24 REV. LOT NUMBERS	JM

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

STREETSCAPES

PRELIMINARY

DRAWN: JM	SHEET NO. A-2
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS



LOTS 46-49 • FOURPLEX

LOTS 43-45 • TRIPLEX

EAST SIDE GEBHARD ROAD



LOT 42 • DUPLEX

LOTS 38-41 • FOURPLEX

LOTS 35-37 • TRIPLEX

EAST SIDE GEBHARD ROAD



LOTS 32-34 • TRIPLEX

LOTS 29-31 • TRIPLEX

EAST SIDE GEBHARD ROAD

STREETSCAPES

NO SCALE

REVISIONS	BY
10/03/24 REV. LOT NUMBERS	JM

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI–FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

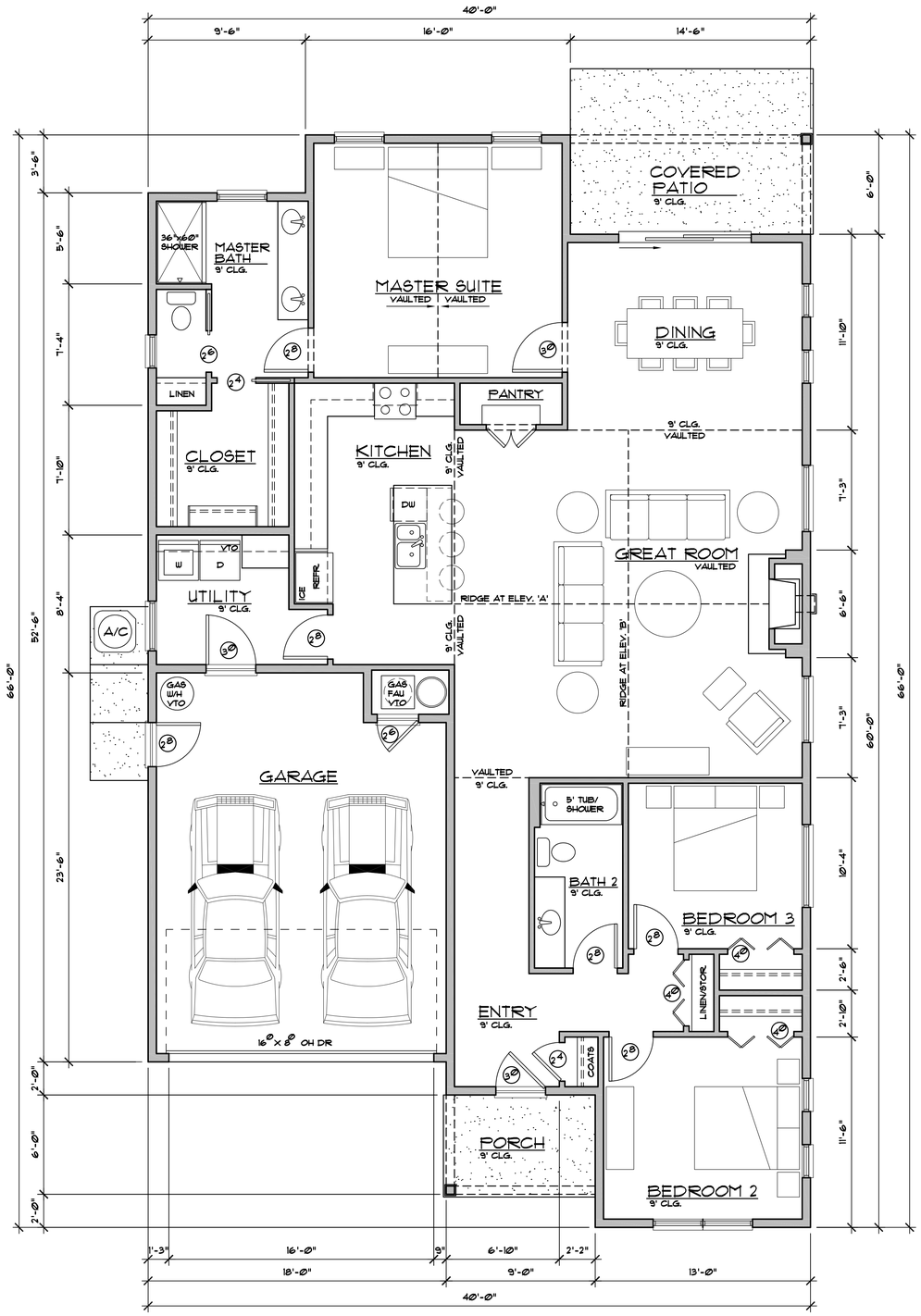
GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

STREETSCAPES

PRELIMINARY

DRAWN: JM	SHEET NO.
JOB NUMBER: CDS-2521	A-3
DATE: 04/22/24	OF 26 SHEETS



FLOOR PLAN

1/4" = 1'-0"

0 2' 6' 12'

SCALE: 1/4"=1'-0"

BUILDING SQ. FT.	
RESIDENCE :	1,860 S.F.
GARAGE:	408 S.F.
COVERED AREAS :	141 S.F.
TOTAL BUILDING AREA :	2,409 S.F.

REVISIONS	BY

CASCADE DESIGN STUDIO

JEFF MAYFIELD DESIGNER

815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

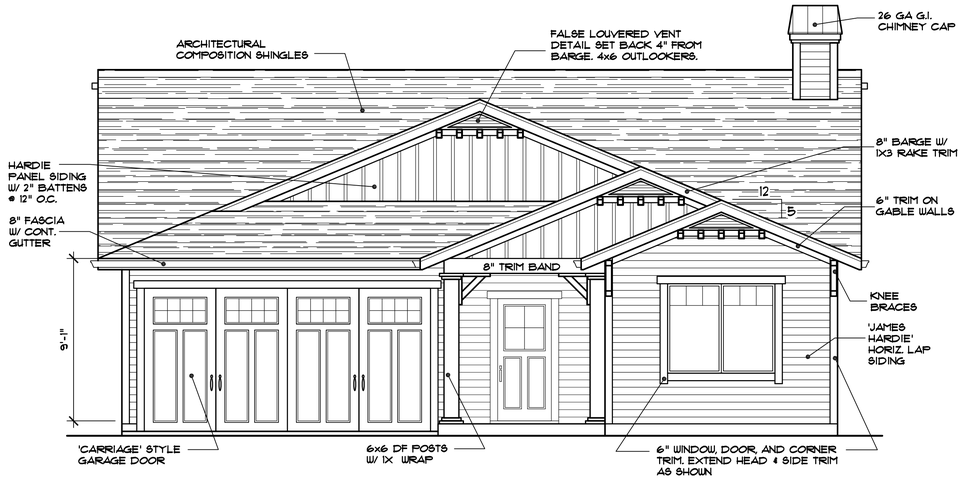
SHEET TITLE

FLOOR PLAN

LOTS 59 & 60

1860 PLAN

DRAWN:	SHEET NO.
JM	A-4
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS

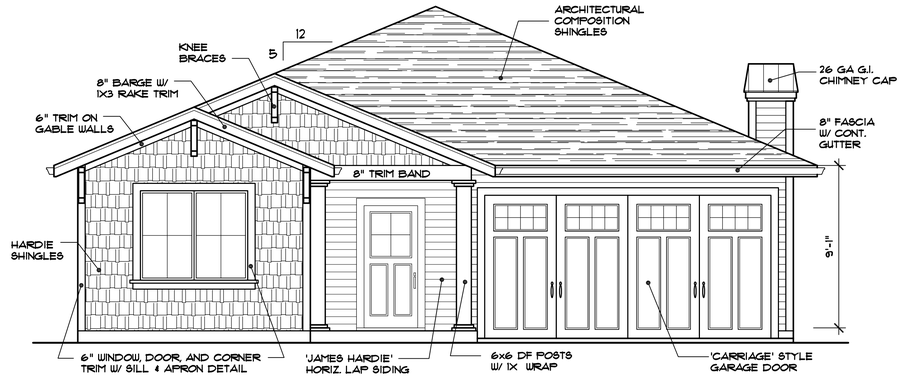


FRONT ELEVATION 'A'

1/4" = 1'-0"

0 2' 6' 12'

SCALE: 1/4"=1'-0"

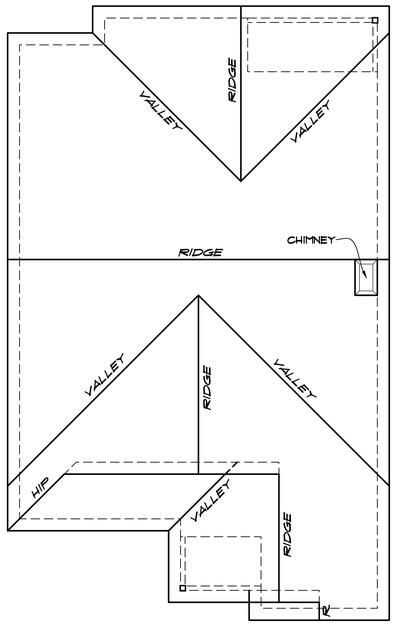


FRONT ELEVATION 'B'

1/4" = 1'-0"

0 2' 6' 12'

SCALE: 1/4"=1'-0"



ROOF PLAN 'A'

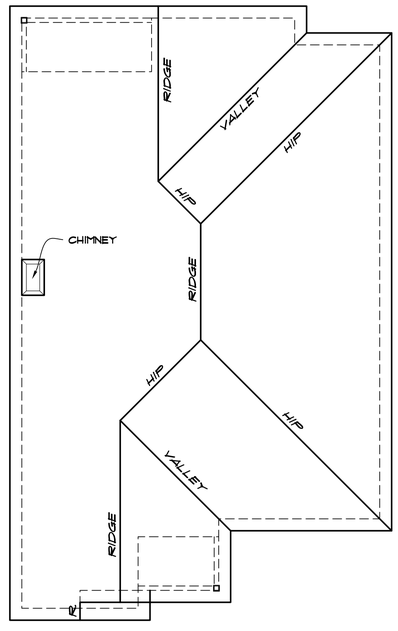
1/8" = 1'-0"

0 2' 6' 12'

SCALE: 1/8"=1'-0"

EXTERIOR MATERIALS

1. ROOFING:
   ARCHITECTURAL COMPOSITION SHINGLES WITH MINIMUM 30 YEAR WARRANTY.
2. SIDING:
   HARDIE BRAND (OR EQUAL) CEMENTUOS SIDING IN THE STYLES, PATTERNS, AND EXPOSURES SHOWN.
3. TRIM:
   WOOD/COMPOSITE TRIM AT ALL WINDOWS, DOORS, BANDS, AND BUILDING CORNERS.
4. WINDOWS:
   HOLLOW VINYL UNITS WITH MUNTINS AS DETAILED.
5. DOORS:
   WOOD, METAL, OR FIBERGLASS AS ARE AVAILABLE FOR THE DESIGN PATTERNS SHOWN.
6. COLUMNS:
   INTERIOR STRUCTURAL COLUMN WITH WOOD/COMPOSITE WRAPS IN SHAPE AND DESIGN AS SHOWN.
7. RAILINGS:
   WOOD/COMPOSITE OR WROUGHT IRON AS SHOWN.
8. KNEE BRACES & OUTLOOKERS:
   FIELD FABRICATED WITH WOOD DIMENSIONSAL LUMBER.



ROOF PLAN 'B'

1/8" = 1'-0"

0 2' 6' 12'

SCALE: 1/8"=1'-0"

REVISIONS	BY
10/02/24 MATERIAL SPECS.	JM

CASCADE DESIGN STUDIO

JEFF MAYFIELD DESIGNER

815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

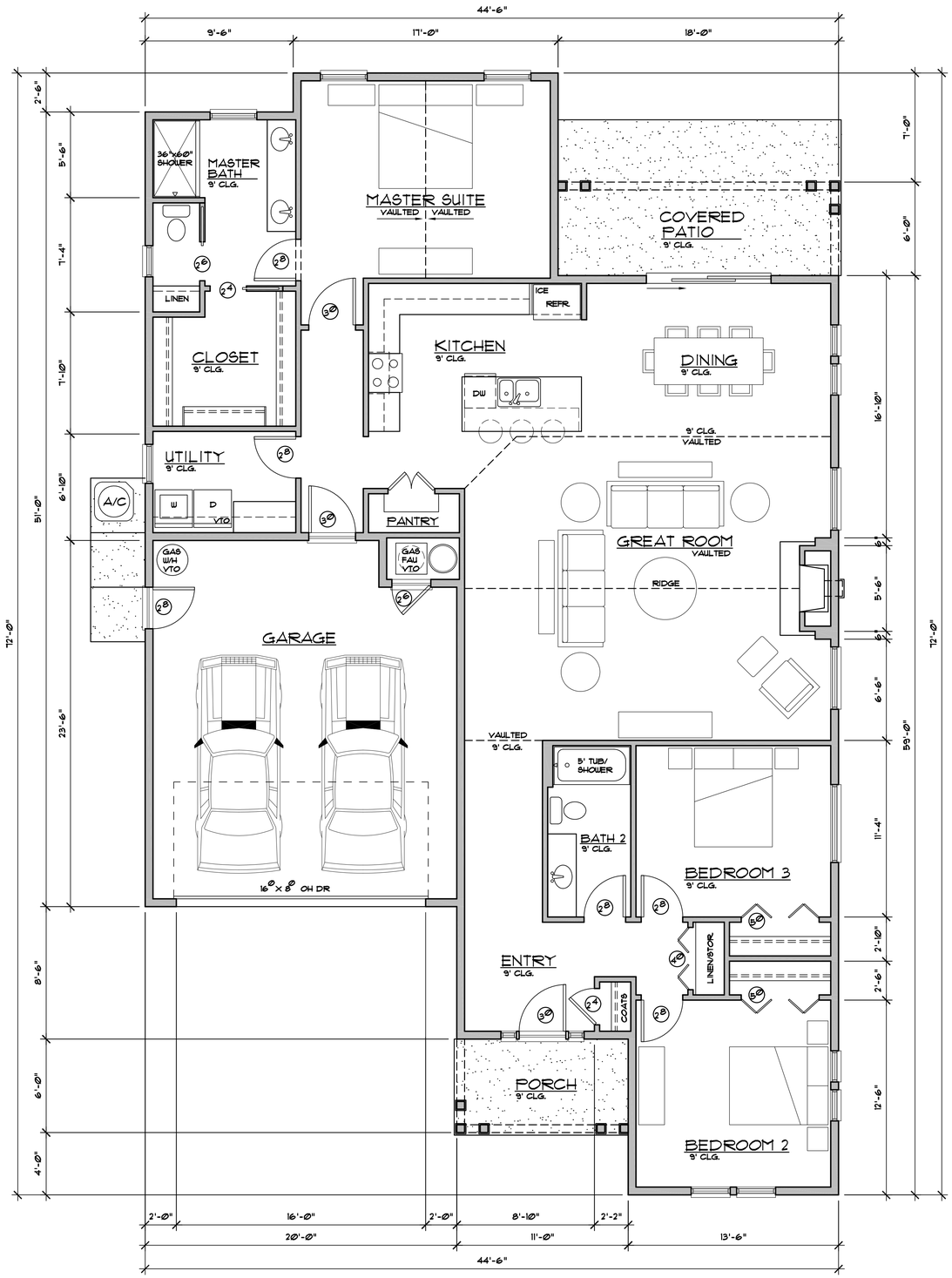
FRONT ELEVATIONS

ROOF PLANS

LOTS 59 & 60

1860 PLAN

DRAWN:	SHEET NO.
JM	A-5
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS



FLOOR PLAN

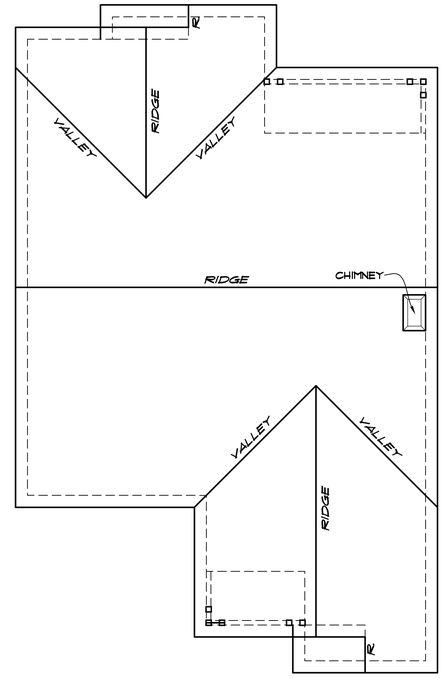
1/4" = 1'-Ø"

Ø 2' 6' 12'

SCALE: 1/4"=1'-Ø"

EXTERIOR MATERIALS

1. ROOFING:
   ARCHITECTURAL COMPOSTION SHINGLES WITH MINIMUM 3Ø YEAR WARRANTY.
2. SIDING:
   HARDIE BRAND (OR EQUAL) CEMENTUOS SIDING IN THE STYLES, PATTERNS, AND EXPOSURES SHOWN.
3. TRIM:
   WOOD/COMPOSITE TRIM AT ALL WINDOWS, DOORS, BANDS, AND BUILDING CORNERS.
4. WINDOWS:
   HOLLOW VINYL UNITS WITH MUNTINS AS DETAILED.
5. DOORS:
   WOOD, METAL, OR FIBERGLASS AS ARE AVAILABLE FOR THE DESIGN PATTERNS SHOWN.
6. COLUMNS:
   INTERIOR STRUCTURAL COLUMN WITH WOOD/COMPOSITE WRAPS IN SHAPE AND DESIGN AS SHOWN.
7. RAILINGS:
   WOOD/COMPOSITE OR WROUGHT IRON AS SHOWN.
8. KNEE BRACES & OUTLOOKERS:
   FIELD FABRICATED WITH WOOD DIMENSIONSAL LUMBER.

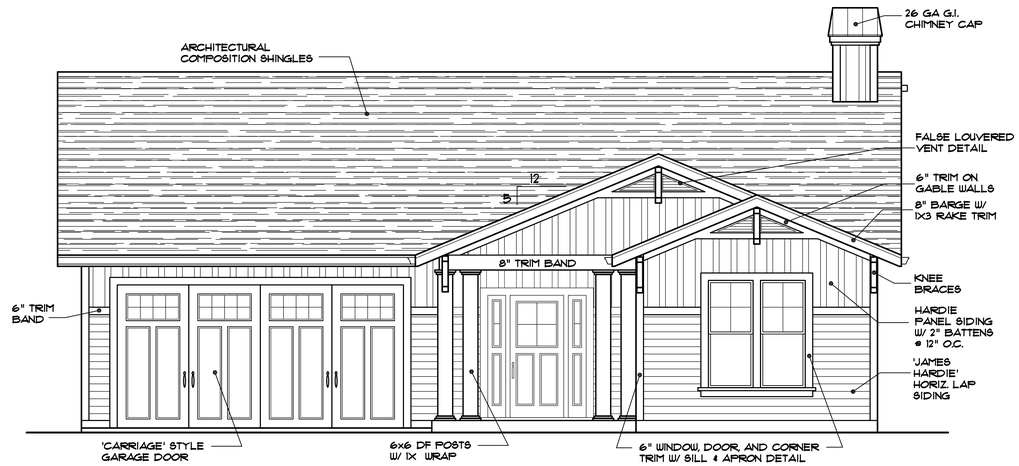


ROOF PLAN

1/8" = 1'-Ø"

Ø 2' 6' 12'

SCALE: 1/8"=1'-Ø"



FRONT ELEVATION

1/4" = 1'-Ø"

BUILDING SQ. FT.	
RESIDENCE :	2,Ø11 S.F.
GARAGE:	455 S.F.
COVERED AREAS :	174 S.F.
TOTAL BUILDING AREA :	2,64Ø S.F.

REVISIONS	BY
10/02/24 MATERIAL SPECS.	JM

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

FLOOR PLAN

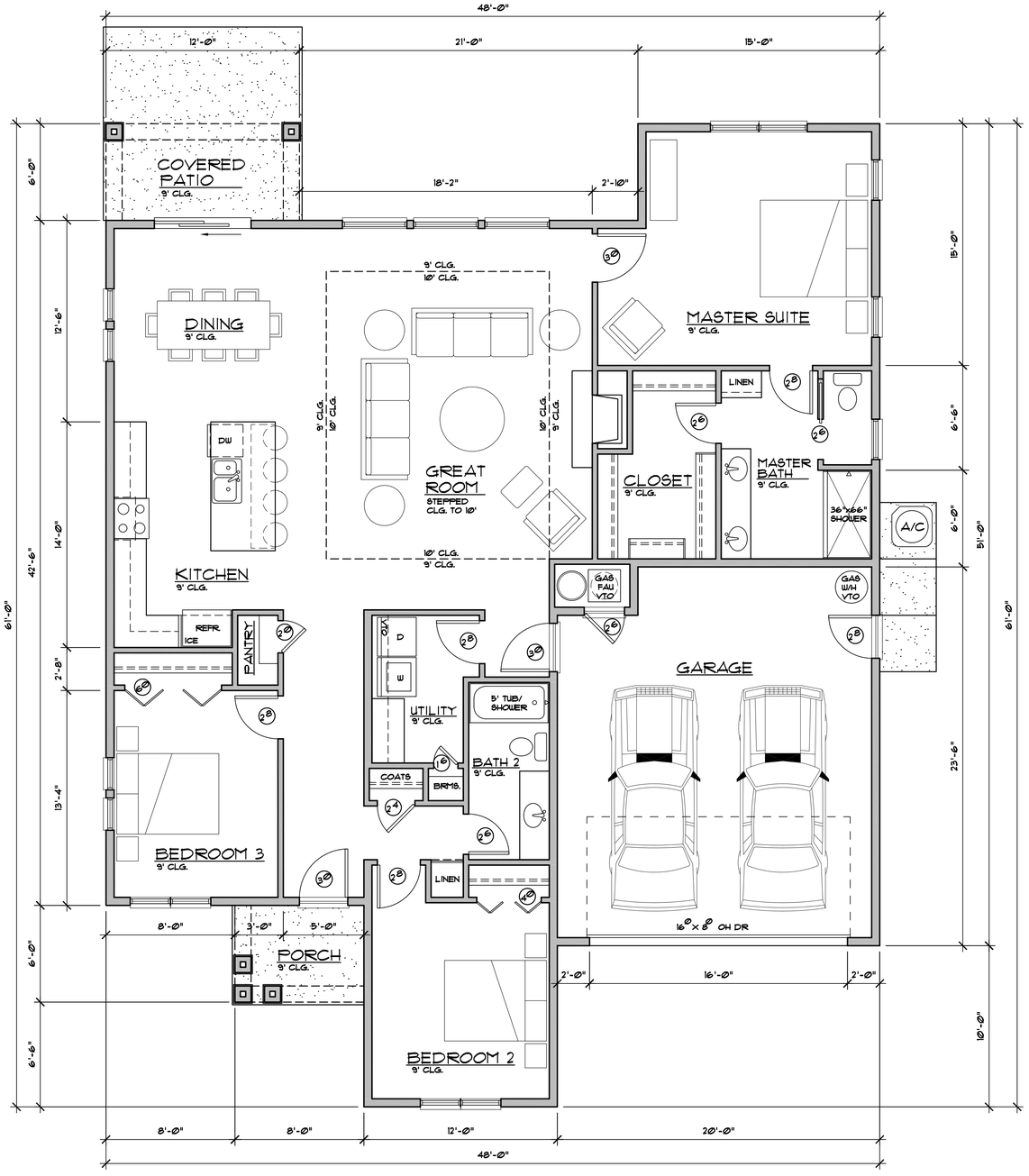
ROOF PLAN

FRONT ELEVATION

LOT 61

2011 PLAN

DRAWN: JM	SHEET NO. A-6
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS



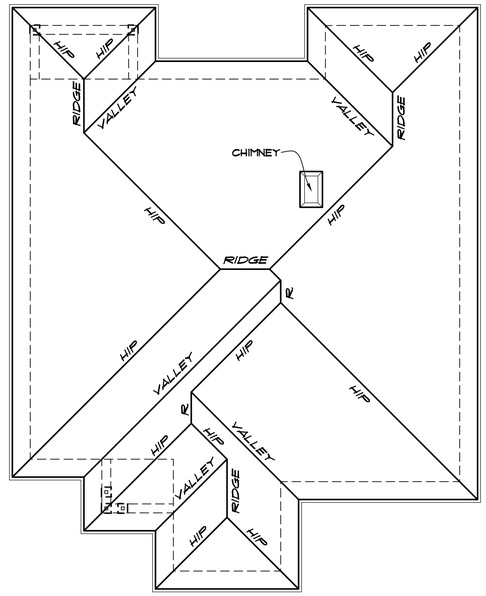
FLOOR PLAN

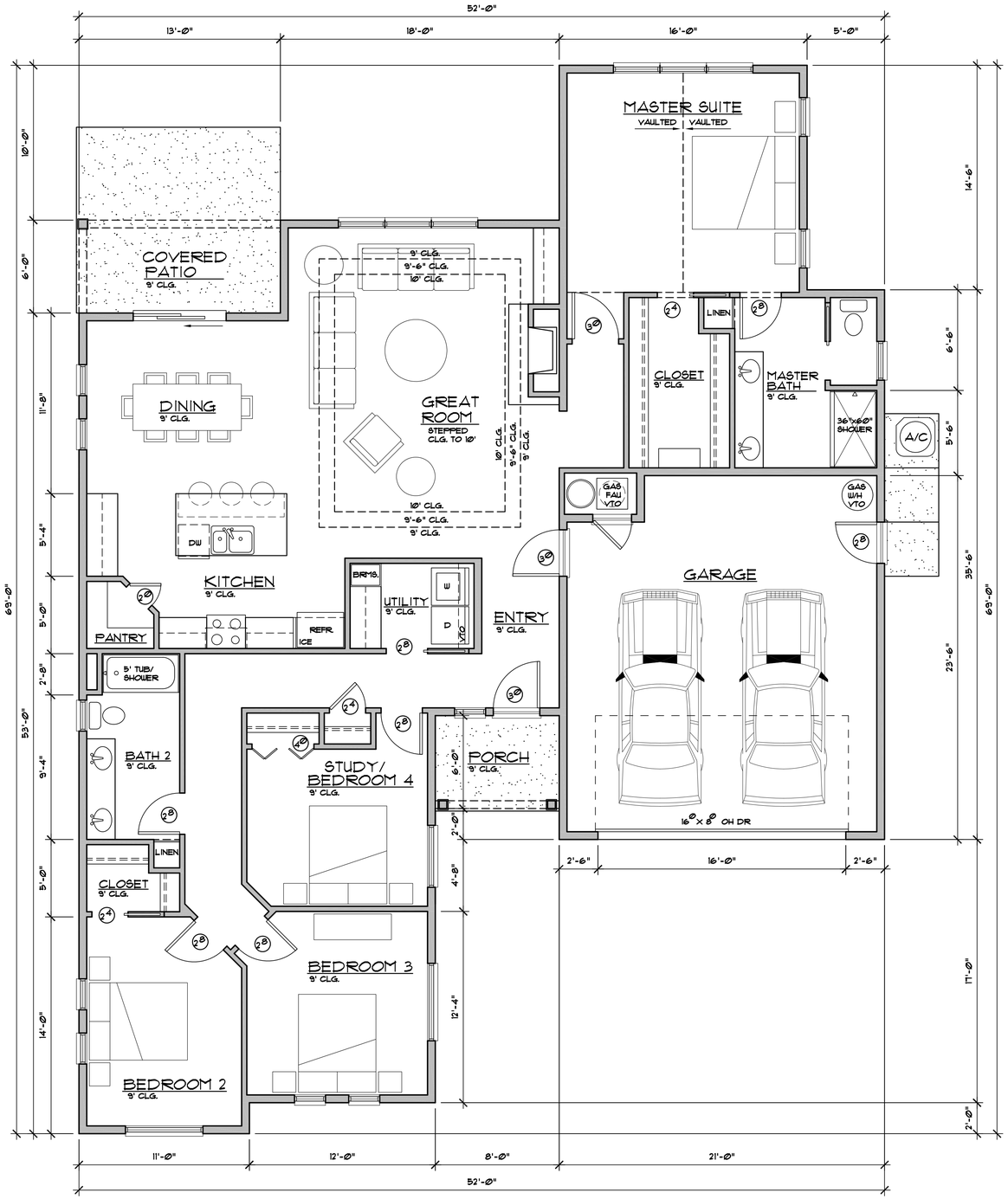
1/4" = 1'-0"

0 2' 6' 12'

SCALE: 1/4"=1'-0"

1. ROOFING: ARCHITECTURAL COMPOSITION SHINGLES WITH MINIMUM 30 YEAR WARRANTY.
2. SIDING: HARDIE BRAND (OR EQUAL) CEMENTUOS SIDING IN THE STYLES, PATTERNS, AND EXPOSURES SHOWN.
3. TRIM: WOOD/COMPOSITE TRIM AT ALL WINDOWS, DOORS, BANDS, AND BUILDING CORNERS.
4. WINDOWS: HOLLOW VINYL UNITS WITH MUNTINS AS DETAILED.
5. DOORS: WOOD, METAL, OR FIBERGLASS AS ARE AVAILABLE FOR THE DESIGN PATTERNS SHOWN.
6. COLUMNS: INTERIOR STRUCTURAL COLUMN WITH WOOD/COMPOSITE WRAPS IN SHAPE AND DESIGN AS SHOWN.
7. RAILINGS: WOOD/COMPOSITE OR WROUGHT IRON AS SHOWN.
8. KNEE BRACES & OUTLOOKERS: FIELD FABRICATED WITH WOOD DIMENSIONSAL LUMBER.


HIP
RIDGE
VALLEY
CHIMNEY
HIP
RIDGE
HIP
VALLEY
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VALLEY
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RIDGE
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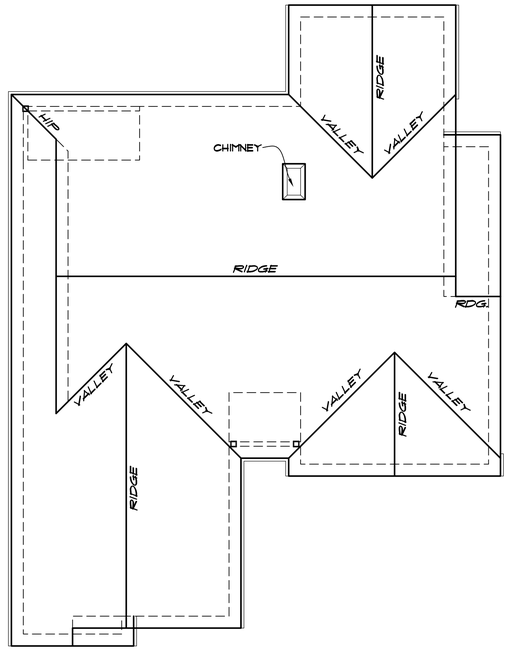
FLOOR PLAN

1/4" = 1'-Ø"

Ø 2' 6' 12'
SCALE: 1/4"=1'-Ø"

EXTERIOR MATERIALS

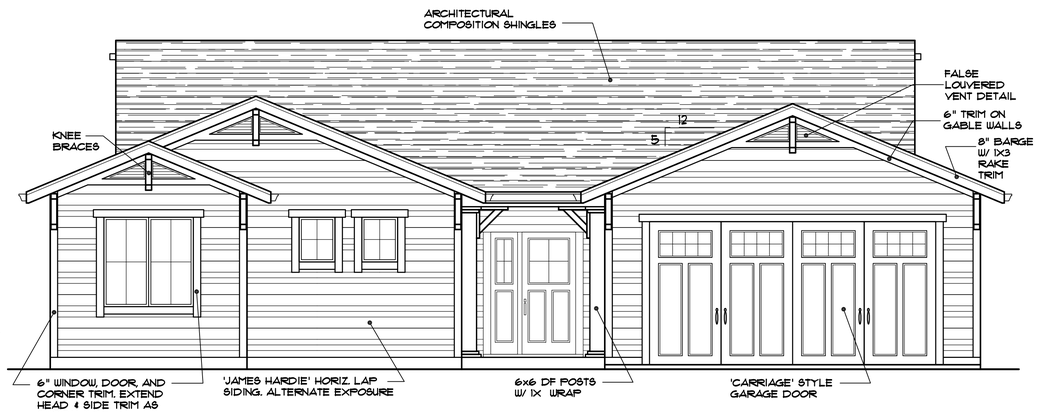
1. ROOFING:
   ARCHITECTURAL COMPOSITION SHINGLES WITH MINIMUM 30 YEAR WARRANTY.
2. SIDING:
   HARDIE BRAND (OR EQUAL) CEMENTIOS SIDING IN THE STYLES, PATTERNS, AND EXPOSURES SHOWN.
3. TRIM:
   WOOD/COMPOSITE TRIM AT ALL WINDOWS, DOORS, BANDS, AND BUILDING CORNERS.
4. WINDOWS:
   HOLLOW VINYL UNITS WITH MUNTINS AS DETAILED.
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7. RAILINGS:
   WOOD/COMPOSITE OR WROUGHT IRON AS SHOWN.
8. KNEE BRACES & OUTLOOKERS:
   FIELD FABRICATED WITH WOOD DIMENSIONSAL LUMBER



ROOF PLAN

1/8" = 1'-Ø"

Ø 2' 6' 12'
SCALE: 1/8"=1'-Ø"



FRONT ELEVATION

1/4" = 1'-Ø"

BUILDING SQ. FT.	
RESIDENCE :	2,018 S.F.
GARAGE:	471 S.F.
COVERED AREAS :	126 S.F.
TOTAL BUILDING AREA :	2,615 S.F.

REVISIONS	BY
10/02/24 MATERIAL SPECS.	JM

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

FLOOR PLAN

ROOF PLAN

FRONT ELEVATION

LOT 63

2018 PLAN

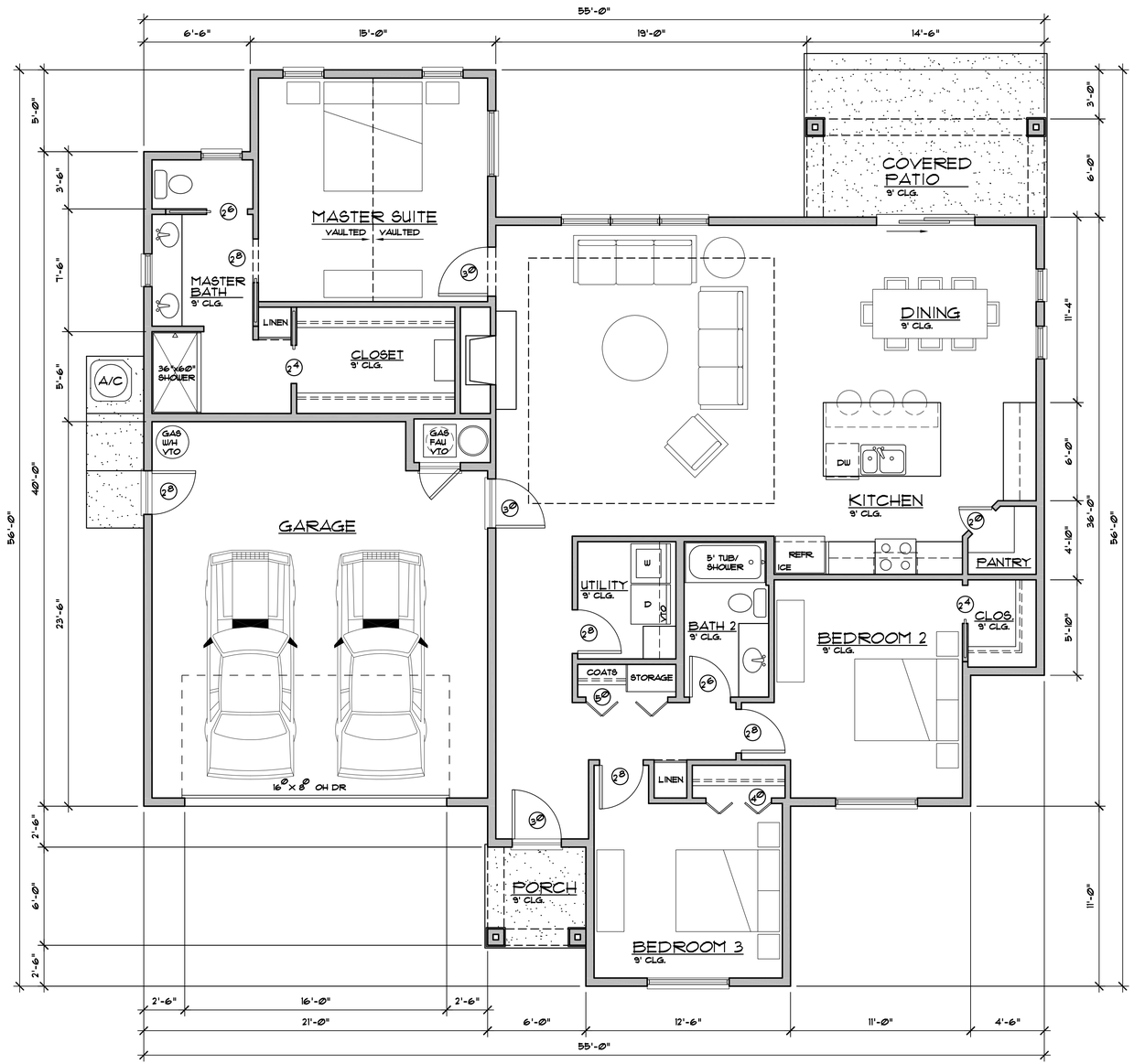
DRAWN: JM

JOB NUMBER: CDS-2521

DATE: 04/22/24

SHEET NO. A-8

OF 26 SHEETS



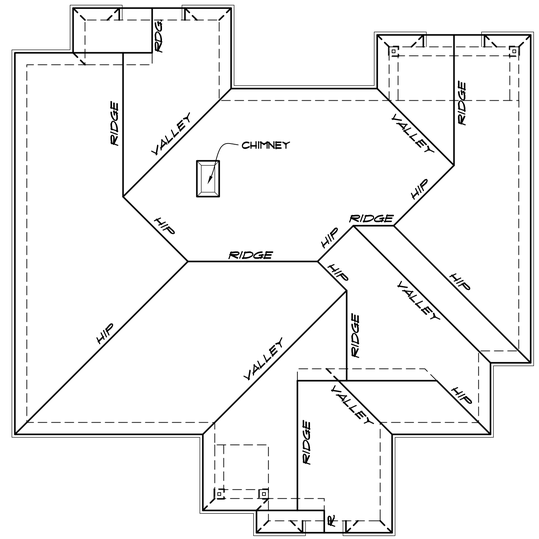
FLOOR PLAN

1/4" = 1'-0"

0 2' 6' 12'

SCALE: 1/4"=1'-0"

BUILDING SQ. FT.	
RESIDENCE :	1,779 S.F.
GARAGE:	478 S.F.
COVERED AREAS :	123 S.F.
TOTAL BUILDING AREA :	2,380 S.F.



ROOF PLAN

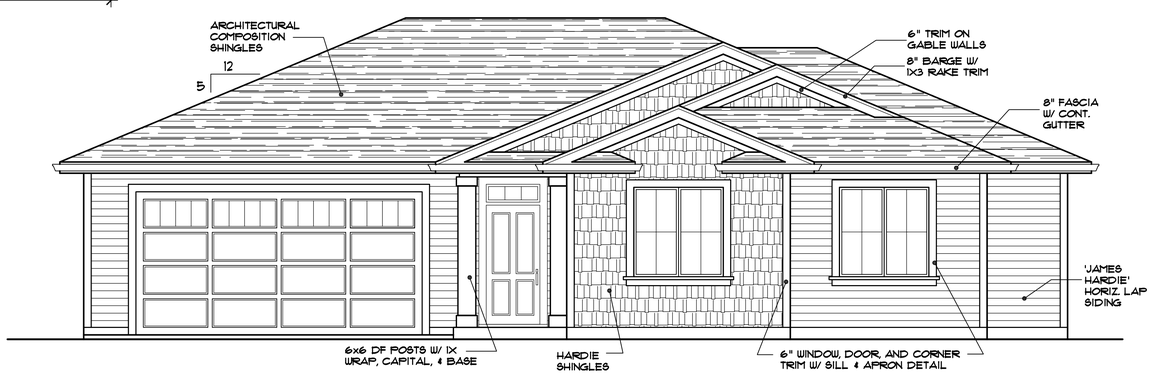
1/8" = 1'-0"

0 2' 6' 12'

SCALE: 1/8"=1'-0"

EXTERIOR MATERIALS

1. ROOFING:
   ARCHITECTURAL COMPOSITION SHINGLES WITH MINIMUM 30 YEAR WARRANTY.
2. SIDING:
   HARDIE BRAND (OR EQUAL) CEMENTUOS SIDING IN THE STYLES, PATTERNS, AND EXPOSURES SHOWN.
3. TRIM:
   WOOD/COMPOSITE TRIM AT ALL WINDOWS, DOORS, BANDS, AND BUILDING CORNERS.
4. WINDOWS:
   HOLLOW VINYL UNITS WITH MUNTINS AS DETAILED.
5. DOORS:
   WOOD, METAL, OR FIBERGLASS AS ARE AVAILABLE FOR THE DESIGN PATTERNS SHOWN.
6. COLUMNS:
   INTERIOR STRUCTURAL COLUMN WITH WOOD/COMPOSITE WRAPS IN SHAPE AND DESIGN AS SHOWN.
7. RAILINGS:
   WOOD/COMPOSITE OR WROUGHT IRON AS SHOWN.
8. KNEE BRACES & OUTLOOKERS:
   FIELD FABRICATED WITH WOOD DIMENSIONSAL LUMBER.



FRONT ELEVATION

1/4" = 1'-0"

REVISIONS	BY
10/02/24 MATERIAL SPECS.	JM

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

FLOOR PLAN

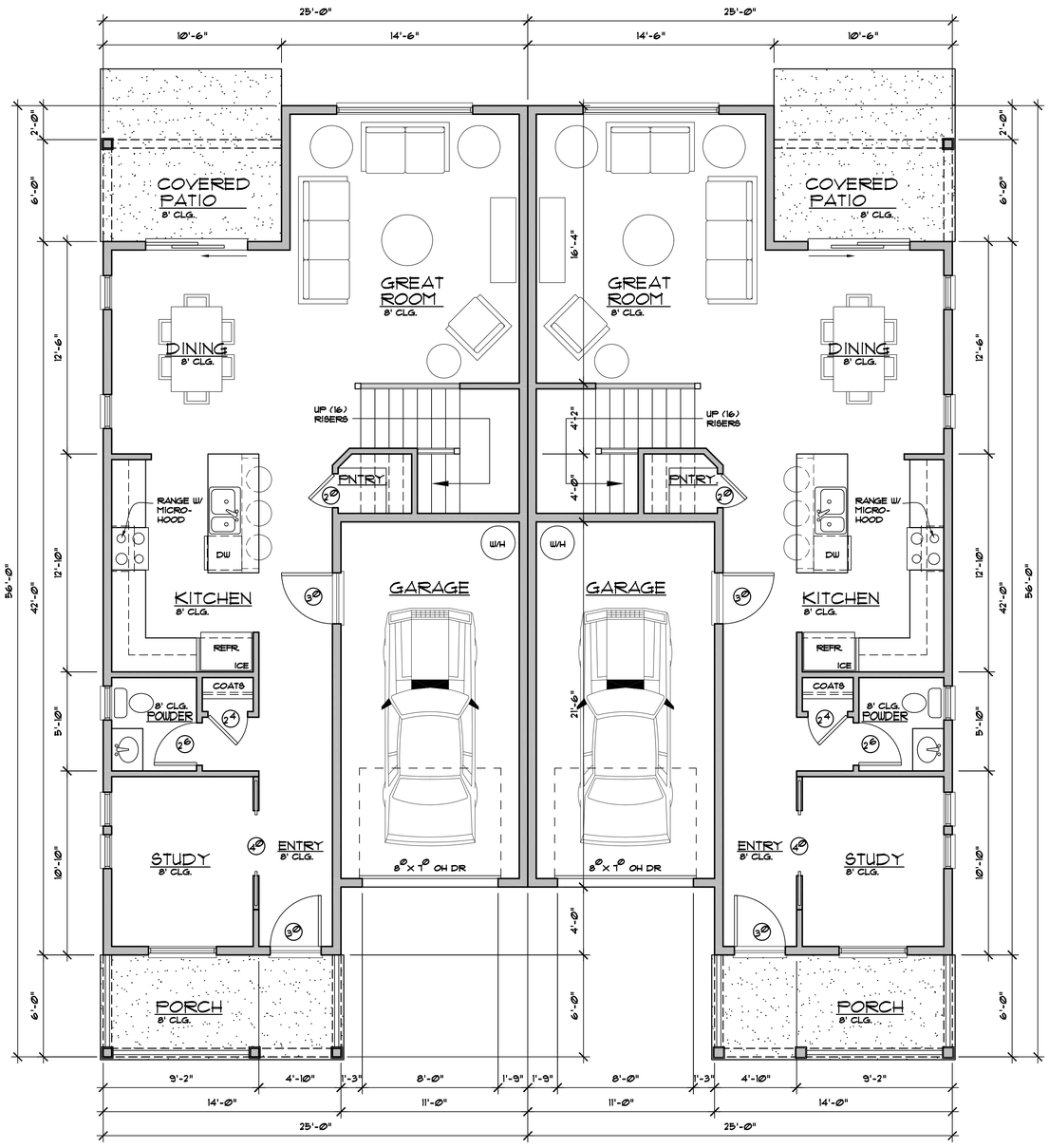
ROOF PLAN

FRONT ELEVATION

LOT 64

1779 PLAN

DRAWN: JM	SHEET NO. A-9
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS

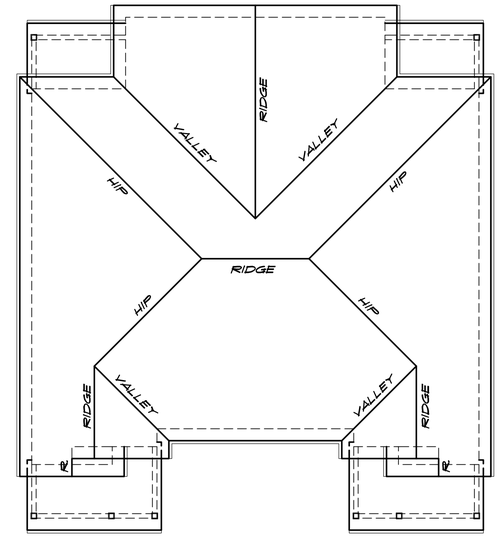


DUPLEX MAIN FLOOR PLAN

1/4" = 1'-0"

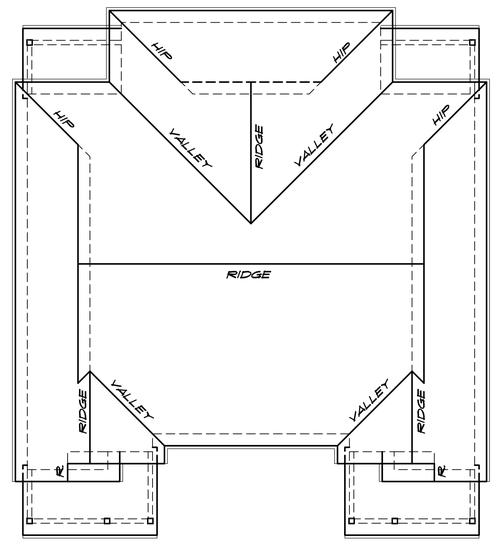
0 2' 6' 12'

SCALE: 1/4"=1'-0"



DUPLEX ROOF PLAN A

1/8" = 1'-0"



DUPLEX ROOF PLAN B

1/8" = 1'-0"

BUILDING SQ. FT.	
MAIN FLOOR :	885 S.F.
UPPER FLOOR :	1,112 S.F.
TOTAL S.F. :	1,997 S.F.
GARAGE:	237 S.F.
COVERED AREAS :	147 S.F.
TOTAL LOT COVERAGE :	1,266 S.F.

REVISIONS	BY

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

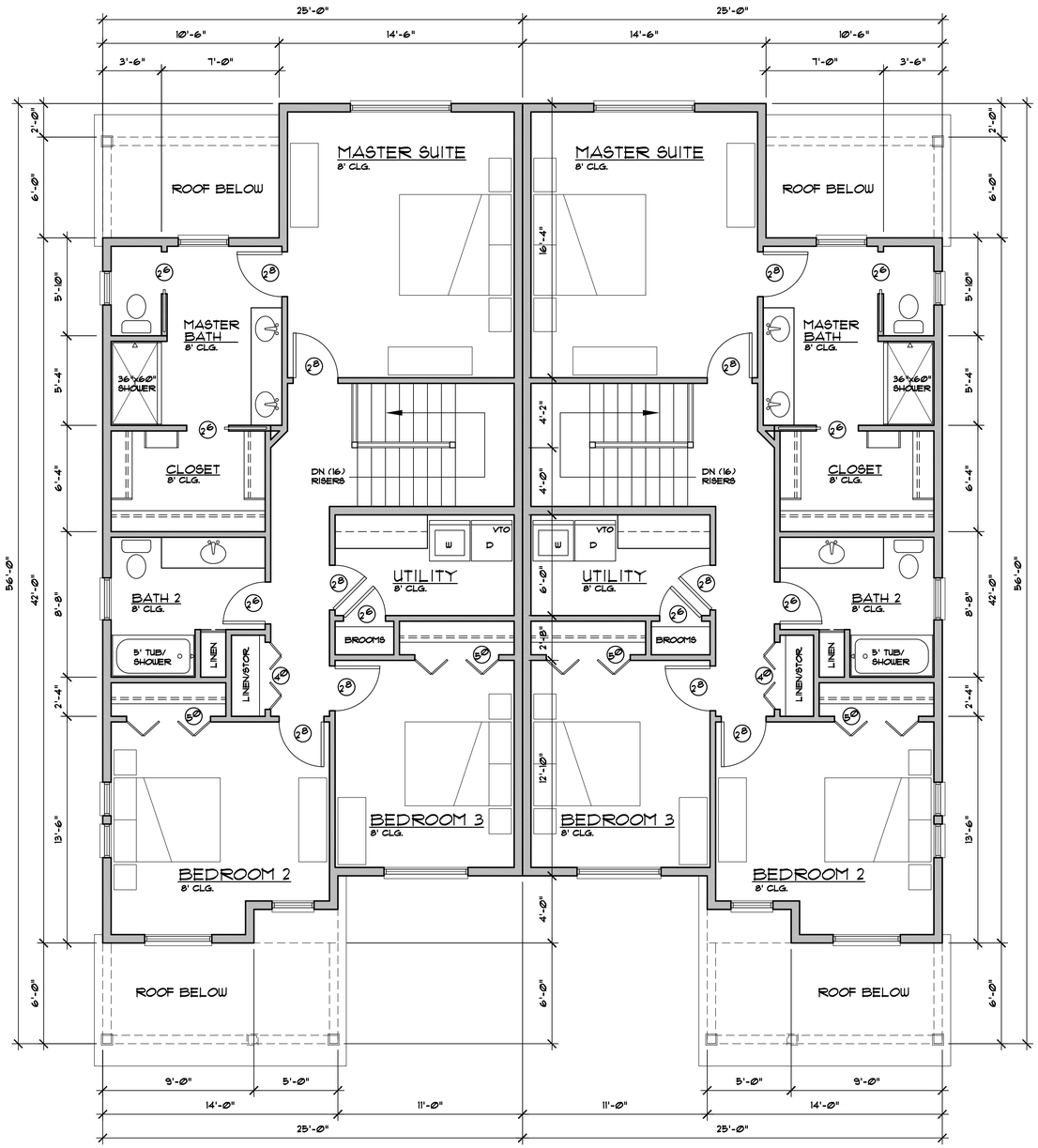
DUPLEX MAIN FLOOR PLAN

ROOF PLANS

FRONT LOAD UNITS

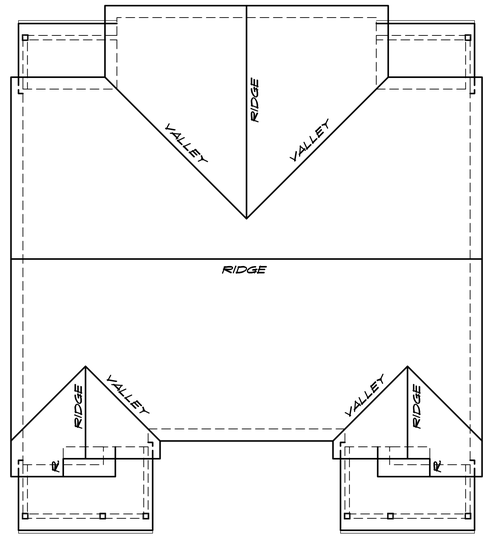
PRELIMINARY

DRAWN: JM	SHEET NO. A-10
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS



DUPLEX UPPER FLOOR PLAN

1/4" = 1'-0"



DUPLEX ROOF PLAN C

1/8" = 1'-0"

0 2' 6' 12'

SCALE: 1/4"=1'-0"

REVISIONS	BY

CASCADE DESIGN STUDIO

JEFF MAYFIELD DESIGNER

815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

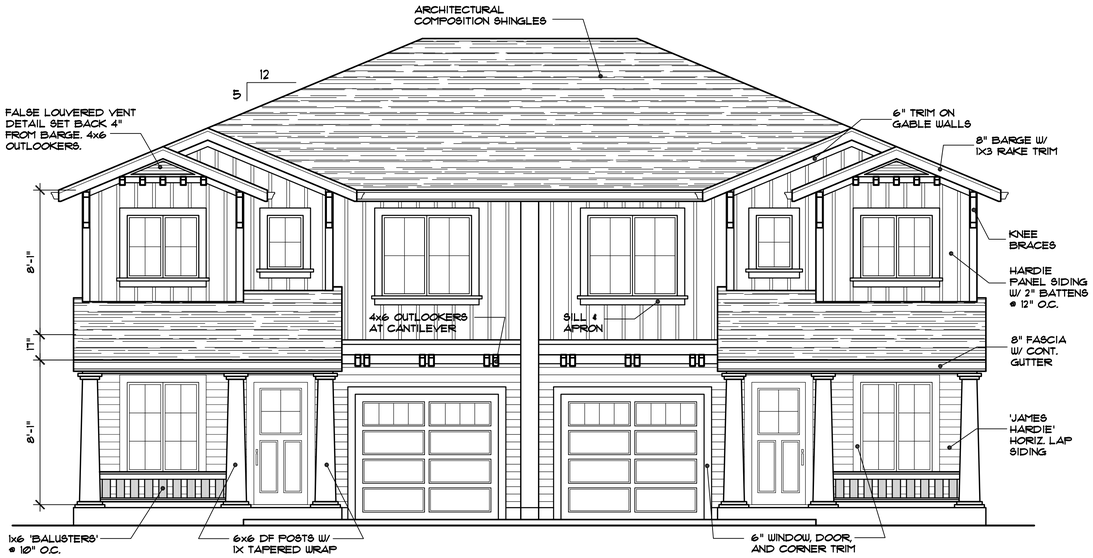
DUPLEX UPPER FLOOR PLAN

ROOF PLAN

FRONT LOAD UNITS

PRELIMINARY

DRAWN:	SHEET NO.
JM	A-11
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS



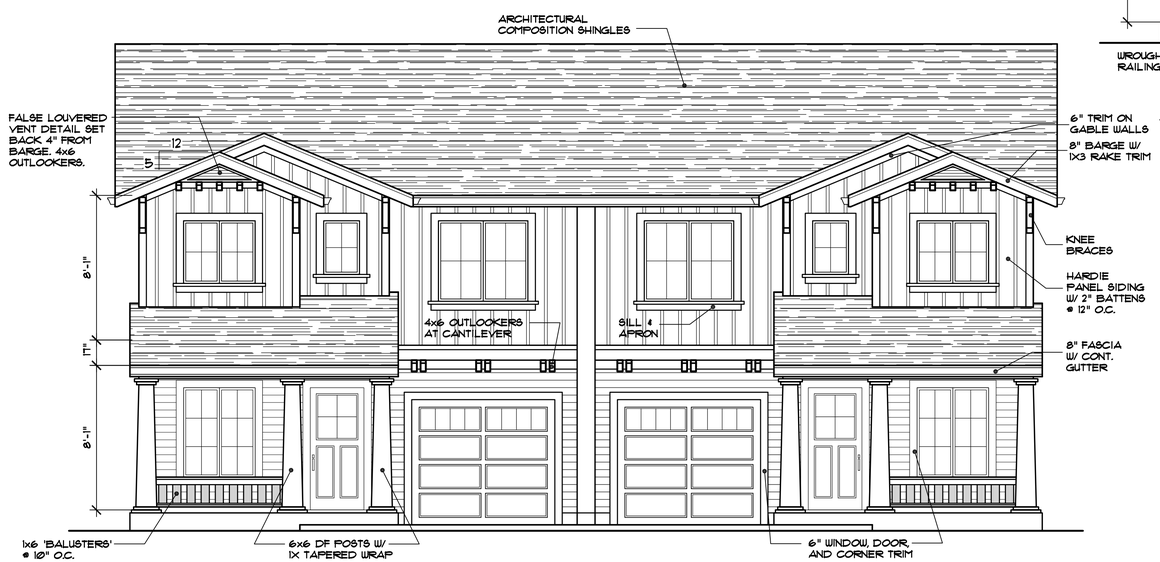
FRONT ELEVATION A

1/4" = 1'-0"



FRONT ELEVATION B

1/4" = 1'-0"



FRONT ELEVATION C

1/4" = 1'-0"

EXTERIOR MATERIALS

1. ROOFING:
   ARCHITECTURAL COMPOSITION SHINGLES WITH MINIMUM 30 YEAR WARRANTY.
2. SIDING:
   HARDIE BRAND (OR EQUAL) CEMENTUOS SIDING IN THE STYLES, PATTERNS, AND EXPOSURES SHOWN.
3. TRIM:
   WOOD/COMPOSITE TRIM AT ALL WINDOWS, DOORS, BANDS, AND BUILDING CORNERS.
4. WINDOWS:
   HOLLOW VINYL UNITS WITH MUNTINS AS DETAILED.
5. DOORS:
   WOOD, METAL, OR FIBERGLASS AS ARE AVAILABLE FOR THE DESIGN PATTERNS SHOWN.
6. COLUMNS:
   INTERIOR STRUCTURAL COLUMN WITH WOOD/COMPOSITE WRAPS IN SHAPE AND DESIGN AS SHOWN.
7. RAILINGS:
   WOOD/COMPOSITE OR WROUGHT IRON AS SHOWN.
8. KNEE BRACES & OUTLOOKERS:
   FIELD FABRICATED WITH WOOD DIMENSIONSAL LUMBER.

0 2' 6' 12'

SCALE: 1/4"=1'-0"

REVISIONS	BY
10/02/24 MATERIAL SPECS.	JM

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

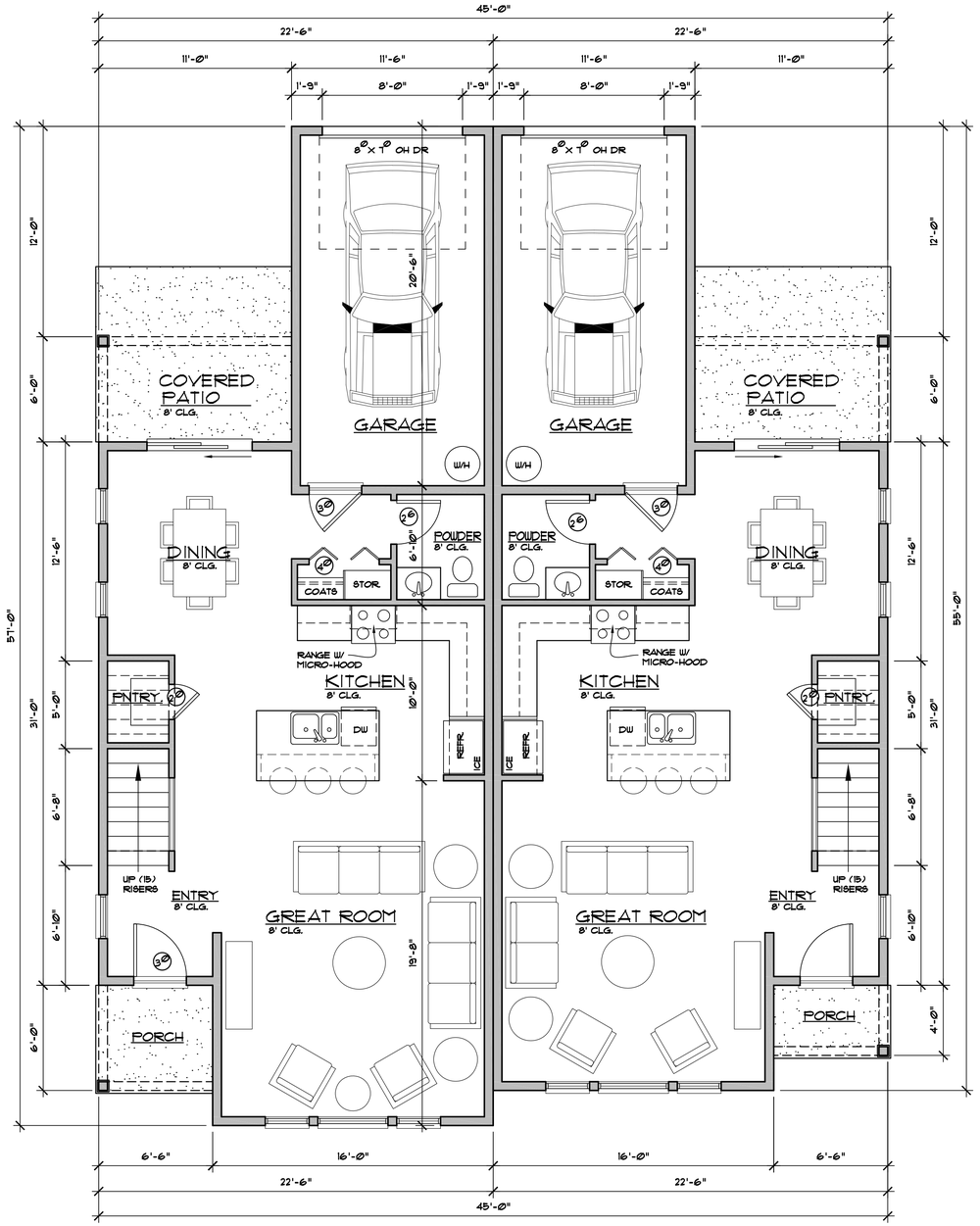
SHEET TITLE

DUPLEX UPPER ELEVATIONS

FRONT LOAD UNITS

PRELIMINARY

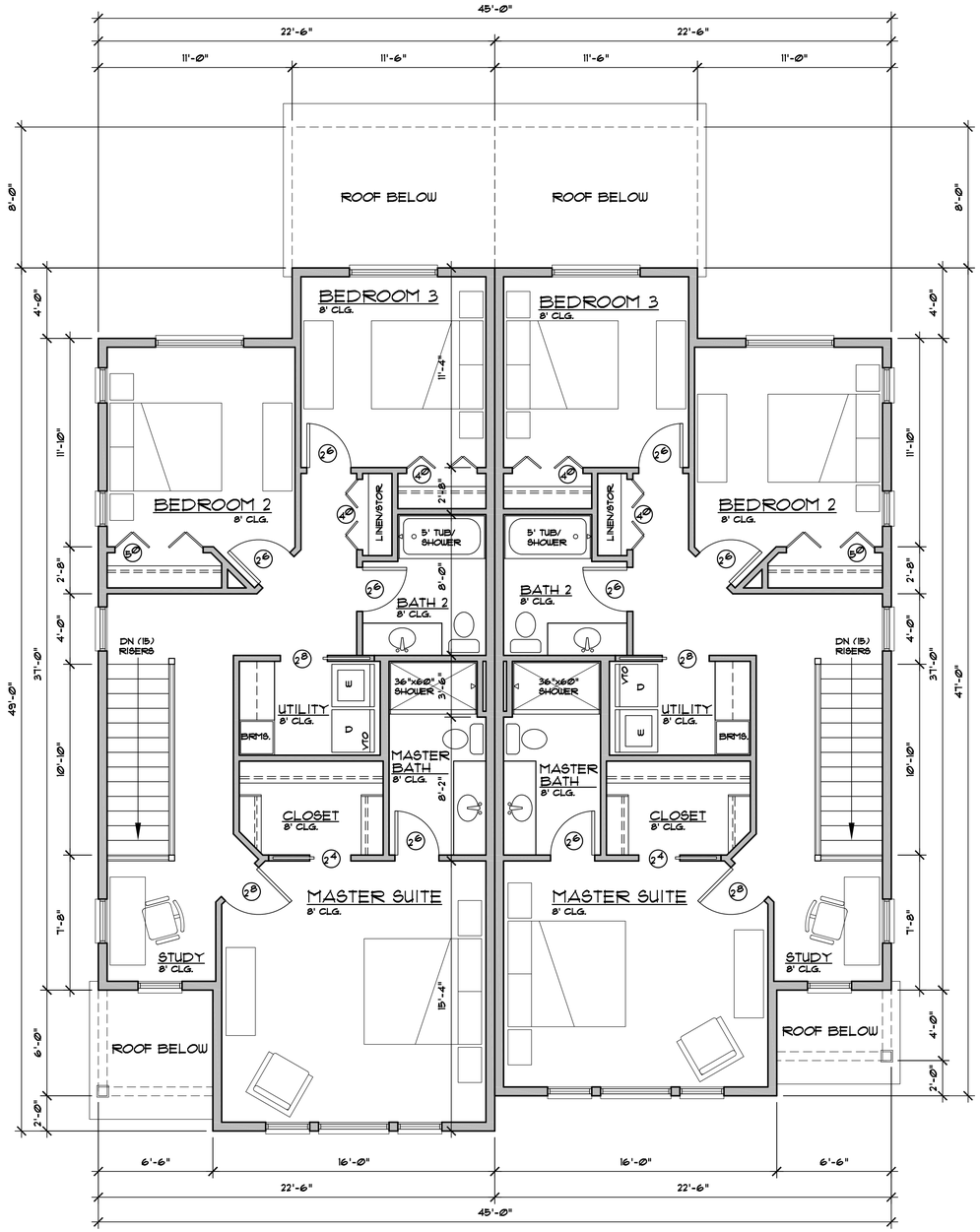
DRAWN: JM	SHEET NO. A-12
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS



DUPLEX MAIN FLOOR PLAN

1/4" = 1'-Ø"

BUILDING SQ. FT.	
MAIN FLOOR :	798 S.F.
UPPER FLOOR :	1,007 S.F.
TOTAL S.F. :	1,805 S.F.
GARAGE:	235 S.F.
COVERED AREAS :	26 S.F.
TOTAL LOT COVERAGE :	1,125 S.F.



DUPLEX UPPER FLOOR PLAN

1/4" = 1'-Ø"

BUILDING SQ. FT.	
MAIN FLOOR :	756 S.F.
UPPER FLOOR :	975 S.F.
TOTAL S.F. :	1,731 S.F.
GARAGE:	235 S.F.
COVERED AREAS :	38 S.F.
TOTAL LOT COVERAGE :	1,093 S.F.

0 2' 6' 12'

SCALE: 1/4"=1'-Ø"

REVISIONS	BY

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI–FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

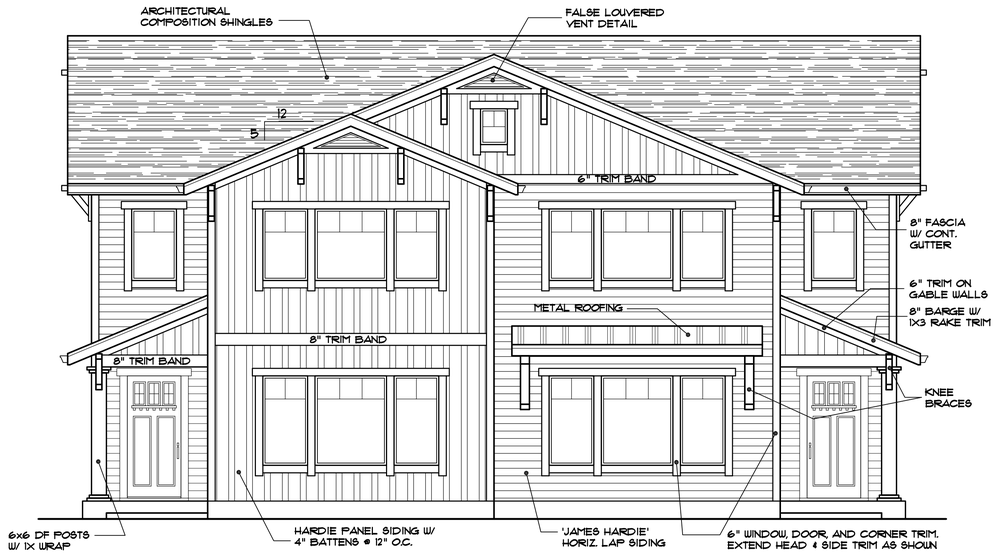
DUPLEX MAIN FLOOR PLAN

UPPER FLOOR PLAN

REAR LOAD UNITS

PRELIMINARY

DRAWN: JM	SHEET NO. A-13
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS



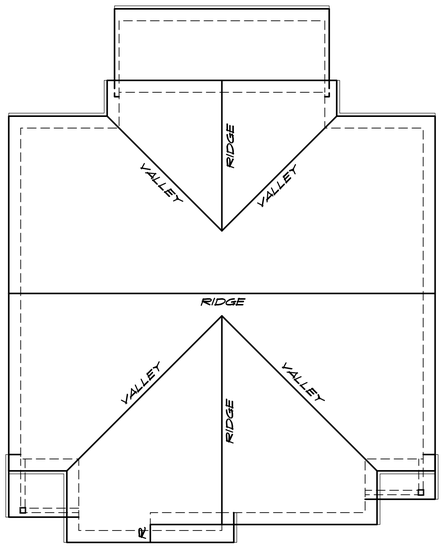
FRONT ELEVATION A

1/4" = 1'-0"



LEFT SIDE ELEVATION A

1/4" = 1'-0"



ROOF PLAN A

1/8" = 1'-0"

EXTERIOR MATERIALS

1. ROOFING:
   ARCHITECTURAL COMPOSTION SHINGLES WITH MINIMUM 30 YEAR WARRANTY.
   METAL ROOFING: 26 GA. STANDING SEAM, CONCEALED FASTENERS.
2. SIDING:
   HARDIE BRAND (OR EQUAL) CEMENTUOS SIDING IN THE STYLES, PATTERNS, AND EXPOSURES SHOWN.
3. TRIM:
   WOOD/COMPOSITE TRIM AT ALL WINDOWS, DOORS, BANDS, AND BUILDING CORNERS.
4. WINDOWS:
   HOLLOW VINYL UNITS WITH MUNTINS AS DETAILED.
5. DOORS:
   WOOD, METAL, OR FIBERGLASS AS ARE AVAILABLE FOR THE DESIGN PATTERNS SHOWN.
6. COLUMNS:
   INTERIOR STRUCTURAL COLUMN WITH WOOD/COMPOSITE WRAPS IN SHAPE AND DESIGN AS SHOWN.
7. RAILINGS:
   WOOD/COMPOSITE OR WROUGHT IRON AS SHOWN.
8. KNEE BRACES & OUTLOOKERS:
   FIELD FABRICATED WITH WOOD DIMENSIONSAL LUMBER.

0 2' 6' 12'

SCALE: 1/4"=1'-0"

REVISIONS	BY
10/02/24 MATERIAL SPECS.	JM

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

DUPLEX TYPE A

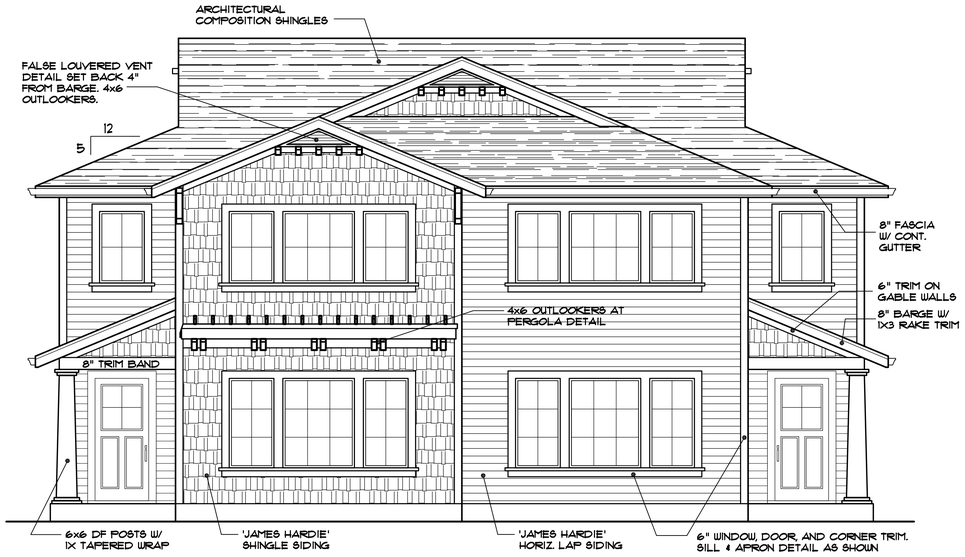
EXTERIOR ELEVATIONS

ROOF PLAN

FRONT LOAD UNITS

PRELIMINARY

DRAWN:	SHEET NO.
JM	A-14
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS



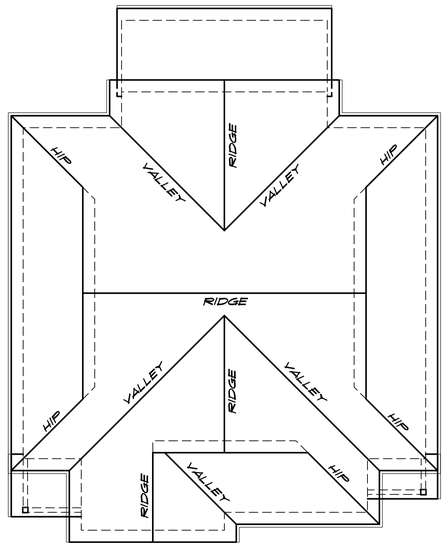
FRONT ELEVATION B

1/4" = 1'-0"



LEFT SIDE ELEVATION B

1/4" = 1'-0"



ROOF PLAN B

1/8" = 1'-0"

EXTERIOR MATERIALS

1. ROOFING:
   ARCHITECTURAL COMPOSTION SHINGLES WITH MINIMUM 30 YEAR WARRANTY.
   METAL ROOFING: 26 G.A. STANDING SEAM, CONCEALED FASTENERS.
2. SIDING:
   HARDIE BRAND (OR EQUAL) CEMENTUOS SIDING IN THE STYLES, PATTERNS, AND EXPOSURES SHOWN.
3. TRIM:
   WOOD/COMPOSITE TRIM AT ALL WINDOWS, DOORS, BANDS, AND BUILDING CORNERS.
4. WINDOWS:
   HOLLOW VINYL UNITS WITH MUNTINS AS DETAILED.
5. DOORS:
   WOOD, METAL, OR FIBERGLASS AS ARE AVAILABLE FOR THE DESIGN PATTERNS SHOWN.
6. COLUMNS:
   INTERIOR STRUCTURAL COLUMN WITH WOOD/COMPOSITE WRAPS IN SHAPE AND DESIGN AS SHOWN.
7. RAILINGS:
   WOOD/COMPOSITE OR WROUGHT IRON AS SHOWN.
8. KNEE BRACES & OUTLOOKERS:
   FIELD FABRICATED WITH WOOD DIMENSIONSAL LUMBER.

0 2' 6' 12'

SCALE: 1/4"=1'-0"

REVISIONS	BY
10/02/24 MATERIAL SPECS.	JM

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

DUPLEX B

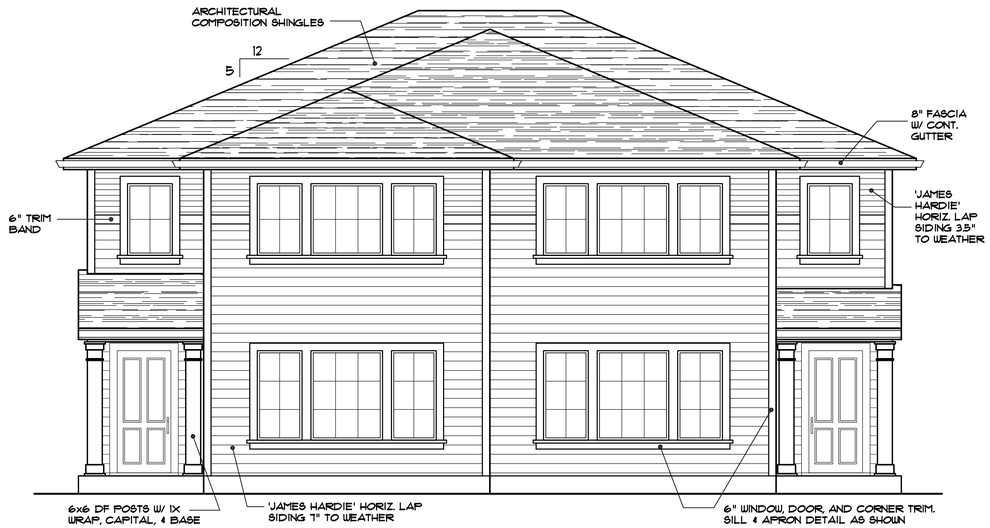
EXTERIOR ELEVATIONS

ROOF PLAN

REAR LOAD UNITS

PRELIMINARY

DRAWN: JM	SHEET NO.
JOB NUMBER: CDS-2521	A-15
DATE: 04/22/24	OF 26 SHEETS



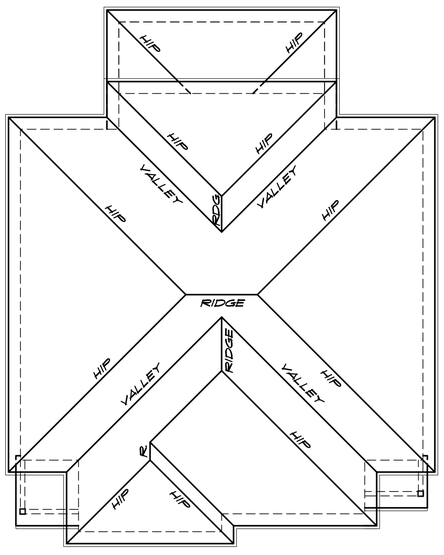
FRONT ELEVATION C

1/4" = 1'-0"



LEFT SIDE ELEVATION C

1/4" = 1'-0"



ROOF PLAN C

1/8" = 1'-0"

EXTERIOR MATERIALS

1. ROOFING:
   ARCHITECTURAL COMPOSITION SHINGLES WITH MINIMUM 30 YEAR WARRANTY.
   METAL ROOFING: 26 GA. STANDING SEAM, CONCEALED FASTENERS.
2. SIDING:
   HARDIE BRAND (OR EQUAL) CEMENTUOS SIDING IN THE STYLES, PATTERNS, AND EXPOSURES SHOWN.
3. TRIM:
   WOOD/COMPOSITE TRIM AT ALL WINDOWS, DOORS, BANDS, AND BUILDING CORNERS.
4. WINDOWS:
   HOLLOW VINYL UNITS WITH MUNTINS AS DETAILED.
5. DOORS:
   WOOD, METAL, OR FIBERGLASS AS ARE AVAILABLE FOR THE DESIGN PATTERNS SHOWN.
6. COLUMNS:
   INTERIOR STRUCTURAL COLUMN WITH WOOD/COMPOSITE WRAPS IN SHAPE AND DESIGN AS SHOWN.
7. RAILINGS:
   WOOD/COMPOSITE OR WROUGHT IRON AS SHOWN.
8. KNEE BRACES & OUTLOOKERS:
   FIELD FABRICATED WITH WOOD DIMENSIONSAL LUMBER.

0 2' 6' 12'

SCALE: 1/4"=1'-0"

REVISIONS	BY
10/02/24 MATERIAL SPECS.	JM

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

DUPLEX C

EXTERIOR ELEVATIONS

ROOF PLAN

REAR LOAD UNITS

PRELIMINARY

DRAWN: JM	SHEET NO.
JOB NUMBER: CDS-2521	A-16
DATE: 04/22/24	OF 26 SHEETS



TRIPLEX MAIN FLOOR PLAN

1/4" = 1'-0"

BUILDING SQ. FT.	
MAIN FLOOR :	798 S.F.
UPPER FLOOR :	1,007 S.F.
TOTAL S.F. :	1,805 S.F.
GARAGE:	235 S.F.
COVERED AREAS :	26 S.F.
TOTAL LOT COVERAGE :	1,125 S.F.

BUILDING SQ. FT.	
MAIN FLOOR :	798 S.F.
UPPER FLOOR :	1,007 S.F.
TOTAL S.F. :	1,805 S.F.
GARAGE:	235 S.F.
COVERED AREAS :	26 S.F.
TOTAL LOT COVERAGE :	1,125 S.F.

BUILDING SQ. FT.	
MAIN FLOOR :	756 S.F.
UPPER FLOOR :	975 S.F.
TOTAL S.F. :	1,731 S.F.
GARAGE:	235 S.F.
COVERED AREAS :	38 S.F.
TOTAL LOT COVERAGE :	1,093 S.F.

0 2' 6' 12'
SCALE: 1/4"=1'-0"

REVISIONS	BY

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

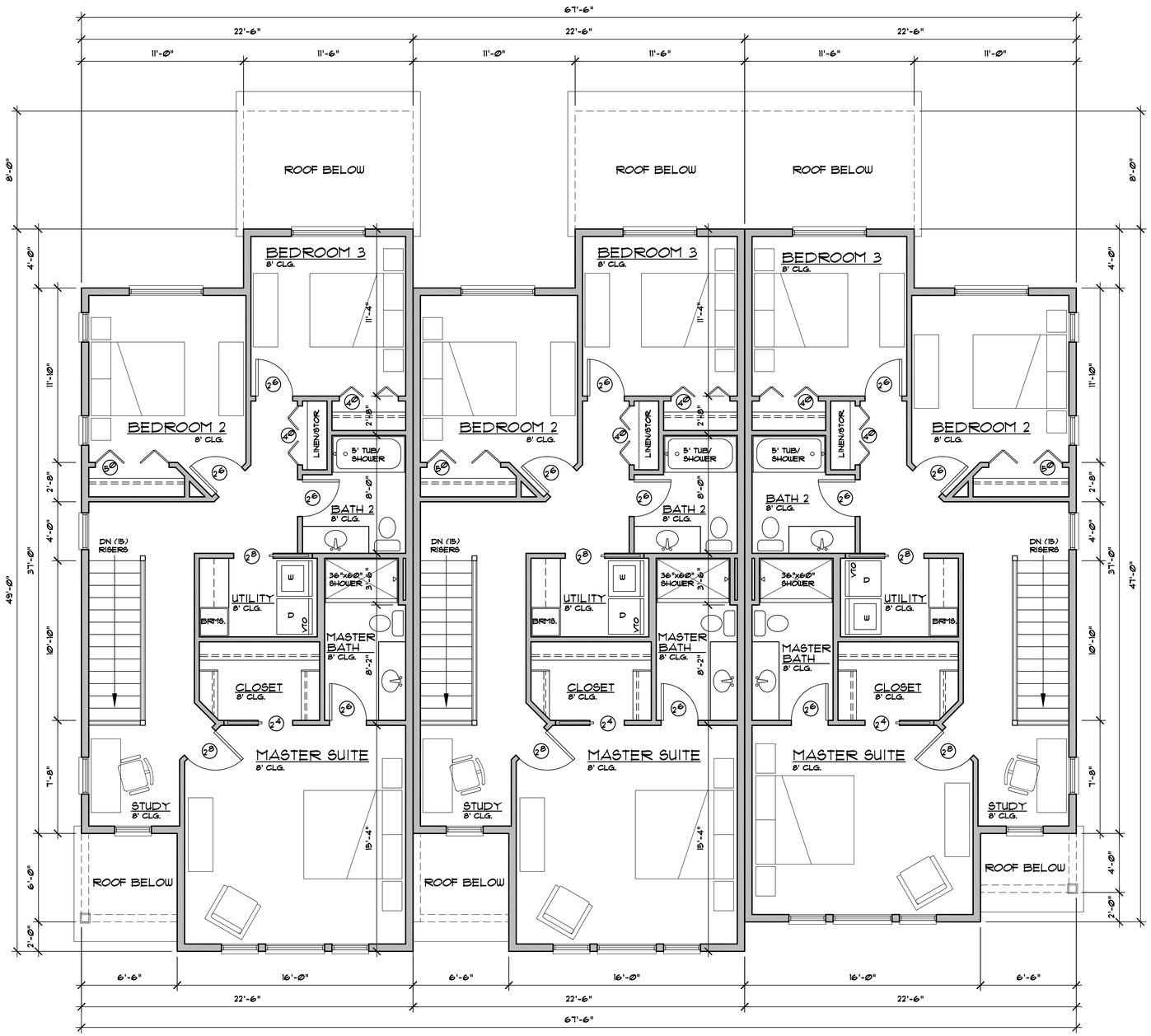
TRIPLEX

MAIN FLOOR PLAN

REAR LOAD UNITS

PRELIMINARY

DRAWN: JM	SHEET NO. A-17
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS



TRIPLEX UPPER FLOOR PLAN

1/4" = 1'-0"

0 2' 6' 12'

SCALE: 1/4"=1'-0"

REVISIONS	BY

CASCADE DESIGN STUDIO

JEFF MAYFIELD DESIGNER

815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI–FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

TRIPLEX

UPPER FLOOR PLAN

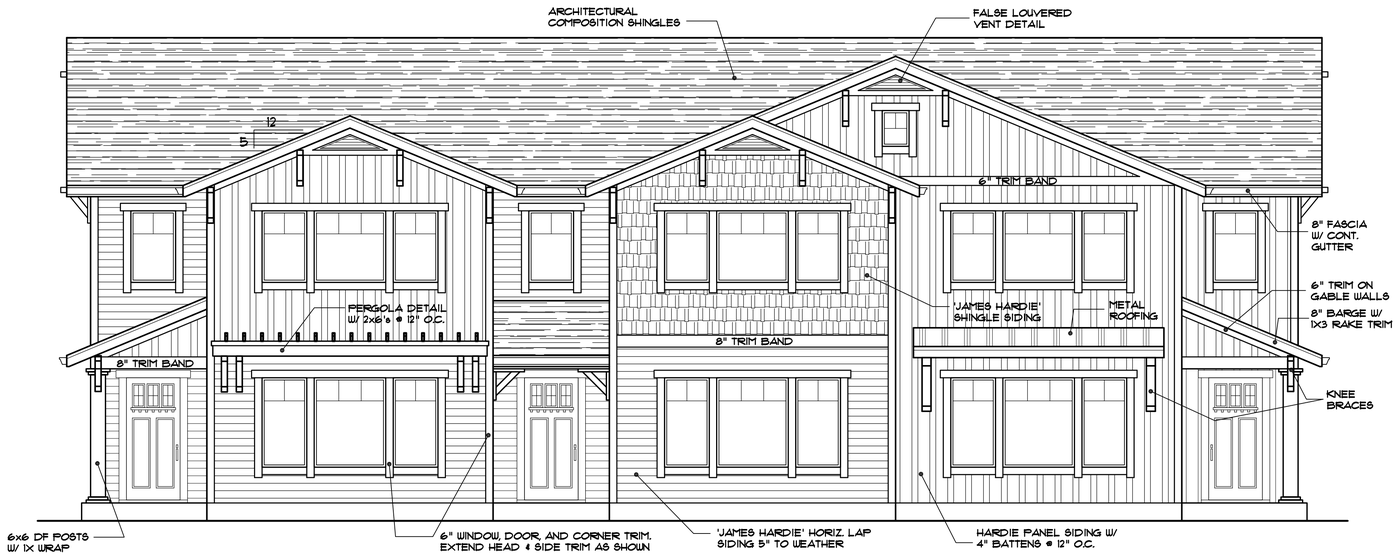
REAR LOAD UNITS

PRELIMINARY

DRAWN:	SHEET NO.
JM	A-18
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS

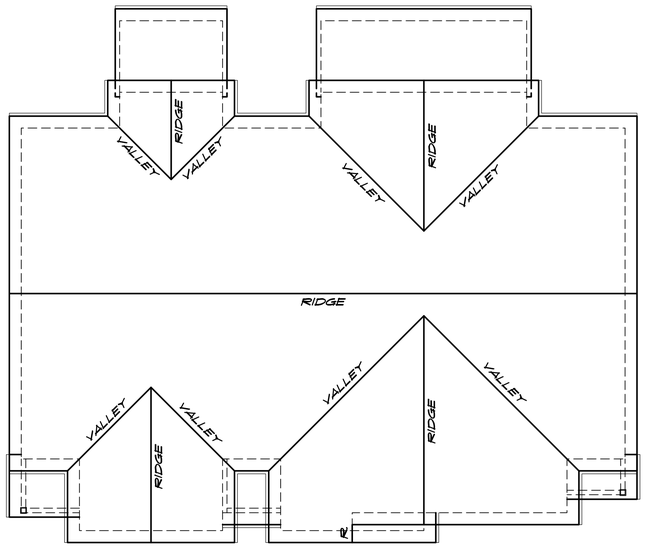
EXTERIOR MATERIALS

1. ROOFING:
   ARCHITECTURAL COMPOSTION SHINGLES WITH MINIMUM 30 YEAR WARRANTY.
   METAL ROOFING: 26 GA. STANDING SEAM, CONCEALED FASTENERS.
2. SIDING:
   HARDIE BRAND (OR EQUAL) CEMENTUOS SIDING IN THE STYLES, PATTERNS, AND EXPOSURES SHOWN.
3. TRIM:
   WOOD/COMPOSITE TRIM AT ALL WINDOWS, DOORS, BANDS, AND BUILDING CORNERS.
4. WINDOWS:
   HOLLOW VINYL UNITS WITH MUNTINS AS DETAILED.
5. DOORS:
   WOOD, METAL, OR FIBERGLASS AS ARE AVAILABLE FOR THE DESIGN PATTERNS SHOWN.
6. COLUMNS:
   INTERIOR STRUCTURAL COLUMN WITH WOOD/COMPOSITE WRAPS IN SHAPE AND DESIGN AS SHOWN.
7. RAILINGS:
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8. KNEE BRACES & OUTLOOKERS:
   FIELD FABRICATED WITH WOOD DIMENSIONSAL LUMBER.



FRONT ELEVATION A

1/4" = 1'-0"



ROOF PLAN A

1/8" = 1'-0"



LEFT SIDE ELEVATION A

1/4" = 1'-0"

0 2' 6' 12'
SCALE: 1/4"=1'-0"

REVISIONS	BY
10/02/24 MATERIAL SPECS.	JM

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
815-B ALDER CREEK DRIVE
MEDFORD, OREGON 97504
(541) 772-1411

PROJECT FOR:

PROPOSED MULTI-FAMILY PROJECT FOR: LOWMAN REVOCABLE TRUST

PROJECT ADDRESS:

GEBHARD VILLAGE SUBDIVISION
GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

TRIPLEX TYPE A

EXTERIOR ELEVATIONS

ROOF PLAN

FRONT LOAD UNITS

PRELIMINARY

DRAWN: JM	SHEET NO.
JOB NUMBER: CDS-2521	A-19
DATE: 04/22/24	OF 26 SHEETS

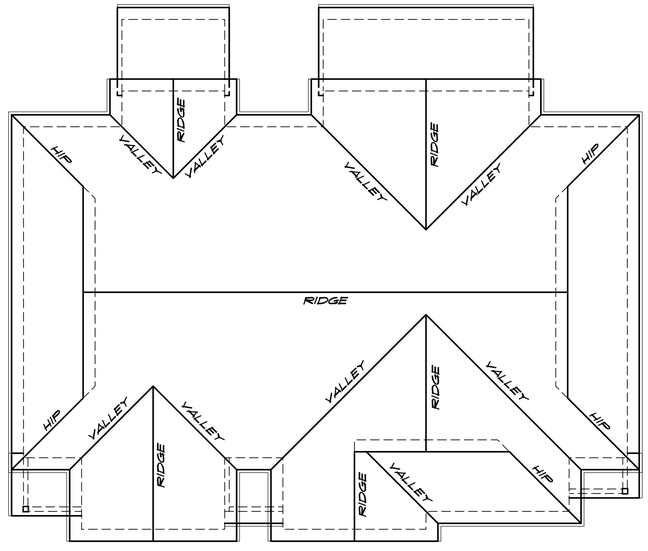
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FRONT ELEVATION B

1/4" = 1'-0"



ROOF PLAN B

1/8" = 1'-0"



LEFT SIDE ELEVATION B

1/4" = 1'-0"

0 2' 6' 12'
SCALE: 1/4"=1'-0"

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10/02/24 MATERIAL SPECS.	JM

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GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

TRIPLEX TYPE B

EXTERIOR ELEVATIONS

ROOF PLAN

FRONT LOAD UNITS

PRELIMINARY

DRAWN: JM	SHEET NO.
JOB NUMBER: CDS-2521	A-20
DATE: 04/22/24	OF 26 SHEETS

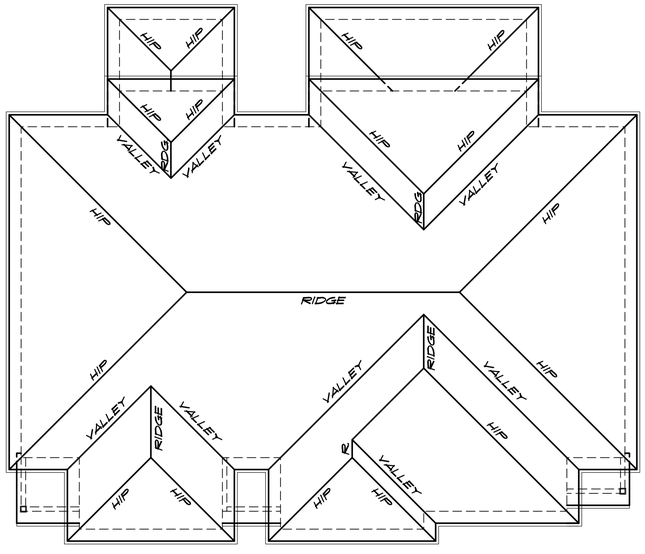
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FRONT ELEVATION C

1/4" = 1'-0"



ROOF PLAN C

1/8" = 1'-0"



LEFT SIDE ELEVATION C

1/4" = 1'-0"

0 2' 6' 12'

SCALE: 1/4"=1'-0"

REVISIONS	BY
10/02/24 MATERIAL SPECS.	JM

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GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

TRIPLEX TYPE C

EXTERIOR ELEVATIONS

ROOF PLAN

FRONT LOAD UNITS

PRELIMINARY

DRAWN: JM	SHEET NO.
JOB NUMBER: CDS-2521	A-21
DATE: 04/22/24	OF 26 SHEETS



FOURPLEX MAIN FLOOR PLAN

1/4" = 1'-0"

BUILDING SQ. FT.	
MAIN FLOOR :	798 S.F.
UPPER FLOOR :	1,007 S.F.
TOTAL S.F. :	1,805 S.F.
GARAGE:	235 S.F.
COVERED AREAS :	26 S.F.
TOTAL LOT COVERAGE :	1,125 S.F.

BUILDING SQ. FT.	
MAIN FLOOR :	798 S.F.
UPPER FLOOR :	1,007 S.F.
TOTAL S.F. :	1,805 S.F.
GARAGE:	235 S.F.
COVERED AREAS :	26 S.F.
TOTAL LOT COVERAGE :	1,125 S.F.

BUILDING SQ. FT.	
MAIN FLOOR :	756 S.F.
UPPER FLOOR :	975 S.F.
TOTAL S.F. :	1,731 S.F.
GARAGE:	235 S.F.
COVERED AREAS :	38 S.F.
TOTAL LOT COVERAGE :	1,093 S.F.

BUILDING SQ. FT.	
MAIN FLOOR :	798 S.F.
UPPER FLOOR :	1,007 S.F.
TOTAL S.F. :	1,805 S.F.
GARAGE:	235 S.F.
COVERED AREAS :	26 S.F.
TOTAL LOT COVERAGE :	1,125 S.F.

0 2' 6' 12'
SCALE: 1/4"=1'-0"

REVISIONS	BY

CASCADE DESIGN STUDIO
JEFF MAYFIELD DESIGNER
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GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

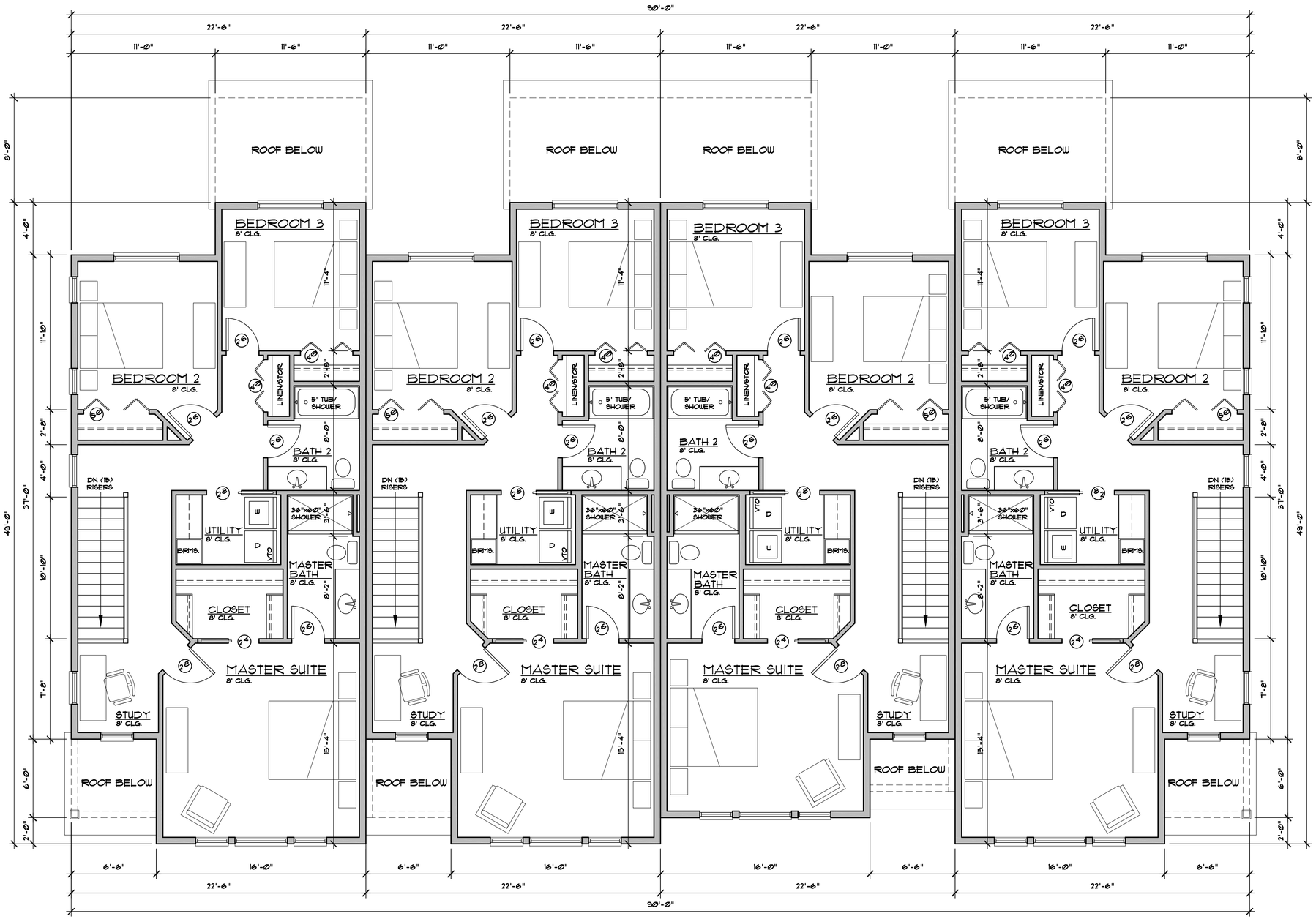
FOURPLEX

MAIN FLOOR PLAN

REAR LOAD UNITS

PRELIMINARY

DRAWN:	SHEET NO.
JM	A-22
JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS



FOURPLEX UPPER FLOOR PLAN

1/4" = 1'-0"

0 2' 6' 12'

SCALE: 1/4"=1'-0"

REVISIONS	BY

CASCADE DESIGN STUDIO

JEFF MAYFIELD DESIGNER

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SHEET TITLE

FOURPLEX

UPPER FLOOR PLAN

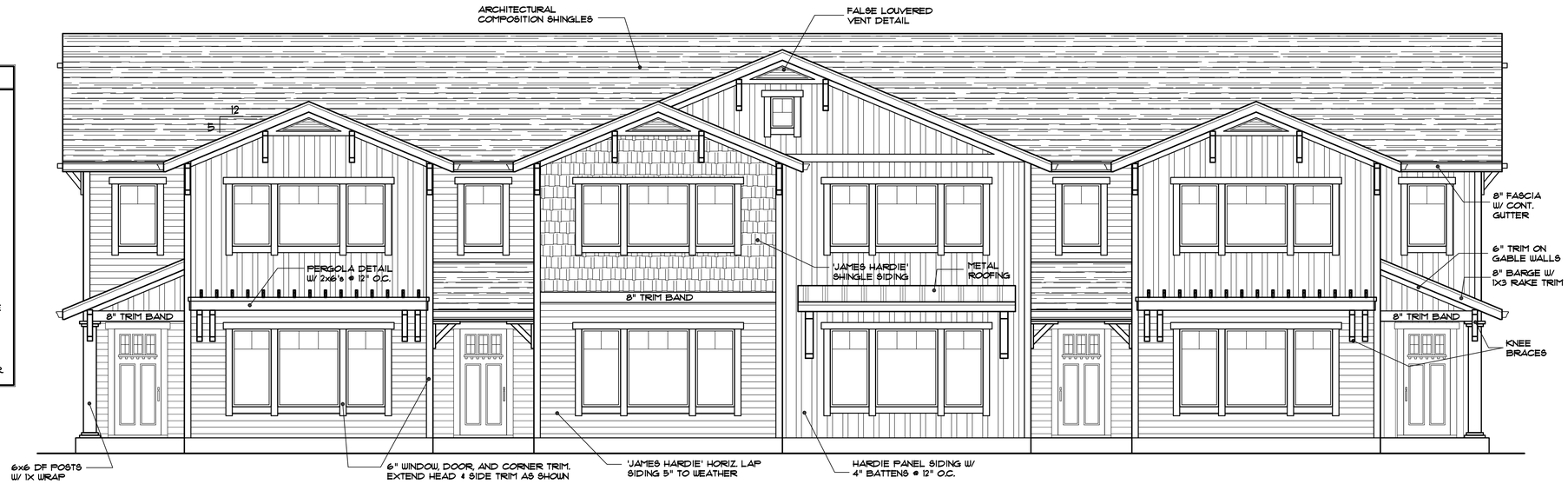
REAR LOAD UNITS

PRELIMINARY

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JOB NUMBER: CDS-2521	
DATE: 04/22/24	OF 26 SHEETS

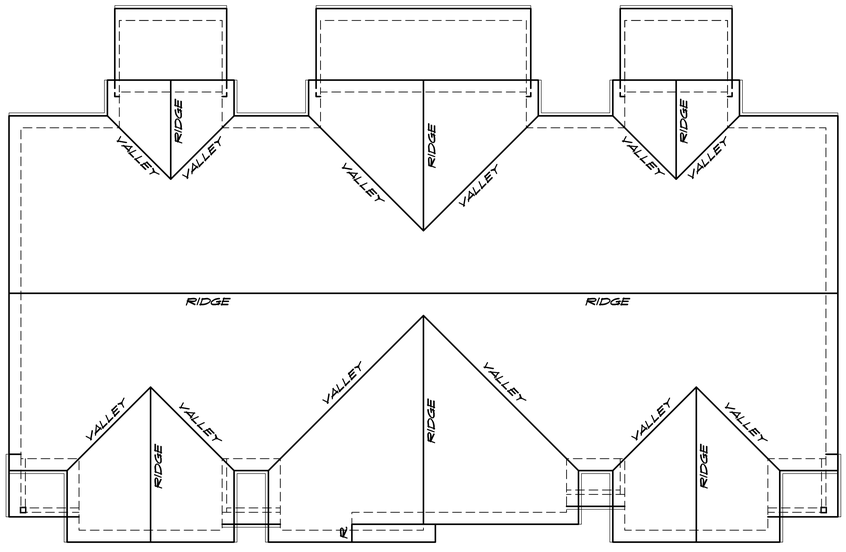
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FRONT ELEVATION A

1/4" = 1'-0"



ROOF PLAN A

1/8" = 1'-0"



LEFT SIDE ELEVATION A

1/4" = 1'-0"

0 2' 6' 12'
SCALE: 1/4"=1'-0"

REVISIONS	BY
10/02/24 MATERIAL SPECS.	JM

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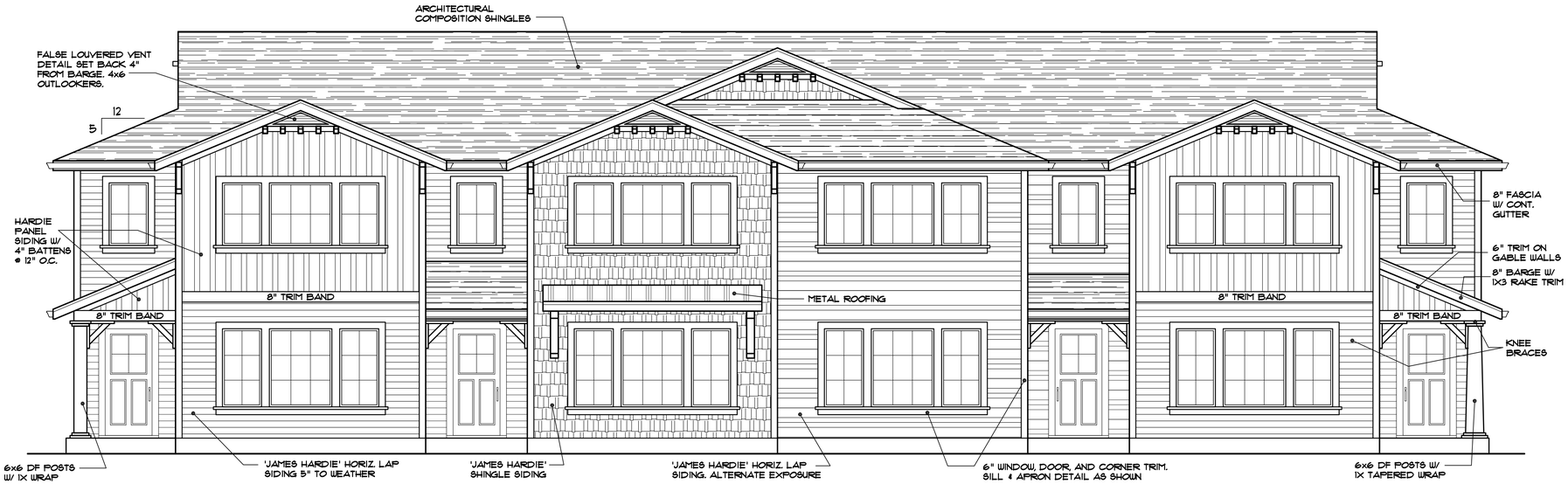
SHEET TITLE
FOURPLEX TYPE A
EXTERIOR ELEVATIONS
ROOF PLAN
FRONT LOAD UNITS

PRELIMINARY

DRAWN: JM	SHEET NO.
JOB NUMBER: CDS-2521	A-24
DATE: 04/22/24	OF 26 SHEETS

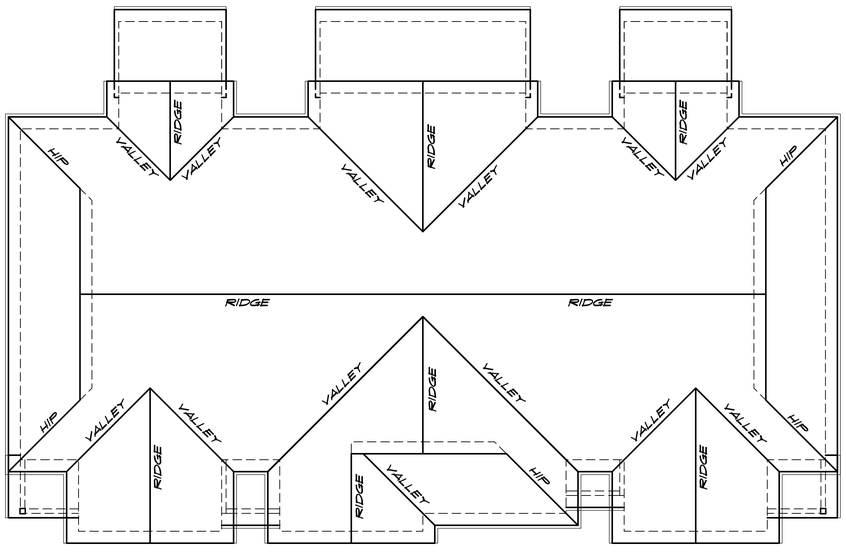
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FRONT ELEVATION B

1/4" = 1'-0"



ROOF PLAN B

1/8" = 1'-0"



LEFT SIDE ELEVATION B

1/4" = 1'-0"

0 2' 6' 12'

SCALE: 1/4"=1'-0"

REVISIONS	BY
10/02/24 MATERIAL SPECS.	JM

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GEBHARD ROAD
CENTRAL POINT, OREGON

SHEET TITLE

FOURPLEX TYPE B

EXTERIOR ELEVATIONS

ROOF PLAN

FRONT LOAD UNITS

PRELIMINARY

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JOB NUMBER: CDS-2521	
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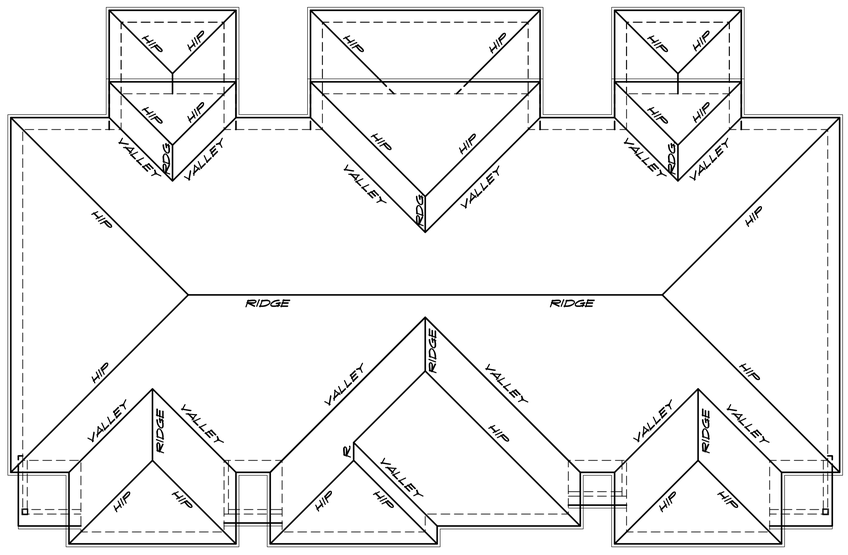
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FRONT ELEVATION C

1/4" = 1'-0"



ROOF PLAN C

1/8" = 1'-0"



LEFT SIDE ELEVATION C

1/4" = 1'-0"

0 2' 6' 12'

SCALE: 1/4"=1'-0"

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FOURPLEX TYPE C

EXTERIOR ELEVATIONS

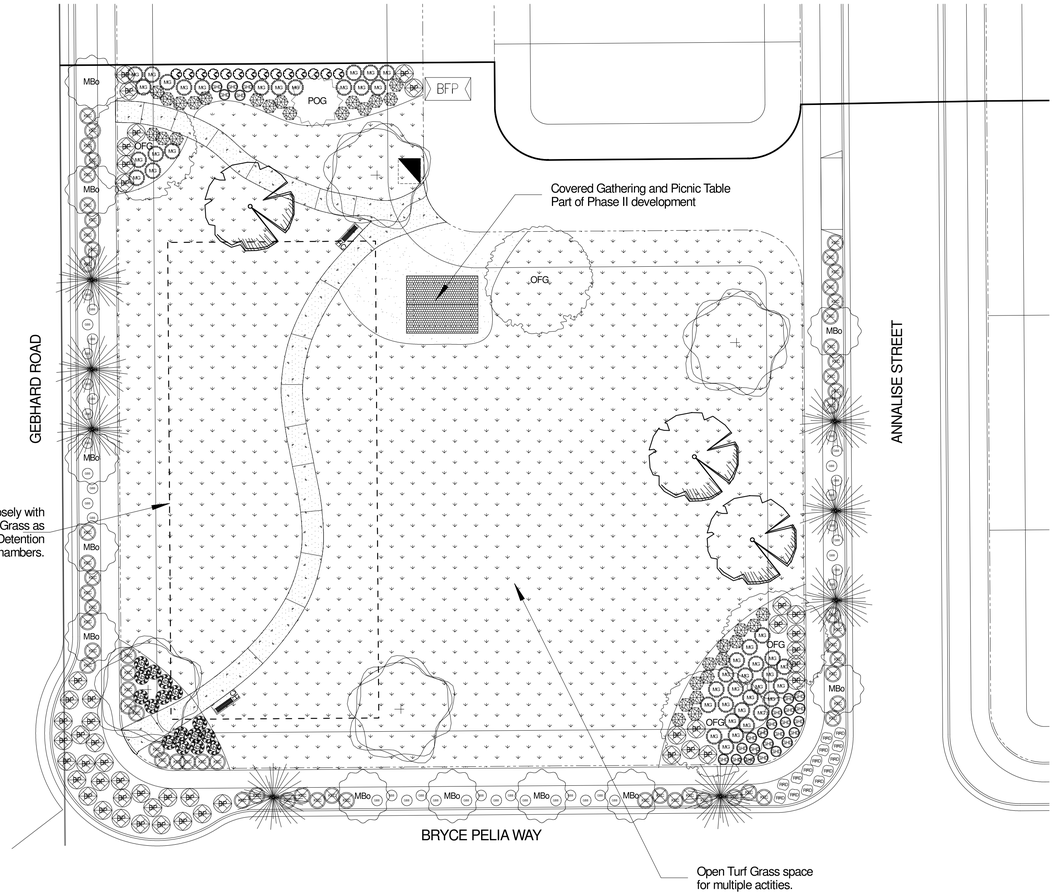
ROOF PLAN

FRONT LOAD UNITS

PRELIMINARY

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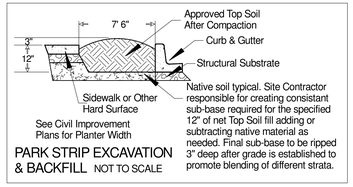
EXHIBIT "7"



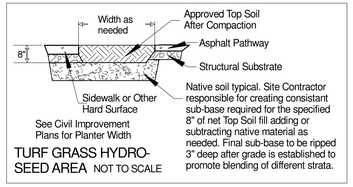
GRADING

COORDINATION AND COMMUNICATION WITH THE EXCAVATING AND SITE CONTRACTOR IS IMPERATIVE.

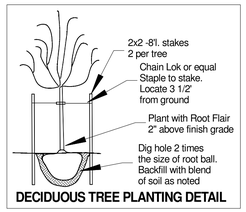
1. All landscape beds to be excavated to depth as Detailed and in relationship to the surface of surrounding concrete and hardscapes. This may require adding or subtracting viable Native Soil to achieve consistent subgrade for the subsequent top soil fill as Detailed below. (See Details). Viable Native Soil does not include concrete, rock greater than 1 1/2" diameter, strictly clay soil, or non-native debris. Site Contractor responsible for creating consistent sub-base of Native soil as Detailed for the specified area to achieve a net Top Soil at finish grade, adding or subtracting native material as required. Final sub-base to be ripped 3" deep, after grade is established, to promote blending of different strata.
2. Fill beds with locally sourced screened top soil that has been tested and shown to provide for superior plant growth. Testing done at Umpqua Research Company of Myrtle Creek Or. or equal. Imported topsoil shall be 10%-70% Sand, 20%-80% silt, and 5%-25% clay; free of alkali, nematodes, harmful chemicals, debris, waste materials, rocks over I" in diameter, and noxious weeds. Fill with sufficient excess to allow for 25% compaction (IE 12" of net requires 16" of loose fill). Place soil in lifts of no more than 6" at a time and compact entire surface with a water filled roller before placing subsequent lifts.
3. Placement of any soil to be done in coordination with suitable weather condition so as to prevent damage to soil structure from excesses of moisture.
4. Sub-grading and final grade to consist of to a smooth even grade, no undulation greater than plus or minus 1" within any 10 lineal feet of distance.
5. All sub-grades to be adequately firm without being overly compacted.
6. Once top soil has been placed the Landscape Contractor is to add mature compost at a rate of 3 cu yds per 1,000 sq ft. and then rip to blend with top soil to a depth of 6". Pre-blended soil meeting these requirements is acceptable upon approval by the Owners Representative.
7. Finish grade as Detailed. All finish grading to promote positive drainage away from structures and to be done in such a way as to eliminate puddling or collection of water.
8. Landscape contractor responsible for addressing any drainage problems encountered during the course of construction, with Owners Representative.
9. See Details for profile



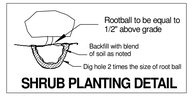
PARK STRIP EXCAVATION & BACKFILL NOT TO SCALE



TURF GRASS HYDRO-SEED AREA NOT TO SCALE



DECIDUOUS TREE PLANTING DETAIL



SHRUB PLANTING DETAIL

GENERAL CONSTRUCTION NOTES

1. General preparation of site to include:
   A. Eradication of weeds through the certified application of herbicides, allowing adequate time for effect. Remove residual vegatative materials from site.
   B. Removal, from site, of all existing surface rock and/or debris in planting spaces.
2. All shrub beds to be finish raked to a smooth condition prior to mulching.
3. Medium dark mulch to be placed in all shrub beds to a depth of 3"
4. Hydro-seed Turf Grass preparation:
   A. Bring areas to an even, smooth grade removing hard or soft areas that might impede drainage or cause puddling.
   B. Hydro-seeded in either setting adding the appropriate seed with the following ratios

Grass seed Turf-Tall Fescue Blend	14lb per 1000 sq ft
Wood Fiber Mulch	45lbs. per 1000 sq ft
Guar Tackifier	1 ½ lbs per 1000 sq ft
Slow Release Granular Fertilizer 16-16-16	10lbs per 1000 sq ft.
Subdue MAXX	Per Manufactures Specifications

   See Hatch Detail for locations and blend
5. INCLUDE 365 DAYS OF MAINTENANCE from the day of acceptance. Including but not limited to:
   A. Mow lawns weekly to manufactures recommended height. Fertilize to manufactures recommendation.
   B. Maintain planting areas in a healthy, weed free condition through a minimum of bi-weekly visits.
   C. Replace any material showing signs of stress.
   D. Monitor irrigation for correct timing.
   E. Provide owner with complete list of instructions for continued care.
6. Plan is diagrammatic and measurements should be confirmed on-site. Any changes are the responsibility of the contractor to co-ordinate with theowners representative.

Approximate Turf Grass 3-Way Rye Extents.

Crushed Gravel Surround

Concrete Pathways

Location of Combination Drinking Fountain, Trash Receptical and Dog Waste Station spaced as appropriate

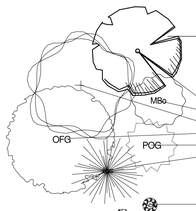
Bench with Handicap space

IRRIGATION DETAILS

1. An automatic irrigation system to be provided for all plant materials areas in accordance with industry standards. System is intended to perform at 30 gpm and 50 psi. Confirm on-site before proceeding depending on the available water source..
2. All materials are to be new and in original condition.
3. No zone shall exceed 30gpm.
4. Place manual drain valves as needed at low points in mainline
5. Mainline should be located in area with least conflict with surrounding utilities. Mainline location on plan for ease of interpretation
6. Hunter I20- series heads in Turf Grass areas. Install Hunter PRO Spray fixed Spray nozzles in Shrub areas. Heads are to be located 2-3" from any concrete, hard surface or transitional area between lawns and shrubs. Heads are to be 8-10" from any building or structure. ALL SPRINKLERS HEADS TO BE PLACED BASED ON HEAD TO HEAD COVERAGE FROM THE PERIMETER WORKING INTO THE MIDDLE. ******NO EXCEPTIONS*******
7. All drip zones to use PVC laterals to locate a point of connection in each individual planting bed terminating in a Drip Riser.
8. All trenching to be a minimum of 15" deep. Backfill is to be clean and free of any material larger than 1 1/2" in diameter. Backfill shall be adequately compacted and guaranteed against further settling.
9. Mainline of 2" SC40 PVC
10. All lateral pipe shall be PVC SC40 and 1" minimum.
11. Electronic control clock located outside structure at the direction of owner.
12. Control wires are to be a minimum of 14ga and spliced with water proof connections only. Place all wiring below piping in trenches.
13. Sleeving to be provided under all hardscapes by general contractor for irrigation purposes.
14. Irrigation system to be guaranteed against defective material or workmanship for one year from the date of final acceptance. Damage or loss due to vandalism, freezing or acts of neglect by others, is exempt from Contractor's replacement responsibility.
15. Provide owner with an accurate as-built locating all valves, wire splices, main line and any sleeving.
16. Provide owner with preliminary watering schedule for the established landscape.
17. Provide owner with complete set of written instructions for operation of sprinkler system including spring start up, clock operation, and winterization.
18. Walk owner through the entire system describing the operating instructions.

BFP — Backflow device Wilkins 350
Double check valve assembly
Size as Required

PLANT LIST



Quantity	Common Name	Botanical Name	Size
	Trees		
3	Elm, Accolade	Ulmus x 'Morton (Accolade™)'	1 3/4"
11	Maple, Bowhall	Acer rubrum 'Bowhall'	1 3/4"
4	Maple, October Glory	Acer rubrum 'October Glory'	1 3/4"
4	Oak, Forest Green	Quercus frainetto 'Schmidt'	1 3/4"
1	Pine, Oregon Green	Pinus nigra 'Oregon Green'	5-6'
8	Zelkova, City Sprite	Zelkova serrata 'City Sprite'	1 3/4"
	Shrubs		
16	Abelia, Kaleidoscope	Abelia 'Kaleicoscope	2g
31	Euonymus, Emerald Gaiety	Euonymus fortunei 'Emerald Gaiety'	2g
14	Holly, Sky Pencil	Ilex crenata 'Sky Pencil'	2g
44	Manzanita, Greenleaf	Arctostaphylos patula	2g
	Ground Cover / Grasses		
47	Broom, Pilosa	Genista pilosa	1g
38	Grass, Burgundy Bunny	Pennisetum alopecuroides 'Burgundy Bunny'	1g
26	Grass, Hameln Dwarf	Pennisetum alopecuroides 'Hameln'	1g
62	Kinnikinnick, Emerald Carpet	Arctostaphylos uva-ursi 'Emerald Carpet'	1g
14	Rose, Red Drift	Rosa 'Meigalpio'	1g

PLANTING

1. Plant material to be provided in accordance with species, sizes and quantities indicated below. Substitutions to be made with the approval of landscape architect.
2. No planting to proceed until irrigation system is fully functioning in the area to be planted.
3. All plant holes to be dug 2 times the volume of their root ball size. Backfill shall consist of 1/3 organic mulch, 2/3 top soil, micorrhizae supplement and 16-16-16 fertilizer as follows.

1gal	1oz
3-5gal	2oz
larger	4oz

4. Plant upright and face to give best appearance or relationship to plants, structures and predominant viewing angle. Trees are to be planted so as to be straight up and down without the assistance of staking. Staking is solely for support against outside forces.
5. Loosen and remove twine binding and burlap from around top of each root ball. Scarify root balls of plants exhibiting a root bound condition, being careful not to damage the root balls integrity. Stake and guy trees immediately after this work.
6. Place and compact backfill soil mixture carefully to avoid injury to roots, and fill all voids.
7. When hole is 2/3 filled with soil, completely soak and allow water to soak away at least two times or more, as necessary to completely water individual plants.
8. Guarantee plant materials and related workmanship of installation, beginning after written acceptance of work, for one year.
   A. Replace plant material not surviving or in poor condition during guarantee period.
   B. Perform all replacement work in accordance with original specifications at no additional cost to Owner.
   C. Damage or loss of plant materials due to vandalism, freezing or acts of neglect by others, is exempt from Contractor's replacement responsibility.

LANDSCAPE PLAN

N

0 10 20 40 60 80

Scale 1" = 20'

IF THIS SHEET IS OTHER THAN 24" X 36" IT HAS BEEN MODIFIED AND IS NOT TO SCALE

REGISTERED LANDSCAPE ARCHITECT
528
Thomas A Madara
OREGON
05/09/03

Madara Design Inc
Landscape Architecture, Design & Consultation
2994 Wells Fargo Rd
Central Point, Or 97502
541-664-7055
madaradesign@yahoo.com

Project DesDescription:
GEBHARD SUBDIVISION
OPEN SPACE PLANNING

Project Lt Location:
GEBHARD ROAD
CENTRAL POINT, OR

Approved for the Owner By: Date:

REVISIONS	BY

PLOT DATE:
ISSUE DATE: 11/27/2024
DRAWN BY: TM
JOB NO.:
SHEET
L.101

EXHIBIT "8"

Cascadia Associates, LLC

Independent Cleanup Program Report

Gebhard Village Site

4920 Gebhard Road

Central Point, Oregon

Prepared for:

Mr. Dan Mahar
DRM Construction, LLC
PO Box 4428
Medford, Oregon 97501

Prepared by:

Cascadia Associates, LLC
6915 SW Macadam Avenue, Suite 250
Portland, Oregon 97219

Project No. 0063-001-001
July 27, 2018

Independent Cleanup Program Report

Gebhard Village Site

4920 Gebhard Road

Central Point, Oregon

Prepared for:

DRM Construction

Project No. 0063-001-001

July 27, 2018

Prepared by:

Amanda Spencer, P.E., R.G.

Principal Hydrogeologist, Cascadia Associates

Joel Mattecheck

Senior Staff Scientist, Cascadia Associates

CONTENTS

1.0 INTRODUCTION 1
2.0 SITE BACKGROUND 2
2.1 Site Location 2
2.2 Site Description 2
2.3 Site Ownership 2
2.4 Regulatory History 2
2.5 Previous Investigations 2
3.0 ENVIRONMENTAL SETTING 4
3.1 Climate Information 4
3.2 Topography 4
3.3 Surface Water Hydrology 4
3.4 Regional and Site Geology and Soils 4
3.5 Regional and Site HydroGEOlogy 4
4.0 2018 SITE INVESTIGATION 5
4.1 Scope of Work and Rationale 5
4.1.1 First Phase of Investigation: January 4, 2018 5
4.1.2 Second Phase of Investigation: February 28 – March 1, 2018 6
4.2 Methods and procedures 6
4.2.1 Soil Borings and Soil Sample Collection 6
4.2.2 Groundwater Sampling 7
4.2.3 Investigation-Derived Waste 7
4.3 Chemical Analysis 8
4.4 Results 8
4.4.1 January 4, 2018 Investigation Analytical Results 8
4.4.2 February 28 - March 1, 2018 Investigation Analytical Results 9
5.0 NATURE AND EXTENT 12
5.1 Nature and Source 12
5.2 Extent 12
6.0 POTENTIAL EXPOSURE PATHWAYS AND RISK ASSESSMENT 14
6.1 Groundwater Pathway 14

6.2 Soil Pathway via direct contact or ingestion 14
6.3 Surface water and sediment pathway 14
6.4 Air Pathways of exposure 15
7.0 FATE AND TRANSPORT 16
7.1 Transport 16
7.2 Degredation/persistence 16
7.3 Demonstration of no impact to groundwater 16
7.4 Locality of the facility 17
8.0 LAND AND WATER USE DETERMINATIONS 18
8.1 Current and future land use 18
8.1.1 Current Site Use 18
8.1.2 Current Land Use in Site Vicinity 18
8.1.3 Future Site Use 18
8.1.4 Future Land Use in Site Vicinity 18
8.2 Beneficial uses of water 18
9.0 SUMMARY AND CONCLUSIONS 19
10.0 REFERENCES 20

TABLES

Table 1 Soil Analytical Results – Metals and Nitrate
Table 2 Soil Analytical Results – Organic Pesticides
Table 3 Soil Analytical Results – Polycyclic Aromatic Hydrocarbons
Table 4 Groundwater Analytical Results – Metals and Nitrate
Table 5 Groundwater Analytical Results – Total Petroleum Hydrocarbons
Table 6 Groundwater Analytical Results – Organic Pesticides
Table 7 Groundwater Analytical Results – Polycyclic Aromatic Hydrocarbons
Table 8 Groundwater Analytical Results – Volatile Organic Compounds

FIGURES

Figure 1 Site Location
Figure 2 Site Layout and Boring Locations
Figure 3 Arsenic Concentrations in Shallow Soil
Figure 4 Lead Concentrations in Shallow Soil

APPENDICES

Appendix A Desktop Environmental Review Report
Appendix B Exploration Logs
Appendix C Laboratory Reports and Data Quality Review
Appendix D Calculations for 95% Upper Confidence Level on the Mean Arsenic and Lead Concentrations

1.0 INTRODUCTION

DRM Construction, LLC plans to develop the property at 4920 Gebhard Road, Central Point, Oregon (the Site) for use as a high density residential development (townhomes). This Independent Cleanup Pathway (ICP) Report was prepared for and is submitted on behalf of DRM Construction, following Oregon Department of Environmental Quality (DEQ) guidance for ICP report preparation.

A Desktop Environmental Review and Environmental Assessment were completed for the Site in 2017 and 2018 by Cascadia Associates, LLC (Cascadia). The Desktop Environmental Review identified that a portion of the Site was formerly used as a commercial chicken farm and that historically the Site was surrounded by orchards. In 2018, field investigations were conducted and identified arsenic concentrations in surface soil (0 to 0.5 feet below ground surface [bgs]) above regional background arsenic levels. Lead was identified at one surface location at a concentration above DEQ risk-based screening concentrations (RBCs) for residential site use. Arsenic and lead concentrations in sub-surface soil (1.0 to 1.5 feet bgs) are below RBCs and/or background levels for the region.

In May 2018, DRM Construction entered the ICP to obtain DEQ review and approval of proposed risk management measures to be implemented to mitigate potential unacceptable risk posed by arsenic in Site surface soil. This ICP report presents the results of the desktop environmental review, site characterization activities, risk-screening of site data, and a risk assessment of arsenic and lead concentrations in soil, including an evaluation of nature and extent, and potentially complete exposure pathways. As detailed in the following sections, the conclusion from the evaluation of the data and risk assessment are that the lead and arsenic present in site soil will not present an unacceptable health risk.

2.0 SITE BACKGROUND

2.1 SITE LOCATION

The Site is located at 4920 Gebhard Road in Central Point, Oregon (Figure 1).

2.2 SITE DESCRIPTION

The Jackson County tax lot number for the 7.43-acre Site is 2800. The Site is undeveloped and gradually slopes to the southwest. Gebhard Road bounds the Site to the west; a residential driveway bounds the Site to the south. The northern and eastern extents of the Site are bound by residential developments. The Site layout is shown on Figure 2.

Debris material was observed during a site visit in January 2018 in the northwest quadrant of the Site at the location shown on Figure 2. Additionally, what appears to be a former drywell is located near the western-central property boundary (Figure 2).

2.3 SITE OWNERSHIP

The Site is currently owned by James L. Lowman and Magna O. Carrico-Lowman, Trustees of the April 12, 2012 Lowman Revocable Trust. According to a review of city directories, the Site was previously occupied by Joshua Sizemore in 2008, and Roxanne Atteberry in 1995 and 2003. The occupant was listed as unknown in 2003 and the address of 4920 Gebhard Road was not listed in 1992 and 2013. City directory listings were not available for the Site for the period prior to 1992.

2.4 REGULATORY HISTORY

DRM Construction submitted an ICP application on behalf of the property owners in May of 2018 to support potential development of the property for residential use. To the knowledge of Cascadia, the Site was not regulated by State or federal environmental regulatory agencies prior to its entry into the ICP in 2018.

2.5 PREVIOUS INVESTIGATIONS

A Desktop Environmental Review was completed in October 2017 by Cascadia for DRM Construction. The review identified the following environmental concerns for the Site:

1) **Commercial Chicken Farm.** A commercial chicken farm was located in the southern half of the Site from at least 1974 to at least 1994. Arsenic was often used in feed to reduce parasites in the chickens during this operational time frame and could have impacted soil if the feed was placed on the ground or through chicken feces that dropped to the ground. In addition (although not as common), other heavy metals such as copper, zinc, and cadmium, may become concentrated in chicken feces and can impact soil if the feces are not removed.

In addition, the nitrates and ammonia from chicken feces left on the ground can impacted groundwater if exposed to rain or other infiltrating surface water.

2) **Drainage Ditch.** A drainage ditch or creek is visible bisecting the property as early as 1939. This ditch originates northwest of the Site and appears to drain agricultural areas off the Site. If pesticides were used on these off-site agricultural fields, it is possible that these pesticides could have become entrained in surface water runoff from the fields and into the drainage ditch, and be present in onsite ditch sediment.

3) **Orchards on Surrounding Properties.** The aerial photographs show orchards on adjacent properties from at least 1939 through the 1990s. Soil sampling at the property directly south of the Site indicated elevated arsenic concentrations in surface soil near the property line due to the apparent use of lead arsenate pesticides on the orchard formerly located in the northwest corner of this property. It is possible that overspray of pesticides used on this orchard or the other adjacent orchards could have impacted surface soil at the Site with arsenic, lead, or organic pesticides.

A copy of the Desktop Environmental Review report is included in Appendix A.

3.0 ENVIRONMENTAL SETTING

3.1 CLIMATE INFORMATION

Average annual precipitation in Central Point, Oregon is 18.34 inches. The temperature ranges from an average low of approximately 33°F in January to an average high of approximately 91°F in July (National Climatic Data Center website, 2018).

3.2 TOPOGRAPHY

The Site gradually slopes to the southwest and lies at an approximate elevation of 1,250 feet above mean sea level (MSL).

3.3 SURFACE WATER HYDROLOGY

A drainage ditch bisects the center of the Site from west to east.

3.4 REGIONAL AND SITE GEOLOGY AND SOILS

The Property is in the Bear Creek Valley region. The regional geology consists of quaternary older alluvium that is a mixture of unconsolidated gravel, sand, silt, and clay in varying proportions; thickness ranges up to 60 feet in the region (State of Oregon Department of Geology and Mineral Industries, 1977b). This alluvium is possibly underlain by quaternary bench gravels that are a mixture of semi-consolidated gravel, sand, clay, and silt up to 70 feet thick. The bedrock geologic unit in the Bear Creek Valley is cretaceous sedimentary rock consisting of hard conglomerate and sandstone overlain by mudstone with thick sandstone interbeds (State of Oregon Department of Geology and Mineral Industries, 1977b).

Soil encountered at the Site to the depths explored (16 feet bgs) consists of clay with trace amounts of sand and gravels encountered in some areas.

3.5 REGIONAL AND SITE HYDROGEOLOGY

Regionally, the quaternary older alluvium and bench gravels underlying the property contain restrictive soil layers and are subject to poor drainage, ponding, and high groundwater (State of Oregon Department of Geology and Mineral Industries, 1977a). The Bear Creek Valley has a shallow water-bearing zone, with groundwater encountered at less than 50 feet bgs on average (City of Medford Comprehensive Plan Environmental Element, 2003). The primary aquifer in the area is located in the alluvial deposits found in the region.

Groundwater at the Site is encountered between 8.5 and 12.0 feet bgs. Based on the Site topography and the presence of Bear Creek southwest of the Site, groundwater at the Site likely flows southwest towards Bear Creek.

4.0 2018 SITE INVESTIGATION

To assess whether soil may have been impacted by pesticide use or the former chicken farm, a soil and grab groundwater sampling program was implemented. The Site investigation was completed during two mobilizations, one on January 4, 2018 and one from February 28 through March 1, 2018. The scope, methods, and results of this investigation are presented in this section.

4.1 SCOPE OF WORK AND RATIONALE

Site investigation field activities were performed at the Site in two phases; the first phase was conducted on January 4, 2018, and focused on sampling surface soil (i.e., the upper 6 inches of soil). Soil samples were collected in a gridded pattern at approximate 100-foot spacing to provide a comprehensive characterization of surface soil at the Site. During the initial field sampling effort, three stockpiles of soil and debris were identified and sampled. The second phase was conducted from February 28 through March 1, 2018, and included both shallow soil and grab groundwater sampling.

4.1.1 First Phase of Investigation: January 4, 2018

On January 4, 2018, Cascadia collected 33 surface (0 to 6 inches bgs) soil samples (SS-1 through SS-30, and Stockpile 1, Stockpile 2, and Stockpile 3) at the Site. Thirty of the surface soil samples were collected on a gridded pattern as shown on Figure 2; three of the surface soil samples were collected from stockpiled soil at the Site.

All of the surface soil samples collected in the first phase of the investigation were analyzed for lead and arsenic. In addition, selected samples were analyzed for additional constituents, as follows:

- Four of the 30 surface soil samples collected from the gridded locations were analyzed for total metals (arsenic, lead, copper, cadmium, and zinc) and organic pesticides to assess whether pesticide use at adjacent orchards or the chicken farm operations impacted surface soil at the Site.
- Seven of the 30 surface soil samples collected from the gridded locations in the southern portion of the Site were analyzed for nitrates in addition to lead and arsenic to assess the potential impact to surface soil from the former chicken farm.
- Three of the 30 surface soil samples collected from the gridded locations were located in the drainage ditch/creek and were analyzed for total metals and organic pesticides to assess whether runoff from other properties impacted ditch sediment on the Site.
- The three samples collected from the stockpiled soil were analyzed for polynuclear aromatic hydrocarbons (PAHs) and total metals.

The remaining 16 surface soil samples collected from the gridded locations were analyzed for lead and arsenic to assess whether lead arsenate use at adjacent orchards impacted Site soil.

4.1.2 Second Phase of Investigation: February 28 – March 1, 2018

Analytical data obtained from soil samples collected during the January 4, 2018 sampling event indicated that surface soil at the Site contains arsenic and lead (at one sampling location) above applicable DEQ risk-based screening concentrations (RBCs). Additionally, during the January 4, 2018 sampling event, Cascadia identified a suspected historical drywell on the southwestern portion of the Site; the approximate location is shown on Figure 2 at the DW-GW identifier. For this reason, Cascadia re-mobilized to the Site to collect shallow soil samples to better assess the vertical extent of the arsenic and lead, and to collect grab groundwater samples to assess whether the presence of the arsenic, lead or historical nitrates had impacted groundwater beneath the Site. In total, Cascadia collected 60 shallow soil samples from the 30 gridded locations (in addition to the 30 surface soil samples that were previously collected during the initial investigation). The shallow soil samples were collected from two depth intervals at each location: from 12 to 18 inches and 24 to 30 inches. The soil samples from the 24- to 30-inch depth interval were held by the analytical laboratory pending the results of the 12- to 18-inch depth interval.

Cascadia also collected groundwater samples from three boring locations at the Site: SS-5, SS-30, and DW-GW; Figure 2 shows the locations of these borings. As shown on Figure 2, one grab groundwater sample was collected adjacent to the suspected former dry well; one grab groundwater sample was collected from the northeast quadrant of the Site; and a third groundwater sample was collected from the southwest quadrant.

4.2 METHODS AND PROCEDURES

Prior to and during the field investigations, the following preparatory activities were completed:

- The Oregon Utility Notification Center was notified of the proposed work;
- A site-specific health and safety plan was prepared to govern the activities of Cascadia staff;
- Exploration locations were identified and marked; and
- A private utility locating contractor, Rogue Locating, was retained to identify subsurface utilities near proposed explorations.

4.2.1 Soil Borings and Soil Sample Collection

During the January 4, 2018 event, surface soil samples were collected from 0 to 6 inches bgs using hand tools (e.g., a hand auger, shovel and/or hand trowel). Hand tools were decontaminated prior to use at each sampling location. Vegetation was scraped clear from each location prior to sample collection.

Soil and groundwater borings advanced during the February 28 to March 1, 2018 field event were completed using a hand auger or Geoprobe 6600 direct-push drilling equipment. Pacific Soil and Water, LLC of Tigard, Oregon, was retained to provide and operate the direct push drilling rig. Drilling and hand auger equipment that encountered soil was decontaminated prior to use at each sampling location. Explorations advanced for soil sampling only were completed to depths of

30 inches; borings advanced for grab groundwater sampling were completed to depths of 16 feet bgs. Subsurface borings were completed in accordance with the Oregon Groundwater Law (Oregon Revised Statutes [ORS] Chapter 537) and the Rules for Construction and Maintenance of Monitoring Wells and Other Holes in Oregon (Oregon Administrative Rules [OAR] Chapter 690, Division 240).

The deeper (16-foot) borings were advanced using 2.25-inch-diameter sampling equipment. Soil samples were collected continuously in 4-foot increments for lithologic evaluation. The soils were described using the Unified Soil Classification System (USCS) and screened for potential impacts based on visual observations and headspace vapor measurements using a photo-ionization detector (PID) calibrated to isobutylene.

Discrete soil samples were placed in laboratory-supplied sample containers. Sample containers were stored in an iced cooler under chain of custody control. A Cascadia field representative was present during the investigation activities to observe and document drilling procedures, collect samples, perform field screening activities, select and prepare samples for laboratory analysis, and prepare lithologic logs. Lithologic logs for the 16-foot depth boring are included in Appendix B.

Following completion of the soil boring activities, the borings were backfilled with 3/8-inch bentonite chips to within 6 inches of the ground surface. The upper portion of each boring was patched to match the surrounding surface.

4.2.2 Groundwater Sampling

Deeper borings were advanced at locations SS-5 GW, SS-30 GW, and adjacent to the suspected historical drywell (DW GW) to allow groundwater sample collection. The borings were advanced until the subsurface soil became wet, indicating that groundwater was encountered, and then advanced an additional 5 to 6 feet to allow for groundwater sample collection. Wet soil was encountered at a depth of 10 to 11 feet in each of the borings.

Temporary polyvinyl chloride (PVC) well casings, each with a 10-foot screened interval, were installed into the three deeper borings once the final depth of 16 feet bgs had been reached. Prior to collection of the groundwater samples, the depth to groundwater was measured in the well casings. Measured groundwater depths ranged between 8.5 and 12 feet bgs. A peristaltic pump and new polyethylene tubing were used to purge groundwater from the casing until the groundwater was visibly clear. Following purging, groundwater samples were collected into laboratory-supplied containers and placed in an iced cooler under chain of custody control.

4.2.3 Investigation-Derived Waste

Investigation-derived waste (IDW), consisting of soil cuttings and decontamination water, was placed in a labeled 55-gallon drum and stored on-site.

4.3 CHEMICAL ANALYSIS

Cascadia submitted a total of 63 soil samples and three groundwater samples to ESC Lab Sciences of Mount Juliet, Tennessee, an Oregon Environmental Laboratory Accreditation Program (ORELAP)-accredited laboratory, for one or more of the following chemical analyses:

- Total/Dissolved metals (arsenic, barium, chromium, selenium, silver, mercury, lead, copper, cadmium, and zinc) by Environmental Protection Agency (EPA) 6000/7000 series methods;
- Organic pesticides by EPA Method 8081;
- Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270;
- Volatile Organic Compounds (VOCs) by EPA Method 8260B;
- Diesel-, gasoline-, and residual-range hydrocarbons by NWTPH-Gx and NWTPH-Dx; and
- Nitrates by EPA Method 9056A.

The laboratory reports, including a data quality review, are included in Appendix C.

4.4 RESULTS

4.4.1 January 4, 2018 Investigation Analytical Results

The analytical results for metals and nitrate; pesticides; and PAHs found in Site surface (0 to 6 inches bgs) soil during the initial site assessment are presented in Tables 1 through 3, respectively. The analytical results and comparison to applicable screening levels are described in the following subsections.

Metals in Soil

Thirty-three soil samples were submitted for analysis of arsenic, cadmium, copper, lead, and/or zinc; results are summarized in Table 1. Cadmium, copper, and zinc concentrations detected in the samples were within regional background.

Arsenic concentrations in soil are shown on Figure 3. Arsenic was detected in surface soil at concentrations ranging from 3.53 milligram per kilogram (mg/kg) to 26.9 mg/kg. Because the residential use RBC for arsenic is very low (0.43 mg/kg), detected concentrations were above the RBC, and the arsenic was compared to regional background to better understand whether previous on- and off-site property uses in the area had impacted Site soil. Fourteen of the 33 surface samples were above the regional background level of 12 mg/kg[1].

[1] Regional background is based on the 2013 DEQ report: *Development of Oregon Background Metals Concentrations in Soil*. The Site is located on the boundary between the Klamath Mountain and Cascade Mountain physiographic provinces. Background levels for arsenic were higher in the Cascade Mountain physiographic province (19 mg/kg) than in the Klamath Mountain physiographic province (12 mg/kg). To be conservative, the Klamath Mountain background level was assumed for comparison purposes in this report.

Lead concentrations in soil are shown on Figure 4. Lead was detected above the above the method reporting limit (MRL) in 33 soil samples at concentrations ranging from 2.61 mg/kg to 417 mg/kg. While lead was detected above the regional background of 36 mg/kg (DEQ, 2013)[2] at 21 locations, lead only exceeded the DEQ RBC of 400 mg/kg (for residential ingestion, inhalation, and dermal contact scenarios) in one sample (SS-29 located near the northern Site boundary).

Nitrate in Soil

Nitrates were analyzed in eight soil samples from the area of the former chicken farm. Results are summarized in Table 1. Nitrate concentrations ranged from 0.993 mg/kg to 26.4 mg/kg. The DEQ has not established RBCs for nitrate in soil nor have regional background concentrations been identified.

Pesticides in Soil

Pesticides were analyzed in 10 samples across the Site to assess whether possible pesticide use at orchards historically located adjacent to the Site may have impacted Site soil. Results are summarized in Table 2. Organic pesticides including 4,4 DDE and 4,4 DDT were identified above the method detection limits (MDLs) but below the MRLs in three soil samples. The concentrations of 4,4 DDE and 4,4 DDT in these samples were reported as estimated concentrations. The estimated concentrations reported for these compounds are well below the DEQ RBCs (Table 2).

PAHs in Soil

PAHs were analyzed in the samples collected from the three soil stockpiles. Benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, and naphthalene were detected above laboratory MDLs but below MRLs in nine samples. The estimated concentrations reported for these compounds are well below the DEQ RBCs (Table 3).

4.4.2 February 28 - March 1, 2018 Investigation Analytical Results

Additional soil and groundwater sampling were conducted to better assess Site conditions, as described in Section 4.1.2. Results of the second phase of investigation are described below.

Soil Results

As detailed above, arsenic was detected in surface soil at concentrations above regional background at 14 locations; therefore, additional soil sampling was conducted to assess the vertical extent of arsenic in shallow soil. During the second phase of investigation, soil samples were collected at depth intervals of 12 to 18 inches and 24 to 30 inches at the same gridded locations accessed during the first phase of the investigation. Samples from the 12- to 18-inch depth interval were

[2] Based on the Klamath Mountain physiographic province.

analyzed for arsenic, and the samples from the 24- to 30-inch depth interval were held pending the results of the shallower samples. After review of the 12- to 18-inch sample results which indicated arsenic results within the range of background as detailed in Section 5.0, additional analyses of the 24- to 30-inch samples was not deemed necessary.

Additionally, lead was detected above the RBC at one surface soil location (SS-29); therefore the 12- to 18-inch sample from this location was also analyzed for lead. Table 1 summarizes the arsenic and lead results.

Arsenic. Arsenic was detected in the 12- to 18-inch samples at concentrations ranging from 0.869 mg/kg to 25.8 mg/kg (Figure 3) and exceeded the regional background level of 12 mg/kg in five samples (Table 1).

Lead. Lead was detected in the 12- to 18-inch sample collected at location SS-29 at a concentration of 2.69 mg/kg (Figure 4). These results demonstrate that the lead concentrations above RBC are limited both laterally and vertically around location SS-29.

Groundwater Results

Groundwater Samples from Locations SS-5 and SS-30. Grab groundwater samples from the northern and southern portions of the Site were collected and analyzed for total and dissolved arsenic and nitrates to assess whether arsenic and nitrates in surface soil may have impacted groundwater; results are tabulated in Table 4.

Nitrate was detected in the groundwater samples at concentrations of 1,080 and 4,200 µg/L, which is well below the federal maximum contaminant level (MCL) for drinking water for nitrate of 10,000 µg/L. The DEQ has not yet established RBCs pertaining to nitrate in groundwater.

The metals concentrations are well below the DEQ RBCs and/or MCLs, with the exception of total arsenic. Total arsenic was detected at 26.7 microgram per liter (µg/L) at location SS-5 and 11.7 µg/L at location SS-30; dissolved arsenic was not detected above the MRL of 10 µg/L at either location. The MCL for arsenic is 10 ug/L.

Because total arsenic was detected but dissolved arsenic was below detection limits, the data indicates that the grab groundwater sampling techniques may have entrained sediment in the water samples and the dissolved results may be more representative of groundwater conditions at the Site. Further supporting this conclusion are the groundwater sample results from the property directly south of the Site. Groundwater samples collected from the property to the south did not contain arsenic above the MCL (Apex, 2017); however, the arsenic concentrations in soil at that property were significantly higher than those detected at this Site. Additionally, arsenic concentrations in groundwater samples collected from a domestic well located to the southwest of the Site were low and below the MCL. These results support that previous agricultural activities at and adjacent to the Site have not contributed arsenic to the groundwater significantly if at all.

Finally, it is anticipated that the proposed development of this Site would include the use of City water and groundwater will not be accessed for domestic purposes (if at all).

Groundwater Adjacent to the Suspected Former Dry Well. The grab groundwater sample collected from the boring installed adjacent to the suspected former dry well was analyzed for metals; nitrates; total petroleum hydrocarbons in the gasoline-, diesel-, and residual oil-hydrocarbon ranges; pesticides; PAHs; and VOCs; results are summarized on Tables 4, 5, 6, 7, and 8, respectively. Metals concentrations were below MRLs or below DEQ RBCs, where detected. Petroleum hydrocarbons, pesticides, PAHs, and VOCs were not detected in the sample. Therefore, use, if any, of this possible former dry well has not impacted groundwater.

5.0 NATURE AND EXTENT

This section discusses the nature and extent of lead and arsenic in Site soil. Results of groundwater sampling show that arsenic and lead in shallow soil have not impacted groundwater.

5.1 NATURE AND SOURCE

Arsenic is found at variable concentrations, some well below background and some slightly above background. The variable distribution suggests the arsenic may be representative of background conditions or may be due to overspray of lead arsenate from adjacent orchards. The arsenic is not concentrated in the southern portion of the Site where the former commercial layer operation was conducted; therefore, it does not appear that the chicken farm on the Site impacted Site soil with arsenic.

Consistent with arsenic, lead was observed at several surface locations above regional background. Similar to arsenic, the presence of the lead might be due to historical use and overspray of lead arsenate at adjacent orchards or could be consistent with regional background conditions.

5.2 EXTENT

Arsenic. Figure 3 summarizes the arsenic results. Arsenic concentrations at various surface soil locations across the Site are above the regional background concentration of 12 mg/kg in shallow soil. It is noted that DEQ utilized a 95% upper confident level (UCL) on the mean to develop regional background concentrations in its *Development of Oregon Background Metals Concentrations in Soil report* (DEQ, 2013). Background concentrations of arsenic in the Klamath Mountain region ranged from less than 1.0 mg/kg up to 28 mg/kg; the 95% UCL of the Klamath Mountain dataset for arsenic was 12 mg/kg, which is the selected "background" concentration. Because the range of arsenic concentrations at the Site (i.e., less than 1.0 mg/kg up to 26.9 mg/kg) is within the background range for the Klamath Mountain region, the 95% UCL of the mean was calculated to better assess whether the arsenic at the Site is representative of background. To calculate the 95% UCL, the EPA's PRO-UCL tool was utilized; input and output from the PRO-UCL runs are contained in Appendix D. The results of the PRO-UCL calculation for the 95% UCL on the Site arsenic dataset was 11.43 mg/kg.

Lead. Figure 4 summarizes the lead results. One surface soil sample contained a concentration of lead greater that the DEQ RBC for residential exposure. However, the lead concentration of 2.69 mg/kg in the 12- to 18-inch sample at this location was below the residential RBC of 400 mg/kg and well within regional background levels of 34 mg/kg. Surface soil samples collected at the other locations at the Site did not exhibit lead concentrations above DEQ RBCs.

The 95% UCL on the mean was calculated for lead in shallow soil (i.e., 0 to 18 inches) and was 89.26 mg/kg (Appendix D), which is below the RBC of 400 mg/kg and supports that the presence of lead in site soil does not present an unacceptable risk to human health.

6.0 POTENTIAL EXPOSURE PATHWAYS AND RISK ASSESSMENT

Because lead and arsenic were identified at variable concentrations in shallow soil at the Site, with some concentrations above regional background, an assessment of potential exposure pathways and potential for unacceptable risk was conducted. The following potential exposure pathways were identified and evaluated for potentially unacceptable risk:

- Direct contact or ingestion of groundwater;
- Direct contact with shallow soil;
- Migration from soil or groundwater to nearby surface water or sediment; and
- Migration from soil to air.

6.1 GROUNDWATER PATHWAY

As detailed in Section 4.2.1, the results of groundwater sampling conducted at the Site show that arsenic and lead in the surface soil of the Site have not impacted groundwater. Because the lead and arsenic in Site soil (if derived from lead arsenate use at adjacent properties) have been present for 30 or more years, future impact to groundwater is unlikely. Therefore, there are no current or future potential groundwater pathways of exposure to either humans or ecological aquatic receptors.

6.2 SOIL PATHWAY VIA DIRECT CONTACT OR INGESTION

The Site is currently vacant, and redevelopment is being planned. The focus of this report is on potential future exposure pathways. Future human receptors include construction workers, Site occupants and visitors in residential portions. Construction workers may be exposed to impacted soil at the Site via direct contact or ingestion during future construction activities. There is also the potential for future residents and site visitors to be exposed to impacted soil at the Site via direct contact or ingestion. However, the 95% UCL for arsenic concentrations in shallow soil at the Site is within background for this region, and the 95% UCL for lead is well below DEQ's residential RBC of 400 mg/kg. Therefore, the presence of arsenic and lead in shallow soil at the Site will not present an unacceptable risk to human receptors.

Future terrestrial receptors could be exposed to shallow soil in areas that have not been covered by pavement or buildings. However, given the nature of the redevelopment (high density residential with maintained landscape areas), the potential for terrestrial receptors to access the Site is limited, and therefore this pathway is not considered complete.

6.3 SURFACE WATER AND SEDIMENT PATHWAY

The nearest surface water to the Site is Bear Creek, located approximately 900 feet southwest of the Site. Dissolved constituents from the Site (i.e., arsenic and lead) have not impacted groundwater at

the Site and therefore do not have the potential to migrate via groundwater to Bear Creek. A drainage ditch runs through the Site; however, no constituents of concern were identified in the samples collected from the bed of the drainage ditch. Once redevelopment commences, the drainage ditch will be graded and removed as a part of Site development.

Therefore, the surface water and sediment pathways of exposure are not complete.

6.4 AIR PATHWAYS OF EXPOSURE

The detected compounds would not volatilize and be transported by air, and therefore, potential air pathways of exposure by volatilization are not complete.

Future air pathways of exposure to impacted soil particulates are potentially complete. The potential exists for future construction workers, residents, and site visitors to be exposed to impacted soil at the Site via inhalation of particulates (i.e., dust). However, as noted above, the arsenic in shallow soil is within regional background and the lead concentrations are below DEQ RBCs for residential site use based on the 95% UCL. Therefore, the presence of arsenic and lead in shallow soil at the Site does not present an unacceptable health risk via the air pathway.

7.0 FATE AND TRANSPORT

The presence of arsenic in shallow soil at the Site is within the range of regional background; lead concentrations are slightly above regional background but are below RBCs. It is possible that some of the arsenic and lead in shallow Site soil could be from overspray of lead arsenate at orchards historically present adjacent to the Site. Therefore, this section focuses on the fate and transport of lead and arsenic.

7.1 TRANSPORT

The arsenic and lead present in Site surface soil does not have significant (if any) potential to migrate beyond the Site boundary. Arsenic and lead are primarily immobile in agricultural soil and tend to remain in the upper layers of soil indefinitely (U.S. Department of Health and Human Services, 2003a, U.S. Department of Health and Human Services, 2003b).

Groundwater samples collected from the Site indicate that the presence of arsenic and lead in surface soil have not affected groundwater at the Site.

7.2 DEGREDATION/PERSISTENCE

Arsenic is an element and as such is persistent in the environment, unable to be broken down or destroyed but is readily transformed from one form to another. The range of the relative bioavailability of arsenic in residential soil used in risk assessments is typically 10 to 60 percent. Depending on soil conditions such as pH and oxidation-reduction potential, arsenic can exist at various oxidation states and as various chemical species in soil. This transformation between oxidation states and as various chemical species in soil. This transformation between oxidation states and species is known as the arsenic cycle and is influenced by biotic and abiotic processes in the environment (U.S. Department of Health and Human Services, 2003a). Most forms of arsenic are relatively immobile in soil and based on groundwater sampling results, the form of arsenic present on Site is immobile and insoluble.

Analogous to arsenic; lead is a stable element that does not readily degrade. The form by which lead exists in soils is influenced by the properties of the soil. Chemical and biotic processes transform anthropogenic sources of lead, including lead arsenate, to forms which are adsorbed to the soil (U.S. Department of Health and Huma Services, 2003b). Similar to arsenic, most forms of lead are relatively immobile in soil.

7.3 DEMONSTRATION OF NO IMPACT TO GROUNDWATER

As detailed in Section 4.4.2, the suspected historical use of lead arsenate at adjacent properties has not impacted the area groundwater significantly, if at all. This is demonstrated by the absence of dissolved arsenic in groundwater samples collected from the Site.

7.4 LOCALITY OF THE FACILITY

The locality of the facility (LOF) is limited to the Site. Soil has limited ability to migrate and Site impacts, if any, are due to historical lead arsenate use at adjacent properties. As discussed in section 4.4.2, groundwater at the Site has not been impacted.

8.0 LAND AND WATER USE DETERMINATIONS

8.1 CURRENT AND FUTURE LAND USE

8.1.1 Current Site Use

The property is currently vacant and unused.

8.1.2 Current Land Use in Site Vicinity

Currently, the property is located in an agricultural/residential area. Gebhard Road bounds the Site to the west; a residential driveway bounds the Site to the south. The northern and eastern extents of the Site are bound by residential developments.

8.1.3 Future Site Use

A residential development is planned at the Site.

8.1.4 Future Land Use in Site Vicinity

The city of Central Point has a comprehensive plan for development of the city and surrounding areas. The comprehensive plan shows that the future land use in the Site vicinity is low to high density residential with park and open spaces to the southwest of the property, in the vicinity of Bear Creek.

8.2 BENEFICIAL USES OF WATER

The Site is currently vacant. Future residences constructed at the Site will be provided municipal water through the city of Central Point, which purchases water from the Medford Water Commission. The Medford Water Commission's primary water source is Big Butte Springs located approximately 20 miles northeast of the Site. The Rogue River, located approximately 5 miles northeast of the Site, provides supplemental water during the summer months.

The nearest surface water to the Site is Bear Creek, which is used for recreational purposes, including fishing.

9.0 SUMMARY AND CONCLUSIONS

A comprehensive soil and groundwater field investigation was conducted to assess whether the historical use of the Site for a commercial chicken layer operation or historical lead arsenate use on adjacent orchards impacted Site soil or groundwater.

The soil sampling results indicated the presence of lead and arsenic at variable concentrations, some above and some below the regional background levels for these constituents. A closer evaluation indicated that the arsenic concentrations were within the range of background for the Klamath Mountain physiographic region, the region the Site is located, and that the 95% UCL of the Site data was below the 95% UCL background concentration for arsenic. While the 95% UCL for lead concentrations was above regional background, it was well below the DEQ's RBC for residential site use of 400 mg/kg.

The results of groundwater sampling both at the Site as conducted during this investigation and conducted for a recent investigation of the property to the south (Apex, 2017) demonstrate that groundwater at and downgradient of the Site has not been impacted by lead or arsenic above naturally occurring levels or MCLs. Groundwater samples collected adjacent to a suspected former dry well at the Site did not contain detectable concentrations of TPH, PAHs, VOCs, or pesticides, and metals concentrations were low and below MCLs.

An assessment of potentially complete exposure pathways and an evaluation for potentially unacceptable health risk support that the groundwater and surface water pathways are incomplete, and soil and air (via dust) pathways will not present an unacceptable health risk because arsenic is within regional background levels in shallow soil and lead concentrations are below DEQ's RBCs.

Therefore, based on the results of the soil and groundwater sampling and a risk assessment of the collected data, the presence of arsenic and lead in shallow soil at the Site will not present an unacceptable health risk and no further action is needed at this Site.

10.0 REFERENCES

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TABLES

Table 1
Soil Analytical Data - Metals and Nitrate
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	STOCKPILE 1	STOCKPILE 2	STOCKPILE 3	SS-1	SS-1 (1-1.5)	SS-2	SS-2 (1-1.5)	SS-3	SS-3 (1-1.5)	SS-4	SS-4 (1-1.5)	SS-5	SS-5 (1-1.5)	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	01/04/2018	01/04/2018	01/04/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	03/01/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5		*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
Concentrations (mg/kg)																						
ARSENIC	**3.34**	**3.86**	**3.16**	**23**	**1.86 J**	**5.43**	**1.19 J**	**4.7**	**8.16**	**15.9**	**25.8**	**5.5**	**2.92**	12	0.43	1	2	15	420	--	--	--
CADMIUM	<0.579	**0.324 J**	**0.212 J**	**0.153 J**	--	**0.124 J**	--	**0.122 J**	--	--	--	**0.145 J**	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	**15.8**	**51.1**	**22.4**	**62.9**	--	**36.6**	--	**26.3**	--	--	--	**35.5**	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	**2.61**	**163**	**5.78**	**82.8**	--	**3.45**	--	**12.2**	--	**46.5**	--	**4.8**	--	36	400	400	800	800	800	30	30	30
ZINC	**41**	**226**	**60.6**	**74.2**	--	**72.5**	--	**46.4**	--	--	--	**72.8**	--	140	--	--	--	--	--	--	--	--
NITRATE	--	--	--	--	--	**26.4**	--	--	--	**14.5**	--	**3.59 B**	--									

Sample ID	SS-6	SS-6 (1-1.5)	SS-7	SS-7 (1-1.5)	SS-8	SS-8 (1-1.5)	SS-9	SS-9 (1-1.5)	SS-10	SS-10 (1-1.5)	SS-11	SS-11 (1-1.5)	SS-12	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5		*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
Concentrations (mg/kg)																						
ARSENIC	**4.47**	**0.997 J**	**19**	**14.2**	**16.8**	**2.11 J**	**10.1**	**7.99**	**6.54**	**13.7**	**17.7**	**4.14**	**12.9**	12	0.43	1	2	15	420	--	--	--
CADMIUM	--	--	--	--	--	--	--	--	--	--	--	--	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	--	--	--	--	--	--	--	--	--	--	--	--	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	**26.6**	--	**55**	--	**49.7**	--	**33.7**	--	**25.2**	--	**50.6**	--	**40**	36	400	400	800	800	800	30	30	30
ZINC	--	--	--	--		--	--	--	--	--	--	--	--	140	--	--	--	--	--	--	--	--
NITRATE	**10.6**	--	**0.993 J**	--	**5.71**	--	**11**	--	--	--	--	--	--									

Sample ID	SS-12 (1-1.5)	SS-13	SS-13 (1-1.5)	SS-14	SS-14 (1-1.5)	SS-15	SS-15 (1-1.5)	SS-16	SS-16 (1-1.5)	SS-17	SS-17 (1-1.5)	SS-18	SS-18 (1-1.5)	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5		*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
Concentrations (mg/kg)																						
ARSENIC	**2.25 J**	**20**	**4.19**	**13.3**	**1.41 J**	**15.8**	**2.74**	**18.4**	**0.869 J**	**14.8**	**1.75 J**	**11.8**	**0.809 J**	12	0.43	1	2	15	420	--	--	--
CADMIUM	--	--	--	--	--	--	--	--	--	--	--	**0.183 J**	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	--	--	--	--	--	--	--	--	--	--	--	**42.4**	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	--	**61.1**	--	**34.7**	--	**60.1**	--	**61.5**	--	**47.1**	--	**50.5**	--	36	400	400	800	800	800	30	30	30
ZINC	--	--	--	--	--	--	--	--	--		--	**93.5**	--	140	--	--	--	--	--	--	--	--
NITRATE	--	--	--	--	--	--	--	--	--	--	--	--	--									

Sample ID	SS-19	SS-19 (1-1.5)	SS-20	SS-20 (1-1.5)	SS-21	SS-21 (1-1.5)	SS-22	SS-22 (1-1.5)	SS-23	SS-23 (1-1.5)	SS-24	SS-24 (1-1.5)	SS-25	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5		*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
Concentrations (mg/kg)																						
ARSENIC	**11.2**	**4.26**	**15.5**	**12.2**	**11.4**	**1.96 J**	**3.53**	**3.59**	**4.31**	**2.51**	**24.5**	**5.07**	**11.3**	12	0.43	1	2	15	420	--	--	--
CADMIUM	**0.144 J**	--	**0.293 J**	--	--	--	--	--	--	--	--	--	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	**41**	--	**49.5**	--	--	--	--	--	--	--	--	--	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	**9.1**	--	**107**	--	**51.1**	--	**15.3**	--	**32.6**	--	**109**	--	**79.6**	36	400	400	800	800	800	30	30	30
ZINC	**74.3**	--	**119**	--	--	--	--	--	--	--	--	--	--	140	--	--	--	--	--	--	--	--
NITRATE	--	--	--	--	--	--	--	--	--	--	--	--	--									

Sample ID	SS-25 (1-1.5)	SS-26	SS-26 (1-1.5)	SS-27	SS-27 (1-1.5)	SS-28	SS-28 (1-1.5)	SS-29	SS-29 (1-1.5)	SS-30	SS-30 (1-1.5)	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 -0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5		*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
Concentrations (mg/kg)																						
ARSENIC	**10.9**	**20.2**	**15**	**24.9**	**4.73**	**26.9**	**12.2**	**9.31**	**2.37 J**	**12.1**	**7.39**	12	0.43	1	2	15	420	--	--	--
CADMIUM	--	--	--	--	--	**0.213 J**	--	**0.592 J**	--	**0.161 J**	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	--	--	--	--	--	**44.9**	--	**30.1**	--	**31.1**	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	--	**103**	--	**102**	--	**115**	--	**417**	**2.69**	**82.2**	--	36	400	400	800	800	800	30	30	30
ZINC	--	--	--	--	--	**68**	--	**230**	--	**72.8**	--	140	--	--	--	--	--	--	--	--
NITRATE	--	--	--	--	--	--	--	**2.41**	--	--	--									

Notes:

<0.00656 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit
-- = not applicable or not established
J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.
Bold = Analyte was detected above the laboratory method detection limit.
Shaded values exceed background and/or DEQ Risk-Based Concentrations
RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015
mg/kg = milligrams per kilogram

Table 2
Soil Analytical Data - Pesticides
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	STOCKPILE 1	STOCKPILE 2	STOCKPILE 3	SS-1	SS-3	SS-18	SS-19	SS-20	SS-28	SS-30	DEQ Risk-Based Concentrations (mg/kg)							
Sample Date	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	Soil Ingestion, Dermal Contact, and Inhalation					Soil Leaching to Groundwater		
Sample Depth	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 -0.5	0 - 0.5								
Concentrations (mg/kg)											Res.	Urb. Res.	Occupational	Construction Worker	Excavation Worker	Res.	Urb. Res.	Occupational
ALDRIN	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	0.03	0.08	0.13	1.1	30	0.023	0.1	0.1
ALPHA BHC	<0.0232 J3	<0.0219 J3	<0.0221 J3	<0.0279 J3	<0.0227 J3	<0.0263 J3	<0.0256 J3	<0.026 J3	<0.0245 J3	<0.0246 J3	--	--	--	--	--	--	--	--
BETA BHC	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
DELTA BHC	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
GAMMA BHC	<0.0232 J3	<0.0219 J3	<0.0221 J3	<0.0279 J3	<0.0227 J3	<0.0263 J3	<0.0256 J3	<0.026 J3	<0.0245 J3	<0.0246 J3	--	--	--	--	--	--	--	--
CHLORDANE	<0.232	<0.219	<0.221	<0.279	<0.227	<0.263	<0.256	<0.26	<0.245	<0.246	--	--	--	--	--	--	--	--
4,4-DDD	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	2.7	6.6	12	94	2,600	1.1	3.7	2.6
4,4-DDE	<0.0232	**0.00485 J**	<0.0221	<0.0279	<0.0227	**0.0314**	<0.0256	<0.026	**0.0152 J**	**0.00567 J**	1.8	4.5	8.2	66	1,800	1.6	7.4	7.5
4,4-DDT	<0.0232	**0.00368 J**	<0.0221	<0.0279	<0.0227	**0.00507 J**	<0.0256	<0.026	<0.0245	**0.00546 J**	1.9	4.6	8.5	66	1,800	12	46	70
DIELDRIN	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDOSULFAN I	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDOSULFAN II	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDOSULFAN SULFATE	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDRIN	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDRIN ALDEHYDE	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDRIN KETONE	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
HEXACHLOROBENZENE	<0.0232 J3	<0.0219 J3	<0.0221 J3	<0.0279 J3	<0.0227 J3	<0.0263 J3	<0.0256 J3	<0.026 J3	<0.0245 J3	<0.0246 J3	--	--	--	--	--	--	--	--
HEPTACHLOR	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
HEPTACHLOR EPOXIDE	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
METHOXYCHLOR	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
TOXAPHENE	<0.463	<0.437	<0.442	<0.557	<0.454	<0.526	<0.512	<0.52	<0.489	<0.492	--	--	--	--	--	--	--	--

Notes:

<0.0232 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit

-- = not applicable or not established

J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.

Bold = Analyte was detected above the laboratory method detection limit.

RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015

mg/kg = milligrams per kilogram

Table 3
Soil Analytical Data - Polycyclic Aromatic Hydrocarbons
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	STOCKPILE 1	STOCKPILE 2	STOCKPILE 3	*DEQ Risk-Based Concentrations (mg/kg)*													
Sample Date	01/04/2018	01/04/2018	01/04/2018	*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Volatilization to Outdoor Air*			*RBCs - Soil Vapor Intrusion into Buildings*			*Soil Leaching to Groundwater*		
Sample Depth	0 - 0.5	0 - 0.5	0 - 0.5														
Concentrations (mg/kg)				*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*	*Res.*	*Urb. Res.*	*Occ.*	*Res.*	*Urb. Res.*	*Occ.*
ANTHRACENE	<0.00695	<0.00656	<0.00663	23,000	47,000	350,000	110,000	--	--	--	--	--	--	--	--	--	--
ACENAPHTHENE	<0.00695	<0.00656	<0.00663	4,700	9,400	70,000	21,000	590,000	--	--	--	--	--	--	--	--	--
ACENAPHTHYLENE	<0.00695	<0.00656	<0.00663	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BENZO(A)ANTHRACENE	<0.00695	**0.000758 J**	**0.000699 J**	0.15	0.34	2.9	24	660	--	--	--	--	--	--	0.6	2.3	8.8
BENZO(A)PYRENE	<0.00695	<0.00656	<0.00663	0.015	0.034	0.29	2.4	67	--	--	--	--	--	--	0.6	1.9	-
BENZO(B)FLUORANTHENE	<0.00695	**0.000966 J**	**0.000757 J**	0.15	0.34	2.9	24	670	--	--	--	--	--	--	6.2	--	--
BENZO(G,H,I)PERYLENE	**0.00301 J**	**0.00094 J**	**0.000822 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BENZO(K)FLUORANTHENE	**0.000706 J**	<0.00656	<0.00663	1.5	3.4	29	240	6,700	--	--	--	--	--	--	--	--	--
CHRYSENE	<0.00695	**0.000669 J**	<0.00663	15	34	290	2,400	67,000	--	--	--	--	--	--	--	--	--
DIBENZ(A,H)ANTHRACENE	<0.00695	<0.00656	<0.00663	0.015	0.034	0.29	2	67	--	--	--	--	--	--	2.0	--	--
FLUORANTHENE	**0.000804 J**	**0.000822 J**	**0.000678 J**	2,400	4,800	30,000	10,000	280,000	--	--	--	--	--	--	--	--	--
FLUORENE	<0.00695	<0.00656	<0.00663	3,100	6,300	47,000	14,000	390,000	--	--	--	--	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	<0.00695	**0.000719 J**	**0.00071 J**	0.15	0.34	2.9	24	670	--	--	--	--	--	--	--	--	--
NAPHTHALENE	**0.00503 B J**	**0.00346 B J**	**0.00384 B J**	5.3	25	23	580	16,000	6.4	15	83	6.4	15	83	0.077	0.37	0.34
PHENANTHRENE	<0.00695	<0.00656	<0.00663	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PYRENE	<0.00695	**0.001 J**	**0.00078 J**	--	3,600	23,000	7,500	210,000	--	--	--	--	--	--	--	--	--
1-METHYLNAPHTHALENE	<0.0232	<0.0219	<0.0221	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	<0.0232	<0.0219	<0.0221	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-CHLORONAPHTHALENE	<0.0232	<0.0219	<0.0221	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

<0.00656 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit

-- = not applicable or not established

J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.

Bold = Analyte was detected above the laboratory method detection limit.

RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015

mg/kg = milligrams per kilogram

Table 4
Groundwater Analytical Data - Metals and Nitrate
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	SS-5 GW	DW GW	SS-30 GW	Maximum Contaminant Level in Drinking Water[a] (µg/L)
Sample Date	03/01/2018	03/01/2018	03/01/2018	
Results (µg/L)				
ARSENIC	**26.7**	<10.0	**11.7**	10
ARSENIC,DISSOLVED	<10.0	<10.0	<10.0	--
BARIUM	--	**41.3**		2
BARIUM,DISSOLVED	--	**39.2**	--	2000
CADMIUM	--	<2.00	--	5
CADMIUM,DISSOLVED	--	<2.00	--	--
CHROMIUM	--	<10.0	--	100
CHROMIUM,DISSOLVED	--	<10.0	--	--
LEAD	--	**4.4 J**	--	15[b]
LEAD,DISSOLVED	--	**3.59 J**	--	--
SELENIUM	--	<10.0	--	50
SELENIUM,DISSOLVED	--	<10.0	--	--
SILVER	--	<5.00	--	100[c]
SILVER,DISSOLVED	--	<5.00	--	--
MERCURY	--	<0.200	--	2[d]
MERCURY,DISSOLVED	--	<0.200	--	--
NITRATE	**1,080**	--	**4,240**	**10,000**

Notes:

[a]Maximum Contaminant Levels (MCLs) from Environmental Protection Agency (EPA) National Primary Drinking Water Regulations. EPA 816-F-09-004. May, 2009.

[b]Lead is regulated by a Treatment Technique that requires systems to control the corrosiveness of their water. If more than 10 percent of tap water samples exceed the action level, water systems must take additional steps.

[c]Secondary MCL (non-enforceable guideline)

[d]Mercury MCL derived for inorganic mercury

µg/L = micrograms per liter

<10.0 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit

-- = not applicable or not established

J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.

Bold = Analyte was detected above the laboratory method detection limit.

Shading indicates concentration exceeds one or more screening levels.

Table 5
Groundwater Analytical Data - Total Petroleum Hydrocarbons
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	Sample Date	Petroleum Hydrocarbons		
		Gasoline-Range	Diesel-Range	Residual Oil-Range
		Concentrations in µg/L		
SS-5 GW	3/1/2018	--	--	--
DW GW	3/1/2018	<100	<125	<313
SS-30 GW	3/1/2018	--	--	--
DEQ Risk-Based Concentrations (µg/L)				
Groundwater Ingestion and Inhalation from Tapwater - Res.		110	110	--
Groundwater Ingestion and Inhalation from Tapwater - Urb. Res.		110	110	--
Groundwater Ingestion and Inhalation from Tapwater - Occ.		450	430	--
Groundwater Volatilization to Outdoor Air - Res.		--	--	--
Groundwater Volatilization to Outdoor Air - Urb. Res.		--	--	--
Groundwater Volatilization to Outdoor Air - Occ.		--	--	--
Groundwater Vapor Intrusion into Building - Res.		22,000	--	--
Groundwater Vapor Intrusion into Building - Urb. Res.		22,000	--	--
Groundwater Vapor Intrusion into Building - Occ.		--	--	--
Groundwater in Excavations - Const. and Exc. Worker		14,000	--	--

Notes:

<100 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit
-- = not applicable or not established
RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015
µg/L = micrograms per liter

Table 6
Groundwater Analytical Data - Pesticides
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	SS-5 GW	DW GW	SS-30 GW
Sample Date	03/01/2018	03/01/2018	03/01/2018
Analyte			
Results (µg/L)			
ALDRIN	--	<0.0715	--
ALPHA BHC	--	<0.0715	--
BETA BHC	--	<0.0715	--
DELTA BHC	--	<0.0715	--
GAMMA BHC	--	<0.0715	--
CHLORDANE	--	<0.715	--
4,4-DDD	--	<0.0715	--
4,4-DDE	--	<0.0715	--
4,4-DDT	--	<0.0715	--
DIELDRIN	--	<0.0715	--
ENDOSULFAN I	--	<0.0715	--
ENDOSULFAN II	--	<0.0715	--
ENDOSULFAN SULFATE	--	<0.0715	--
ENDRIN	--	<0.0715	--
ENDRIN ALDEHYDE	--	<0.0715	--
ENDRIN KETONE	--	<0.0715	--
HEXACHLOROBENZENE	--	<0.0715	--
HEPTACHLOR	--	<0.0715	--
HEPTACHLOR EPOXIDE	--	<0.0715	--
METHOXYCHLOR	--	<0.0715	--
TOXAPHENE	--	<0.500	--

Notes:

<0.0715 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit
-- = not applicable or not established
RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015
µg/L = micrograms per liter

Table 7
Groundwater Analytical Data - Polycyclic Aromatic Hydrocarbons
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	SS-5 GW	DW GW	SS-30 GW
Sample Date	3/1/2018	3/1/2018	3/1/2018
Results (µg/L)			
ANTHRACENE	--	<0.150 J4	--
ACENAPHTHENE	--	<0.150	--
ACENAPHTHYLENE	--	<0.150 J4	--
BENZO(A)ANTHRACENE	--	<0.150	--
BENZO(A)PYRENE	--	<0.150	--
BENZO(B)FLUORANTHENE	--	<0.150	--
BENZO(G,H,I)PERYLENE	--	<0.150	--
BENZO(K)FLUORANTHENE	--	<0.150	--
CHRYSENE	--	<0.150	--
DIBENZ(A,H)ANTHRACENE	--	<0.150	--
FLUORANTHENE	--	<0.150	--
FLUORENE	--	<0.150	--
INDENO(1,2,3-CD)PYRENE	--	<0.150	--
NAPHTHALENE	--	<0.750	--
PHENANTHRENE	--	<0.150	--
PYRENE	--	<0.150	--
1-METHYLNAPHTHALENE	--	<0.750	--
2-METHYLNAPHTHALENE	--	<0.750	--
2-CHLORONAPHTHALENE	--	<0.750 J4	--

Notes:

<0.150 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit
-- = not applicable or not established
J4 = The QC sample associated with this analyte was outside of the established quality control range for accuracy
RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015
µg/L = micrograms per liter

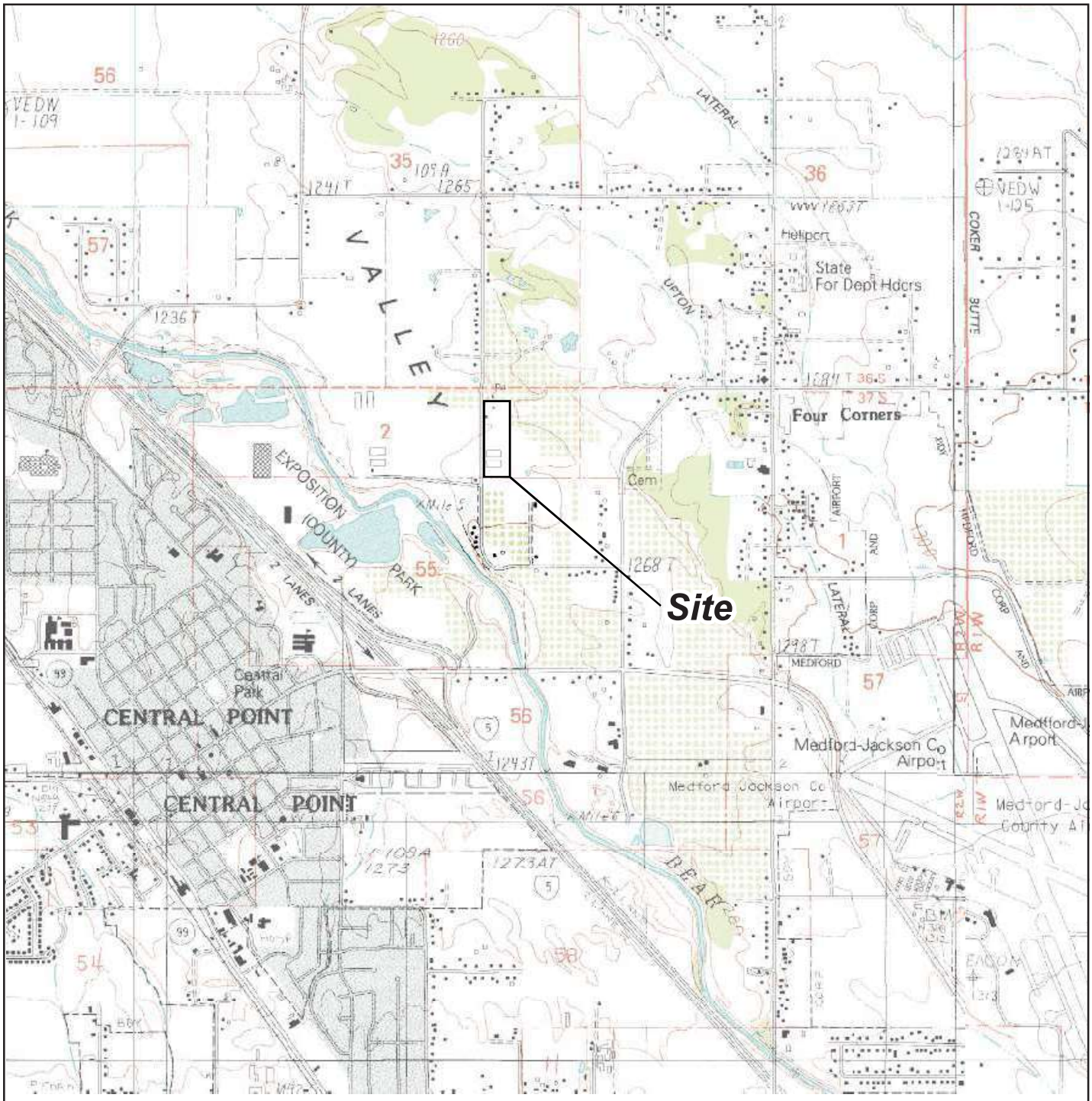
Table 8
Groundwater Analytical Data - Volatile Organic Hydrocarbons
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	SS-5 GW	DW GW	SS-30 GW
Sample Date	03/01/2018	03/01/2018	03/01/2018
Results (µg/L)			
ACETONE	--	<250 J3	--
ACROLEIN	--	<250 J4	--
ACRYLONITRILE	--	<50.0	--
BENZENE	--	<5.0	--
BROMOBENZENE	--	<5.0	--
BROMODICHLOROMETHANE	--	<5.0	--
BROMOFORM	--	<5.0	--
BROMOMETHANE	--	<25.0	--
N-BUTYLBENZENE	--	<5.0	--
SEC-BUTYLBENZENE	--	<5.0	--
TERT-BUTYLBENZENE	--	<5.0	--
CARBON DISULFIDE	--	<5.0	--
CARBON TETRACHLORIDE	--	<5.0	--
CHLOROBENZENE	--	<5.0	--
CHLORODIBROMOMETHANE	--	<5.0	--
CHLOROETHANE	--	<25.0	--
CHLOROFORM	--	<25.0	--
CHLOROMETHANE	--	<12.5	--
2-CHLOROTOLUENE	--	<5.0	--
4-CHLOROTOLUENE	--	<5.0	--
1,2-DIBROMO-3-CHLOROPROPANE	--	<25.0	--
1,2-DIBROMOETHANE	--	<5.0	--
DIBROMOMETHANE	--	<5.0	--
1,2-DICHLOROBENZENE	--	<5.0	--
1,3-DICHLOROBENZENE	--	<5.0	--
1,4-DICHLOROBENZENE	--	<5.0	--
DICHLORODIFLUOROMETHANE	--	<25.0	--
1,1-DICHLOROETHANE	--	<5.0	--
1,2-DICHLOROETHANE	--	<5.0	--
1,1-DICHLOROETHENE	--	<5.0	--
CIS-1,2-DICHLOROETHENE	--	<5.0	--
TRANS-1,2-DICHLOROETHENE	--	<5.0	--
1,2-DICHLOROPROPANE	--	<5.0	--
1,1-DICHLOROPROPENE	--	<5.0	--
1,3-DICHLOROPROPANE	--	<5.0	--
CIS-1,3-DICHLOROPROPENE	--	<5.0	--
TRANS-1,3-DICHLOROPROPENE	--	<5.0	--
2,2-DICHLOROPROPANE	--	<5.0	--
DI-ISOPROPYL ETHER	--	<5.0	--
ETHYLBENZENE	--	<5.0	--
HEXACHLORO-1,3-BUTADIENE	--	<5.0	--
ISOPROPYLBENZENE	--	<5.0	--
P-ISOPROPYLTOLUENE	--	<5.0	--
2-BUTANONE (MEK)	--	<50.0	--
METHYLENE CHLORIDE	--	<25.0	--
4-METHYL-2-PENTANONE (MIBK)	--	<50.0	--
METHYL TERT-BUTYL ETHER	--	<5.0	--
NAPHTHALENE	--	<25.0	--
N-PROPYLBENZENE	--	<5.0	--
STYRENE	--	<5.0	--
1,1,1,2-TETRACHLOROETHANE	--	<5.0	--
1,1,2,2-TETRACHLOROETHANE	--	<5.0	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	<5.0	--
TETRACHLOROETHENE	--	<5.0	--
TOLUENE	--	<5.0	--
1,2,3-TRICHLOROBENZENE	--	<5.0	--
1,2,4-TRICHLOROBENZENE	--	<5.0	--
1,1,1-TRICHLOROETHANE	--	<5.0	--
1,1,2-TRICHLOROETHANE	--	<5.0	--
TRICHLOROETHENE	--	<5.0	--
TRICHLOROFLUOROMETHANE	--	<25.0	--
1,2,3-TRICHLOROPROPANE	--	<12.5	--
1,2,4-TRIMETHYLBENZENE	--	<5.0	--
1,2,3-TRIMETHYLBENZENE	--	<5.0	--
1,3,5-TRIMETHYLBENZENE	--	<5.0	--
VINYL CHLORIDE	--	<5.0	--
XYLENES, TOTAL	--	<15.0	--

Notes:

<0.150 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit
-- = not applicable or not established
J3 = The QC sample associated with this analyte was outside of the established quality control range for precision
J4 = The QC sample associated with this analyte was outside of the established quality control range for accuracy
RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015
µg/L = micrograms per liter

FIGURES



Base map prepared from the USGS 7.5-minute quadrangle of Sams Valley, Oregon, 1983, as provided by Topozone.

0 2,000 4,000

Approximate Scale in Feet





SITE LOCATION MAP

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project Number	0063-001-001	Figure
July 2018		1



LEGEND:

- Site Boundary
- ● Soil Sampling Location
- ⊗ Approximate Location of Suspect Former Dry Well and Adjacent Boring for Grab Groundwater Sample
- ⊙ Soil and Groundwater Sampling Location

0 100 200

SCALE IN FEET

1" = 100'

N W E S

Drwn: JJT

SITE LAYOUT AND BORING LOCATIONS

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project No.	0063-001-001	Figure
July 2018		2

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LEGEND:

- Site Boundary
- Soil Sampling Location
- ⊗ Approximate Location of Suspect Former Dry Well and Adjacent Boring for Grab Groundwater Sample
- Arsenic Concentrations in mg/kg
- Sampling Depth in Inches

6" 23.0
18" 1.86

0 100 200

SCALE IN FEET
1" = 100'

N W E S

Drwn: JJT

ARSENIC CONCENTRATIONS IN SHALLOW SOIL

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project No. 0063-001-001

July 2018

Figure 3

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LEGEND:

- Site Boundary
- Soil Sampling Location
- Approximate Location of Suspect Former Dry Well and Adjacent Boring for Grab Groundwater Sample
- Lead Concentrations in mg/kg (e.g. 6" 417 / 18" 2.69)
- Sampling Depth in Inches

0 100 200

SCALE IN FEET

1" = 100'

N W E S

Drwn: JJT

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LEAD CONCENTRATIONS IN SHALLOW SOIL

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project No. 0063-001-001

July 2018

Figure 4

APPENDIX A

DESKTOP ENVIRONMENTAL REVIEW

October 19, 2017

Mr. Dan Mahar
DRM Construction, LLC
PO Box 4428
Medford, Oregon 97501

Subject: Desktop Environmental Review
Gebhard Village Site
4920 Gebhard Road
Central Point, Oregon

Dear Mr. Mahar:

This letter report and work plan presents the results of a "desktop" review of available historical information on past site uses for the subject site and the scope of work for field investigation to assess whether past uses at the site or adjacent parcels may have impacted soil and/or groundwater. The subject site is located at 4920 Gebhard Road in Central Point, Oregon (referred to herein as "the Site"); Figure 1 provides a site location map. We understand that DMR Construction is planning to redevelop the property for residential use and that the City of Central Point is requesting this investigation to evaluate whether hazardous substances are present in soil or groundwater at the Site from pesticide use at adjacent properties and/or the Site, or from other historical Site uses. This desktop review is aimed to meet the goals for the City of Central Point's request to develop the scope of work for a proposed soil and/or groundwater investigation of the Site; however, it does not meet the standard of practice for an ASTM E1527-13 Phase I Environmental Site Assessment.

SCOPE OF SERVICES

Cascadia Associates, LLC. (Cascadia) performed the following tasks for this study:

- Retained an outside vendor to provide a summary of federal, state, and local environmental database listings for the Site and nearby properties; and
- Reviewed historical resources on site use information including historical aerial photography, historical topographic maps and city directory listings for the Site.

Sanborn fire insurance maps have not been prepared for the Site.

Cascadia Associates, LLC

Based on the results of the study, a work plan for soil and groundwater investigation of the Site was developed. The methods and results of each above task are described below, followed by the work plan for Site investigation.

REVIEW OF DATABASE LISTINGS

Cascadia reviewed a compilation of federal, state, and local environmental database listings for the Site and other properties within distances specified by ASTM E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. Four environmental sites were identified; the environmental site name, address, regulatory listing, and available information is summarized in the below table. Copy of the database report is contained in Attachment A.

Site Name	Address	Regulatory List	Summary
Beebe Road	717 Beebe Road	ECSI, VCP	Elevated arsenic in soil due to previous pesticide use; groundwater not impacted (Apex, 2016). This property is located directly south of Gebhard Village Site.
DiCarlo Homes Oil Release	Beebe Road and Hamrick Road	ECSI, FINDS	Lubricating oil and diesel fuel release to soil. Soil removal action performed; groundwater tested and results were non-detect for petroleum hydrocarbons and polynuclear aromatic hydrocarbons (PAHs). Property given a No Further Action designation by DEQ (see Attachment A)
Pacific NW Bell-CE	E. Pine St. and Freeman	ECSI, FINDS	Petroleum reported in a telephone vault in 1987. Source presumed to be a traffic accident that occurred near the vault. Case given a No Further Action designation (see Attachment A).
LTM-Hamrick Road	3959 Hamrick Rd.	CRL, ECSI, VCP, NPDES	Petroleum hydrocarbons in soil and groundwater; investigations initiated in 1992; cleanup initiated in early 2000s; last status update listed as 2006. This property is located almost one mile south/southeast of the Gebhard Village Site in a hydraulically cross- or downgradient direction and it is unlikely to have impacted soil or groundwater at the Site.

ECSI – Oregon Department of Environmental Quality (DEQ) Environmental Cleanup Site Inventory
VCP – DEQ Voluntary Cleanup Program site
FINDS – Facility Index System/Facility Registry System
CRL – DEQ's confirmed release list
NPDES – DEQ's wastewater permit site list

Based on the information reviewed regarding the four properties listed on state cleanup database lists, only one, the 717 Beebe Road property, has the potential to have impacted the Site. The remaining three properties are too distant and/or have received No Further Action designations from the state.

Regulatory files were reviewed for the 717 Beebe Road property and indicate that the property was in agricultural use from at least the 1930s up to about 2002, including an apple orchard in the northwest corner from at least 1939 to at least 1976. Site investigations were conducted to assess whether potential pesticide use associated with the prior agricultural use of the property had impacted soil and/or groundwater. Results of the field investigations indicated the presence of arsenic concentrations above regional background levels and exceeding DEQ's human health risk based screening levels (RBSLs) in soil in and around the former apple orchard area (Apex, 2016). Soil sampling conducted at the northern property line indicated the presence of arsenic above RBSLs and regional background directly adjacent to the Gebhard Village Site.

REVIEW OF HISTORICAL RESOURCES

The following historical resources were reviewed to ascertain historical property use: aerial photography, historical topographic maps, city directory listings, and Sanborn fire insurance maps.

Cascadia reviewed aerial photographs from 1939, 1951, 1953, 1974, 1976, 1982, 1994, 2005, 2006, 2011, and 2012; copies of the aerial photographs are contained in Attachment B. Results of the review indicate:

- **1939 –** Several structures are visible near the northeastern property boundary and another is visible on the northwest/central portion of the Site. The Site appears graded but it is unclear whether it is in agricultural use. Orchards are present on adjacent properties to the northwest, north, east, and southeast. A creek appears to bisect the center of the Site from west to east.
- **1951/1953 –** The quality of the photographs is not as clear as the 1939 photograph, but the same structures at the Site appear to be present. A drainage ditch or creek is visible bisecting the approximate center of the Site and continues along the eastern boundary. Orchards are still visible to the northwest, north, east, and southeast of the Site.
- **1974/1976 –** The structures and the drainage ditch are visible. In addition, what appears to be two commercial-sized chicken coops are visible in the southern portion of the property. The orchards on the adjacent properties are still present and a large field west of the Site appears to be in crops.
- **1982 –** The Site and adjacent properties uses appear the same; however, the central portion of the Site between the drainage ditch and the chicken coops appears to be in crops.
- **1994 –** The Site and adjacent properties uses appear the same as in the prior photographs, although it is unclear whether the central portion of the Site is being used for crops. The orchard to the southeast of the Site is no longer present.
- **2005/2006 –** The chicken coops and other structures at the Site are no longer present; however, the drainage ditch is still visible. The orchards on the adjacent properties have been removed. A large residential development is present to the north/northeast of the Site.
- **2011/2012 –** The Site and surrounding properties appear largely the same as in the 2005 and 2006 photographs.

Cascadia reviewed historical topographic maps for the years 1938, 1954, 1983, and 2014; copies are contained in Attachment C. The 1938 map denotes the presence of one residential structure at the at the approximate location of the structure identified in the 1939 aerial photograph in the northwest/central portion of the property. The 1954 map indicates the present of three structures in the northwest/central

portion of the property. The 1983 denotes the presence of these three structures as well as showing the presence of the large commercial chicken coops in the southern portion of the property. No structures are identified on the 2014 map. On each of the four maps the topography of the Site appears relatively flat and the drainage ditch is not identified.

Cascadia reviewed historical city directories for years between and including 1992 and 2013; a copy of the city directory report is contained in Attachment D. The city directory listings indicate that the Site was occupied by Joshua Sizemore in 2008, and Roxanne Atteberry in 1995 and 2003. The occupant was listed as unknown in 2003 and the address of 4920 Gebhard Road was not listed in 1992 and 2013. City directory listings were not available for the Site for the period prior to 1992 and after 2013.

PROPOSED FIELD INVESTIGATION

The review of environmental databases and historical information indicated the following potential environmental concerns at the Site that would benefit from field investigation to assess whether soil or groundwater has been impacted:

1) **Commercial Chicken Farm.** Aerial photographs indicated the potential presence of a commercial chicken farm at the Site in the 1970s, 1980s and 1990s. Conversations with Mr. Bob Neathamer, confirmed that the buildings located on the southern portion of the Site from at least 1974 to at least 1994 were used for commercial chicken layers. Arsenic was often used in feed to reduce parasites in the chickens during this operational time frame and could have impacted soil if the feed was placed on the ground or through chicken feces that dropped to the ground. Other heavy metals such as copper, zinc, and cadmium, are often concentrated in chicken feces and can impact soil if the feces are not removed. In addition, the nitrates and ammonia from chicken feces left on the ground can impacted groundwater if exposed to rain or other infiltrating surface water.
2) **Drainage Ditch.** A drainage ditch or creek is visible bisecting the property as early as 1939. It is possible that this ditch drained agricultural fields and runoff containing pesticides from these fields could have drained through the Site.
3) **Orchards on Surrounding Properties.** The aerial photographs show orchards on adjacent properties from at least the 1940s through the 1990s. Soil sampling at the property directly south of the Site indicated elevated arsenic concentrations in surface soil near the property line due to the apparent use of lead arsenate pesticides on the orchard formerly located in the northwest corner of this property. It is possible that overspray of pesticides used on this orchard or the other adjacent orchards could have impacted surface soil at the Site with arsenic, lead, or organic pesticides.

It is noted that septic systems and other domestic infrastructure (e.g., underground heating oil or fuel tanks - USTs) may have been associated with the structures formerly located in the central and northern portions of the site. The database reviews completed for this assessment did not identify any permitted USTs at the Site; however, it is possible these structures were installed prior to the implementation of permitting requirements. This work plan does not propose to further assess for the potential current or former presence of septic systems, USTs, or other domestic infrastructure. If this would be of value, we can discuss the additional scope of work needed to include these assessments.

Cascadia Associates, LLC

To assess whether soil may have been impacted by pesticide use or the former chicken farm, we recommend surface soil sampling across the Site and grab groundwater sampling. In addition, we recommend collecting soil samples from within the drainage ditch/creek that bisects the property to assess whether runoff from nearby and upstream agricultural properties have impacted sediment in the on-Site portion of the creek.

Figure 2 identifies proposed sampling locations. Thirty surface soil samples collected in a gridded pattern at approximate 100-foot spacing and three grab groundwater sampling locations are proposed. Specifically, the scope and objective of the proposed sampling program is as follows:

- Four of the 30 surface soil samples will be analyzed for total metals (arsenic, lead, copper, cadmium, and zinc) and organic pesticides to assess whether pesticide use at adjacent orchards or the chicken farm operations may have impacted surface soil at the Site.
- Seven of the 30 surface soil samples located in the southern portion of the Site will be analyzed for lead, arsenic, and nitrates to assess the potential impact to surface soil from the former chicken farm.
- Three of the 30 surface soil samples are located in the drainage ditch/creek and will be analyzed for total metals and organic pesticides to assess whether runoff from other properties have impacted creek sediment on the Site.
- The remaining 16 surface soil samples will be analyzed for lead and arsenic to assess whether lead arsenate use at adjacent orchards has impacted Site soil.
- Three grab groundwater samples will be collected to assess for the presence of nitrates in groundwater; two of these will be located within the former area of the chicken farm and the third will be collected from the northern portion of the Site to assess background nitrate conditions.

Attachment E presents a sampling and analysis plan (SAP) that describes the methods and procedures to be used to complete the proposed sampling program.

CLOSING

We appreciate the opportunity to be of service to DRM Construction, LLC. Please do not hesitate to contact me if you have any questions.

Sincerely,

Cascadia Associates, LLC

Amanda Spencer, R.G., P.E.

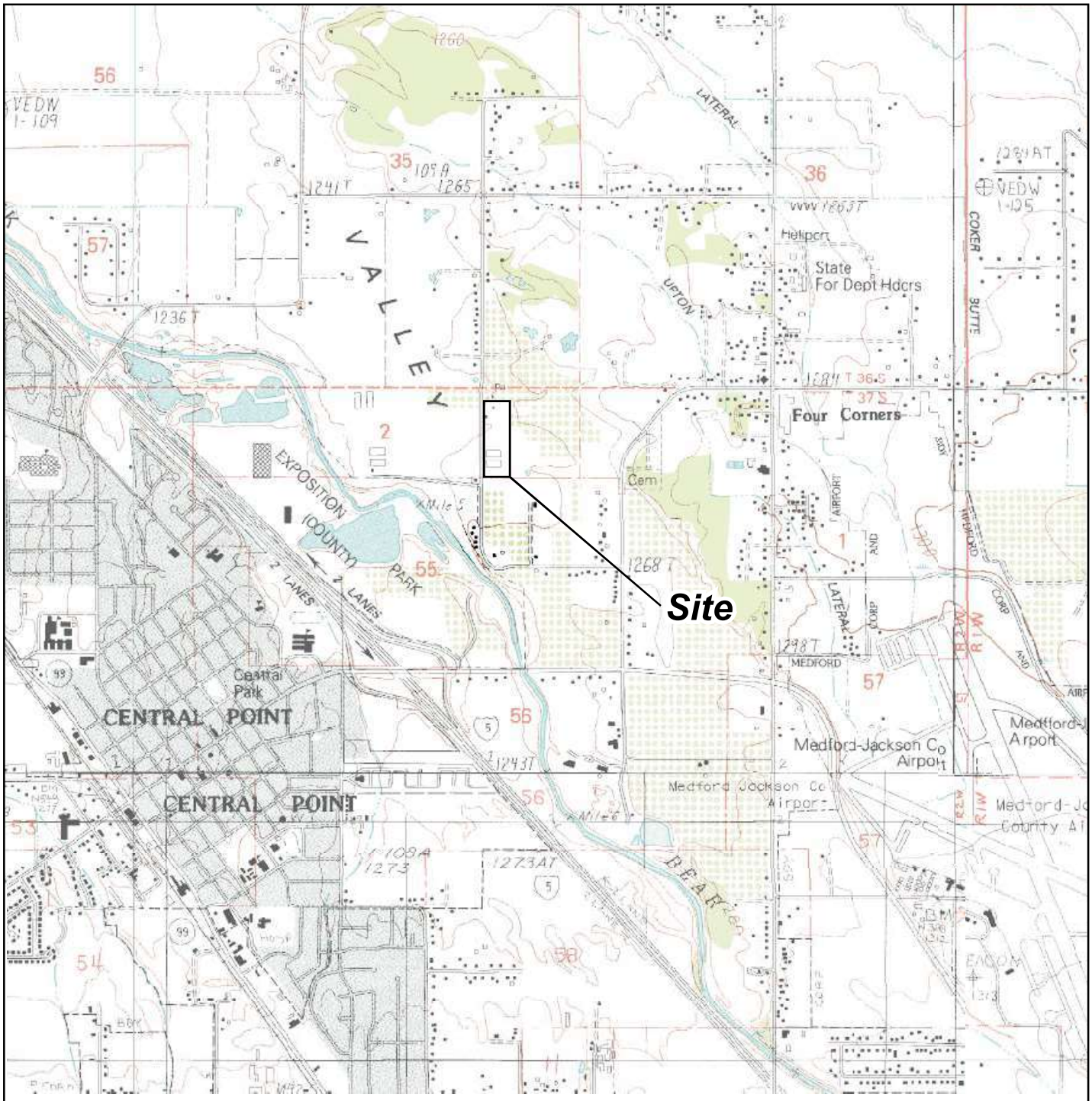
Principal

Cascadia Associates, LLC

ATTACHMENTS

Figure 1 Site Location Map
Figure 2 Proposed Sampling Locations
Attachment A EDR Regulatory Database and Sanborn Map Reports
Attachment B Aerial Photographs
Attachment C Historical Topographic Maps
Attachment D Historical City Directories Report
Attachment E Sampling and Analysis Plan

FIGURES



Base map prepared from the USGS 7.5-minute quadrangle of Sams Valley, Oregon, 1983, as provided by Topozone.

0 2,000 4,000

Approximate Scale in Feet

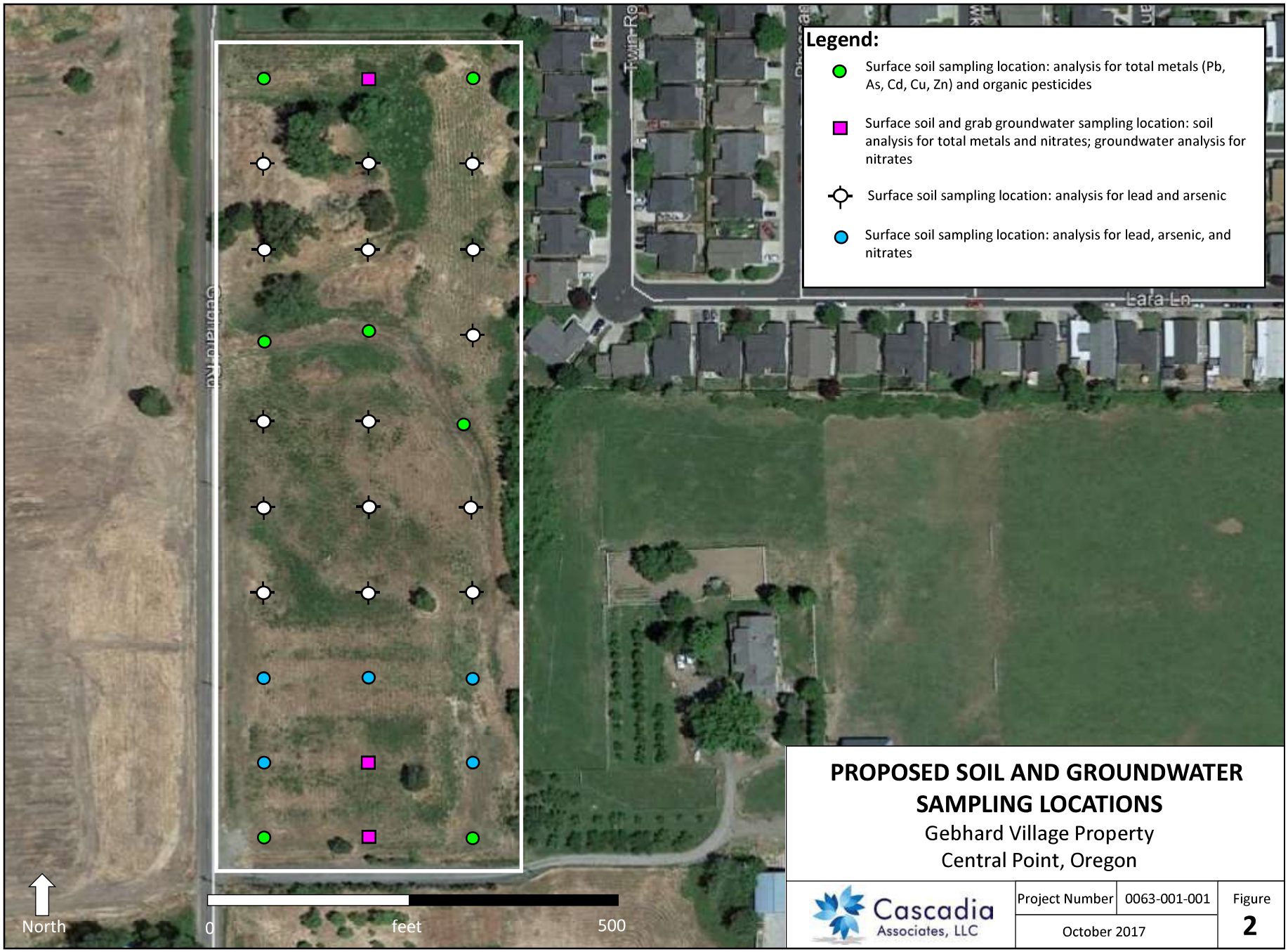




SITE LOCATION MAP

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC	Project Number 0063-001-001	Figure 1
	October 2017	



PROPOSED SOIL AND GROUNDWATER SAMPLING LOCATIONS

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC	Project Number	0063-001-001	Figure
	October 2017		2

ATTACHMENT A

EDR REGULATORY DATABASE AND SANBORN MAP REPORTS

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502

Inquiry Number: 5054391.2s
September 19, 2017

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

FORM-LBC-CHM

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	32
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-11
Physical Setting Source Map Findings	A-13
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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TC5054391.2s

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

4920 GEBHARD ROAD
CENTRAL POINT, OR 97502

COORDINATES

Latitude (North):	42.3877150 - 42° 23' 15.77''
Longitude (West):	122.9000810 - 122° 54' 0.29''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	508224.9
UTM Y (Meters):	4692616.0
Elevation:	1253 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	6071147 SAMS VALLEY, OR
Version Date:	2014
South Map:	6071123 MEDFORD WEST, OR
Version Date:	2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140618
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
4920 GEBHARD ROAD
CENTRAL POINT, OR 97502

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	BEEBE ROAD	718 BEEBE RD.	ECSI, VCP	Higher	1845, 0.349, SSE
2	DECARLO HOMES OIL RE	BEEBE RD & HAMRICK R	ECSI, FINDS	Higher	2667, 0.505, SE
3	PACIFIC NW BELL - CE	E PINE ST & FREEMAN	ECSI, FINDS	Higher	4313, 0.817, SW
4	LTM - HAMRICK ROAD A	3959 HAMRICK RD.	CRL, ECSI, VCP, NPDES	Higher	5098, 0.966, SSE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List

US INST CONTROL Sites with Institutional Controls

Federal ERNS list

ERNS Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF Solid Waste Facilities List

State and tribal leaking storage tank lists

LUST Leaking Underground Storage Tank Database
INDIAN LUST Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST Underground Storage Tank Listing
UST Underground Storage Tank Database
AST Aboveground Storage Tanks
INDIAN UST Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

ENG CONTROLS Engineering Controls Recorded at ESCI Sites
INST CONTROL Institutional Controls Recorded at ESCI Sites

State and tribal voluntary cleanup sites

INDIAN VCP Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS Brownfields Projects

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY Recycling Facility Location Listing
HIST LF Old Closed SW Disposal Sites
INDIAN ODI Report on the Status of Open Dumps on Indian Lands
ODI Open Dump Inventory
DEBRIS REGION 9 Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

AOCONCERN Columbia Slough
US HIST CDL Delisted National Clandestine Laboratory Register

CDL	Uninhabitable Drug Lab Properties
US CDL	National Clandestine Laboratory Register

Local Land Records

LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	Spill Database
OR HAZMAT	Hazmat/Incidents
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
ECHO	Enforcement & Compliance History Information
UXO	Unexploded Ordnance Sites
FUELS PROGRAM	EPA Fuels Program Registered Listing
AIRS	Oregon Title V Facility Listing

COAL ASH - Coal Ash Disposal Sites Listing
DRYCLEANERS - Drycleaning Facilities
Financial Assurance - Financial Assurance Information Listing
HSIS - Hazardous Substance Information Survey
MANIFEST - Manifest Information
NPDES - Wastewater Permits Database
UIC - Underground Injection Control Program Database

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP - EDR Proprietary Manufactured Gas Plants
EDR Hist Auto - EDR Exclusive Historic Gas Stations
EDR Hist Cleaner - EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS - Recovered Government Archive State Hazardous Waste Facilities List
RGA LF - Recovered Government Archive Solid Waste Facilities List
RGA LUST - Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

CRL: Sites that are or may be contaminated and may require cleanup.

A review of the CRL list, as provided by EDR, and dated 11/01/2016 has revealed that there is 1 CRL site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LTM - HAMRICK ROAD A	***3959 HAMRICK RD.***	***SSE 1/2 - 1 (0.966 mi.)***	***4***	***18***
Facility Status: Other remedial or investigative action recommended Facility Id: 1393				

EXECUTIVE SUMMARY

ECSI: The Environmental Cleanup Site Information System records information about sites in Oregon that may be of environmental interest. The data come from the Department of Environmental Quality.

A review of the ECSI list, as provided by EDR, and dated 01/01/2017 has revealed that there are 4 ECSI sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BEEBE ROAD Investigation: Suspect State ID Number: 4529	***718 BEEBE RD.***	***SSE 1/4 - 1/2 (0.349 mi.)***	***1***	***8***
DECARLO HOMES OIL RE Investigation: No Further Action State ID Number: 2266	***BEEBE RD & HAMRICK R***	***SE 1/2 - 1 (0.505 mi.)***	***2***	***10***
PACIFIC NW BELL - CE Investigation: No Further Action State ID Number: 670	***E PINE ST & FREEMAN***	***SW 1/2 - 1 (0.817 mi.)***	***3***	***14***
LTM - HAMRICK ROAD A Investigation: Listed on the CRL/Inventory State ID Number: 1393	***3959 HAMRICK RD.***	***SSE 1/2 - 1 (0.966 mi.)***	***4***	***18***

State and tribal voluntary cleanup sites

VCP: Responsible parties have entered into an agreement with DEQ to voluntarily address contamination associated with their property.

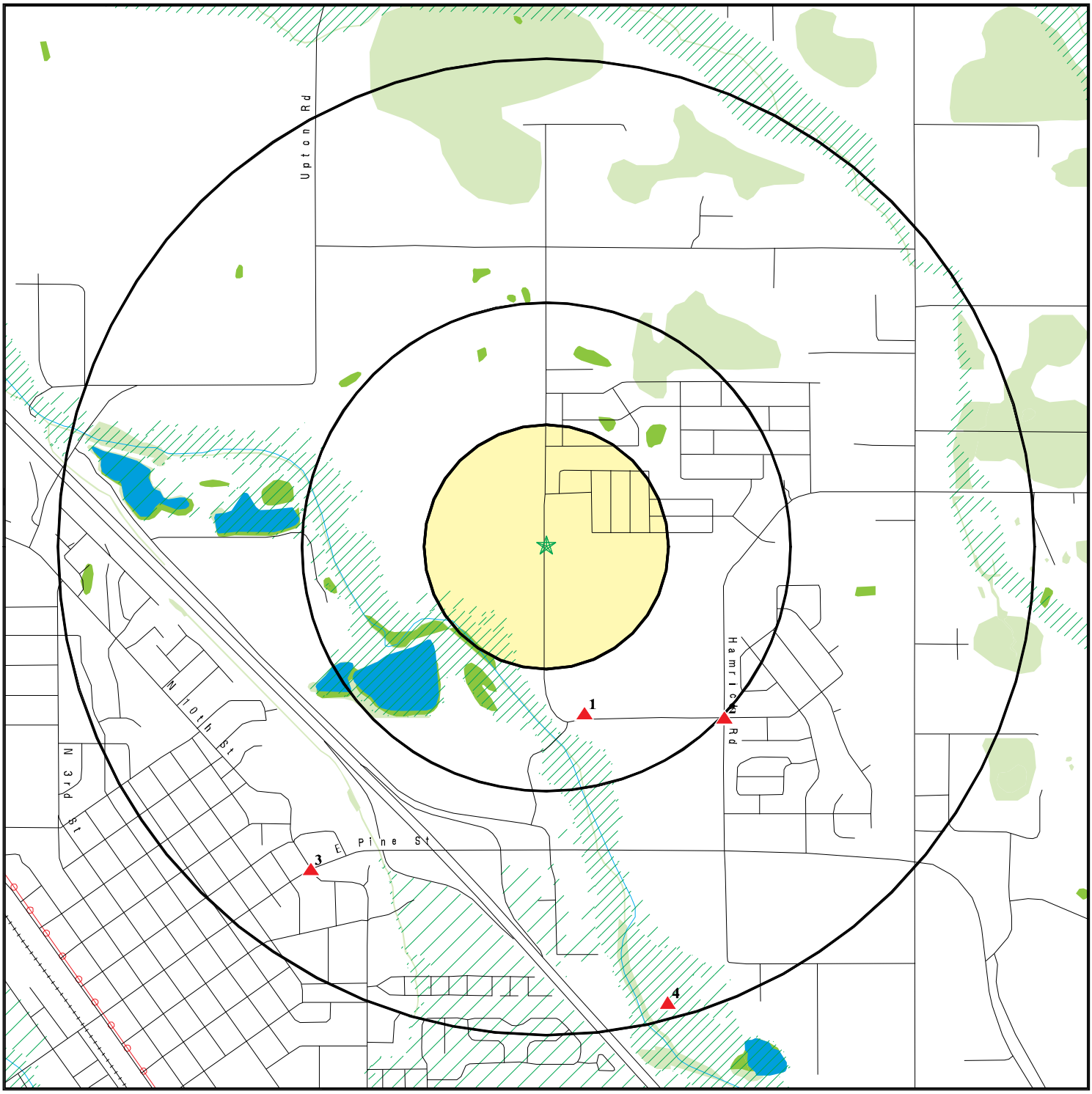
A review of the VCP list, as provided by EDR, and dated 01/03/2017 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BEEBE ROAD ECS Site ID: 4529	***718 BEEBE RD.***	***SSE 1/4 - 1/2 (0.349 mi.)***	***1***	***8***

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 5054391.2S



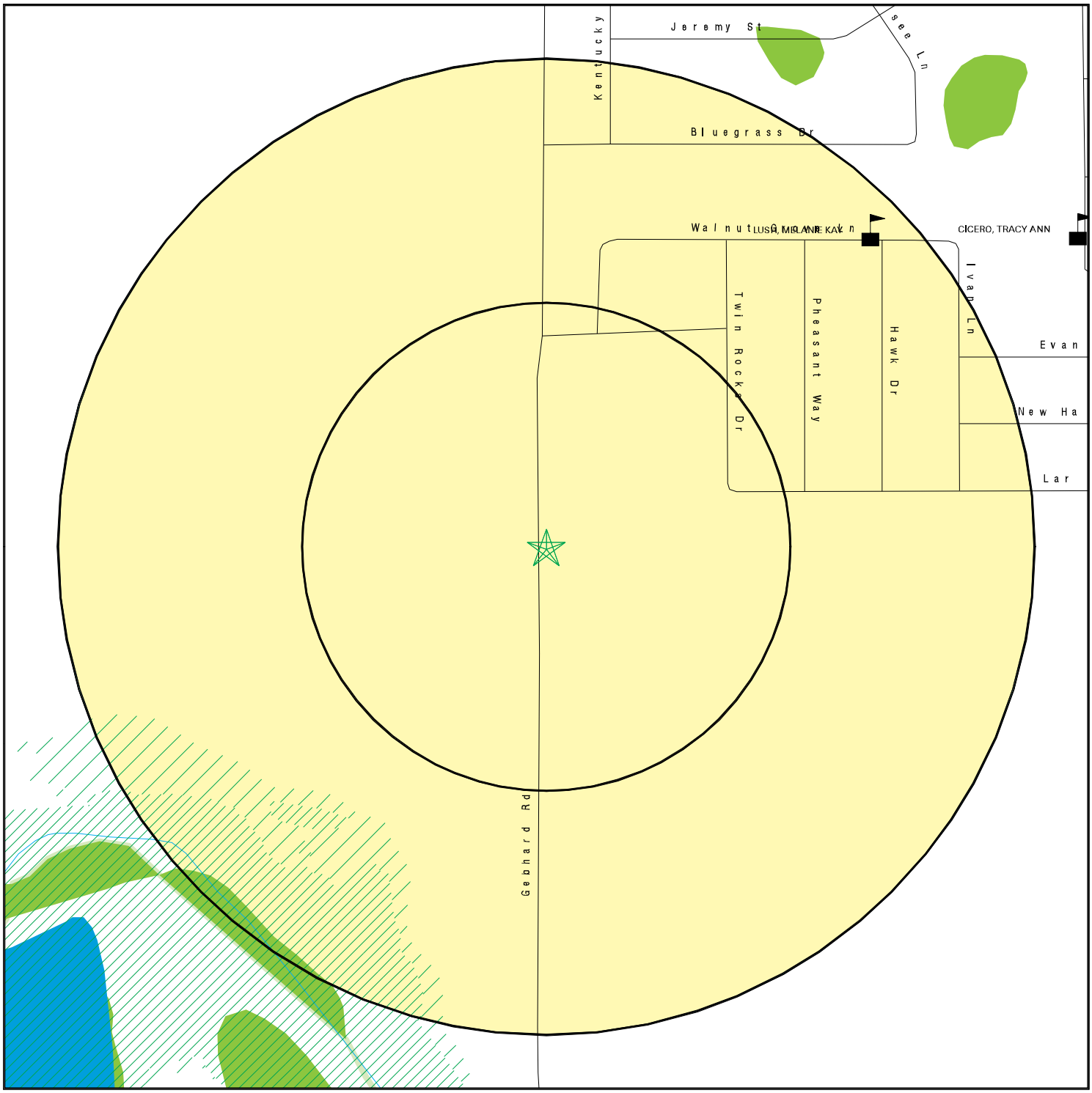
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Upgradient Area
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Gebhard Village	CLIENT:	Cascadia Associates LLC
ADDRESS:	4920 Gebhard Road Central Point OR 97502	CONTACT:	Amanda Spencer
		INQUIRY #:	5054391.2s
LAT/LONG:	42.387715 / 122.900081	DATE:	September 19, 2017 4:31 pm

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DETAIL MAP - 5054391.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Gebhard Village	CLIENT: Cascadia Associates LLC
ADDRESS: 4920 Gebhard Road Central Point OR 97502	CONTACT: Amanda Spencer
LAT/LONG: 42.387715 / 122.900081	INQUIRY #: 5054391.2s DATE: September 19, 2017 4:34 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
CRL	1.000		0	0	0	1	NR	1
ECSI	1.000		0	0	1	3	NR	4
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	1	NR	NR	1
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
AOCONCERN	1.000		0	0	0	0	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
OR HAZMAT	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HSIS	TP		NR	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	0	0	2	4	0	6

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
SSE
1/4-1/2
0.349 mi.
1845 ft.

BEEBE ROAD
718 BEEBE RD.
CENTRAL POINT, OR 97502

ECSI **S107543469**
VCP **N/A**

Relative:
Higher

Actual:
1265 ft.

ECSI:

State ID Number:	4529
Brown ID:	0
Study Area:	False
Region ID:	3
Legislatve ID:	0
Investigation:	Suspect
FACA ID:	90685
Further Action:	0
Lat/Long (dms):	42 23 1.00 / -122 53 57.50
County Code:	15.00
Score Value:	Not reported
Cerclis ID:	Not reported
Township Coord.:	37.00
Township Zone:	S
Range Coord:	2.00
Range Zone:	W
Section Coord:	2
Qtr Section:	Not reported
Tax Lots:	Not reported
Size:	18 acres
NPL:	False
Orphan:	False
Updated By:	GWISTAR
Update Date:	01/29/2008
Created Date:	11/09/2005
Decode For RegionID:	Western Region
Decode For BrownID:	Not reported
Decode For Furtheract:	Not reported
Decode For Investstat:	Suspect
Decode For Legislative:	Not reported

Narrative:

NARR ID:	5747441
NARR Code:	Contamination
Created By:	MENGLIS
Created Date:	11/09/2005
Updated By:	GWISTAR
Updated Date:	01/18/2006
Decode for NarcdID:	Contamination
NARR Comments:	A 4-acre portion of the 18-acre site was used as an orchard from approximately 1939 to 1970. Arsenic above regional background has been detected in the upper 2 feet in the orchard area. Elevated arsenic does not appear to be present outside of the orchard area. Low lead (29.2 mg/kg) and trace DDT (0.11 mg/kg), DDE (0.21 mg/kg) and dieldrin (0.03 mg/kg) were also detected.

NARR ID:	5747442
NARR Code:	Remedial Action
Created By:	MENGLIS
Created Date:	11/09/2005
Updated By:	GWISTAR
Updated Date:	12/05/2007
Decode for NarcdID:	Remedial Action

BEEBE ROAD (Continued) **S107543469**

NARR Comments: (11/9/05 GB/ICP) This site has been placed on the ICP waiting list.(A. Obery 2/1/07) ICP results report - interim deliverable. DEQ provided a response letter dated Jan 19, 2007.[Site has been placed on hold, awaiting a project manager to be reassigned.]

Administrative Action:
Action ID: 9413
Region: Western Region
Complete Date: 07/31/2012
Rank Value: Not reported
Cleanup Flag: False
Created Date: 12/10/2014
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: Closeout activities on completed project
Further Action: 0
Comments: Not reported

Action ID: 9424
Region: Not reported
Complete Date: 11/09/2005
Rank Value: Not reported
Cleanup Flag: False
Created Date: 11/09/2005
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Not reported
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9519
Region: Western Region
Complete Date: 02/16/2007
Rank Value: Not reported
Cleanup Flag: False
Created Date: 11/09/2005
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: VCS Waiting List
Further Action: 0
Comments: ICP Waiting List(2/16/07) signed Independent Cleanup Agreement received.

Action ID: 9433
Region: Western Region
Complete Date: 07/31/2012
Rank Value: Not reported
Cleanup Flag: False
Created Date: 02/01/2007
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action

BEEBE ROAD (Continued) **S107543469**

Action Code Flag: False
Action: INDEPENDENT CLEANUP
Further Action: 0
Comments: Not reported

VCS:
ECS Site ID: 4529
Facility Size: 18 acres
Action: Closeout activities on completed project
Start Date: 07/31/2012
End Date: 07/31/2012
Facility Status: Completed
Program: ICP
Latitude: 42.3836
Longitude: -122.8993

---

2 **DECARLO HOMES OIL RELEASE** **ECSI 1006853494**
SE **BEEBE RD & HAMRICK RD** **FINDS N/A**
1/2-1 **CENTRAL POINT, OR 97502**
0.505 mi.
2667 ft.

Relative:
Higher

Actual:
1271 ft.

ECSI:
State ID Number: 2266
Brown ID: 0
Study Area: False
Region ID: 3
Legislatve ID: 0
Investigation: No Further Action
FACA ID: 40714
Further Action: 0
Lat/Long (dms): 42 22 57.12 / -122 53 33.54
County Code: 15.00
Score Value: Not reported
Cerclis ID: Not reported
Township Coord.: 37.00
Township Zone: S
Range Coord: 2.00
Range Zone: W
Section Coord: 1
Qtr Section: Not reported
Tax Lots: Not reported
Size: 1.5 acre
NPL: False
Orphan: False
Updated By: GWISTAR
Update Date: 02/25/2009
Created Date: 10/08/1998
Decode For RegionID: Western Region
Decode For BrownID: Not reported
Decode For Furtheract: Not reported
Decode For Investstat: No Further Action
Decode For Legislative: Not reported

Hazardous Release:
Substance ID.: 121982
Haz Release ID: 381808
Qty Released: Unknown

DECARLO HOMES OIL RELEASE (Continued) **1006853494**

Date Released: 08131998
Update Date: 08/10/1998
Update By: Not reported
Substance Code: ECD169
Substance Name: DIESEL - FUEL OIL
Substance Abbrev.: Not reported
Substance Category ID: 8529
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Substance Category ID: 8529
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Sampling Result ID: 340223
Feature Id: Not reported
Hazard Release Id: 381808
Medium: 703
Substance Abbrev.: Not reported
Unit Code: 110
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 08/13/1998
End Date: 08/13/1998
Min Concentration: .00
Max Concentration: 3100.00
Sample Comment: (mjs/10-12-98)Post removal sampling indicated TPH-Diesel results in soil at 38 to 1,100 ppm. PAH analysis indicated Nondetects for all samples.
Last Update By: mjs
Update Date: 10/15/1998
Decode for MediumID: Soil
Sampling Result ID: 340224
Feature Id: Not reported
Hazard Release Id: 381808
Medium: 698
Substance Abbrev.: Not reported
Unit Code: 109
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 08/13/1998
End Date: 08/13/1998
Min Concentration: .00
Max Concentration: 300.00
Sample Comment: (mjs/10-12-98)Subsequent groundwater sampling showed nondetect for diesel.
Last Update By: mjs
Update Date: 10/15/1998
Decode for MediumID: Groundwater

Substance ID.: 121988

DECARLO HOMES OIL RELEASE (Continued) **1006853494**

Haz Release ID: 381809
Qty Released: Unknown
Date Released: 08131998
Update Date: 08/10/1998
Update By: Not reported
Substance Code: ECD198
Substance Name: OIL - LUBRICATING
Substance Abbrev.: Not reported
Substance Category ID: 8531
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Substance Category ID: 8531
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Sampling Result ID: 340222
Feature Id: Not reported
Hazard Release Id: 381809
Medium: 703
Substance Abbrev.: Not reported
Unit Code: 110
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 08/13/1998
End Date: 08/13/1998
Min Concentration: .00
Max Concentration: 6800.00
Sample Comment: (mjs/10-12-98)Post removal sampling results indicated TPH-Lube oil at 130 to 800 mg/Kg, however, PAH results were nondetect for all samples.
Last Update By: mjs
Update Date: 10/15/1998
Decode for MediumID: Soil

Narrative:
NARR ID: 5737908
NARR Code: Data Sources
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Data Sources
NARR Comments: OERS 98-1485

NARR ID: 5737909
NARR Code: Hazardous Substance/Waste Types
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Hazardous Substance/Waste Types
NARR Comments: An unknown volume of heavy oil was released.

NARR ID: 5737910

DECARLO HOMES OIL RELEASE (Continued) **1006853494**

NARR Code: Manner of Release
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Manner of Release
NARR Comments: (8/13/98 MJS/SAS) Spill/release on 6/22/98 during trench excavation to install storm drain for new development. Pocket of oil encountered. Not reported

Administrative Action:

Action ID: 9424
Region: Western Region
Complete Date: Not reported
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9425
Region: Western Region
Complete Date: 10/12/1998
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: SITE EVALUATION
Further Action: Not reported
Comments: State Screening

Action ID: 9443
Region: Western Region
Complete Date: 12/17/1998
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: NO FURTHER STATE ACTION REQUIRED
Further Action: Not reported
Comments: Not reported

FINDS:

Registry ID: 110014156260

DECARLO HOMES OIL RELEASE (Continued) **1006853494**

Environmental Interest/Information System

OR-DEQ (Oregon - Department Of Environmental Quality) is a regulatory agency whose job is to protect the quality of Oregon's Environment. DEQ uses a combination of technical assistance, inspections and permitting to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

3
SW
1/2-1
0.817 mi.
4313 ft.

PACIFIC NW BELL - CENTRAL POINT **ECSI** **1006854822**
E PINE ST & FREEMAN RD **FINDS** **N/A**
CENTRAL POINT, OR 97502

Relative:
Higher

Actual:
1266 ft.

ECSI:

State ID Number:	670
Brown ID:	0
Study Area:	False
Region ID:	3
Legislatve ID:	0
Investigation:	No Further Action
FACA ID:	40010
Further Action:	0
Lat/Long (dms):	42 22 42.60 / -122 54 26.30
County Code:	15.00
Score Value:	Not reported
Cerclis ID:	Not reported
Township Coord.:	37.00
Township Zone:	S
Range Coord:	2.00
Range Zone:	W
Section Coord:	2
Qtr Section:	Not reported
Tax Lots:	100,900,1000
Size:	Not reported
NPL:	False
Orphan:	False
Updated By:	GWISTAR
Update Date:	02/25/2009
Created Date:	11/07/1988
Decode For RegionID:	Western Region
Decode For BrownID:	Not reported
Decode For Furtheract:	Not reported
Decode For Investstat:	No Further Action
Decode For Legislative:	Not reported

Hazardous Release:

Substance ID.:	121994
Haz Release ID:	385275
Qty Released:	unknown
Date Released:	Prior to 6-87
Update Date:	07/11/1988
Update By:	Not reported
Substance Code:	ECD222

PACIFIC NW BELL - CENTRAL POINT (Continued) **1006854822**

Substance Name: PETROLEUM
Substance Abbrev.: Not reported
Substance Category ID: 8533
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Substance Category ID: 8533
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Comment ID: 304363
Release Code: Data Sources
Release Comments: SWR Spill file
Decode for Relcomcd: Data Sources
Sampling Result ID: 346484
Feature Id: Not reported
Hazard Release Id: 385275
Medium: 703
Substance Abbrev.: Not reported
Unit Code: Not reported
Observation: False
Owner Operator: False
Lab Data: False
Sample Depth: Not reported
Start Date: Not reported
End Date: Not reported
Min Concentration: Not reported
Max Concentration: Not reported
Sample Comment: Hydrocarbon ID
Last Update By: CONV
Update Date: 09/13/1994
Decode for MediumID: Soil

Narrative:
NARR ID: 5727619
NARR Code: Contamination
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Contamination
NARR Comments: (1/18/95 CPJ/SAS) PNB representative reported petroleum in a telephone vault when the vault was opened on June 9, 1987. DEQ investigation found three possible sources, all service stations. Tanks at the stations were tested and found to be tight. DEQ visited the site 12/8/88. The vault was reopened; no petroleum product was detected in the standing water. Regional personnel believe the source was a vehicle accident at the intersection of Freeman and Pine Sts.

NARR ID: 5727620
NARR Code: Hazardous Substance/Waste Types
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Hazardous Substance/Waste Types

PACIFIC NW BELL - CENTRAL POINT (Continued) **1006854822**

NARR Comments: petroleum

NARR ID: 5727621
NARR Code: Manner of Release
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Manner of Release
NARR Comments: Source of contamination not known, but release occurred before June 1987.

Administrative Action:
Action ID: 9425
Region: Western Region
Complete Date: 01/18/1995
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: SITE EVALUATION
Further Action: Not reported
Comments: Not reported

Action ID: 9437
Region: Western Region
Complete Date: 01/18/1995
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Listing Review completed
Further Action: Not reported
Comments: Not reported

Action ID: 9443
Region: Western Region
Complete Date: 01/18/1995
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: NO FURTHER STATE ACTION REQUIRED
Further Action: Not reported
Comments: Not reported

Action ID: 9424
Region: Headquarters
Complete Date: Not reported

PACIFIC NW BELL - CENTRAL POINT (Continued) **1006854822**

Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Headquarters
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9508
Region: Headquarters
Complete Date: 02/11/1994
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Headquarters
Category: Remedial Action
Action Code Flag: False
Action: Site Screening recommended (EV)
Further Action: Not reported
Comments: Not reported

Action ID: 9445
Region: Headquarters
Complete Date: Not reported
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Headquarters
Category: Listing Action
Action Code Flag: False
Action: Responsible party notified re 11/88 Inventory listing
Further Action: Not reported
Comments: Not reported

Operations:
Operation Id: 131971
Operation Status: Unknown
Common Name: Pacific NW Bell - Central Point
Yrs of Operation: Not reported
Comments: Telephone (electrical) vault.
Updated Date: 09/13/1994
Updated By: CONV
Decode for OpstatID: Unknown
Operations SIC Id: 195143
SIC Code: 7389
Created By: Not reported
Created Date: 12/17/2002

FINDS:

Registry ID: 110014170994

PACIFIC NW BELL - CENTRAL POINT (Continued) **1006854822**

Environmental Interest/Information System
OR-DEQ (Oregon - Department Of Environmental Quality) is a regulatory agency whose job is to protect the quality of Oregon's Environment. DEQ uses a combination of technical assistance, inspections and permitting to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

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4 **LTM - HAMRICK ROAD ASPHALT PLANT** **CRL** **S108661048**
SSE **3959 HAMRICK RD.** **ECSI** **N/A**
1/2-1 **CENTRAL POINT, OR 97502** **VCP**
0.966 mi. **NPDES**
5098 ft.

Relative:
Higher

Actual:
1267 ft.

CRL:
Facility ID: 1393
Location ID: 3554
Status Code: LIS
Facility Status: Other remedial or investigative action recommended
Lat/Long: 42.375 / -122.8938

ECSI:
State ID Number: 1393
Brown ID: 0
Study Area: False
Region ID: 3
Legislatve ID: 0
Investigation: Listed on the CRL/Inventory
FACA ID: 3554
Further Action: 260
Lat/Long (dms): 42 22 30.00 / -122 53 37.70
County Code: 15.00
Score Value: Not reported
Cerclis ID: Not reported
Township Coord.: 37.00
Township Zone: S
Range Coord: 2.00
Range Zone: W
Section Coord: 1
Qtr Section: Not reported
Tax Lots: Not reported
Size: Not reported
NPL: False
Orphan: False
Updated By: MROSENB
Update Date: 08/27/2012
Created Date: 06/09/1993
Decode For RegionID: Western Region
Decode For BrownID: Not reported
Decode For Furtheract: Low
Decode For Investstat: Listed on the CRL/Inventory
Decode For Legislative: Not reported
Alias Name: MDU Resources

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Alias Name: Central Point Concrete
Alias Name: Lininger Tru-Mix - Hamrick Rd
Alias Name: LTM Inc.

Hazardous Release:
Substance ID.: 121989
Haz Release ID: 379891
Qty Released: unknown
Date Released: unknown
Update Date: 08/16/2001
Update By: Not reported
Substance Code: ECD200
Substance Name: OIL OR FUEL RELATED COMPOUNDS
Substance Abbrev.: Not reported
Substance Category ID: 8532
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Substance Category ID: 8532
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Sampling Result ID: 338618
Feature Id: Not reported
Hazard Release Id: 379891
Medium: 703
Substance Abbrev.: Not reported
Unit Code: Not reported
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 03/15/1999
End Date: Not reported
Min Concentration: Not reported
Max Concentration: Not reported
Sample Comment: 990 mg/kg
Last Update By: gmw
Update Date: 08/16/2001
Decode for MediumID: Soil
Sampling Result ID: 338619
Feature Id: Not reported
Hazard Release Id: 379891
Medium: 698
Substance Abbrev.: Not reported
Unit Code: Not reported
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 03/15/1999
End Date: Not reported
Min Concentration: Not reported
Max Concentration: Not reported
Sample Comment: 250 mg/L
Last Update By: gmw

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Update Date: 08/16/2001
Decode for MediumID: Groundwater

Substance ID.: 121982
Haz Release ID: 383665
Qty Released: unknown
Date Released: unknown
Update Date: 11/12/1991
Update By: Not reported
Substance Code: ECD169
Substance Name: DIESEL - FUEL OIL
Substance Abbrev.: Not reported
Substance Category ID: 8529
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Substance Category ID: 8529
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Sampling Result ID: 344122
Feature Id: Not reported
Hazard Release Id: 383665
Medium: 703
Substance Abbrev.: Not reported
Unit Code: Not reported
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 03/15/1999
End Date: Not reported
Min Concentration: Not reported
Max Concentration: Not reported
Sample Comment: 450 mg/kg
Last Update By: gmw
Update Date: 08/16/2001
Decode for MediumID: Soil
Sampling Result ID: 344123
Feature Id: Not reported
Hazard Release Id: 383665
Medium: 698
Substance Abbrev.: Not reported
Unit Code: Not reported
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 03/15/1999
End Date: Not reported
Min Concentration: Not reported
Max Concentration: Not reported
Sample Comment: 38 mg/L
Last Update By: gmw
Update Date: 08/16/2001

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Decode for MediumID: Groundwater

Narrative:

NARR ID: 5733030
NARR Code: Contamination
Created By: Not reported
Created Date: 12/17/2002
Updated By: GWISTAR
Updated Date: 12/24/2002
Decode for NarcdID: Contamination
NARR Comments: (12/8/92 BPeterson/SWR) DEQ reviewed information indicating that a release of a hazardous substance has contaminated soil and groundwater at the site. According to Century West Engineering, there are two primary areas of diesel-related contamination: the asphalt plant and SUMP-1. (MLC CU/WR 1/4/00) In 3/99, test pits were excavated in the vicinity of a proposed storm sewer line. The highest soil diesel concentration was 450 ppm, and the highest oil level in soil was 990 ppm. The highest groundwater diesel concentration was 100 mg/L, and the highest groundwater oil concentration was 250 mg/L. There are 21 monitoring wells on-site, which are analyzed for TPH (total, diesel, and heavy oil) and PAHs. The highest TPH-D result in groundwater was 38 mg/L (MW-3) on 12/97.

NARR ID: 5733031
NARR Code: Data Sources
Created By: Not reported
Created Date: 12/17/2002
Updated By: MCAMARA
Updated Date: 09/09/2004
Decode for NarcdID: Data Sources
NARR Comments: 1) Site Characterization Report by Century West Engineering (3/23/92)2) Corrective Action Plan by Century West Engineering (9/1/92)3) DEQ options letter (8/12/92)4) Notification of Hazardous Substance Release by DEQ (12/11/92)5) Risk Evaluation Report, LTM Hamrick Road Site, Medford, Oregon by Parametric (3/17/04)

NARR ID: 5733032
NARR Code: Hazardous Substance/Waste Types
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Hazardous Substance/Waste Types
NARR Comments: Diesel, oil, PAHs.

NARR ID: 5733033
NARR Code: Site Location
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Site Location
NARR Comments: SW 1/4 of the SW 1/4 of section 1; SE 1/4 of the SE 1/4 of section 2; NE 1/4 of the NE 1/4 of section 11; NW 1/4 of the NW 1/4 of section 12 Not reported

NARR ID: 5733034
NARR Code: Manner of Release

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Manner of Release
NARR Comments: Underground storage tank (UST) leaks and surface spills.

NARR ID: 5733035
NARR Code: Media Contamination
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Media Contamination
NARR Comments: Groundwater, soil, and possibly surface water.

NARR ID: 5733036
NARR Code: Pathways Other Hazards
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Pathways & Other Hazards
NARR Comments: (1992 Century West Eng.) Site is bounded north by light industry, east by orchards, south and west by Bear Creek. There are approximately 850 wells within a 2-mile radius; 90 percent of these are domestic (mostly drawing water from 40 to 70 feet below grade). Historically, petroleum products have been stored primarily in above-ground storage tanks (ASTs); however, several USTs were used for diesel and waste oils.

NARR ID: 5733037
NARR Code: Remedial Action
Created By: Not reported
Created Date: 12/17/2002
Updated By: MCAMARA
Updated Date: 12/15/2006
Decode for NarcdID: Remedial Action
NARR Comments: (12/11/92 BP/SWR) Further action recommended. Partial cleanup has occurred, but additional sampling and cleanup is needed. Site was referred to SAS. (1/4/00 M2C/1/4/2000) There has been quarterly groundwater sampling from monitoring wells MW-1 through MW-19 & RW-1 since 1995. The wells have been analyzed for diesel/heavy oils and PAHs. Starting in spring 1999, monitoring wells MW-4, MW-5, MW-6, & RW-1 will be sampled annually. MW-7 will be sampled semi-annually. MW-13 & MW-17 will be used for water level measurement only. MW-1 through MW-3, MW-8 through MW-12, MW-14 through MW-16, & MW-18 through MW-19 will continue to be sampled quarterly. In May 1999, MW-20 & MW-21 were installed near Bear Creek. These wells will be sampled quarterly for diesel/heavy oils & PAHs.(9/8/04 M2C/VCP) LTM has conducted several investigations in the following areas: 1) the pipe plant area, 2) the smudge pot area, 3) the maintance shop area, 4) the lube room area, 5) the Hayes oil tank area, 6) the truck wash down area, and 7) the SUMP-1 and asphalt plant areas. Remedial activities have included contaminated soil excavation, treatment and disposal, construction of a product recovery trench, and installation of groundwater mnitoring well network. The remaining area to be

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

evaluated was potential impacts to Bear Creek. In July 2002, Parametric completed a seep investigation along the north bank of Bear Creek, in the vicinity of groundwater contaminated with low concentrations of petroleum hydrocarbons. Soil and water samples were collected. The sample results indicated that site contaminants have been released or are currently being released into Bear Creek. In October 2003, Parametric collected additional samples from seeps along the bank, sediment in Bear Creek and surface water in Bear Creek. Parametric presented sample results and evaluation in their Risk Evaluation Report dated March 2004. DEQ is reviewing the report.(1/28/05 M2C/VCP) Parametrix has proposed abandoning the following wells: MW-1, MW-4, MW-5, MW-6, MW-7, MW-11, MW-13, MW-17, MW-18, MW-19, and RW-1. The concentrations in these wells are below drinking water screening values and are not needed for groundwater flow direction. DEQ agrees to the decommissioning of these wells according to Oregon Water Resources (WRD) regulations. (4/20/05 M2C/VCP) The Risk Evaluation Report summarized site characterization and remedial activities, beneficial water use determination, land use determination, human health risk evaluation, and ecological risk evaluation. The report indicated that residual soil and groundwater contamination is present on-site and in seep samples along the bank of Bear Creek. There was no residual contamination found in Bear Creek sediments and surface water. Eight PAHs found in bank samples Seep-5, Seep-6, and Seep-7 exceeded ecological screening values for freshwater sediments. Even though the associated Bear Creek sediment samples contained no PAHs, DEQ is concerned during high water flow (winter months) that ecological receptors may come in contact with contaminated sediment. DEQ recommends that a biologist assess whether the seep sediment sample area provides aquatic habitat during high water events. If that is the case, sediment toxicity testing is an option that can be conducted on seep sediments to determine if site-related chemicals found in the seep sediments would have a significant impact to aquatic life. (12/15/06 M2C/VCP) This site is currently on DEQ's waiting list for a project manager due to staffing issues. Contact Western Region Cleanup Manager for status of waiting list.

NARR ID: 5733038
NARR Code: Health Threats
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Health Threats
NARR Comments: Groundwater contamination and potential impacts to Bear Creek.

Administrative Action:
Action ID: 9498
Region: Western Region
Complete Date: 06/05/2001
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Proposal for Confirmed Release List recommended

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Further Action: Not reported
Comments: Not reported

Action ID: 9499
Region: Western Region
Complete Date: 06/05/2001
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Proposal for Inventory recommended
Further Action: Not reported
Comments: Not reported

Action ID: 9467
Region: Western Region
Complete Date: 08/20/2001
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Facility proposed for Inventory
Further Action: Not reported
Comments: Not reported

Action ID: 9459
Region: Western Region
Complete Date: 07/28/1997
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: PRELIMINARY ASSESSMENT EQUIVALENT
Further Action: Not reported
Comments: file review summary

Action ID: 9484
Region: Western Region
Complete Date: 07/31/2001
Rank Value: Not reported
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: REMEDIAL INVESTIGATION
Further Action: 0

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Comments: Not reported

Action ID: 9519
Region: Western Region
Complete Date: 06/30/1996
Rank Value: 6
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: VCS Waiting List
Further Action: Not reported
Comments: Not reported

Action ID: 9424
Region: Not reported
Complete Date: Not reported
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Not reported
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9431
Region: Not reported
Complete Date: 06/05/2001
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Not reported
Category: Listing Action
Action Code Flag: False
Action: Place on hold
Further Action: Not reported
Comments: Not reported

Action ID: 9425
Region: Western Region
Complete Date: 12/10/1992
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: SITE EVALUATION
Further Action: Not reported
Comments: Not reported

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Action ID: 9437
Region: Western Region
Complete Date: 12/10/1992
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Listing Review completed
Further Action: Not reported
Comments: Not reported

Action ID: 9498
Region: Western Region
Complete Date: 12/11/1992
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Proposal for Confirmed Release List recommended
Further Action: Not reported
Comments: Not reported

Action ID: 9439
Region: Western Region
Complete Date: 01/18/2002
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Facility placed on Inventory
Further Action: Not reported
Comments: Not reported

Action ID: 9438
Region: Western Region
Complete Date: 01/18/2002
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Facility placed on Confirmed Release List
Further Action: Not reported
Comments: Not reported

Action ID: 9465

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Region: Western Region
Complete Date: 08/20/2001
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Facility proposed for Confirmed Release List
Further Action: Not reported
Comments: Not reported

Action ID: 9521
Region: Western Region
Complete Date: 12/11/1992
Rank Value: Not reported
Cleanup Flag: False
Created Date: 05/22/2003
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: OPTN
Further Action: 0
Comments: Not reported

Action ID: 9470
Region: Western Region
Complete Date: 01/30/2009
Rank Value: Not reported
Cleanup Flag: False
Created Date: 01/30/2009
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: Other remedial or investigative action recommended
Further Action: 0
Comments: Not reported

Operations:
Operation Id: 132707
Operation Status: Active
Common Name: LTM - Hamrick RD Asphalt Plant
Yrs of Operation: 1940s to present
Comments: Primarily used for ashpalt and concrete operations; site includes office buildings and maintenance shops.
Updated Date: 09/13/1994
Updated By: CONV
Decode for OpstatID: Active
Operations SIC Id: 195703
SIC Code: 2951
Created By: Not reported
Created Date: 12/17/2002

VCS:

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

ECS Site ID: 1393
Facility Size: Not reported
Action: Other remedial or investigative action recommended
Start Date: 01/30/2009
End Date: 01/30/2009
Facility Status: Inactive
Program: VCP
Latitude: 42.375
Longitude: -122.8938

NPDES:
WQ File Nbr: 50776
Legal Name: LTM, INCORPORATED
Region: Not reported
Pri SIC: 3273
Facility Type: Not reported
Latitude: Not reported
Longitude: Not reported
Category: Not reported
Permit Type: GEN10
Permit Active: Not reported
Is Active?: FALSE
Permit Description: Not reported
Expiration Date: Not reported
EPA Number: Not reported
UIC Facility: Not reported
Admin Agent: Not reported
Last Action Date: Not reported
Permit Writer: Not reported
Compliance Inspector: Not reported
DMR Reviewer: Not reported
Application Number: Not reported
Class: Not reported
Start Date: Not reported
Region Decode: Not reported

WQ File Nbr: 50776
Legal Name: LTM, INCORPORATED
Region: Not reported
Pri SIC: 3273
Facility Type: Not reported
Latitude: Not reported
Longitude: Not reported
Category: Not reported
Permit Type: GEN12A
Permit Active: Not reported
Is Active?: FALSE
Permit Description: Not reported
Expiration Date: Not reported
EPA Number: Not reported
UIC Facility: Not reported
Admin Agent: Not reported
Last Action Date: Not reported
Permit Writer: Not reported
Compliance Inspector: Not reported
DMR Reviewer: Not reported
Application Number: Not reported

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Class:	Not reported
Start Date:	Not reported
Region Decode:	Not reported
WQ File Nbr:	50776
Legal Name:	LTM, INCORPORATED
Region:	Not reported
Pri SIC:	3273
Facility Type:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Category:	Not reported
Permit Type:	GEN15A
Permit Active:	Not reported
Is Active?:	FALSE
Permit Description:	Not reported
Expiration Date:	Not reported
EPA Number:	Not reported
UIC Facility:	Not reported
Admin Agent:	Not reported
Last Action Date:	Not reported
Permit Writer:	Not reported
Compliance Inspector:	Not reported
DMR Reviewer:	Not reported
Application Number:	Not reported
Class:	Not reported
Start Date:	Not reported
Region Decode:	Not reported
WQ File Nbr:	50776
Legal Name:	LTM, INCORPORATED
Region:	Not reported
Pri SIC:	3273
Facility Type:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Category:	Not reported
Permit Type:	GEN54
Permit Active:	Not reported
Is Active?:	FALSE
Permit Description:	Not reported
Expiration Date:	Not reported
EPA Number:	Not reported
UIC Facility:	Not reported
Admin Agent:	Not reported
Last Action Date:	Not reported
Permit Writer:	Not reported
Compliance Inspector:	Not reported
DMR Reviewer:	Not reported
Application Number:	Not reported
Class:	Not reported
Start Date:	Not reported
Region Decode:	Not reported
WQ File Nbr:	50776
Legal Name:	LTM, INCORPORATED
Region:	Not reported

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Pri SIC:	3273
Facility Type:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Category:	Not reported
Permit Type:	WPCF-IW-Mii
Permit Active:	Not reported
Is Active?:	FALSE
Permit Description:	Not reported
Expiration Date:	Not reported
EPA Number:	Not reported
UIC Facility:	Not reported
Admin Agent:	Not reported
Last Action Date:	Not reported
Permit Writer:	Not reported
Compliance Inspector:	Not reported
DMR Reviewer:	Not reported
Application Number:	Not reported
Class:	Not reported
Start Date:	Not reported
Region Decode:	Not reported

WQ File Nbr:	50776
Legal Name:	LTM, INCORPORATED
Region:	Not reported
Pri SIC:	3273
Facility Type:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Category:	Not reported
Permit Type:	WPCF-IW-N
Permit Active:	Not reported
Is Active?:	FALSE
Permit Description:	Not reported
Expiration Date:	Not reported
EPA Number:	Not reported
UIC Facility:	Not reported
Admin Agent:	Not reported
Last Action Date:	Not reported
Permit Writer:	Not reported
Compliance Inspector:	Not reported
DMR Reviewer:	Not reported
Application Number:	Not reported
Class:	Not reported
Start Date:	Not reported
Region Decode:	Not reported

WQ File Nbr:	50776
Legal Name:	LTM, INCORPORATED
Region:	Not reported
Pri SIC:	3273
Facility Type:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Category:	Not reported
Permit Type:	WPCFOS-Bix
Permit Active:	Not reported

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Is Active?:	FALSE
Permit Description:	Not reported
Expiration Date:	Not reported
EPA Number:	Not reported
UIC Facility:	Not reported
Admin Agent:	Not reported
Last Action Date:	Not reported
Permit Writer:	Not reported
Compliance Inspector:	Not reported
DMR Reviewer:	Not reported
Application Number:	Not reported
Class:	Not reported
Start Date:	Not reported
Region Decode:	Not reported

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/08/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 99

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/07/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/21/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 02/07/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/10/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 101

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 101

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 43

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/28/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

CRL: Confirmed Release List and Inventory
All facilities with a confirmed release.

Date of Government Version: 11/01/2016
Date Data Arrived at EDR: 11/17/2016
Date Made Active in Reports: 01/31/2017
Number of Days to Update: 75

Source: Department of Environmental Quality
Telephone: 503-229-6170
Last EDR Contact: 08/17/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Quarterly

ECSI: Environmental Cleanup Site Information System
Sites that are or may be contaminated and may require cleanup.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 70

Source: Department of Environmental Quality
Telephone: 503-229-6629
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities List
Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 01/24/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 52

Source: Department of Environmental Quality
Telephone: 503-229-6299
Last EDR Contact: 07/17/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 04/04/2017
Date Data Arrived at EDR: 05/18/2017
Date Made Active in Reports: 06/30/2017
Number of Days to Update: 43

Source: Department of Environmental Quality
Telephone: 503-229-5790
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/07/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/06/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/14/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Varies

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 10/04/2016
Date Data Arrived at EDR: 11/17/2016
Date Made Active in Reports: 01/31/2017
Number of Days to Update: 75

Source: Department of Environmental Quality
Telephone: 503-229-5815
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Quarterly

AST: Aboveground Storage Tanks
Aboveground storage tank locations reported to the Office of State Fire Marshal.

Date of Government Version: 09/01/2016
Date Data Arrived at EDR: 09/20/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 52

Source: Office of State Fire Marshal
Telephone: 503-378-3473
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/06/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 01/14/2017
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/07/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Recorded at ESCI Sites

Engineering controls are physical measures selected or approved by the Director for the purpose of preventing or minimizing exposure to hazardous substances. Engineering controls may include, but are not limited to, fencing, capping, horizontal or vertical barriers, hydraulic controls, and alternative water supplies.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 70

Source: Department of Environmental Quality
Telephone: 503-229-5193
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

INST CONTROL: Institutional Controls Recorded at ESCI Sites

An institutional control is a legal or administrative tool or action taken to reduce the potential for exposure to hazardous substances. Institutional controls may include, but are not limited to, use restrictions, environmental monitoring requirements, and site access and security measures.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 70

Source: Department of Environmental Quality
Telephone: 503-229-5193
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

VCS: Voluntary Cleanup Program Sites

Responsible parties have entered into an agreement with DEQ to voluntarily address contamination associated with their property.

Date of Government Version: 01/03/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 70

Source: DEQ
Telephone: 503-229-5256
Last EDR Contact: 06/30/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/27/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Projects

Brownfields investigations and/or cleanups that have been conducted in Oregon.

Date of Government Version: 11/01/2016
Date Data Arrived at EDR: 11/17/2016
Date Made Active in Reports: 01/31/2017
Number of Days to Update: 75

Source: Department of Environmental Quality
Telephone: 503-229-6801
Last EDR Contact: 08/17/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Semi-Annually

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/19/2017
Date Data Arrived at EDR: 06/20/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/20/2017
Next Scheduled EDR Contact: 10/02/2017
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facility Location Listing

A listing of recycling facility locations.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/01/2016
Date Made Active in Reports: 02/01/2017
Number of Days to Update: 62

Source: Department of Environmental Quality
Telephone: 503-229-5353
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Quarterly

HIST LF: Old Closed SW Disposal Sites

A list of solid waste disposal sites that have been closed for a long while.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 07/08/2003
Date Made Active in Reports: 07/18/2003
Number of Days to Update: 10

Source: Department of Environmental Quality
Telephone: 503-229-5409
Last EDR Contact: 07/08/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/24/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176
Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 08/29/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/09/2017
Date Data Arrived at EDR: 03/08/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 93
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: No Update Planned

AOC MU: East Multnomah County Area
Approximate extent of TSA VOC plume February , 2002

Date of Government Version: N/A
Date Data Arrived at EDR: 10/07/2002
Date Made Active in Reports: 10/22/2002
Number of Days to Update: 15
Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 03/13/2007
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

AOC COL: Columbia Slough
Columbia Slough waterway boundaries.

Date of Government Version: 08/10/2005
Date Data Arrived at EDR: 05/17/2006
Date Made Active in Reports: 06/16/2006
Number of Days to Update: 30
Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 03/13/2007
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CDL 2: Clandestine Drug Lab Site Listing
A listing of clandestine drug lab site locations included in the Incident database.

Date of Government Version: 03/23/2016
Date Data Arrived at EDR: 05/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 38
Source: Oregon State Police
Telephone: 503-373-1540
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

CDL: Uninhabitable Drug Lab Properties
The properties listed on these county pages have been declared by a law enforcement agency to be unfit for use due to meth lab and/or storage activities. The properties are considered uninhabitable until cleaned up by a state certified decontamination contractor and a certificate of fitness is issued by the Oregon Health Division.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 01/31/2017
Number of Days to Update: 35

Source: Department of Consumer & Business Services
Telephone: 503-378-4133
Last EDR Contact: 08/08/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/09/2017
Date Data Arrived at EDR: 03/08/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 93

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/26/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 37

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/28/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Annually

SPILLS: Spill Data

Oil and hazardous material spills reported to the Environmental Response Program.

Date of Government Version: 01/03/2017
Date Data Arrived at EDR: 01/04/2017
Date Made Active in Reports: 01/31/2017
Number of Days to Update: 27

Source: Department of Environmental Quality
Telephone: 503-229-5815
Last EDR Contact: 06/30/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Semi-Annually

HAZMAT: Hazmat/Incidents

Hazardous material incidents reported to the State Fire Marshal by emergency responders. The hazardous material may or may not have been released.

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 11/02/2016
Date Made Active in Reports: 11/14/2016
Number of Days to Update: 12

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Semi-Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 05/01/2006
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/25/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/12/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/14/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 05/10/2017
Date Data Arrived at EDR: 05/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 121

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 08/07/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/24/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/21/2017
Next Scheduled EDR Contact: 10/02/2017
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/23/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/08/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2017
Date Data Arrived at EDR: 02/09/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/24/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 08/08/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 127
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/10/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/08/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/08/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 35
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/12/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 77

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/21/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 08/25/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/11/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/22/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Annually

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/08/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 38

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing
This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/01/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/01/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/14/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 21

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/07/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/23/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 9

Source: EPA
Telephone: (206) 553-1200
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 07/17/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 03/19/2017
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 91
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/24/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/17/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 29
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/17/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

AIRS: Oregon Title V Facility Listing
A listing of Title V facility source and emissions information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 03/15/2016
Number of Days to Update: 25
Source: Department of Environmental Quality
Telephone: 503-229-6459
Last EDR Contact: 06/30/2017
Next Scheduled EDR Contact: 04/17/2047
Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Sites Listing
A listing of coal ash disposal sites.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 11/14/2016
Number of Days to Update: 67
Source: Department of Environmental Quality
Telephone: 541-298-7255
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Facilities
A listing of registered drycleaning facilities in Oregon.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 05/03/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 41
Source: Department of Environmental Quality
Telephone: 503-229-6783
Last EDR Contact: 07/31/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial assurance information for hazardous waste facilities.

Date of Government Version: 12/27/2016
Date Data Arrived at EDR: 12/30/2016
Date Made Active in Reports: 01/31/2017
Number of Days to Update: 32
Source: Department of Environmental Quality
Telephone: 541-633-2011
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
Financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 01/24/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 52

Source: Department of Environmental Quality
Telephone: 503-229-5521
Last EDR Contact: 08/21/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

HSIS: Hazardous Substance Information Survey

Companies in Oregon submitting the Hazardous Substance Information Survey and either reporting or not reporting hazardous substances.

Date of Government Version: 09/01/2016
Date Data Arrived at EDR: 09/20/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 52

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Semi-Annually

OR MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 05/24/2016
Date Made Active in Reports: 08/10/2016
Number of Days to Update: 78

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 08/07/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Annually

NPDES: Wastewater Permits Database

A listing of permitted wastewater facilities.

Date of Government Version: 12/06/2016
Date Data Arrived at EDR: 12/09/2016
Date Made Active in Reports: 04/14/2017
Number of Days to Update: 126

Source: Department of Environmental Quality
Telephone: 503-229-5657
Last EDR Contact: 08/07/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

UIC: Underground Injection Control Program Database

DEQ's Underground Injection Control Program is authorized by the Environmental Protection Agency (EPA) to regulate all underground injection in Oregon to protect groundwater resources.

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 70

Source: Department of Environmental Quality
Telephone: 503-229-5945
Last EDR Contact: 06/27/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/27/2013
Number of Days to Update: 179

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/30/2017
Date Data Arrived at EDR: 02/01/2017
Date Made Active in Reports: 02/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/11/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.
Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.
Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Child Care Listings
Source: Employment Department
Telephone: 503-947-1420

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data
Source: Oregon Geospatial Enterprise Office
Telephone: 503-378-2166

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

GEBHARD VILLAGE
4920 GEBHARD ROAD
CENTRAL POINT, OR 97502

TARGET PROPERTY COORDINATES

Latitude (North):	42.387715 - 42° 23' 15.77''
Longitude (West):	122.900081 - 122° 54' 0.29''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	508224.9
UTM Y (Meters):	4692616.0
Elevation:	1253 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	6071147 SAMS VALLEY, OR
Version Date:	2014
South Map:	6071123 MEDFORD WEST, OR
Version Date:	2014

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

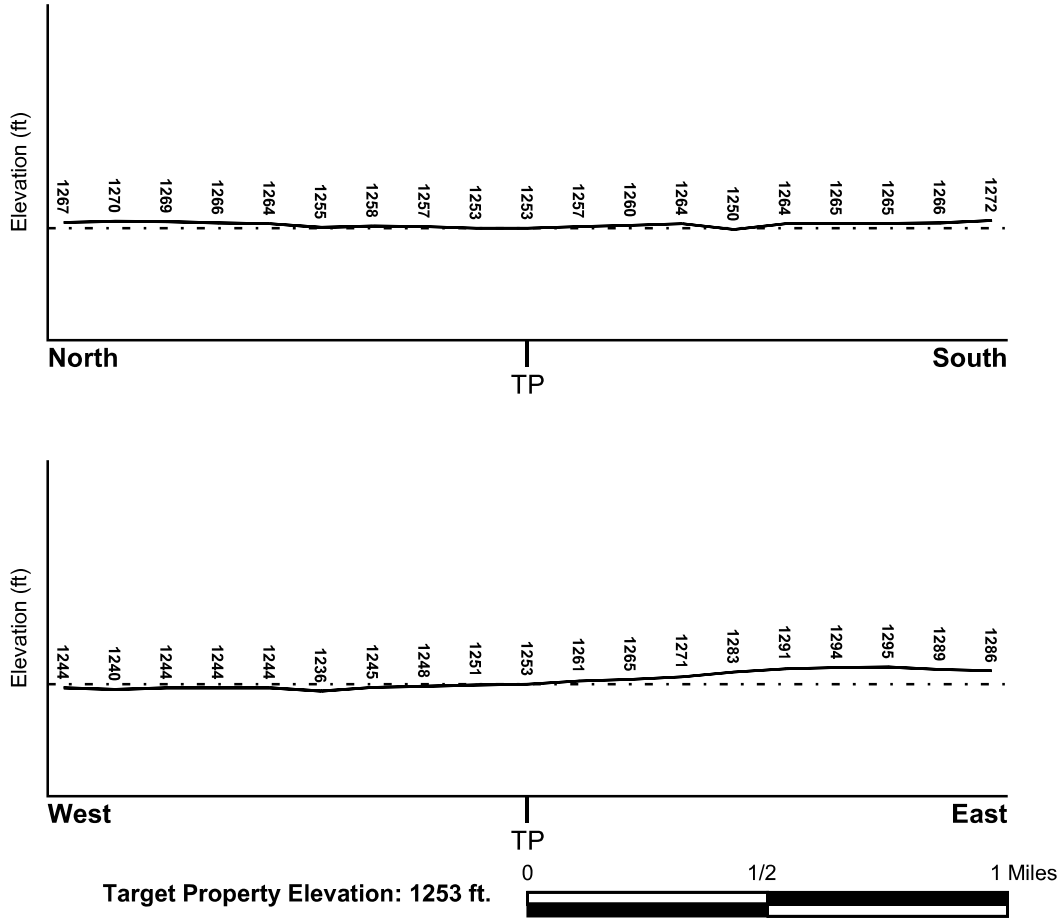
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
41029C1769F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
41029C1768F	FEMA FIRM Flood data
41029C1956F	FEMA FIRM Flood data
41029C1957F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
SAMS VALLEY	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

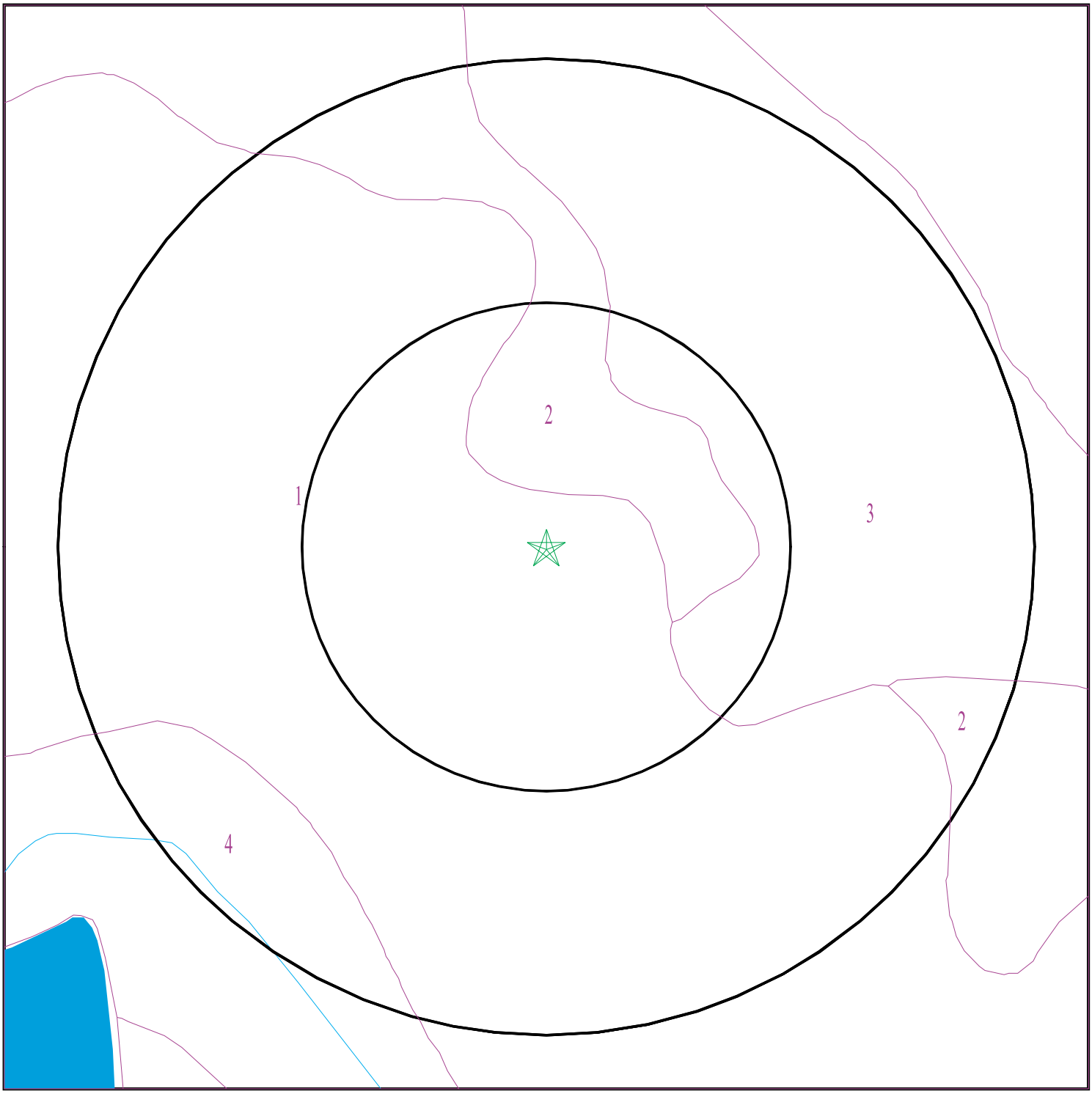
Era:	Cenozoic
System:	Tertiary
Series:	Eocene
Code:	Tec *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Continental Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5054391.2s



SITE NAME:	Gebhard Village	CLIENT:	Cascadia Associates LLC
ADDRESS:	4920 Gebhard Road Central Point OR 97502	CONTACT:	Amanda Spencer
LAT/LONG:	42.387715 / 122.900081	INQUIRY #:	5054391.2s
		DATE:	September 19, 2017 4:35 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Medford

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 153 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.3 Min: 5.6
2	11 inches	22 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.3 Min: 5.6
3	22 inches	53 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.3 Min: 5.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	53 inches	70 inches	stratified sandy clay loam to silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.3 Min: 5.6

Soil Map ID: 2

Soil Component Name: Kubli

Soil Surface Texture: loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 53 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 6.6
2	14 inches	31 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 6.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	31 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 7.3 Min: 6.6

Soil Map ID: 3

Soil Component Name: Kerby

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 5.6
2	7 inches	53 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 1.4	Max: 6.5 Min: 5.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	53 inches	59 inches	very gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 141 Min: 42	Max: 6.5 Min: 5.6

Soil Map ID: 4

Soil Component Name: Camas

Soil Surface Texture: gravelly sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	59 inches	extremely gravelly coarse sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 705 Min: 141	Max: 7.3 Min: 5.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000986357	0 - 1/8 Mile SSE
2	USGS40000986368	0 - 1/8 Mile NNE
4	USGS40000986397	1/4 - 1/2 Mile North
A5	USGS40000986344	1/4 - 1/2 Mile SE
6	USGS40000986342	1/4 - 1/2 Mile SSE
A7	USGS40000986343	1/4 - 1/2 Mile SE
8	USGS40000986345	1/4 - 1/2 Mile SE
9	USGS40000986414	1/2 - 1 Mile North
10	USGS40000986413	1/2 - 1 Mile NNW
11	USGS40000986369	1/2 - 1 Mile West
13	USGS40000986418	1/2 - 1 Mile NNE
19	USGS40000986334	1/2 - 1 Mile SSE
20	USGS40000986346	1/2 - 1 Mile WSW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
23	USGS40000986427	1/2 - 1 Mile North
24	USGS40000986330	1/2 - 1 Mile SSE
25	USGS40000986333	1/2 - 1 Mile SE
26	USGS40000986406	1/2 - 1 Mile WNW
27	USGS40000986434	1/2 - 1 Mile NNW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

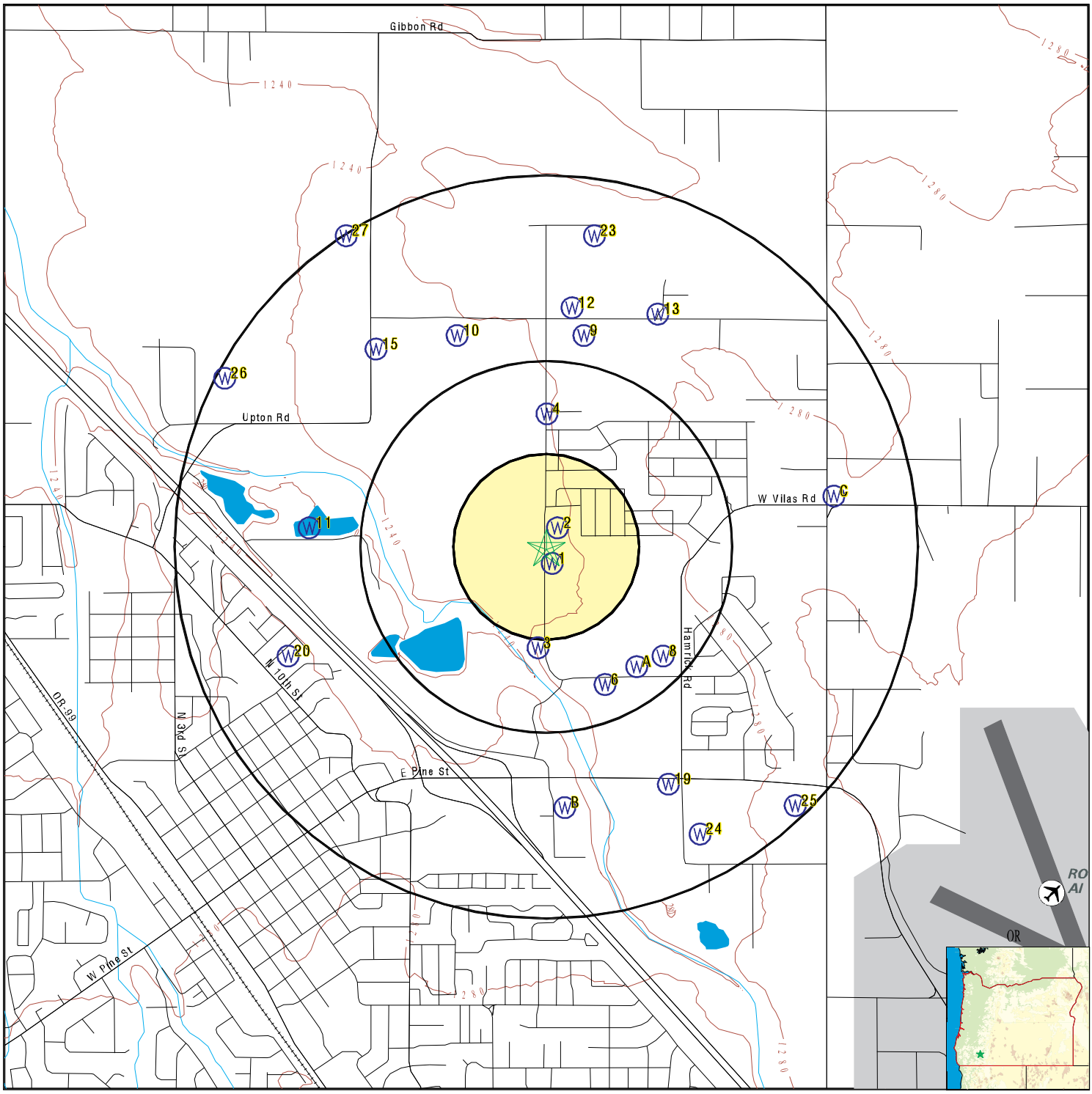
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
3	ORI500000052076	1/4 - 1/2 Mile South
12	ORI500000046963	1/2 - 1 Mile North
B14	ORI500000051512	1/2 - 1 Mile South
15	ORI500000051637	1/2 - 1 Mile NW
B16	ORI500000051510	1/2 - 1 Mile South
B17	ORI500000051509	1/2 - 1 Mile South
B18	ORI500000051508	1/2 - 1 Mile South
C21	ORI500000053362	1/2 - 1 Mile East
C22	ORI500000053361	1/2 - 1 Mile East

PHYSICAL SETTING SOURCE MAP - 5054391.2s



County Boundary
Major Roads
Contour Lines
Airports
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

Groundwater Flow Direction
GI Indeterminate Groundwater Flow at Location
GV Groundwater Flow Varies at Location
Oil, gas or related wells

SITE NAME:	Gebhard Village	CLIENT:	Cascadia Associates LLC
ADDRESS:	4920 Gebhard Road Central Point OR 97502	CONTACT:	Amanda Spencer
		INQUIRY #:	5054391.2s
LAT/LONG:	42.387715 / 122.900081	DATE:	September 19, 2017 4:35 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
SSE **FED USGS** **USGS40000986357**
0 - 1/8 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422314122535501		
Monloc name:	37S/02W-02AAC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3870699
Longitude:	-122.8997637	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1253
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19691016	Welldepth:	76
Welldepth units:	ft	Wellholedepth:	76
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1969-10-16	21.00	

2
NNE **FED USGS** **USGS40000986368**
0 - 1/8 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422319122535501		
Monloc name:	37S/02W-02AAB1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3884587
Longitude:	-122.8994859	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1245.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19661110	Welldepth:	70
Welldepth units:	ft	Wellholedepth:	70
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-15	11.34	

Note: The site had been pumped recently.

3
South
1/4 - 1/2 Mile
Higher

OR WELLS **ORI500000052076**

Fid:	52075	Well inspe:	0
Physical l:	Not Reported	Inspection:	2012-04-11 00:00:00.000
Startcard :	205620	Wl county :	JACK
Wl nbr:	61181	Startcar00:	20562
Well tag n:	10719	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	HIGHLANDER FOREST LLC		
Street:	1240	City:	CENTR
State:	OR	Zip:	97502
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	0
Consultant:	0	Water in v:	0
Seal test :	Not Reported	Samples ta:	0
Casing dia:	6.00	Csg above :	1.10
Csg gauge:	0.250	Borehole d:	10.00
Dedicated :	0	Access por:	1
Access p00:	APT	Measuring :	1.10
Measurin00:	1	Depth belo:	141.0
Depth be00:	Not Reported	Tape hold:	20.00
Tape missi:	0.00	Tape cut:	7.60
Water leve:	STC	Water le00:	ETP
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	LATE		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	1
Drill ro00:	0	Drill cabl:	0

Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	Not Reported	Use domest:	1
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	LINER
Well tag00:	107198	Bonded lic:	1661
Unbonded l:	Not Reported	Bonded dri:	BRAD,
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	300	Township:	37
Township c:	S	Range:	2
Range char:	W	Sctn:	2
Qtr40:	SW	Qtr160:	NE
Latitude d:	42.38378000	Longitude :	-122.90051000
Gps horizo:	15.40000000	Year const:	Not Reported
Date const:	2012-	Date con00:	2012-
Deficienci:	Y	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	METAL INTERLOCKING STRAP UPSIDE DOWN		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	OLD A	Site visit:	Not Reported
Type of lo:	W	Casing cap:	SNT
Pictures t:	1	Street of :	4613 GEBHARD RD
Street o00:	4613 GEBHARD RD CENTRAL POINT		
Last updt :	2012-07-16 16:43:46.840		
Last upd00:	omeag	Rec creati:	2012-07-16 16:39:25.543
Rec crea00:	omeag		
Latitude:	42.38378		
Loongitude:	-122.90051		
Site id:	ORI500000052076		

4
North
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000986397**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422335122535601		
Monloc name:	36S/02W-35DAC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3929031
Longitude:	-122.9000416	Sourcemap scale:	62500

Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1245.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19620801	Welldepth:	120
Welldepth units:	ft	Wellholedepth:	120
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-16	12.00	

Note: The site was being pumped.

A5
SE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000986344**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422300122534101		
Monloc name:	37S/02W-02ADD2		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3831811
Longitude:	-122.8958746	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1264
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19651110	Welldepth:	66.5
Welldepth units:	ft	Wellholedepth:	66.5
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1965-11-10	8.00	

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

6
SSE | **FED USGS** | **USGS40000986342**
1/4 - 1/2 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422257122534501		
Monloc name:	37S/02W-02ADD1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3823477
Longitude:	-122.8969857	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1250.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19660514	Welldepth:	12
Welldepth units:	ft	Wellholedepth:	12
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-15	1.64	

A7
SE | **FED USGS** | **USGS40000986343**
1/4 - 1/2 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422259122533702		
Monloc name:	37S/02W-01BCC2		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3829033
Longitude:	-122.8947634	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1260.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19570919	Welldepth:	97
Welldepth units:	ft	Wellholedepth:	97
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1957-09-19	10.00	

8
SE **FED USGS** **USGS40000986345**
1/4 - 1/2 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422301122533401		
Monloc name:	37S/02W/01BCC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3834589
Longitude:	-122.89393	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1260.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19691103	Welldepth:	275
Welldepth units:	ft	Wellholedepth:	275
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-15	6.96	

9
North **FED USGS** **USGS40000986414**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422347122534801		
Monloc name:	36S/02W-35DAA1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3959587
Longitude:	-122.8980972	Sourcemap scale:	62500

Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1250.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19790606	Welldepth:	140
Welldepth units:	ft	Wellholedepth:	140
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-16	15.29	

10
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000986413**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422346122541301		
Monloc name:	36S/02W-35DBB2		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3959586
Longitude:	-122.904764	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1240.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19770221	Welldepth:	75
Welldepth units:	ft	Wellholedepth:	75
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-16	5.00	

11
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000986369**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422319122544101		
Monloc name:	37S/02W-02BBA1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3884586
Longitude:	-122.9125419	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1230.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19610424	Welldepth:	150
Welldepth units:	ft	Wellholedepth:	150
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-22	9.97	

12
North
1/2 - 1 Mile
Higher

OR WELLS **ORI500000046963**

Fid:	46962	Well inspe:	0
Physical l:	Not Reported	Inspection:	2008-09-26 00:00:00.000
Startcard :	1005070	Wl county :	JACK
Wl nbr:	58934	Startcar00:	Not Reported
Well tag n:	Not Reported	No log:	Not Reported
Property o:	Not Reported	Inspecti00:	Not Reported
Special st:	0	Title:	Not Reported
Inspecti01:	Not Reported	Witnesses:	Not Reported
Name owner:	RIGGS, LARRY		
Street:	Not Reported	City:	Not Reported
State:	Not Reported	Zip:	Not Reported
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	Not Reported	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	Not Reported
Rough log :	Not Reported	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	Not Reported
Protective:	Not Reported	Well locke:	Not Reported
Consultant:	Not Reported	Water in v:	Not Reported
Seal test :	Not Reported	Samples ta:	Not Reported

Casing dia:	Not Reported	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	Not Reported
Dedicated :	Not Reported	Access por:	Not Reported
Access p00:	Not Reported	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	Not Reported
Tape missi:	Not Reported	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	Not Reported
Cascading :	Not Reported	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	Not Reported
Drill ro00:	Not Reported	Drill cabl:	Not Reported
Drill ca00:	Not Reported	Drill reve:	Not Reported
Drill re00:	Not Reported	Drill auge:	Not Reported
Drill push:	Not Reported	Drill hand:	Not Reported
Drill holl:	Not Reported	Drill soni:	Not Reported
Drill othe:	Not Reported	Use domest:	Not Reported
Use irriga:	Not Reported	Use commun:	Not Reported
Use indust:	Not Reported	Use livest:	Not Reported
Use dewate:	Not Reported	Use monito:	Not Reported
Use therma:	Not Reported	Use inject:	Not Reported
Use piezom:	Not Reported	Use observ:	Not Reported
Use recove:	Not Reported	Use other:	Not Reported
Bentonite :	Not Reported	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	96741	Bonded lic:	1207
Unbonded l:	Not Reported	Bonded dri:	Not Reported
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	1001	Township:	36
Township c:	S	Range:	2
Range char:	W	Sctn:	35
Qtr40:	SE	Qtr160:	NE
Latitude d:	42.39704000	Longitude :	-122.89872000
Gps horizo:	4.00000000	Year const:	2008
Date const:	Not Reported	Date con00:	Not Reported
Deficienci:	N	Previous i:	0
Inspected :	TNK	Inspecte00:	126381
Wm region:	SW		
Well tag a:	HOSE CLAMP		
Well tag01:	Not Reported	Depth:	58.21
Static wat:	20.45	Status of :	CMP
Location r:	Not Reported	Site visit:	Not Reported
Type of lo:	W	Casing cap:	SS
Pictures t:	0	Street of :	684 WILSON RD
Street o00:	684 WILSON RD CENTRAL POINT		
Last updt :	2008-10-13 14:21:22.060		
Last upd00:	kellytn	Rec creati:	2009-06-01 06:51:00.000
Rec crea00:	OWRD\migrate		
Latitude:	42.39704		
Loongitude:	-122.89872		
Site id:	ORI500000046963		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

13
NNE
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000986418**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422349122533501		
Monloc name:	36S/02W-36BCC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3967921
Longitude:	-122.8942082	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1173.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Quaternary Alluvium		
Aquifer type:	Not Reported		
Construction date:	19860729	Welldepth:	80
Welldepth units:	ft	Wellholedepth:	80
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 31

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1992-02-25	18.58				
1992-01-23	22.01				
Note: A nearby site that taps the same aquifer was being pumped.					
1991-12-18	22.99				
1991-11-19	32.43				
Note: The site had been pumped recently.					
1991-10-24	32.88				
1991-09-30	32.17				
Note: The site had been pumped recently.					
1991-08-27	42.86		1991-07-29	41.71	
1991-06-24	44.88				
Note: The site had been pumped recently.					
1991-05-17	30.78				
Note: The site had been pumped recently.					
1991-02-15	25.43		1991-01-17	24.19	
1990-12-19	23.44		1990-11-14	25.18	
1990-10-19	32.13		1990-08-09	27.78	
1990-06-06	19.45		1990-05-01	18.83	
1990-04-13	17.45		1990-03-08	17.93	
1990-02-01	18.25		1990-01-13	19.12	
1989-12-06	19.6		1989-11-08	19.32	
1989-10-06	18.24		1989-09-08	19.44	
1989-08-07	47.71				
Note: The site was being pumped.					

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1989-07-08	17.97		1989-06-07	18.69	
1989-05-17	14.54		1986-07-29	30	

B14
South
1/2 - 1 Mile
Higher

OR WELLS **ORI500000051512**

Fid:	51511	Well inspe:	0
Physical l:	Not Reported	Inspection:	2011-11-08 00:00:00.000
Startcard :	1015168	Wl county :	JACK
Wl nbr:	60994	Startcar00:	10151
Well tag n:	10609	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	TRAVEL CENTER DEVELOP LLC		
Street:	P.O.	City:	LEXIN
State:	KY	Zip:	40554
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	0	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	1
Consultant:	0	Water in v:	0
Seal test :	Not Reported	Samples ta:	0
Casing dia:	2.00	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	4.00
Dedicated :	0	Access por:	0
Access p00:	NON	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	OBS
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	DRILLERS QQ LOCATIONS DO NOT MATCH WITH GPS READING		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	DIREC	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0

Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	106090	Bonded lic:	1522
Unbonded l:	10443	Bonded dri:	MICHA
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	2301	Township:	37
Township c:	S	Range:	2
Range char:	W	Sctn:	2
Qtr40:	SE	Qtr160:	SE
Latitude d:	42.37765000	Longitude :	-122.89902000
Gps horizo:	Not Reported	Year const:	Not Reported
Date const:	2011-	Date con00:	2011-
Deficienci:	Y	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	METAL INTERLOCKING BAND ON LOCK		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	Not Reported
Location r:	WELL	Site visit:	Not Reported
Type of lo:	M	Casing cap:	Not Reported
Pictures t:	1	Street of :	1600 E PINE STRE
Street o00:	1600 E PINE STREET, CENTRAL POINT, OR		
Last updt :	2011-11-09 10:08:36.010		
Last upd00:	omeag	Rec creati:	2011-11-09 10:06:04.243
Rec crea00:	omeag		
Latitude:	42.37765		
Loongitude:	-122.89902		
Site id:	ORI500000051512		

15
NW
1/2 - 1 Mile
Lower

OR WELLS **ORI500000051637**

Fid:	51636	Well inspe:	0
Physical l:	Not Reported	Inspection:	2011-12-07 00:00:00.000
Startcard :	205615	Wl county :	JACK
Wl nbr:	61088	Startcar00:	20561
Well tag n:	10718	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	DEREK, KANE		
Street:	6873	City:	CENTR
State:	OR	Zip:	97502
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	0
Consultant:	0	Water in v:	0
Seal test :	PP	Samples ta:	0

Casing dia:	6.00	Csg above :	1.70
Csg gauge:	0.250	Borehole d:	10.00
Dedicated :	0	Access por:	0
Access p00:	APT	Measuring :	1.70
Measurin00:	1	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	DRY	Water le00:	OBS
Cascading :	0	Pump type:	SBM
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	PUMP ENCLOSED IN REMOVAL STRUCTURE		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	1
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	Not Reported	Use domest:	1
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	PUMP
Well tag00:	107186	Bonded lic:	1661
Unbonded l:	Not Reported	Bonded dri:	BRAD,
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	1200	Township:	36
Township c:	S	Range:	2
Range char:	W	Sctn:	35
Qtr40:	NE	Qtr160:	SW
Latitude d:	42.39543000	Longitude :	-122.90903000
Gps horizo:	25.70000000	Year const:	Not Reported
Date const:	2011-	Date con00:	2011-
Deficienci:	N	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	METAL INTERLOCKING BAND		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	WELL	Site visit:	Not Reported
Type of lo:	W	Casing cap:	SNT
Pictures t:	1	Street of :	5418 UPTON RD, C
Street o00:	5418 UPTON RD, CENTRAL POINT, OR 97502		
Last updt :	2011-12-19 11:51:53.547		
Last upd00:	omeag	Rec creati:	2011-12-19 11:48:45.587
Rec crea00:	omeag		
Latitude:	42.39543		
Loongitude:	-122.90903		
Site id:	ORI500000051637		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B16
South
1/2 - 1 Mile
Higher | **OR WELLS** | **ORI500000051510**

Fid:	51509	Well inspe:	0
Physical l:	Not Reported	Inspection:	2011-11-08 00:00:00.000
Startcard :	1015169	Wl county :	JACK
Wl nbr:	60995	Startcar00:	10151
Well tag n:	10609	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	TRAVEL CENTER DEVELOP LLC		
Street:	P.O.	City:	LEXIN
State:	KY	Zip:	40554
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	ATTAC
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	1
Consultant:	0	Water in v:	0
Seal test :	Not Reported	Samples ta:	0
Casing dia:	2.00	Csg above :	Not Reported
Csg gauge:	40.00	Borehole d:	4.00
Dedicated :	0	Access por:	0
Access p00:	NON	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	OBS
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	DRILL		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	DIREC	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0

Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	106091	Bonded lic:	1522
Unbonded l:	10443	Bonded dri:	MICHA
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	2301	Township:	37
Township c:	S	Range:	2
Range char:	W	Sctn:	2
Qtr40:	SE	Qtr160:	SE
Latitude d:	42.37751000	Longitude :	-122.89944000
Gps horizo:	17.70000000	Year const:	Not Reported
Date const:	2011-	Date con00:	2011-
Deficienci:	Y	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	PLASTIC INTERLOCKING BAND		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	WELL	Site visit:	Not Reported
Type of lo:	M	Casing cap:	Not Reported
Pictures t:	1	Street of :	1600 E PINE STRE
Street o00:	1600 E PINE STREET, CENTRAL POINT, OR		
Last updt :	2011-11-09 09:55:40.800		
Last upd00:	omeag	Rec creati:	2011-11-09 09:52:59.383
Rec crea00:	omeag		
Latitude:	42.37751		
Loongitude:	-122.89944		
Site id:	ORI500000051510		

B17
South
1/2 - 1 Mile
Higher

OR WELLS **ORI500000051509**

Fid:	51508	Well inspe:	0
Physical l:	Not Reported	Inspection:	2011-11-08 00:00:00.000
Startcard :	1015166	Wl county :	JACK
Wl nbr:	60992	Startcar00:	10151
Well tag n:	10608	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	TRAVEL CENTER DEVELOP LLC		
Street:	P.O.	City:	LEXIN
State:	KY	Zip:	40554
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	ATTAC
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	1
Consultant:	0	Water in v:	0
Seal test :	Not Reported	Samples ta:	0

Casing dia:	2.00	Csg above :	Not Reported
Csg gauge:	40.00	Borehole d:	4.00
Dedicated :	0	Access por:	0
Access p00:	NON	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	OBS
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	DRILL		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	DIREC	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	106087	Bonded lic:	1522
Unbonded l:	10443	Bonded dri:	MICHA
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	2301	Township:	37
Township c:	S	Range:	2
Range char:	W	Sctn:	2
Qtr40:	SE	Qtr160:	SE
Latitude d:	42.37752000	Longitude :	-122.89906000
Gps horizo:	17.20000000	Year const:	Not Reported
Date const:	2011-	Date con00:	2011-
Deficienci:	Y	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	PLASTIC INTERLOCKING BAND		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	WELL	Site visit:	Not Reported
Type of lo:	M	Casing cap:	Not Reported
Pictures t:	1	Street of :	1600 E PINE STRE
Street o00:	1600 E PINE STREET, CENTRAL POINT, OR		
Last updt :	2011-11-09 09:48:46.400		
Last upd00:	omeag	Rec creati:	2011-11-09 09:46:35.943
Rec crea00:	omeag		
Latitude:	42.37752		
Loongitude:	-122.89906		
Site id:	ORI500000051509		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B18
South
1/2 - 1 Mile
Higher | **OR WELLS** | **ORI500000051508**

Fid:	51507	Well inspe:	0
Physical l:	Not Reported	Inspection:	2011-11-08 00:00:00.000
Startcard :	1015167	Wl county :	JACK
Wl nbr:	60993	Startcar00:	10151
Well tag n:	10608	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	TRAVEL CENTER DEVELOP LLC		
Street:	P.O.	City:	LEXIN
State:	KY	Zip:	40554
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	ATTAC
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	1
Consultant:	0	Water in v:	0
Seal test :	Not Reported	Samples ta:	0
Casing dia:	2.00	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	4.00
Dedicated :	0	Access por:	0
Access p00:	Not Reported	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	OBS
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	DISCR		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	DIREC	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0

Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	106088	Bonded lic:	1522
Unbonded l:	10443	Bonded dri:	MICHA
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	2301	Township:	37
Township c:	S	Range:	2
Range char:	W	Sctn:	2
Qtr40:	SE	Qtr160:	SE
Latitude d:	42.37751000	Longitude :	-122.89888000
Gps horizo:	21.90000000	Year const:	Not Reported
Date const:	2011-	Date con00:	2011-
Deficienci:	Y	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	PLASTIC INTERLOCKING BAND		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	WELL	Site visit:	Not Reported
Type of lo:	M	Casing cap:	Not Reported
Pictures t:	1	Street of :	1600 E PINE STRE
Street o00:	1600 E PINE STREET, CENTRAL POINT, OR		
Last updt :	2011-11-09 09:44:27.640		
Last upd00:	omeag	Rec creati:	2011-11-09 09:40:42.040
Rec crea00:	omeag		
Latitude:	42.37751		
Loongitude:	-122.89888		
Site id:	ORI500000051508		

19
SSE
1/2 - 1 Mile
Higher

FED USGS **USGS40000986334**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422243122533301		
Monloc name:	37S/02W-01CBC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3784589
Longitude:	-122.8936522	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1245.00
Vert measure units:	feet	Vertacc measure val:	020
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Eocene Series		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	113
Welldepth units:	ft	Wellholedepth:	113
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1951-06-17	11.29	

20
WSW
1/2 - 1 Mile
Higher

FED USGS **USGS40000986346**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422301122544501		
Monloc name:	37S/02W-02BCC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3834586
Longitude:	-122.913653	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1242.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19760623	Welldepth:	199
Welldepth units:	ft	Wellholedepth:	200
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-06-23	26.00	

C21
East
1/2 - 1 Mile
Higher

OR WELLS **ORI500000053362**

Fid:	53361	Well inspe:	0
Physical l:	Not Reported	Inspection:	2013-05-24 00:00:00.000
Startcard :	1019569	Wl county :	JACK
Wl nbr:	61460	Startcar00:	10195
Well tag n:	10455	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	LEATHERS FUELS		
Street:	255 D	City:	FAIRV

State:	OR	Zip:	97024
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	1
Consultant:	0	Water in v:	0
Seal test :	PP	Samples ta:	0
Casing dia:	2.00	Csg above :	Not Reported
Csg gauge:	40.00	Borehole d:	3.50
Dedicated :	0	Access por:	0
Access p00:	NON	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	OBS
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	PUSH	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	1
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	104559	Bonded lic:	1537
Unbonded l:	10622	Bonded dri:	SCOTT
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	1201	Township:	36
Township c:	S	Range:	2
Range char:	W	Sctn:	36
Qtr40:	SW	Qtr160:	SE
Latitude d:	42.38959000	Longitude :	-122.88516000
Gps horizo:	66.50000000	Year const:	Not Reported
Date const:	2013-	Date con00:	2013-
Deficienci:	N	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	UV STRAP		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	WELL	Site visit:	Not Reported

Type of lo:	M	Casing cap:	SBC
Pictures t:	1	Street of :	5020 TABLE ROCK
Street o00:	5020 TABLE ROCK RD., CENTRAL POINT, OR 97502		
Last updt :	2013-06-18 09:26:58.610		
Last upd00:	omeag	Rec creati:	2013-06-18 09:25:45.000
Rec crea00:	omeag		
Latitude:	42.38959		
Loongitude:	-122.88516		
Site id:	ORI500000053362		

C22
East
1/2 - 1 Mile
Higher

OR WELLS **ORI500000053361**

Fid:	53360	Well inspe:	0
Physical l:	Not Reported	Inspection:	2013-05-24 00:00:00.000
Startcard :	1019570	Wl county :	JACK
Wl nbr:	61461	Startcar00:	10195
Well tag n:	10456	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	LEATHERS FUELS		
Street:	255 D	City:	FAIRV
State:	OR	Zip:	97024
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	1
Consultant:	0	Water in v:	0
Seal test :	PP	Samples ta:	0
Casing dia:	2.00	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	3.50
Dedicated :	0	Access por:	0
Access p00:	NON	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	OBS
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0

Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	PUSH	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	1
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	104560	Bonded lic:	1537
Unbonded l:	10622	Bonded dri:	SCOTT
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	1201	Township:	36
Township c:	S	Range:	2
Range char:	W	Sctn:	36
Qtr40:	SW	Qtr160:	SE
Latitude d:	42.38980000	Longitude :	-122.88474000
Gps horizo:	9.90000000	Year const:	Not Reported
Date const:	2013-	Date con00:	2013-
Deficienci:	N	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	UV STRAP		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	Not Reported	Site visit:	Not Reported
Type of lo:	M	Casing cap:	Not Reported
Pictures t:	1	Street of :	5020 TABLE ROCK
Street o00:	5020 TABLE ROCK RD., CENTRAL POINT, OR 97502		
Last updt :	2013-06-18 09:22:15.133		
Last upd00:	omeag	Rec creati:	2013-06-18 09:19:56.127
Rec crea00:	omeag		
Latitude:	42.3898		
Loongitude:	-122.88474		
Site id:	ORI500000053361		

23
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000986427**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422400122534701		
Monloc name:	36S/02W-35ADA1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3998475
Longitude:	-122.8975417	Sourcemap scale:	62500

Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1245.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19731102	Welldepth:	120
Welldepth units:	ft	Wellholedepth:	120
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1973-11-03	28.00	

24
SSE
1/2 - 1 Mile
Higher

FED USGS **USGS40000986330**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422236122532701		
Monloc name:	37S/02W-01CCD1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3765145
Longitude:	-122.8919854	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1273
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19610901	Welldepth:	115
Welldepth units:	ft	Wellholedepth:	115
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1961-09-01	30.00	

25
SE
1/2 - 1 Mile
Higher

FED USGS **USGS40000986333**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422240122530901		
Monloc name:	37S/02W-01CDA1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3776257
Longitude:	-122.8869853	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1275.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Eocene Series		
Aquifer type:	Not Reported		
Construction date:	19660714	Welldepth:	128
Welldepth units:	ft	Wellholedepth:	128
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1966-07-14	6.00	

26
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000986406**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422340122550001		
Monloc name:	36S/02W-34DAD2		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3942918
Longitude:	-122.9169867	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1230.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19740903	Welldepth:	43
Welldepth units:	ft	Wellholedepth:	43
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-17	11.50	

Note: The site was being pumped.

27
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000986434**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422407122543601		
Monloc name:	36S/02W-35BBD1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3998474
Longitude:	-122.9105977	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1240.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19760209	Welldepth:	220
Welldepth units:	ft	Wellholedepth:	220
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-16	20.99	

Note: Other conditions existed that would affect the measured water level.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: OR Radon

Radon Test Results

Zipcode	Num Tests	Maximum	Minimum	Average	# > 4 pCi/L
97502	7	0.7	0.4	0.6	0

Federal EPA Radon Zone for JACKSON County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for JACKSON COUNTY, OR

Number of sites tested: 23

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	0.970 pCi/L	100%	0%	0%
Basement	1.880 pCi/L	78%	22%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data
Source: Oregon Geospatial Enterprise Office
Telephone: 503-378-2166

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data
Source: Department of Water Resources
Telephone: 503-986-0843

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Locations
Source: Department of Geology and Mineral Industries
Telephone: 971-673-1540
A listing of oil and gas well locations in the state.

RADON

State Database: OR Radon
Source: Oregon Health Services
Telephone: 503-731-4272
Radon Levels in Orgeon

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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Gebhard Village
4920 Gebhard Road
Central Point, OR 97502

Inquiry Number: 5054391.3
September 19, 2017

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

09/19/17

Site Name:

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502
EDR Inquiry # 5054391.3

Client Name:

Cascadia Associates LLC
6915 SW Macadam Ave Ste 255
Portland, OR 97219
Contact: Amanda Spencer

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Cascadia Associates LLC were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 91A1-4CC7-8464

PO # NA

Project Gebhard Village

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 91A1-4CC7-8464

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

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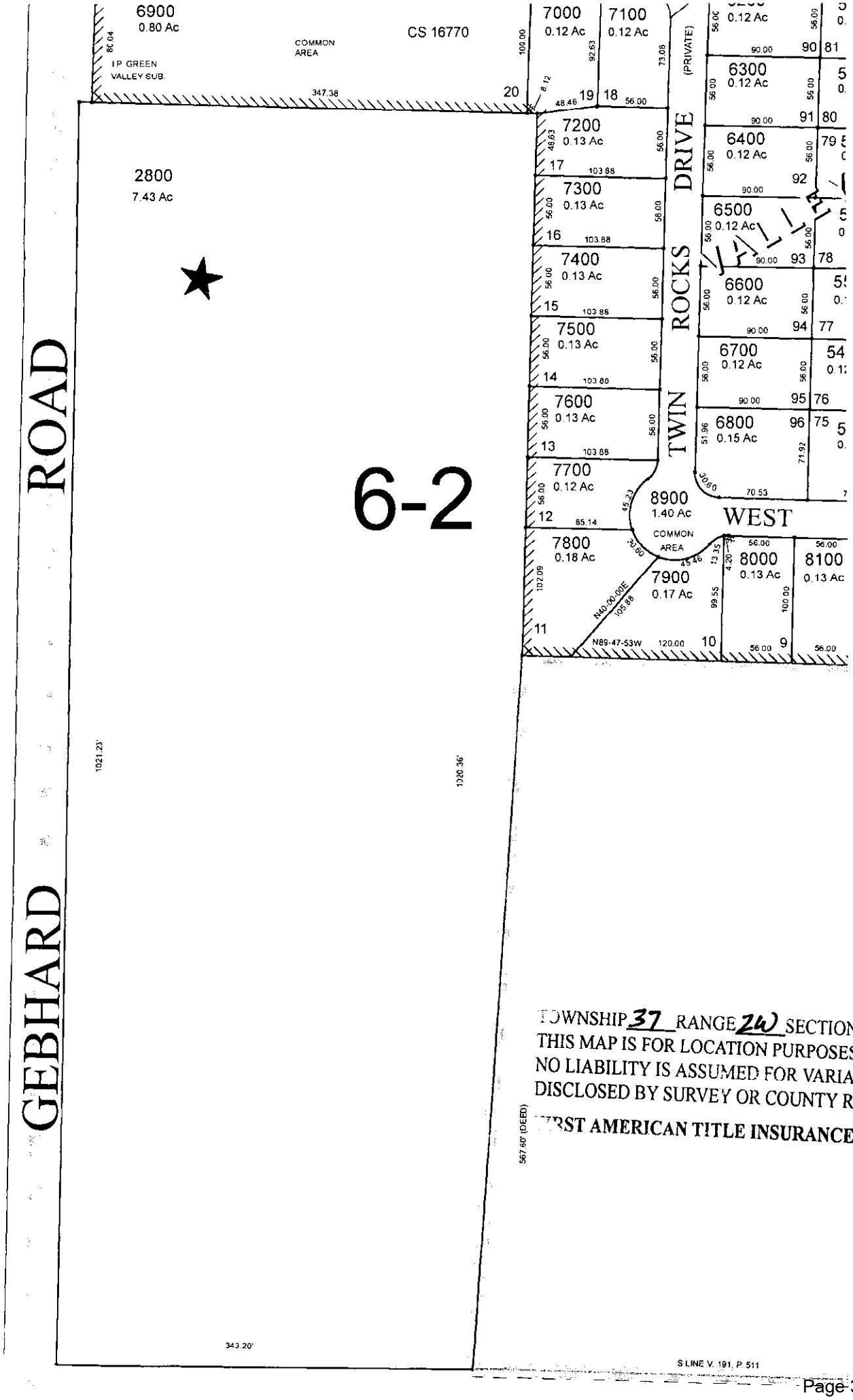
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TOWNSHIP 37 RANGE 2W SECTION 02 AA N↑
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DISCLOSED BY SURVEY OR COUNTY RECORDS.
FIRST AMERICAN TITLE INSURANCE COMPANY

ATTACHMENT B

AERIAL PHOTOGRAPHS



INQUIRY #: 5054391.9

YEAR: 1974

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 1953

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 1951

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 1939

= 500'

N

EDR

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502

Inquiry Number: 5054391.9
September 20, 2017

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

09/20/17

Site Name:

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502
EDR Inquiry # 5054391.9

Client Name:

Cascadia Associates LLC
6915 SW Macadam Ave Ste 255
Portland, OR 97219
Contact: Amanda Spencer

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2011	1"=500'	Flight Year: 2011	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1994	1"=500'	Acquisition Date: May 24, 1994	USGS/DOQQ
1982	1"=500'	Flight Date: July 16, 1982	USDA
1976	1"=500'	Flight Date: June 28, 1976	USGS
1974	1"=500'	Flight Date: July 13, 1974	USGS
1953	1"=500'	Flight Date: August 08, 1953	USGS
1951	1"=500'	Flight Date: August 08, 1951	USGS
1939	1"=500'	Flight Date: January 01, 1939	USGS

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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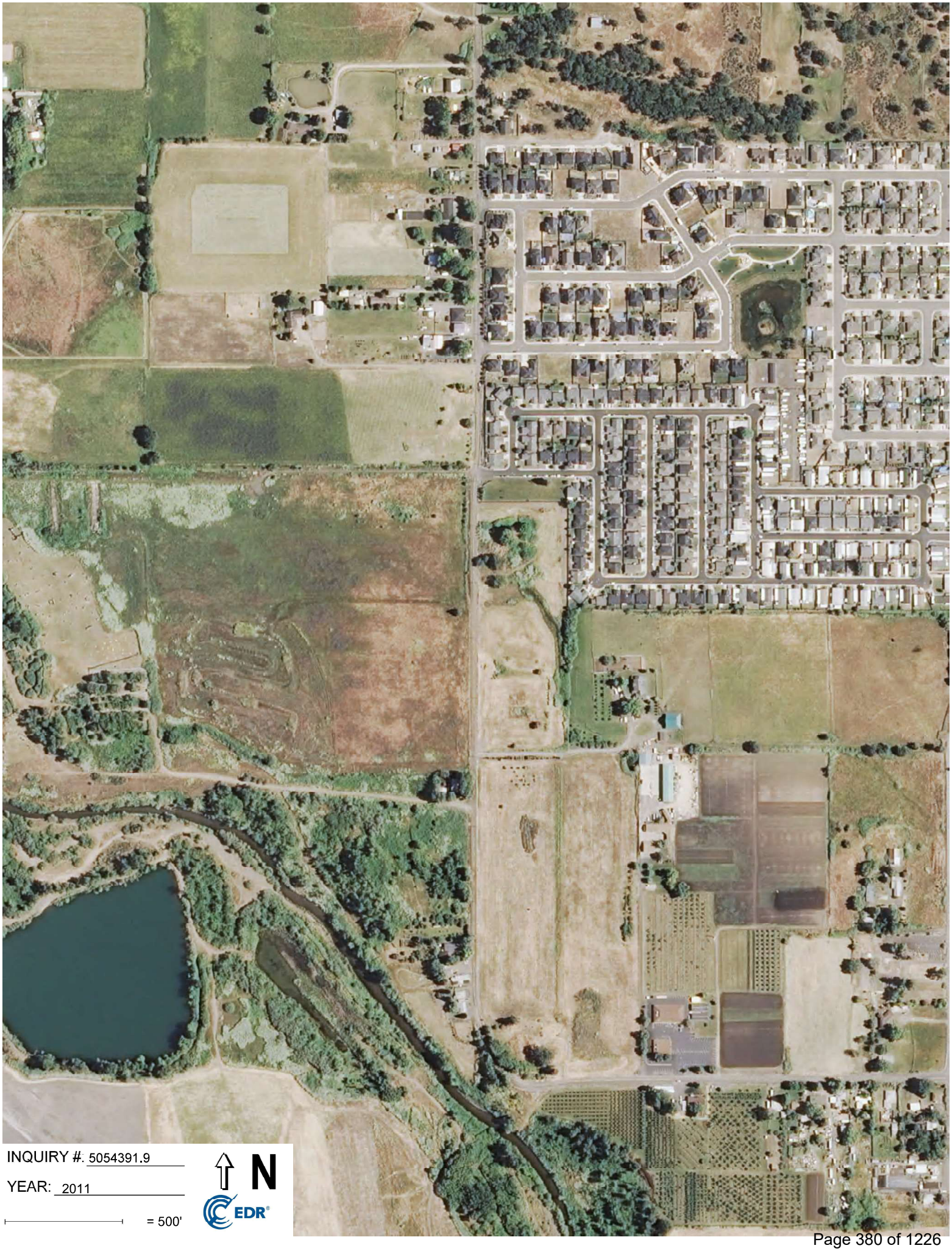
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YEAR: 2012

= 500'

N

EDR



INQUIRY #: 5054391.9

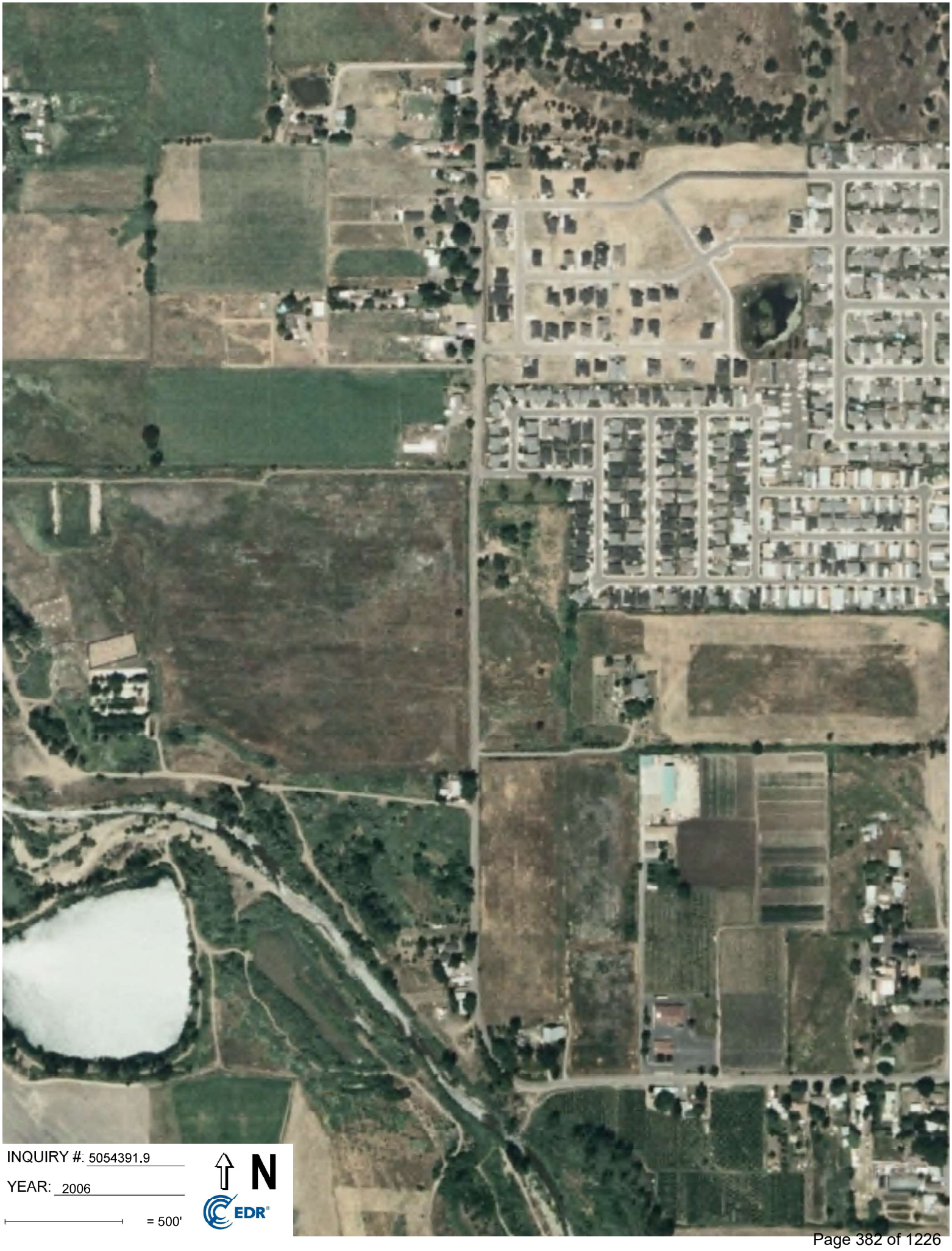
YEAR: 2011

= 500'

N

EDR


INQUIRY #: 5054391.9
YEAR: 2009
= 500'
N
EDR



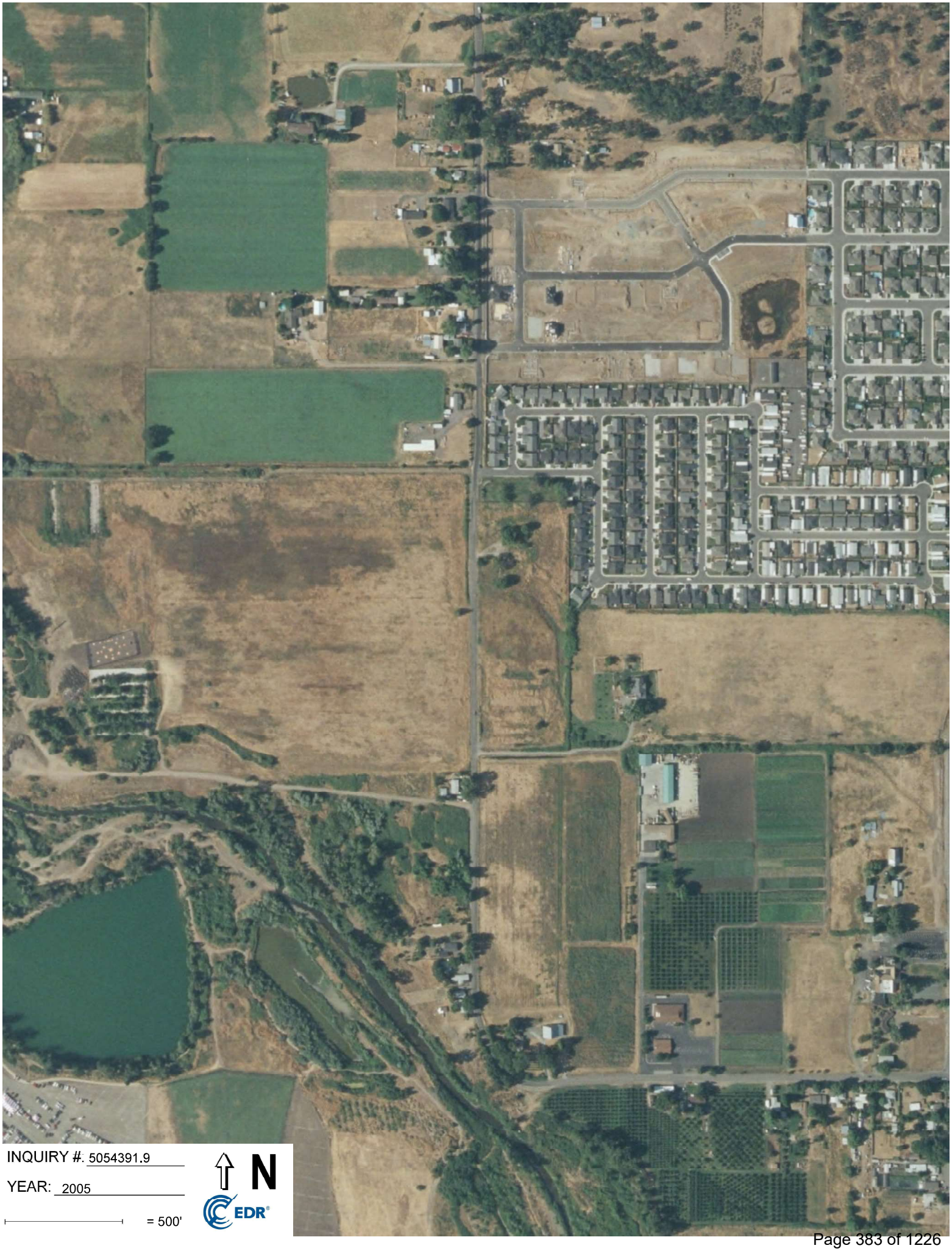
INQUIRY #: 5054391.9

YEAR: 2006

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 2005

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 1994

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 1982

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 1976

= 500'

N

EDR

ATTACHMENT C

HISTORICAL TOPOGRAPHIC MAPS

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502

Inquiry Number: 5054391.4
September 19, 2017

EDR Historical Topo Map Report
with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

09/19/17

Site Name:

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502
EDR Inquiry # 5054391.4

Client Name:

Cascadia Associates LLC
6915 SW Macadam Ave Ste 255
Portland, OR 97219
Contact: Amanda Spencer

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Cascadia Associates LLC were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA
Project: Gebhard Village

Coordinates:

Latitude:	42.387715 42° 23' 16" North
Longitude:	-122.900081 -122° 54' 0" West
UTM Zone:	Zone 10 North
UTM X Meters:	508224.63
UTM Y Meters:	4692830.07
Elevation:	1253.04' above sea level

Maps Provided:

2014
1983
1954
1938

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2014 Source Sheets



Sams Valley
2014
7.5-minute, 24000



Medford West
2014
7.5-minute, 24000



Eagle Point
2014
7.5-minute, 24000



Medford East
2014
7.5-minute, 24000

1983 Source Sheets



Eagle Point
1983
7.5-minute, 24000
Aerial Photo Revised 1967



Medford East
1983
7.5-minute, 24000
Aerial Photo Revised 1976



Sams Valley
1983
7.5-minute, 24000
Aerial Photo Revised 1976



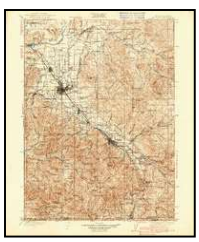
Medford West
1983
7.5-minute, 24000
Aerial Photo Revised 1976

1954 Source Sheets



Medford
1954
15-minute, 62500
Aerial Photo Revised 1951

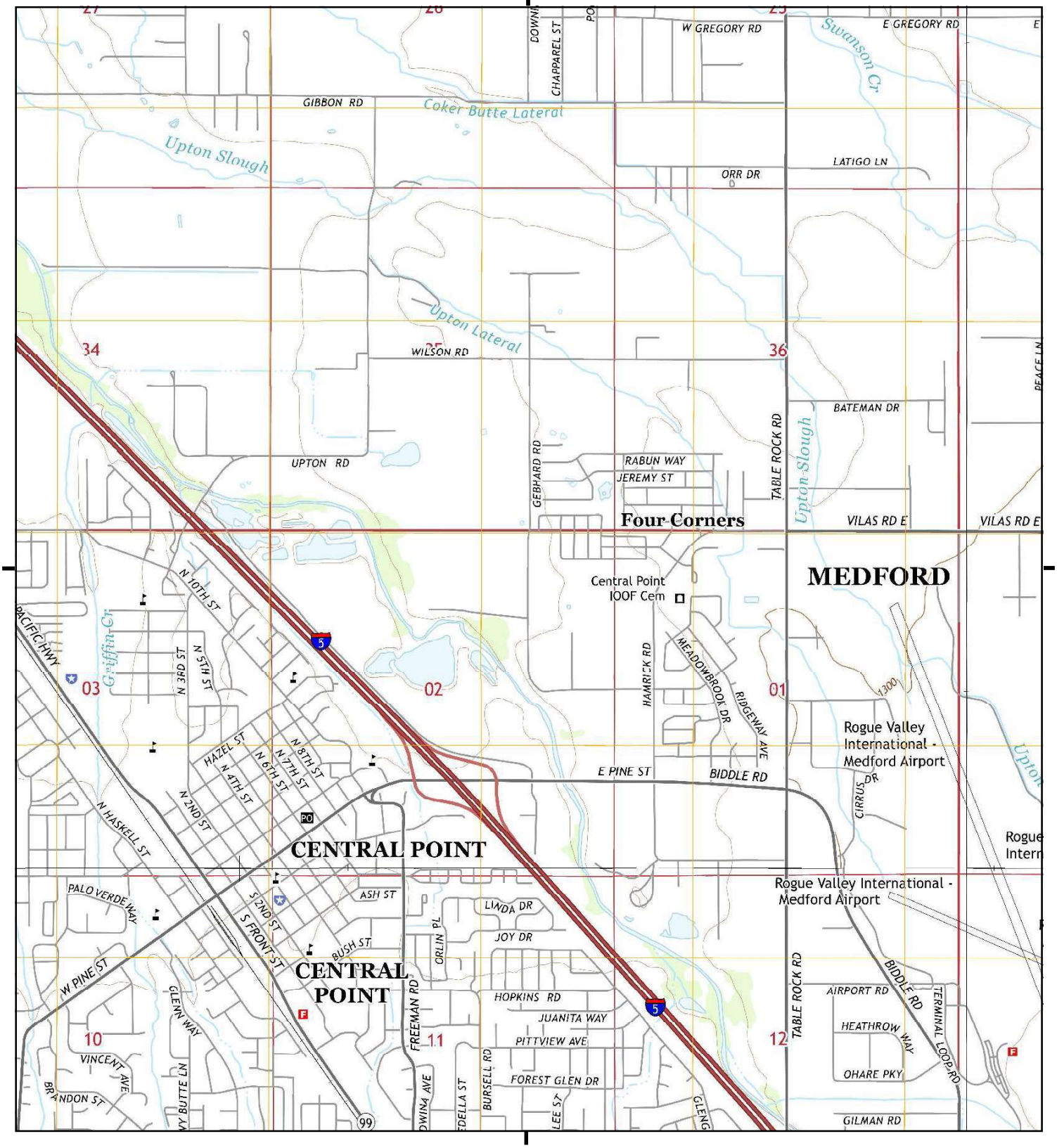
1938 Source Sheets



Medford
1938
30-minute, 125000

Historical Topo Map

2014



This report includes information from the following map sheet(s).

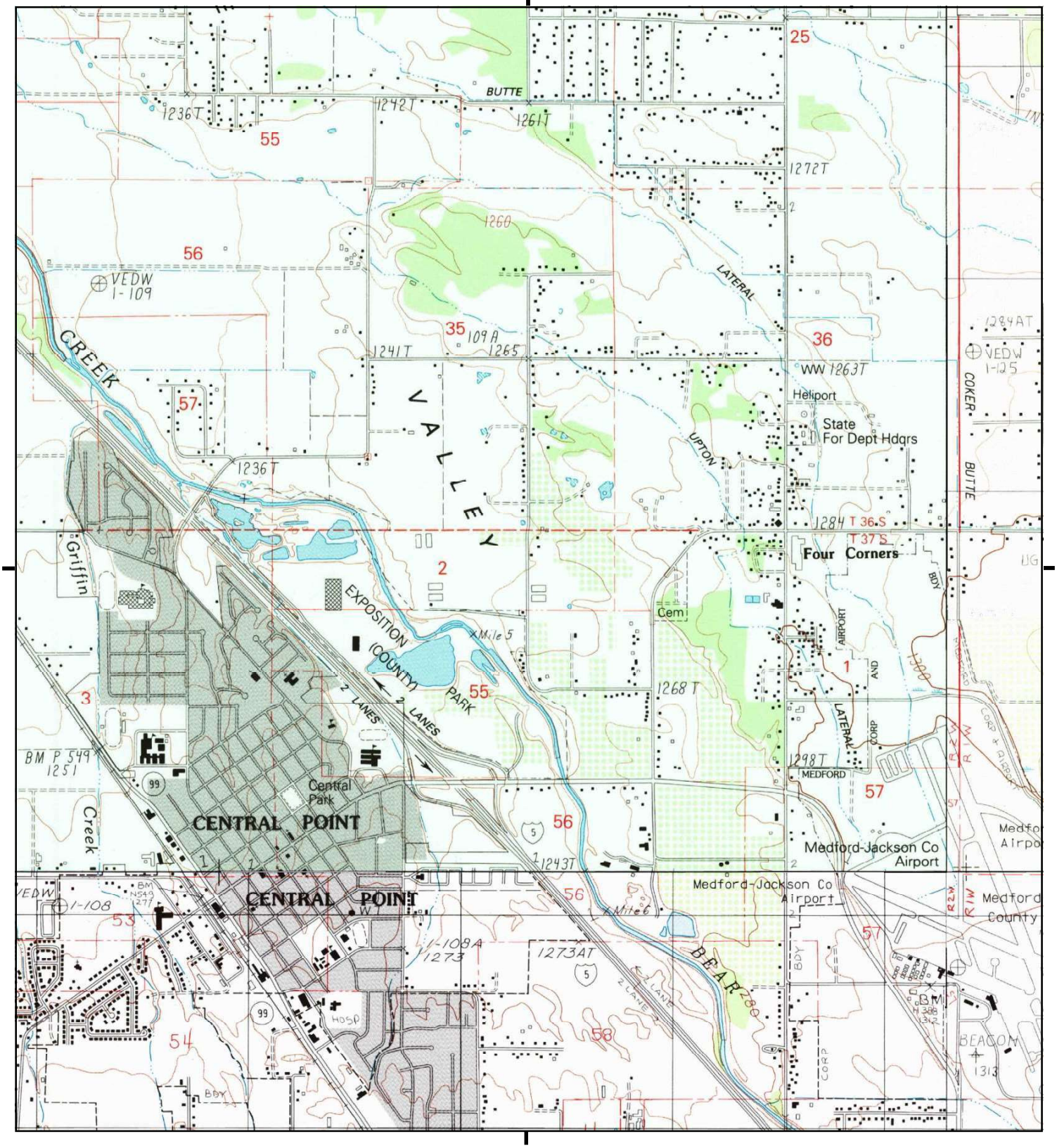
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Sams Valley, 2014, 7.5-minute
NE, Eagle Point, 2014, 7.5-minute
SE, Medford East, 2014, 7.5-minute
S, Medford West, 2014, 7.5-minute

SITE NAME: Gebhard Village
ADDRESS: 4920 Gebhard Road
Central Point, OR 97502
CLIENT: Cascadia Associates LLC

N



This report includes information from the following map sheet(s).

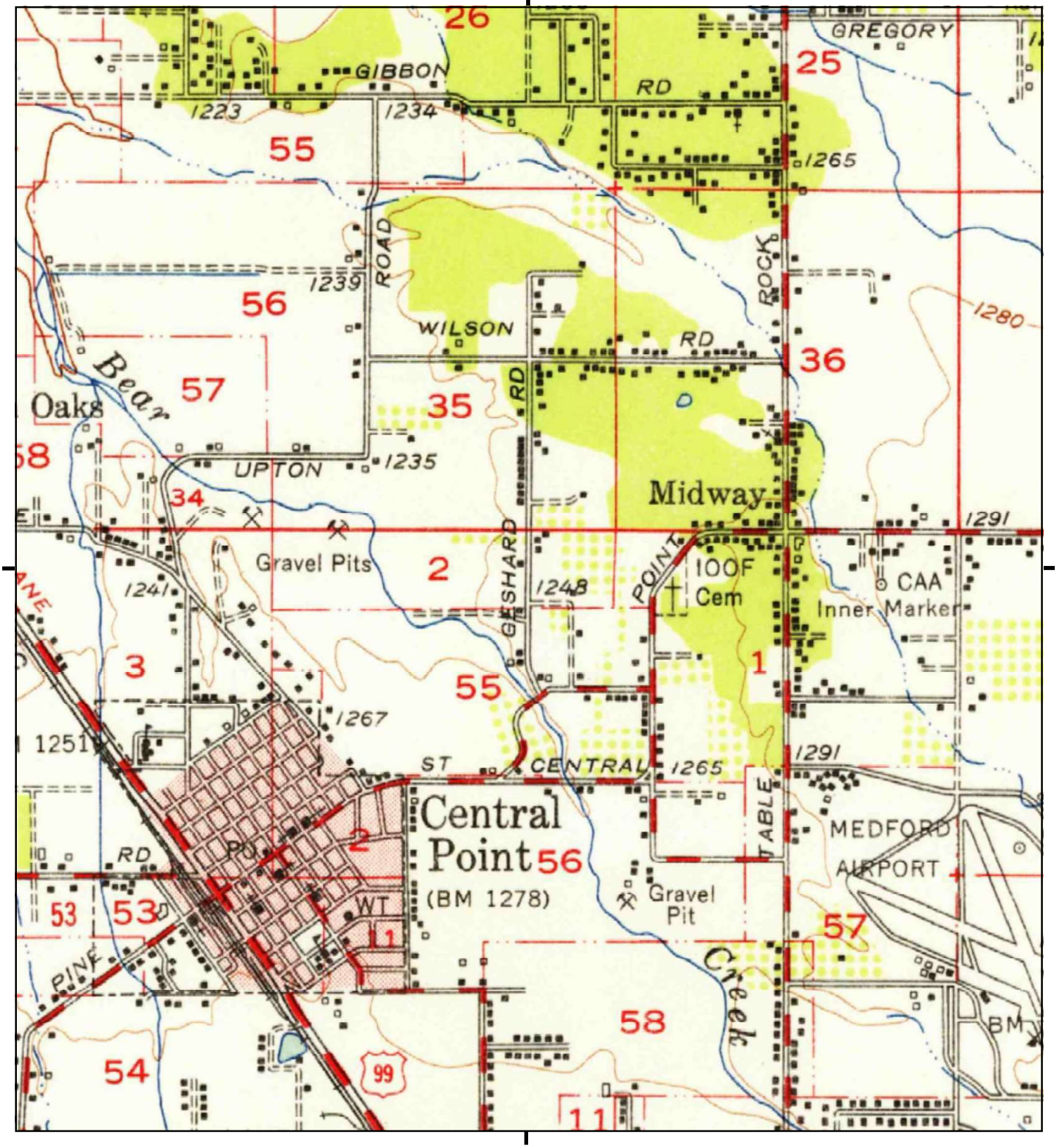
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Sams Valley, 1983, 7.5-minute
NE, Eagle Point, 1983, 7.5-minute
SE, Medford East, 1983, 7.5-minute
S, Medford West, 1983, 7.5-minute

SITE NAME: Gebhard Village
ADDRESS: 4920 Gebhard Road
Central Point, OR 97502
CLIENT: Cascadia Associates LLC

N



This report includes information from the following map sheet(s).

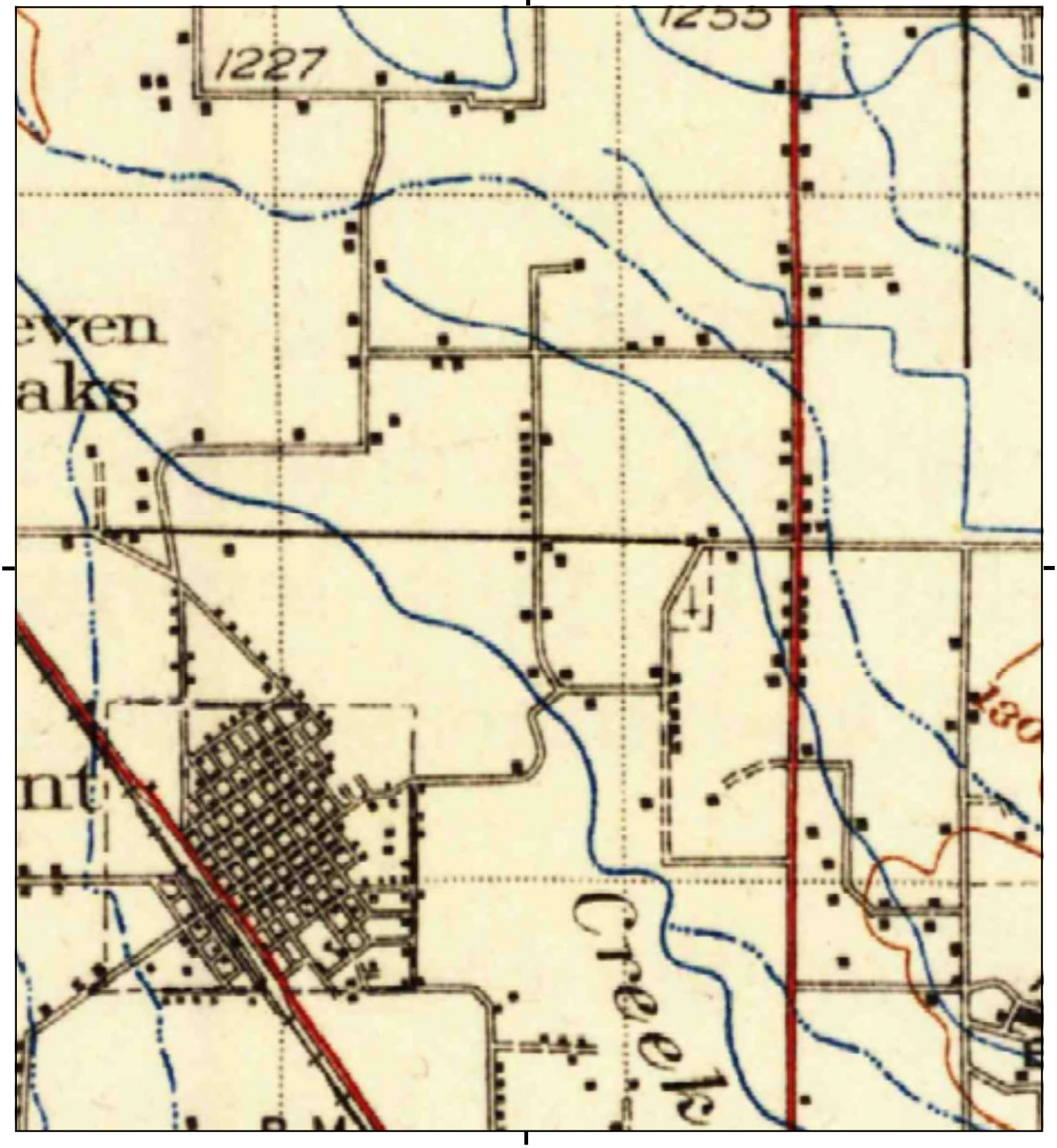
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Medford, 1954, 15-minute

SITE NAME: Gebhard Village
ADDRESS: 4920 Gebhard Road
Central Point, OR 97502
CLIENT: Cascadia Associates LLC

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Medford, 1938, 30-minute

SITE NAME: Gebhard Village
ADDRESS: 4920 Gebhard Road
Central Point, OR 97502
CLIENT: Cascadia Associates LLC

N

ATTACHMENT D

HISTORICAL CITY DIRECTORIES REPORT

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502

Inquiry Number: 5054391.5
September 21, 2017

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2013	☑	☑	Cole Information Services
2008	☑	☑	Cole Information Services
2003	☑	☑	Cole Information Services
1999	☑	☑	Cole Information Services
1995	☑	☑	Cole Information Services
1992	☑	☑	Cole Information Services
1988	☐	☐	Polk's City Directory
1983	☐	☐	Polk's City Directory
1978	☐	☐	Polk's City Directory
1973	☐	☐	Polk's City Directory
1968	☐	☐	Polk's City Directory
1964	☐	☐	Polk's City Directory

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FINDINGS

TARGET PROPERTY STREET

4920 Gebhard Road
Central Point, OR 97502

Year	*CD Image*	*Source*	
GEBHARD RD			
2013	pg A2	Cole Information Services	
2008	pg A4	Cole Information Services	
2003	pg A6	Cole Information Services	
1999	pg A8	Cole Information Services	
1995	pg A10	Cole Information Services	
1992	pg A12	Cole Information Services	
1988	-	Polk's City Directory	Street not listed in Source
1983	-	Polk's City Directory	Street not listed in Source
1978	-	Polk's City Directory	Street not listed in Source
1973	-	Polk's City Directory	Street not listed in Source
1968	-	Polk's City Directory	Street not listed in Source
1964	-	Polk's City Directory	Street not listed in Source

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
BEEBE RD			
2013	pg. A1	Cole Information Services	
2008	pg. A3	Cole Information Services	
2003	pg. A5	Cole Information Services	
1999	pg. A7	Cole Information Services	
1995	pg. A9	Cole Information Services	
1992	pg. A11	Cole Information Services	
1988	-	Polk's City Directory	Street not listed in Source
1983	-	Polk's City Directory	Street not listed in Source
1978	-	Polk's City Directory	Street not listed in Source
1973	-	Polk's City Directory	Street not listed in Source
1968	-	Polk's City Directory	Street not listed in Source
1964	-	Polk's City Directory	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
-	✓	Cole Information Services

BEEBE RD 2013

443	RITA TYNER
444	JAMES HURGER
445	OCCUPANT UNKNOWN
446	OCCUPANT UNKNOWN
456	OCCUPANT UNKNOWN
477	TAMMY PRICE
495	OCCUPANT UNKNOWN
507	KRISTEN CALLAHAN
511	ERNEST MINGUS
523	LL PICOLLO
587	OCCUPANT UNKNOWN
600	SHEPHERD OF THE VALLEY CATHOLIC CHUR
628	AUGUST PICOLLO
718	OCCUPANT UNKNOWN
2403	SARAH EILERTSON
2411	LLOYD INGRAM
2519	JAMES STEWART
2524	RAYMOND WILKERSON
2527	SEAN JEPSEN
2532	OCCUPANT UNKNOWN
2535	REBECCA CROFT
2543	RAYMOND BITTERLING
2610	ANTHONY MINGUS
2618	OCCUPANT UNKNOWN
2628	OCCUPANT UNKNOWN
2651	DUSTIN DALTON
2657	BLAKE IRONSIDE
2863	MICHAEL LALLO
2868	OCCUPANT UNKNOWN
2876	LOUIS BROWN
2882	GUTTRDONE

Target Street	Cross Street	Source
✓	-	Cole Information Services

GEBHARD RD 2013

4603	NANCY HACKWORTH
4605	JOHN HAWKINS
4609	OCCUPANT UNKNOWN
4613	SERGIO MEJIA
4617	DAVE WEBB
4757	RANDAL WALES
5055	OCCUPANT UNKNOWN
5095	KENNETH DUNCAN
5117	WADE DEBRICK
5123	SAMUEL INKLEY
5133	ELLEFSON ROGER
	HAZEL BROWN
5139	RICKIE NUNES
5161	KENNETH WARNER
5183	TOM THOMPSON
5203	DON HUBBARD
5218	ANNA HERRING
5223	MARY CAMPBELL
5243	OCCUPANT UNKNOWN
5263	DANNIE HOY
5275	ALFRED JONES
5278	CENTRAL ALTERNATIVE MEDICINE
	DAVID HIBBARD
5333	DAVID GRANT
5342	KEVIN CLABORN

Target Street	Cross Street	Source
-	✓	Cole Information Services

BEEBE RD 2008

443	RITA TYNER
444	ANTHONY KIRBY
445	FRANK BURKE
446	OCCUPANT UNKNOWN
456	OCCUPANT UNKNOWN
	PRECISION POWER WASH
495	OCCUPANT UNKNOWN
507	THOMAS BROWN
511	ERNEST MINGUS
523	LL PICOLLO
600	ROMAN CATHOLIC
628	ALLIED CONCRETE PRODUCTS INC
	OCCUPANT UNKNOWN
718	ALBERT MCMURRAY

Target Street	Cross Street	Source
✓	-	Cole Information Services

GEBHARD RD 2008

4603	WILLIAM JESCHKE
4605	JOHN HAWKINS
4609	BOBBY MILARD
4611	MARCELLA SUTTON
4613	OCCUPANT UNKNOWN
4617	DAVE WEBB
4757	RANDAL WALES
4820	ERICK HULL
4848	STEVE HIMMELMAN
4918	MARVIN TOBIASSON
4920	JOSHUA SIZEMORE
4922	RON MILLER
5055	LISA MORGAN
5095	JERRY DUNCAN
5117	WADE DEBRICK
	WADES REPAIR
5123	SAMUEL INKLEY
5133	ROGER ELLEFSON
5139	MERCEDES LONG
5161	KENNETH WARNER
5183	LOUIS THOMPSON
5203	DON HUBBARD
5218	ANNA HERRING
5223	MARY CAMPBELL
5243	COLBY CALLAHAN
5263	DANNIE HOY
	STREAMLINE DESIGN & DRAFTING
5275	A C JONES
	ALFRED JONES
5278	HEIDI JENSEN
5342	OCCUPANT UNKNOWN

Target Street	Cross Street	Source
-	✓	Cole Information Services

BEEBE RD 2003

445	KATHLEEN METCALF
446	OCCUPANT UNKNOWN
456	DAN WALTERS
477	MIKE FORD
495	JIM RAGER
507	OCCUPANT UNKNOWN
511	ERNEST MINGUS
523	BEEBE FARMS
600	OCCUPANT UNKNOWN
	SHPHRD OF THE VLY CTHLC CHRCH
628	AUGUST PICOLLO
718	ALBERT MCMURRAY
	SUSAN I MCMURRAY & MCMR DOW

Target Street	Cross Street	Source
✓	-	Cole Information Services

GEBHARD RD 2003

4603	STEVEN GOOGE
4605	OCCUPANT UNKNOWN
4609	MARCELLA SUTTON
4613	LISA CODER
4617	DAVE WEBB
4757	JEFF SCHMITZ
4920	OCCUPANT UNKNOWN
4922	AMBASSADOR JANITORIAL
	ROGER CASE
5055	SAMUEL INKLEY
5095	ROSALEE DUNCAN
5098	ANDREW COATS
5117	WADE DEBRICK
	WADES REPAIR
5123	SAMUEL INKLEY
5133	ROGER ELLEFSON
5139	MARVIN MASTEN
5161	KENNETH WARNER
5203	DONALD HUBBARD
5223	MARY CAMPBELL
5238	CHARLES JAKABOSKY
5243	BILL KROPP
5263	DANNIE HOY
5275	ALFRED SR
	JACKIE JONES
5333	ANNA ALTER
5342	MICHAEL JOHNSON

Target Street	Cross Street	Source
-	✓	Cole Information Services

BEEBE RD 1999

443	OCCUPANT UNKNOWN
445	K METCALF
	KEVIN PEARSON
446	EDWIN GEBHARD
456	DAN WALTERS
477	MIKE FORD
495	JIM RAGER
507	KAYCE BROWN
511	MARTY MINGUS
523	KENNETH BEEBE
600	CATHOLIC CHURCH SHEPHERD OF THE VALLEY
628	AUGUST PICOLLO

Target Street	Cross Street	Source
✓	-	Cole Information Services

GEBHARD RD 1999

4605	AUDREY MAY
4609	OCCUPANT UNKNOWN
4611	OCCUPANT UNKNOWN
4617	DAVE WEBB
4757	SUSAN BRINKLEY
4920	ROXANNE ATTEBERRY
4922	ROGER CASE
5055	ADRIENE MELLECKER
	GRANT JOLLIFFE
	SAM INKLEY
5095	GARY COMBS
5098	OCCUPANT UNKNOWN
5117	WADE DEBRICK
5123	SAMUEL INKLEY
5183	CHESTER THOMPSON
5203	DON HUBBARD
5218	AL HERRING
5223	MARY CAMPBELL
5238	GERALD JAKABOSKY
5243	BILL KROPP
5263	DANNIE HOY
5275	ALFRED JONES
5278	LEON CALLAHAN
	LEONS CUSTOM FARM BUTCHERING
5333	OCCUPANT UNKNOWN
5342	MIKE JOHNSON

Target Street	Cross Street	Source
-	✓	Cole Information Services

BEEBE RD 1995

444 OCCUPANT UNKNOWNN
445 OCCUPANT UNKNOWNN
446 GEBHARD, HELEN M
456 OCCUPANT UNKNOWNN
477 FORD, MIKE B
495 RAGER, JIM H
511 MINGUS, MARTY
523 BEEBE, KENNETH R
600 MCGARVEY, VINCENT
SHEPHERD OF THE VALLEY
628 PICOLLO, AUGUST J

Target Street	Cross Street	Source
✓	-	Cole Information Services

GEBHARD RD 1995

4603	OCCUPANT UNKNOWNN
4605	COSTELLO, JOHN
4611	OCCUPANT UNKNOWNN
4613	OCCUPANT UNKNOWNN
4617	WEBB, DAVE
4757	THORNE, CHARLES D
4920	ATTEBERRY, ROXANNE
5055	BLANCHARD, HARLEY
5095	SCHAFER, DAN
5098	MAY, GERALD
5117	DEBRICK, WADE
5123	INKLEY, SAMUEL C
5139	ELLSWORTH, KEVIN
5161	OCCUPANT UNKNOWNN
5203	HUBBARD, DON A
5223	OCCUPANT UNKNOWNN
5238	JAKABOSKY, GERALD L
5243	MCCORD, WILLIAM A
5263	HOY, DANNIE
5275	JOHNSON, CHARLES
5278	CALLAHAN, LEON
	LEONS CUSTOM FARM BUTCHERING
5333	OCCUPANT UNKNOWNN
5342	JOHNSON, MIKE

Target Street	Cross Street	Source
-	✓	Cole Information Services

BEEBE RD 1992

445	PIERCE, RON
446	GEBHARD, EDWIN W
456	WALTERS, DAN
477	FORD, MIKE B
495	RAGER, JIM H
511	MINGUS, MARTY
523	BEEBE, KENNETH R
600	CATH CH SHPHRD VLY
	SHPHRD OF VLY CATH
718	DOW, FERN
	NIXON, M

Target Street	Cross Street	Source
✓	-	Cole Information Services

GEBHARD RD 1992

4605	YOUNG, JOHN W
4611	FADDIS, L
4617	WEBB, DAVE
5055	BLANCHARD, HARLEY
5095	SCHAFER, DAN
5098	GEBHARD, F H
5117	DEBRICK, WADE
5123	INKLEY, SAMUEL C
5133	MEANS, SYDNEY J
	TERRY, DOVEY A
5139	ELLSWORTH, KEVIN
5203	HUBBARD, DON A
5238	JAKABOSKY, GERALD L
5243	MCCORD, WILLIAM A
5263	HOY, DANNIE
5275	JOHNSON, CHARLES
5278	CALLAHAN, LEON
	LEONS CSTM FARM BC
5342	JOHNSON, MIKE

ATTACHMENT E

SAMPLING AND ANALYSIS PLAN

1. PURPOSE AND SCOPE

This Standard Operating Procedure (SOP) describes the methods for observing and sampling from push-probes (i.e., GeoProbe™, AMS PowerProbe™, or similar). Subsurface soil cores may be obtained using this system for purposes of determining subsurface soil conditions and for obtaining soil samples for physical and/or chemical evaluation. Grab groundwater samples may be collected using temporary well screens. Soil vapor samples may be obtained using temporary well points. Shallow (less than 50 feet), small-diameter (2-inch max) pre-packed wells may also be installed using push-probe equipment. This procedure is applicable during all Cascadia Associates, LLC (Cascadia) push-probe activities.

2. EQUIPMENT AND MATERIALS

The following materials are necessary for this procedure:

- Traffic cones, tools, keys, and buckets/drums
- Water quality meter with calibration solutions (record daily calibration/calibration check in field notes)
- Sampling equipment (water level probe, pumps, tubing) and laboratory-supplied sample containers
- Field documentation materials
- Decontamination materials
- Personal protective equipment (as required by project Health and Safety Plan)

3. METHODOLOGY

Coring Procedure (Conducted by Drilling Subcontractor):

The sampling procedure includes driving a 2-inch outside-diameter, 5-foot-long, push-probe soil sampler to the desired depth using a combination of hydraulic pressure and mechanical hammer blows. When the sampling depth is reached, the pin attaching the sampler's tip is released (if a tip is used), which allows the tip to slide inside the sampler (Macro-Core Sampler with removable plastic liner). The sampler is driven the length of the sampler to collect a soil core, which is then withdrawn from the exploration. When the sampler is retrieved from the borehole the drive head/cutting shoe is detached and the liner is removed and the liner is cut open to expose the recovered soil core. Soil cores are collected continuously to the full depth of the exploration unless otherwise specified in a project-specific sampling and analysis plan (SAP). Verify that the subcontractor decontaminates the sampling device prior to its initial use and following collection of each soil sample.

Logging and Soil Sample Collection:

Remove the soil core from the sampler for field screening, description, and placement into sample jars. Soil samples will be collected for field screening and possible chemical analysis on two foot intervals unless otherwise specified in a project-specific SAP. The sampling interval will be determined in the field based on recovery, soil variability, and evidence of contamination.

Complete field screening as specified in the applicable SOP. Soil samples should be collected using different procedures for volatile on non-volatile analyses, as follows.

- Volatile Analyses. Sampling for volatile organics analysis (VOA) is different than other routine physical or chemical testing because of the potential loss of volatiles during sampling. To limit volatile loss, the soil sample must be obtained as quickly and as directly as possible. If a VOA sample is to collected as part of a multiple analyte sample, the VOA sample portion will be obtained first. The VOA sample should be obtained from a discrete portion of the entire collected sample and should not be composited or homogenized. Sample bottles should be filled to capacity, with no headspace.
- Other Analyses. Soil samples for non-volatile analyses will be thoroughly homogenized in a stainless-steel bowl prior to bottling. Sample homogenizing is accomplished by manually mixing the entire soil sample in the stainless-steel bowl with a clean sampling tool until a uniform mixture is achieved. The sample jar should be filled completely.

Grab Groundwater Sample Collection:

Collect grab groundwater samples using a sampling attachment with a 4 to 5-foot-long temporary screen (specify to drillers whether to use decontaminated stainless steel or disposable PVC. Also, specify whether a filter pack is necessary based on field observations). Obtain samples using a peristaltic pump unless otherwise specified in the SAP with new tubing for each boring. Record field parameters (e.g., temperature, conductivity, and pH) prior to sampling.

Backfilling the Excavation (Conducted by Drilling Subcontractor):

After sampling activities are completed, abandon each exploration in accordance with Oregon Water Resources Department (OWRD) regulations and procedures (or other regulatory authority if work is completed outside of the State of Oregon. The abandonment procedure typically consists of filling the exploration with granular bentonite and hydrating the bentonite with water. Match the surface completion to the surrounding materials.

1. PURPOSE AND SCOPE

This Standard Operating Procedure (SOP) provides instructions for standard field screening. Field screening results are used to aid in the selection of soil samples for chemical analysis. This procedure is applicable during all Cascadia Associates, LLC (Cascadia) soil sampling operations.

Standard field screening techniques include the use of a photoionization detector (PID) to assess for volatile organic compounds (VOCs) and for the presence of separate-phase petroleum hydrocarbons using a sheen test. These methods will not detect all potential contaminants, so selection of screening techniques shall be based on an understanding of the site history. The PID is not compound or concentration-specific, but it can provide a qualitative indication of the presence of VOCs. PID measurements are affected by other field parameters such as temperature and soil moisture. Other field screening methods, such as screening for dense non-aqueous phase liquid (DNAPL) using dye or UV light, are not considered "standard" and will be detailed in the site-specific sampling and analysis plan (SAP).

2. EQUIPMENT AND MATERIALS

The following materials are necessary for this procedure:

- PID with calibration gas (record daily calibration/calibration check in field notes);
- Plastic resealable bags (for PID measurement); and
- Glass jars or stainless steel bowls (for sheen testing).

3. METHODOLOGY

Each soil sample will be field screened for VOCs using a PID and for the presence of separate-phase petroleum hydrocarbons using a sheen test.

PID lamps come in multiple sizes, typically 9.8, 10.6, and 11.7 electron volts (eV). The eV rating for the lamp must be greater than the ionization potential (in eV) of a compound for the PID to detect the compound. For petroleum hydrocarbons, a lamp of at least 9.8 eV should be used. For typical chlorinated alkenes (dichloroethene, trichloroethene, tetrachloroethene, or vinyl chloride), a lamp of at least 10.6 eV should be used. The compatibility of the lamp size with the site constituents should be verified prior to the field event and will be detailed in the site-specific SAP.

PID Calibration Procedure: The PID used on-site should be calibrated daily or more frequently if needed. Calibration of the PID should be documented in field notes. Calibrations procedures should be conducted per the manufacturer's instructions.

PID Screening Procedure:

- Place a representative portion (approximately one ounce) of freshly exposed, uncompacted soil into a clean resealable plastic bag.
- Seal the bag and break up the soil to expose vapors from the soil matrix.
- Allow the bag to sit to reach ambient temperature. Note: Ambient temperature and

weather conditions/humidity should be recorded in field notes. Changes in ambient temperature and weather during the field work should also be recorded, as temperature and humidity can affect PID readings.

- Carefully insert the intake port of the PID into the plastic bag.
- Record the PID measurement in the field notes or boring logs.

Sheen Test Procedure:

- Following the PID screen, place approximately one ounce of freshly exposed, uncompacted soil into a clean glass jar or stainless steel bowl.
- Add enough water to cover the sample.
- Observe the water surface for signs of discoloration/sheen and characterize based on the descriptions below.

No Sheen (NS)	No visible sheen on the water surface
Biogenic Film (BF)	Dull, platy/blocky or foamy film.
Slight Sheen (SS)	Light sheen with irregular spread, not rapid. May have small spots of color/iridescence. Majority of water surface not covered by sheen.
Moderate Sheen (MS)	Medium to heavy coverage, some color/iridescence, spread is irregular to flowing. Sheen covering a large portion of water surface.
Heavy Sheen (HS)	Heavy sheen coverage with color/iridescence, spread is rapid, entire water surface covered with sheen. Separate-phase hydrocarbons may be evident during sheen test.

1. PURPOSE AND SCOPE

This Standard Operating Procedure (SOP) describes the methods for documenting environmental field activities. The purpose of establishing SOPs for field notes and documentation is to establish a consistent method and format for the use and control of documentation generated during daily field activities. Field notes and records are intended to provide sufficient information that can be used to recreate the field activities, as well as, the collection of environmental data. Information placed in these documents and/or records shall be factual, detailed and objective.

2. EQUIPMENT AND MATERIALS

The following materials are necessary for this procedure:

- Bound field books;
- Black waterproof and/or indelible ink pens; and
- Field forms.

3. METHODOLOGY

This SOP primarily includes the documentation procedures for the field logbooks. However, procedures discussed in this SOP are applicable to all other types of field documentation collected, and should be universal in application. Details of other field records and forms (e.g. boring logs, sample labels, chain of custody records, and waste containment labels are discussed in the specific SOP associated with that field activity (e.g. borehole drilling, sample handling, investigative derived waste), and not covered in detail in this SOP.

Field Logbooks:

Field personnel will keep accurate written records of their daily activities in a bound logbook that will be sufficient to recreate the project field activities without reliance on memory. This information will be recorded in chronological order. All entries will be legible, written in black waterproof or indelible ink, and contain accurate and inclusive documentation of field activities, including field data observations, deviations from project plans, problems encountered, and actions taken to solve the problem. Each page of the field logbook will be consecutively numbered, signed and dated by the field author(s). Pages should not be removed for any reason.

There should be no blank lines on a page. A single blank line or a partial blank line (such as at the end of a paragraph) should be lined to the end of the page. If only part of a page is used, the remainder of the page should have an "X" drawn across it.

In addition to documenting field activities, field logbooks will include the following:

- Date and time of activities,
- Site location,
- Purpose of site visit,
- Site and weather conditions,

- Personnel present, including sampling crew, facility/site personnel and representatives (including site arrival and departure times),
- Subcontractors present,
- Regulatory agencies and their representatives (including phone numbers, site arrival and departure times),
- Level of health and safety protection,
- Sampling methodology and information,
- Sample locations (sketches are helpful),
- Source of sample(s), sample identifications, sample container types and preservatives used, and lot numbers for bottles and preservatives (if applicable and if not recorded on other forms or in a sample control logbook),
- A chronological description of the field observations and events,
- Specific considerations associated with sample acquisition (e.g., field parameter measurements, field screening data, HASP monitoring data, etc.) (if not recorded on another form),
- Wastes generated, containment units (including volumes, matrix, etc), and storage location (if not recorded on another form),
- Field quality assurance/quality control samples collection, preparation, and origin (if not recorded on other forms or in a sample control logbook),
- The manufacturer, model and serial number of field instruments (e.g., PID, water quality, etc.) shall be recorded, if not using a calibration form. Also, source lot # and expiration date of standard shall be recorded if calibrated in the field.
- Well construction materials, water source(s), and other materials used on-site (if not recorded on another form).
- Sample conditions that could potentially affect the sample results,
- If deviating from plan, clearly state the reason(s) for deviation,
- Persons contacted and topics discussed,
- Documentation of exclusion zone set-up and location,
- Documentation of decontamination procedures, and
- Daily Summary.

Field situations vary widely. No general rules can specify the extent of information that must be entered in a logbook. However, records should contain sufficient information so that someone can reconstruct the field activity without relying on the collector's memory. Language used shall be objective, factual, and free of personal opinions. Hypothesis for observed phenomena may be

recorded, however, they must be clearly indicated as such and only relate to the subject observation.

Logbooks will be assigned to a specific sampling team. If it is necessary to transfer the log book to alternative team member during field work, the person relinquishing the log book will sign and date the log book at the time of transfer.

Field logbooks should consist of a bound book, in which the insertion or removal of pages will be visibly noticeable after the logbook has been assembled. Logbooks can be prepared by gluing or laminating pages together either at the left side or top of the page. If inclement weather is expected, logbooks may have plastic laminated front and back covers to protect the interior pages, and should not be broken apart for coping. Loose-leaf binding, such as comb binding is not considered hard binding. To maintain the integrity of the logbook, pages should be consecutively numbered prior to use. Logbook pages can be of any format, and may include blank pages for recording or field forms that are used for specific tasks. As an alternative, commercially bound and consecutive page numbered field logbooks may also be used.

Additional Field Forms/Records:

Additional field records may be required for each specific field event. The use of these records and examples are described in other SOPs specific for the activity (e.g. Borehole Logging SOP, Groundwater Sampling and Purging SOP, etc.). These other records may include:

- Borehole Logs during drilling,
- Well Construction and Development records,
- Groundwater Purge and Sample Collection Records,
- Water Level Monitoring,
- Investigation Derived Waste (IDW) Tracking Records,
- Instrument Calibration Records, and
- Health and Safety Monitoring Records and sign-off sheets.

Prior to field activities, the field sampling personnel will coordinate with the Project Manager, or designee, to determine which additional records will be required for the specific field task. These additional records will be maintained in a field file or a three-ring notebook throughout the duration of the field activities, or included in a specially prepared site-specific notebook. If the field notebook is being created, the forms may be part of the laminated book.

Corrections:

If an error is made in the field, logbook corrections will be made by drawing a single line through the error, entering the correct information, and initialing and dating the change. Materials that obliterate the original information, such as correction fluids and/or mark-out tapes, are prohibited. All corrections will be initialed and dated. Some projects require that a brief reason for the change must also be added where the correction was made. Ask the Project Manager, if this requirement is necessary.

Documentation Reviews:

Periodically, the Project Manager, or designee, will review the field logbooks pertaining to the activities under their supervision. The elements of this review will include technical content, consistency, and compliance with the project plans and SOPs. Discrepancies and errors identified during the review should be resolved between reviewer and author of the field documentation. Corrections and/or additions of information shall be initialed and dated by the field author or reviewer.

APPENDIX B

EXPLORATION LOGS

Cascadia Associates, LLC	PROJECT: **Phase II ESA**	BORING ID: **DW GW**	
	LOCATION: **4920 Gebhard Road, Central Point, OR**	WELL ID: **NA**	
	DRILLING CONTRACTOR: **Pacific Soil and Water**	NORTHING:	EASTING:
	DRILLING EQUIPMENT: **Geoprobe 6600**	SURFACE ELEV. (NAVD88): **Not measured**	TOC ELEVATION: **NA**
	DRILLING METHOD: **Direct-push**	TOTAL DEPTH: **16**	DEPTH TO WATER: **8**
LOGGED BY: **JM**	SAMPLING METHOD: **2.25-Inch Single Tube Sampler**	DATE STARTED: **3/1/18**	DATE COMPLETED: **3/1/18**

Elev. (feet)	USCS	Graphic Log	Description	Driven/Rec. (ft.)	Headspace Vapor (ppm)	Sample	Well Construction	Water Level
0			Light brown clay with trace silt, dark brown, stiff, slightly moist		<5			
2	CL			4.0/4.0	<5			
4					<5			
6			Increasing silt content	4.0/4.0	<5			
8	CL				<5			
10			Becomes wet with trace coarse gravel present	4.0/4.0	<5			
12					<5			
14	CL			4.0/4.0	<5			
16					<5			

Well Construction
- 3/4-in Casing
- Screen
- Filter Sand
- End Cap

DW GW

NOTES: A grab groundwater sample (DW GW) was collected from a temporary monitoring well. The monitoring well was removed after sample collection.

Cascadia Associates, LLC	PROJECT: **Phase II ESA**	BORING ID: **SS-30 GW**	
	LOCATION: **4920 Gebhard Road, Central Point, OR**	WELL ID: **NA**	
	DRILLING CONTRACTOR: **Pacific Soil and Water**	NORTHING:	EASTING:
	DRILLING EQUIPMENT: **Geoprobe 6600**	SURFACE ELEV. (NAVD88): **Not measured**	TOC ELEVATION: **NA**
	DRILLING METHOD: **Direct-push**	TOTAL DEPTH: **16**	DEPTH TO WATER: **12**
LOGGED BY: **JM**	SAMPLING METHOD: **2.25-Inch Single Tube Sampler**	DATE STARTED: **3/1/18**	DATE COMPLETED: **3/1/18**

Elev. (feet)	USCS	Graphic Log	Description	Driven/Rec. (ft.)	Headspace Vapor (ppm)	Sample	Well Construction	Water Level
0	CL		Light brown clay with silt, medium stiff, moist	4.0/4.0	<5	SS-30 (1-1.5)	Well Construction: 3/4-in Casing, Screen, Filter Sand, End Cap	
2					<5	SS-30 (2 -2.5)		
4				4.0/4.0	<5			
6					<5			
8					<5			
10				4.0/4.0	<5			
12	CL		Becomes wet		<5			
14				4.0/4.0	<5			
16					<5	SS-30 GW		

NOTES: A grab groundwater sample (SS-30 GW) was collected from a temporary monitoring well. The monitoring well was removed after sample collection.

Cascadia Associates, LLC	PROJECT: **Phase II ESA**	BORING ID: **SS-5 GW**	
	LOCATION: **4920 Gebhard Road, Central Point, OR**	WELL ID: **NA**	
	DRILLING CONTRACTOR: **Pacific Soil and Water**	NORTHING:	EASTING:
	DRILLING EQUIPMENT: **Geoprobe 6600**	SURFACE ELEV. (NAVD88): **Not measured**	TOC ELEVATION: **NA**
	DRILLING METHOD: **Direct-push**	TOTAL DEPTH: **16**	DEPTH TO WATER: **8.5**
LOGGED BY: **JM**	SAMPLING METHOD: **2.25-Inch Single Tube Sampler**	DATE STARTED: **3/1/18**	DATE COMPLETED: **3/1/18**

Elev. (feet)	USCS	Description	Driven/Rec. (ft.)	Headspace Vapor (ppm)	Sample
0	CL	Clay, dark brown, medium stiff, slightly moist	4.0/4.0	<5	SS-5 (1-1.5)
2				<5	SS-5 (2 - 2.5)
4			4.0/4.0	<5	
6				<5	
8	CL	Trace gravel present		<5	
10	GW	Gravel, light gray to light brown, angular to rounded, loose, wet	4.0/4.0	<5	
12				<5	
14			0.0/4.0	<5	SS-5 GW
16				<5	

Well Construction: 3/4-in Casing, Screen, Filter Sand, End Cap

Water Level

NOTES: A grab groundwater sample (SS-5) was collected from a temporary monitoring well. The monitoring well was removed after sample collection.

APPENDIX C

LABORATORY REPORTS AND

DATA QUALITY REVIEW

LABORATORY DATA QUALITY ASSURANCE REVIEW

This appendix presents a quality assurance review of laboratory analytical data collected for this project. Soil and groundwater analyses were performed by ESC Lab Sciences of Mt. Juliet, Tennessee, under sample delivery groups L975975, L975143, and L891794.

Quality assurance/quality control (QA/QC) is discussed below.

- Samples were received by the analytical laboratory in good condition and in the appropriate, laboratory-supplied sample containers.
- Samples were received by the laboratory within the recommended temperature range.
- The samples were analyzed within their respective method holding times.

The following describes the results of the data quality review and any qualifiers that were added to the data by the laboratory or Cascadia as a result of the data quality review.

- Several data values in both laboratory reports were reported as estimates, because the detected concentration is below the lowest point of the calibration curve, but above the specified laboratory method detection limit (MDL). As a result, the affected data are flagged with the J qualifier in the laboratory report and data tables and should be treated as estimates.
- In laboratory report L961534, nitrate and naphthalene were detected in the laboratory method blank (MB) water samples for batches WG1062016 and WG1060573. For this reason, groundwater analytical results for nitrate associated with batch WG1062016 were flagged with the B qualifier.
- The matrix spike duplicate (MSD) recovery and matrix spike (MS)/MSD recovery relative percent difference (RPD) for hexachlorobenzene for a sample associated with batch WG1060458 for report L961534 were outside of quality control limits and were flagged in the report with the J3 qualifier. The associated laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries were within quality control limits. The affected sample is not associated with this project, and no data were qualified as a result.
- The MSD recovery and MS/MSD recovery RPD for acetone and acrolein for a sample associated with batch WG1080087 for report L974248 were outside of quality control limits and were flagged in the report with the J3 or J4 qualifier. The associated LCS and LCSD recoveries were within quality control limits. The affected sample is not associated with this project, and no data were qualified as a result.
- The MSD recovery and MS/MSD recovery RPD for anthracene and acenaphthylene for a sample associated with batch WG1080437 for report L974248 were outside of quality control limits and were flagged in the report with the J4 qualifier. The associated LCS and LCSD recoveries were within quality control limits. The affected sample is not associated with this project, and no data were qualified as a result.

Cascadia reviewed the laboratory narratives, data, and quality control data and determined that the data are of sufficient quality for evaluating soil and groundwater conditions at the site.

ANALYTICAL REPORT

January 15, 2018

Cascadia Associates- Portland, OR

Sample Delivery Group:	L961534
Samples Received:	01/06/2018
Project Number:	0063-001-001
Description:	Gephard Village Soil Sampling

Report To:

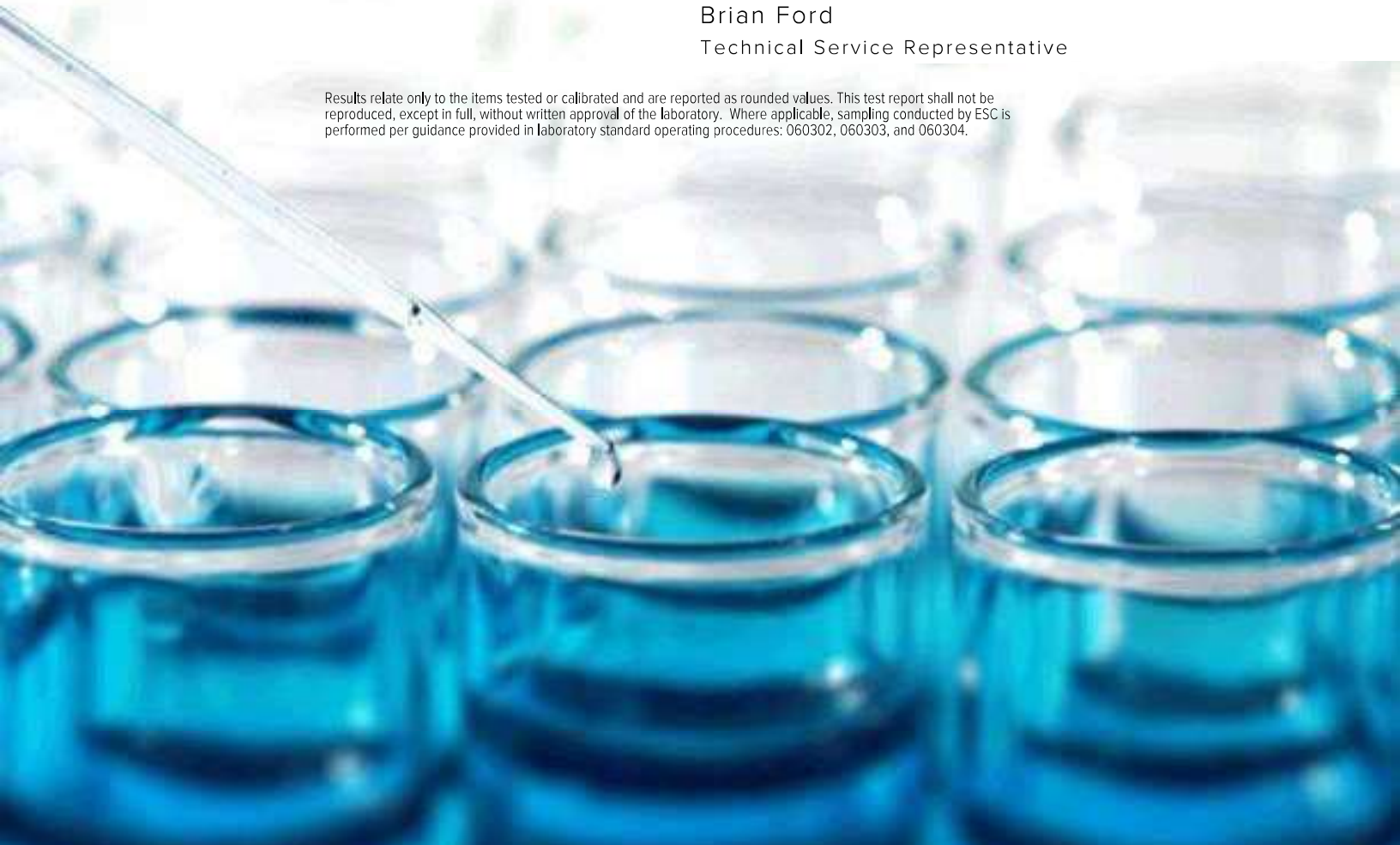
Joel Mattecheck
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



Cp: Cover Page 1
Tc: Table of Contents 2
Ss: Sample Summary 4
Cn: Case Narrative 9
Sr: Sample Results 10
SS-1 L961534-01 10
SS-2 L961534-02 11
SS-3 L961534-03 12
SS-6 L961534-04 13
SS-5 L961534-05 14
SS-4 L961534-06 15
SS-7 L961534-07 16
SS-8 L961534-08 17
SS-9 L961534-09 18
SS-12 L961534-10 19
STOCKPILE 1 L961534-11 20
SS-13 L961534-12 22
SS-14 L961534-13 23
SS-15 L961534-14 24
SS-18 L961534-15 25
SS-17 L961534-16 26
SS-16 L961534-17 27
SS-10 L961534-18 28
SS-11 L961534-19 29
SS-19 L961534-20 30
SS-20 L961534-21 31
STOCKPILE 2 L961534-22 32
SS-21 L961534-23 34
SS-24 L961534-24 35
SS-23 L961534-25 36
SS-22 L961534-26 37
SS-27 L961534-27 38
SS-26 L961534-28 39
SS-25 L961534-29 40
SS-28 L961534-30 41
SS-29 L961534-31 42
SS-30 L961534-32 43
STOCKPILE 3 L961534-33 44
Qc: Quality Control Summary 46
Total Solids by Method 2540 G-2011 46

Wet Chemistry by Method 9056A 56
Metals (ICP) by Method 6010B 58
Pesticides (GC) by Method 8081 60
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM 62
GI: Glossary of Terms 64
AI: Accreditations & Locations 65
Sc: Sample Chain of Custody 66

SS-1 L961534-01 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 10:30 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060864	1	01/09/18 11:06	01/09/18 11:17	JD
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:32	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 15:51	VKS

SS-2 L961534-02 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 10:45 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060779	1	01/09/18 12:42	01/09/18 12:53	KDW
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 17:23	DR
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:35	TRB

SS-3 L961534-03 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:00 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060784	1	01/10/18 11:03	01/10/18 11:05	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:45	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 16:05	VKS

SS-6 L961534-04 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:05 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060779	1	01/09/18 12:42	01/09/18 12:53	KDW
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 17:36	DR
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:48	TRB

SS-5 L961534-05 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:15 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060779	1	01/09/18 12:42	01/09/18 12:53	KDW
Wet Chemistry by Method 9056A	WG1062016	1	01/11/18 17:47	01/11/18 21:13	MAJ
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:51	TRB

SS-4 L961534-06 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:20 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060779	1	01/09/18 12:42	01/09/18 12:53	KDW
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 18:43	DR
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:55	TRB

SS-7 L961534-07 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:30 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060784	1	01/10/18 11:03	01/10/18 11:05	KDW
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 19:24	DR
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:58	TRB

SS-8 L961534-08 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:50 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060776	1	01/09/18 12:55	01/09/18 13:07	KDW
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 19:37	DR
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:01	TRB

SS-9 L961534-09 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:57 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060776	1	01/09/18 12:55	01/09/18 13:07	KDW
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 19:50	DR
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:16	TRB

SS-12 L961534-10 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 12:05 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060784	1	01/10/18 11:03	01/10/18 11:05	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:05	TRB

STOCKPILE 1 L961534-11 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 16:20 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060784	1	01/10/18 11:03	01/10/18 11:05	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:08	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 16:19	VKS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1060573	1	01/08/18 12:44	01/13/18 14:37	KM

SS-13 L961534-12 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 12:30 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060779	1	01/09/18 12:42	01/09/18 12:53	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:11	TRB

SS-14 L961534-13 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 12:40 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060785	1	01/09/18 11:55	01/09/18 12:06	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:15	TRB

SS-15 L961534-14 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 13:00 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060864	1	01/09/18 11:06	01/09/18 11:17	JD
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:25	TRB

SS-18 L961534-15 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 13:06 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060789	1	01/09/18 06:32	01/09/18 06:38	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:28	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 16:34	VKS

SS-17 L961534-16 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 13:30 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060789	1	01/09/18 06:32	01/09/18 06:38	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:31	TRB

SS-16 L961534-17 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 13:35 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060783	1	01/09/18 12:27	01/09/18 12:40	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:35	TRB

SS-10 L961534-18 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 13:45 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060954	1	01/10/18 11:10	01/10/18 11:22	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:38	TRB

SS-11 L961534-19 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 13:55 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1059974	1	01/09/18 14:06	01/09/18 14:22	JD
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:41	TRB

SS-19 L961534-20 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 14:10 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060789	1	01/09/18 06:32	01/09/18 06:38	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:45	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 16:48	VKS

SS-20 L961534-21 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 14:30 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060784	1	01/10/18 11:03	01/10/18 11:05	KDW
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:20	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 17:02	VKS

STOCKPILE 2 L961534-22 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 16:30 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060784	1	01/10/18 11:03	01/10/18 11:05	KDW
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:23	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 17:17	VKS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1060573	1	01/08/18 12:44	01/10/18 17:33	DMG

SS-21 L961534-23 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 14:34 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:33	TRB

SS-24 L961534-24 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 14:45 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:36	TRB

SS-23 L961534-25 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 14:55 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:03	TRB

SS-22 L961534-26 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 15:00 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060776	1	01/09/18 12:55	01/09/18 13:07	KDW
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:39	TRB

SS-27 L961534-27 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 15:05 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:43	TRB

SS-26 L961534-28 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 15:10 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:46	TRB

SS-25 L961534-29 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 15:15 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060783	1	01/09/18 12:27	01/09/18 12:40	KDW
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:49	TRB

SS-28 L961534-30 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 15:25 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060785	1	01/09/18 11:55	01/09/18 12:06	KDW
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:53	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 17:31	VKS

SS-29 L961534-31 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 15:40 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 20:04	DR
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:56	TRB

SS-30 L961534-32 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 16:00 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:59	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 14:53	VKS

STOCKPILE 3 L961534-33 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 16:40 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060785	1	01/09/18 11:55	01/09/18 12:06	KDW
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 01:02	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 17:46	VKS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1060573	1	01/08/18 12:44	01/10/18 17:55	DMG

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford

Brian Ford
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	71.7		1	01/09/2018 11:17	WG1060864

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	23.0		0.906	2.79	1	01/09/2018 01:32	WG1060286
Cadmium	0.153	J	0.0976	0.697	1	01/09/2018 01:32	WG1060286
Copper	62.9		0.739	2.79	1	01/09/2018 01:32	WG1060286
Lead	82.8		0.265	0.697	1	01/09/2018 01:32	WG1060286
Zinc	74.2		0.822	6.97	1	01/09/2018 01:32	WG1060286

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00188	0.0279	1	01/08/2018 15:51	WG1060458
Alpha BHC	U	J3	0.00190	0.0279	1	01/08/2018 15:51	WG1060458
Beta BHC	U		0.00223	0.0279	1	01/08/2018 15:51	WG1060458
Delta BHC	U		0.00199	0.0279	1	01/08/2018 15:51	WG1060458
Gamma BHC	U	J3	0.00202	0.0279	1	01/08/2018 15:51	WG1060458
Chlordane	U		0.0544	0.279	1	01/08/2018 15:51	WG1060458
4,4-DDD	U		0.00217	0.0279	1	01/08/2018 15:51	WG1060458
4,4-DDE	U		0.00215	0.0279	1	01/08/2018 15:51	WG1060458
4,4-DDT	U		0.00279	0.0279	1	01/08/2018 15:51	WG1060458
Dieldrin	U		0.00212	0.0279	1	01/08/2018 15:51	WG1060458
Endosulfan I	U		0.00208	0.0279	1	01/08/2018 15:51	WG1060458
Endosulfan II	U		0.00223	0.0279	1	01/08/2018 15:51	WG1060458
Endosulfan sulfate	U		0.00210	0.0279	1	01/08/2018 15:51	WG1060458
Endrin	U		0.00219	0.0279	1	01/08/2018 15:51	WG1060458
Endrin aldehyde	U		0.00180	0.0279	1	01/08/2018 15:51	WG1060458
Endrin ketone	U		0.00230	0.0279	1	01/08/2018 15:51	WG1060458
Hexachlorobenzene	U	J3	0.00173	0.0279	1	01/08/2018 15:51	WG1060458
Heptachlor	U		0.00215	0.0279	1	01/08/2018 15:51	WG1060458
Heptachlor epoxide	U		0.00224	0.0279	1	01/08/2018 15:51	WG1060458
Methoxychlor	U		0.00248	0.0279	1	01/08/2018 15:51	WG1060458
Toxaphene	U		0.0502	0.557	1	01/08/2018 15:51	WG1060458
(S) Decachlorobiphenyl	*74.4*			*10.0-148*		*01/08/2018 15:51*	WG1060458
(S) Tetrachloro-m-xylene	*82.9*			*21.0-146*		*01/08/2018 15:51*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.1		1	01/09/2018 12:53	WG1060779

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	26.4		0.0145	1.25	1	01/09/2018 17:23	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	5.43		0.811	2.50	1	01/09/2018 01:35	WG1060286
Cadmium	0.124	J	0.0873	0.624	1	01/09/2018 01:35	WG1060286
Copper	36.6		0.661	2.50	1	01/09/2018 01:35	WG1060286
Lead	3.45		0.237	0.624	1	01/09/2018 01:35	WG1060286
Zinc	72.5		0.736	6.24	1	01/09/2018 01:35	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	88.1		1	01/10/2018 11:05	WG1060784

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	4.70		0.738	2.27	1	01/09/2018 01:45	WG1060286
Cadmium	0.122	J	0.0795	0.568	1	01/09/2018 01:45	WG1060286
Copper	26.3		0.602	2.27	1	01/09/2018 01:45	WG1060286
Lead	12.2		0.216	0.568	1	01/09/2018 01:45	WG1060286
Zinc	46.4		0.670	5.68	1	01/09/2018 01:45	WG1060286

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00153	0.0227	1	01/08/2018 16:05	WG1060458
Alpha BHC	U	J3	0.00154	0.0227	1	01/08/2018 16:05	WG1060458
Beta BHC	U		0.00182	0.0227	1	01/08/2018 16:05	WG1060458
Delta BHC	U		0.00162	0.0227	1	01/08/2018 16:05	WG1060458
Gamma BHC	U	J3	0.00165	0.0227	1	01/08/2018 16:05	WG1060458
Chlordane	U		0.0443	0.227	1	01/08/2018 16:05	WG1060458
4,4-DDD	U		0.00177	0.0227	1	01/08/2018 16:05	WG1060458
4,4-DDE	U		0.00175	0.0227	1	01/08/2018 16:05	WG1060458
4,4-DDT	U		0.00227	0.0227	1	01/08/2018 16:05	WG1060458
Dieldrin	U		0.00173	0.0227	1	01/08/2018 16:05	WG1060458
Endosulfan I	U		0.00169	0.0227	1	01/08/2018 16:05	WG1060458
Endosulfan II	U		0.00182	0.0227	1	01/08/2018 16:05	WG1060458
Endosulfan sulfate	U		0.00171	0.0227	1	01/08/2018 16:05	WG1060458
Endrin	U		0.00178	0.0227	1	01/08/2018 16:05	WG1060458
Endrin aldehyde	U		0.00146	0.0227	1	01/08/2018 16:05	WG1060458
Endrin ketone	U		0.00187	0.0227	1	01/08/2018 16:05	WG1060458
Hexachlorobenzene	U	J3	0.00141	0.0227	1	01/08/2018 16:05	WG1060458
Heptachlor	U		0.00175	0.0227	1	01/08/2018 16:05	WG1060458
Heptachlor epoxide	U		0.00183	0.0227	1	01/08/2018 16:05	WG1060458
Methoxychlor	U		0.00202	0.0227	1	01/08/2018 16:05	WG1060458
Toxaphene	U		0.0409	0.454	1	01/08/2018 16:05	WG1060458
(S) Decachlorobiphenyl	*64.8*			*10.0-148*		*01/08/2018 16:05*	WG1060458
(S) Tetrachloro-m-xylene	*76.4*			*21.0-146*		*01/08/2018 16:05*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.0		1	01/09/2018 12:53	WG1060779

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	10.6		0.0133	1.15	1	01/09/2018 17:36	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.47		0.747	2.30	1	01/09/2018 01:48	WG1060286
Lead	26.6		0.218	0.574	1	01/09/2018 01:48	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.4		1	01/09/2018 12:53	WG1060779

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	3.59	B	0.0146	1.26	1	01/11/2018 21:13	WG1062016

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	5.50		0.818	2.52	1	01/09/2018 01:51	WG1060286
Cadmium	0.145	J	0.0881	0.630	1	01/09/2018 01:51	WG1060286
Copper	35.5		0.667	2.52	1	01/09/2018 01:51	WG1060286
Lead	4.80		0.239	0.630	1	01/09/2018 01:51	WG1060286
Zinc	72.8		0.743	6.30	1	01/09/2018 01:51	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.3		1	01/09/2018 12:53	WG1060779

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	14.5		0.0144	1.25	1	01/09/2018 18:43	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	15.9		0.809	2.49	1	01/09/2018 01:55	WG1060286
Lead	46.5		0.237	0.623	1	01/09/2018 01:55	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.5		1	01/10/2018 11:05	WG1060784

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	0.993	J	0.0154	1.33	1	01/09/2018 19:24	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	19.0		0.861	2.65	1	01/09/2018 01:58	WG1060286
Lead	55.0		0.252	0.663	1	01/09/2018 01:58	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.4		1	01/09/2018 13:07	WG1060776

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	5.71		0.0141	1.21	1	01/09/2018 19:37	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	16.8		0.788	2.43	1	01/09/2018 02:01	WG1060286
Lead	49.7		0.230	0.606	1	01/09/2018 02:01	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	01/09/2018 13:07	WG1060776

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	11.0		0.0146	1.26	1	01/09/2018 19:50	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	10.1		0.818	2.52	1	01/09/2018 01:16	WG1060286
Lead	33.7		0.239	0.629	1	01/09/2018 01:16	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.2		1	01/10/2018 11:05	WG1060784

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	12.9		0.821	2.53	1	01/09/2018 02:05	WG1060286
Lead	40.0		0.240	0.631	1	01/09/2018 02:05	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	86.3		1	01/10/2018 11:05	WG1060784

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	3.34		0.753	2.32	1	01/09/2018 02:08	WG1060286
Cadmium	U		0.0811	0.579	1	01/09/2018 02:08	WG1060286
Copper	15.8		0.614	2.32	1	01/09/2018 02:08	WG1060286
Lead	2.61		0.220	0.579	1	01/09/2018 02:08	WG1060286
Zinc	41.0		0.683	5.79	1	01/09/2018 02:08	WG1060286

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00156	0.0232	1	01/08/2018 16:19	WG1060458
Alpha BHC	U	J3	0.00158	0.0232	1	01/08/2018 16:19	WG1060458
Beta BHC	U		0.00185	0.0232	1	01/08/2018 16:19	WG1060458
Delta BHC	U		0.00166	0.0232	1	01/08/2018 16:19	WG1060458
Gamma BHC	U	J3	0.00168	0.0232	1	01/08/2018 16:19	WG1060458
Chlordane	U		0.0452	0.232	1	01/08/2018 16:19	WG1060458
4,4-DDD	U		0.00181	0.0232	1	01/08/2018 16:19	WG1060458
4,4-DDE	U		0.00178	0.0232	1	01/08/2018 16:19	WG1060458
4,4-DDT	U		0.00232	0.0232	1	01/08/2018 16:19	WG1060458
Dieldrin	U		0.00176	0.0232	1	01/08/2018 16:19	WG1060458
Endosulfan I	U		0.00173	0.0232	1	01/08/2018 16:19	WG1060458
Endosulfan II	U		0.00185	0.0232	1	01/08/2018 16:19	WG1060458
Endosulfan sulfate	U		0.00175	0.0232	1	01/08/2018 16:19	WG1060458
Endrin	U		0.00182	0.0232	1	01/08/2018 16:19	WG1060458
Endrin aldehyde	U		0.00149	0.0232	1	01/08/2018 16:19	WG1060458
Endrin ketone	U		0.00191	0.0232	1	01/08/2018 16:19	WG1060458
Hexachlorobenzene	U	J3	0.00144	0.0232	1	01/08/2018 16:19	WG1060458
Heptachlor	U		0.00178	0.0232	1	01/08/2018 16:19	WG1060458
Heptachlor epoxide	U		0.00186	0.0232	1	01/08/2018 16:19	WG1060458
Methoxychlor	U		0.00206	0.0232	1	01/08/2018 16:19	WG1060458
Toxaphene	U		0.0417	0.463	1	01/08/2018 16:19	WG1060458
(S) Decachlorobiphenyl	*48.3*			*10.0-148*		*01/08/2018 16:19*	WG1060458
(S) Tetrachloro-m-xylene	*66.9*			*21.0-146*		*01/08/2018 16:19*	WG1060458

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Anthracene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Acenaphthene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Acenaphthylene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Benzo(a)anthracene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Benzo(a)pyrene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Benzo(b)fluoranthene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Benzo(g,h,i)perylene	0.00301	J	0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Benzo(k)fluoranthene	0.000706	J	0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Chrysene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Dibenz(a,h)anthracene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Fluoranthene	0.000804	J	0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Fluorene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Indeno(1,2,3-cd)pyrene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Naphthalene	0.00503	B J	0.00232	0.0232	1	01/13/2018 14:37	WG1060573
Phenanthrene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Pyrene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
1-Methylnaphthalene	U		0.00232	0.0232	1	01/13/2018 14:37	WG1060573
2-Methylnaphthalene	U		0.00232	0.0232	1	01/13/2018 14:37	WG1060573
2-Chloronaphthalene	U		0.00232	0.0232	1	01/13/2018 14:37	WG1060573
(S) Nitrobenzene-d5	*97.1*			*14.0-149*		*01/13/2018 14:37*	WG1060573
(S) 2-Fluorobiphenyl	*63.2*			*34.0-125*		*01/13/2018 14:37*	WG1060573
(S) p-Terphenyl-d14	*48.8*			*23.0-120*		*01/13/2018 14:37*	WG1060573

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.8		1	01/09/2018 12:53	WG1060779

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	20.0		0.815	2.51	1	01/09/2018 02:11	WG1060286
Lead	61.1		0.238	0.627	1	01/09/2018 02:11	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.6		1	01/09/2018 12:06	WG1060785

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	13.3		0.796	2.45	1	01/09/2018 02:15	WG1060286
Lead	34.7		0.233	0.612	1	01/09/2018 02:15	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.4		1	01/09/2018 11:17	WG1060864

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	15.8		0.819	2.52	1	01/09/2018 02:25	WG1060286
Lead	60.1		0.239	0.630	1	01/09/2018 02:25	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	76.0		1	01/09/2018 06:38	WG1060789

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	11.8		0.856	2.63	1	01/09/2018 02:28	WG1060286
Cadmium	0.183	J	0.0921	0.658	1	01/09/2018 02:28	WG1060286
Copper	42.4		0.698	2.63	1	01/09/2018 02:28	WG1060286
Lead	50.5		0.250	0.658	1	01/09/2018 02:28	WG1060286
Zinc	93.5		0.777	6.58	1	01/09/2018 02:28	WG1060286

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00178	0.0263	1	01/08/2018 16:34	WG1060458
Alpha BHC	U	J3	0.00179	0.0263	1	01/08/2018 16:34	WG1060458
Beta BHC	U		0.00211	0.0263	1	01/08/2018 16:34	WG1060458
Delta BHC	U		0.00188	0.0263	1	01/08/2018 16:34	WG1060458
Gamma BHC	U	J3	0.00191	0.0263	1	01/08/2018 16:34	WG1060458
Chlordane	U		0.0513	0.263	1	01/08/2018 16:34	WG1060458
4,4-DDD	U		0.00205	0.0263	1	01/08/2018 16:34	WG1060458
4,4-DDE	0.0314		0.00203	0.0263	1	01/08/2018 16:34	WG1060458
4,4-DDT	0.00507	J	0.00263	0.0263	1	01/08/2018 16:34	WG1060458
Dieldrin	U		0.00200	0.0263	1	01/08/2018 16:34	WG1060458
Endosulfan I	U		0.00196	0.0263	1	01/08/2018 16:34	WG1060458
Endosulfan II	U		0.00211	0.0263	1	01/08/2018 16:34	WG1060458
Endosulfan sulfate	U		0.00199	0.0263	1	01/08/2018 16:34	WG1060458
Endrin	U		0.00207	0.0263	1	01/08/2018 16:34	WG1060458
Endrin aldehyde	U		0.00170	0.0263	1	01/08/2018 16:34	WG1060458
Endrin ketone	U		0.00217	0.0263	1	01/08/2018 16:34	WG1060458
Hexachlorobenzene	U	J3	0.00163	0.0263	1	01/08/2018 16:34	WG1060458
Heptachlor	U		0.00203	0.0263	1	01/08/2018 16:34	WG1060458
Heptachlor epoxide	U		0.00212	0.0263	1	01/08/2018 16:34	WG1060458
Methoxychlor	U		0.00234	0.0263	1	01/08/2018 16:34	WG1060458
Toxaphene	U		0.0474	0.526	1	01/08/2018 16:34	WG1060458
(S) Decachlorobiphenyl	*38.4*			*10.0-148*		*01/08/2018 16:34*	WG1060458
(S) Tetrachloro-m-xylene	*52.5*			*21.0-146*		*01/08/2018 16:34*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.7		1	01/09/2018 06:38	WG1060789

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	14.8		0.826	2.54	1	01/09/2018 02:31	WG1060286
Lead	47.1		0.241	0.635	1	01/09/2018 02:31	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.9		1	01/09/2018 12:40	WG1060783

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	18.4		0.793	2.44	1	01/09/2018 02:35	WG1060286
Lead	61.5		0.232	0.610	1	01/09/2018 02:35	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.1		1	01/10/2018 11:22	WG1060954

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	6.54		0.811	2.50	1	01/09/2018 02:38	WG1060286
Lead	25.2		0.237	0.624	1	01/09/2018 02:38	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.1		1	01/09/2018 14:22	WG1059974

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	17.7		0.822	2.53	1	01/09/2018 02:41	WG1060286
Lead	50.6		0.240	0.632	1	01/09/2018 02:41	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	78.2		1	01/09/2018 06:38	WG1060789

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	11.2		0.831	2.56	1	01/09/2018 02:45	WG1060286
Cadmium	0.144	J	0.0895	0.639	1	01/09/2018 02:45	WG1060286
Copper	41.0		0.678	2.56	1	01/09/2018 02:45	WG1060286
Lead	9.10		0.243	0.639	1	01/09/2018 02:45	WG1060286
Zinc	74.3		0.755	6.39	1	01/09/2018 02:45	WG1060286

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00173	0.0256	1	01/08/2018 16:48	WG1060458
Alpha BHC	U	J3	0.00174	0.0256	1	01/08/2018 16:48	WG1060458
Beta BHC	U		0.00205	0.0256	1	01/08/2018 16:48	WG1060458
Delta BHC	U		0.00183	0.0256	1	01/08/2018 16:48	WG1060458
Gamma BHC	U	J3	0.00185	0.0256	1	01/08/2018 16:48	WG1060458
Chlordane	U		0.0499	0.256	1	01/08/2018 16:48	WG1060458
4,4-DDD	U		0.00200	0.0256	1	01/08/2018 16:48	WG1060458
4,4-DDE	U		0.00197	0.0256	1	01/08/2018 16:48	WG1060458
4,4-DDT	U		0.00256	0.0256	1	01/08/2018 16:48	WG1060458
Dieldrin	U		0.00194	0.0256	1	01/08/2018 16:48	WG1060458
Endosulfan I	U		0.00191	0.0256	1	01/08/2018 16:48	WG1060458
Endosulfan II	U		0.00205	0.0256	1	01/08/2018 16:48	WG1060458
Endosulfan sulfate	U		0.00193	0.0256	1	01/08/2018 16:48	WG1060458
Endrin	U		0.00201	0.0256	1	01/08/2018 16:48	WG1060458
Endrin aldehyde	U		0.00165	0.0256	1	01/08/2018 16:48	WG1060458
Endrin ketone	U		0.00211	0.0256	1	01/08/2018 16:48	WG1060458
Hexachlorobenzene	U	J3	0.00159	0.0256	1	01/08/2018 16:48	WG1060458
Heptachlor	U		0.00197	0.0256	1	01/08/2018 16:48	WG1060458
Heptachlor epoxide	U		0.00206	0.0256	1	01/08/2018 16:48	WG1060458
Methoxychlor	U		0.00228	0.0256	1	01/08/2018 16:48	WG1060458
Toxaphene	U		0.0460	0.512	1	01/08/2018 16:48	WG1060458
(S) Decachlorobiphenyl	*49.6*			*10.0-148*		*01/08/2018 16:48*	WG1060458
(S) Tetrachloro-m-xylene	*64.4*			*21.0-146*		*01/08/2018 16:48*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.9		1	01/10/2018 11:05	WG1060784

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	15.5		0.845	2.60	1	01/09/2018 00:20	WG1060289
Cadmium	0.293	J	0.0911	0.650	1	01/09/2018 00:20	WG1060289
Copper	49.5		0.689	2.60	1	01/09/2018 00:20	WG1060289
Lead	107		0.247	0.650	1	01/09/2018 00:20	WG1060289
Zinc	119		0.767	6.50	1	01/09/2018 00:20	WG1060289

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00176	0.0260	1	01/08/2018 17:02	WG1060458
Alpha BHC	U	J3	0.00177	0.0260	1	01/08/2018 17:02	WG1060458
Beta BHC	U		0.00208	0.0260	1	01/08/2018 17:02	WG1060458
Delta BHC	U		0.00186	0.0260	1	01/08/2018 17:02	WG1060458
Gamma BHC	U	J3	0.00189	0.0260	1	01/08/2018 17:02	WG1060458
Chlordane	U		0.0507	0.260	1	01/08/2018 17:02	WG1060458
4,4-DDD	U		0.00203	0.0260	1	01/08/2018 17:02	WG1060458
4,4-DDE	U		0.00200	0.0260	1	01/08/2018 17:02	WG1060458
4,4-DDT	U		0.00260	0.0260	1	01/08/2018 17:02	WG1060458
Dieldrin	U		0.00198	0.0260	1	01/08/2018 17:02	WG1060458
Endosulfan I	U		0.00194	0.0260	1	01/08/2018 17:02	WG1060458
Endosulfan II	U		0.00208	0.0260	1	01/08/2018 17:02	WG1060458
Endosulfan sulfate	U		0.00196	0.0260	1	01/08/2018 17:02	WG1060458
Endrin	U		0.00204	0.0260	1	01/08/2018 17:02	WG1060458
Endrin aldehyde	U		0.00168	0.0260	1	01/08/2018 17:02	WG1060458
Endrin ketone	U		0.00215	0.0260	1	01/08/2018 17:02	WG1060458
Hexachlorobenzene	U	J3	0.00161	0.0260	1	01/08/2018 17:02	WG1060458
Heptachlor	U		0.00200	0.0260	1	01/08/2018 17:02	WG1060458
Heptachlor epoxide	U		0.00209	0.0260	1	01/08/2018 17:02	WG1060458
Methoxychlor	U		0.00232	0.0260	1	01/08/2018 17:02	WG1060458
Toxaphene	U		0.0468	0.520	1	01/08/2018 17:02	WG1060458
(S) Decachlorobiphenyl	*46.1*			*10.0-148*		*01/08/2018 17:02*	WG1060458
(S) Tetrachloro-m-xylene	*63.6*			*21.0-146*		*01/08/2018 17:02*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	91.5		1	01/10/2018 11:05	WG1060784

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	3.86		0.710	2.19	1	01/09/2018 00:23	WG1060289
Cadmium	0.324	J	0.0765	0.546	1	01/09/2018 00:23	WG1060289
Copper	51.1		0.579	2.19	1	01/09/2018 00:23	WG1060289
Lead	163		0.208	0.546	1	01/09/2018 00:23	WG1060289
Zinc	226		0.645	5.46	1	01/09/2018 00:23	WG1060289

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00147	0.0219	1	01/08/2018 17:17	WG1060458
Alpha BHC	U	J3	0.00149	0.0219	1	01/08/2018 17:17	WG1060458
Beta BHC	U		0.00175	0.0219	1	01/08/2018 17:17	WG1060458
Delta BHC	U		0.00156	0.0219	1	01/08/2018 17:17	WG1060458
Gamma BHC	U	J3	0.00158	0.0219	1	01/08/2018 17:17	WG1060458
Chlordane	U		0.0426	0.219	1	01/08/2018 17:17	WG1060458
4,4-DDD	U		0.00170	0.0219	1	01/08/2018 17:17	WG1060458
4,4-DDE	0.00485	J	0.00168	0.0219	1	01/08/2018 17:17	WG1060458
4,4-DDT	0.00368	J	0.00219	0.0219	1	01/08/2018 17:17	WG1060458
Dieldrin	U		0.00166	0.0219	1	01/08/2018 17:17	WG1060458
Endosulfan I	U		0.00163	0.0219	1	01/08/2018 17:17	WG1060458
Endosulfan II	U		0.00175	0.0219	1	01/08/2018 17:17	WG1060458
Endosulfan sulfate	U		0.00165	0.0219	1	01/08/2018 17:17	WG1060458
Endrin	U		0.00172	0.0219	1	01/08/2018 17:17	WG1060458
Endrin aldehyde	U		0.00141	0.0219	1	01/08/2018 17:17	WG1060458
Endrin ketone	U		0.00180	0.0219	1	01/08/2018 17:17	WG1060458
Hexachlorobenzene	U	J3	0.00135	0.0219	1	01/08/2018 17:17	WG1060458
Heptachlor	U		0.00168	0.0219	1	01/08/2018 17:17	WG1060458
Heptachlor epoxide	U		0.00176	0.0219	1	01/08/2018 17:17	WG1060458
Methoxychlor	U		0.00194	0.0219	1	01/08/2018 17:17	WG1060458
Toxaphene	U		0.0393	0.437	1	01/08/2018 17:17	WG1060458
(S) Decachlorobiphenyl	*48.4*			*10.0-148*		*01/08/2018 17:17*	WG1060458
(S) Tetrachloro-m-xylene	*64.4*			*21.0-146*		*01/08/2018 17:17*	WG1060458

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Anthracene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Acenaphthene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Acenaphthylene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Benzo(a)anthracene	0.000758	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Benzo(a)pyrene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Benzo(b)fluoranthene	0.000966	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Benzo(g,h,i)perylene	0.000940	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Benzo(k)fluoranthene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Chrysene	0.000669	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Dibenz(a,h)anthracene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Fluoranthene	0.000822	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Fluorene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Indeno(1,2,3-cd)pyrene	0.000719	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Naphthalene	0.00346	B J	0.00219	0.0219	1	01/10/2018 17:33	WG1060573
Phenanthrene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Pyrene	0.00100	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573
1-Methylnaphthalene	U		0.00219	0.0219	1	01/10/2018 17:33	WG1060573
2-Methylnaphthalene	U		0.00219	0.0219	1	01/10/2018 17:33	WG1060573
2-Chloronaphthalene	U		0.00219	0.0219	1	01/10/2018 17:33	WG1060573
(S) Nitrobenzene-d5	*93.0*			*14.0-149*		*01/10/2018 17:33*	WG1060573
(S) 2-Fluorobiphenyl	*70.1*			*34.0-125*		*01/10/2018 17:33*	WG1060573
(S) p-Terphenyl-d14	*70.9*			*23.0-120*		*01/10/2018 17:33*	WG1060573

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	73.7		1	01/09/2018 11:31	WG1060790

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	11.4		0.882	2.71	1	01/09/2018 00:33	WG1060289
Lead	51.1		0.258	0.678	1	01/09/2018 00:33	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.8		1	01/09/2018 11:31	WG1060790

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	24.5		0.846	2.60	1	01/09/2018 00:36	WG1060289
Lead	109		0.247	0.651	1	01/09/2018 00:36	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.8		1	01/09/2018 11:31	WG1060790

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.31		0.757	2.33	1	01/09/2018 00:03	WG1060289
Lead	32.6		0.221	0.583	1	01/09/2018 00:03	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	01/09/2018 13:07	WG1060776

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.53		0.712	2.19	1	01/09/2018 00:39	WG1060289
Lead	15.3		0.208	0.547	1	01/09/2018 00:39	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.8		1	01/09/2018 11:31	WG1060790

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	24.9		0.785	2.41	1	01/09/2018 00:43	WG1060289
Lead	102		0.229	0.604	1	01/09/2018 00:43	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.2		1	01/09/2018 11:31	WG1060790

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	20.2		0.801	2.46	1	01/09/2018 00:46	WG1060289
Lead	103		0.234	0.616	1	01/09/2018 00:46	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.7		1	01/09/2018 12:40	WG1060783

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	11.3		0.859	2.64	1	01/09/2018 00:49	WG1060289
Lead	79.6		0.251	0.661	1	01/09/2018 00:49	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	81.7		1	01/09/2018 12:06	WG1060785

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	26.9		0.795	2.45	1	01/09/2018 00:53	WG1060289
Cadmium	0.213	J	0.0856	0.612	1	01/09/2018 00:53	WG1060289
Copper	44.9		0.648	2.45	1	01/09/2018 00:53	WG1060289
Lead	115		0.232	0.612	1	01/09/2018 00:53	WG1060289
Zinc	68.0		0.722	6.12	1	01/09/2018 00:53	WG1060289

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00165	0.0245	1	01/08/2018 17:31	WG1060458
Alpha BHC	U	J3	0.00166	0.0245	1	01/08/2018 17:31	WG1060458
Beta BHC	U		0.00196	0.0245	1	01/08/2018 17:31	WG1060458
Delta BHC	U		0.00175	0.0245	1	01/08/2018 17:31	WG1060458
Gamma BHC	U	J3	0.00177	0.0245	1	01/08/2018 17:31	WG1060458
Chlordane	U		0.0477	0.245	1	01/08/2018 17:31	WG1060458
4,4-DDD	U		0.00191	0.0245	1	01/08/2018 17:31	WG1060458
4,4-DDE	0.0152	J	0.00188	0.0245	1	01/08/2018 17:31	WG1060458
4,4-DDT	U		0.00245	0.0245	1	01/08/2018 17:31	WG1060458
Dieldrin	U		0.00186	0.0245	1	01/08/2018 17:31	WG1060458
Endosulfan I	U		0.00182	0.0245	1	01/08/2018 17:31	WG1060458
Endosulfan II	U		0.00196	0.0245	1	01/08/2018 17:31	WG1060458
Endosulfan sulfate	U		0.00185	0.0245	1	01/08/2018 17:31	WG1060458
Endrin	U		0.00192	0.0245	1	01/08/2018 17:31	WG1060458
Endrin aldehyde	U		0.00158	0.0245	1	01/08/2018 17:31	WG1060458
Endrin ketone	U		0.00202	0.0245	1	01/08/2018 17:31	WG1060458
Hexachlorobenzene	U	J3	0.00152	0.0245	1	01/08/2018 17:31	WG1060458
Heptachlor	U		0.00188	0.0245	1	01/08/2018 17:31	WG1060458
Heptachlor epoxide	U		0.00197	0.0245	1	01/08/2018 17:31	WG1060458
Methoxychlor	U		0.00218	0.0245	1	01/08/2018 17:31	WG1060458
Toxaphene	U		0.0440	0.489	1	01/08/2018 17:31	WG1060458
(S) Decachlorobiphenyl	*30.6*			*10.0-148*		*01/08/2018 17:31*	WG1060458
(S) Tetrachloro-m-xylene	*54.6*			*21.0-146*		*01/08/2018 17:31*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.9		1	01/09/2018 11:31	WG1060790

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	2.41		0.0143	1.24	1	01/09/2018 20:04	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	9.31		0.804	2.47	1	01/09/2018 00:56	WG1060289
Cadmium	0.592	J	0.0865	0.618	1	01/09/2018 00:56	WG1060289
Copper	30.1		0.655	2.47	1	01/09/2018 00:56	WG1060289
Lead	417		0.235	0.618	1	01/09/2018 00:56	WG1060289
Zinc	230		0.729	6.18	1	01/09/2018 00:56	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	81.3		1	01/09/2018 11:31	WG1060790

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	12.1		0.800	2.46	1	01/09/2018 00:59	WG1060289
Cadmium	0.161	J	0.0861	0.615	1	01/09/2018 00:59	WG1060289
Copper	31.1		0.652	2.46	1	01/09/2018 00:59	WG1060289
Lead	82.2		0.234	0.615	1	01/09/2018 00:59	WG1060289
Zinc	72.8		0.726	6.15	1	01/09/2018 00:59	WG1060289

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00166	0.0246	1	01/08/2018 14:53	WG1060458
Alpha BHC	U	J3	0.00167	0.0246	1	01/08/2018 14:53	WG1060458
Beta BHC	U		0.00197	0.0246	1	01/08/2018 14:53	WG1060458
Delta BHC	U		0.00176	0.0246	1	01/08/2018 14:53	WG1060458
Gamma BHC	U	J3	0.00178	0.0246	1	01/08/2018 14:53	WG1060458
Chlordane	U		0.0480	0.246	1	01/08/2018 14:53	WG1060458
4,4-DDD	U		0.00192	0.0246	1	01/08/2018 14:53	WG1060458
4,4-DDE	0.00567	J	0.00189	0.0246	1	01/08/2018 14:53	WG1060458
4,4-DDT	0.00546	J	0.00246	0.0246	1	01/08/2018 14:53	WG1060458
Dieldrin	U		0.00187	0.0246	1	01/08/2018 14:53	WG1060458
Endosulfan I	U		0.00183	0.0246	1	01/08/2018 14:53	WG1060458
Endosulfan II	U		0.00197	0.0246	1	01/08/2018 14:53	WG1060458
Endosulfan sulfate	U		0.00186	0.0246	1	01/08/2018 14:53	WG1060458
Endrin	U		0.00193	0.0246	1	01/08/2018 14:53	WG1060458
Endrin aldehyde	U		0.00159	0.0246	1	01/08/2018 14:53	WG1060458
Endrin ketone	U		0.00203	0.0246	1	01/08/2018 14:53	WG1060458
Hexachlorobenzene	U	J3	0.00153	0.0246	1	01/08/2018 14:53	WG1060458
Heptachlor	U		0.00189	0.0246	1	01/08/2018 14:53	WG1060458
Heptachlor epoxide	U		0.00198	0.0246	1	01/08/2018 14:53	WG1060458
Methoxychlor	U		0.00219	0.0246	1	01/08/2018 14:53	WG1060458
Toxaphene	U		0.0443	0.492	1	01/08/2018 14:53	WG1060458
(S) Decachlorobiphenyl	*76.5*			*10.0-148*		*01/08/2018 14:53*	WG1060458
(S) Tetrachloro-m-xylene	*84.1*			*21.0-146*		*01/08/2018 14:53*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	90.5		1	01/09/2018 12:06	WG1060785

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	3.16		0.718	2.21	1	01/09/2018 01:02	WG1060289
Cadmium	0.212	J	0.0773	0.552	1	01/09/2018 01:02	WG1060289
Copper	22.4		0.585	2.21	1	01/09/2018 01:02	WG1060289
Lead	5.78		0.210	0.552	1	01/09/2018 01:02	WG1060289
Zinc	60.6		0.652	5.52	1	01/09/2018 01:02	WG1060289

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00149	0.0221	1	01/08/2018 17:46	WG1060458
Alpha BHC	U	J3	0.00150	0.0221	1	01/08/2018 17:46	WG1060458
Beta BHC	U		0.00177	0.0221	1	01/08/2018 17:46	WG1060458
Delta BHC	U		0.00158	0.0221	1	01/08/2018 17:46	WG1060458
Gamma BHC	U	J3	0.00160	0.0221	1	01/08/2018 17:46	WG1060458
Chlordane	U		0.0431	0.221	1	01/08/2018 17:46	WG1060458
4,4-DDD	U		0.00172	0.0221	1	01/08/2018 17:46	WG1060458
4,4-DDE	U		0.00170	0.0221	1	01/08/2018 17:46	WG1060458
4,4-DDT	U		0.00221	0.0221	1	01/08/2018 17:46	WG1060458
Dieldrin	U		0.00168	0.0221	1	01/08/2018 17:46	WG1060458
Endosulfan I	U		0.00165	0.0221	1	01/08/2018 17:46	WG1060458
Endosulfan II	U		0.00177	0.0221	1	01/08/2018 17:46	WG1060458
Endosulfan sulfate	U		0.00167	0.0221	1	01/08/2018 17:46	WG1060458
Endrin	U		0.00173	0.0221	1	01/08/2018 17:46	WG1060458
Endrin aldehyde	U		0.00142	0.0221	1	01/08/2018 17:46	WG1060458
Endrin ketone	U		0.00182	0.0221	1	01/08/2018 17:46	WG1060458
Hexachlorobenzene	U	J3	0.00137	0.0221	1	01/08/2018 17:46	WG1060458
Heptachlor	U		0.00170	0.0221	1	01/08/2018 17:46	WG1060458
Heptachlor epoxide	U		0.00178	0.0221	1	01/08/2018 17:46	WG1060458
Methoxychlor	U		0.00197	0.0221	1	01/08/2018 17:46	WG1060458
Toxaphene	U		0.0398	0.442	1	01/08/2018 17:46	WG1060458
(S) Decachlorobiphenyl	*71.7*			*10.0-148*		*01/08/2018 17:46*	WG1060458
(S) Tetrachloro-m-xylene	*79.0*			*21.0-146*		*01/08/2018 17:46*	WG1060458

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Anthracene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Acenaphthene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Acenaphthylene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Benzo(a)anthracene	0.000699	J	0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Benzo(a)pyrene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Benzo(b)fluoranthene	0.000757	J	0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Benzo(g,h,i)perylene	0.000822	J	0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Benzo(k)fluoranthene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Chrysene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Dibenz(a,h)anthracene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Fluoranthene	0.000678	J	0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Fluorene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Indeno(1,2,3-cd)pyrene	0.000710	J	0.000663	0.00663	1	01/10/2018 17:55	WG1060573

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Naphthalene	0.00384	B J	0.00221	0.0221	1	01/10/2018 17:55	WG1060573
Phenanthrene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Pyrene	0.000780	J	0.000663	0.00663	1	01/10/2018 17:55	WG1060573
1-Methylnaphthalene	U		0.00221	0.0221	1	01/10/2018 17:55	WG1060573
2-Methylnaphthalene	U		0.00221	0.0221	1	01/10/2018 17:55	WG1060573
2-Chloronaphthalene	U		0.00221	0.0221	1	01/10/2018 17:55	WG1060573
(S) Nitrobenzene-d5	*96.1*			*14.0-149*		*01/10/2018 17:55*	WG1060573
(S) 2-Fluorobiphenyl	*64.1*			*34.0-125*		*01/10/2018 17:55*	WG1060573
(S) p-Terphenyl-d14	*66.2*			*23.0-120*		*01/10/2018 17:55*	WG1060573

Method Blank (MB)

(MB) R3278464-1 01/09/18 14:22

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.001			

L961178-02 Original Sample (OS) • Duplicate (DUP)

(OS) L961178-02 01/09/18 14:22 • (DUP) R3278464-3 01/09/18 14:22

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	83.7	85.2	1	2		5

Laboratory Control Sample (LCS)

(LCS) R3278464-2 01/09/18 14:22

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278452-1 01/09/18 13:07

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.002			

L961517-14 Original Sample (OS) • Duplicate (DUP)

(OS) L961517-14 01/09/18 13:07 • (DUP) R3278452-3 01/09/18 13:07

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	89.7	89.3	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278452-2 01/09/18 13:07

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278447-1 01/09/18 12:53

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.002			

L961532-03 Original Sample (OS) • Duplicate (DUP)

(OS) L961532-03 01/09/18 12:53 • (DUP) R3278447-3 01/09/18 12:53

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.1	92.1	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278447-2 01/09/18 12:53

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278442-1 01/09/18 12:40

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.002			

L961543-09 Original Sample (OS) • Duplicate (DUP)

(OS) L961543-09 01/09/18 12:40 • (DUP) R3278442-3 01/09/18 12:40

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.9	89.5	1	3		5

Laboratory Control Sample (LCS)

(LCS) R3278442-2 01/09/18 12:40

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278693-1 01/10/18 11:05

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0			

L961534-21 Original Sample (OS) • Duplicate (DUP)

(OS) L961534-21 01/10/18 11:05 • (DUP) R3278693-3 01/10/18 11:05

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	76.9	77.0	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278693-2 01/10/18 11:05

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278439-1 01/09/18 12:06

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.001			

L961534-13 Original Sample (OS) • Duplicate (DUP)

(OS) L961534-13 01/09/18 12:06 • (DUP) R3278439-3 01/09/18 12:06

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	81.6	81.9	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278439-2 01/09/18 12:06

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278433-1 01/09/18 06:38

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.001			

L961543-10 Original Sample (OS) • Duplicate (DUP)

(OS) L961543-10 01/09/18 06:38 • (DUP) R3278433-3 01/09/18 06:38

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.9	88.9	1	1		5

Laboratory Control Sample (LCS)

(LCS) R3278433-2 01/09/18 06:38

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278457-1 01/09/18 11:31

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.002			

L961537-02 Original Sample (OS) • Duplicate (DUP)

(OS) L961537-02 01/09/18 11:31 • (DUP) R3278457-3 01/09/18 11:31

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	78.3	78.5	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278457-2 01/09/18 11:31

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278454-1 01/09/18 11:17

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.001			

L961534-14 Original Sample (OS) • Duplicate (DUP)

(OS) L961534-14 01/09/18 11:17 • (DUP) R3278454-3 01/09/18 11:17

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	79.4	79.6	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278454-2 01/09/18 11:17

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278677-1 01/10/18 11:22

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.002			

L961543-08 Original Sample (OS) • Duplicate (DUP)

(OS) L961543-08 01/10/18 11:22 • (DUP) R3278677-3 01/10/18 11:22

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	97.4	97.4	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278677-2 01/10/18 11:22

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278382-1 01/09/18 15:49

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Nitrate	U		0.0116	1.00

L961650-01 Original Sample (OS) • Duplicate (DUP)

(OS) L961650-01 01/09/18 20:31 • (DUP) R3278382-7 01/09/18 20:44

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	0.832	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278382-2 01/09/18 16:02 • (LCSD) R3278382-3 01/09/18 16:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Nitrate	20.0	18.8	20.5	94.2	102	80-120			8.17	15

L961534-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L961534-06 01/09/18 18:43 • (MS) R3278382-5 01/09/18 18:57 • (MSD) R3278382-6 01/09/18 19:10

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate	62.3	14.5	76.4	68.9	99.5	87.4	1	80-120			10.4	15

Method Blank (MB)

(MB) R3278985-2 01/11/18 19:11

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Nitrate	0.307	J	0.0116	1.00

L962300-01 Original Sample (OS) • Duplicate (DUP)

(OS) L962300-01 01/12/18 00:17 • (DUP) R3278985-5 01/12/18 00:38

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	5.20	4	1	26	P1	15

L962605-02 Original Sample (OS) • Duplicate (DUP)

(OS) L962605-02 01/12/18 05:44 • (DUP) R3278985-8 01/12/18 06:05

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.795	0.611	1	26.2	J P1	15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278985-3 01/11/18 19:31 • (LCSD) R3278985-4 01/11/18 19:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Nitrate	20.0	19.1	18.9	95.7	94.6	80-120			1.11	15

L962600-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L962600-01 01/12/18 02:40 • (MS) R3278985-6 01/12/18 03:01 • (MSD) R3278985-7 01/12/18 04:02

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate	50.0	0.530	52.6	51.4	104	102	1	80-120			2.23	15

Method Blank (MB)

(MB) R3278125-1 01/09/18 01:06

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Cadmium	U		0.07	0.500
Copper	U		0.53	2.00
Lead	U		0.19	0.500
Zinc	U		0.59	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278125-2 01/09/18 01:09 • (LCSD) R3278125-3 01/09/18 01:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	98.8	98.2	98.8	98.2	80-120			0.624	20
Cadmium	100	97.8	97.5	97.8	97.5	80-120			0.36	20
Copper	100	101	100	101	100	80-120			0.765	20
Lead	100	98.9	99.0	98.9	99	80-120			0.124	20
Zinc	100	100	99.9	100	99.9	80-120			0.394	20

L961534-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L961534-09 01/09/18 01:16 • (MS) R3278125-6 01/09/18 01:25 • (MSD) R3278125-7 01/09/18 01:28

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	126	10.1	131	134	95.7	98.5	1	75-125			2.62	20
Cadmium	126	0.223	124	124	98.3	98.2	1	75-125			0.0676	20
Copper	126	44.1	177	173	106	102	1	75-125			2.41	20
Lead	126	33.7	156	162	97.6	102	1	75-125			3.61	20
Zinc	126	119	230	247	88.6	102	1	75-125			7.15	20

Method Blank (MB)

(MB) R3278127-1 01/08/18 23:54

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Cadmium	U		0.07	0.500
Copper	U		0.53	2.00
Lead	U		0.19	0.500
Zinc	0.641	J	0.59	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278127-2 01/08/18 23:57 • (LCSD) R3278127-3 01/09/18 00:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	99.6	98.9	99.6	98.9	80-120			0.735	20
Cadmium	100	99.6	99.1	99.6	99.1	80-120			0.499	20
Copper	100	101	101	101	101	80-120			0.264	20
Lead	100	102	102	102	102	80-120			0.327	20
Zinc	100	104	104	104	104	80-120			0.451	20

L961534-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L961534-25 01/09/18 00:03 • (MS) R3278127-6 01/09/18 00:13 • (MSD) R3278127-7 01/09/18 00:16

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	117	4.31	110	111	90.5	91.5	1	75-125			1.03	20
Cadmium	117	0.284	108	107	92.3	91.9	1	75-125			0.473	20
Copper	117	28.2	138	142	93.9	97.4	1	75-125			2.89	20
Lead	117	32.6	148	143	99.4	95	1	75-125			3.56	20
Zinc	117	86.0	191	190	90.1	88.9	1	75-125			0.731	20

Method Blank (MB)

(MB) R3278030-3 01/08/18 13:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.00135	0.0200
Alpha BHC	U		0.00136	0.0200
Beta BHC	U		0.00160	0.0200
Delta BHC	U		0.00143	0.0200
Gamma BHC	U		0.00145	0.0200
4,4-DDD	U		0.00156	0.0200
4,4-DDE	U		0.00154	0.0200
4,4-DDT	U		0.00200	0.0200
Dieldrin	U		0.00152	0.0200
Endosulfan I	U		0.00149	0.0200
Endosulfan II	U		0.00160	0.0200
Endosulfan sulfate	U		0.00151	0.0200
Endrin	U		0.00157	0.0200
Endrin aldehyde	U		0.00129	0.0200
Endrin ketone	U		0.00165	0.0200
Heptachlor	U		0.00154	0.0200
Heptachlor epoxide	U		0.00161	0.0200
Hexachlorobenzene	U		0.00124	0.0200
Methoxychlor	U		0.00178	0.0200
Chlordane	U		0.0390	0.200
Toxaphene	U		0.0360	0.400
(S) Decachlorobiphenyl	*76.4*			*10.0-148*
(S) Tetrachloro-m-xylene	*84.2*			*21.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278030-1 01/08/18 12:44 • (LCSD) R3278030-2 01/08/18 12:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aldrin	0.0667	0.0476	0.0596	71.3	89.4	55.0-137			22.5	29
Alpha BHC	0.0667	0.0449	0.0640	67.3	96.0	55.0-136		J3	35.1	28
Beta BHC	0.0667	0.0469	0.0615	70.4	92.3	53.0-133			27.0	28
Delta BHC	0.0667	0.0477	0.0612	71.4	91.8	53.0-139			24.9	29
Gamma BHC	0.0667	0.0473	0.0640	70.9	96.0	54.0-136		J3	30.1	29
4,4-DDD	0.0667	0.0474	0.0577	71.1	86.6	51.0-141			19.6	29
4,4-DDE	0.0667	0.0479	0.0592	71.8	88.7	53.0-142			21.0	30
4,4-DDT	0.0667	0.0477	0.0582	71.5	87.3	47.0-143			19.8	30
Dieldrin	0.0667	0.0490	0.0602	73.4	90.2	54.0-141			20.5	29
Endosulfan I	0.0667	0.0476	0.0585	71.3	87.8	54.0-141			20.7	29

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278030-1 01/08/18 12:44 • (LCSD) R3278030-2 01/08/18 12:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Endosulfan II	0.0667	0.0467	0.0567	70.0	85.0	53.0-140			19.4	28
Endosulfan sulfate	0.0667	0.0469	0.0575	70.3	86.1	52.0-141			20.2	29
Endrin	0.0667	0.0469	0.0570	70.4	85.4	52.0-137			19.3	29
Endrin aldehyde	0.0667	0.0339	0.0414	50.8	62.0	30.0-127			19.9	31
Endrin ketone	0.0667	0.0510	0.0610	76.4	91.5	51.0-139			18.0	28
Heptachlor	0.0667	0.0485	0.0607	72.7	91.0	53.0-144			22.4	29
Heptachlor epoxide	0.0667	0.0480	0.0585	72.0	87.7	54.0-137			19.7	28
Hexachlorobenzene	0.0667	0.0417	0.0556	62.5	83.4	50.0-135		J3	28.6	28
Methoxychlor	0.0667	0.0483	0.0574	72.4	86.1	49.0-145			17.2	29
(S) Decachlorobiphenyl				*64.1*	*71.0*	*10.0-148*				
(S) Tetrachloro-m-xylene				*67.4*	*80.3*	*21.0-146*				

L961534-32 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L961534-32 01/08/18 14:53 • (MS) R3278030-4 01/08/18 15:08 • (MSD) R3278030-5 01/08/18 15:22

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aldrin	0.0821	U	0.0685	0.0652	83.5	79.5	1	19.0-152			4.90	24
Alpha BHC	0.0821	U	0.0755	0.0736	92.0	89.7	1	39.0-152			2.52	21
Beta BHC	0.0821	U	0.0758	0.0719	92.4	87.6	1	38.0-150			5.32	20
Delta BHC	0.0821	U	0.0710	0.0688	86.5	83.8	1	34.0-155			3.20	21
Gamma BHC	0.0821	U	0.0778	0.0740	94.8	90.2	1	38.0-153			4.94	21
4,4-DDD	0.0821	U	0.0678	0.0640	82.7	77.9	1	22.0-160			5.90	25
4,4-DDE	0.0821	0.00567	0.0724	0.0754	81.4	85.0	1	10.0-160			3.98	27
4,4-DDT	0.0821	0.00546	0.0692	0.0698	77.7	78.3	1	10.0-160			0.728	28
Dieldrin	0.0821	U	0.0697	0.0674	84.9	82.2	1	30.0-158			3.24	25
Endosulfan I	0.0821	U	0.0682	0.0656	83.1	79.9	1	31.0-155			3.89	25
Endosulfan II	0.0821	U	0.0667	0.0636	81.3	77.5	1	32.0-156			4.68	25
Endosulfan sulfate	0.0821	U	0.0671	0.0641	81.8	78.1	1	31.0-158			4.53	24
Endrin	0.0821	U	0.0658	0.0634	80.2	77.3	1	30.0-149			3.62	25
Endrin aldehyde	0.0821	U	0.0638	0.0609	77.7	74.3	1	20.0-157			4.57	26
Endrin ketone	0.0821	U	0.0720	0.0698	87.7	85.1	1	32.0-154			2.98	23
Heptachlor	0.0821	U	0.0702	0.0677	85.5	82.5	1	18.0-160			3.60	23
Heptachlor epoxide	0.0821	U	0.0663	0.0647	80.8	78.8	1	31.0-154			2.46	25
Hexachlorobenzene	0.0821	U	0.0641	0.0605	78.1	73.7	1	26.0-146			5.84	21
Methoxychlor	0.0821	U	0.0699	0.0679	85.2	82.8	1	10.0-160			2.91	27
(S) Decachlorobiphenyl					*67.4*	*64.4*		*10.0-148*				
(S) Tetrachloro-m-xylene					*76.9*	*73.8*		*21.0-146*				

Method Blank (MB)

(MB) R3278807-3 01/10/18 12:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	0.00245	J	0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) Nitrobenzene-d5	*92.6*			*14.0-149*
(S) 2-Fluorobiphenyl	*87.1*			*34.0-125*
(S) p-Terphenyl-d14	*78.3*			*23.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278807-1 01/10/18 12:04 • (LCSD) R3278807-2 01/10/18 12:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0796	0.0789	99.5	98.7	50.0-125			0.796	20
Acenaphthene	0.0800	0.0744	0.0733	93.1	91.6	52.0-120			1.61	20
Acenaphthylene	0.0800	0.0791	0.0777	98.9	97.2	51.0-120			1.73	20
Benzo(a)anthracene	0.0800	0.0726	0.0692	90.7	86.5	46.0-121			4.73	20
Benzo(a)pyrene	0.0800	0.0754	0.0746	94.3	93.2	42.0-121			1.12	20
Benzo(b)fluoranthene	0.0800	0.0751	0.0769	93.8	96.1	42.0-123			2.38	20
Benzo(g,h,i)perylene	0.0800	0.0870	0.0850	109	106	43.0-128			2.30	20
Benzo(k)fluoranthene	0.0800	0.0941	0.0912	118	114	45.0-128			3.10	20
Chrysene	0.0800	0.0837	0.0852	105	107	48.0-127			1.80	20
Dibenz(a,h)anthracene	0.0800	0.0843	0.0833	105	104	43.0-132			1.24	20
Fluoranthene	0.0800	0.0791	0.0748	98.9	93.5	49.0-129			5.57	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278807-1 01/10/18 12:04 • (LCSD) R3278807-2 01/10/18 12:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.0800	0.0713	0.0702	89.1	87.8	50.0-120			1.56	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0881	0.0859	110	107	44.0-131			2.53	20
Naphthalene	0.0800	0.0828	0.0811	103	101	50.0-120			2.07	20
Phenanthrene	0.0800	0.0717	0.0701	89.7	87.6	48.0-120			2.35	20
Pyrene	0.0800	0.0710	0.0672	88.7	84.0	48.0-135			5.42	20
1-Methylnaphthalene	0.0800	0.0776	0.0756	97.0	94.5	52.0-122			2.58	20
2-Methylnaphthalene	0.0800	0.0726	0.0716	90.7	89.5	52.0-120			1.42	20
2-Chloronaphthalene	0.0800	0.0771	0.0752	96.4	94.0	50.0-120			2.57	20
(S) Nitrobenzene-d5				*97.8*	*93.3*	*14.0-149*				
(S) 2-Fluorobiphenyl				*91.7*	*88.8*	*34.0-125*				
(S) p-Terphenyl-d14				*83.8*	*79.0*	*23.0-120*				

L961505-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L961505-03 01/12/18 16:16 • (MS) R3279132-1 01/12/18 16:37 • (MSD) R3279132-2 01/12/18 16:59

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0896	U	0.0947	0.0917	106	102	1	20.0-136			3.23	24
Acenaphthene	0.0896	U	0.0924	0.0886	103	98.9	1	29.0-124			4.17	20
Acenaphthylene	0.0896	U	0.0989	0.0949	110	106	1	35.0-120			4.16	20
Benzo(a)anthracene	0.0896	U	0.0861	0.0818	96.0	91.3	1	13.0-132			5.03	27
Benzo(a)pyrene	0.0896	U	0.0853	0.0819	95.2	91.4	1	14.0-138			4.10	27
Benzo(b)fluoranthene	0.0896	U	0.0869	0.0772	97.0	86.1	1	10.0-129			11.9	31
Benzo(g,h,i)perylene	0.0896	U	0.0787	0.0745	87.8	83.1	1	10.0-133			5.56	30
Benzo(k)fluoranthene	0.0896	U	0.0936	0.0828	104	92.3	1	15.0-131			12.3	27
Chrysene	0.0896	U	0.0898	0.0851	100	95.0	1	15.0-137			5.35	25
Dibenz(a,h)anthracene	0.0896	U	0.0872	0.0833	97.3	92.9	1	15.0-132			4.60	27
Fluoranthene	0.0896	0.000695	0.0943	0.0919	104	102	1	13.0-139			2.55	28
Fluorene	0.0896	U	0.0827	0.0990	92.2	110	1	27.0-122			18.0	22
Indeno(1,2,3-cd)pyrene	0.0896	U	0.0824	0.0779	91.9	86.9	1	11.0-133			5.56	29
Naphthalene	0.0896	0.00225	0.0898	0.0911	97.7	99.1	1	18.0-136			1.42	21
Phenanthrene	0.0896	0.00123	0.0888	0.0855	97.7	94.0	1	15.0-133			3.80	25
Pyrene	0.0896	0.000829	0.0991	0.0923	110	102	1	11.0-146			7.12	29
1-Methylnaphthalene	0.0896	U	0.0858	0.0926	95.7	103	1	24.0-137			7.56	22
2-Methylnaphthalene	0.0896	U	0.0816	0.0931	91.0	104	1	23.0-136			13.1	22
2-Chloronaphthalene	0.0896	U	0.0824	0.0887	92.0	99.0	1	36.0-120			7.38	20
(S) Nitrobenzene-d5					*98.9*	*101*		*14.0-149*				
(S) 2-Fluorobiphenyl					*86.0*	*94.6*		*34.0-125*				
(S) p-Terphenyl-d14					*102*	*92.9*		*23.0-120*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Cascadia Associates- Portland, OR
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: Amanda Spencer / aspencer@cascadiaassociates.com
Joel Mattecheck / jmattecheck@cascadiaassociates.com

Project Description: **Gephard Village Soil Sampling**
City/State Collected: **Oregon**

Phone: 503 906 6577
Fax:

Client Project # **0063-001-001**
Lab Project # **CASASCTOR**

Collected by (print): Joel Mattecheck
Site/Facility ID #
P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed: Date

Quote #

Analysis / Container / Preservative

Chain of Custody Page 1 of 3

ESC LABORATORIES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 961534
G087

Acctnum: CASASCTOR
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Date	Time	No. of Cntrs	Total Metals (pb, As, cd, Cu, Zn)	Total Metals (pb, As)	Nitrates	Organic Pesticides	Hold Remaining Sample Volume for Follow UPS	Remarks	Sample # (lab only)
SS-1	Grab	Soil	1/4/18	1030	1	X			X	X		01
SS-2			1/4/18	1045	1	X		X		X		02
SS-3			1/4/18	1100	1	X			X	X		03
~~SS-6~~ SS-6			1/4/18	1105	1		X	X		X		04
SS-5			1/4/18	1115	1	X	X	X		X		05
SS-4			1/4/18	1120	1		X	X		X		06
SS-7			1/4/18	1130	1		X	X		X		07
SS-8			1/4/18	1150	1		X	X		X		08
SS-9			1/4/18	1157	1		X	X		X		09
SS-12	"	"	1/4/18	1205	1		X			X		10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Additional samples: Stockpile 1, 1/4/18, 1620, Analyze for: PAHs, Organic Pesticides, Total Metals (pb, As, cd, Cu, Zn) pH _____ Temp 11 Flow _____ Other _____

Samples returned via: ___ UPS X FedEx ___ Courier ___ _____
Tracking # 774661466539 4

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: X Y N
Bottles arrive intact: X Y N
Correct bottles used: X Y N
Sufficient volume sent: X Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
	1/5/18	1500			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.7 °C Bottles Received: 38	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 01-06-18 Time: 0845	Hold: Condition: NCF / OK

Chain of Custody Page 2 of 3

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 961454

Table #

Acctnum: CASASCTOR

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Cascadia Associates- Portland, OR
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: **Joel Mattecheck** / Amanda Spencer (aspencer@cascadiaassociates.com)

Email To: **jmattecheck@cascadiaassociates.com**

Project Description: **Gephard Village Soil Sampling**

City/State Collected: **Oregon**

Phone: 5039066577
Fax:

Client Project # **0063-001-001**

Lab Project # **CASASCTOR**

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Quote #

Immediately Packed on Ice: N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	Total Metals (pb, As, cd, cu, Zn)	Total Metals (Pb, As)	Nitrates	Organic Pesticides						Hold Remaining Volume for follow-ups	Remarks	Sample # (lab only)
SS-13	Grab	Soil		1/4/18	1230	1		X								X		12
SS-14					1240	1		X								X		13
SS-15					1300	1		X								X		14
SS-18					1306	1	X			X						X		15
SS-17					1330	1		X								X		16
SS-16					1335	1		X								X		17
SS-10					1345	1		X								X		18
SS-11					1355	1		X								X		19
SS-19					1410	1	X			X						X		20
SS-20					1430	1	X			X						X		21

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: Additional sample: Stockpile 2, 1/4/18, 1630 Analyze for: PAHs, Organic Pesticides, Total Metals (pb, As, cd, Cu, Zn)

pH ___ Temp 22 Flow ___ Other ___

Samples returned via: ___ UPS ___ FedEx ___ Courier ___ ___

Tracking # 7466146665394

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: ___ Y ___ N
Preservation Correct/Checked: ___ Y ___ N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	1/5/18	1500			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.7+0 °C Bottles Received: 23	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 01-06-18 Time: 0845	Hold: Condition: NCF / OK

Cascadia Associates- Portland, OR
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219
Pres Chk

Report to: **Joel Mattecheck** / aspencer@cascadia ass... / Amanda Spencer
Email To: **jmattecheck@cascadiaassociates.com**; ociates.com

Project Description: **Gephard Village Soil Sampling**
City/State Collected: **Oregon**

Phone:
Fax:
Client Project # **0063-001-001**
Lab Project # **CASASCTOR**

Collected by (print): **Joel Mattecheck**
Site/Facility ID #
P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y X
Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Quote #
Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 3 of 3

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 961534
Table #
Acctnum: CASASCTOR
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total Metals (Pb, As, Cd, Cu, Zn)	Total Metals (Pb, As)	Nitrates	Organic Pesticides	(Hold Remaining Sample Volume for Follow-Up)	Remarks	Sample # (lab only)
SS-21	Grab	Soil		1/4/18	1430	1		X			X		23
SS-24					1445	1		X			X		24
SS-23					1455	1		X			X		25
SS-22					1500	1		X			X		26
SS-27					1505	1		X			X		27
SS-26					1510	1		X			X		28
SS-25					1515	1		X			X		29
SS-28					1525	1	X		[illegible]	X	X		30
SS-29					1540	1	X		X		X		31
SS-30					1600	1	X		[illegible]	X	X		32

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: Additional sample: Stockpile 3, 1/4/18, 1640, Analyze for: PAHs, Organic Pesticides, Total Metals (Pb, As, Cd, Cu, Zn) pH Temp 33 Flow ___ Other ___

Samples returned via: __ UPS X FedEx __ Courier ___
Tracking # 7726614666 5394

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: X __N
Bottles arrive intact: X __N
Correct bottles used: X __N
Sufficient volume sent: X __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Trip Blank Received: Yes (No) HCl / MeOH TBR

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
[signature]	1/5/18	1500	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]

Temp: 5.7 °C Bottles Received: 33
If preservation required by Login: Date/Time
Date: 01-06-18 Time: 0815
Hold:
Condition: NCF / OK

ANALYTICAL REPORT

March 20, 2018

Cascadia Associates- Portland, OR

Sample Delivery Group:	L974248
Samples Received:	03/02/2018
Project Number:	0063-001-001
Description:	Gephard Village Phase II Field Investigation

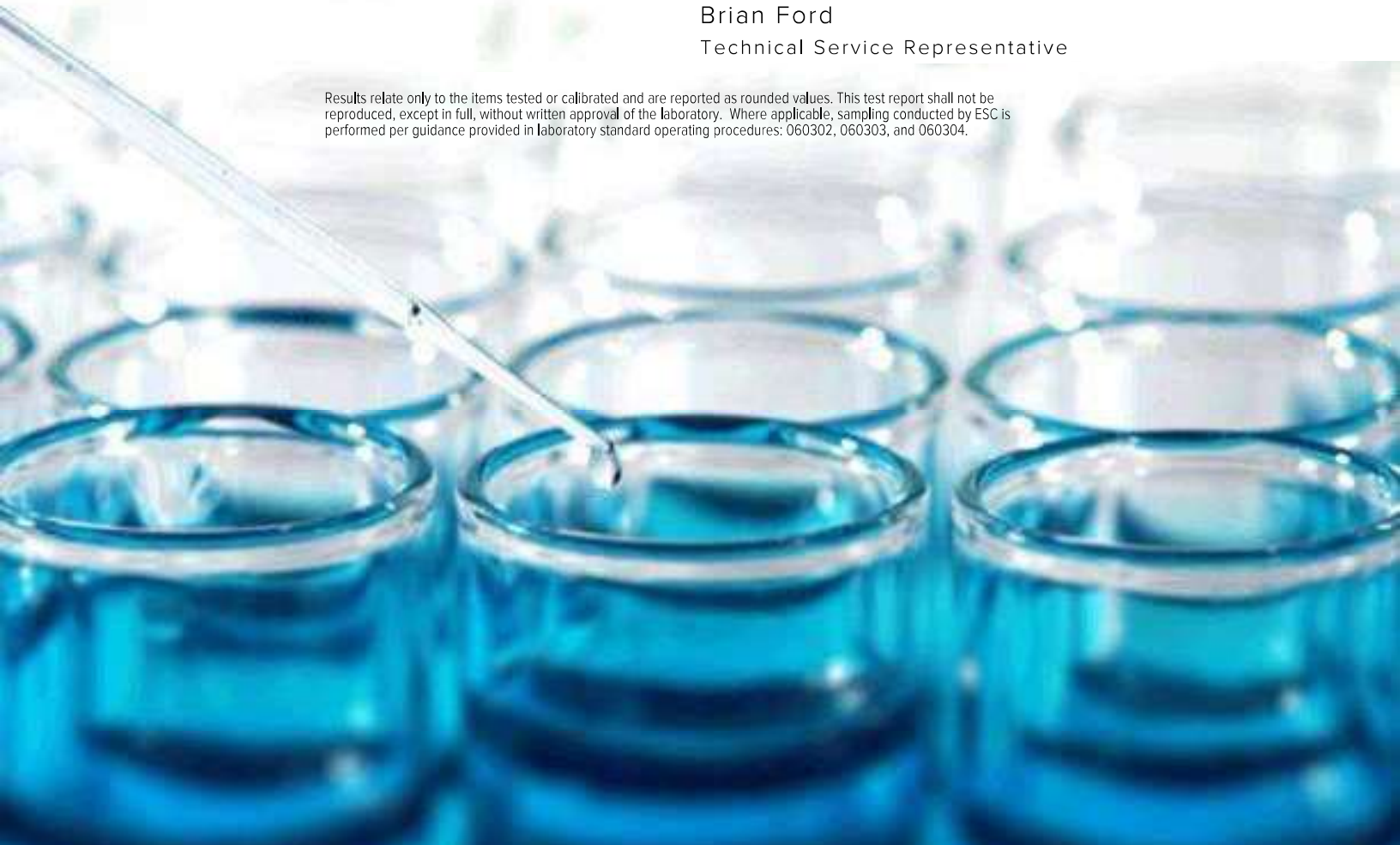
Report To:

Joel Mattecheck
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Entire Report Reviewed By:

Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.esclabsciences.com

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 4

Cn: Case Narrative 9

Sr: Sample Results 10

SS-1 (1-1.5) L974248-01 10

SS-2 (1-1.5) L974248-02 11

SS-3 (1-1.5) L974248-03 12

SS-6 (1-1.5) L974248-04 13

SS-7 (1-1.5) L974248-05 14

SS-8 (1-1.5) L974248-06 15

SS-9 (1-1.5) L974248-07 16

SS-12 (1-1.5) L974248-08 17

SS-11 (1-1.5) L974248-09 18

SS-10 (1-1.5) L974248-10 19

SS-13 (1-1.5) L974248-11 20

SS-14 (1-1.5) L974248-12 21

SS-15 (1-1.5) L974248-13 22

SS-18 (1-1.5) L974248-14 23

SS-17 (1-1.5) L974248-15 24

SS-16 (1-1.5) L974248-16 25

SS-19 (1-1.5) L974248-17 26

SS-20 (1-1.5) L974248-18 27

SS-21 (1-1.5) L974248-19 28

SS-4 (1-1.5) L974248-20 29

SS-5 (1-1.5) L974248-21 30

SS-5 GW L974248-22 31

DW GW L974248-23 32

SS-24 (1-1.5) L974248-24 36

SS-27 (1-1.5) L974248-25 37

SS-30 (1-1.5) L974248-26 38

SS-30 GW L974248-27 39

SS-29 (1-1.5) L974248-28 40

SS-26 (1-1.5) L974248-29 41

SS-25 (1-1.5) L974248-30 42

SS-28 (1-1.5) L974248-31 43

SS-23 (1-1.5) L974248-32 44

SS-22 (1-1.5) L974248-33 45

Qc: Quality Control Summary 46

Total Solids by Method 2540 G-2011 46

Wet Chemistry by Method 9056A 50
Mercury by Method 7470A 51
Metals (ICP) by Method 6010B 53
Volatile Organic Compounds (GC) by Method NWTPHGX 57
Volatile Organic Compounds (GC/MS) by Method 8260B 58
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT 62
Pesticides (GC) by Method 8081 63
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM 65
Gl: Glossary of Terms 67
Al: Accreditations & Locations 68
Sc: Sample Chain of Custody 69

SS-1 (1-1.5) L974248-01 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 09:30 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081608	1	03/08/18 11:10	03/08/18 13:01	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 02:45	TRB

SS-2 (1-1.5) L974248-02 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 10:00 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081608	1	03/08/18 11:10	03/08/18 13:01	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 02:58	TRB

SS-3 (1-1.5) L974248-03 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 10:30 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081608	1	03/08/18 11:10	03/08/18 13:01	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:00	TRB

SS-6 (1-1.5) L974248-04 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 10:50 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081608	1	03/08/18 11:10	03/08/18 13:01	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:08	TRB

SS-7 (1-1.5) L974248-05 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 11:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081608	1	03/08/18 11:10	03/08/18 13:01	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:10	TRB

SS-8 (1-1.5) L974248-06 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 11:30 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081608	1	03/08/18 11:10	03/08/18 13:01	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:13	TRB

SS-9 (1-1.5) L974248-07 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 11:50 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:15	TRB

SS-12 (1-1.5) L974248-08 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 12:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:18	TRB

SS-11 (1-1.5) L974248-09 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 12:30 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:20	TRB

SS-10 (1-1.5) L974248-10 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 12:45 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:23	TRB

SS-13 (1-1.5) L974248-11 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 12:55 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:25	TRB

SS-14 (1-1.5) L974248-12 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 13:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:28	TRB

SS-15 (1-1.5) L974248-13 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 13:30 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:30	TRB

SS-18 (1-1.5) L974248-14 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 13:50 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:38	TRB

SS-17 (1-1.5) L974248-15 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 14:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:40	TRB

SS-16 (1-1.5) L974248-16 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 14:30 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:43	TRB

SS-19 (1-1.5) L974248-17 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 14:50 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:45	TRB

SS-20 (1-1.5) L974248-18 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 15:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:48	TRB

SS-21 (1-1.5) L974248-19 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 15:40 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:50	TRB

SS-4 (1-1.5) L974248-20 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 16:00 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:53	TRB

SS-5 (1-1.5) L974248-21 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 08:40 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:36	ST

SS-5 GW L974248-22 GW

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 12:00 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 9056A	WG1079833	1	03/02/18 18:57	03/02/18 18:57	MAJ
Metals (ICP) by Method 6010B	WG1080267	1	03/06/18 15:46	03/07/18 00:36	TRB
Metals (ICP) by Method 6010B	WG1080282	1	03/05/18 22:07	03/06/18 03:19	TRB

DW GW L974248-23 GW

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 11:00 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1079520	1	03/06/18 05:17	03/06/18 22:02	EL
Mercury by Method 7470A	WG1080607	1	03/05/18 14:22	03/06/18 12:47	ABL
Metals (ICP) by Method 6010B	WG1080267	1	03/06/18 15:46	03/07/18 00:39	TRB
Metals (ICP) by Method 6010B	WG1080282	1	03/05/18 22:07	03/06/18 03:22	TRB
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1080521	1	03/05/18 16:34	03/05/18 16:34	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1080087	5	03/03/18 17:36	03/03/18 17:36	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1080087	5	03/07/18 17:20	03/07/18 17:20	BMB
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1079407	1.25	03/06/18 12:42	03/09/18 21:00	MTJ
Pesticides (GC) by Method 8081	WG1080046	1	03/04/18 20:51	03/06/18 16:33	VKS
Pesticides (GC) by Method 8081	WG1080046	1.43	03/04/18 20:51	03/05/18 18:38	VKS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1080437	3	03/05/18 07:19	03/05/18 19:41	KM

SS-24 (1-1.5) L974248-24 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 11:20 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:39	ST

SS-27 (1-1.5) L974248-25 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 11:40 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:43	ST

SS-30 (1-1.5) L974248-26 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 11:50 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:46	ST

SS-30 GW L974248-27 GW

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 12:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 9056A	WG1079833	1	03/02/18 19:11	03/02/18 19:11	MAJ
Metals (ICP) by Method 6010B	WG1080267	1	03/06/18 15:46	03/07/18 00:43	TRB
Metals (ICP) by Method 6010B	WG1080282	1	03/05/18 22:07	03/06/18 03:26	TRB

SS-29 (1-1.5) L974248-28 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 12:20 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:49	ST

SS-26 (1-1.5) L974248-29 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 12:35 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:53	ST

SS-25 (1-1.5) L974248-30 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 12:45 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081614	1	03/08/18 09:01	03/08/18 09:13	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:56	ST

SS-28 (1-1.5) L974248-31 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 12:55 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081614	1	03/08/18 09:01	03/08/18 09:13	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 19:06	ST

SS-23 (1-1.5) L974248-32 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 13:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081614	1	03/08/18 09:01	03/08/18 09:13	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 19:09	ST

SS-22 (1-1.5) L974248-33 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 13:20 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081614	1	03/08/18 09:01	03/08/18 09:13	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 19:12	ST

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford

Brian Ford
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.1		1	03/08/2018 13:01	WG1081608

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.86	J	0.812	2.50	1	03/06/2018 02:45	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	69.9		1	03/08/2018 13:01	WG1081608

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.19	J	0.930	2.86	1	03/06/2018 02:58	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.1		1	03/08/2018 13:01	WG1081608

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	8.16		0.792	2.44	1	03/06/2018 03:00	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.7		1	03/08/2018 13:01	WG1081608

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	0.997	J	0.733	2.26	1	03/06/2018 03:08	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.5		1	03/08/2018 13:01	WG1081608

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	14.2		0.797	2.45	1	03/06/2018 03:10	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.2		1	03/08/2018 13:01	WG1081608

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.11	J	0.821	2.53	1	03/06/2018 03:13	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.1		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	7.99		0.832	2.56	1	03/06/2018 03:15	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.6		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.25	J	0.817	2.51	1	03/06/2018 03:18	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.4		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.14		0.819	2.52	1	03/06/2018 03:20	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.8		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	13.7		0.794	2.44	1	03/06/2018 03:23	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.6		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.19		0.817	2.51	1	03/06/2018 03:25	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.0		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.41	J	0.813	2.50	1	03/06/2018 03:28	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.9		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.74		0.834	2.57	1	03/06/2018 03:30	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.5		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	0.809	J	0.807	2.48	1	03/06/2018 03:38	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.8		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.75	J	0.836	2.57	1	03/06/2018 03:40	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.8		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	0.869	J	0.825	2.54	1	03/06/2018 03:43	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.1		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.26		0.801	2.46	1	03/06/2018 03:45	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	12.2		0.818	2.52	1	03/06/2018 03:48	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.96	J	0.817	2.52	1	03/06/2018 03:50	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.2		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	25.8		0.864	2.66	1	03/06/2018 03:53	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.4		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.92		0.830	2.55	1	03/06/2018 18:36	WG1080344

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate	1080		22.7	100	1	03/02/2018 18:57	WG1079833

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic	26.7		6.50	10.0	1	03/07/2018 00:36	WG1080267
Arsenic,Dissolved	U		6.50	10.0	1	03/06/2018 03:19	WG1080282

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	03/06/2018 12:47	WG1080607
Mercury,Dissolved	U		0.0490	0.200	1	03/06/2018 22:02	WG1079520

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic	U		6.50	10.0	1	03/07/2018 00:39	WG1080267
Arsenic,Dissolved	U		6.50	10.0	1	03/06/2018 03:22	WG1080282
Barium	41.3		1.70	5.00	1	03/07/2018 00:39	WG1080267
Barium,Dissolved	39.2		1.70	5.00	1	03/06/2018 03:22	WG1080282
Cadmium	U		0.700	2.00	1	03/07/2018 00:39	WG1080267
Cadmium,Dissolved	U		0.700	2.00	1	03/06/2018 03:22	WG1080282
Chromium	U		1.40	10.0	1	03/07/2018 00:39	WG1080267
Chromium,Dissolved	U		1.40	10.0	1	03/06/2018 03:22	WG1080282
Lead	4.40	J	1.90	5.00	1	03/07/2018 00:39	WG1080267
Lead,Dissolved	3.59	J	1.90	5.00	1	03/06/2018 03:22	WG1080282
Selenium	U		7.40	10.0	1	03/07/2018 00:39	WG1080267
Selenium,Dissolved	U		7.40	10.0	1	03/06/2018 03:22	WG1080282
Silver	U		2.80	5.00	1	03/07/2018 00:39	WG1080267
Silver,Dissolved	U		2.80	5.00	1	03/06/2018 03:22	WG1080282

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/05/2018 16:34	WG1080521
(S) a,a,a-Trifluorotoluene(FID)	*91.7*			*77.0-122*		*03/05/2018 16:34*	WG1080521

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J3	50.0	250	5	03/03/2018 17:36	WG1080087
Acrolein	U	J4	44.4	250	5	03/03/2018 17:36	WG1080087
Acrylonitrile	U		9.35	50.0	5	03/03/2018 17:36	WG1080087
Benzene	U		1.66	5.00	5	03/03/2018 17:36	WG1080087
Bromobenzene	U		1.76	5.00	5	03/03/2018 17:36	WG1080087
Bromodichloromethane	U		1.90	5.00	5	03/03/2018 17:36	WG1080087
Bromoform	U		2.34	5.00	5	03/03/2018 17:36	WG1080087
Bromomethane	U		4.33	25.0	5	03/03/2018 17:36	WG1080087
n-Butylbenzene	U		1.80	5.00	5	03/03/2018 17:36	WG1080087
sec-Butylbenzene	U		1.82	5.00	5	03/03/2018 17:36	WG1080087
tert-Butylbenzene	U		2.00	5.00	5	03/03/2018 17:36	WG1080087
Carbon disulfide	U		1.38	5.00	5	03/03/2018 17:36	WG1080087
Carbon tetrachloride	U		1.90	5.00	5	03/03/2018 17:36	WG1080087
Chlorobenzene	U		1.74	5.00	5	03/03/2018 17:36	WG1080087
Chlorodibromomethane	U		1.64	5.00	5	03/03/2018 17:36	WG1080087
Chloroethane	U		2.26	25.0	5	03/03/2018 17:36	WG1080087
Chloroform	U		1.62	25.0	5	03/03/2018 17:36	WG1080087
Chloromethane	U		1.38	12.5	5	03/03/2018 17:36	WG1080087
2-Chlorotoluene	U		1.88	5.00	5	03/03/2018 17:36	WG1080087
4-Chlorotoluene	U		1.76	5.00	5	03/03/2018 17:36	WG1080087
1,2-Dibromo-3-Chloropropane	U		6.65	25.0	5	03/03/2018 17:36	WG1080087
1,2-Dibromoethane	U		1.90	5.00	5	03/03/2018 17:36	WG1080087
Dibromomethane	U		1.73	5.00	5	03/03/2018 17:36	WG1080087

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		1.74	5.00	5	03/03/2018 17:36	WG1080087
1,3-Dichlorobenzene	U		1.10	5.00	5	03/03/2018 17:36	WG1080087
1,4-Dichlorobenzene	U		1.37	5.00	5	03/03/2018 17:36	WG1080087
Dichlorodifluoromethane	U		2.76	25.0	5	03/03/2018 17:36	WG1080087
1,1-Dichloroethane	U		1.30	5.00	5	03/03/2018 17:36	WG1080087
1,2-Dichloroethane	U		1.80	5.00	5	03/03/2018 17:36	WG1080087
1,1-Dichloroethene	U		1.99	5.00	5	03/03/2018 17:36	WG1080087
cis-1,2-Dichloroethene	U		1.30	5.00	5	03/03/2018 17:36	WG1080087
trans-1,2-Dichloroethene	U		1.98	5.00	5	03/03/2018 17:36	WG1080087
1,2-Dichloropropane	U		1.53	5.00	5	03/03/2018 17:36	WG1080087
1,1-Dichloropropene	U		1.76	5.00	5	03/03/2018 17:36	WG1080087
1,3-Dichloropropane	U		1.83	5.00	5	03/03/2018 17:36	WG1080087
cis-1,3-Dichloropropene	U		2.09	5.00	5	03/03/2018 17:36	WG1080087
trans-1,3-Dichloropropene	U		2.10	5.00	5	03/03/2018 17:36	WG1080087
2,2-Dichloropropane	U		1.60	5.00	5	03/03/2018 17:36	WG1080087
Di-isopropyl ether	U		1.60	5.00	5	03/03/2018 17:36	WG1080087
Ethylbenzene	U		1.92	5.00	5	03/03/2018 17:36	WG1080087
Hexachloro-1,3-butadiene	U		1.28	5.00	5	03/03/2018 17:36	WG1080087
Isopropylbenzene	U		1.63	5.00	5	03/03/2018 17:36	WG1080087
p-Isopropyltoluene	U		1.75	5.00	5	03/03/2018 17:36	WG1080087
2-Butanone (MEK)	U		19.6	50.0	5	03/03/2018 17:36	WG1080087
Methylene Chloride	U		5.00	25.0	5	03/03/2018 17:36	WG1080087
4-Methyl-2-pentanone (MIBK)	U		10.7	50.0	5	03/03/2018 17:36	WG1080087
Methyl tert-butyl ether	U		1.84	5.00	5	03/03/2018 17:36	WG1080087
Naphthalene	U		5.00	25.0	5	03/03/2018 17:36	WG1080087
n-Propylbenzene	U		1.74	5.00	5	03/03/2018 17:36	WG1080087
Styrene	U		1.54	5.00	5	03/03/2018 17:36	WG1080087
1,1,1,2-Tetrachloroethane	U		1.92	5.00	5	03/03/2018 17:36	WG1080087
1,1,2,2-Tetrachloroethane	U		0.650	5.00	5	03/03/2018 17:36	WG1080087
1,1,2-Trichlorotrifluoroethane	U		1.52	5.00	5	03/03/2018 17:36	WG1080087
Tetrachloroethene	U		1.86	5.00	5	03/07/2018 17:20	WG1080087
Toluene	U		2.06	5.00	5	03/03/2018 17:36	WG1080087
1,2,3-Trichlorobenzene	U		1.15	5.00	5	03/03/2018 17:36	WG1080087
1,2,4-Trichlorobenzene	U		1.78	5.00	5	03/03/2018 17:36	WG1080087
1,1,1-Trichloroethane	U		1.60	5.00	5	03/03/2018 17:36	WG1080087
1,1,2-Trichloroethane	U		1.92	5.00	5	03/03/2018 17:36	WG1080087
Trichloroethene	U		1.99	5.00	5	03/03/2018 17:36	WG1080087
Trichlorofluoromethane	U		6.00	25.0	5	03/03/2018 17:36	WG1080087
1,2,3-Trichloropropane	U		4.04	12.5	5	03/03/2018 17:36	WG1080087
1,2,4-Trimethylbenzene	U		1.86	5.00	5	03/03/2018 17:36	WG1080087
1,2,3-Trimethylbenzene	U		1.60	5.00	5	03/03/2018 17:36	WG1080087
1,3,5-Trimethylbenzene	U		1.94	5.00	5	03/03/2018 17:36	WG1080087
Vinyl chloride	U		1.30	5.00	5	03/03/2018 17:36	WG1080087
Xylenes, Total	U		5.30	15.0	5	03/03/2018 17:36	WG1080087
(S) Toluene-d8	*106*			*80.0-120*		*03/07/2018 17:20*	WG1080087
(S) Toluene-d8	*104*			*80.0-120*		*03/03/2018 17:36*	WG1080087
(S) Dibromofluoromethane	*94.7*			*76.0-123*		*03/07/2018 17:20*	WG1080087
(S) Dibromofluoromethane	*102*			*76.0-123*		*03/03/2018 17:36*	WG1080087
(S) 4-Bromofluorobenzene	*92.0*			*80.0-120*		*03/03/2018 17:36*	WG1080087
(S) 4-Bromofluorobenzene	*95.4*			*80.0-120*		*03/07/2018 17:20*	WG1080087

Sample Narrative:

L974248-23 WG1080087: Lowest possible dilution due to sediment in sample vial.

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	U		41.2	125	1.25	03/09/2018 21:00	WG1079407
Residual Range Organics (RRO)	U		103	313	1.25	03/09/2018 21:00	WG1079407
(S) o-Terphenyl	*86.5*			*31.0-160*		*03/09/2018 21:00*	WG1079407

Pesticides (GC) by Method 8081

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Aldrin	U		0.0116	0.0715	1.43	03/05/2018 18:38	WG1080046
Alpha BHC	U		0.0237	0.0715	1.43	03/05/2018 18:38	WG1080046
Beta BHC	U		0.0263	0.0715	1.43	03/05/2018 18:38	WG1080046
Delta BHC	U		0.0282	0.0715	1.43	03/05/2018 18:38	WG1080046
Gamma BHC	U		0.0252	0.0715	1.43	03/05/2018 18:38	WG1080046
Chlordane	U		0.140	0.715	1.43	03/05/2018 18:38	WG1080046
4,4-DDD	U		0.0243	0.0715	1.43	03/05/2018 18:38	WG1080046
4,4-DDE	U		0.0234	0.0715	1.43	03/05/2018 18:38	WG1080046
4,4-DDT	U		0.0253	0.0715	1.43	03/05/2018 18:38	WG1080046
Dieldrin	U		0.0107	0.0715	1.43	03/05/2018 18:38	WG1080046
Endosulfan I	U		0.0256	0.0715	1.43	03/05/2018 18:38	WG1080046
Endosulfan II	U		0.0252	0.0715	1.43	03/05/2018 18:38	WG1080046
Endosulfan sulfate	U		0.0280	0.0715	1.43	03/05/2018 18:38	WG1080046
Endrin	U		0.0270	0.0715	1.43	03/05/2018 18:38	WG1080046
Endrin aldehyde	U		0.0203	0.0715	1.43	03/05/2018 18:38	WG1080046
Endrin ketone	U		0.0243	0.0715	1.43	03/05/2018 18:38	WG1080046
Hexachlorobenzene	U		0.0192	0.0715	1.43	03/05/2018 18:38	WG1080046
Heptachlor	U		0.0154	0.0715	1.43	03/05/2018 18:38	WG1080046
Heptachlor epoxide	U		0.0250	0.0715	1.43	03/05/2018 18:38	WG1080046
Methoxychlor	U		0.0276	0.0715	1.43	03/05/2018 18:38	WG1080046
Toxaphene	U		0.168	0.500	1	03/06/2018 16:33	WG1080046
(S) Decachlorobiphenyl	*55.6*			*10.0-144*		*03/06/2018 16:33*	WG1080046
(S) Decachlorobiphenyl	*69.3*			*10.0-144*		*03/05/2018 18:38*	WG1080046
(S) Tetrachloro-m-xylene	*83.5*			*10.0-135*		*03/05/2018 18:38*	WG1080046
(S) Tetrachloro-m-xylene	*88.8*			*10.0-135*		*03/06/2018 16:33*	WG1080046

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	U	J4	0.0420	0.150	3	03/05/2018 19:41	WG1080437
Acenaphthene	U		0.0300	0.150	3	03/05/2018 19:41	WG1080437
Acenaphthylene	U	J4	0.0360	0.150	3	03/05/2018 19:41	WG1080437
Benzo(a)anthracene	U		0.0123	0.150	3	03/05/2018 19:41	WG1080437
Benzo(a)pyrene	U		0.0348	0.150	3	03/05/2018 19:41	WG1080437
Benzo(b)fluoranthene	U		0.00636	0.150	3	03/05/2018 19:41	WG1080437
Benzo(g,h,i)perylene	U		0.00681	0.150	3	03/05/2018 19:41	WG1080437
Benzo(k)fluoranthene	U		0.0408	0.150	3	03/05/2018 19:41	WG1080437
Chrysene	U		0.0324	0.150	3	03/05/2018 19:41	WG1080437
Dibenz(a,h)anthracene	U		0.0119	0.150	3	03/05/2018 19:41	WG1080437
Fluoranthene	U		0.0471	0.150	3	03/05/2018 19:41	WG1080437
Fluorene	U		0.0255	0.150	3	03/05/2018 19:41	WG1080437
Indeno(1,2,3-cd)pyrene	U		0.0444	0.150	3	03/05/2018 19:41	WG1080437
Naphthalene	U		0.0594	0.750	3	03/05/2018 19:41	WG1080437
Phenanthrene	U		0.0246	0.150	3	03/05/2018 19:41	WG1080437
Pyrene	U		0.0351	0.150	3	03/05/2018 19:41	WG1080437
1-Methylnaphthalene	U		0.0246	0.750	3	03/05/2018 19:41	WG1080437
2-Methylnaphthalene	U		0.0271	0.750	3	03/05/2018 19:41	WG1080437
2-Chloronaphthalene	U	J4	0.0194	0.750	3	03/05/2018 19:41	WG1080437

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Nitrobenzene-d5	*119*			*31.0-160*		*03/05/2018 19:41*	WG1080437
(S) 2-Fluorobiphenyl	*97.8*			*48.0-148*		*03/05/2018 19:41*	WG1080437
(S) p-Terphenyl-d14	*68.7*			*37.0-146*		*03/05/2018 19:41*	WG1080437

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.9		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	5.07		0.804	2.47	1	03/06/2018 18:39	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.9		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.73		0.803	2.47	1	03/06/2018 18:43	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.1		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	7.39		0.801	2.46	1	03/06/2018 18:46	WG1080344

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate	4240		22.7	100	1	03/02/2018 19:11	WG1079833

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic	11.7		6.50	10.0	1	03/07/2018 00:43	WG1080267
Arsenic,Dissolved	U		6.50	10.0	1	03/06/2018 03:26	WG1080282

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.37	J	0.817	2.52	1	03/06/2018 18:49	WG1080344
Lead	2.69		0.239	0.629	1	03/06/2018 18:49	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.1		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	15.0		0.832	2.56	1	03/06/2018 18:53	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.6		1	03/08/2018 09:13	WG1081614

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	10.9		0.807	2.48	1	03/06/2018 18:56	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.9		1	03/08/2018 09:13	WG1081614

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	12.2		0.794	2.44	1	03/06/2018 19:06	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.9		1	03/08/2018 09:13	WG1081614

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.51		0.757	2.33	1	03/06/2018 19:09	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.0		1	03/08/2018 09:13	WG1081614

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.59		0.756	2.32	1	03/06/2018 19:12	WG1080344

Method Blank (MB)

(MB) R3291873-1 03/08/18 13:01

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L974248-01 Original Sample (OS) • Duplicate (DUP)

(OS) L974248-01 03/08/18 13:01 • (DUP) R3291873-3 03/08/18 13:01

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	80.1	79.2	1	1.08		5

Laboratory Control Sample (LCS)

(LCS) R3291873-2 03/08/18 13:01

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3291857-1 03/08/18 10:10

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L974248-16 Original Sample (OS) • Duplicate (DUP)

(OS) L974248-16 03/08/18 10:10 • (DUP) R3291857-3 03/08/18 10:10

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	78.8	78.8	1	0.0486		5

Laboratory Control Sample (LCS)

(LCS) R3291857-2 03/08/18 10:10

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3291854-1 03/08/18 09:59

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L974248-17 Original Sample (OS) • Duplicate (DUP)

(OS) L974248-17 03/08/18 09:59 • (DUP) R3291854-3 03/08/18 09:59

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	81.1	80.9	1	0.267		5

Laboratory Control Sample (LCS)

(LCS) R3291854-2 03/08/18 09:59

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3291848-1 03/08/18 09:13

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L974310-01 Original Sample (OS) • Duplicate (DUP)

(OS) L974310-01 03/08/18 09:13 • (DUP) R3291848-3 03/08/18 09:13

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	78.7	79.0	1	0.328		5

Laboratory Control Sample (LCS)

(LCS) R3291848-2 03/08/18 09:13

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3290253-1 03/02/18 12:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Nitrate	U		22.7	100

L974267-02 Original Sample (OS) • Duplicate (DUP)

(OS) L974267-02 03/02/18 19:38 • (DUP) R3290253-4 03/02/18 20:24

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	2410	2410	1	0.145		15

L974350-03 Original Sample (OS) • Duplicate (DUP)

(OS) L974350-03 03/02/18 23:04 • (DUP) R3290253-7 03/02/18 23:18

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	33.4	32.4	1	3.04	J	15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290253-2 03/02/18 12:24 • (LCSD) R3290253-3 03/02/18 12:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Nitrate	8000	8140	8140	102	102	80.0-120			0.0393	15

L974267-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974267-02 03/02/18 19:38 • (MS) R3290253-5 03/02/18 20:37 • (MSD) R3290253-6 03/02/18 20:50

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate	5000	2410	7400	7500	99.6	102	1	80.0-120			1.43	15

L974350-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L974350-03 03/02/18 23:04 • (MS) R3290253-8 03/02/18 23:31

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5000	33.4	4900	97.4	1	80.0-120	

Method Blank (MB)

(MB) R3291016-1 03/06/18 21:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury,Dissolved	U		0.0490	0.200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291016-2 03/06/18 21:58 • (LCSD) R3291016-3 03/06/18 22:00

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	3.00	2.80	2.68	93.3	89.3	80.0-120			4.39	20

L974248-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974248-23 03/06/18 22:02 • (MS) R3291016-4 03/06/18 22:05 • (MSD) R3291016-5 03/06/18 22:07

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	3.00	U	2.75	2.83	91.7	94.3	1	75.0-125			2.77	20

Method Blank (MB)

(MB) R3290872-1 03/06/18 12:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Mercury	U		0.0490	0.200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290872-2 03/06/18 12:36 • (LCSD) R3290872-3 03/06/18 12:38

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Mercury	3.00	2.66	2.74	88.8	91.4	80.0-120			2.89	20

L974724-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974724-03 03/06/18 12:41 • (MS) R3290872-4 03/06/18 12:43 • (MSD) R3290872-5 03/06/18 12:45

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Mercury	3.00	U	2.89	3.00	96.5	100	1	75.0-125			3.68	20

Method Blank (MB)

(MB) R3291034-1 03/06/18 23:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Arsenic	U		6.50	10.0
Barium	U		1.70	5.00
Cadmium	U		0.700	2.00
Chromium	U		1.40	10.0
Lead	U		1.90	5.00
Selenium	U		7.40	10.0
Silver	U		2.80	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291034-2 03/06/18 23:36 • (LCSD) R3291034-3 03/06/18 23:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	1000	939	943	93.9	94.3	80.0-120			0.431	20
Barium	1000	974	979	97.4	97.9	80.0-120			0.557	20
Cadmium	1000	950	954	95.0	95.4	80.0-120			0.434	20
Chromium	1000	976	976	97.6	97.6	80.0-120			0.0733	20
Lead	1000	990	997	99.0	99.7	80.0-120			0.714	20
Selenium	1000	948	953	94.8	95.3	80.0-120			0.581	20
Silver	200	180	180	90.0	89.9	80.0-120			0.117	20

L974141-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974141-03 03/06/18 23:42 • (MS) R3291034-5 03/06/18 23:49 • (MSD) R3291034-6 03/06/18 23:52

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	1000	ND	982	970	98.2	97.0	1	75.0-125			1.20	20
Barium	1000	114	1090	1070	97.1	95.6	1	75.0-125			1.41	20
Cadmium	1000	ND	970	959	97.0	95.9	1	75.0-125			1.12	20
Chromium	1000	ND	977	963	97.7	96.3	1	75.0-125			1.53	20
Lead	1000	ND	1010	1000	101	100	1	75.0-125			0.354	20
Selenium	1000	ND	986	972	98.6	97.2	1	75.0-125			1.48	20
Silver	200	ND	184	181	92.1	90.7	1	75.0-125			1.48	20

Method Blank (MB)

(MB) R3290704-1 03/06/18 02:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Arsenic,Dissolved	U		6.50	10.0
Barium,Dissolved	U		1.70	5.00
Cadmium,Dissolved	U		0.700	2.00
Chromium,Dissolved	U		1.40	10.0
Lead,Dissolved	U		1.90	5.00
Selenium,Dissolved	U		7.40	10.0
Silver,Dissolved	U		2.80	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290704-2 03/06/18 02:29 • (LCSD) R3290704-3 03/06/18 02:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1000	964	960	96.4	96.0	80.0-120			0.382	20
Barium,Dissolved	1000	1000	994	100	99.4	80.0-120			0.782	20
Cadmium,Dissolved	1000	972	967	97.2	96.7	80.0-120			0.466	20
Chromium,Dissolved	1000	979	977	97.9	97.7	80.0-120			0.298	20
Lead,Dissolved	1000	988	979	98.8	97.9	80.0-120			0.822	20
Selenium,Dissolved	1000	976	969	97.6	96.9	80.0-120			0.704	20
Silver,Dissolved	200	188	186	93.8	93.1	80.0-120			0.717	20

L974146-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974146-02 03/06/18 02:36 • (MS) R3290704-5 03/06/18 02:42 • (MSD) R3290704-6 03/06/18 02:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1000	U	981	986	98.1	98.6	1	75.0-125			0.544	20
Barium,Dissolved	1000	10.9	989	997	97.8	98.6	1	75.0-125			0.777	20
Cadmium,Dissolved	1000	U	977	978	97.7	97.8	1	75.0-125			0.0768	20
Chromium,Dissolved	1000	U	963	965	96.3	96.5	1	75.0-125			0.170	20
Lead,Dissolved	1000	U	981	985	98.1	98.5	1	75.0-125			0.351	20
Selenium,Dissolved	1000	U	985	1000	98.5	100	1	75.0-125			1.66	20
Silver,Dissolved	200	U	189	190	94.4	94.8	1	75.0-125			0.359	20

Method Blank (MB)

(MB) R3290708-1 03/06/18 02:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.650	2.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290708-2 03/06/18 02:40 • (LCSD) R3290708-3 03/06/18 02:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	101	102	101	102	80.0-120			0.692	20

L974248-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974248-01 03/06/18 02:45 • (MS) R3290708-6 03/06/18 02:53 • (MSD) R3290708-7 03/06/18 02:55

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	125	1.86	118	118	92.8	93.3	1	75.0-125			0.531	20

Method Blank (MB)

(MB) R3291009-1 03/06/18 17:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.650	2.00
Lead	U		0.190	0.500

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291009-2 03/06/18 17:51 • (LCSD) R3291009-3 03/06/18 17:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	103	109	103	109	80.0-120			5.84	20
Lead	100	101	107	101	107	80.0-120			5.89	20

L974040-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974040-09 03/06/18 17:57 • (MS) R3291009-6 03/06/18 18:07 • (MSD) R3291009-7 03/06/18 18:10

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	136	6.92	151	145	106	102	1	75.0-125			3.94	20
Lead	136	9.17	157	150	109	103	1	75.0-125			4.75	20

Method Blank (MB)

(MB) R3290945-3 03/05/18 11:37

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*92.7*			*77.0-122*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290945-1 03/05/18 10:30 • (LCSD) R3290945-2 03/05/18 10:52

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	5010	5010	91.1	91.2	72.0-134			0.0331	20
(S) a,a,a-Trifluorotoluene(FID)				*108*	*109*	*77.0-122*				

L974024-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974024-19 03/05/18 12:52 • (MS) R3290945-4 03/05/18 20:38 • (MSD) R3290945-5 03/05/18 21:00

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	352	5110	5140	86.5	87.0	1	23.0-159			0.482	20
(S) a,a,a-Trifluorotoluene(FID)					*104*	*105*		*77.0-122*				

Method Blank (MB)

(MB) R3290930-3 03/03/18 11:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Acrolein	U		8.87	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00

Method Blank (MB)

(MB) R3290930-3 03/03/18 11:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Hexachloro-1,3-butadiene	0.415	J	0.256	1.00
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	0.370	J	0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,3-Trimethylbenzene	U		0.321	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*99.0*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.8*			*80.0-120*

Method Blank (MB)

(MB) R3291127-1 03/06/18 23:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Tetrachloroethene	U		0.372	1.00
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*93.1*			*76.0-123*
(S) 4-Bromofluorobenzene	*103*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290930-1 03/03/18 10:04 • (LCSD) R3290930-2 03/03/18 10:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	195	148	156	118	10.0-160		J3	27.6	23
Acrolein	125	241	231	193	185	10.0-160	J4	J4	4.09	20
Acrylonitrile	125	144	128	115	102	60.0-142			11.8	20
Benzene	25.0	26.2	25.6	105	103	69.0-123			2.16	20
Bromobenzene	25.0	24.3	25.0	97.1	99.9	79.0-120			2.87	20
Bromodichloromethane	25.0	26.7	26.7	107	107	76.0-120			0.191	20
Bromoform	25.0	20.5	21.2	82.0	84.7	67.0-132			3.20	20
Bromomethane	25.0	32.1	27.4	128	110	18.0-160			15.8	20
n-Butylbenzene	25.0	27.6	26.7	111	107	72.0-126			3.30	20
sec-Butylbenzene	25.0	28.3	27.9	113	112	74.0-121			1.18	20
tert-Butylbenzene	25.0	26.5	26.4	106	105	75.0-122			0.728	20
Carbon disulfide	25.0	26.2	26.0	105	104	55.0-127			0.767	20
Carbon tetrachloride	25.0	27.2	27.0	109	108	63.0-122			0.746	20
Chlorobenzene	25.0	25.4	24.9	101	99.4	79.0-121			2.01	20
Chlorodibromomethane	25.0	26.6	25.9	107	104	75.0-125			2.71	20
Chloroethane	25.0	24.8	28.5	99.2	114	47.0-152			13.7	20
Chloroform	25.0	26.7	25.8	107	103	72.0-121			3.46	20
Chloromethane	25.0	25.5	26.0	102	104	48.0-139			2.02	20
2-Chlorotoluene	25.0	25.6	25.9	102	104	74.0-122			1.13	20
4-Chlorotoluene	25.0	25.1	25.5	100	102	79.0-120			1.41	20
1,2-Dibromo-3-Chloropropane	25.0	26.4	24.8	106	99.3	64.0-127			6.12	20
1,2-Dibromoethane	25.0	25.5	25.1	102	100	77.0-123			1.61	20
Dibromomethane	25.0	26.3	25.4	105	102	78.0-120			3.48	20
1,2-Dichlorobenzene	25.0	26.3	25.2	105	101	80.0-120			4.47	20
1,3-Dichlorobenzene	25.0	27.1	26.6	109	106	72.0-123			1.99	20
1,4-Dichlorobenzene	25.0	25.9	25.5	104	102	77.0-120			1.63	20
Dichlorodifluoromethane	25.0	30.1	30.7	120	123	49.0-155			2.16	20
1,1-Dichloroethane	25.0	26.4	25.9	106	104	70.0-126			1.75	20
1,2-Dichloroethane	25.0	26.0	25.3	104	101	67.0-126			2.92	20
1,1-Dichloroethene	25.0	26.8	26.8	107	107	64.0-129			0.191	20
cis-1,2-Dichloroethene	25.0	25.4	24.9	101	99.7	73.0-120			1.75	20
trans-1,2-Dichloroethene	25.0	25.8	25.1	103	100	71.0-121			2.82	20
1,2-Dichloropropane	25.0	27.1	26.9	108	107	75.0-125			0.807	20
1,1-Dichloropropene	25.0	27.5	26.6	110	107	71.0-129			3.11	20
1,3-Dichloropropane	25.0	25.6	25.4	102	101	80.0-121			0.988	20
cis-1,3-Dichloropropene	25.0	26.3	26.4	105	106	79.0-123			0.359	20
trans-1,3-Dichloropropene	25.0	26.9	26.5	108	106	74.0-127			1.62	20
2,2-Dichloropropane	25.0	28.2	26.8	113	107	60.0-125			5.33	20
Di-isopropyl ether	25.0	26.9	26.1	108	104	59.0-133			3.17	20
Ethylbenzene	25.0	25.7	25.2	103	101	77.0-120			2.17	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290930-1 03/03/18 10:04 • (LCSD) R3290930-2 03/03/18 10:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hexachloro-1,3-butadiene	25.0	24.6	24.1	98.6	96.3	64.0-131			2.30	20
Isopropylbenzene	25.0	26.1	26.3	104	105	75.0-120			0.852	20
p-Isopropyltoluene	25.0	28.7	28.1	115	112	74.0-126			1.93	20
2-Butanone (MEK)	125	154	137	123	109	37.0-158			11.8	20
Methylene Chloride	25.0	24.9	24.7	99.8	98.8	66.0-121			0.985	20
4-Methyl-2-pentanone (MIBK)	125	141	136	113	108	59.0-143			3.89	20
Methyl tert-butyl ether	25.0	27.2	25.2	109	101	64.0-123			7.93	20
Naphthalene	25.0	27.0	24.8	108	99.3	62.0-128			8.41	20
n-Propylbenzene	25.0	25.7	26.2	103	105	79.0-120			2.19	20
Styrene	25.0	26.7	27.6	107	111	78.0-124			3.51	20
1,1,1,2-Tetrachloroethane	25.0	26.6	25.5	106	102	75.0-122			4.17	20
1,1,2,2-Tetrachloroethane	25.0	26.1	25.6	104	102	71.0-122			2.13	20
Tetrachloroethene	25.0	30.4	29.0	122	116	70.0-127			4.74	20
Toluene	25.0	25.5	25.2	102	101	77.0-120			1.10	20
1,1,2-Trichlorotrifluoroethane	25.0	28.2	28.0	113	112	61.0-136			0.499	20
1,2,3-Trichlorobenzene	25.0	25.3	23.5	101	94.0	61.0-133			7.53	20
1,2,4-Trichlorobenzene	25.0	25.4	23.5	102	93.9	69.0-129			7.99	20
1,1,1-Trichloroethane	25.0	27.7	27.2	111	109	68.0-122			2.00	20
1,1,2-Trichloroethane	25.0	25.7	25.1	103	101	78.0-120			2.26	20
Trichloroethene	25.0	25.9	26.1	104	104	78.0-120			0.603	20
Trichlorofluoromethane	25.0	24.2	24.4	96.9	97.8	56.0-137			0.911	20
1,2,3-Trichloropropane	25.0	26.5	26.3	106	105	72.0-124			0.779	20
1,2,3-Trimethylbenzene	25.0	27.7	26.4	111	106	75.0-120			4.79	20
1,2,4-Trimethylbenzene	25.0	26.4	26.1	106	105	75.0-120			0.997	20
1,3,5-Trimethylbenzene	25.0	25.3	25.5	101	102	75.0-120			0.995	20
Vinyl chloride	25.0	26.6	27.0	106	108	64.0-133			1.38	20
Xylenes, Total	75.0	79.4	77.4	106	103	77.0-120			2.55	20
(S) Toluene-d8				*99.0*	*99.3*	*80.0-120*				
(S) Dibromofluoromethane				*103*	*101*	*76.0-123*				
(S) 4-Bromofluorobenzene				*96.3*	*99.5*	*80.0-120*				

Method Blank (MB)

(MB) R3292103-1 03/09/18 15:25

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		33.3	100
Residual Range Organics (RRO)	U		83.3	250
(S) o-Terphenyl	*64.7*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3292103-2 03/09/18 15:41 • (LCSD) R3292103-3 03/09/18 15:57

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	750	801	756	107	101	50.0-150			5.86	20
Residual Range Organics (RRO)	750	674	683	89.8	91.1	50.0-150			1.35	20
(S) o-Terphenyl				*93.2*	*90.4*	*31.0-160*				

L973944-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L973944-21 03/11/18 00:57 • (MS) R3292503-1 03/11/18 01:17 • (MSD) R3292503-2 03/11/18 01:37

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	750	U	1150	1080	153	144	1	50.0-150	J5		5.78	20
Residual Range Organics (RRO)	750	U	895	896	119	119	1	50.0-150			0.126	20
(S) o-Terphenyl					*90.1*	*93.9*		*31.0-160*				

Method Blank (MB)

(MB) R3290595-3 03/05/18 11:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aldrin	U		0.00813	0.0500
Alpha BHC	U		0.0166	0.0500
Beta BHC	U		0.0184	0.0500
Delta BHC	U		0.0197	0.0500
Gamma BHC	U		0.0176	0.0500
4,4-DDD	U		0.0170	0.0500
4,4-DDE	U		0.0164	0.0500
4,4-DDT	U		0.0177	0.0500
Dieldrin	U		0.00751	0.0500
Endosulfan I	U		0.0179	0.0500
Endosulfan II	U		0.0176	0.0500
Endosulfan sulfate	U		0.0196	0.0500
Endrin	U		0.0189	0.0500
Endrin aldehyde	U		0.0142	0.0500
Endrin ketone	U		0.0170	0.0500
Heptachlor	U		0.0108	0.0500
Heptachlor epoxide	U		0.0175	0.0500
Hexachlorobenzene	U		0.0134	0.0500
Methoxychlor	U		0.0193	0.0500
Chlordane	U		0.0977	0.500
Toxaphene	U		0.168	0.500
(S) Decachlorobiphenyl	*61.8*			*10.0-144*
(S) Tetrachloro-m-xylene	*60.0*			*10.0-135*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290595-1 03/05/18 11:16 • (LCSD) R3290595-2 03/05/18 11:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aldrin	1.00	0.624	0.581	62.4	58.1	35.0-126			7.21	24
Alpha BHC	1.00	0.819	0.749	81.9	74.9	55.0-133			8.92	20
Beta BHC	1.00	0.771	0.709	77.1	70.9	59.0-131			8.38	20
Delta BHC	1.00	0.783	0.740	78.3	74.0	61.0-134			5.63	20
Gamma BHC	1.00	0.795	0.732	79.5	73.2	56.0-133			8.23	20
4,4-DDD	1.00	0.848	0.785	84.8	78.5	59.0-138			7.76	20
4,4-DDE	1.00	0.793	0.709	79.3	70.9	58.0-131			11.2	20
4,4-DDT	1.00	0.800	0.800	80.0	80.0	43.0-147			0.00472	20
Dieldrin	1.00	0.819	0.765	81.9	76.5	62.0-136			6.78	20
Endosulfan I	1.00	0.795	0.735	79.5	73.5	62.0-137			7.73	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290595-1 03/05/18 11:16 • (LCSD) R3290595-2 03/05/18 11:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Endosulfan II	1.00	0.797	0.743	79.7	74.3	62.0-136			7.05	20
Endosulfan sulfate	1.00	0.827	0.766	82.7	76.6	60.0-139			7.65	20
Endrin	1.00	0.824	0.767	82.4	76.7	58.0-135			7.07	20
Endrin aldehyde	1.00	0.745	0.753	74.5	75.3	56.0-128			1.13	20
Endrin ketone	1.00	0.843	0.788	84.3	78.8	54.0-142			6.86	20
Heptachlor	1.00	0.676	0.623	67.6	62.3	37.0-134			8.20	24
Heptachlor epoxide	1.00	0.806	0.750	80.6	75.0	60.0-132			7.21	20
Hexachlorobenzene	1.00	0.625	0.571	62.5	57.1	35.0-120			8.95	25
Methoxychlor	1.00	1.05	0.968	105	96.8	44.0-160			7.72	22
(S) Decachlorobiphenyl				*80.3*	*75.0*	*10.0-144*				
(S) Tetrachloro-m-xylene				*77.5*	*71.9*	*10.0-135*				

Method Blank (MB)

(MB) R3290829-3 03/05/18 18:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0140	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.0120	0.0500
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	0.00272	J	0.00212	0.0500
Benzo(g,h,i)perylene	U		0.00227	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Fluoranthene	U		0.0157	0.0500
Fluorene	U		0.00850	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	U		0.0198	0.250
Phenanthrene	U		0.00820	0.0500
Pyrene	U		0.0117	0.0500
1-Methylnaphthalene	U		0.00821	0.250
2-Methylnaphthalene	U		0.00902	0.250
2-Chloronaphthalene	U		0.00647	0.250
(S) Nitrobenzene-d5	*160*			*31.0-160*
(S) 2-Fluorobiphenyl	*137*			*48.0-148*
(S) p-Terphenyl-d14	*123*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290829-1 03/05/18 17:30 • (LCSD) R3290829-2 03/05/18 17:52

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	2.88	2.72	144	136	64.0-142	J4		5.53	20
Acenaphthene	2.00	2.59	2.31	129	116	66.0-132			11.1	20
Acenaphthylene	2.00	2.72	2.43	136	122	65.0-132	J4		11.3	20
Benzo(a)anthracene	2.00	2.55	2.21	128	111	59.0-134			14.1	20
Benzo(a)pyrene	2.00	2.50	2.21	125	111	61.0-145			12.0	20
Benzo(b)fluoranthene	2.00	2.31	2.12	115	106	57.0-136			8.55	20
Benzo(g,h,i)perylene	2.00	2.45	2.18	122	109	54.0-140			11.7	20
Benzo(k)fluoranthene	2.00	2.60	2.31	130	115	57.0-141			12.0	20
Chrysene	2.00	2.69	2.32	135	116	63.0-140			14.9	20
Dibenz(a,h)anthracene	2.00	2.47	2.22	123	111	49.0-141			10.5	20
Fluoranthene	2.00	2.82	2.57	141	128	65.0-143			9.19	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290829-1 03/05/18 17:30 • (LCSD) R3290829-2 03/05/18 17:52

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	2.00	2.48	2.17	124	108	64.0-129			13.5	20
Indeno(1,2,3-cd)pyrene	2.00	2.46	2.20	123	110	53.0-141			11.2	20
Naphthalene	2.00	2.49	2.21	124	110	68.0-129			11.8	20
Phenanthrene	2.00	2.50	2.34	125	117	62.0-132			6.55	20
Pyrene	2.00	2.71	2.38	135	119	58.0-156			13.1	20
1-Methylnaphthalene	2.00	2.40	2.14	120	107	68.0-137			11.6	20
2-Methylnaphthalene	2.00	2.32	2.04	116	102	68.0-134			13.1	20
2-Chloronaphthalene	2.00	2.67	2.36	133	118	65.0-129	J4		12.3	20
(S) Nitrobenzene-d5				*155*	*140*	*31.0-160*				
(S) 2-Fluorobiphenyl				*133*	*121*	*48.0-148*				
(S) p-Terphenyl-d14				*120*	*105*	*37.0-146*				

L974669-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974669-02 03/06/18 00:02 • (MS) R3290829-4 03/06/18 00:24 • (MSD) R3290829-5 03/06/18 00:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	0.130	2.73	2.88	130	138	1	60.0-142			5.47	20
Acenaphthene	2.00	0.328	2.48	2.65	108	116	1	46.0-149			6.39	20
Acenaphthylene	2.00	U	2.41	2.60	120	130	1	54.0-142			7.47	20
Benzo(a)anthracene	2.00	U	2.13	2.31	107	115	1	55.0-134			7.72	20
Benzo(a)pyrene	2.00	U	2.09	2.25	104	112	1	58.0-136			7.34	20
Benzo(b)fluoranthene	2.00	U	1.92	2.10	95.9	105	1	54.0-130			8.86	20
Benzo(g,h,i)perylene	2.00	U	1.97	2.12	98.4	106	1	46.0-135			7.57	20
Benzo(k)fluoranthene	2.00	U	2.18	2.26	109	113	1	52.0-131			3.76	20
Chrysene	2.00	U	2.25	2.36	112	118	1	55.0-137			4.73	20
Dibenz(a,h)anthracene	2.00	U	2.01	2.19	101	110	1	36.0-140			8.47	20
Fluoranthene	2.00	0.178	2.57	2.70	119	126	1	58.0-144			5.20	20
Fluorene	2.00	0.301	2.42	2.54	106	112	1	49.0-142			5.11	20
Indeno(1,2,3-cd)pyrene	2.00	U	1.95	2.14	97.5	107	1	46.0-134			9.26	20
Naphthalene	2.00	0.0526	2.18	2.42	106	118	1	29.0-154			10.6	20
Phenanthrene	2.00	0.378	2.64	2.77	113	120	1	44.0-145			4.78	20
Pyrene	2.00	0.0176	2.30	2.43	114	120	1	62.0-150			5.21	20
1-Methylnaphthalene	2.00	0.300	2.31	2.49	101	110	1	26.0-160			7.55	20
2-Methylnaphthalene	2.00	0.0845	1.98	2.17	94.7	104	1	51.0-150			9.27	20
2-Chloronaphthalene	2.00	U	2.17	2.39	109	119	1	57.0-136			9.29	20
(S) Nitrobenzene-d5					*148*	*136*		*31.0-160*				
(S) 2-Fluorobiphenyl					*118*	*114*		*48.0-148*				
(S) p-Terphenyl-d14					*109*	*109*		*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: Joel Mattecheck

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected: Central point OR

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day X Standard

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table A186

Acctnum: CASASCTOR
Template: T133139
Prelogin: P640497
TSR: 110 - Brian Ford
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	HOLD	Remarks	Sample # (lab only)
SS-1 (1-1.5)	Grab	SS		2/28/18	0930	1	X				
SS-1 (2-2.5)		SS		2/28/18	0950	1	X		X		-01
SS-2 (1.-1.5)		SS		2/28/18	1000	1	X				
SS-2 (2-2.5)		SS		2/28/18	1020	1	X		X		-02
SS-3 (1-1.5)		SS		2/28/18	1030	1	X				
SS-3 (2-2.5)		SS		2/28/18	1040	1	X		X		-03
SS-6 (1-1.5)		SS		2/28/18	1050	1	X				
SS-6 (2-2.5)		SS		2/28/18	1100	1	X		X		-04
SS-7 (1-1.5)		SS		2/28/18	1110	1	X				
SS-7 (2-2.5)		SS		2/28/18	1120	1	X		X		-05

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ___

Remarks: H= HOLD

72154516 3151

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
___ UPS ___ FedEx ___ Courier ___

Tracking # 7466 1466 1675

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	3/1/18	1500	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes (No) HCL / MeoH TBR

Temp: 0.6 °C Bottles Received: 81

Date: 3/2/18 Time: 845

If preservation required by Login: Date/Time

3-018

Condition: NCF / OK

Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: Joel Mattecheck

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected: Central Point OR

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: x Standard

Immediately Packed on Ice N ___ Y X

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	HOLD	Remarks	Sample # (lab only)
SS-8 (1-1.5)	Grab	SS		2/28/18	1130	1	X				
SS-8 (2-2.5)		SS		2/28/18	1140	1	X		X		-06
SS-9 (1-1.5)		SS		2/28/18	1150	1	X				
SS-9 (2-2.5)		SS		2/28/18	1200	1	X		X		-07
SS-12 (1-1.5)		SS		2/28/18	1210	1	X				
SS-12 (2-2.5)		SS		2/28/18	1220	1	X		X		-08
SS-11 (1-1.5)		SS		2/28/18	1230	1	X				
SS-11 (2-2.5)		SS		2/28/18	1240	1	X		X		-09
SS-10 (1-1.5)		SS		2/28/18	1245	1	X				
SS-10 (2-2.5)		SS		2/28/18	1250	1	X		X		-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: If = HOLD

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ___ FedEx ___ Courier _____

Tracking # 7215 4516 3151 7466 1466 1675

Relinquished by: (Signature) — Date: 3/1/18 — Time: 1500 — Received by: (Signature)

Relinquished by: (Signature) — Date: — Time: — Received by: (Signature)

Relinquished by: (Signature) — Date: — Time: — Received for lab by: (Signature) EGT — Date: 3/2/18 — Time: 845

Trip Blank Received: Yes / No HCL / MeoH TBR

Temp: 0.6 °C Bottles Received: 81

If preservation required by Login: Date/Time

Hold: — Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
a division of Pace

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table #

Acctnum: CASASCTOR
Template: T133139
Prelogin: P640497
TSR: 110 - Brian Ford
PB:

Shipped Via:

Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: Joel Mattecheck

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected: Central Point OR

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day — Standard

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table #

Acctnum: CASASCTOR
Template: T133139
Prelogin: P640497
TSR: 110 - Brian Ford
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	HOLD	Remarks	Sample # (lab only)
SS-13 (1-1.5)	Grab	SS		2/28/18	1255	1	X				
SS-13 (2-2.5)		SS		2/28/18	1300	1			X		-11
SS-14 (1-1.5)		SS		2/28/18	1310	1	X				
SS-14 (2-2.5)		SS		2/28/18	1315	1			X		-12
SS-15 (1-1.5)		SS		2/28/18	1330	1	X				
SS-15 (2-2.5)		SS		2/28/18	1340	1			X		-13
SS-18 (1-1.5)		SS		2/28/18	1350	1	X				
SS-18 (2-2.5)		SS		2/28/18	1400	1			X		-14
SS-17 (1-1.5)		SS		2/28/18	1410	1	X				
SS-17 (2-2.5)		SS		2/28/18	1420	1			X		-15

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 1+2 HOLD

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 7215 4516 3151 7466 1466 1625

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	3/1/18	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 0.6 °C Bottles Received: 81

Date: 3/2/18 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: Joel Mattecheck

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected: Central Point OR

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day X standard

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table #

Acctnum: CASASCTOR

Template: T133139

Prelogin: P640497

TSR: 110 - Brian Ford

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	Remarks	Sample # (lab only)
SS-16 (1-1.5')	Grab	SS		2/28/18	1430		X			-16
SS-16 (2-2.5)		SS		2/28/18	1440		H			
SS-19 (1-1.5)		SS		2/28/18	1450		X			-17
SS-19 (2-2.5)		SS		2/28/18	1500		H			
SS-20 (1-1.5)		SS		2/28/18	1510		X			-18
SS-20 (2-2.5)		SS		2/28/18	1520		H			
SS-21 (1-1.5)		SS		2/28/18	1540		X			-19
SS-21 (2-2.5)		SS		2/28/18	1550		H			
SS-4 (1-1.5)		SS		2/28/18	1600		X			-20
SS-4 (2-2.5)		SS		2/28/18	1610		H			

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 7215 4516 3151 7466 1466 1675

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	3/1/18	1500		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.6 °C Bottles Received: 81
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3/2/18 Time: 845
				Hold:

Condition: NCF / OK

Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: Joel Mattecheck

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected: Central Point OR

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel M.

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day X Standard

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	T. Arsenic 2	D. Arsenic 2	Nitrates	TPH: (EPA 8015B)	VOCs (8260)	RCRA Metals (Total and Dissolved) 12 (EPA 6000 series)	Pesticides (EPA 8081)	PAHs (8270 SIMs)	Remarks	Sample # (lab only)
SS-5 (1-1.5)	Grab	SS		3/1/18	0840	1	X											
SS-5 (2.0-2.5)		SS		3/1/18	0850	1	H											-21
SS-5 GW	GW	GW		3/1/18	1200	3			X	X	X							
DW GW	GW	GW		3/1/18	1100	15						X	X	X	X	X		-22
SS-24 (1-1.5)		SS		3/1/18	1120	1	X											-23
SS-24 (2-2.5)		SS		3/1/18	1130	1	H											-24
SS-27 (1-1.5)		SS		3/1/18	1140	1	X											
SS-27 (2-2.5)		SS		3/1/18	1145	1	H											-25
SS-30 (1-1.5)		SS		3/1/18	1150	1	X											
SS-30 (2-2.5)		SS		3/1/18	1200	1	H											-26

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Dissolved Metal samples Filtered in the Field
Hz HOLD
7215 4516 3151

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ___ UPS ___ FedEx ___ Courier ___ _____

Tracking # 7466 1466 1675

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
A subsidiary of Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table #

Acctnum: CASASCTOR

Template: T133139

Prelogin: P640497

TSR: 110 - Brian Ford

PB:

Shipped Via:

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes (No) HCL / MeoH TBR
	3/1/18	1500		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 6.6 °C Bottles Received: 81
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3/2/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Billing Information:
Accounts Payable- Chris Breemer
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Ste. 250
Portland, OR 97219

Pres Chk

Report to: Joel Mattecheck

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected:

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard TAT

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table #

Acctnum: CASASCTOR

Template: T133139

Prelogin: P640497

TSR: 110 - Brian Ford

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	Nitrates	T. Arsenic	D. Arsenic	Remarks	Sample # (lab only)
SS-30 GW	Grab	~~SS~~ GW		3/1/18	1210	3			X	X	X		-27
SS-29 (1-1.5)		SS		3/1/18	1220	1	X	X					-28
SS-29 (2-2.5)		SS		3/1/18	1230	1	H						
SS-26 (1-1.5)				3/1/18	1235	1	X						-29
SS-26 (2-2.5)				3/1/18	1240	1	H						
SS-25 (1-1.5)				3/1/18	1245	1	X						-30
SS-25 (2-2.5)				3/1/18	1250	1	H						
SS-28 (1-1.5)				3/1/18	1255	1	X						-31
SS-28 (2-2.5)				3/1/18	1300	1	H						
SS-23 (1-1.5)				3/1/18	1310	1	X						-32

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: H=hold

pH ___ Temp ___

Flow ___ Other ___

Samples returned via:
___ UPS ___ FedEx ___ Courier ___

Tracking # 7215 4576 3151 5271 8 7466 1466 1675

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	3/1/18	1500		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 6.6 °C Bottles Received: 81
				If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3/2/18 Time: 8:45
				Hold: Condition: NCF / OK

Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland OR 97219

Report to: Joel Mattecheck

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
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Portland, OR 97219

Pres Chk

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected: Central Point OR

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard TAT

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	Remarks	Sample # (lab only)
SS-23 (2.0-2.5)	Grab	SS		3/1/18	1315	1	H			
SS-22 (1-1.5)		SS		3/1/18	1320	2	X			
SS-22 (2-2.5)		SS		3/1/18	1325	1	H			-38
		SS								
		SS								
		SS								
		SS								
		SS								
		SS								
		SS								

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table #

Acctnum: CASASCTOR
Template: T133139
Prelogin: P640497
TSR: 110 - Brian Ford
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: H = Hold

pH ___ Temp ___
Flow ___ Other ___

Samples returned via: ___ UPS ___ FedEx ___ Courier ___

Tracking # 7215 4516 3151 7466 1466 1675

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	3/1/18	1500	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 0.6 °C Bottles Received: 8

Date: 3/2/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ESC Lab Sciences
Non-Conformance Form

Login #: L974248	Client: CASASCTOR	Date:	Evaluated by:

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	X	Login Clarification Needed		**If Broken Container:**
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: What TPH for GW sample DW GW at 1100?

Client informed by:		Call		Email	x	Voice Mail		Date:03/02/18	Time:1415
TSR Initials:bjf	Client Contact: Joel Mattecheck								

Login Instructions:

TPH=NWTPHDXNOSGT and NWTPHGX

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APPENDIX D

CALCULATIONS FOR 95% UPPER CONFIDENCE LEVEL ON THE MEAN ARSENIC AND LEAD CONCENTRATIONS

	As
1	3.34
2	3.86
3	3.16
4	23
5	1.86
6	5.43
7	1.19
8	4.7
9	8.16
10	15.9
11	25.8
12	5.5
13	2.92
14	4.47
15	0.997
16	19
17	14.2
18	16.8
19	2.11
20	10.1
21	7.99
22	6.54
23	13.7
24	17.7
25	4.14
26	12.9
27	2.25
28	20
29	4.19
30	13.3
31	1.41
32	15.8
33	2.74
34	18.4
35	0.869
36	14.8
37	1.75
38	11.8
39	0.809
40	11.2
41	4.26
42	15.5
43	12.2
44	11.4
45	1.96
46	3.53
47	3.59
48	4.31
49	2.51
50	24.5
51	5.07
52	11.3
53	10.9
54	20.2
55	15
56	24.9
57	4.73
58	26.9
59	12.2
60	9.31
61	2.37
62	12.1
63	7.39

	UCL Statistics for Uncensored Full Data Sets	
User Selected Options		
Date/Time of Computation	ProUCL 5.17/26/2018 2:51:01 PM	
From File	Data-AS-All-New.xls	
Full Precision	OFF	
Confidence Coefficient	95%	
Number of Bootstrap Operations	2000	

As

General Statistics

Total Number of Observations	63	Number of Distinct Observations	62
		Number of Missing Observations	0
Minimum	0.809	Mean	9.538
Maximum	26.9	Median	7.99
SD	7.259	Std. Error of Mean	0.915
Coefficient of Variation	0.761	Skewness	0.709

Normal GOF Test

Shapiro Wilk Test Statistic	0.895	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	1.0743E-5	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.171	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.111	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	11.07	95% Adjusted-CLT UCL (Chen-1995)	11.13
		95% Modified-t UCL (Johnson-1978)	11.08

Gamma GOF Test

A-D Test Statistic	0.818	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.769	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.114	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.114	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.511	k star (bias corrected MLE)	1.449
Theta hat (MLE)	6.313	Theta star (bias corrected MLE)	6.581
nu hat (MLE)	190.4	nu star (bias corrected)	182.6
MLE Mean (bias corrected)	9.538	MLE Sd (bias corrected)	7.923
		Approximate Chi Square Value (0.05)	152.4
Adjusted Level of Significance	0.0462	Adjusted Chi Square Value	151.7

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	11.43	95% Adjusted Gamma UCL (use when n<50)	11.48

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.933	**Shapiro Wilk Lognormal GOF Test**

53				5% Shapiro Wilk P Value		0.00263		Data Not Lognormal at 5% Significance Level				
54				Lilliefors Test Statistic		0.146		**Lilliefors Lognormal GOF Test**				
55				5% Lilliefors Critical Value		0.111		Data Not Lognormal at 5% Significance Level				
56				**Data Not Lognormal at 5% Significance Level**								
57												
58				**Lognormal Statistics**								
59				Minimum of Logged Data		-0.212		Mean of logged Data				1.889
60				Maximum of Logged Data		3.292		SD of logged Data				0.946
61												
62				**Assuming Lognormal Distribution**								
63				95% H-UCL		13.51		90% Chebyshev (MVUE) UCL				14.52
64				95% Chebyshev (MVUE) UCL		16.46		97.5% Chebyshev (MVUE) UCL				19.15
65				99% Chebyshev (MVUE) UCL		24.44						
66												
67				**Nonparametric Distribution Free UCL Statistics**								
68				**Data appear to follow a Discernible Distribution at 5% Significance Level**								
69												
70				**Nonparametric Distribution Free UCLs**								
71				95% CLT UCL		11.04		95% Jackknife UCL				11.07
72				95% Standard Bootstrap UCL		10.99		95% Bootstrap-t UCL				11.22
73				95% Hall's Bootstrap UCL		11.19		95% Percentile Bootstrap UCL				11.04
74				95% BCA Bootstrap UCL		11.11						
75				90% Chebyshev(Mean, Sd) UCL		12.28		95% Chebyshev(Mean, Sd) UCL				13.52
76				97.5% Chebyshev(Mean, Sd) UCL		15.25		99% Chebyshev(Mean, Sd) UCL				18.64
77												
78				**Suggested UCL to Use**								
79				95% Approximate Gamma UCL		11.43						
80												
81	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test											
82	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL											
83												
84	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
85	Recommendations are based upon data size, data distribution, and skewness.											
86	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
87	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
88												

1	Pb_0-0.5
2	2.61
3	163
4	5.78
5	82.8
6	3.45
7	12.2
8	46.5
9	4.8
10	26.6
11	55
12	49.7
13	33.7
14	25.2
15	50.6
16	40
17	61.1
18	34.7
19	60.1
20	61.5
21	47.1
22	50.5
23	9.1
24	107
25	51.1
26	15.3
27	32.6
28	109
29	79.6
30	103
31	102
32	115
33	417
34	82.2

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	ProUCL 5.17/27/2018 9:27:56 AM
From File	data-UCL_Pb.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Pb_0-0.5

General Statistics

Total Number of Observations	33	Number of Distinct Observations	33
		Number of Missing Observations	0
Minimum	2.61	Mean	64.84
Maximum	417	Median	50.5
SD	73.92	Std. Error of Mean	12.87
Coefficient of Variation	1.14	Skewness	3.579

Normal GOF Test

Shapiro Wilk Test Statistic	0.65	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.931	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.215	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.152	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	86.64	95% Adjusted-CLT UCL (Chen-1995)	94.57
		95% Modified-t UCL (Johnson-1978)	87.97

Gamma GOF Test

A-D Test Statistic	0.523	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.773	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.104	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.157	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.134	k star (bias corrected MLE)	1.051
Theta hat (MLE)	57.18	Theta star (bias corrected MLE)	61.69
nu hat (MLE)	74.84	nu star (bias corrected)	69.37
MLE Mean (bias corrected)	64.84	MLE Sd (bias corrected)	63.25
		Approximate Chi Square Value (0.05)	51.2
Adjusted Level of Significance	0.0419	Adjusted Chi Square Value	50.39

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	87.86	95% Adjusted Gamma UCL (use when n<50)	89.26

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.928	**Shapiro Wilk Lognormal GOF Test**

53	5% Shapiro Wilk Critical Value				0.931	Data Not Lognormal at 5% Significance Level						
54	Lilliefors Test Statistic				0.165	**Lilliefors Lognormal GOF Test**						
55	5% Lilliefors Critical Value				0.152	Data Not Lognormal at 5% Significance Level						
56	**Data Not Lognormal at 5% Significance Level**											
57												
58	**Lognormal Statistics**											
59	Minimum of Logged Data				0.959	Mean of logged Data					3.67	
60	Maximum of Logged Data				6.033	SD of logged Data					1.138	
61												
62	**Assuming Lognormal Distribution**											
63	95% H-UCL				126.8	90% Chebyshev (MVUE) UCL					124.1	
64	95% Chebyshev (MVUE) UCL				147.4	97.5% Chebyshev (MVUE) UCL					179.7	
65	99% Chebyshev (MVUE) UCL				243.2							
66												
67	**Nonparametric Distribution Free UCL Statistics**											
68	**Data appear to follow a Discernible Distribution at 5% Significance Level**											
69												
70	**Nonparametric Distribution Free UCLs**											
71	95% CLT UCL				86.01	95% Jackknife UCL					86.64	
72	95% Standard Bootstrap UCL				85.86	95% Bootstrap-t UCL					104.4	
73	95% Hall's Bootstrap UCL				182.9	95% Percentile Bootstrap UCL					87.19	
74	95% BCA Bootstrap UCL				98.2							
75	90% Chebyshev(Mean, Sd) UCL				103.4	95% Chebyshev(Mean, Sd) UCL					120.9	
76	97.5% Chebyshev(Mean, Sd) UCL				145.2	99% Chebyshev(Mean, Sd) UCL					192.9	
77												
78	**Suggested UCL to Use**											
79	95% Adjusted Gamma UCL				89.26							
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	Recommendations are based upon data size, data distribution, and skewness.											
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
84	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
85												


Cascadia
Associates, LLC

EXHIBIT "9"

Cascadia Associates, LLC

Soil Management Plan

Gebhard Village Site

4920/4922 Gebhard Road

Central Point, Oregon

Prepared for:

Mr. Dan Mahar
DRM Construction, LLC
PO Box 4428
Medford, Oregon 97501

Prepared by:

Cascadia Associates, LLC
5820 SW Kelly Avenue, Suite B
Portland, Oregon 97239

Project No. 0063-001-001
May 16, 2019

Soil Management Plan

Gebhard Village Site

4920/4922 Gebhard Road

Central Point, Oregon

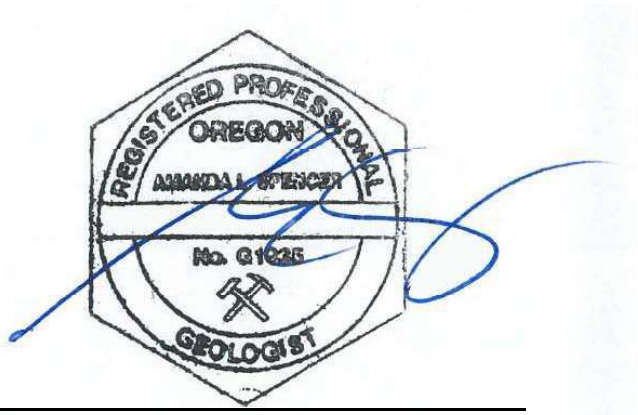
Prepared for:

DRM Construction

Project No. 0063-001-001

May 17, 2019

Prepared by:



Amanda Spencer, P.E., R.G.

Principal Hydrogeologist, Cascadia Associates

CONTENTS

1.0 INTRODUCTION 1
2.0 SITE BACKGROUND 2
2.1 Site Location 2
2.2 Site Description 2
2.3 Site Ownership 2
2.4 Regulatory History 2
2.5 Climate Information 2
2.6 Topography 2
2.7 Surface Water Hydrology 3
2.8 Regional and Site Geology and Soils 3
2.9 Regional and Site Hydrogeology 3
2.10 ICP Investigations 3
2.10.1 ICP Investigation - Scope 4
2.10.2 ICP Investigation - Results 5
3.0 NATURE AND EXTENT OF ARSENIC AND LEAD IN SOIL 8
4.0 SOIL MANAGEMENT PLAN 9
5.0 REFERENCES 10

TABLES

Table 1 Soil Analytical Results – Metals and Nitrate
Table 2 Soil Analytical Results – Organic Pesticides
Table 3 Soil Analytical Results – Polycyclic Aromatic Hydrocarbons

FIGURES

Figure 1 Site Location
Figure 2 Site Layout and Boring Locations
Figure 3 Arsenic Concentrations in Shallow Soil
Figure 4 Lead Concentrations in Shallow Soil

APPENDIX

Appendix A Public Record Report with Legal Description of the Site

1.0 INTRODUCTION

This Soil Management Plan (SMP) was prepared for the property at 4920 and 4922 Gebhard Road, Central Point, Oregon (the Site)[1]. A Site location map is shown on Figure 1 and a Site Plan is shown on Figure 2. An Independent Cleanup Pathway (ICP) investigation of the Site was conducted in 2018 and demonstrated that, although the average arsenic concentration in surface soil at the Site is within regional background concentrations, there are a few interspersed locations that exceed the level selected by the Oregon Department of Environmental Quality (DEQ) as representative of background. Therefore, DEQ has requested preparation of this SMP to identify the soil preparation activities that will be conducted prior to site development to ensure that the upper 12 inches of soil is mixed so that it will be more consistent with regional background.

The SMP provides:

- Background information on the Site (Section 2.0);
- Description of the nature and extent of arsenic in surface soil (Section 3.0); and
- Site preparation activities to be completed (Section 4.0).

This SMP is intended to provide procedures for the handling of soil with arsenic at the Site. It is not intended to suggest or provide health-and-safety-level information for the protection of construction workers. Individuals and parties who are tasked with conducting construction activities at the Site should read this document and the documents referenced herein. They should also consult an Industrial Hygienist and/or Environmental Professional regarding the performance of their own hazard assessments to determine appropriate health and safety measures.

Groundwater sampling conducted at the Site and in the vicinity supports that groundwater has not been impacted by previous site uses; therefore, this SMP focuses on soil management procedures.

[1] Note: Google maps incorrectly locates this property if the address of 4920 Gebhard Road is used. The property is located in Jackson County with a Jackson County Map No. of 372W02AA 2800 and a tax account number of 1-019572-6. The legal description is provided in Appendix A.

2.0 SITE BACKGROUND

2.1 SITE LOCATION

The Site is located at 4920 and 4922 Gebhard Road in Central Point, Oregon (Figure 1). Appendix A contains a legal description of the Site.

2.2 SITE DESCRIPTION

The Jackson County tax lot number for the 7.43-acre Site is 2800. The Site is undeveloped and gradually slopes to the southwest. Gebhard Road bounds the Site to the west; a residential driveway bounds the Site to the south. The northern and eastern extents of the Site are bound by residential developments. The Site layout is shown on Figure 2.

Debris material was observed during a site visit in January 2018 in the northwest quadrant of the Site at the location shown on Figure 2. Additionally, what appears to be a former drywell is located near the western-central property boundary (Figure 2).

2.3 SITE OWNERSHIP

The Site is currently owned by James L. Lowman and Magna O. Carrico-Lowman, Trustees of the April 12, 2012 Lowman Revocable Trust. According to a review of city directories, the Site was previously occupied by Joshua Sizemore in 2008, and Roxanne Atteberry in 1995 and 2003. The occupant was listed as unknown in 2003 and the address of 4920 Gebhard Road was not listed in 1992 and 2013. City directory listings were not available for the Site for the period prior to 1992.

2.4 REGULATORY HISTORY

DRM Construction submitted an ICP application on behalf of the property owners in May of 2018 to support potential development of the property for residential use. To the knowledge of Cascadia, the Site was not regulated by State or federal environmental regulatory agencies prior to its entry into the ICP in 2018.

2.5 CLIMATE INFORMATION

Average annual precipitation in Central Point, Oregon is 18.34 inches. The temperature ranges from an average low of approximately 33°F in January to an average high of approximately 91°F in July (National Climatic Data Center website, 2005).

2.6 TOPOGRAPHY

The Site gradually slopes to the southwest and lies at an approximate elevation of 1,250 feet above mean sea level (MSL).

2.7 SURFACE WATER HYDROLOGY

A drainage ditch bisects the center of the Site from west to east.

2.8 REGIONAL AND SITE GEOLOGY AND SOILS

The Property is in the Bear Creek Valley region. The regional geology consists of quaternary older alluvium that is a mixture of unconsolidated gravel, sand, silt, and clay in varying proportions; thickness ranges up to 60 feet in the region (State of Oregon Department of Geology and Mineral Industries, 1977b). This alluvium is possibly underlain by quaternary bench gravels that are a mixture of semi-consolidated gravel, sand, clay, and silt up to 70 feet thick. The bedrock geologic unit in the Bear Creek Valley is cretaceous sedimentary rock consisting of hard conglomerate and sandstone overlain by mudstone with thick sandstone interbeds (State of Oregon Department of Geology and Mineral Industries, 1977b).

Soil encountered at the Site to the depths explored (16 feet below ground surface [bgs]) consists of clay with trace amounts of sand and gravels encountered in some areas (Cascadia, 2018).

2.9 REGIONAL AND SITE HYDROGEOLOGY

Regionally, the quaternary older alluvium and bench gravels underlying the property contain restrictive soil layers and are subject to poor drainage, ponding, and high groundwater (State of Oregon Department of Geology and Mineral Industries, 1977a). The Bear Creek Valley has a shallow water-bearing zone, with groundwater encountered at less than 50 feet bgs on average (City of Medford Comprehensive Plan Environmental Element, 2003). The primary aquifer in the area is located in the alluvial deposits found in the region.

Groundwater at the Site is encountered between 8.5 and 12.0 feet bgs. Based on the Site topography and the presence of Bear Creek southwest of the Site, groundwater at the Site likely flows southwest towards Bear Creek.

2.10 ICP INVESTIGATIONS

A Desktop Environmental Review was completed in October 2017 by Cascadia for DRM Construction. The review identified the following environmental concerns for the Site:

1) **Commercial Chicken Farm.** A commercial chicken farm was located in the southern half of the Site from at least 1974 to at least 1994. Arsenic was often used in feed to reduce parasites in the chickens during this operational timeframe and could have impacted soil if the feed was placed on the ground or through chicken feces that dropped to the ground. In addition (although not as common), other heavy metals such as copper, zinc, and cadmium, may become concentrated in chicken feces and can impact soil if the feces are not removed. In addition, the nitrates and ammonia from chicken feces left on the ground can impact groundwater if exposed to rain or other infiltrating surface water.

2) **Drainage Ditch.** A drainage ditch or creek is visible bisecting the property as early as 1939. This ditch originates northwest of the Site and appears to drain agricultural areas off the Site. If pesticides were used on these off-site agricultural fields, it is possible that these pesticides could have become entrained in surface water runoff from the fields and into the drainage ditch and could be present in onsite ditch sediment.

3) **Orchards on Surrounding Properties.** The aerial photographs show orchards on adjacent properties from at least 1939 through the 1990s. Soil sampling at the property directly south of the Site indicated elevated arsenic concentrations in surface soil near the property line due to the apparent use of lead arsenate pesticides on the orchard formerly located in the northwest corner of this property. It is possible that overspray of pesticides used on this orchard or the other adjacent orchards could have impacted surface soil at the Site with arsenic, lead, or organic pesticides.

2.10.1 ICP Investigation - Scope

In 2018, field investigations were conducted to assess the potential concerns identified in the desktop review. Site investigation field activities were performed at the Site in two phases; the first phase was conducted on January 4, 2018, and focused on sampling surface soil (i.e., the upper 6 inches of soil). Soil samples were collected in a gridded pattern at approximate 100-foot spacing to provide a comprehensive characterization of surface soil at the Site. During the initial field sampling effort, three stockpiles of soil and debris were identified and sampled. Soil samples were analyzed for metals (arsenic, lead, copper, cadmium, and/or zinc; U.S. Environmental Protection Agency [EPA] Method 6000/7000 series), nitrates (EPA Method 9056A), organic pesticides (EPA Method 8081), and/or polycyclic aromatic hydrocarbons (PAHs; EPA Method 8270). Soil sampling locations are shown on Figure 2.

Analytical data obtained from soil samples collected during the January 4, 2018 sampling event indicated that surface soil at the Site contains arsenic and lead (at one sampling location) above applicable DEQ risk-based screening concentrations (RBCs). Therefore, a second phase was conducted from February 28 through March 1, 2018, and included both shallow soil and grab groundwater sampling. Soil samples were collected from 12 to 18 inches below grade from the same gridded locations as installed during the first phase of the investigation and were analyzed for arsenic. The 12- to 18-inch soil sample collected from the one Phase I surface location which had lead concentrations above RBCs was also analyzed for lead.

During the Phase I investigation, Cascadia identified what may have been a former dry well at the Site. Therefore, Cascadia also collected groundwater samples from three boring locations at the Site: SS-5, SS-30, and DW-GW (adjacent to the possible former dry well); Figure 2 shows the locations of these borings. Groundwater samples were analyzed for:

- Total/Dissolved metals (arsenic, barium, chromium, selenium, silver, mercury, lead, copper, cadmium, and zinc) by EPA 6000/7000 series methods;

- Organic pesticides by EPA Method 8081;
- PAHs by EPA Method 8270;
- Volatile Organic Compounds (VOCs) by EPA Method 8260B;
- Diesel-, gasoline-, and residual-range hydrocarbons by NWTPH-Gx and NWTPH-Dx; and
- Nitrates by EPA Method 9056A.

2.10.2 ICP Investigation - Results

The analytical results for metals and nitrate, pesticides, and PAHs found in Site surface (0 to 6 inches bgs) soil during the initial site assessment are presented in Tables 1 through 3, respectively. The analytical results and comparison to applicable screening levels are described in the following subsections.

Metals in Soil

Thirty-three surface (0 to 6 inches below grade) soil samples were submitted for analysis of arsenic, cadmium, copper, lead, and/or zinc; results are summarized in Table 1. Cadmium, copper, and zinc concentrations detected in the samples were within regional background.

Arsenic was detected in surface soil at concentrations ranging from 3.53 milligram per kilogram (mg/kg) to 26.9 mg/kg. The arsenic results were compared to regional background of 19 mg/kg[2]; five of the 33 surface samples were above the regional background level. As detailed above, the second phase of investigation consisted of collecting soil samples from a depth of 12 to 18 inches at the same locations as the surface samples for analysis for arsenic. Arsenic concentrations in soil samples collected from the 12- to 18-inch depth interval were within regional background concentrations at all but one location (Table 1). The average arsenic concentration of the shallow soil, calculated using the 95% upper confident level (UCL) on the mean, is 11.43 mg/kg, which is below regional background (Cascadia, 2018). Use of the UCL comparison is most applicable at this Site because the Site is planned for redevelopment, which will include grading and tilling that will effectively mix the upper 12 inches of the soil, "averaging" out the arsenic results.

Lead was detected in the 33 surface soil samples but exceeded the DEQ RBC of 400 mg/kg[3] in just one sample (SS-29; located near the northern Site boundary). A soil sample was collected from 12 to 18 inches below grade at location SS-29 and analyzed for lead; the lead concentration was below background and two orders of magnitude below the RBC (Table 1). The 95% UCL on the mean was

---

[2] Regional background is based on the 2013 DEQ report: *Development of Oregon Background Metals Concentrations in Soil*. The Site is located on the boundary between the Klamath Mountain and Cascade Mountain physiographic provinces. Background levels for arsenic in the Cascade Mountain physiographic province are 19 mg/kg; background in the Klamath Mountain physiographic province is 12 mg/kg. Based on discussions with DEQ staff in February 2019, the DEQ has accepted the use of the Cascade Mountain province background concentration of 19 mg/kg for the Central Point area that is east of Highway 5.

[3] For residential ingestion, inhalation, and dermal contact scenarios

calculated for lead in shallow soil (i.e., 0 to 18 inches) and was 89.26 mg/kg (Cascadia, 2018), which is below the RBC of 400 mg/kg.

Nitrate in Soil

Nitrates were analyzed in eight soil samples from the area of the former chicken farm. Results are summarized in Table 1. Nitrate concentrations ranged from 0.993 mg/kg to 26.4 mg/kg. The DEQ has not established RBCs for nitrate in soil nor have regional background concentrations been identified.

Pesticides in Soil

Pesticides were analyzed in 10 samples across the Site to assess whether possible pesticide use at orchards historically located adjacent to the Site may have impacted Site soil. Results are summarized in Table 2. Organic pesticides including 4,4 DDE and 4,4 DDT were identified above the method detection limits (MDLs) but below the method reporting limits (MRLs) in three soil samples. The concentrations of 4,4 DDE and 4,4 DDT in these samples were reported as estimated concentrations. The estimated concentrations reported for these compounds are well below the DEQ RBCs (Table 2).

PAHs in Soil

PAHs were analyzed in the samples collected from the three soil stockpiles. Benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, and naphthalene were detected above laboratory MDLs but below MRLs in nine samples. The estimated concentrations reported for these compounds are well below the DEQ RBCs (Table 3).

Groundwater Results

The results of groundwater sampling both at the Site (Cascadia, 2018) and conducted for a recent investigation of the property to the south (Apex, 2017) demonstrate that groundwater at and downgradient of the Site has not been impacted by lead or arsenic above naturally occurring levels or MCLs. Groundwater samples collected adjacent to a suspected former dry well at the Site did not contain detectable concentrations of total petroleum hydrocarbons (TPH), PAHs, VOCs, or pesticides, and metals concentrations were low and below MCLs with the exception of two results for total arsenic. Total arsenic was detected at 26.7 microgram per liter (µg/L) at location SS-5 and 11.7 µg/L at location SS-30; dissolved arsenic was not detected above the laboratory method reporting limit of 10 µg/L at either location. The MCL for arsenic is 10 ug/L.

Because total arsenic was detected but dissolved arsenic was below detection limits, the data indicate that the grab groundwater sampling techniques employed to collect the samples at the Site may have entrained sediment in the water samples, and the dissolved results may be more representative of groundwater conditions at the Site. Further supporting this conclusion are the groundwater sample results from the property directly south of the Site. Groundwater samples

collected from the property to the south did not contain arsenic above the MCL (Apex, 2017); however, the arsenic concentrations in soil at that property were significantly higher than those detected at this Site. Additionally, arsenic concentrations in groundwater samples collected from a domestic well located to the southwest of the Site were low and below the MCL. These results support that previous agricultural activities at and adjacent to the Site have not contributed arsenic to the groundwater significantly if at all.

3.0 NATURE AND EXTENT OF ARSENIC AND LEAD IN SOIL

This section discusses the nature and extent of lead and arsenic in Site soil. As detailed in the ICP Report (Cascadia, 2018) and summarized above, results of groundwater sampling show that arsenic and lead in shallow soil have not impacted groundwater.

Figure 3 summarizes the arsenic results. Arsenic is found at variable concentrations, some well below background and some slightly above background. The average arsenic concentration is below regional background (Cascadia, 2018). The variable distribution suggests the arsenic may be representative of background conditions or may be due to overspray of lead arsenate from adjacent orchards. The arsenic is not concentrated in the southern portion of the Site where the former commercial layer operation was conducted; therefore, it does not appear that the chicken farm on the Site impacted Site soil with arsenic.

Figure 4 summarizes the lead results. Consistent with arsenic, lead was observed at several surface locations above regional background. Similar to arsenic, the presence of the lead might be due to historical use and overspray of lead arsenate at adjacent orchards or could be consistent with regional background conditions. The average concentration is well below the DEQ's RBCs for lead.

4.0 SOIL MANAGEMENT PLAN

The ICP Report (Cascadia, 2018) concluded, because the average arsenic concentrations are within background concentrations and lead concentrations are below the DEQ RBCs, that the Site will not present an unacceptable health risk. The Site is proposed for redevelopment and, as a part of Site preparation, soil in the upper 12 inches will be removed and/or well mixed to prepare grades for construction. Therefore, the development of the average arsenic and lead concentrations in the upper soil is more consistent with anticipated Site concentrations following Site development.

This conclusion was discussed with DEQ staff in a meeting on February 7, 2019. DEQ concurred that the average arsenic concentrations are below background and average lead concentration is below RBCs. DEQ requested that an SMP be prepared that identifies the Site preparation activities that will be completed to ensure that the upper 12 inches of soil is mixed, consistent with the concept of an averaging of the arsenic and lead concentrations. This section lists the Site preparation activities that will be completed prior to development. An Easement and Equitable Servitude (EES) will need to be filed with Jackson County to incorporate the requirements of this SMP to the deed of the property.

Required Site preparation actions:

- **Removal of organics (i.e., vegetation)**, including the top 4 to 8 inches of topsoil. If this material is stockpiled, stockpiles will be maintained at all times in a manner that prevents runon, runoff, and erosion of the stockpiles.
- **Site scarifying.** Following debris removal, the Site will be scarified to break up and loosen the upper 12 inches of soil, which will serve to mix with the remaining portions of surface soil from across the Site.
- **Site grading.** The Site is currently hummocky and it is anticipated that general grading will need to occur to achieve a uniform grade. This grading will act to mix the soil in the current 4- to 12-inch depth interval across the Site (the upper 4 to 8 inches having been removed during the removal of organics). Grading will include cutting and filling:
  - **Cut areas.** In cut areas, the upper soil will be removed to achieve desired grade or subgrade. This soil will be removed from the Site or stockpiled.
  - **Fill areas.** Stockpiled soil from the cut areas may be used for fill areas. The process of cut and fill will further mix the upper soil across the Site.

5.0 REFERENCES

Apex Companies, 2017. *Revised Soil Management Plan*, 718 Beebe Road, Central Point, Oregon. June 6, 2017.

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City of Medford Planning Department. City of Medford Comprehensive Plan Environment Element. April 17, 2003.

National Climatic Data Center Website. May 27, 2005. Local Climatological Data Map. 2005. https://gis.ncdc.noaa.gov

State of Oregon Department of Geology and Mineral Industries. Geologic Map of the Medford Quadrangle Oregon. 1977a. Ralph S. Mason, State Geologist.

State of Oregon Department of Geology and Mineral Industries. Land Use Geology of Central Jackson County, Oregon. 1977b. Ralph S. Mason, State Geologist.

TABLES

Table 1
Soil Analytical Data - Metals and Nitrate
Soil Management Plan
Gebhard Village Site
Central Point, Oregon

Sample ID	STOCKPILE 1	STOCKPILE 2	STOCKPILE 3	SS-1	SS-1 (1-1.5)	SS-2	SS-2 (1-1.5)	SS-3	SS-3 (1-1.5)	SS-4	SS-4 (1-1.5)	SS-5	SS-5 (1-1.5)	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	01/04/2018	01/04/2018	01/04/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	03/01/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5									
Concentrations (mg/kg)															*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
ARSENIC	**3.34**	**3.86**	**3.16**	**23**	**1.86 J**	**5.43**	**1.19 J**	**4.7**	**8.16**	**15.9**	**25.8**	**5.5**	**2.92**	19	0.43	1	2	15	420	--	--	--
CADMIUM	<0.579	**0.324 J**	**0.212 J**	**0.153 J**	--	**0.124 J**	--	**0.122 J**	--	--	--	**0.145 J**	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	**15.8**	**51.1**	**22.4**	**62.9**	--	**36.6**	--	**26.3**	--	--	--	**35.5**	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	**2.61**	**163**	**5.78**	**82.8**	--	**3.45**	--	**12.2**	--	**46.5**	--	**4.8**	--	36	400	400	800	800	800	30	30	30
ZINC	**41**	**226**	**60.6**	**74.2**	--	**72.5**	--	**46.4**	--	--	--	**72.8**	--	140	--	--	--	--	--	--	--	--
NITRATE	--	--	--	--	--	**26.4**	--	--	--	**14.5**	--	**3.59 B**	--									

Sample ID	SS-6	SS-6 (1-1.5)	SS-7	SS-7 (1-1.5)	SS-8	SS-8 (1-1.5)	SS-9	SS-9 (1-1.5)	SS-10	SS-10 (1-1.5)	SS-11	SS-11 (1-1.5)	SS-12	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5									
Concentrations (mg/kg)															*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
ARSENIC	**4.47**	**0.997 J**	**19**	**14.2**	**16.8**	**2.11 J**	**10.1**	**7.99**	**6.54**	**13.7**	**17.7**	**4.14**	**12.9**	19	0.43	1	2	15	420	--	--	--
CADMIUM	--	--	--	--	--	--	--	--	--	--	--	--	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	--	--	--	--	--	--	--	--	--	--	--	--	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	**26.6**	--	**55**	--	**49.7**	--	**33.7**	--	**25.2**	--	**50.6**	--	**40**	36	400	400	800	800	800	30	30	30
ZINC	--	--	--	--		--	--	--	--	--	--	--	--	140	--	--	--	--	--	--	--	--
NITRATE	**10.6**	--	**0.993 J**	--	**5.71**	--	**11**	--	--	--	--	--	--									

Sample ID	SS-12 (1-1.5)	SS-13	SS-13 (1-1.5)	SS-14	SS-14 (1-1.5)	SS-15	SS-15 (1-1.5)	SS-16	SS-16 (1-1.5)	SS-17	SS-17 (1-1.5)	SS-18	SS-18 (1-1.5)	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5									
Concentrations (mg/kg)															*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
ARSENIC	**2.25 J**	**20**	**4.19**	**13.3**	**1.41 J**	**15.8**	**2.74**	**18.4**	**0.869 J**	**14.8**	**1.75 J**	**11.8**	**0.809 J**	19	0.43	1	2	15	420	--	--	--
CADMIUM	--	--	--	--	--	--	--	--	--	--	--	**0.183 J**	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	--	--	--	--	--	--	--	--	--	--	--	**42.4**	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	--	**61.1**	--	**34.7**	--	**60.1**	--	**61.5**	--	**47.1**	--	**50.5**	--	36	400	400	800	800	800	30	30	30
ZINC	--	--	**--**	--	--	--	--	**--**	--		--	**93.5**	--	140	--	--	--	--	--	--	--	--
NITRATE	--	--	--	--	--	--	--	--	--	--	--	--	--									

Sample ID	SS-19	SS-19 (1-1.5)	SS-20	SS-20 (1-1.5)	SS-21	SS-21 (1-1.5)	SS-22	SS-22 (1-1.5)	SS-23	SS-23 (1-1.5)	SS-24	SS-24 (1-1.5)	SS-25	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5									
Concentrations (mg/kg)															*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
ARSENIC	**11.2**	**4.26**	**15.5**	**12.2**	**11.4**	**1.96 J**	**3.53**	**3.59**	**4.31**	**2.51**	**24.5**	**5.07**	**11.3**	19	0.43	1	2	15	420	--	--	--
CADMIUM	**0.144 J**	--	**0.293 J**	--	--	--	--	--	--	--	--	--	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	**41**	--	**49.5**	--	--	--	--	--	--	--	--	--	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	**9.1**	--	**107**	--	**51.1**	--	**15.3**	--	**32.6**	--	**109**	--	**79.6**	36	400	400	800	800	800	30	30	30
ZINC	**74.3**	--	**119**	--	--	--	--	--	--	--	--	--	--	140	--	--	--	--	--	--	--	--
NITRATE	--	--	--	--	--	--	--	--	--	--	--	--	--									

Sample ID	SS-25 (1-1.5)	SS-26	SS-26 (1-1.5)	SS-27	SS-27 (1-1.5)	SS-28	SS-28 (1-1.5)	SS-29	SS-29 (1-1.5)	SS-30	SS-30 (1-1.5)		DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018			*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 -0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5										
Concentrations (mg/kg)														*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
ARSENIC	**10.9**	**20.2**	**15**	**24.9**	**4.73**	**26.9**	**12.2**	**9.31**	**2.37 J**	**12.1**	**7.39**		19	0.43	1	2	15	420	--	--	--
CADMIUM	--	--	--	--	--	**0.213 J**	--	**0.592 J**	--	**0.161 J**	--		0.52	78	160	1,100	350	9,700	--	--	--
COPPER	--	--	--	--	--	**44.9**	--	**30.1**	--	**31.1**	--		110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	--	**103**	--	**102**	--	**115**	--	**417**	**2.69**	**82.2**	--		36	400	400	800	800	800	30	30	30
ZINC	--	--	--	--	--	**68**	--	**230**	--	**72.8**	--		140	--	--	--	--	--	--	--	--
NITRATE	--	--	--	--	--	--	--	**2.41**	--	--	--										

Notes:

<0.00656 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit

-- = not applicable or not established

J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.

Bold = Analyte was detected above the laboratory method detection limit.

Shaded values exceed background and DEQ Risk-Based Concentrations

RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015

mg/kg = milligrams per kilogram

Table 2
Soil Analytical Data - Pesticides
Soil Management Plan
Gebhard Village Site
Central Point, Oregon

Sample ID	STOCKPILE 1	STOCKPILE 2	STOCKPILE 3	SS-1	SS-3	SS-18	SS-19	SS-20	SS-28	SS-30	DEQ Risk-Based Concentrations (mg/kg)							
Sample Date	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	Soil Ingestion, Dermal Contact, and Inhalation					Soil Leaching to Groundwater		
Sample Depth	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 -0.5	0 - 0.5								
Concentrations (mg/kg)											Res.	Urb. Res.	Occupational	Construction Worker	Excavation Worker	Res.	Urb. Res.	Occupational
ALDRIN	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	0.03	0.08	0.13	1.1	30	0.023	0.1	0.1
ALPHA BHC	<0.0232 J3	<0.0219 J3	<0.0221 J3	<0.0279 J3	<0.0227 J3	<0.0263 J3	<0.0256 J3	<0.026 J3	<0.0245 J3	<0.0246 J3	--	--	--	--	--	--	--	--
BETA BHC	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
DELTA BHC	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
GAMMA BHC	<0.0232 J3	<0.0219 J3	<0.0221 J3	<0.0279 J3	<0.0227 J3	<0.0263 J3	<0.0256 J3	<0.026 J3	<0.0245 J3	<0.0246 J3	--	--	--	--	--	--	--	--
CHLORDANE	<0.232	<0.219	<0.221	<0.279	<0.227	<0.263	<0.256	<0.26	<0.245	<0.246	--	--	--	--	--	--	--	--
4,4-DDD	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	2.7	6.6	12	94	2,600	1.1	3.7	2.6
4,4-DDE	<0.0232	**0.00485 J**	<0.0221	<0.0279	<0.0227	**0.0314**	<0.0256	<0.026	**0.0152 J**	**0.00567 J**	1.8	4.5	8.2	66	1,800	1.6	7.4	7.5
4,4-DDT	<0.0232	**0.00368 J**	<0.0221	<0.0279	<0.0227	**0.00507 J**	<0.0256	<0.026	<0.0245	**0.00546 J**	1.9	4.6	8.5	66	1,800	12	46	70
DIELDRIN	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDOSULFAN I	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDOSULFAN II	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDOSULFAN SULFATE	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDRIN	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDRIN ALDEHYDE	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDRIN KETONE	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
HEXACHLOROBENZENE	<0.0232 J3	<0.0219 J3	<0.0221 J3	<0.0279 J3	<0.0227 J3	<0.0263 J3	<0.0256 J3	<0.026 J3	<0.0245 J3	<0.0246 J3	--	--	--	--	--	--	--	--
HEPTACHLOR	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
HEPTACHLOR EPOXIDE	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
METHOXYCHLOR	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
TOXAPHENE	<0.463	<0.437	<0.442	<0.557	<0.454	<0.526	<0.512	<0.52	<0.489	<0.492	--	--	--	--	--	--	--	--

Notes:

<0.0232 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit

-- = not applicable or not established

J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.

Bold = Analyte was detected above the laboratory method detection limit.

RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015

mg/kg = milligrams per kilogram

Table 3
Soil Analytical Data - Polycyclic Aromatic Hydrocarbons
Soil Management Plan
Gebhard Village Site
Central Point, Oregon

Sample ID	STOCKPILE 1	STOCKPILE 2	STOCKPILE 3	*DEQ Risk-Based Concentrations (mg/kg)*													
Sample Date	01/04/2018	01/04/2018	01/04/2018	*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Volatilization to Outdoor Air*			*RBCs - Soil Vapor Intrusion into Buildings*			*Soil Leaching to Groundwater*		
Sample Depth	0 - 0.5	0 - 0.5	0 - 0.5														
Concentrations (mg/kg)				*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*	*Res.*	*Urb. Res.*	*Occ.*	*Res.*	*Urb. Res.*	*Occ.*
ANTHRACENE	<0.00695	<0.00656	<0.00663	23,000	47,000	350,000	110,000	--	--	--	--	--	--	--	--	--	--
ACENAPHTHENE	<0.00695	<0.00656	<0.00663	4,700	9,400	70,000	21,000	590,000	--	--	--	--	--	--	--	--	--
ACENAPHTHYLENE	<0.00695	<0.00656	<0.00663	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BENZO(A)ANTHRACENE	<0.00695	**0.000758 J**	**0.000699 J**	0.15	0.34	2.9	24	660	--	--	--	--	--	--	0.6	2.3	8.8
BENZO(A)PYRENE	<0.00695	<0.00656	<0.00663	0.015	0.034	0.29	2.4	67	--	--	--	--	--	--	0.6	1.9	-
BENZO(B)FLUORANTHENE	<0.00695	**0.000966 J**	**0.000757 J**	0.15	0.34	2.9	24	670	--	--	--	--	--	--	6.2	--	--
BENZO(G,H,I)PERYLENE	**0.00301 J**	**0.00094 J**	**0.000822 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BENZO(K)FLUORANTHENE	**0.000706 J**	<0.00656	<0.00663	1.5	3.4	29	240	6,700	--	--	--	--	--	--	--	--	--
CHRYSENE	<0.00695	**0.000669 J**	<0.00663	15	34	290	2,400	67,000	--	--	--	--	--	--	--	--	--
DIBENZ(A,H)ANTHRACENE	<0.00695	<0.00656	<0.00663	0.015	0.034	0.29	2	67	--	--	--	--	--	--	2.0	--	--
FLUORANTHENE	**0.000804 J**	**0.000822 J**	**0.000678 J**	2,400	4,800	30,000	10,000	280,000	--	--	--	--	--	--	--	--	--
FLUORENE	<0.00695	<0.00656	<0.00663	3,100	6,300	47,000	14,000	390,000	--	--	--	--	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	<0.00695	**0.000719 J**	**0.00071 J**	0.15	0.34	2.9	24	670	--	--	--	--	--	--	--	--	--
NAPHTHALENE	**0.00503 B J**	**0.00346 B J**	**0.00384 B J**	5.3	25	23	580	16,000	6.4	15	83	6.4	15	83	0.077	0.37	0.34
PHENANTHRENE	<0.00695	<0.00656	<0.00663	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PYRENE	<0.00695	**0.001 J**	**0.00078 J**	--	3,600	23,000	7,500	210,000	--	--	--	--	--	--	--	--	--
1-METHYLNAPHTHALENE	<0.0232	<0.0219	<0.0221	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	<0.0232	<0.0219	<0.0221	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-CHLORONAPHTHALENE	<0.0232	<0.0219	<0.0221	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

<0.00656 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit

-- = not applicable or not established

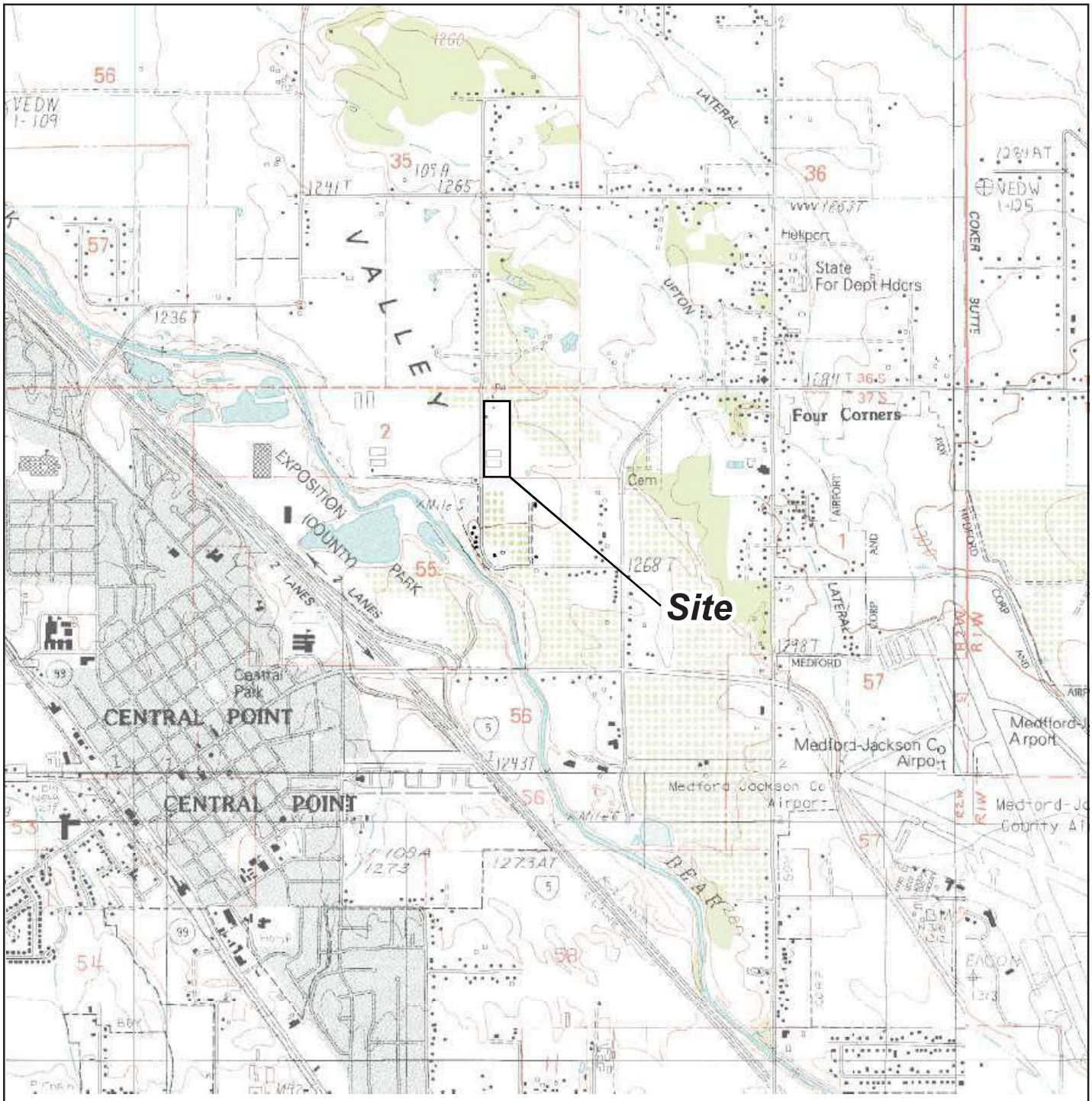
J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.

Bold = Analyte was detected above the laboratory method detection limit.

RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015

mg/kg = milligrams per kilogram

FIGURES



Base map prepared from the USGS 7.5-minute quadrangle of Sams Valley, Oregon, 1983, as provided by Topozone.

0 2,000 4,000

Approximate Scale in Feet





SITE LOCATION MAP

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project Number	0063-001-001	Figure
July 2018		1



LEGEND:

- Site Boundary
- ● Soil Sampling Location
- ⊗ Approximate Location of Suspect Former Dry Well and Adjacent Boring for Grab Groundwater Sample
- ⊙ Soil and Groundwater Sampling Location

0 100 200

SCALE IN FEET

1" = 100'

N W E S

Drwn: JJT

SITE LAYOUT AND BORING LOCATIONS

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project No. 0063-001-001

July 2018

Figure 2

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LEGEND:

- Site Boundary
- Soil Sampling Location
- Approximate Location of Suspect Former Dry Well and Adjacent Boring for Grab Groundwater Sample
- Arsenic Concentrations in mg/kg
- Sampling Depth in Inches

6" 23.0
18" 1.86

0 100 200

SCALE IN FEET

1" = 100'

N W E S

Drwn: JJT

ARSENIC CONCENTRATIONS IN SHALLOW SOIL

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project No. 0063-001-001

July 2018

Figure 3

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LEGEND:

- Site Boundary
- Soil Sampling Location
- Approximate Location of Suspect Former Dry Well and Adjacent Boring for Grab Groundwater Sample
- Lead Concentrations in mg/kg (e.g. 6" 417 / 18" 2.69)
- Sampling Depth in Inches

0 100 200

SCALE IN FEET

1" = 100'

N W E S

Drwn: JJT

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LEAD CONCENTRATIONS IN SHALLOW SOIL

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project No. 0063-001-001

July 2018

Figure 4

APPENDIX A

PUBLIC RECORD REPORT WITH

LEGAL DESCRIPTION OF THE SITE

First American

First American Title Insurance Company
1225 Crater Lake Avenue, Suite 101
Medford, OR 97504
Phn - (541)779-7250
Fax - (866)400-2250

REVISED PUBLIC RECORD REPORT
FOR NEW SUBDIVISION OR LAND PARTITION

THIS REPORT IS ISSUED BY THE ABOVE-NAMED COMPANY ("THE COMPANY") FOR THE EXCLUSIVE USE OF:

Neathamer Surveying Inc
3126 State Street, Suite 203, P.O. Box 1584
Medford, OR 97501
Phone: (541)732-2869
Fax: (541)732-1382

Date Prepared : April 09, 2019
Effective Date : 8:00 A.M on April 02, 2019
Order No. : 7169-2919534
Reference : Gebhard Village

The information contained in this report is furnished by First American Title Insurance Company of Oregon (the "Company") as an information service based on the records and indices maintained by the Company for the county identified below. This report is not title insurance, is not a preliminary title report for title insurance, and is not a commitment for title insurance. No examination has been made of the Company's records, other than as specifically set forth in this report. Liability for any loss arising from errors and/or omissions is limited to the lesser of the fee paid or the actual loss to the Customer, and the Company will have no greater liability by reason of this report. This report is subject to the Definitions, Conditions and Stipulations contained in it.

REPORT

A. The Land referred to in this report is located in the County of Jackson, State of Oregon, and is described as follows:

As fully set forth on Exhibit "A" attached hereto and by this reference made a part hereof.

B. As of the Effective Date, the tax account and map references pertinent to the Land are as follows:

As fully set forth on Exhibit "A" attached hereto and by this reference made a part hereof.

C. As of the Effective Date and according to the Public Records, we find title to the land apparently vested in:

As fully set forth on Exhibit "B" attached hereto and by this reference made a part hereof.

D. As of the Effective Date and according to the Public Records, the Land is subject to the following liens and encumbrances, which are not necessarily shown in the order of priority:

As fully set forth on Exhibit "C" attached hereto and by this reference made a part hereof.

EXHIBIT "A"
(Land Description Map Tax and Account)

Beginning at a point 14.53 chains West and 2.04 chains South of the Northeast corner of Section 2 in Township 37 South, Range 2 West of the Willamette Meridian in Jackson County, Oregon; thence West 5.20 chains; thence South 15.17 chains to the North line of tract described in Volume 264, Page 633, of the Deed Records of Jackson County, Oregon; thence East 5.20 chains; thence North 15.17 chains to the point of beginning.

NOTE: This legal description was created prior to January 1, 2008.

Map No.: 372W02AA 2800
Tax Account No.: 1-019572-6

EXHIBIT "B"
(Vesting)

James L. Lowman and Magna O. Carrico-Lowman, Trustees of the Lowman Revocable Trust, dated April 12, 2012

EXHIBIT "C"
(Liens and Encumbrances)

1. City liens, if any, of the City of Central Point.
   (***NO SEARCH HAS BEEN MADE.*** *If inquiry is desired, please contact your Title Officer for a lien search*)

2. The premises herein described are within and subject to the statutory powers of the Rogue Valley Sewer Services.
   (***NO SEARCH HAS BEEN MADE.*** *If inquiry is desired, please contact your Title Officer for a lien search*)

3. These premises are situated in the Rogue River Valley Irrigation District, and subject to the levies and assessments thereof, water and irrigation rights, easements for ditches and canals and regulations concerning the same.
   (***NO SEARCH HAS BEEN MADE.*** *If inquiry is desired, please contact your Title Officer for a lien search*)

4. The rights of the public in and to that portion of the premises herein described lying within the limits of streets, roads and highways.

5. Easement, including terms and provisions contained therein:

Recording Information:	July 16, 1952 as Volume 368, Page 321
In Favor of:	City of Central Point
For:	Sewer purposes

NOTE: Taxes for the year 2018-2019 PAID IN FULL

Tax Amount:	$1,667.12
Map No.:	372W02AA 2800
Property ID:	1-019572-6
Tax Code No.:	6-02

NOTE: Revised to update tax information.

DEFINITIONS, CONDITIONS AND STIPULATIONS

1. **Definitions.** The following terms have the stated meaning when used in this report:
   (a) "Customer": The person or persons named or shown as the addressee of this report.
   (b) "Effective Date": The effective date stated in this report.
   (c) "Land": The land specifically described in this report and improvements affixed thereto which by law constitute real property.
   (d) "Public Records": Those records which by the laws of the state of Oregon impart constructive notice of matters relating to the Land.

2. **Liability of the Company.**
   (a) This is not a commitment to issue title insurance and does not constitute a policy of title insurance.
   (b) The liability of the Company for errors or omissions in this public record report is limited to the amount of the charge paid by the Customer, provided, however, that the Company has no liability in the event of no actual loss to the Customer.
   (c) No costs (including, without limitation attorney fees and other expenses) of defense, or prosecution of any action, is afforded to the Customer.
   (d) In any event, the Company assumes no liability for loss or damage by reason of the following:
      (1) Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records.
      (2) Any facts, rights, interests or claims which are not shown by the Public Records but which could be ascertained by an inspection of the land or by making inquiry of persons in possession thereof.
      (3) Easements, liens or encumbrances, or claims thereof, which are not shown by the Public Records.
      (4) Discrepancies, encroachments, shortage in area, conflicts in boundary lines or any other facts which a survey would disclose.
      (5) (i) Unpatented mining claims; (ii) reservations or exceptions in patents or in Acts authorizing the issuance thereof, (iii) water rights or claims or title to water.
      (6) Any right, title, interest, estate or easement in land beyond the lines of the area specifically described or referred to in this report, or in abutting streets, roads, avenues, alleys, lanes, ways or waterways.
      (7) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use or enjoyment on the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the Public Records at the effective date hereof.
      (8) Any governmental police power not excluded by 2(d)(7) above, except to the extent that notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the Public Records at the effective date hereof.
      (9) Defects, liens, encumbrances, adverse claims or other matters created, suffered, assumed, agreed to or actually known by the Customer.

3. **Report Entire Contract.** Any right or action or right of action that the Customer may have or may bring against the Company arising out of the subject matter of this report must be based on the provisions of this report. No provision or condition of this report can be waived or changed except by a writing signed by an authorized officer of the Company. By accepting this form report, the Customer acknowledges and agrees that the Customer has elected to utilize this form of public record report and accepts the limitation of liability of the Company as set forth herein.

4. **Charge.** The charge for this report does not include supplemental reports, updates or other additional services of the Company.


Cascadia
Associates, LLC

EXHIBIT "10"

Oregon
Tina Kotek, Governor

Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503) 986-5200
FAX (503) 378-4844
www.oregon.gov/dsl

May 16, 2023

State Land Board

Tina Kotek
Governor

Cheryl Myers
Acting Secretary of State

Tobias Read
State Treasurer

The Lowman Revocable Trust
Attn: Magna Carrico-Lowman
4462 Coal Mine Road
Medford, OR 97504

Re: WD # 2017-0100R **Reissuance**
Wetland Delineation Report for Gebhard Road Project
Jackson County; T37S R2W S2AA TL2800

Dear Magna Carrico-Lowman:

The Department of State Lands has reviewed the request to reissue a wetland delineation report prepared by Schott & Associates for the site referenced above. Based upon the information presented in the report, we concur with the wetland and waterway boundaries as mapped in Figure 6 of the report. Please replace all copies of the preliminary wetland map with this final Department-approved map.

Within the study area, 2 wetlands (Wetland A and B, totaling approximately 0.10 acres) and a drainage channel were identified. Normally, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in wetlands or below the ordinary high-water line (OHWL) of the waterway (or the 2-year recurrence interval flood elevation if OHWL cannot be determined). However, the wetlands and drainage channel are exempt per OAR 141-085-0515(6); therefore, they are not subject to these state permit requirements.

This concurrence is for purposes of the state Removal-Fill Law only We recommend that you attach a copy of this concurrence letter to any subsequent state permit application to speed application review. Federal, other state agencies or local permit requirements may apply as well. The U.S. Army Corps of Engineers will determine jurisdiction under the Clean Water Act, which may require submittal of a complete Wetland Delineation Report.

This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the expiration date of the original letter, August 9, 2022, unless new information necessitates a revision. Circumstances under which the Department may change a determination are found in OAR 141-090-0045 (available on our web site or upon request). In addition, laws enacted by the legislature and/or rules adopted by the Department may result in a change in jurisdiction; individuals and applicants are subject to the regulations that are in effect at the time of the removal-fill activity or complete permit application. The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months of the date of this letter.

Thank you for having the site evaluated. If you have any questions, please contact the Jurisdiction Coordinator for Jackson County, Matt Unitis, at (503) 986-5262.

Sincerely,



Peter Ryan, SPWS
Aquatic Resource Specialist

Enclosures

ec: Juniper Tagliabue, Schott & Associates
Jodi Forgione, Schott & Associates
Central Point Planning Department
Kirsten Hines, Corps of Engineers
Lauren Stebbins, PWS, DSL

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

Fully completed and signed report cover forms and applicable fees are required before report review timelines are initiated by the Department of State Lands. Make checks payable to the Oregon Department of State Lands. To pay fees by credit card, go online at: https://apps.oregon.gov/DSL/EPS/program?key=4.

Attach this completed and signed form to the front of an unbound report or include a hard copy with a digital version (single PDF file of the report cover form and report, minimum 300 dpi resolution) and submit to: **Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279.** A single PDF of the completed cover from and report may be e-mailed to: **Wetland_Delineation@dsl.state.or.us**. For submittal of PDF files larger than 10 MB, e-mail DSL instructions on how to access the file from your ftp or other file sharing website.

Contact and Authorization Information

☒ Applicant ☐ Owner Name, Firm and Address:
The Lowman Revocable Trust
c/o Magna Carrico-Lowman
4462 Coal Mine Rd
Medford, OR 97504

Business phone # (541) 601-2177
Mobile phone # (optional) (541) 601-2177
E-mail: maggiemouse14@gmail.com

☐ Authorized Legal Agent, Name and Address (if different):

Business phone #
Mobile phone # (optional)
E-mail:

I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.

Typed/Printed Name: Magna Carrico-Lowman **Signature:** Magna Carrico-Lowman

Date: 01-13-2023 Special instructions regarding site access: ____

Project and Site Information

Project Name: Gebhard Rd Project Site

Latitude: 42.387995 Longitude: -122899464
decimal degree - centroid of site or start & end points of linear project

Proposed Use:
Residential Development

Tax Map # 37 2 2AA
Tax Lot(s) 2800

Tax Map #
Tax Lot(s)

Project Street Address (or other descriptive location):
4920 & 4922 Gebhard Rd

Township 37S Range 2W Section 2 QQ AA
Use separate sheet for additional tax and location information

City: Central Point County: Jackson

Waterway: Unnamed River Mile:

Wetland Delineation Information

Wetland Consultant Name, Firm and Address:
Juniper Tagliabue/Jodi Forgione
Schott & Associates
21018 NE Hwy 99E
Aurora, OR 97002

Phone # (503) 678-6007
Mobile phone # (if applicable)
E-mail: juniper@schottandassociates.com

The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge.
Consultant Signature: Juniper Tagliabue Date: 01/10/2023

Primary Contact for report review and site access is ☒ Consultant ☐ Applicant/Owner ☐ Authorized Agent

Wetland/Waters Present? ☒ Yes ☐ No Study Area size: 7.43 ac Total Wetland Acreage: 0.1000

Check Applicable Boxes Below

☐ R-F permit application submitted
☐ Mitigation bank site
☐ Industrial Land Certification Program Site
☐ Wetland restoration/enhancement project (not mitigation)
☒ Previous delineation/application on parcel
If known, previous DSL # 2017-0100

☐ Fee payment submitted $ ____
☐ Fee ($100) for resubmittal of rejected report
☒ Request for Reissuance. See eligibility criteria. (no fee)
DSL # 17-0100 Expiration date 09/08/2022
☐ LWI shows wetlands or waters on parcel
Wetland ID code ____

For Office Use Only

DSL Reviewer: MU Fee Paid Date: ____/____/____ DSL WD # 2017-0100R

Date Delineation Received: 01/16/2023 Scanned: ☐ Electronic: ☒ DSL App.# ____

Figure 6. Wetland Delineation Map



T37S R2W Section 02AA TL#2800
4920 Gebhard Road
Central Point, Jackson County, Oregon
January 2017
S&A#3026

DSL WD# 2017-0100R
Approval Reissued 5/16/2023
Approval Expires 8/9/2027

Study Area Boundary
Fill
Wetland Channel
Wetland
Tax Lots
Sewer Manhole
Bubbler
Culvert
Sample Plot/Photo Point
Culvert/Off-site Ditch

Data plots and wetland boundaries delineated by Schott & Associates, Inc. utilizing a Trimble GeoXT hand-held unit to a +/- 3 foot accuracy.
Tax lot boundaries provided by Jackson County GIS.
Data files and maps are to be used for informational purposes only and may not be suitable for legal, engineering or surveying purposes.
Coordinate System:NAD 1983 UTM Zone 10N

SCHOTT & ASSOCIATES, Inc.

Oregon
Kate Brown, Governor

Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503) 986-5200
FAX (503) 378-4844
www.oregon.gov/dsl

State Land Board

Kate Brown
Governor

Dennis Richardson
Secretary of State

Tobias Read
State Treasurer

August 9, 2017

See Reissued Concurrence Letter
Dated 5/16/2023

DRM Construction, LLC
Attn: Dan Mahar
P.O. Box 4428
Medford, OR 97501

Re: WD #2017-0100 Wetland Delineation Report for
Gebhard Road Residential Development; Jackson County;
T 37S R 2W S 2AA TL 2800

Dear Mr. Mahar:

The Department of State Lands has reviewed the wetland delineation report prepared by Schott & Associates, Inc. for the site referenced above. Based upon the information presented in the report and additional information submitted upon request, we concur with the wetland and waterway boundaries as mapped in Figure 6 of the report. Please replace all copies of the preliminary wetland map with this final Department-approved map.

Within the study area, two wetlands, totaling approximately 0.10 acres, and a drainage ditch were identified. The ditch and associated wetlands are considered artificially created and less than 1 acre and, per OAR 141-085-0515(6), are not subject to current state Removal-Fill requirements.

This concurrence is for purposes of the state Removal-Fill Law only. Federal or local permit requirements may apply as well. The Army Corps of Engineers will review the report and make a determination of jurisdiction for purposes of the Clean Water Act

This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the date of this letter unless new information necessitates a revision. Circumstances under which the Department may change a determination are found in OAR 141-090-0045 (available on our web site or upon request). In addition, laws enacted by the legislature and/or rules adopted by the Department may result in a change in jurisdiction; individuals and applicants are subject to the regulations that are in effect at the time of the removal-fill activity or complete permit application. The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months of the date of this letter.

Thank you for having the site evaluated. Please phone me at 503-986-5300 if you have any questions.

Sincerely,

Lynne McAllister
Jurisdiction Coordinator

Approved by

Kathy Verble, CPSS
Aquatic Resource Specialist

Enclosures

ec: Jodi Reed, Schott & Associates, Inc.
Central Point Planning Department
Benny Dean, Corps of Engineers
Melody Rudenko, DSL

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

This form must be included with any wetland delineation report submitted to the Department of State Lands for review and approval. A wetland delineation report submittal is not "complete" unless the fully completed and signed report cover form and the required fee are submitted. Attach this form to the front of an unbound report or include a hard copy of the completed form with a CD/DVD that includes a single PDF file of the report cover form and report (minimum 300 dpi resolution) and submit to: **Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279.** A single PDF attachment of the completed cover from and report may be e-mailed to **Wetland_Delineation@dsl.state.or.us**. For submittal of PDF files larger than 10 MB, e-mail instructions on how to access the file from your ftp or other file-sharing website. Fees can be paid by check or credit card. Make the check payable to the Oregon Department of State Lands. To pay the fee by credit card, call 503-986-5200.

RECEIVED MAR 17 2017

RECEIVED $ M2 DEPARTMENT OF STATE LANDS ✓#1457 $417.00 ✓#5067 $2.00

☒ Applicant ☐ Owner Name, Firm and Address: **Dan Mahar** **DRM Construction, LLC** **PO Box 4428** **Medford, Oregon 97501**	Business phone # **541 773-4385** Mobile phone # (optional) E-mail: **Dan@pactrend.com**
☒ Authorized Legal Agent, Name and Address: **Same as above**	Business phone # Mobile phone # E-mail:

I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.

Typed/Printed Name: Dan Mahar Signature: [signature]

Date: Special instructions regarding site access:

Project and Site Information (using decimal degree format for lat/long., enter centroid of site or start & end points of linear project)

Project Name: Gebhard Road	Latitude: **42.387995**	Longitude: **-122.899464** → OK
Proposed Use: Residential Development	Tax Map # 37 2W 02AA in the city limits of Central Pt.	
Project Street Address (or other descriptive location): 4920 Gebhard Road	Township 37S Range 2W Section 02AA QQ Tax Lot(s) **2800**	
City: Central Point County: Jackson	Waterway: River Mile: NWI Quad(s):	

Wetland Delineation Information

Wetland Consultant Name, Firm and Address: Schott & Associates, Inc. Attn: Jodi Reed PO Box 589 Aurora, Oregon 97002	Phone # 503-678-6007 Mobile phone # E-mail: Jodi@schottandassociates.com

The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge.

Consultant Signature: Jodi Reed Date: 3/9/17

Primary Contact for report review and site access is ☒ Consultant ☐ Applicant/Owner ☐ Authorized Agent

Wetland/Waters Present? ☒ Yes ☐ No | Study Area size: 7.43ac | Total Wetland Acreage: 0.10

Check Box Below if Applicable: **Fees: $417.00**

☐ R-F permit application submitted	☒ Fee payment submitted
☐ Mitigation bank site	☐ Fee ($100) for resubmittal of rejected report
☐ Wetland restoration/enhancement project (not mitigation)	☐ No fee for request for reissuance of an expired report
☐ Industrial Land Certification Program Site	
☐ Reissuance of a recently expired delineation	

Previous DSL # Expiration date

Other Information:	Y	N	
Has previous delineation/application been made on parcel?	☐	☐	If known, previous DSL #
Does LWI, if any, show wetland or waters on parcel?	☐	☐	

For Office Use Only

DSL Reviewer: LM Fee Paid Date: 3 / 17 / 17 DSL WD # 2017-0100

Date Delineation Received: 3 / 14 / 17 DSL Project # DSL Site #

Scanned: ☒ Final Scan: ☐ DSL WN # DSL App. #

Electronic Submittal

Form Updated 01/03/2013

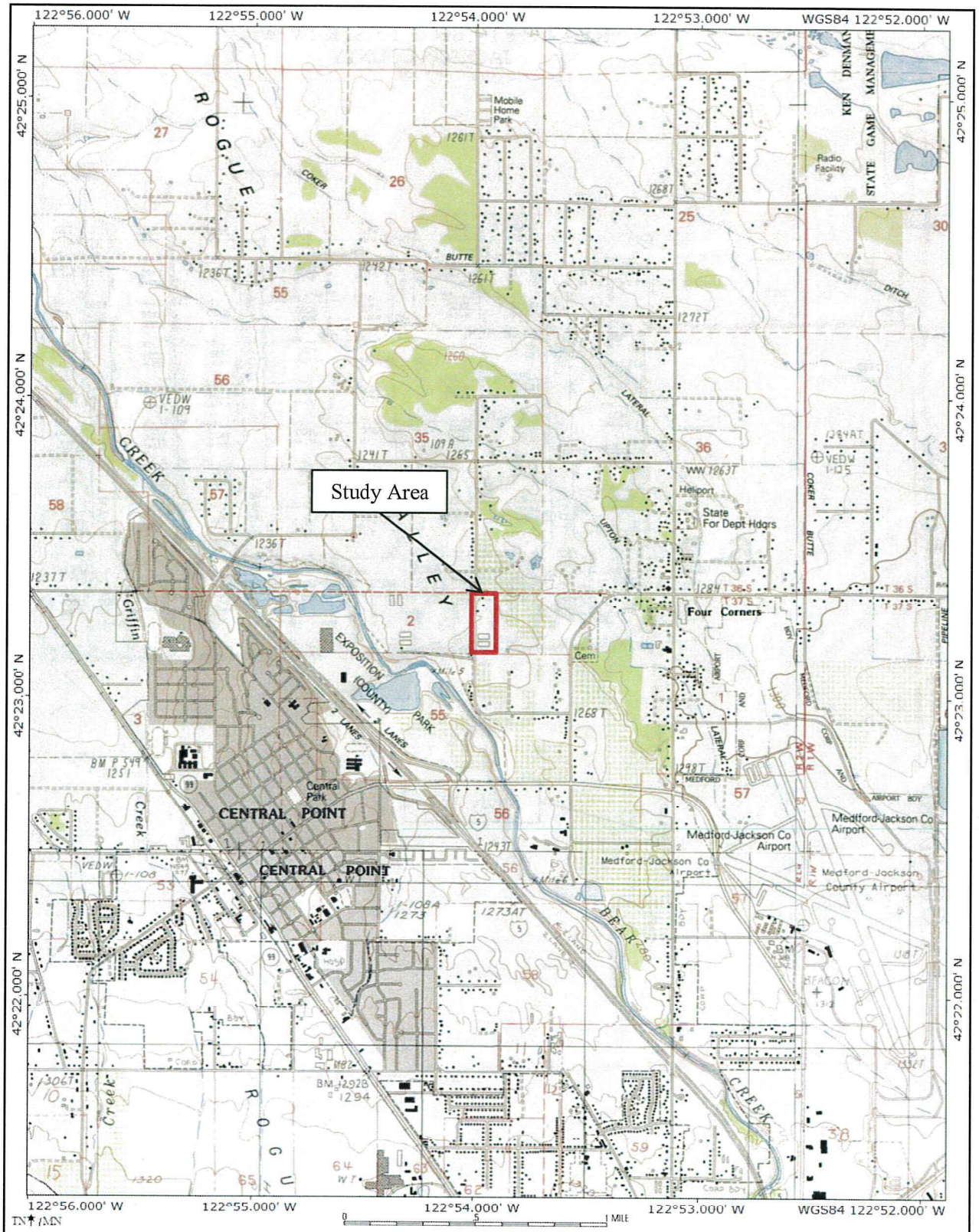


FIGURE 1: LOCATION MAP
4920 Gebhard Road
S&A#2441

Schott & Associates
P.O. Box 589
Aurora, OR. 97002
503.678.6007

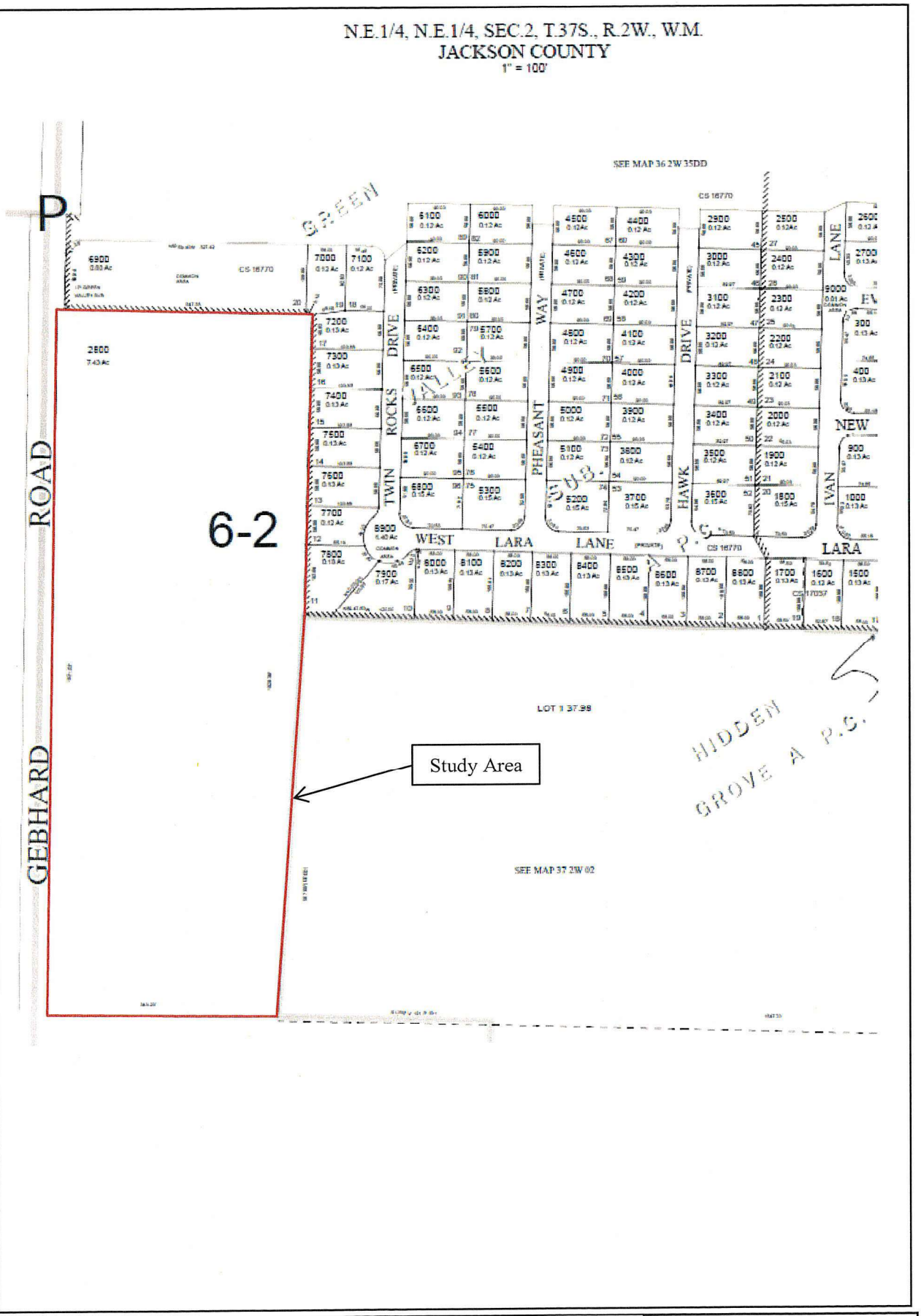
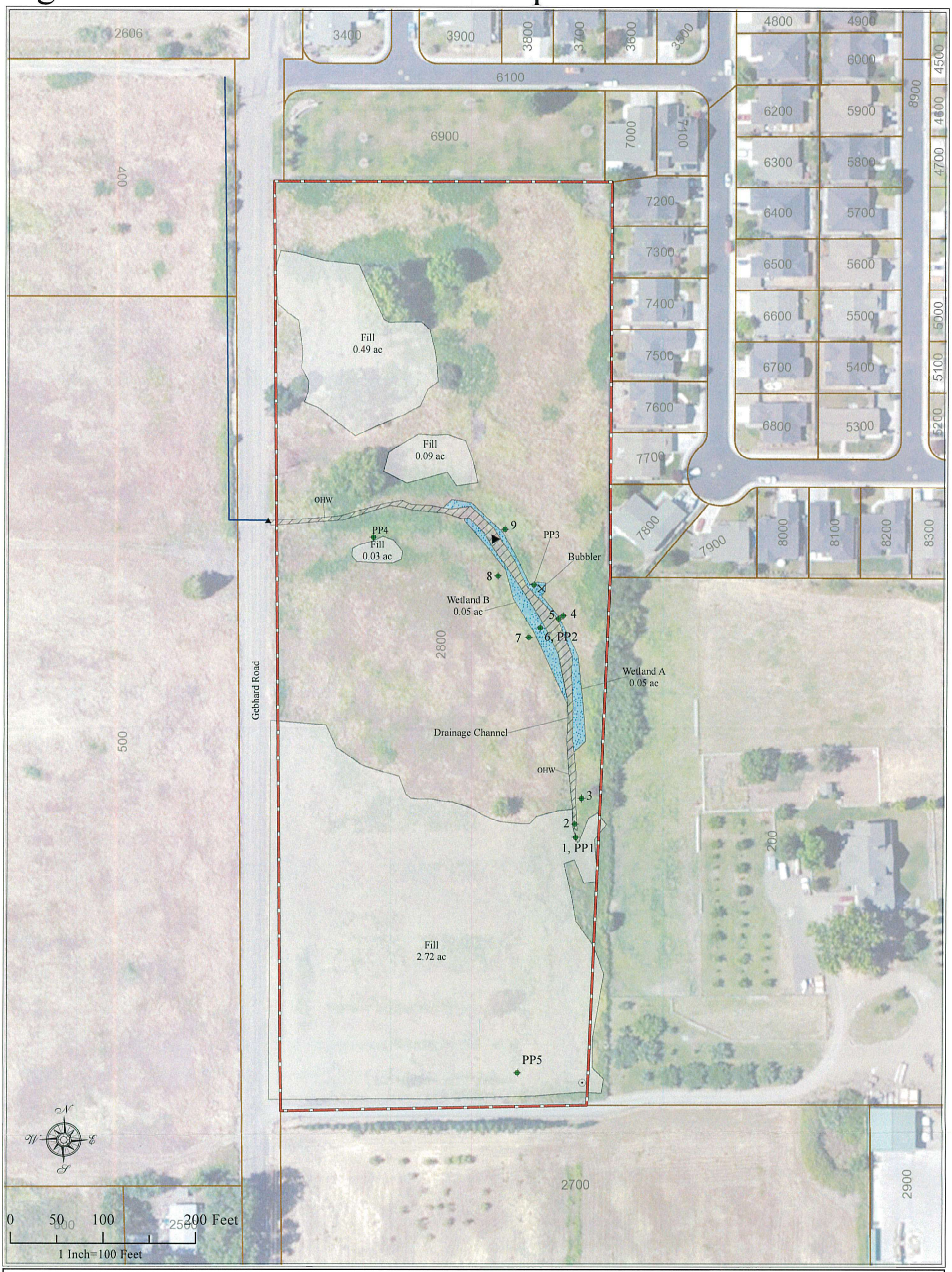


FIGURE 2: TAX MAP
4920 Gebhard Road
S&A#2441

Schott & Associates
P.O. Box 589
Aurora, OR. 97002
503.678.6007

Figure 6. Wetland Delineation Map



T37S R2W Section 02AA TL#2800
4920 Gebhard Road
Central Point, Jackson County, Oregon
January 2017
S&A#2441

DSL WD # 2017-0100
Approval Issued 8/9/17
Approval Expires 8/9/22

See Reissued Figure 6
Dated 5/16/2023

- Study Area Boundary
- Fill
- Drainage Channel
- Wetland
- Tax Lots
- Sewer Manhole
- Bubbler
- Culvert
- Sample Plot/Photo Point
- Culvert/Off-site Ditch

Data plots and wetland boundaries delineated by Schott & Associates, Inc. utilizing a Trimble GeoXT hand-held unit to a +/- 3 foot accuracy.
Tax lot boundaries provided by Jackson County GIS.
Data files and maps are to be used for informational purposes only and may not be suitable for legal, engineering or surveying purposes.
Coordinate System:NAD 1983 UTM Zone 10N

SCHOTT & ASSOCIATES, Inc.
21018 NE Hwy 99e • PO Box 589 • Aurora, Oregon 97002 p: 503.678.6007 f: 503.678.6011

EXHIBIT "11"

November 16, 2016

John Boyd
People's Bank of Commerce
1311 East Barnett Rd.
Medford, Oregon 97504

Re: White Hawk Development – Well Survey Results
718 Beebe Road
Central Point, Oregon
2251-00

Dear Mr. Boyd:

This letter provides the results of a well survey conducted in the vicinity of the proposed White Hawk Development and updates the evaluation of the potential for impacts to the water levels in wells near the development due to the installation of a proposed storm drain line along Gebhard Road. A preliminary evaluation was provided in a letter to you dated August 24, 2015. Subsequent to that letter, the City of Central Point requested that a survey be performed to identify domestic well owners in the vicinity of the development and, where possible, the construction of the wells (e.g., depth, use, screened interval if screened, etc.) to further evaluate the potential for negative impacts to water levels in wells located within the White Hawk transit oriented development (TOD) from the proposed construction of the storm drain line. The survey was completed between December 2015 and April 2016. The results of the survey and an updated evaluation on the potential impacts of the storm drain line on wells identified in the White Hawk TOD are provided below.

WELL SURVEY

A well survey form was sent to the residents located within the White Hawk TOD; Attachment A shows the boundaries and tax lots within the White Hawk TOD. Well surveys were sent to owners of the 31 tax lots within the White Hawk TOD. The well survey was sent at least two times to each tax lot owner; 11 completed surveys were returned to Apex. Attachment B includes copies of the completed surveys. Table 1 summarizes the results of the survey; two surveys were for property outside of the TOD and were not included on Table 1. Results of the well survey indicated the presence of six wells on five tax lots within the TOD. The location of these wells and the reported depth of the well is shown on Figure 1. Where information on the exact location of the well is not available, the location is approximated by placing it in the center of the tax lot for which the information was obtained.

In addition, Apex reviewed Oregon Water Resources Department (OWRD) online files to identify registered wells in the TOD. Ten well logs for wells located on 6 parcels within the TOD were identified. Attachment C contains the identified well logs and Table 2 summarizes the information on the identified wells, by parcel. Two of the parcels[1] with well logs registered by OWRD sent in completed well surveys; the other well logs provided additional information. Additionally, shown on Figure 1 are the locations of wells identified in a report prepared by Don Haggerty, PhD in February 2000[2].

[1] Dino Picollo, parcel 28 and Charlotte Holder, parcel 15; see Table 1.
[2] Haggerty 2000. *Report on Groundwater in the Vicinity of Beebe Rd*., Jackson County, Oregon. February 28, 2000.

It is unknown how many of the wells identified in the OWRD database or in the Haggarty report are still in use as only two property owners[3] with wells identified in the OWRD database and/or the Haggerty report sent back completed well surveys (parcel owners were sent water well surveys in December 2015, January 2016, and/or March 2017). Additionally, the Haggerty report indicated 3 wells to be present on parcel number 15, but the completed well survey for this parcel indicated just one 50-foot deepwell. Figure 1 shows the updated information from the well survey.

Based on the information obtained from the well searches:

- At least six wells are in use in the White Hawk TOD based on the well survey results; the well depths range from 12 to 50 feet, where known.
- An additional 5 to 8 wells were identified from the OWRD w ell log database. Of these, all but two are sealed from ground surface to 20 feet or more. Additionally, the Himmelman well at parcel 30 appears to be 100 feet deep and sealed to 35 feet.
- It is unclear whether the additional wells identified in the OWRD database are still in use.
- The well logs in the OWRD database suggest that, in the vicinity of the development, the soil consists of clay to depths of 8 to 12 feet below grade, underlain be sand and gravel to at least 40 to 50 feet in most locations.

Figure 1 shows that most of the wells are more than 100 feet from the proposed stormdrain line to be installed beneath Gebhard Road. However, wells are reported at parcels 3, 5, and 6 (see Figure 1) and the location of the wells are not known so the wells could be closer to the proposed utility.

EVALUATION OF THE POTENTIAL FOR IMPACTS DURING STORM AND SANITARY LINE INSTALLATION

Depth to first encountered water for shallow wells in the area appears to be about 9 feet below grade, but was historically reported as shallow as 4 feet below grade in some areas. Based on the OWRD well logs, it appears that most (if not all) of the wells are sealed to at least 9 feet below grade and are accessing water below that depth. The proposed storm and sanitary lines may be installed to depths of up to 10 to 12 feet and therefore, may intercept the water table in some areas. Based on this information, installation of the storm and/or sanitary lines could impact groundwater levels (and thereby impact the nearby water wells) from the following:

- Dewatering during construction;
- Infiltration into sewer lines; or
- Longitudinal flow in trench backfill.

If dewatering is necessary during construction, the water table would be lowered and these effects could extend to nearby water wells. This effect would be temporary and conditions would be expected to return to normal within a short period after completion of the work.

Long-term, if the storm or sanitary lines leak, infiltration into the lines could permanently lower the water table in the vicinity of the utilities to the base of the lines; however, this effect would likely extend only a few feet from the utility trench. This potential impact is addressed by quality control during construction to assure the utility lines are installed in alignment, seals are in place, intact and tested, proper pipe bedding is used, and trench backfill is properly compacted. These conditions assure the lines have a tight seal and meet the required performance standards prior to acceptance by the City.

[3] Dino Picollo, parcel 28 and Charlotte Holder, parcel 15; see Table 1.

If trench backfill is more permeable than native soil, water could flow longitudinally along the trench and discharge to surface water, permanently lowering the water table in the vicinity of the trench. Given the native soil conditions (clay soils in the upper 8 to 12 feet), it is possible that the trench backfill could be more permeable than the native soil in the areas where the native clay extends below the bottom depth of the utility bedding. Depending on the depth to which the trench penetrates the water table, longitudinal flow could occur; however, the influence on the shallow water table would likely extend only a few feet laterally from the utility trench. This localized depression in the water table caused by the trench could be addressed by installing low-permeability plugs at intervals in the trench backfill. Given that dewatering of local wells was reported after a drain trench was installed in Beebe Road in 1998, it is recommended that low permeability trench plugs be installed in future utility trenches dug for the project.

MITIGATION RECOMMENDATIONS EVALUATION AND MITIGATION OPTIONS

The potential impact of the installation and presence of the proposed storm and sanitary lines was performed in 2015 and is updated herein based on the updated well information obtained from the wells survey:

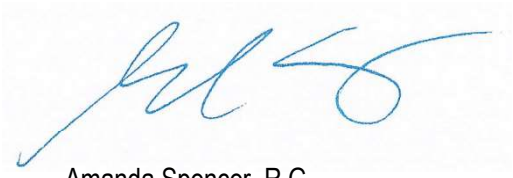
- Up to 21 wells may be located in the vicinity of the proposed project; it is unclear how many of these wells are still in use, however, at least three wells that are likely in use appear to be located within 100 feet of the proposed installation along Gebhard Road. The proposed utility installation is not expected to impact two of these wells because the wells are 35 and 140 feet deep and access water well below the depth of utility installation. The third well, located on parcel 3 (Figure 1) is of unknown depth. It is also unlikely that the utility installation will impact this well because the utility installations will penetrate only a few feet into the water table, if at all, at this location.
- A 12-foot depth well is reportedly located on parcel 28 that may be within 100 feet of proposed storm and sewer lines to be installed along the eastern development boundary (Figure 1). There is the potential that this well could be impacted by the utility installation, if the line extends into the water table at this location.
- Wells located further than 100 feet from the installation would not be anticipated to be impacted by the utility installation.
- It is also noted that three wells have been deepened over a period of 16 years, indicating that there is a long-term reduction in water level in the area.

The following presents mitigation options to address potential concerns:

- Prior to construction of the storm drain line proposed to be placed along Gebhard Road, verify the depth of the well located on parcel 3 and, if the well is less than a total depth of 15 feet, monitor water levels in that well during construction.
- Prior to construction of storm or sewer lines tie-ins to the existing storm or sewer lines beneath Beebe Road, verify the presence of wells located on parcel 10 identified in the Haggerty report that may be located within 100 feet of the tie-ins and are reported to be shallower than 15 feet in depth. If these wells are still present and in use, monitor the water levels during the construction.
- If installation does penetrate the water table, low-permeability plugs can be used to inhibit flow along the trench line. Assuming crushed rock is used for trench backfill, adding 5 percent (dry weight) bentonite to the backfill is sufficient to reduce the permeability of the backfill. The plugs should be placed from the bottom of the trench to 1 foot above the water table the full width of the trench and have a minimum length of 5 feet. A plug should be placed at the low end of each main sewer line.
- In areas where the lines are installed below the water table, particular care needs to be taken to ensure that the lines have a tight seal.

If you have any questions or need further information, please contact us at your convenience.

Sincerely,



Amanda Spencer, R.G.
Principal Hydrogeologist

ATTACHMENTS

Table 1 – Summary of Well Survey Results
Table 2 – OWRD Well Survey Results

Figure 1 – Location of Wells in the White Hawk TOD

Attachment A – White Hawk TOD
Attachment B – Completed Surveys
Attachment C – OWRD Well Logs for Wells Within the TOD

cc: Matt Samitore, City of Central Point

TABLE 1: SUMMARY OF WELL SURVEY RESULTS

Parcel Index	MAP	TAX LOT	Site Num	Site St	Owner	Owner Address (if different from Site Address)	Date Survey sent	Survey Returned?	Well?	Well Depth	Date Installed	Notes
1	372W02	400	No Address			6026 Palmero Cir Cameron Park, CA 95682	Survey sent 12/15	12/22/2015 1/25/2016	N	NA	NA	Undeveloped land
2	372W02	500	No Address			10 S Oakdale Ave Medford, OR 97501	Survey sent 3/3/16	3/11/2016	N	NA	NA	Undeveloped land
3	372W02	2500	4757	Gebhard	Karen and Randall Wales		Survey sent 12/15	12/28/2015	Y	unknown	unknown	domestic use and yard/gardening
4	372W02	600	No Address			1355 Cora Ln Auburn, CA 95603	Survey sent 3/3/16	3/11/2016	N	NA	NA	Undeveloped land
5	372W02	2601	4617	Gebhard	David & Julie Webb		Survey sent 12/15	12/30/2015	Y	35 feet bgs	1930?	domestic use and yard/gardening/orchard
6	372W02	2600	4613	Gebhard	Sergio Mejia		Survey sent 12/15 Resent 3/3/16	N				Survey not completed but OWRD well log found dated 5/4/2012 for a 140 foot well
7	372W02	2602	4603	Gebhard	William Jeshke		Survey sent 12/15 Resent 3/3/16	N				
8	372W02D	501	No Address			PO Box 996 Medford, OR 97501	Survey sent 12/15 Resent 3/3/16	3/11/2016	N			Undeveloped land
10	372W02D	300	587	Beebe	Ken Beebe?		Survey sent 12/15 Resent 3/3/16	N				Completed Survey not received but 3 OWRD well logs identified - See Table 2
11	372W02D	200	511	Beebe	Mingus		Survey sent 3/3/16	N				Completed Survey not received but 3 OWRD well logs identified - See Table 2
12	372W01C	2500	507	Beebe	Terry & Harley Callahan		Survey sent 12/15 Resent 3/3/16	N				
13	372W01C	2400	495	Beebe	James and Michelle Nistler		Survey sent 12/15 Resent 3/3/16	N				
14	372W01C	2300	477	Beebe	Michelle Nistler		Survey sent 12/15 Resent 3/3/16	N				
15	372W01C	2301	445	Beebe	Charlotte Holder		Survey sent 12/15 Resent 3/3/16	1/11/2016	Y	50 feet	1998	lawn, gardening, watering orchard, fire abatement
16	372W01C	2200	443	Beebe	Rita Deann Tyner		Survey sent 12/15 Resent 3/3/16	N				
17	372W01C	1700	4511	Hamrick	James Sutton		Survey sent 12/15 Resent 3/3/16	N				
18	372W01C	1800	4497	Hamrick	Nick Kenneth Lee		Survey sent 12/15 Resent 3/3/16	N				
19	372W01CB	1100	4475	Hamrick	Gladys Muse		Survey sent 12/15 Resent 3/3/16	N				
20	372W01CB	1000	4461	Hamrick	Richard Smith		Survey sent 12/15 Resent 3/3/16	N				

21	372W01CB	900	4439	Hamrick	Humphrey&Windsor LLC		Survey sent 12/15 Resent 3/3/16	N					
22	372W01BC	10100	446	Beebe			Survey sent 3/3/16	N					
23	372W01BC	10200	444	Beebe			Survey sent 3/3/16	N					
24	372W01BC	10000	4615	Hamrick	Edic Sliva		Survey sent 12/15 Resent 3/3/16	N					
25	372W01BC	9800	4630	Hamrick	CA Galpin		Survey sent 12/15 Resent 3/3/16	N					
26	372W01BC	9900	456	Beebe	Picollo LLC		Survey sent 12/15 Resent 3/3/16	N					
27	372W02	3100	600	Beebe	Shepherd of the Valley Catholic Church		Survey sent 12/15 Resent 3/3/16	N					Completed Survey not received but OWRD well log identified - See Table 2
28	372W02	3000	628	Beebe	Dino Picollo		Survey sent 12/15	12/23/2015	2 wells	1 - 12 feet 2 - 34 feet	1 - Unknown 2 - 1940ish		one well at back of lot used for irrigation; second well shared with 523 Beebe for domestic and irrigation OWRD well log from 2/17/1983 for a 60 foot well - see Table 2
30	372W02	200	4848	Gebhard	Steve & Carolyn Himmelman		Survey sent 12/15	1/5/2016	Y	15 feet	unknown		hand dug well domestic use/irrigation/stock watering OWRD well log found from 10/11/1994 for a 100 foot well
31	372W02AA	2800	4920	Gebhard			Survey sent 3/3/16	N					

Note: yellow highlighted: surveys were returned because the post office could not deliver

TABLE 2: OWRD SURVEY RESULTS

Parcel Index	MAP	TAX LOT	Site Num	Site St	Owner	Well Log #	Well Depth	Date Installed	Notes
1	372W02	400	No Address			None	NA	NA	
2	372W02	500	No Address			None	NA	NA	
3	372W02	2500	4757	Gebhard		None	unknown	unknown	domestic use and yard/gardening well onsite based on Well Survey (see Table 1)
4	372W02	600	No Address			None	NA	NA	
5	372W02	2601	4617	Gebhard		None	35 feet bgs	1930?	domestic use and yard/gardening/orchard well onsite based on Well Survey (see Table 1)
6	372W02	2600	4613	Gebhard	Sergio Mejia	JACK61181	140 feet	5/4/2012	sealed from 0 to 50 feet below grade; screened from 50 to 140 feet below grade
7	372W02	2602	4603	Gebhard	William Jeshke	None			
8	372W02D	501	No Address			None			
10	372W02D	300	587	Beebe	Ken Beebe?	JACK12262 JACK12264 JACK12261	12 feet 66.5 feet 13 feet	1965 and 1966	sealed 0 to 9 feet sealed 0 to 20 feet sealed 0 to 9 feet
11	372W02D	200	511	Beebe	Mingus	JACK52926 JACK55868 JACK52660	204 feet 56 feet 59 feet	1999 2003 1998	sealed 0 to 59? Sealed 0 to 27 feet sealed 0 to 20 feet
12	372W01C	2500	507	Beebe	Terry & Harley Callahan	None			
13	372W01C	2400	495	Beebe	James and Michelle Nistler	None			
14	372W01C	2300	477	Beebe	Michelle Nistler	None			
15	372W01C	2301	445	Beebe	Charlotte Holder	None	50 feet	1998	lawn, gardening, watering orchard, fire abatement well onsite based on Well Survey (see Table 1)
16	372W01C	2200	443	Beebe	Rita Deann Tyner	None			
17	372W01C	1700	4511	Hamrick	James Sutton	None			
18	372W01C	1800	4497	Hamrick	Nick Kenneth Lee	None			
19	372W01CB	1100	4475	Hamrick	Gladys Muse	None			
20	372W01CB	1000	4461	Hamrick	Richard Smith	None			
21	372W01CB	900	4439	Hamrick	Humphrey&Windsor LLC	None			
22	372W01BC	10100	446	Beebe		None			
23	372W01BC	10200	444	Beebe		None			
24	372W01BC	10000	4615	Hamrick	Edic Sliva	None			
25	372W01BC	9800	4630	Hamrick	CA Galpin	None			
26	372W01BC	9900	456	Beebe	Picollo LLC	None			

27	372W02	3100	600	Beebe	Shepherd of the Valley Catholic Church	JACK30394	90 feet	1990	Deepening of an existing well from 68 to 90 feet
28	372W02	3000	628	Beebe	Dino Picollo	JACK12241	60 feet	1983	Deepening of an existing well from 35 feet to 60 feet. Sealed from 0 to 35 feet.
30	372W02	200	4848	Gebhard	Steve Himmelman	JACK33759	100 feet	1994	sealed 0 to 35 feet
31	372W02AA	2800	4920	Gebhard		None			



Legend:

- Water Well (Based on Returned Survey; Location Approximate)
- Oregon Water Resources Department (OWRD) Database Well Location
- B1 Water Well (Based on February 2000 Haggerty Report and/or OWRD Database; Existence Not Confirmed)
- [35'] Depth of Well (UNK = Unknown Depth)

Base map prepared from a Well Notiofication Area figure by CES|NW (12/01/2105).

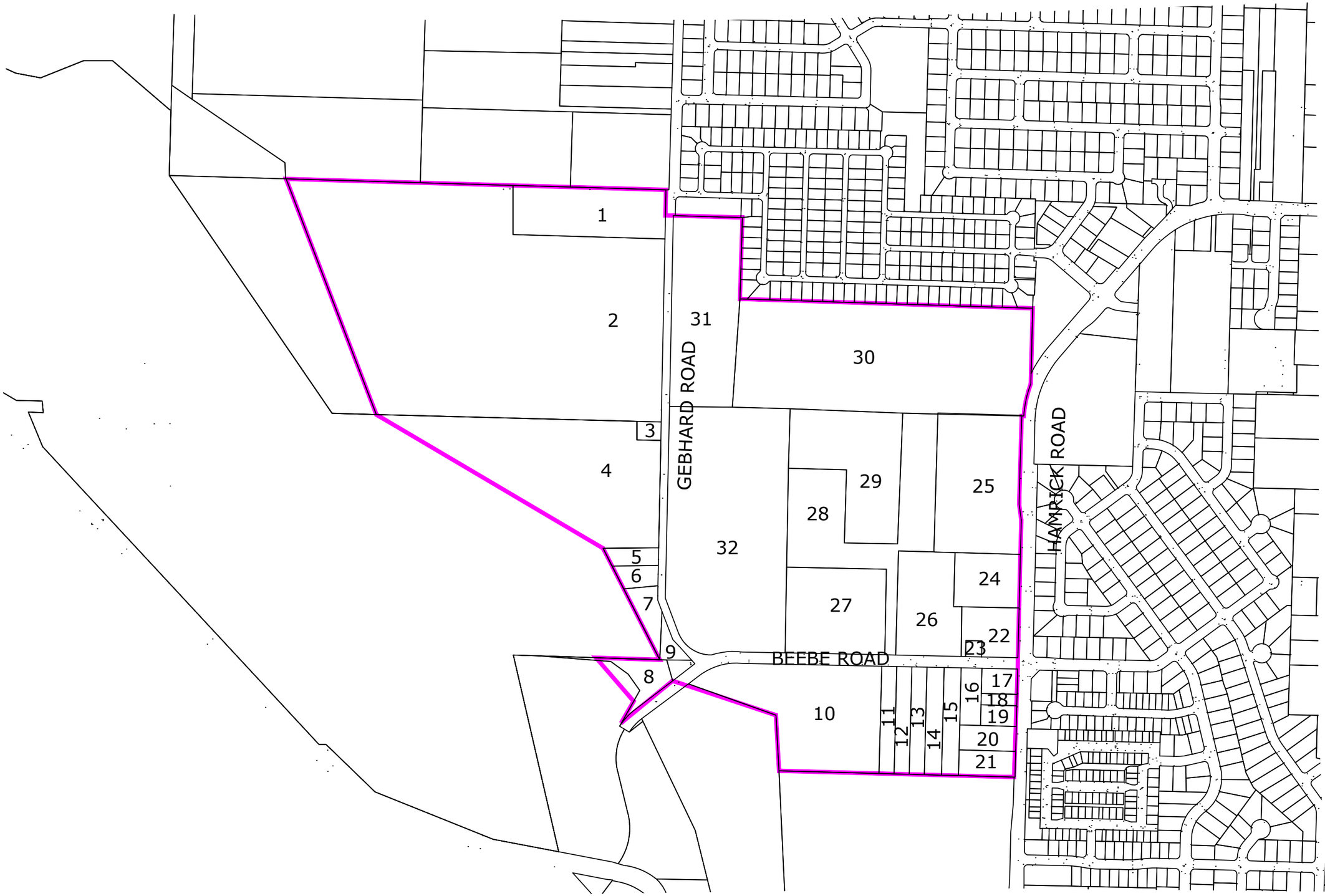
Location of Wells within White Hawk TOD

Well Survey and Evaluation Letter
White Hawk Development
Central Point, Oregon

APEX Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number	2251-00	Figure 1
	November 2016		

Attachment A

White Hawk TOD



WHITE HAWK TOD
CASE FILE NO. 14004

PEOPLE'S BANK OF COMMERCE
1311 BARNETT ROAD
MEDFORD, OR 97054
(541) 774-7656

CES|NW
13190 SW 68th Parkway, Suite 150
Tigard, Oregon 97223
503.968.6655 www.cesnw.com

REVISIONS
1910-WELL_NOTICE_AREA.DWG

PROJECT NO.: 1910
DESIGNED BY: ARW
DATE: 12/01/15
DRAWN BY: ARW

WELL NOTIFICATION AREA

SHEET 1
OF 1

PLOTTED: 1/12/2016 11:44 AM

Attachment B

Completed Surveys

Received
DEC 21 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 1 A Penninger Rd
   City, State, Zip: CP OR

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

_____
_____
_____
_____

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

_____
_____
_____

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

Received
DEC 28 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 4757 GEBHARD RD
   City, State, Zip: CENTRAL POINT, OR 97502

2. What water source(s) are used on your property?

   (Individual well)
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   (In home domestic use
   Lawn and garden watering)
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

4. When was the well installed? UNKNOWN
5. What is the depth of the well? UNKNOWN
6. Was the well installed by a drilling contractor? UNKNOWN – PROBABLY

VOLUNTARY RESIDENTIAL WATER USE SURVEY

Received
DEC 30 2015
Apex-Portland

1. Please provide your address

   Address: 4617 GEBHARD ROAD
   City, State, Zip: CENTRAL POINT OR. 97502

2. What water source(s) are used on your property?

   (Individual well)
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   (In home domestic use)
   (Lawn and garden watering)
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)
   20 + FRUIT TREES 40 + OTHER TREES
   VERY LARGE GARDEN, GRAPES, RASPBERRIES STRAWBERRIES ETC.

4. When was the well installed? 1930 ?c

5. What is the depth of the well? 35 FEET

6. Was the well installed by a drilling contractor? ?c

Received
DEC 23 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 628 Beebe Rd
   City, State, Zip: Central Point, OR 97502

2. What water source(s) are used on your property?

   (Individual well)
   (Well shared with one neighbor)
   Central Point Utility Services
   Other (please describe):
   one well on back of property for irrigation, one well for both 628 & 523 Beebe for household & irrigation

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   (In home domestic use)
   (Lawn and garden watering)
   (Pasture/Crops/Orchard)
   Stock watering
   Other (please describe)

4. When was the well installed? #1 unknown #2 was used for House Built around 1940
5. What is the depth of the well? #1 about 12 #2 about 54'
6. Was the well installed by a drilling contractor?
   unknown #2 assume yes

Received
DEC 22 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 6076 Palmero Circle
   City, State, Zip: Cameron Park, CA. 95682

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   ✓ Other (please describe):
   under Rogue Valley Irrigation District
   No well on property

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

Received
JAN 05 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

Address: P.O. Box 3972 MAIL / 4848 Gebhard Rd
City, State, Zip: Central Point, Or. 97502

2. What water source(s) are used on your property?

(Individual well)
Well shared with one neighbor
Central Point Utility Services
Other (please describe):

_____
_____
_____
_____

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

(In home domestic use)
(Lawn and garden watering)
Pasture/Crops/Orchard
(Stock watering)
Other (please describe)

_____
_____
_____

4. When was the well installed? UNKNOWN
5. What is the depth of the well? 15' APPROX
6. Was the well installed by a drilling contractor? NO - HAND DUG

Receive
JAN 11 2016
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 445 BEE BE RD.
   City, State, Zip: CENTRAL POINT, OREGON 97502

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)
   FIRE ABATEMENT

4. When was the well installed? 1998
5. What is the depth of the well? 50'
6. Was the well installed by a drilling contractor? YES

Received

MAR 1 0 2016

Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: Map 37 2W 02D TL 500+600

   City, State, Zip: _____

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

   No water source - bare land

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

Received
JAN 25 2016
Apex-Portland

Property no. 1

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address – Property is on Gebhard Rd. 5 acre parcel No Dwelling

   Address: 6026 Palmero Circle
   City, State, Zip: Cameron Park, CA 95682

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   ✓Other (please describe):
   Rogue River Valley Irrigation District

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

VOLUNTARY RESIDENTIAL WATER USE SURVEY

Received
JAN 25 2016
Apex-Portland

1. Please provide your address

   Address: 1480 E. Pine Street
   City, State, Zip: Central Point, OR. 97502

2. What water source(s) are used on your property?

   (Individual well)
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

   _____
   _____
   _____
   _____

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   (Other (please describe))
   Commercial / Retail
   _____
   _____

4. When was the well installed?
   About 1950
5. What is the depth of the well?
   not known
6. Was the well installed by a drilling contractor?
   not known

Received
MAR 11 2016
Apex Portland

Lots 2 + 4 + 8

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 10 S Oakdale Ave #111
   City, State, Zip: Medford OR 97501

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):
   Property is currently unused bare land shown on your map as Lots 2 + 4 + 8, with the exception of the greenway path through lot 8
   No water use

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

   _____
   _____
   _____

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

Attachment C

OWRD Well Logs for Wells Within the TOD

jack 5216D

STATE OF OREGON WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

WELL I.D.# ——— L 27891

(START CARD) # 87249

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number 1044-98

Name Ernest Mingus

Address 511 Beebee Rd.

City Central Point State OR. Zip 97502

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD:

☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger

☐ Other

(4) PROPOSED USE:

☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Livestock ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval ☐ Yes ☒ No Depth of Completed Well 59 ft.

Explosives used ☐ Yes ☒ No Type ——— Amount ———

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
10"	0	20	Bentonite	0	20	8 Sacks
6"	20	59				Bentonite

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☒ Other Poured Dry

Backfill placed from ——— ft. to ——— ft. Material ———

Gravel placed from ——— ft. to ——— ft. Size of gravel ———

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+2	61½	.250	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:					☐	☐	☐	☐
					☐	☐	☐	☐

Final location of shoe(s) 59

(7) PERFORATIONS/SCREENS:

☒ Perforations Method Holt Air Perf.

☐ Screens Type ——— Material ———

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
40	56	⅛ x 1	200		6	☒	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
5	18	59	1 hr.

Temperature of water 54 Depth Artesian Flow Found ———

Was a water analysis done? ☐ Yes By whom ———

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ———

Depth of strata: ———

(9) LOCATION OF WELL by legal description:

County Jackson Latitude ——— Longitude ———

Township 37 N or S Range 2 E or W. WM.

Section 02-D SW 1/4 SE 1/4

Tax Lot 200 Lot ——— Block ——— Subdivision ———

Street Address of Well (or nearest address) 511 Beebee Rd Central Point OR.

(10) STATIC WATER LEVEL:

41 ft. below land surface. Date 10-27-98

Artesian pressure ——— lb. per square inch. Date ———

(11) WATER BEARING ZONES:

Depth at which water was first found 41'

From	To	Estimated Flow Rate	SWL
41	59	5	41

(12) WELL LOG:

Ground Elevation ———

Material	From	To	SWL
Brown clay	0	12	
Med to coarse sand + gravel	12	57	41
Soft gray claystone	57	59	41

RECEIVED
NOV 09 1998
WATER RESOURCES DEPT.
SALEM, OREGON

Date started 10-26-98 Completed 10-27-98

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number 679

Signed John Studebaker Date 11-9-98

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 360

Signed Jack R. Stutzman Date

JACK
12261

RECEIVED
MAY 31 1966
STATE ENGINEER

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2W-2
State Permit No.

(1) OWNER:
Name D R ADAMS
Address 587 BEEBE RD
CENTRAL POINT ORE

(2) LOCATION OF WELL:
County JACKSON Driller's well number
¼ ¼ Section 2 T. 37S R. 2W W.M.
Bearing and distance from section or subdivision corner

(3) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☐ Jetted ☐
Dug ☐ Bored ☒

(6) CASING INSTALLED:
Threaded ☐ Welded ☐
18 " Diam. from 1.A.B.S. ft. to 13 ft. Gage CONCRETE
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☒ Yes ☐ No
Type of perforator used
Size of perforations in. by in.
1 INCH perforations from 9 ft. to 13 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☒ No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal CONCRETE
Depth of seal 9 ft. Was a packer used? NO
Diameter of well bore to bottom of seal 24 in.
Were any loose strata cemented off? ☐ Yes ☒ No Depth
Was a drive shoe used? ☐ Yes ☒ No
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from NONE ft. to ft.
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 9 ft. below land surface Date 5-13-66
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☒ Yes ☐ No If yes, by whom? OWNER
Yield: 15 gal./min. with NONE ft. drawdown after 6 hrs.
" " " "
" " " "
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 49 Was a chemical analysis made? ☐ Yes ☒ No

(12) WELL LOG:
Diameter of well below casing NONE
Depth drilled 13 ft. Depth of completed well 13 ft.

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
BLACK CLAY	0	4
DARK BROWN CLAY	4	6
HARD BROWN CLAY	6	9
SAND - SMALL GRAVEL	9	11
LARGE COBBLES SAND GRAVEL	11	13

Work started 5-13- 1966 Completed 5-13- 1966
Date well drilling machine moved off of well 5-13 1966

(13) PUMP:
Manufacturer's Name ?
Type: ? H.P. ?

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME LLOYD K. FISCHER
(Person, firm or corporation) (Type or print)
Address 1021 VAWTER RD
Drilling Machine Operator's License No. 43
[Signed] Lloyd K. Fischer
(Water Well Contractor)
Contractor's License No. 346 Date 5-16, 1966

(USE ADDITIONAL SHEETS IF NECESSARY)

JACK 55868

STATE OF OREGON

WATER SUPPLY WELL REPORT

(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form

WELL ID # L L62623

(START CARD) # 153911

(1) OWNER:

Well Number: L62623

Name Earnest Mingus

Address 511 Beebe Rd.

City Central Point State OR Zip 97502

(2) TYPE OF WORK:

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 55 ft.

Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
10	0	55	Bentonite	0	27	50 Sacks
			16 Sand	27	40	20 sacks
			10 x 20 Sand	40	54	20 Sacks
			Sand Gravel	54	55	

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E

[X] Other Poured Dry

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6	+2	31	.250	[X]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

[ ] Perforations Method

[X] Screens Type .020 Material Stainless

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
31	55	.020				[X]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
3 GPM	55	55	6 hr.

Temperature of Water 57 Depth Artesian Flow found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Jackson Latitude Longitude

Township 37S N or S. Range 2W E or W. of WM.

Section 2 SW 1/4 SE 1/4

Tax lot 200 Lot Block Subdivision

Street Address of Well (or nearest address) 511 Beebe Rd.

(10) STATIC WATER LEVEL:

12 ft. below land surface. Date 12/4/2002

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 8

From	To	Estimated Flow Rate	SWL
8	55	3 GPM	12

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
Top Soil	0	2	
Brown Clay	2	8	
Tan clay w/ sand gravel	8	28	
Tan sand w/ gravel	28	30	12
Tan clay w/ gravel	30	55	
Grey Silt Stone	55	56	

ASHLAND DRILLING INC
ALL AMERICAN PUMPS
600 South Pacific Hwy
Talent, OR 97540
541 488 2827

RECEIVED
JAN 10 2003
WATER RESOURCES DEPT.
SALEM, OREGON

Date started 12/2/2002 Completed 12/4/2002

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to my best knowledge and belief.

Signed Ashland Drilling Inc. WWC Number 1657 Date 1/6/2003

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

Signed Ashland Drilling Inc. WWC Number 1478 Date 1/6/2003

ORIGINAL - WATER RESOURCES DEPARTMENT FIRST COPY - CONSTRUCTOR SECOND COPY - CUSTOMER

RECEIVED

FEB 16 1999

WATER RESOURCES DEPT.
SALEM, OREGON

JACK
52926

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form.

WELL I.D. # L 127891
START CARD # 61007

(1) OWNER: Well Number
Name Earnest Mincks
Address 511 Beebe Rd
City Central Point State OR Zip 97502

(2) TYPE OF WORK
☐ New Well ☒ Deepening ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD:
☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger
☐ Other

(4) PROPOSED USE:
☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation
☐ Thermal ☐ Injection ☐ Livestock ☐ Other

(5) BORE HOLE CONSTRUCTION:
Special Construction approval ☐ Yes ☒ No Depth of Completed Well 204 ft.
Explosives used ☐ Yes ☒ No Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
6	59	204	SEAL	NOT		Disturbed

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☐ Other
Backfill placed from ____ ft. to ____ ft. Material ____
Gravel placed from ____ ft. to ____ ft. Size of gravel ____

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	4	0	204	14	☐	☒	☒ glue	☐
					☐	☐	☐	☐

Final location of shoe(s) EXISTING

(7) PERFORATIONS/SCREENS:
☒ Perforations Method Saw
☐ Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
120	180	12	128	48	4"	☐	☒
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
12		203	1 hr.

Temperature of water 54 Depth Artesian Flow Found ____
Was a water analysis done? ☐ Yes By whom ____
Did any strata contain water not suitable for intended use? ☐ Too little
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ____
Depth of strata: ____

(9) LOCATION OF WELL by legal description:
County Jackson Latitude ____ Longitude ____
Township 37 N or (S) Range 2 E or (W) WM.
Section 2-D SW 1/4 SE 1/4
Tax Lot 200 Lot ____ Block ____ Subdivision ____
Street Address of Well (or nearest address) 511 Beebe Rd
Central Point OR 97502

(10) STATIC WATER LEVEL:
41 ft. below land surface. Date 1-27-99
Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:
Depth at which water was first found 78

From	To	Estimated Flow Rate	SWL
78	162	12	41

(12) WELL LOG:
Ground Elevation ____

Material	From	To	SWL
Sandstone cream	60	78	
claystone Redish	78	96	
Cemented Fine Gravel	96	152	41
Sandstone Green	152	204	

Date started 1-29-99 Completed 1-27-99

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
WWC Number ____
Signed ____ Date ____

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 679
Signed John Stubblefield Date 1-28-99

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

JACK
12262

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

RECEIVED
MAY 31 1966
STATE ENGINEER
SALEM, OREGON

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2W-2
State Permit No.

(1) OWNER:
Name K. W. BEEBE
Address 587 BEEBE RD
CENTRAL POINT ORE

(2) LOCATION OF WELL:
County JACKSON Driller's well number
¼ ¼ Section 2 T. 37S R. 2W W.M.
Bearing and distance from section or subdivision corner
SOUTH SIDE OF BEEBE RD
HALF WAY BETWEEN
K W BEEBE HOUSE AND
C R BEEBE HOUSE

(3) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☒ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☐ Jetted ☐
Dug ☐ Bored ☒

(6) CASING INSTALLED:
Threaded ☐ Welded ☐
18 " Diam. from 1FT ABS ft. to 12 ft. Gage CONCRETE
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☒ Yes ☐ No
Type of perforator used
Size of perforations 1 INCH in. by 1 INCH in. 1X1 O
1 INCH perforations from 9 ft. to 12 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☒ No
Manufacturer's Name
Type Model No.
Dia. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal CONCRETE
Depth of seal 9 ft. Was a packer used? NO
Diameter of well bore to bottom of seal 24 in.
Were any loose strata cemented off? ☐ Yes ☒ No Depth
Was a drive shoe used? ☐ Yes ☒ No
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from NONE ft. to ft.
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 9 ft. below land surface Date 5-16-66
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☒ Yes ☐ No If yes, by whom? OWNER
Yield: 30 gal./min. with ft. drawdown after 1 hrs.
" " " "
" " " "
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 50 Was a chemical analysis made? ☐ Yes ☒ No

(12) WELL LOG:
Diameter of well below casing NONE
Depth drilled 12 ft. Depth of completed well 12 ft.
Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
BLACK CLAY	0	4
BROWN CLAY	4	7
MEDIUM FINE SAND	7	9
SAND-GRAVEL	9	12
LARGE COBBLES		

Work started 5-14 1966 Completed 5-14 1966
Date well drilling machine moved off of well 5-14 1966

(13) PUMP:
Manufacturer's Name ?
Type: ? H.P. ?

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME LLOYD K. FISCHER
(Person, firm or corporation) (Type or print)
Address 1021 VAWTER RD
Drilling Machine Operator's License No. 43
[Signed] Lloyd K. Fischer
(Water Well Contractor)
Contractor's License No. 346 Date 5-16, 1966

(USE ADDITIONAL SHEETS IF NECESSARY)

JACK
12264

RECEIVED
NOV 15 1965
STATE ENGINEER
SALEM, OREGON

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM, OREGON 97310 within 30 days from the date of well completion.

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2w-2

State Permit No.

(1) OWNER:
Name D.R. Adams
Address 587 Beebe Rd.
Medford, Oregon

(2) LOCATION OF WELL:
County Jackson Driller's well number
¼ ¼ Section 2 T. 37 S R. 2W W.M.
Bearing and distance from section or subdivision corner
210FT NORTH & 25FET WEST OF SOUTH EAST CORNER

(3) TYPE OF WORK (check):
New Well ☑ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☑ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☑ Jetted ☐
Dug ☐ Bored ☐

(6) CASING INSTALLED:
Threaded ☐ Welded ☑
6 " Diam. from +1 ft. to 50 ft. Gage .250
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☑ Yes ☐ No
Type of perforator used TORCH
Size of perforations 1/4 in. by 1/2 in.
9 perforations from 41 ft. to 49 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed? ☐ Yes ☑ No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal BENTONITE & CUTTINGS
Depth of seal 20 ft. Was a packer used? NO
Diameter of well bore to bottom of seal 9 1/2 in.
Were any loose strata cemented off? ☐ Yes ☑ No Depth
Was a drive shoe used? ☑ Yes ☐ No
Was well gravel packed? ☐ Yes ☑ No Size of gravel:
Gravel placed from ft. to ft.
Did any strata contain unusable water? ☑ Yes ☐ No
Type of water? SURFACE depth of strata 7T09
Method of sealing strata off BENTONITE

(10) WATER LEVELS:
Static level 8 ft. below land surface Date 11-10-65
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☑ No If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "
Bailer test 5 gal./min. with 53 ft. drawdown after 1 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? ☐ Yes ☑ No

(12) WELL LOG:
Diameter of well below casing 6
Depth drilled 66 1/2 ft. Depth of completed well 66 1/2 ft.
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
SOIL BLACK CLAY	0	4
CLAY & SAND	4	17
CLAY BROWN	17	25
SAND, GRAVEL FINE.	25	49
CLAYSTONE BLUE	49	53
CLAYSTONE	53	60
SANDSTONE	60	66 1/2
WATER	45	49
	59	61

Work started 11-8 19 65 Completed 11-10 19 65
Date well drilling machine moved off of well 11-10 19 65

(13) PUMP:
Manufacturer's Name
Type: H.P.

Water-Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME CRATERWELL DRILLING, INC.
(Person, firm or corporation) (Type or print)
Address 3061 Crater Lake Ave., Medford, Ore.
Drilling Machine Operator's License No. 71
[Signed] P.A. Chitwood
(Water Well Contractor)
Contractor's License No. 83 Date 11-10, 19=65

(USE ADDITIONAL SHEETS IF NECESSARY)

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

Jack30894

37S/2W/2

(START CARD) # 21199

(1) OWNER:

Well Number:

Name SHEPPARD OF THE VALLEY/ARCHDIOCESE/PORTLAND

Address 600 BEEBE ROAD

City CENTRAL POINT State OR Zip 97502

(2) TYPE OF WORK:

☐ New Well ☒ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other

(4) PROPOSED USE:

☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes ☐ No ☒ Depth of Completed Well 90 ft.

Explosives used Yes ☐ No ☒ Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
6"	68	90	DEEPENING			

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	N/A				☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	4"	0	90	160	☐	☒	☐	☐
					☐	☐	☐	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

☒ Perforations Method SAW

☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
30	90	1X8X8	60			☐	☒
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
8GPM		90	1 hr.

Temperature of water 54 Depth Artesian Flow Found

Was a water analysis done? ☐ Yes By whom

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County JACKSON Latitude ' " Longitude ' "

Township 37S N or S, Range 2W E or W, WM.

Section 2 ¼ ¼

Tax Lot 3100 Lot Block Subdivision

Street Address of Well (or nearest address) SAME AS #1

(10) STATIC WATER LEVEL:

17 ft. below land surface. Date 9-14-90

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 17SWL

From	To	Estimated Flow Rate	SWL
75	85	8GPM	17

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
CLAYSTONE, BLUE, SOFT	68	90	17

RECEIVED

OCT - 3 1990

WATER RESOURCES DEPT.
SALEM, OREGON

Date started 9-14-90 Completed 9-14-90

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number

Signed MEDINA WELL DRILLING Date

3286 Hanley Road
Central Point, OR 97502

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1207

Signed Joaquin Medina Date 9-17-90

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/88

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

JACK 12239

RECEIVED JUL 27 1989 WATER RESOURCES DEPT SALEM, OREGON

37S/2W/2

(START CARD) # 10374

(1) OWNER:

Well Number:

Name MARGARET NIXON

Address 718 BEEBE ROAD

City CENTRAL POINT State OR Zip 97502

(2) TYPE OF WORK:

[X] New Well [ ] Deepen [ ] Recondition [ ] Abandon

(3) DRILL METHOD

[X] Rotary Air [ ] Rotary Mud [ ] Cable

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes [ ] No [X] Depth of Completed Well 100 ft.

Explosives used Yes [ ] No [X] Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
10"	0	50	CEMENT	0	50	13SACKS
6"	50	100				

How was seal placed: Method [ ] A [ ] B [XX] C [ ] D [ ] E

[ ] Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+1	59	.250	XX		XX	
Liner:	4"	0	100			XX	XX	

Final location of shoe(s) 59

(7) PERFORATIONS/SCREENS:

XX Perforations Method SAW

[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
40	60	1X8	X8 60				XX

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [XX] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
12 GPM	72	100	1 hr.

Temperature of water Depth Artesian Flow Found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County JACKSON Latitude ' " Longitude ' "

Township 37N N or S, Range 2W E or W, WM.

Section 02 ¼ ¼

Tax Lot 2700 Lot Block Subdivision

Street Address of Well (or nearest address) SAME AS #1

(10) STATIC WATER LEVEL:

28 ft. below land surface. Date 7-6-89

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 60

From	To	Estimated Flow Rate	SWL
60	90	12GPM	28

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
SOIL, BROWN	0	2	
CLAY, BROWN	2	6	
DECOMPOSED, GRANITE	6	23	
CLAY, BROWN	23	30	
GRAVEL, SMALL	30	40	
CLAY, BLUE	40	46	
CLAYSTONE, BLUE, SOFT	46	100	28

Date started 7-6-89 Completed 7-6-89

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number

Signed MEDINA WELL DRILLING Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1207

Signed Joaquin Medina Date 7-9-89

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/88

WATER WELL REPORT
STATE OF OREGON

JACK 1224

RECEIVED
FEB 22 1983
WATER RESOURCES DEPT.
SALEM, OREGON

State Well No. 37S/2W-2

State Permit No. Deepened

(1) OWNER:
Name Gus Picollo
Address 628 Bee Be Road
City Central Point State Oregon

(2) TYPE OF WORK (check):
New Well ☐ Deepening ☒ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:
Rotary Air ☒ Driven ☐
Rotary Mud ☐ Dug ☐
Cable ☐ Bored ☐

(4) PROPOSED USE (check):
Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐
Thermal: Withdrawal ☐ Reinjection ☐

(5) CASING INSTALLED:
Steel ☐ Plastic ☐
Threaded ☐ Welded ☐
..." Diam. from ... ft. to ... ft. Gauge ...
..." Diam. from ... ft. to ... ft. Gauge ...

LINER INSTALLED:
..." Diam. from ... ft. to ... ft. Gauge ...

(6) PERFORATIONS:
Perforated? ☐ Yes ☐ No
Type of perforator used
Size of perforations in. by in.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.

(7) SCREENS:
Well screen installed? ☐ Yes ☐ No
Manufacturer's Name ...
Type ... Model No. ...
Diam. ... Slot Size ... Set from ... ft. to ... ft.
Diam. ... Slot Size ... Set from ... ft. to ... ft.

(8) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☐ No If yes, by whom?
... gal./min. with ... ft. drawdown after ... hrs.
" " " "
Air test gal./min. with drill stem at ft. hrs.
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m.
Temperature of water Depth artesian flow encountered ... ft.

(9) CONSTRUCTION:
Special standards: Yes ☐ No ☐
Well seal—Material used ...
Well sealed from land surface to ... ft.
Diameter of well bore to bottom of seal ... in.
Diameter of well bore below seal ... in.
Number of sacks of cement used in well seal ... sacks
How was cement grout placed? ...
Was pump installed? ... Type ... HP ... Depth ... ft.
Was a drive shoe used? ☐ Yes ☐ No Plugs ... Size: location ... ft.
Did any strata contain unusable water? ☐ Yes ☐ No
Type of Water? depth of strata
Method of sealing strata off
Was well gravel packed? ☐ Yes ☐ No Size of gravel: ...
Gravel placed from ... ft. to ... ft.

(10) LOCATION OF WELL:
County Jackson Driller's well number 83-3
¼ ¼ Section 2 T. 37S R. 2W W.M.
Tax Lot # 3000 Lot Blk Subdivision
Address at well location: 628 Bee Be Road
Central Point, Oregon

(11) WATER LEVEL: Completed well.
Depth at which water was first found see below ft.
Static level 4 ft. below land surface. Date 1-18-83
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:
Diameter of well below casing 6 inch
Depth drilled 35 ft. Depth of completed well 45 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Increased air return from 75 GPM to 250+ GPM.			
Formations:			
Medium sand with coarse gravel	25	60	4

Work started 1-18 19 83 Completed 1-18 19 83
Date well drilling machine moved off of well 1-18 19 83

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] John Studebaker (Drilling Machine Operator) Date 2-17, 1983
Drilling Machine Operator's License No. 1008

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Name Studebaker Well Drilling (Person, firm or corporation) (Type or print)
Address 4876 Highway 66 Ashland, Oregon 97520
[Signed] John Studebaker (Water Well Contractor)
Contractor's License No. 679 Date 2-17, 1983

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the WATER RESOURCES DEPARTMENT, SALEM, OREGON 97310 within 30 days from the date of well completion.

SP*12658-690

14

JACK 33759

RECEIVED

OCT 1 3 1994

WATER RES...
SALEM, OREGON

37S/2W/26c

JCWP#491-94W

STATE OF OREGON WATER WELL REPORT

(as required by ORS 537.765)

Gribble Well Drilling Nic. (START CARD) # 65619

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number 1

Name Steve Himmelman

Address P.O. Box 411

City Jacksonville State Ore Zip 97530

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 100 ft.

Explosives used [ ] Yes [X] No Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
10"	0	35	Bent	0	35	1150 lbs
6"	35	100				

How was seal placed: Method [ ]A [ ]B [ ]C [ ]D [ ]E

[X] Other Poured Dry

Backfill placed from ____ ft. to ____ ft. Material ____

Gravel placed from ____ ft. to ____ ft. Size of gravel ____

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+1	59	250	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:	4"	0	100	160	[ ]	[X]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s) 59'

(7) PERFORATIONS/SCREENS:

[X] Perforations Method Saw

[ ] Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
60	100	10"	80	1/8		[ ]	[X]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
30		100	1 hr.

Temperature of water 56 Depth Artesian Flow Found ____

Was a water analysis done? [ ] Yes By whom ____

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other ____

Depth of strata: ____

(9) LOCATION OF WELL by legal description:

County Jackson Latitude ____ Longitude ____

Township 37S N or S Range 2W E or W. WM.

Section 2 SW 1/4 NW 1/4

Tax Lot 200 Lot ____ Block ____ Subdivision ____

Street Address of Well (or nearest address) 4848 Gebhard Rd.

Central Point, Ore. 97502

(10) STATIC WATER LEVEL:

22 ft. below land surface. Date 10/5/94

Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:

Depth at which water was first found 85'

From	To	Estimated Flow Rate	SWL
85	88	30	22

(12) WELL LOG:

Ground Elevation ____

Material	From	To	SWL
Soil Brown	0	8	
Gravel & Clay Brown	8	19	
Gravel Med. Brown	19	27	
Claystone Brown	27	48	
Claystone Gray	48	100	22

Date started 10/5/94 Completed 10/5/94

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number ____

Signed ____ Date ____

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 705

Signed [signature] Date 10-18-94

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

STATE OF OREGON
WATER SUPPLY WELL REPORT
(ORS 537.765 & OAR 690-205-0210)
Instructions for completing this report are on the last page of this form.

JACK 61181

WELL LABEL # L 107198
START CARD # 205620
ORIGINAL LOG #

(1) LANDOWNER Owner Well I.D. _____
First Name _____ Last Name _____
Company Highlander Forest L.L.C.
Address 1240 Vista Dr
City Central Point State Or Zip 97502

(2) TYPE OF WORK ☒ New ☐ Conversion ☐ Deepening
☐ Alteration (complete Sections 2a & 10) ☐ Abandonment (complete Section 5a)

(2a) PRE-ALTERATION: Well Depth _____ ft.
Seal Material _____
Casing Type: ☐ Steel ☐ Plastic ☐ Other _____
Casing Gauge _____ Casing Diameter _____

(3) DRILL METHOD ☒ Rotary Air ☐ Rotary Mud ☐ Auger
☐ Cable ☐ Cable Mud ☐ Reverse Rotary ☐ Other _____

(4) PROPOSED USE ☒ Domestic ☐ Irrigation ☐ Community
☐ Industrial/Commercial ☐ Livestock ☐ Dewatering ☐ Injection
☐ Thermal ☐ Other _____

(5) BORE HOLE CONSTRUCTION
Depth of Completed Well 140 ft. Special Standard: ☐ Yes (attach copy)

BORE HOLE Dia	From	To	SEAL Material	From	To	Amount	Scks/lbs
10"	0	50'	Bent	0	50	1200	165
6"	50	140					

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☒ Other Poured dry
Backfill placed from _____ ft. to _____ ft. Material _____
Filter pack from _____ ft. to _____ ft. Material _____ Size _____

(5a) ABANDONMENT USING UNHYDRATED BENTONITE:
Calculated Amount Proposed to be Used: _____ sacks/lbs
Actual Amount Used: _____ sacks/lbs

(6) CASING/LINER

Csng	Linr	Dia	+	From	To	Gauge	Steel	Plastic	Welded	Thrd
x		6"			59	.250	x		x	
	x	4"		0	140	250		x	x	

Shoe ☐ Inside ☒ Outside ☐ Other Location of shoe(s) 59'
Temporary casing ☐ Yes Diameter _____ From _____ To _____

(7) PERFORATIONS/SCREENS
Perforations Method Saw Cut
Screens Type _____ Material _____

Perf	Scrn	Csng	Linr	Screen Dia	From	To	Screen/ slot width	Slot length	# of slots	Tele/ pipe size
x			x		80	140	1/8	5"	90	

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
1.5		140'	1 hr

Temperature 57 °F Lab analysis ☐ Yes By _____
Water quality concerns? ☐ Yes (describe below) TDS _____ ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)
County Jackson Twp 37 N of S Range 2-W E or W W.M.
Sec 2 _____ 1/4 of the _____ 1/4 Tax Lot _____
Tax Map Number _____ Lot _____
Lat ___°___'___.___" or 42.38270 DMS or DD
Long ___°___'___.___" or 122.85913 DMS or DD
Street Address of Well (or nearest address) 4613 Goldhard Rd
Central Point, Or 97502

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL (ft)
Existing Well/Pre-Alteration				
Completed Well	4/3/12			45

Flowing Artesian? ☐ Yes Dry Hole? ☐ Yes
WATER BEARING ZONES Depth water was first found 80

SWL Date	From	To	Est Flow	SWL (psi)	+	SWL (ft)
4/3/12	80	91	1.5			45

(11) WELL LOG Ground Elevation 1247

Material	From	To
Clay & gravel brown	0	18
Clay stone blue	18	42
Granite & boulders Tan	42	51
Clay stone - Blue	51	140

Date Started 4/3/12 Completed 4/4/12

(unbonded) Water Well Constructor Certification
I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

RECEIVED
JUN 04 2012
WATER RESOURCES DEPT
SALEM, OREGON

License Number _____ Date _____
Signed _____

(bonded) Water Well Constructor Certification
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1661 Date 5/4/12
Signed Brandon A. Williamson
Contact Info. (optional)

ORIGINAL – WATER RESOURCES DEPARTMENT ONE COPY FOR CONSTRUCTOR ONE COPY FOR CUSTOMER
SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK
01/02/2009

EXHIBIT "12"

July 25, 2024

Jack Galpin
744 Cardley Ave,
Medford, Oregon 97504

Re: Assessment of Potential Groundwater Impacts to Shallow Wells
Proposed Sunnybrook Development
4630 Hamrick Road, Central Point, Oregon
32-24007645

Dear Mr. Galpin:

This letter provides the results of an assessment of shallow wells in the vicinity of the proposed Sunnybrook Development at 4630 Hamrick Road in Central Point, Oregon for Galpin Homes, LLC (Galpin). Apex Companies, LLC (Apex) understands that the City of Central Point requires an evaluation of the potential for impacts to the water levels in domestic wells near the development due to the installation of utilities within the subdivision. The results of the assessment and an evaluation of potential impacts to groundwater elevations in the vicinity of the proposed development of the Site are provided below.

SHALLOW WELL ASSESSMENT

Apex reviewed Oregon Water Resources Department (OWRD) online files to identify registered wells within 1,000 feet of the proposed Sunnybrook Development. Additionally, Apex reviewed the *White Hawk Development – Well Survey Results* letter completed for the White Hawk Transit Oriented Development project (Apex, 2016). Sixteen wells were identified as being potentially located within 1,000 feet of the proposed Sunnybrook Development. Table 1 summarizes the information on the identified wells, and Figure 2 shows approximate well locations by parcel. Exact well locations have not been identified, and it is unknown how many of the wells are still in use. OWRD well logs, where available, are included in Attachment A, and Attachment B includes the 2016 *White Hawk Development – Well Survey Results* letter (Apex, 2016). Three wells were previously identified as potentially being within the proposed Sunnybrook Development area; however, only one well has been located during pre-development surveys.

The well logs in the OWRD database suggest that, in the vicinity of the development, the soil consists of clay to depths of 6 to 12 feet below ground surface (bgs) underlain by sand and gravel to at least 40 to 50 feet bgs in most locations. The top of claystone, siltstone, or sandstone is present in many of the wells at depths ranging from 4 to 60 feet bgs.

Based on the information obtained from the OWRD well logs and the 2016 well survey for White Hawk development, the completed well depths within the vicinity of the proposed development range from 10 to 50 feet bgs, where known. The static water level at the time of drilling reported on the well logs ranges from 4 feet bgs in well 13 (JACK12241) to 41 feet bgs in well 6 (JACK52926), both located to the southwest of the property. At least three of the well logs are for well deepening (well 6, well 9, and well 13), indicating that there is a long-term lowering in the water table in the area and shallow static water levels reported at the time of drilling may no longer be representative of site conditions. The depth to static water in wells drilled since 1990 ranges from 12 to 41 feet bgs and is likely more representative of current conditions.

EVALUATION OF THE POTENTIAL FOR IMPACTS DURING EXCAVATION AND UTILITY INSTALLATION

Depth to first encountered water for shallow wells in the area appears to be at least 12 feet bgs as described above. Based on the OWRD well logs, it appears that most (if not all) of the wells are sealed to at least 9 feet bgs and are accessing water below that depth.

During development, imported soil will be used to raise the existing grade by 3 to 4 feet. Based on development plans provided by Galpin, utilities will be installed at a maximum depth of 9 feet below existing grade, and in many cases at shallower depths. It is unlikely that the installation of utilities in the subdivision will intercept the water table. In the unlikely event that groundwater is encountered, local groundwater levels could be impacted by the following:

- Dewatering during construction;
- Infiltration into drain lines; or
- Longitudinal flow in trench backfill.

If dewatering is necessary during construction, the water table could be lowered locally and may impact the static water levels in nearby water wells. This effect would be temporary, and conditions would be expected to return to normal within a short period after completion of the dewatering activities.

Long-term, if the storm or sanitary lines leak, infiltration into the lines could potentially lower the water table in the vicinity of the utilities to the base of the lines; however, this effect would likely extend only a few feet from the utility trenches. This potential impact can be addressed through construction methodologies that meet industry performance standards and city codes.

Given the native soil conditions (clay soils in the upper 6 to 12 feet), the trench backfill could potentially be more permeable than the native soil in the areas where the native clay extends below the bottom depth of the utility bedding. Depending on the depth to which the trench penetrates the water table, longitudinal flow could occur along the trench alignment; however, the influence on the shallow water table would likely be limited to only a few feet laterally from the utility trench.

POTENTIAL MITIGATION

The proposed Sunnybrook Development is not expected to impact groundwater levels in local wells, as excavation and development plans provided by Galpin do not include depths that would likely be below the water table. Additionally, the development will be provided with municipal water supply and sewer services and is not anticipated to impact water availability. If installation does extend below the water table, low-permeability plugs can be used to inhibit flow along the trench line. Assuming crushed rock is used for trench backfill, adding 5 percent (dry weight) bentonite to the backfill would be sufficient to reduce the permeability of the backfill. The bentonite plugs should be placed from the bottom of the trench to 1 foot above the water table in the full width of the trench with a minimum length of 5 feet. A plug should be placed at the low end of each main sewer line.

If you have any questions or need further information, please contact us at your convenience.

Sincerely,

Tess Chadil
Project Manager

Steve Misner, R.G.
Senior Associate Hydrogeologist

ATTACHMENTS

Table 1 – Galpin Homes Well Log Search

Figure 1 – Site Location Map
Figure 2 – Location of Wells Near Proposed Sunnybrook Development

Attachment A – OWRD Well Logs
Attachment B – White Hawk Development – Well Survey Results (Apex 2016)

REFERENCES

Apex Companies, LLC, 2016. *White Hawk Development – Well Survey Results*, *Central Point, Oregon*. November 16, 2016.

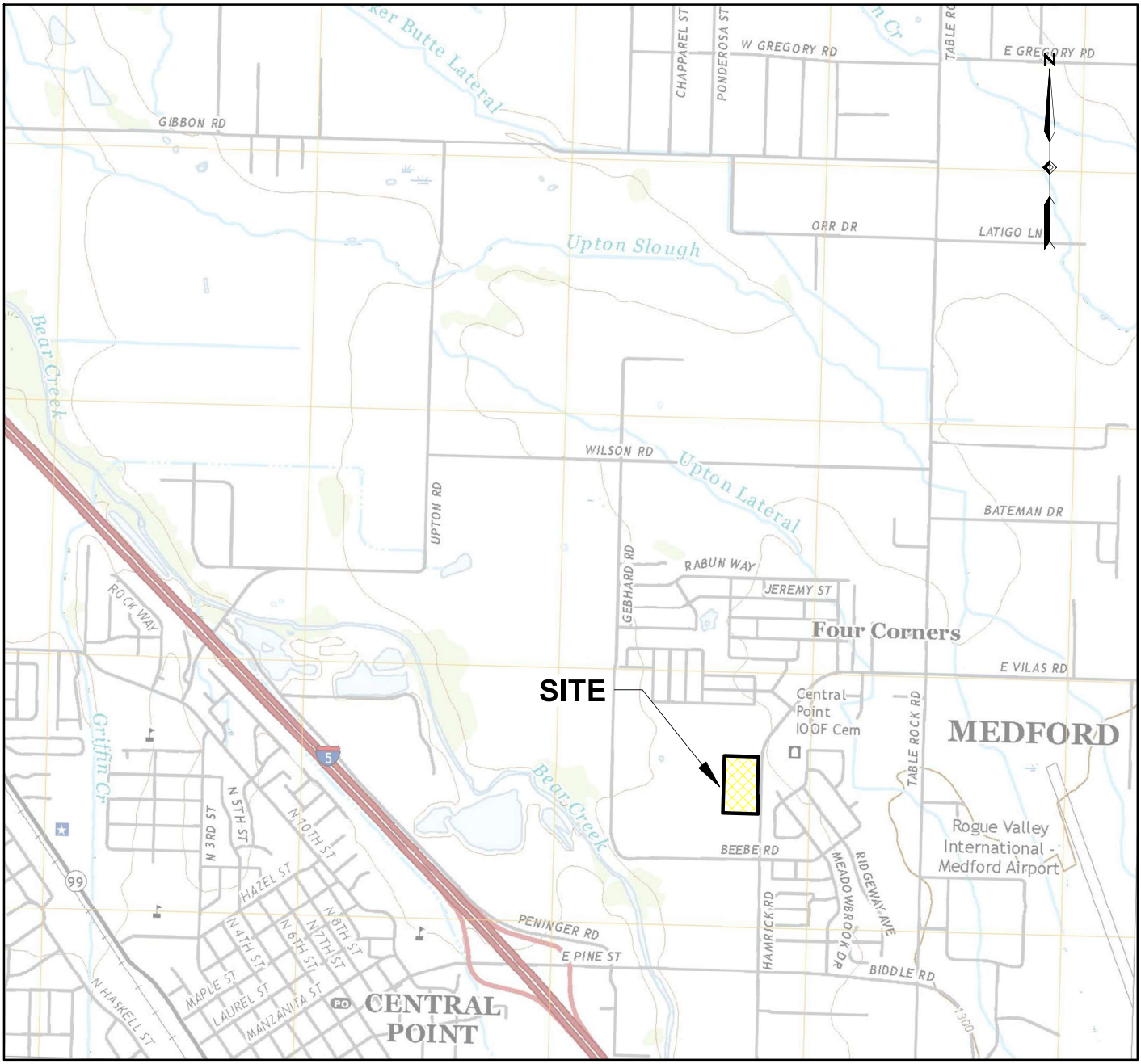
"Oregon Water Resources Department Well Report Query." *Well Report Query*, Oregon Water Resources Department, apps.wrd.state.or.us/apps/gw/well_log/Default.aspx. Accessed 25 July 2024.

Table 1. Galpin Homes Well Log Search
Proposed Sunnybrook Development
4613 Hamrick Road Central Point, Oregon

Shallow Wells Within 1,000 feet of Proposed Sunnybrook Development									
Map ID	**Location**	**Tax Lot**	**Street Number**	**Street**	**Owner**	**Well Log #**	**Well Depth**	**Date Installed**	**Static Water Level**
W-1	372W01	1100	4475	Hamrick Rd	Muse	JACK 12222	60	1960	25
W-2	372W01	1100	4475	Hamrick Rd	Muse	JACK 62111	45	2015	12
W-3	372W01	Unk.	Unk.	Unk.	Gebhard	JACK 34914	10	Pre 1948	7
W-4	372W01	2500	507	Beebe Rd	Beebe	JACK 52862	144	1998	12
W-5	372W02	Unk.	Unk.	Unk.	Childress	JACK 34915	14	1938	10
W-6	372W02	200	511	Beebe Rd	Mingus	JACK52926	204 feet	1999	41
W-7	372W02	200	511	Beebe Rd	Mingus	JACK55868		2003	12
W-8	372W02	200	511	Beebe Rd	Mingus	JACK52660	59 feet	1998	41
W-9	372W02	3100	600	Beebe Rd	Shep. of Valley	JACK 30394	90	1990	17
W-10	372W02	Unk.	Unk.	Beebe Rd	Beebe	JACK 12262	12	1966	9
W-11	372W02	200	4848	Gebhard Rd	Himmelman	JACK 33759	100	1994	22
W-12	372W02	2700	718	Beebe Rd	Nixon	JACK 12239	100	1989	28
W-13	372W02	3000	628	Beebe Rd	Picollo	JACK12241	60 feet	1983	4
W-14	372W02	3000	628	Beebe Rd	Picollo	n/a	12 feet	Unk.	12
W-15	372W02	3000	628	Beebe Rd	Picollo	n/a	34 feet	1940	34
W-16	372W01	Unk.	4713	Hamrick Rd	Houser	JACK 12201	37	1963	12

Notes:

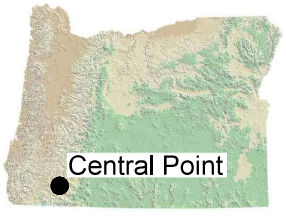
1. See Figure 1 for approximate well location
2. Static water level as measured at time of drilling



Sams Valley, Oregon

United States Geological Survey
7.5 Minute Series Topographic Map
Contour Interval: 20 feet
Scale: 1 inch = 24,000 feet
Date: 2020

0 2,000 4,000
Scale in Feet



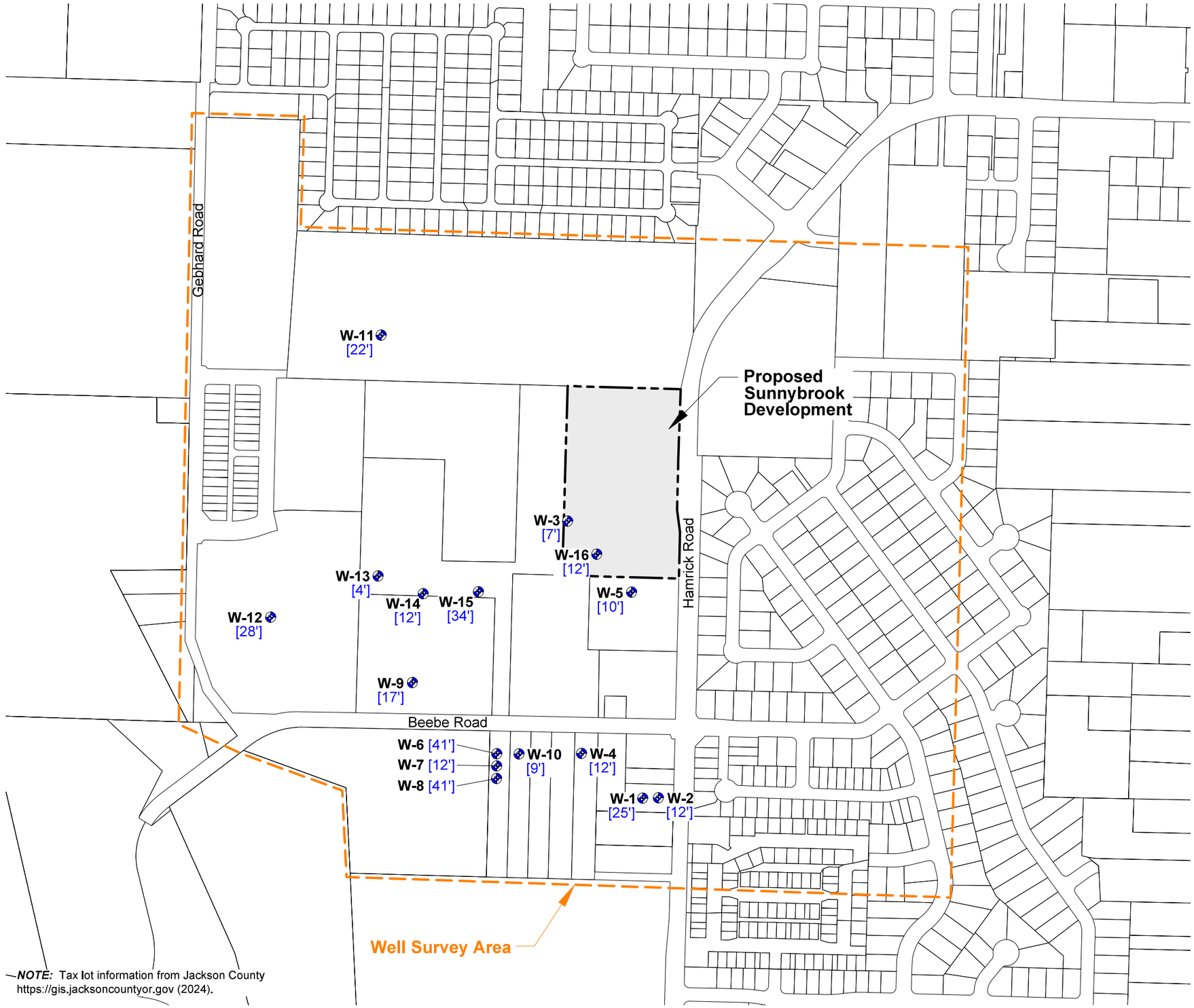
OREGON

Site Location Map

Assessment of Groundwater Impacts to Shallow Wells
4630 Hamrick Road
Central Point, Oregon

Apex Companies, LLC 15618 SW 72nd Avenue Tigard, Oregon 97224	Project Number: 32-24007645	Drawn: JP	Approved: TC	Figure 1
	July 2024			

I:\Client\Galpin Homes, LLC\Central Point\32-24007645 01 (Site Location).dwg Modified 7/25/2024 by JPoore



Legend:

W-12 [28'] Approximate Water Well Location

[Static Water Level] in Feet Below Ground Surface

N

0 400 800

Scale in Feet

Location of Wells Near Proposed Sunnybrook Development

Assessment of Groundwater Impacts to Shallow Wells
4630 Hamrick Road
Central Point, Oregon

Apex Companies, LLC
15618 SW 72nd Avenue
Tigard, Oregon 97224

Project Number:	Drawn:	Approved:	Figure
32-24007645	JP	TC	2
July 2024			

I:\Client\Galpin Homes, LLC\Central Point\32-24007645 02 (Well Locations).dwg Modified 7/25/2024 by JPoore

Attachment A

OWRD Well Logs

JACK 12201

RECEIVED AUG 23 1963

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2W-1M

State Permit No.

(1) OWNER:
Name Soren Hansen
Address 4173 Hamick Rd
Central Point, Ore.

(2) LOCATION OF WELL:
County Jackson Driller's well number 268
NW ¼ SW ¼ Section 1 T. 37S R. 2W W.M.
Bearing and distance from section or subdivision corner

(3) TYPE OF WORK (check):
New Well ☑ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☑ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☐ Jetted ☐
Dug ☐ Bored ☐

(6) CASING INSTALLED:
Threaded ☐ Welded ☑
6" Diam. from 0 ft. to 35½ ft. Gage .25
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☑ Yes ☐ No
Type of perforator used
Size of perforations ¼ in. by ⅛ in.
12 perforations from 32 ft. to 34½ ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☑ No
Manufacturer's Name
Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal Bentonite & Rings
Depth of seal 30 ft. Was a packer used? No
Diameter of well bore to bottom of seal 6 in.
Were any loose strata cemented off? ☐ Yes ☑ No Depth
Was a drive shoe used? ☑ Yes ☐ No
Was well gravel packed? ☐ Yes ☑ No Size of gravel:
Gravel placed from ft. to ft.
Did any strata contain unusable water? ☐ Yes ☑ No
Type of water? Depth of strata
Method of sealing strata off Knocked out Bentonite

(10) WATER LEVELS:
Static level 12 ft. below land surface Date 7-28-63
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☑ No If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "
Bailer test 17 gal./min. with 10 ft. drawdown after 1 hrs.
Artesian flow g.p.m. Date
Temperature of water 57 Was a chemical analysis made? ☐ Yes ☑ No

(12) WELL LOG:
Diameter of well below casing 6
Depth drilled 40 ft. Depth of completed well 36½ ft.
Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Sticky Top Soil DB Br.	0	1
Clay brown	1	12
Clay & sand "	12	16
Clay sand Gravel Cobbles "	16	21
Conglomerate Firm	21	33
" & Cobbles Tan	33	40

Work started 7-25 19 63 Completed 7-28 19 63
Date well drilling machine moved off of well 7-29 19 63

(13) PUMP:
Manufacturer's Name Universal
Type: Jet H.P. 1

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
NAME Shilts Bros. Well Drilling (Person, firm or corporation) (Type or print)
Address 2034 W. Main Medford
Drilling Machine Operator's License No. 94
[Signed] (Water Well Contractor)
Contractor's License No. 105 Date 7-1, 1963

(USE ADDITIONAL SHEETS IF NECESSARY)

RECEIVED
MAR 8 1960
STATE ENGINEER
SALEM, OREGON

JACK 1222

WATER WELL REPORT
STATE OF OREGON

File Original and First Copy with the STATE ENGINEER, SALEM, OREGON

State Well No. 37/2W-1

State Permit No.

(1) OWNER:
Name MR. T. J. MUSE
Address 4475 HAMRICK ROAD
CENTRAL POINT, ORE

(2) LOCATION OF WELL:
County Jackson Owner's number, if any—

¼ ¼ Section T. 37 R. 2W W.M.

Bearing and distance from section or subdivision corner Claim 55

TOWNSHIP 37 SOUTH RANGE 2 WEST OF THE WILLAMETTE MERIDIAN JACK. CO. 1079.14' N. & E. CORNER CLAIM - N 110.0' - W 220.0' [illegible] LINE TRACT DESCRIBED VOL 284 Pg 213 DEED RECORDS S 110.0' E 220.0' TO PT BEGINNING

(3) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):
Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☒ Jetted ☐
Dug ☐ Bored ☐

(6) CASING INSTALLED:
Threaded ☐ Welded ☒
6 " Diam. from 0 ft. to 45 ft. Gage 1/4
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☒ Yes ☐ No
Type of perforator used
SIZE of perforations ¼ in. by 6 in.
9 perforations from 40 ft. to 45 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☒ No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from ft. to ft.
Was a surface seal provided? ☐ Yes ☐ No To what depth? ft.
Material used in seal—
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 25 ft. below land surface Date 2-29-60
Artesian pressure lbs. per square inch Date

Log Accepted by:
[Signed] T J Muse (Owner) Date MAR 7, 1960

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☒ No If yes, by whom? -
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "
Bailer test 30 gal./min. with 45 ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? ☐ Yes ☒ No

(12) WELL LOG:
Diameter of well 6 inches.
Depth drilled 60 ft. Depth of completed well 60 ft.

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
STICKY SOIL	0	6
RIVER SAND & GRAVEL	6	45
LOSE BROWN SHALE	45	60

Work started Feb. 25 1960 Completed Feb. 29 1960

(13) PUMP:
Manufacturer's Name Advance
Type: Set H.P. 1/2

Well Driller's Statement:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Crater Well Drilling (Person, firm, or corporation) (Type or print)
Address 3061 Crater Lake Ave. Medford, Oregon
Driller's well number
[Signed] (Well Driller)
License No. 83 Date , 19

(USE ADDITIONAL SHEETS IF NECESSARY)

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

JACK 12239

RECEIVED JUL 27 1989 WATER RESOURCES DEPT SALEM, OREGON

37S/2W/2

(START CARD) # 10374

(1) OWNER:

Well Number:

Name MARGARET NIXON

Address 718 BEEBE ROAD

City CENTRAL POINT State OR Zip 97502

(2) TYPE OF WORK:

[X] New Well [ ] Deepen [ ] Recondition [ ] Abandon

(3) DRILL METHOD

[X] Rotary Air [ ] Rotary Mud [ ] Cable

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes [ ] No [X] Depth of Completed Well 100 ft.

Explosives used Yes [ ] No [X] Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
10"	0	50	CEMENT	0	50	13SACKS
6"	50	100				

How was seal placed: Method [ ] A [ ] B [XX] C [ ] D [ ] E

[ ] Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+1	59	.250	XX		XX	
Liner:	4"	0	100			XX	XX	

Final location of shoe(s) 59

(7) PERFORATIONS/SCREENS:

XX Perforations Method SAW

[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
40	60	1X8	X8 60				XX

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [XX] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
12 GPM	72	100	1 hr.

Temperature of water Depth Artesian Flow Found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County JACKSON Latitude ' " Longitude ' "

Township 37N N or S, Range 2W E or W, WM.

Section 02 ¼ ¼

Tax Lot 2700 Lot Block Subdivision

Street Address of Well (or nearest address) SAME AS #1

(10) STATIC WATER LEVEL:

28 ft. below land surface. Date 7-6-89

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 60

From	To	Estimated Flow Rate	SWL
60	90	12GPM	28

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
SOIL, BROWN	0	2	
CLAY, BROWN	2	6	
DECOMPOSED, GRANITE	6	23	
CLAY, BROWN	23	30	
GRAVEL, SMALL	30	40	
CLAY, BLUE	40	46	
CLAYSTONE, BLUE, SOFT	46	100	28

Date started 7-6-89 Completed 7-6-89

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number

Signed MEDINA WELL DRILLING Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1207

Signed Joaquin Medina Date 7-9-89

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/88

WATER WELL REPORT
STATE OF OREGON

JACK 1224

RECEIVED
FEB 22 1983
WATER RESOURCES DEPT.
SALEM, OREGON

State Well No. 37S/2W-2
State Permit No.
Deepened

(1) OWNER:
Name Gus Picollo
Address 628 Bee Be Road
City Central Point State Oregon

(2) TYPE OF WORK (check):
New Well ☐ Deepening ☒ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:
Rotary Air ☒ Driven ☐
Rotary Mud ☐ Dug ☐
Cable ☐ Bored ☐

(4) PROPOSED USE (check):
Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐
Thermal: ☐ Withdrawal ☐ Reinjection ☐

(5) CASING INSTALLED:
Steel ☐ Plastic ☐
Threaded ☐ Welded ☐
..." Diam. from ... ft. to ... ft. Gauge ...
..." Diam. from ... ft. to ... ft. Gauge ...

LINER INSTALLED:
..." Diam. from ... ft. to ... ft. Gauge ...

(6) PERFORATIONS:
Perforated? ☐ Yes ☐ No
Type of perforator used
Size of perforations in. by in.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.

(7) SCREENS:
Well screen installed? ☐ Yes ☐ No
Manufacturer's Name ...
Type ... Model No. ...
Diam. ... Slot Size ... Set from ... ft. to ... ft.
Diam. ... Slot Size ... Set from ... ft. to ... ft.

(8) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☐ No If yes, by whom?
... gal./min. with ... ft. drawdown after ... hrs.
" " " "
Air test ... gal./min. with drill stem at ... ft. ... hrs.
Bailer test ... gal./min. with ... ft. drawdown after ... hrs.
Artesian flow ... g.p.m.
Temperature of water Depth artesian flow encountered ... ft.

(9) CONSTRUCTION:
Special standards: Yes ☐ No ☐
Well seal—Material used ...
Well sealed from land surface to ... ft.
Diameter of well bore to bottom of seal ... in.
Diameter of well bore below seal ... in.
Number of sacks of cement used in well seal ... sacks
How was cement grout placed? ...
Was pump installed? ... Type ... HP ... Depth ... ft.
Was a drive shoe used? ☐ Yes ☐ No Plugs ... Size: location ... ft.
Did any strata contain unusable water? ☐ Yes ☐ No
Type of Water? depth of strata
Method of sealing strata off
Was well gravel packed? ☐ Yes ☐ No Size of gravel: ...
Gravel placed from ... ft. to ... ft.

(10) LOCATION OF WELL:
County Jackson Driller's well number 83-3
¼ ¼ Section 2 T. 37S R. 2W W.M.
Tax Lot # 3000 Lot Blk Subdivision
Address at well location: 628 Bee Be Road
Central Point, Oregon

(11) WATER LEVEL: Completed well.
Depth at which water was first found see below ft.
Static level 4 ft. below land surface. Date 1-18-83
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:
Diameter of well below casing 6 inch
Depth drilled 35 ft. Depth of completed well 45 ft.
Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Increased air return from 75 GPM to 250+ GPM.			
Formations:			
Medium sand with coarse gravel	25	60	4

Work started 1-18 19 83 Completed 1-18 19 83
Date well drilling machine moved off of well 1-18 19 83

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] John Studebaker (Drilling Machine Operator) Date 2-17, 1983
Drilling Machine Operator's License No. 1008

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Name Studebaker Well Drilling (Person, firm or corporation) (Type or print)
Address 4876 Highway 66 Ashland, Oregon 97520
[Signed] John Studebaker (Water Well Contractor)
Contractor's License No. 679 Date 2-17, 1983

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the WATER RESOURCES DEPARTMENT, SALEM, OREGON 97310 within 30 days from the date of well completion.

SP*12658-690

JACK
12262

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

RECEIVED
MAY 31 1966
STATE ENGINEER
SALEM, OREGON

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2W-2
State Permit No.

(1) OWNER:
Name K. W. BEEBE
Address 587 BEEBE RD
CENTRAL POINT ORE

(2) LOCATION OF WELL:
County JACKSON Driller's well number
¼ ¼ Section 2 T. 37S R. 2W W.M.
Bearing and distance from section or subdivision corner
SOUTH SIDE OF BEEBE RD
HALF WAY BETWEEN
K.W BEEBE HOUSE AND
C.R BEEBE HOUSE

(3) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☒ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☐ Jetted ☐
Dug ☐ Bored ☒

(6) CASING INSTALLED:
Threaded ☐ Welded ☐
18 " Diam. from 1FT ABS ft. to 12 ft. Gage CONCRETE
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☒ Yes ☐ No
Type of perforator used
Size of perforations 1 INCH in. by 1 INCH in. 1X1 O
1 INCH perforations from 9 ft. to 12 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☒ No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal CONCRETE
Depth of seal 9 ft. Was a packer used? NO
Diameter of well bore to bottom of seal 24 in.
Were any loose strata cemented off? ☐ Yes ☒ No Depth
Was a drive shoe used? ☐ Yes ☒ No
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from NONE ft. to ft.
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 9 ft. below land surface Date 5-16-66
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☒ Yes ☐ No If yes, by whom? OWNER
Yield: 30 gal./min. with ft. drawdown after 1 hrs.
" " " "
" " " "
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 50 Was a chemical analysis made? ☐ Yes ☒ No

(12) WELL LOG:
Diameter of well below casing NONE
Depth drilled 12 ft. Depth of completed well 12 ft.
Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
BLACK CLAY	0	4
BROWN CLAY	4	7
MEDIUM FINE SAND	7	9
SAND-GRAVEL	9	12
LARGE COBBLES		

Work started 5-14 1966 Completed 5-14 1966
Date well drilling machine moved off of well 5-14 1966

(13) PUMP:
Manufacturer's Name ?
Type: ? H.P. ?

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME LLOYD K. FISCHER
(Person, firm or corporation) (Type or print)
Address 1021 VAWTER RD
Drilling Machine Operator's License No. 43
[Signed] Lloyd K. Fischer
(Water Well Contractor)
Contractor's License No. 346 Date 5-16, 1966

(USE ADDITIONAL SHEETS IF NECESSARY)

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

Jack30894

37S/2W/2

(START CARD) # 21199

(1) OWNER:

Well Number:

Name SHEPPARD OF THE VALLEY/ARCHDIOCESE/PORTLAND

Address 600 BEEBE ROAD

City CENTRAL POINT State OR Zip 97502

(2) TYPE OF WORK:

☐ New Well ☒ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other

(4) PROPOSED USE:

☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes ☐ No ☒ Depth of Completed Well 90 ft.

Explosives used Yes ☐ No ☒ Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
6"	68	90	DEEPENING			

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	N/A				☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	4"	0	90	160	☐	☒	☐	☐
					☐	☐	☐	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

☒ Perforations Method SAW

☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
30	90	1X8X8	60			☐	☒
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
8GPM		90	1 hr.

Temperature of water 54 Depth Artesian Flow Found

Was a water analysis done? ☐ Yes By whom

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County JACKSON Latitude ' " Longitude ' "

Township 37S N or S, Range 2W E or W, WM.

Section 2 ¼ ¼

Tax Lot 3100 Lot Block Subdivision

Street Address of Well (or nearest address) SAME AS #1

(10) STATIC WATER LEVEL:

17 ft. below land surface. Date 9-14-90

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 17SWL

From	To	Estimated Flow Rate	SWL
75	85	8GPM	17

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
CLAYSTONE, BLUE, SOFT	68	90	17

RECEIVED

OCT - 3 1990

WATER RESOURCES DEPT.
SALEM, OREGON

Date started 9-14-90 Completed 9-14-90

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

MEDINA WELL DRILLING

WWC Number

Signed 3286 Hanley Road Date

Central Point, OR 97502

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1207

Signed Joaquin Medina Date 9-17-90

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/88

14

JACK 33759

RECEIVED

OCT 1 3 1994

WATER RES... SALEM, OREGON

37S/2W/2bc

JCWP#491-94W

STATE OF OREGON WATER WELL REPORT

(as required by ORS 537.765)

Gribble Well Drilling Nic. (START CARD) # 65619

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number 1

Name Steve Himmelman

Address P.O. Box 411

City Jacksonville State Ore Zip 97530

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 100 ft.

Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
10"	0	35	Bent	0	35	1150 lbs
6"	35	100				

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E

[X] Other Poured Dry

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+1	59	250	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:	4"	0	100	160	[ ]	[X]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s) 59'

(7) PERFORATIONS/SCREENS:

[X] Perforations Method Saw

[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
60	100	10"	80	1/8		[ ]	[X]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
30		100	1 hr.

Temperature of water 56 Depth Artesian Flow Found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Jackson Latitude Longitude

Township 37S N or S Range 2W E or W. WM.

Section 2 SW 1/4 NW 1/4

Tax Lot 200 Lot Block Subdivision

Street Address of Well (or nearest address) 4848 Gebhard Rd.

Central Point, Ore. 97502

(10) STATIC WATER LEVEL:

22 ft. below land surface. Date 10/5/94

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 85'

From	To	Estimated Flow Rate	SWL
85	88	30	22

(12) WELL LOG:

Ground Elevation

Material	From	To	SWL
Soil Brown	0	8	
Gravel & Clay Brown	8	19	
Gravel Med. Brown	19	27	
Claystone Brown	27	48	
Claystone Gray	48	100	22

Date started 10/5/94 Completed 10/5/94

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number

Signed Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 705

Signed Date 10-18-94

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

STATE ENGINEER
Salem, Oregon

JACK 34914

Well Record

STATE WELL NO. 37/2W-1E(1)
COUNTY Jackson
APPLICATION NO. GR-534

OWNER: Edwin Gebhard

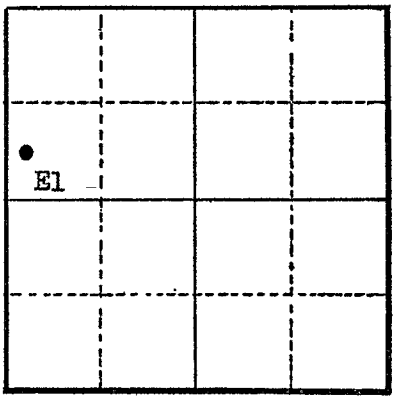
MAILING ADDRESS:

CITY AND STATE: Central Point, Oregon

LOCATION OF WELL: Owner's No.

SW ¼ NW ¼ Sec. 1 T. 37 N. S., R. 2 E. W., W.M.

Bearing and distance from section or subdivision corner 1920' S of N line Sec. 1, 75' E of W line Sec. 1



Altitude at well 1260

TYPE OF WELL: Dug Date Constructed Previous to '48

Depth drilled 10 Depth cased 10

Section 1

CASING RECORD:

5½' diameter casing
0 to 4' cement
4 to 10' galvanized steel

FINISH:

AQUIFERS:

WATER LEVEL:

7

PUMPING EQUIPMENT: Type Rainmaster H.P. 11
Capacity 180 G.P.M.

WELL TESTS:
Drawdown 2 ft. after hours 170 G.P.M.
Drawdown ft. after hours G.P.M.

USE OF WATER Irrigation 7 acres Temp. °F., 19
SOURCE OF INFORMATION GR-534
DRILLER or DIGGER
ADDITIONAL DATA:
Log Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

Sandy loam & clay	0 to 6'
Quicksand & water-bearing gravel	6 to 10'

State Printing 89316

STATE ENGINEER
Salem, Oregon

JACK
34915

Well Record

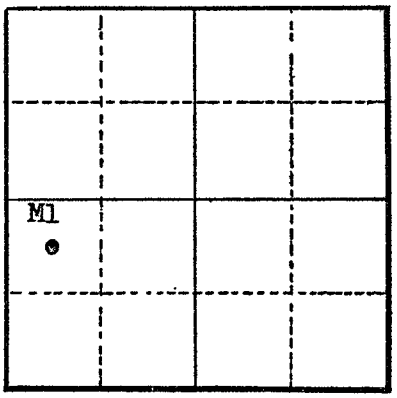
STATE WELL NO. 37/2W-1M(1)
COUNTY Jackson
APPLICATION NO. GR-726

OWNER: Walter L. Childress
MAILING ADDRESS:
CITY AND STATE: Central Point, Oregon

LOCATION OF WELL: Owner's No. 1

NW ¼ SW ¼ Sec. 1 T. 37 N. S., R. 2 E. W., W.M.

Bearing and distance from section or subdivision corner 2205.3' N. & 767.4' E. from SW cor. Sec. 1



Altitude at well 1260' Interpolated

TYPE OF WELL: Dug Date Constructed 1938

Depth drilled 14' Depth cased 13'

Section 1

CASING RECORD:

84" concrete from 0 to 13'

FINISH:

AQUIFERS:

WATER LEVEL:

10'

PUMPING EQUIPMENT: Type Elect. mtr. 1.5" cent. H.P. 2
Capacity 36 G.P.M.

WELL TESTS:
Drawdown 0 - 0.5 ft. after hours 36 G.P.M.
Drawdown ft. after hours G.P.M.

USE OF WATER Irrigation Temp. °F., 19
SOURCE OF INFORMATION GR0726
DRILLER or DIGGER Tom Harris, Gold Hill
ADDITIONAL DATA:
Log No Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

State Printing 89316

jack 5216D

STATE OF OREGON WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

WELL I.D.# ——— L 27891

(START CARD) # 87249

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number 1044-98

Name Ernest Mingus

Address 511 Beebee Rd.

City Central Point State OR. Zip 97502

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD:

☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger

☐ Other

(4) PROPOSED USE:

☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Livestock ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval ☐ Yes ☒ No Depth of Completed Well 59 ft.

Explosives used ☐ Yes ☒ No Type ——— Amount ———

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
10"	0	20	Bentonite	0	20	8 Sacks
6"	20	59				Bentonite

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☒ Other Poured Dry

Backfill placed from ——— ft. to ——— ft. Material ———

Gravel placed from ——— ft. to ——— ft. Size of gravel ———

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+2	61½	.250	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:					☐	☐	☐	☐
					☐	☐	☐	☐

Final location of shoe(s) 59

(7) PERFORATIONS/SCREENS:

☒ Perforations Method Holt Air Perf.

☐ Screens Type ——— Material ———

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
40	56	⅛ x 1	200		6	☒	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
5	18	59	1 hr.

Temperature of water 54 Depth Artesian Flow Found ———

Was a water analysis done? ☐ Yes By whom ———

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ———

Depth of strata: ———

(9) LOCATION OF WELL by legal description:

County Jackson Latitude ——— Longitude ———

Township 37 N or S Range 2 E or W. WM.

Section 02-D SW 1/4 SE 1/4

Tax Lot 200 Lot ——— Block ——— Subdivision ———

Street Address of Well (or nearest address) 511 Beebee Rd Central Point OR.

(10) STATIC WATER LEVEL:

41 ft. below land surface. Date 10-27-98

Artesian pressure ——— lb. per square inch. Date ———

(11) WATER BEARING ZONES:

Depth at which water was first found 41'

From	To	Estimated Flow Rate	SWL
41	59	5	41

(12) WELL LOG:

Ground Elevation ———

Material	From	To	SWL
Brown clay	0	12	
Med to coarse sand + gravel	12	57	41
Soft gray claystone	57	59	41

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NOV 09 1998
WATER RESOURCES DEPT.
SALEM, OREGON

Date started 10-26-98 Completed 10-27-98

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number 679

Signed John Studebaker Date 11-9-98

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 360

Signed Jack R. Stutzman Date

JACK
52862

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)
Instructions for completing this report are on the last page of this form.

WELL I.D. # L 19077
START CARD # 101206

(1) OWNER: Well Number
Name Thomas + Kayce Brown
Address 507 Beebe Rd
City Central Point State OR Zip 97502

(2) TYPE OF WORK
[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:
[ ] Rotary Air [ ] Rotary Mud [X] Cable [ ] Auger
[ ] Other

(4) PROPOSED USE:
[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation
[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:
Special Construction approval [ ] Yes [X] No Depth of Completed Well 144 ft.
Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
10"	0	19'	BENTONITE	0	19'	23 sacks
6"	19'	144'				

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E
[X] Other BENTONITE
Backfill placed from ft. to ft. Material
Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+1	65'	.250	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:
[ ] Perforations Method
[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour
[ ] Pump [X] Bailer [ ] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
20 gpm	110 ft		1 hr.

Temperature of water 52° Depth Artesian Flow Found
Was a water analysis done? [ ] Yes By whom
Did any strata contain water not suitable for intended use? [ ] Too little
[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other
Depth of strata:

(9) LOCATION OF WELL by legal description:
County JACKSON Latitude — Longitude —
Township 37 N or S Range 2W E or W. WM.
Section 1 NW 1/4 SW 1/4
Tax Lot 2500 Lot Block Subdivision
Street Address of Well (or nearest address) 507 Beebe Rd
Central Point, OR 97502

(10) STATIC WATER LEVEL:
12 ft. below land surface. Date Nov 30, 1998
Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:
Depth at which water was first found 72 Ft

From	To	Estimated Flow Rate	SWL
72'	75'	4 gpm	20'
120'	124'	8 gpm	20'
132'	135'	8 gpm	12'

(12) WELL LOG:
Ground Elevation

Material	From	To	SWL
TOPSOIL	0	4'	
CLAYSTONE (YELLOW)	4'	19'	
CLAYSTONE + GRAVEL (GREEN)	19'	59'	
CLAYSTONE (GREY)	59'	63'	
CLAYSTONE (RED)	63'	92'	
CLAYSTONE (BLUE)	92'	144'	

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DEC 31 1998
WATER RESOURCES DEPT.
SALEM, OREGON

Date started Nov 18, 1998 Completed Nov 30, 1998

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
WWC Number 1705
Signed Scott Clifford Date Nov 30, 1998

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 172
Signed Jack N. Boettcher Date 10 Dec 98

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FEB 16 1999

WATER RESOURCES DEPT.
SALEM, OREGON

JACK
52926

WELL I.D. # L 27891
START CARD # 61007

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number
Name Earnest Mincus
Address 511 Beebe Rd
City Central Point State OR Zip 97502

(2) TYPE OF WORK
☐ New Well ☒ Deepening ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD:
☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger
☐ Other

(4) PROPOSED USE:
☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation
☐ Thermal ☐ Injection ☐ Livestock ☐ Other

(5) BORE HOLE CONSTRUCTION:
Special Construction approval ☐ Yes ☒ No Depth of Completed Well 204 ft.
Explosives used ☐ Yes ☒ No Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
6	59	204	SEAL	NOT		Disturbed

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☐ Other
Backfill placed from ____ ft. to ____ ft. Material ____
Gravel placed from ____ ft. to ____ ft. Size of gravel ____

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	4	0	204	14	☐	☒	☒ glue	☐
					☐	☐	☐	☐

Final location of shoe(s) Existing

(7) PERFORATIONS/SCREENS:
☒ Perforations Method Saw
☐ Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
120	180	12	128	48	4"	☐	☒
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
12		203	1 hr.

Temperature of water 54 Depth Artesian Flow Found ____
Was a water analysis done? ☐ Yes By whom ____
Did any strata contain water not suitable for intended use? ☐ Too little
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ____
Depth of strata: ____

(9) LOCATION OF WELL by legal description:
County Jackson Latitude ____ Longitude ____
Township 37 N or (S) Range 2 E or (W) WM.
Section 2-D SW 1/4 SE 1/4
Tax Lot 200 Lot ____ Block ____ Subdivision ____
Street Address of Well (or nearest address) 511 Beebe Rd
Central Point OR 97502

(10) STATIC WATER LEVEL:
41 ft. below land surface. Date 1-27-99
Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:
Depth at which water was first found 78

From	To	Estimated Flow Rate	SWL
78	162	12	41

(12) WELL LOG:
Ground Elevation ____

Material	From	To	SWL
Sandstone cream	60	78	
claystone Redish	78	96	
Cemented Fine Gravel	96	152	41
Sandstone Green	152	204	

Date started 1-29-99 Completed 1-27-99

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
WWC Number ____
Signed ____ Date ____

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 679
Signed John Stubblefield Date 1-28-99

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JACK 55868

STATE OF OREGON

WATER SUPPLY WELL REPORT

(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form

WELL ID # L L62623

(START CARD) # 153911

(1) OWNER:

Well Number: L62623

Name Earnest Mingus

Address 511 Beebe Rd.

City Central Point State OR Zip 97502

(2) TYPE OF WORK:

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 55 ft.

Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
10	0	55	Bentonite	0	27	50 Sacks
			16 Sand	27	40	20 sacks
			10 x 20 Sand	40	54	20 Sacks
			Sand Gravel	54	55	

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E

[X] Other Poured Dry

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6	+2	31	.250	[X]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

[ ] Perforations Method

[X] Screens Type .020 Material Stainless

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
31	55	.020				[X]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
3 GPM	55	55	6 hr.

Temperature of Water 57 Depth Artesian Flow found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Jackson Latitude Longitude

Township 37S N or S. Range 2W E or W. of WM.

Section 2 SW 1/4 SE 1/4

Tax lot 200 Lot Block Subdivision

Street Address of Well (or nearest address) 511 Beebe Rd.

(10) STATIC WATER LEVEL:

12 ft. below land surface. Date 12/4/2002

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 8

From	To	Estimated Flow Rate	SWL
8	55	3 GPM	12

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
Top Soil	0	2	
Brown Clay	2	8	
Tan clay w/ sand gravel	8	28	
Tan sand w/ gravel	28	30	12
Tan clay w/ gravel	30	55	
Grey Silt Stone	55	56	

ASHLAND DRILLING INC
ALL AMERICAN PUMPS
600 South Pacific Hwy
Talent, OR 97540
541 488 2827

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JAN 10 2003
WATER RESOURCES DEPT.
SALEM, OREGON

Date started 12/2/2002 Completed 12/4/2002

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to my best knowledge and belief.

Signed Ashland Drilling Inc. WWC Number 1657 Date 1/6/2003

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

Signed Ashland Drilling Inc. WWC Number 1478 Date 1/6/2003

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STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

JACK 62111

5/14/2015

WELL I.D. LABEL# L 115720
START CARD # 1026408
ORIGINAL LOG # JACKSON 12222

(1) LAND OWNER

Owner Well I.D.
First Name GLADYS Last Name MUSE
Company
Address 4475 HAMMRICK RD
City CENTRAL POINT State OR Zip 97502

(2) TYPE OF WORK

☐ New Well ☐ Deepening ☐ Conversion
☒ Alteration (complete 2a & 10) ☐ Abandonment(complete 5a)

(2a) PRE-ALTERATION

	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
Casing:						○	○	☐	☐

	Material	From	To	Amt	sacks/lbs
Seal:					

(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud
☐ Reverse Rotary ☐ Other

(4) PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Community
☐ Industrial/ Commericial ☐ Livestock ☐ Dewatering
☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION

Special Standard ☐ (Attach copy)
Depth of Completed Well 45.00 ft.

BORE HOLE

Dia	From	To
6	0	60

SEAL

Material	From	To	Amt	sacks/lbs
		Calculated		
		Calculated		

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☒ Other UNDISTURBED
Backfill placed from ft. to ft. Material
Filter pack from ft. to ft. Material Size
Explosives used: ☐ Yes Type Amount

(5a) ABANDONMENT USING UNHYDRATED BENTONITE

Proposed Amount Actual Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
○	○						○	○	☐	☐
○	○						○	○	☐	☐
○	○						○	○	☐	☐
○	○						○	○	☐	☐
○	○						○	○	☐	☐

Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s)
Temp casing ☐ Yes Dia From To

(7) PERFORATIONS/SCREENS

Perforations Method
Screens Type Material

Perf/ Screen	Casing/ Screen Liner	Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size

(8) WELL TESTS: Minimum testing time is 1 hour

○ Pump ○ Bailer ○ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Temperature °F Lab analysis ☐ Yes By
Water quality concerns? ☐ Yes (describe below) TDS amount

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)

County JACKSON Twp 37.00 S N/S Range 2.00 W E/W WM
Sec 1 SW 1/4 of the NW 1/4 Tax Lot 1100
Tax Map Number Lot
Lat ° ' " or DMS or DD
Long ° ' " or DMS or DD
◉ Street address of well ○ Nearest address
4475 HAMMRICK RD CENTRAL POINT OREGON 97502

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Pre-Alteration	5/14/2015		☐	12
Completed Well			☐	

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES Depth water was first found

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(11) WELL LOG

Ground Elevation

Material	From	To

Date Started 5/14/2015 Completed 5/14/2015

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number Date

Signed

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1798 Date 5/14/2015

Signed GARY NEWMAN (E-filed)

Contact Info (optional) Southern Oregon Well Drilling 541-772-1177

ORIGINAL - WATER RESOURCES DEPARTMENT

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version 3.3.5

WATER SUPPLY WELL REPORT - continuation page

JACK 62111

5/14/2015

WELL I.D. LABEL# L 115720

START CARD # 1026408

ORIGINAL LOG # JACKSON 12222

(2a) PRE-ALTERATION

Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

Material	From	To	Amt	sacks/lbs

(5) BORE HOLE CONSTRUCTION

BORE HOLE Dia	From	To	SEAL Material	From	To	Amt	sacks/lbs
					Calculated		
					Calculated		
					Calculated		
					Calculated		

FILTER PACK

From	To	Material	Size

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

(7) PERFORATIONS/SCREENS

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size

(8) WELL TESTS: Minimum testing time is 1 hour

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Water Quality Concerns

From	To	Description	Amount	Units

(10) STATIC WATER LEVEL

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(11) WELL LOG

Material	From	To

Attachment B

White Hawk Development – Well Survey Results (Apex 2016)

November 16, 2016

John Boyd
People's Bank of Commerce
1311 East Barnett Rd.
Medford, Oregon 97504

Re: White Hawk Development – Well Survey Results
718 Beebe Road
Central Point, Oregon
2251-00

Dear Mr. Boyd:

This letter provides the results of a well survey conducted in the vicinity of the proposed White Hawk Development and updates the evaluation of the potential for impacts to the water levels in wells near the development due to the installation of a proposed storm drain line along Gebhard Road. A preliminary evaluation was provided in a letter to you dated August 24, 2015. Subsequent to that letter, the City of Central Point requested that a survey be performed to identify domestic well owners in the vicinity of the development and, where possible, the construction of the wells (e.g., depth, use, screened interval if screened, etc.) to further evaluate the potential for negative impacts to water levels in wells located within the White Hawk transit oriented development (TOD) from the proposed construction of the storm drain line. The survey was completed between December 2015 and April 2016. The results of the survey and an updated evaluation on the potential impacts of the storm drain line on wells identified in the White Hawk TOD are provided below.

WELL SURVEY

A well survey form was sent to the residents located within the White Hawk TOD; Attachment A shows the boundaries and tax lots within the White Hawk TOD. Well surveys were sent to owners of the 31 tax lots within the White Hawk TOD. The well survey was sent at least two times to each tax lot owner; 11 completed surveys were returned to Apex. Attachment B includes copies of the completed surveys. Table 1 summarizes the results of the survey; two surveys were for property outside of the TOD and were not included on Table 1. Results of the well survey indicated the presence of six wells on five tax lots within the TOD. The location of these wells and the reported depth of the well is shown on Figure 1. Where information on the exact location of the well is not available, the location is approximated by placing it in the center of the tax lot for which the information was obtained.

In addition, Apex reviewed Oregon Water Resources Department (OWRD) online files to identify registered wells in the TOD. Ten well logs for wells located on 6 parcels within the TOD were identified. Attachment C contains the identified well logs and Table 2 summarizes the information on the identified wells, by parcel. Two of the parcels[1] with well logs registered by OWRD sent in completed well surveys; the other well logs provided additional information. Additionally, shown on Figure 1 are the locations of wells identified in a report prepared by Don Haggerty, PhD in February 2000[2].

[1] Dino Picollo, parcel 28 and Charlotte Holder, parcel 15; see Table 1.
[2] Haggerty 2000. *Report on Groundwater in the Vicinity of Beebe Rd*., Jackson County, Oregon. February 28, 2000.

It is unknown how many of the wells identified in the OWRD database or in the Haggarty report are still in use as only two property owners[3] with wells identified in the OWRD database and/or the Haggerty report sent back completed well surveys (parcel owners were sent water well surveys in December 2015, January 2016, and/or March 2017). Additionally, the Haggerty report indicated 3 wells to be present on parcel number 15, but the completed well survey for this parcel indicated just one 50-foot deepwell. Figure 1 shows the updated information from the well survey.

Based on the information obtained from the well searches:

- At least six wells are in use in the White Hawk TOD based on the well survey results; the well depths range from 12 to 50 feet, where known.
- An additional 5 to 8 wells were identified from the OWRD w ell log database. Of these, all but two are sealed from ground surface to 20 feet or more. Additionally, the Himmelman well at parcel 30 appears to be 100 feet deep and sealed to 35 feet.
- It is unclear whether the additional wells identified in the OWRD database are still in use.
- The well logs in the OWRD database suggest that, in the vicinity of the development, the soil consists of clay to depths of 8 to 12 feet below grade, underlain be sand and gravel to at least 40 to 50 feet in most locations.

Figure 1 shows that most of the wells are more than 100 feet from the proposed stormdrain line to be installed beneath Gebhard Road. However, wells are reported at parcels 3, 5, and 6 (see Figure 1) and the location of the wells are not known so the wells could be closer to the proposed utility.

EVALUATION OF THE POTENTIAL FOR IMPACTS DURING STORM AND SANITARY LINE INSTALLATION

Depth to first encountered water for shallow wells in the area appears to be about 9 feet below grade, but was historically reported as shallow as 4 feet below grade in some areas. Based on the OWRD well logs, it appears that most (if not all) of the wells are sealed to at least 9 feet below grade and are accessing water below that depth. The proposed storm and sanitary lines may be installed to depths of up to 10 to 12 feet and therefore, may intercept the water table in some areas. Based on this information, installation of the storm and/or sanitary lines could impact groundwater levels (and thereby impact the nearby water wells) from the following:

- Dewatering during construction;
- Infiltration into sewer lines; or
- Longitudinal flow in trench backfill.

If dewatering is necessary during construction, the water table would be lowered and these effects could extend to nearby water wells. This effect would be temporary and conditions would be expected to return to normal within a short period after completion of the work.

Long-term, if the storm or sanitary lines leak, infiltration into the lines could permanently lower the water table in the vicinity of the utilities to the base of the lines; however, this effect would likely extend only a few feet from the utility trench. This potential impact is addressed by quality control during construction to assure the utility lines are installed in alignment, seals are in place, intact and tested, proper pipe bedding is used, and trench backfill is properly compacted. These conditions assure the lines have a tight seal and meet the required performance standards prior to acceptance by the City.

[3] Dino Picollo, parcel 28 and Charlotte Holder, parcel 15; see Table 1.

If trench backfill is more permeable than native soil, water could flow longitudinally along the trench and discharge to surface water, permanently lowering the water table in the vicinity of the trench. Given the native soil conditions (clay soils in the upper 8 to 12 feet), it is possible that the trench backfill could be more permeable than the native soil in the areas where the native clay extends below the bottom depth of the utility bedding. Depending on the depth to which the trench penetrates the water table, longitudinal flow could occur; however, the influence on the shallow water table would likely extend only a few feet laterally from the utility trench. This localized depression in the water table caused by the trench could be addressed by installing low-permeability plugs at intervals in the trench backfill. Given that dewatering of local wells was reported after a drain trench was installed in Beebe Road in 1998, it is recommended that low permeability trench plugs be installed in future utility trenches dug for the project.

MITIGATION RECOMMENDATIONS EVALUATION AND MITIGATION OPTIONS

The potential impact of the installation and presence of the proposed storm and sanitary lines was performed in 2015 and is updated herein based on the updated well information obtained from the wells survey:

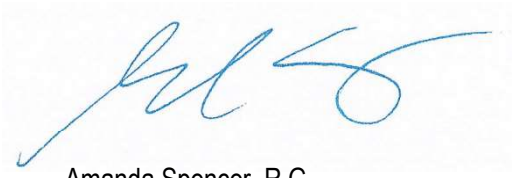
- Up to 21 wells may be located in the vicinity of the proposed project; it is unclear how many of these wells are still in use, however, at least three wells that are likely in use appear to be located within 100 feet of the proposed installation along Gebhard Road. The proposed utility installation is not expected to impact two of these wells because the wells are 35 and 140 feet deep and access water well below the depth of utility installation. The third well, located on parcel 3 (Figure 1) is of unknown depth. It is also unlikely that the utility installation will impact this well because the utility installations will penetrate only a few feet into the water table, if at all, at this location.
- A 12-foot depth well is reportedly located on parcel 28 that may be within 100 feet of proposed storm and sewer lines to be installed along the eastern development boundary (Figure 1). There is the potential that this well could be impacted by the utility installation, if the line extends into the water table at this location.
- Wells located further than 100 feet from the installation would not be anticipated to be impacted by the utility installation.
- It is also noted that three wells have been deepened over a period of 16 years, indicating that there is a long-term reduction in water level in the area.

The following presents mitigation options to address potential concerns:

- Prior to construction of the storm drain line proposed to be placed along Gebhard Road, verify the depth of the well located on parcel 3 and, if the well is less than a total depth of 15 feet, monitor water levels in that well during construction.
- Prior to construction of storm or sewer lines tie-ins to the existing storm or sewer lines beneath Beebe Road, verify the presence of wells located on parcel 10 identified in the Haggerty report that may be located within 100 feet of the tie-ins and are reported to be shallower than 15 feet in depth. If these wells are still present and in use, monitor the water levels during the construction.
- If installation does penetrate the water table, low-permeability plugs can be used to inhibit flow along the trench line. Assuming crushed rock is used for trench backfill, adding 5 percent (dry weight) bentonite to the backfill is sufficient to reduce the permeability of the backfill. The plugs should be placed from the bottom of the trench to 1 foot above the water table the full width of the trench and have a minimum length of 5 feet. A plug should be placed at the low end of each main sewer line.
- In areas where the lines are installed below the water table, particular care needs to be taken to ensure that the lines have a tight seal.

If you have any questions or need further information, please contact us at your convenience.

Sincerely,



Amanda Spencer, R.G.
Principal Hydrogeologist

ATTACHMENTS

Table 1 – Summary of Well Survey Results
Table 2 – OWRD Well Survey Results

Figure 1 – Location of Wells in the White Hawk TOD

Attachment A – White Hawk TOD
Attachment B – Completed Surveys
Attachment C – OWRD Well Logs for Wells Within the TOD

cc: Matt Samitore, City of Central Point

TABLE 1: SUMMARY OF WELL SURVEY RESULTS

Parcel Index	MAP	TAX LOT	Site Num	Site St	Owner	Owner Address (if different from Site Address)	Date Survey sent	Survey Returned?	Well?	Well Depth	Date Installed	Notes
1	372W02	400	No Address			6026 Palmero Cir Cameron Park, CA 95682	Survey sent 12/15	12/22/2015 1/25/2016	N	NA	NA	Undeveloped land
2	372W02	500	No Address			10 S Oakdale Ave Medford, OR 97501	Survey sent 3/3/16	3/11/2016	N	NA	NA	Undeveloped land
3	372W02	2500	4757	Gebhard	Karen and Randall Wales		Survey sent 12/15	12/28/2015	Y	unknown	unknown	domestic use and yard/gardening
4	372W02	600	No Address			1355 Cora Ln Auburn, CA 95603	Survey sent 3/3/16	3/11/2016	N	NA	NA	Undeveloped land
5	372W02	2601	4617	Gebhard	David & Julie Webb		Survey sent 12/15	12/30/2015	Y	35 feet bgs	1930?	domestic use and yard/gardening/orchard
6	372W02	2600	4613	Gebhard	Sergio Mejia		Survey sent 12/15 Resent 3/3/16	N				Survey not completed but OWRD well log found dated 5/4/2012 for a 140 foot well
7	372W02	2602	4603	Gebhard	William Jeshke		Survey sent 12/15 Resent 3/3/16	N				
8	372W02D	501	No Address			PO Box 996 Medford, OR 97501	Survey sent 12/15 Resent 3/3/16	3/11/2016	N			Undeveloped land
10	372W02D	300	587	Beebe	Ken Beebe?		Survey sent 12/15 Resent 3/3/16	N				Completed Survey not received but 3 OWRD well logs identified - See Table 2
11	372W02D	200	511	Beebe	Mingus		Survey sent 3/3/16	N				Completed Survey not received but 3 OWRD well logs identified - See Table 2
12	372W01C	2500	507	Beebe	Terry & Harley Callahan		Survey sent 12/15 Resent 3/3/16	N				
13	372W01C	2400	495	Beebe	James and Michelle Nistler		Survey sent 12/15 Resent 3/3/16	N				
14	372W01C	2300	477	Beebe	Michelle Nistler		Survey sent 12/15 Resent 3/3/16	N				
15	372W01C	2301	445	Beebe	Charlotte Holder		Survey sent 12/15 Resent 3/3/16	1/11/2016	Y	50 feet	1998	lawn, gardening, watering orchard, fire abatement
16	372W01C	2200	443	Beebe	Rita Deann Tyner		Survey sent 12/15 Resent 3/3/16	N				
17	372W01C	1700	4511	Hamrick	James Sutton		Survey sent 12/15 Resent 3/3/16	N				
18	372W01C	1800	4497	Hamrick	Nick Kenneth Lee		Survey sent 12/15 Resent 3/3/16	N				
19	372W01CB	1100	4475	Hamrick	Gladys Muse		Survey sent 12/15 Resent 3/3/16	N				
20	372W01CB	1000	4461	Hamrick	Richard Smith		Survey sent 12/15 Resent 3/3/16	N				

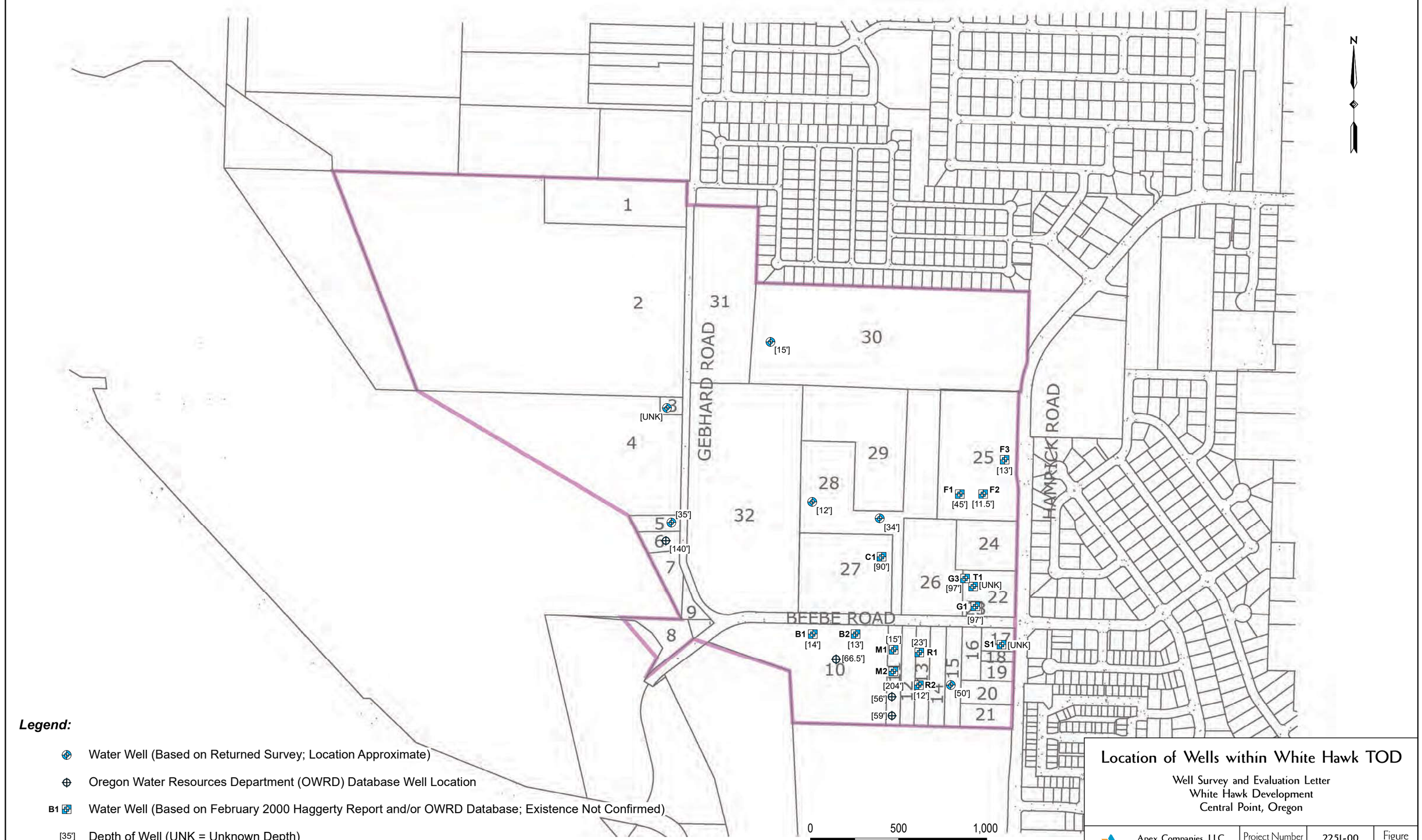
21	372W01CB	900	4439	Hamrick	Humphrey&Windsor LLC		Survey sent 12/15 Resent 3/3/16	N					
22	372W01BC	10100	446	Beebe			Survey sent 3/3/16	N					
23	372W01BC	10200	444	Beebe			Survey sent 3/3/16	N					
24	372W01BC	10000	4615	Hamrick	Edic Sliva		Survey sent 12/15 Resent 3/3/16	N					
25	372W01BC	9800	4630	Hamrick	CA Galpin		Survey sent 12/15 Resent 3/3/16	N					
26	372W01BC	9900	456	Beebe	Picollo LLC		Survey sent 12/15 Resent 3/3/16	N					
27	372W02	3100	600	Beebe	Shepherd of the Valley Catholic Church		Survey sent 12/15 Resent 3/3/16	N					Completed Survey not received but OWRD well log identified - See Table 2
28	372W02	3000	628	Beebe	Dino Picollo		Survey sent 12/15	12/23/2015	2 wells	1 - 12 feet 2 - 34 feet	1 - Unknown 2 - 1940ish		one well at back of lot used for irrigation; second well shared with 523 Beebe for domestic and irrigation OWRD well log from 2/17/1983 for a 60 foot well - see Table 2
30	372W02	200	4848	Gebhard	Steve & Carolyn Himmelman		Survey sent 12/15	1/5/2016	Y	15 feet	unknown		hand dug well domestic use/irrigation/stock watering OWRD well log found from 10/11/1994 for a 100 foot well
31	372W02AA	2800	4920	Gebhard			Survey sent 3/3/16	N					

Note: yellow highlighted: surveys were returned because the post office could not deliver

TABLE 2: OWRD SURVEY RESULTS

Parcel Index	MAP	TAX LOT	Site Num	Site St	Owner	Well Log #	Well Depth	Date Installed	Notes
1	372W02	400	No Address			None	NA	NA	
2	372W02	500	No Address			None	NA	NA	
3	372W02	2500	4757	Gebhard		None	unknown	unknown	domestic use and yard/gardening well onsite based on Well Survey (see Table 1)
4	372W02	600	No Address			None	NA	NA	
5	372W02	2601	4617	Gebhard		None	35 feet bgs	1930?	domestic use and yard/gardening/orchard well onsite based on Well Survey (see Table 1)
6	372W02	2600	4613	Gebhard	Sergio Mejia	JACK61181	140 feet	5/4/2012	sealed from 0 to 50 feet below grade; screened from 50 to 140 feet below grade
7	372W02	2602	4603	Gebhard	William Jeshke	None			
8	372W02D	501	No Address			None			
10	372W02D	300	587	Beebe	Ken Beebe?	JACK12262 JACK12264 JACK12261	12 feet 66.5 feet 13 feet	1965 and 1966	sealed 0 to 9 feet sealed 0 to 20 feet sealed 0 to 9 feet
11	372W02D	200	511	Beebe	Mingus	JACK52926 JACK55868 JACK52660	204 feet 56 feet 59 feet	1999 2003 1998	sealed 0 to 59? Sealed 0 to 27 feet sealed 0 to 20 feet
12	372W01C	2500	507	Beebe	Terry & Harley Callahan	None			
13	372W01C	2400	495	Beebe	James and Michelle Nistler	None			
14	372W01C	2300	477	Beebe	Michelle Nistler	None			
15	372W01C	2301	445	Beebe	Charlotte Holder	None	50 feet	1998	lawn, gardening, watering orchard, fire abatement well onsite based on Well Survey (see Table 1)
16	372W01C	2200	443	Beebe	Rita Deann Tyner	None			
17	372W01C	1700	4511	Hamrick	James Sutton	None			
18	372W01C	1800	4497	Hamrick	Nick Kenneth Lee	None			
19	372W01CB	1100	4475	Hamrick	Gladys Muse	None			
20	372W01CB	1000	4461	Hamrick	Richard Smith	None			
21	372W01CB	900	4439	Hamrick	Humphrey&Windsor LLC	None			
22	372W01BC	10100	446	Beebe		None			
23	372W01BC	10200	444	Beebe		None			
24	372W01BC	10000	4615	Hamrick	Edic Sliva	None			
25	372W01BC	9800	4630	Hamrick	CA Galpin	None			
26	372W01BC	9900	456	Beebe	Picollo LLC	None			

27	372W02	3100	600	Beebe	Shepherd of the Valley Catholic Church	JACK30394	90 feet	1990	Deepening of an existing well from 68 to 90 feet
28	372W02	3000	628	Beebe	Dino Picollo	JACK12241	60 feet	1983	Deepening of an existing well from 35 feet to 60 feet. Sealed from 0 to 35 feet.
30	372W02	200	4848	Gebhard	Steve Himmelman	JACK33759	100 feet	1994	sealed 0 to 35 feet
31	372W02AA	2800	4920	Gebhard		None			



Legend:

- Water Well (Based on Returned Survey; Location Approximate)
- Oregon Water Resources Department (OWRD) Database Well Location
- B1 Water Well (Based on February 2000 Haggerty Report and/or OWRD Database; Existence Not Confirmed)
- [35'] Depth of Well (UNK = Unknown Depth)

Base map prepared from a Well Notiofication Area figure by CES|NW (12/01/2105).

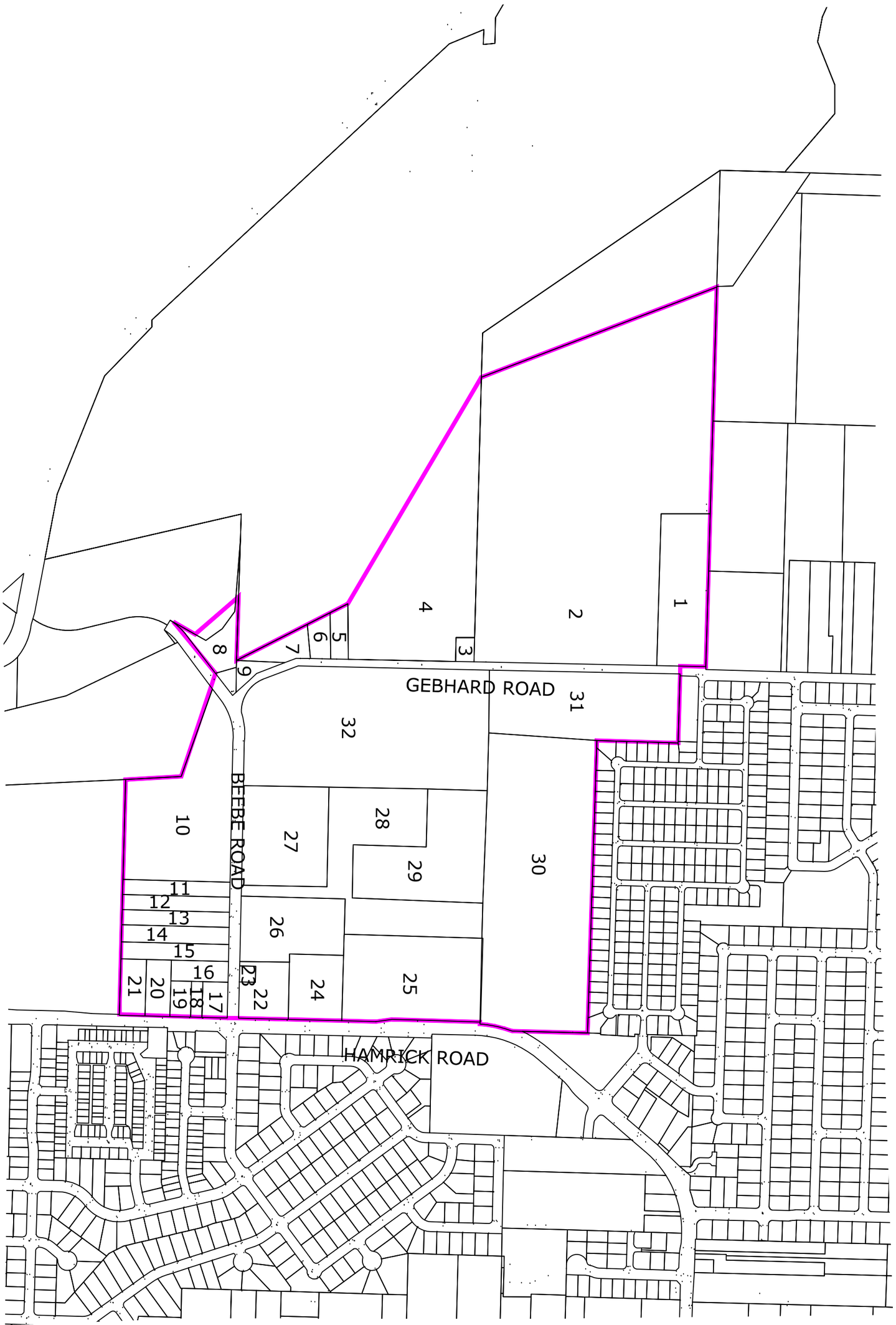
Location of Wells within White Hawk TOD

Well Survey and Evaluation Letter
White Hawk Development
Central Point, Oregon

APEX Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number	2251-00	Figure 1
	November 2016		

Well Survey Results Letter
Attachment A

White Hawk TOD



SHEET 1 OF 1	PROJECT NO.: 1910	DATE: 12/01/15	REVISIONS	CES|NW 13190 SW 68th Parkway, Suite 150 Tigard, Oregon 97223 503.968.6655 www.cesnw.com	WHITE HAWK TOD CASE FILE NO. 14004
	DESIGNED BY: ARW	DRAWN BY: ARW			PEOPLE'S BANK OF COMMERCE 1311 BARNETT ROAD MEDFORD, OR 97054 (541) 774-7656
	WELL NOTIFICATION AREA		1910-WELL_NOTICE_AREA.DWG		

Well Survey Results Letter
Attachment B

Completed Surveys

Received
DEC 21 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 1 A Penninger Rd
   City, State, Zip: CP OR

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

_____
_____
_____
_____

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

_____
_____
_____

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

Received
DEC 28 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 4757 GEBHARD RD
   City, State, Zip: CENTRAL POINT, OR 97502

2. What water source(s) are used on your property?

   (Individual well)
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   (In home domestic use
   Lawn and garden watering)
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

4. When was the well installed? UNKNOWN
5. What is the depth of the well? UNKNOWN
6. Was the well installed by a drilling contractor? UNKNOWN – PROBABLY

VOLUNTARY RESIDENTIAL WATER USE SURVEY

Received
DEC 30 2015
Apex-Portland

1. Please provide your address

   Address: 4617 GEBHARD ROAD
   City, State, Zip: CENTRAL POINT OR. 97502

2. What water source(s) are used on your property?

   (Individual well)
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   (In home domestic use)
   (Lawn and garden watering)
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)
   20 + FRUIT TREES 40 + OTHER TREES
   VERY LARGE GARDEN, GRAPES, RASPBERRIES STRAWBERRIES ETC.

4. When was the well installed? 1930 ?c

5. What is the depth of the well? 35 FEET

6. Was the well installed by a drilling contractor? ?c

Received
DEC 23 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 628 Beebe Rd
   City, State, Zip: Central Point, OR 97502

2. What water source(s) are used on your property?

   (Individual well)
   (Well shared with one neighbor)
   Central Point Utility Services
   Other (please describe):
   one well on back of property for irrigation, one well for both 628 & 523 Beebe for Household & irrigation

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   (In home domestic use)
   (Lawn and garden watering)
   (Pasture/Crops/Orchard)
   Stock watering
   Other (please describe)

4. When was the well installed? #1 unknown #2 was used for House Built around 1940
5. What is the depth of the well? #1 about 12 #2 about 54'
6. Was the well installed by a drilling contractor?
   unknown #2 assume yes

Received
DEC 22 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 6076 Palmero Circle
   City, State, Zip: Cameron Park, CA. 95682

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   ✓ Other (please describe):
   under Rogue Valley Irrigation District
   No well on property

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

Received
JAN 05 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

Address: P.O. Box 3972 MAIL / 4848 Gebhard Rd
City, State, Zip: Central Point, Or. 97502

2. What water source(s) are used on your property?

(Individual well)
Well shared with one neighbor
Central Point Utility Services
Other (please describe):

_____
_____
_____
_____

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

(In home domestic use)
(Lawn and garden watering)
Pasture/Crops/Orchard
(Stock watering)
Other (please describe)

_____
_____
_____

4. When was the well installed? UNKNOWN
5. What is the depth of the well? 15' APPROX
6. Was the well installed by a drilling contractor? NO - HAND DUG

Receive
JAN 11 2016
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 445 BEE BE RD.
   City, State, Zip: CENTRAL POINT, OREGON 97502

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)
   FIRE ABATEMENT

4. When was the well installed? 1998
5. What is the depth of the well? 50'
6. Was the well installed by a drilling contractor? YES

Received

MAR 1 0 2016

Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: Map 372W02D TL 500+600

   City, State, Zip: _____

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

   No water source - bare land

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

Receiver
JAN 25 2016
Apex-Portland

Property no. 1

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address – Property is on Gebhard Rd. 5 acre parcel No Dwelling

   Address: 6026 Palmero Circle
   City, State, Zip: Cameron Park, CA 95682

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   ✓Other (please describe):
   Rogue River Valley Irrigation District

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

VOLUNTARY RESIDENTIAL WATER USE SURVEY

Received
JAN 25 2016
Apex-Portland

1. Please provide your address

   Address: 1480 E. Pine Street
   City, State, Zip: Central Point, OR. 97502

2. What water source(s) are used on your property?

   (Individual well)
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   (Other (please describe))
   Commercial / Retail

4. When was the well installed?
   About 1950
5. What is the depth of the well?
   not known
6. Was the well installed by a drilling contractor?
   not known

Received
MAR 11 2016
Apex Portland

Lots 2 + 4 + 8

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 10 S Oakdale Ave #111
   City, State, Zip: Medford OR 97501

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):
   Property is currently unused bare land shown on your map as Lots 2 + 4 + 8, with the exception of the greenway path through lot 8
   No water use

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

   _____
   _____
   _____

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

Well Survey Results Letter
Attachment C

OWRD Well Logs for Wells Within the TOD

jack 5216D

STATE OF OREGON WATER SUPPLY WELL REPORT

(as required by ORS 537.765)

WELL I.D.# ——— L 27891

(START CARD) # 87249

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number 1044-98

Name Ernest Mingus

Address 511 Beebee Rd.

City Central Point State OR. Zip 97502

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD:

☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger

☐ Other

(4) PROPOSED USE:

☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Livestock ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval ☐ Yes ☒ No Depth of Completed Well 59 ft.

Explosives used ☐ Yes ☒ No Type ——— Amount ———

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
10"	0	20	Bentonite	0	20	8 Sacks
6"	20	59				Bentonite

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☒ Other Poured Dry

Backfill placed from ——— ft. to ——— ft. Material ———

Gravel placed from ——— ft. to ——— ft. Size of gravel ———

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+2	61½	.250	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:					☐	☐	☐	☐
					☐	☐	☐	☐

Final location of shoe(s) 59

(7) PERFORATIONS/SCREENS:

☒ Perforations Method Holt Air Perf.

☐ Screens Type ——— Material ———

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
40	56	⅛ x 1	200		6	☒	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
5	18	59	1 hr.

Temperature of water 54 Depth Artesian Flow Found ———

Was a water analysis done? ☐ Yes By whom ———

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ———

Depth of strata: ———

(9) LOCATION OF WELL by legal description:

County Jackson Latitude ——— Longitude ———

Township 37 N or S Range 2 E or W. WM.

Section 02-D SW 1/4 SE 1/4

Tax Lot 200 Lot ——— Block ——— Subdivision ———

Street Address of Well (or nearest address) 511 Beebee Rd

Central Point OR.

(10) STATIC WATER LEVEL:

41 ft. below land surface. Date 10-27-98

Artesian pressure ——— lb. per square inch. Date ———

(11) WATER BEARING ZONES:

Depth at which water was first found 41'

From	To	Estimated Flow Rate	SWL
41	59	5	41

(12) WELL LOG:

Ground Elevation ———

Material	From	To	SWL
Brown clay	0	12	
Med to coarse sand + gravel	12	57	41
Soft gray claystone	57	59	41

RECEIVED

NOV 09 1998

WATER RESOURCES DEPT. SALEM, OREGON

Date started 10-26-98 Completed 10-27-98

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number 679

Signed John Studebaker Date 11-9-98

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 360

Signed Jack R. Stutzman Date

RECEIVED
MAY 31 1966
STATE ENGINEER

JACK
12261

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2W-2
State Permit No.

(1) OWNER:
Name D R ADAMS
Address 587 BEEBE RD
CENTRAL POINT ORE

(2) LOCATION OF WELL:
County JACKSON Driller's well number
¼ ¼ Section 2 T. 37S R. 2W W.M.
Bearing and distance from section or subdivision corner

(3) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☐ Jetted ☐
Dug ☐ Bored ☒

(6) CASING INSTALLED:
Threaded ☐ Welded ☐
18 " Diam. from 1.A.B.S. ft. to 13 ft. Gage CONCRETE
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☒ Yes ☐ No
Type of perforator used
Size of perforations in. by in.
1 INCH perforations from 9 ft. to 13 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☒ No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal CONCRETE
Depth of seal 9 ft. Was a packer used? NO
Diameter of well bore to bottom of seal 24 in.
Were any loose strata cemented off? ☐ Yes ☒ No Depth
Was a drive shoe used? ☐ Yes ☒ No
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from NONE ft. to ft.
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 9 ft. below land surface Date 5-13-66
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☒ Yes ☐ No If yes, by whom? OWNER
Yield: 15 gal./min. with NONE ft. drawdown after 6 hrs.
" " " "
" " " "
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 49 Was a chemical analysis made? ☐ Yes ☒ No

(12) WELL LOG:
Diameter of well below casing NONE
Depth drilled 13 ft. Depth of completed well 13 ft.

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
BLACK CLAY	0	4
DARK BROWN CLAY	4	6
HARD BROWN CLAY	6	9
SAND - SMALL GRAVEL	9	11
LARGE COBBLES SAND GRAVEL	11	13

Work started 5-13- 1966 Completed 5-13- 1966
Date well drilling machine moved off of well 5-13 1966

(13) PUMP:
Manufacturer's Name ?
Type: ? H.P. ?

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME LLOYD K. FISCHER
(Person, firm or corporation) (Type or print)
Address 1021 VAWTER RD
Drilling Machine Operator's License No. 43
[Signed] Lloyd K. Fischer
(Water Well Contractor)
Contractor's License No. 346 Date 5-16, 1966

(USE ADDITIONAL SHEETS IF NECESSARY)

JACK 55868

STATE OF OREGON

WATER SUPPLY WELL REPORT

(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form

WELL ID # L L62623

(START CARD) # 153911

(1) OWNER:

Well Number: L62623

Name Earnest Mingus

Address 511 Beebe Rd.

City Central Point State OR Zip 97502

(2) TYPE OF WORK:

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 55 ft.

Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
10	0	55	Bentonite	0	27	50 Sacks
			16 Sand	27	40	20 sacks
			10 x 20 Sand	40	54	20 Sacks
			Sand Gravel	54	55	

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E

[X] Other Poured Dry

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6	+2	31	.250	[X]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

[ ] Perforations Method

[X] Screens Type .020 Material Stainless

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
31	55	.020				[X]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
3 GPM	55	55	6 hr.

Temperature of Water 57 Depth Artesian Flow found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Jackson Latitude Longitude

Township 37S N or S. Range 2W E or W. of WM.

Section 2 SW 1/4 SE 1/4

Tax lot 200 Lot Block Subdivision

Street Address of Well (or nearest address) 511 Beebe Rd.

(10) STATIC WATER LEVEL:

12 ft. below land surface. Date 12/4/2002

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 8

From	To	Estimated Flow Rate	SWL
8	55	3 GPM	12

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
Top Soil	0	2	
Brown Clay	2	8	
Tan clay w/ sand gravel	8	28	
Tan sand w/ gravel	28	30	12
Tan clay w/ gravel	30	55	
Grey Silt Stone	55	56	

ASHLAND DRILLING INC
ALL AMERICAN PUMPS
600 South Pacific Hwy
Talent, OR 97540
541 488 2827

RECEIVED
JAN 10 2003
WATER RESOURCES DEPT.
SALEM, OREGON

Date started 12/2/2002 Completed 12/4/2002

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to my best knowledge and belief.

Signed Ashland Drilling Inc. WWC Number 1657 Date 1/6/2003

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

Signed Ashland Drilling Inc. WWC Number 1478 Date 1/6/2003

ORIGINAL - WATER RESOURCES DEPARTMENT FIRST COPY - CONSTRUCTOR SECOND COPY - CUSTOMER

RECEIVED

FEB 16 1999

WATER RESOURCES DEPT.
SALEM, OREGON

JACK
52926

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form.

WELL I.D. # L 127891
START CARD # 61007

(1) OWNER: Well Number
Name Earnest Mincus
Address 511 Beebe Rd
City Central Point State OR Zip 97502

(2) TYPE OF WORK
☐ New Well ☒ Deepening ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD:
☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger
☐ Other

(4) PROPOSED USE:
☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation
☐ Thermal ☐ Injection ☐ Livestock ☐ Other

(5) BORE HOLE CONSTRUCTION:
Special Construction approval ☐ Yes ☒ No Depth of Completed Well 204 ft.
Explosives used ☐ Yes ☒ No Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
6	59	204	SEAL	NOT		Disturbed

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☐ Other
Backfill placed from ____ ft. to ____ ft. Material ____
Gravel placed from ____ ft. to ____ ft. Size of gravel ____

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	4	0	204	14	☐	☒	☒ Glue	☐
					☐	☐	☐	☐

Final location of shoe(s) Existing

(7) PERFORATIONS/SCREENS:
☒ Perforations Method Saw
☐ Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
120	180	12	128	48	4"	☐	☒
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
12		203	1 hr.

Temperature of water 54 Depth Artesian Flow Found ____
Was a water analysis done? ☐ Yes By whom ____
Did any strata contain water not suitable for intended use? ☐ Too little
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ____
Depth of strata: ____

(9) LOCATION OF WELL by legal description:
County Jackson Latitude ____ Longitude ____
Township 37 N or (S) Range 2 E or (W) WM.
Section 2-D SW 1/4 SE 1/4
Tax Lot 200 Lot ____ Block ____ Subdivision ____
Street Address of Well (or nearest address) 511 Beebe Rd
Central Point OR 97502

(10) STATIC WATER LEVEL:
41 ft. below land surface. Date 1-27-99
Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:
Depth at which water was first found 78

From	To	Estimated Flow Rate	SWL
78	162	12	41

(12) WELL LOG:
Ground Elevation ____

Material	From	To	SWL
Sandstone cream	60	78	
claystone Redish	78	96	
Cemented Fine Gravel	96	152	41
Sandstone Green	152	204	

Date started 1-29-99 Completed 1-27-99

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
WWC Number ____
Signed ____ Date ____

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 679
Signed John Studebaker Date 1-28-99

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

JACK
12262

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

RECEIVED
MAY 31 1966
STATE ENGINEER
SALEM, OREGON

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2W-2
State Permit No.

(1) OWNER:
Name K. W. BEEBE
Address 587 BEEBE RD
CENTRAL POINT ORE

(2) LOCATION OF WELL:
County JACKSON Driller's well number
¼ ¼ Section 2 T. 37S R. 2W W.M.
Bearing and distance from section or subdivision corner
SOUTH SIDE OF BEEBE RD
HALF WAY BETWEEN
K.W BEEBE HOUSE AND
C.R BEEBE HOUSE

(3) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☒ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☐ Jetted ☐
Dug ☐ Bored ☒

(6) CASING INSTALLED:
Threaded ☐ Welded ☐
18 " Diam. from 1FT ABS ft. to 12 ft. Gage CONCRETE
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☒ Yes ☐ No
Type of perforator used
Size of perforations 1 INCH in. by 1 INCH in. 1X1 O
1 INCH perforations from 9 ft. to 12 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☒ No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal CONCRETE
Depth of seal 9 ft. Was a packer used? NO
Diameter of well bore to bottom of seal 24 in.
Were any loose strata cemented off? ☐ Yes ☒ No Depth
Was a drive shoe used? ☐ Yes ☒ No
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from NONE ft. to ft.
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 9 ft. below land surface Date 5-16-66
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☒ Yes ☐ No If yes, by whom? OWNER
Yield: 30 gal./min. with ft. drawdown after 1 hrs.
" " " "
" " " "
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 50 Was a chemical analysis made? ☐ Yes ☒ No

(12) WELL LOG:
Diameter of well below casing NONE
Depth drilled 12 ft. Depth of completed well 12 ft.
Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
BLACK CLAY	0	4
BROWN CLAY	4	7
MEDIUM FINE SAND	7	9
SAND-GRAVEL	9	12
LARGE COBBLES		

Work started 5-14 1966 Completed 5-14 1966
Date well drilling machine moved off of well 5-14 1966

(13) PUMP:
Manufacturer's Name ?
Type: ? H.P. ?

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME LLOYD K. FISCHER
(Person, firm or corporation) (Type or print)
Address 1021 VAWTER RD
Drilling Machine Operator's License No. 43
[Signed] Lloyd K. Fischer
(Water Well Contractor)
Contractor's License No. 346 Date 5-16, 1966

(USE ADDITIONAL SHEETS IF NECESSARY)

JACK
12264

RECEIVED
NOV 15 1965
STATE ENGINEER
SALEM, OREGON

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM, OREGON 97310 within 30 days from the date of well completion.

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2w-2

State Permit No.

(1) OWNER:
Name D.R. Adams
Address 587 Beebe Rd.
Medford, Oregon

(2) LOCATION OF WELL:
County Jackson Driller's well number
¼ ¼ Section 2 T. 37 S R. 2W W.M.
Bearing and distance from section or subdivision corner
210FT NORTH & 25FT WEST OF SOUTH EAST CORNER

(3) TYPE OF WORK (check):
New Well ☑ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☑ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☑ Jetted ☐
Dug ☐ Bored ☐

(6) CASING INSTALLED:
Threaded ☐ Welded ☑
6 " Diam. from +1 ft. to 50 ft. Gage .250
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☑ Yes ☐ No
Type of perforator used TORCH
Size of perforations 1/4 in. by 1/2 in.
9 perforations from 41 ft. to 49 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed? ☐ Yes ☑ No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal BENTONITE & CUTTINGS
Depth of seal 20 ft. Was a packer used? NO
Diameter of well bore to bottom of seal 9 1/2 in.
Were any loose strata cemented off? ☐ Yes ☑ No Depth
Was a drive shoe used? ☑ Yes ☐ No
Was well gravel packed? ☐ Yes ☑ No Size of gravel:
Gravel placed from ft. to ft.
Did any strata contain unusable water? ☑ Yes ☐ No
Type of water? SURFACE depth of strata 7T09
Method of sealing strata off BENTONITE

(10) WATER LEVELS:
Static level 8 ft. below land surface Date 11-10-65
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☑ No If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "
Bailer test 5 gal./min. with 53 ft. drawdown after 1 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? ☐ Yes ☑ No

(12) WELL LOG:
Diameter of well below casing 6
Depth drilled 66 1/2 ft. Depth of completed well 66 1/2 ft.
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
SOIL BLACK CLAY	0	4
CLAY & SAND	4	17
CLAY BROWN	17	25
SAND, GRAVEL FINE.	25	49
CLAYSTONE BLUE	49	53
CLAYSTONE	53	60
SANDSTONE	60	66 1/2
WATER	45	49
	59	61

Work started 11-8 19 65 Completed 11-10 19 65
Date well drilling machine moved off of well 11-10 19 65

(13) PUMP:
Manufacturer's Name
Type: H.P.

Water-Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME CRATERWELL DRILLING, INC.
(Person, firm or corporation) (Type or print)
Address 3061 Crater Lake Ave., Medford, Ore.
Drilling Machine Operator's License No. 71
[Signed] P.A. Chitwood
(Water Well Contractor)
Contractor's License No. 83 Date 11-10, 19=65

(USE ADDITIONAL SHEETS IF NECESSARY)

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

Jack30894

37S/2W/2

(START CARD) # 21199

(1) OWNER:

Well Number:

Name SHEPPARD OF THE VALLEY/ARCHDIOCESE/PORTLAND

Address 600 BEEBE ROAD

City CENTRAL POINT State OR Zip 97502

(2) TYPE OF WORK:

☐ New Well ☒ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other

(4) PROPOSED USE:

☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes ☐ No ☒ Depth of Completed Well 90 ft.

Explosives used Yes ☐ No ☒ Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
6"	68	90	DEEPENING			

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	N/A				☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	4"	0	90	160	☐	☒	☐	☐
					☐	☐	☐	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

☒ Perforations Method SAW

☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
30	90	1X8X8	60			☐	☒
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
8GPM		90	1 hr.

Temperature of water 54 Depth Artesian Flow Found

Was a water analysis done? ☐ Yes By whom

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County JACKSON Latitude ' " Longitude ' "

Township 37S N or S, Range 2W E or W, WM.

Section 2 ¼ ¼

Tax Lot 3100 Lot Block Subdivision

Street Address of Well (or nearest address) SAME AS #1

(10) STATIC WATER LEVEL:

17 ft. below land surface. Date 9-14-90

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 17SWL

From	To	Estimated Flow Rate	SWL
75	85	8GPM	17

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
CLAYSTONE, BLUE, SOFT	68	90	17

RECEIVED

OCT - 3 1990

WATER RESOURCES DEPT.
SALEM, OREGON

Date started 9-14-90 Completed 9-14-90

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number

Signed MEDINA WELL DRILLING Date

3286 Hanley Road
Central Point, OR 97502

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1207

Signed Joaquin Medina Date 9-17-90

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/88

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

JACK 12239

RECEIVED JUL 27 1989 WATER RESOURCES DEPT SALEM, OREGON

37S/2W/2

(START CARD) # 10374

(1) OWNER:

Well Number:

Name MARGARET NIXON

Address 718 BEEBE ROAD

City CENTRAL POINT State OR Zip 97502

(2) TYPE OF WORK:

[X] New Well [ ] Deepen [ ] Recondition [ ] Abandon

(3) DRILL METHOD

[X] Rotary Air [ ] Rotary Mud [ ] Cable

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes [ ] No [X] Depth of Completed Well 100 ft.

Explosives used Yes [ ] No [X] Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
10"	0	50	CEMENT	0	50	13SACKS
6"	50	100				

How was seal placed: Method [ ] A [ ] B [XX] C [ ] D [ ] E

[ ] Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+1	59	.250	XX		XX	
Liner:	4"	0	100			XX	XX	

Final location of shoe(s) 59

(7) PERFORATIONS/SCREENS:

XX Perforations Method SAW

[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
40	60	1X8	X8 60				XX

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [XX] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
12 GPM	72	100	1 hr.

Temperature of water Depth Artesian Flow Found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County JACKSON Latitude ' " Longitude ' "

Township 37N N or S, Range 2W E or W, WM.

Section 02 ¼ ¼

Tax Lot 2700 Lot Block Subdivision

Street Address of Well (or nearest address) SAME AS #1

(10) STATIC WATER LEVEL:

28 ft. below land surface. Date 7-6-89

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 60

From	To	Estimated Flow Rate	SWL
60	90	12GPM	28

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
SOIL, BROWN	0	2	
CLAY, BROWN	2	6	
DECOMPOSED, GRANITE	6	23	
CLAY, BROWN	23	30	
GRAVEL, SMALL	30	40	
CLAY, BLUE	40	46	
CLAYSTONE, BLUE, SOFT	46	100	28

Date started 7-6-89 Completed 7-6-89

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number

Signed MEDINA WELL DRILLING Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1207

Signed Joaquin Medina Date 7-9-89

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WATER WELL REPORT
STATE OF OREGON

JACK 1224

RECEIVED
FEB 22 1983
WATER RESOURCES DEPT.
SALEM, OREGON

State Well No. 37S/2W-2

State Permit No. deepened

(1) OWNER:
Name Gus Picollo
Address 628 Bee Be Road
City Central Point State Oregon

(2) TYPE OF WORK (check):
New Well ☐ Deepening ☒ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:
Rotary Air ☒ Driven ☐
Rotary Mud ☐ Dug ☐
Cable ☐ Bored ☐

(4) PROPOSED USE (check):
Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐
Thermal: Withdrawal ☐ Reinjection ☐

(5) CASING INSTALLED:
Steel ☐ Plastic ☐
Threaded ☐ Welded ☐
..." Diam. from ... ft. to ... ft. Gauge ...
..." Diam. from ... ft. to ... ft. Gauge ...

LINER INSTALLED:
..." Diam. from ... ft. to ... ft. Gauge ...

(6) PERFORATIONS:
Perforated? ☐ Yes ☐ No
Type of perforator used
Size of perforations in. by in.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.

(7) SCREENS:
Well screen installed? ☐ Yes ☐ No
Manufacturer's Name ...
Type ... Model No. ...
Diam. ... Slot Size ... Set from ... ft. to ... ft.
Diam. ... Slot Size ... Set from ... ft. to ... ft.

(8) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☐ No If yes, by whom?
... gal./min. with ... ft. drawdown after ... hrs.
" " " "
Air test gal./min. with drill stem at ft. hrs.
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m.
Temperature of water Depth artesian flow encountered ... ft.

(9) CONSTRUCTION:
Special standards: Yes ☐ No ☐
Well seal—Material used ...
Well sealed from land surface to ... ft.
Diameter of well bore to bottom of seal ... in.
Diameter of well bore below seal ... in.
Number of sacks of cement used in well seal ... sacks
How was cement grout placed? ...
Was pump installed? ... Type ... HP ... Depth ... ft.
Was a drive shoe used? ☐ Yes ☐ No Plugs ... Size: location ... ft.
Did any strata contain unusable water? ☐ Yes ☐ No
Type of Water? depth of strata
Method of sealing strata off
Was well gravel packed? ☐ Yes ☐ No Size of gravel: ...
Gravel placed from ... ft. to ... ft.

(10) LOCATION OF WELL:
County Jackson Driller's well number 83-3
¼ ¼ Section 2 T. 37S R. 2W W.M.
Tax Lot # 3000 Lot Blk Subdivision
Address at well location: 628 Bee Be Road
Central Point, Oregon

(11) WATER LEVEL: Completed well.
Depth at which water was first found see below ft.
Static level 4 ft. below land surface. Date 1-18-83
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:
Diameter of well below casing 6 inch
Depth drilled 35 ft. Depth of completed well 45 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Increased air return from 75 GPM to 250+ GPM.			
Formations:			
Medium sand with coarse gravel	25	60	4

Work started 1-18 19 83 Completed 1-18 19 83
Date well drilling machine moved off of well 1-18 19 83

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] John Studebaker (Drilling Machine Operator) Date 2-17, 1983
Drilling Machine Operator's License No. 1008

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Name Studebaker Well Drilling (Person, firm or corporation) (Type or print)
Address 4876 Highway 66 Ashland, Oregon 97520
[Signed] John Studebaker (Water Well Contractor)
Contractor's License No. 679 Date 2-17, 1983

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the WATER RESOURCES DEPARTMENT, SALEM, OREGON 97310 within 30 days from the date of well completion.

SP*12658-690

14

JACK 33759

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OCT 1 3 1994

WATER RES... SALEM, OREGON

37S/2W/26c

JCWP#491-94W

STATE OF OREGON WATER WELL REPORT

(as required by ORS 537.765)

Gribble Well Drilling Nic. (START CARD) # 65619

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number 1

Name Steve Himmelman

Address P.O. Box 411

City Jacksonville State Ore Zip 97530

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 100 ft.

Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
10"	0	35	Bent	0	35	1150 lbs
6"	35	100				

How was seal placed: Method [ ]A [ ]B [ ]C [ ]D [ ]E

[X] Other Poured Dry

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+1	59	250	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:	4"	0	100	160	[ ]	[X]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s) 59'

(7) PERFORATIONS/SCREENS:

[X] Perforations Method Saw

[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
60	100	10"	80	1/8		[ ]	[X]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
30		100	1 hr.

Temperature of water 56 Depth Artesian Flow Found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Jackson Latitude Longitude

Township 37S N or S Range 2W E or W. WM.

Section 2 SW 1/4 NW 1/4

Tax Lot 200 Lot Block Subdivision

Street Address of Well (or nearest address) 4848 Gebhard Rd.

Central Point, Ore. 97502

(10) STATIC WATER LEVEL:

22 ft. below land surface. Date 10/5/94

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 85'

From	To	Estimated Flow Rate	SWL
85	88	30	22

(12) WELL LOG:

Ground Elevation

Material	From	To	SWL
Soil Brown	0	8	
Gravel & Clay Brown	8	19	
Gravel Med. Brown	19	27	
Claystone Brown	27	48	
Claystone Gray	48	100	22

Date started 10/5/94 Completed 10/5/94

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number

Signed Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 705

Signed Date 10-18-94

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

STATE OF OREGON
WATER SUPPLY WELL REPORT
(ORS 537.765 & OAR 690-205-0210)
Instructions for completing this report are on the last page of this form.

JACK 61181

WELL LABEL # L 107198
START CARD # 205620
ORIGINAL LOG #

(1) LANDOWNER Owner Well I.D. _____
First Name _____ Last Name _____
Company Highlander Forest L.L.C.
Address 1240 Vista Dr
City Central Point State Or Zip 97502

(2) TYPE OF WORK ☒ New ☐ Conversion ☐ Deepening
☐ Alteration (complete Sections 2a & 10) ☐ Abandonment (complete Section 5a)

(2a) PRE-ALTERATION: Well Depth _____ ft.
Seal Material _____
Casing Type: ☐ Steel ☐ Plastic ☐ Other _____
Casing Gauge _____ Casing Diameter _____

(3) DRILL METHOD ☒ Rotary Air ☐ Rotary Mud ☐ Auger
☐ Cable ☐ Cable Mud ☐ Reverse Rotary ☐ Other _____

(4) PROPOSED USE ☒ Domestic ☐ Irrigation ☐ Community
☐ Industrial/Commercial ☐ Livestock ☐ Dewatering ☐ Injection
☐ Thermal ☐ Other _____

(5) BORE HOLE CONSTRUCTION
Depth of Completed Well 140 ft. Special Standard: ☐ Yes (attach copy)

BORE HOLE Dia	From	To	SEAL Material	From	To	Amount	Scks/lbs
10"	0	50'	Bent	0	50	1200	165
6"	50	140					

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☒ Other Poured dry
Backfill placed from _____ ft. to _____ ft. Material _____
Filter pack from _____ ft. to _____ ft. Material _____ Size _____

(5a) ABANDONMENT USING UNHYDRATED BENTONITE:
Calculated Amount Proposed to be Used: _____ sacks/lbs
Actual Amount Used: _____ sacks/lbs

(6) CASING/LINER

Csng	Linr	Dia	+	From	To	Gauge	Steel	Plastic	Welded	Thrd
X		6"			59	.250	X		X	
	X	4"		0	140	250		X	X	

Shoe ☐ Inside ☒ Outside ☐ Other Location of shoe(s) 59'
Temporary casing ☐ Yes Diameter _____ From _____ To _____

(7) PERFORATIONS/SCREENS
Perforations Method Saw Cut
Screens Type _____ Material _____

Perf	Scrn	Csng	Linr	Screen Dia	From	To	Screen/ slot width	Slot length	# of slots	Tele/ pipe size
X			X		80	140	1/8	5"	90	

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
1.5		140'	1 hr

Temperature 57 °F Lab analysis ☐ Yes By _____
Water quality concerns? ☐ Yes (describe below) TDS _____ ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)
County Jackson Twp 37 N of S Range 2-W E or W W.M.
Sec 2 _____ 1/4 of the _____ 1/4 Tax Lot _____
Tax Map Number _____ Lot _____
Lat ___°___'___.___" or 42.38270 DMS or DD
Long ___°___'___.___" or 122.85913 DMS or DD
Street Address of Well (or nearest address) 4613 Goldhard Rd
Central Point, Or 97502

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL (ft)
Existing Well/Pre-Alteration				
Completed Well	4/3/12			45

Flowing Artesian? ☐ Yes Dry Hole? ☐ Yes
WATER BEARING ZONES Depth water was first found 80

SWL Date	From	To	Est Flow	SWL (psi)	+	SWL (ft)
4/3/12	80	91	1.5			45

(11) WELL LOG Ground Elevation 1247

Material	From	To
Clay & gravel brown	0	18
Claystone blue	18	42
Granite & boulders Tan	42	51
Claystone - Blue	51	140

Date Started 4/3/12 Completed 4/4/12

(unbonded) Water Well Constructor Certification
I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

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JUN 04 2012
WATER RESOURCES DEPT
SALEM, OREGON

License Number _____ Date _____
Signed _____

(bonded) Water Well Constructor Certification
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1661 Date 5/4/12
Signed Brandon A. Williamson
Contact Info. (optional)

ORIGINAL – WATER RESOURCES DEPARTMENT ONE COPY FOR CONSTRUCTOR ONE COPY FOR CUSTOMER
SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK
01/02/2009

SOUTHERN OREGON TRANSPORTATION ENGINEERING, LLC
319 Eastwood Drive | Medford, Or. 97504 | 541. 941.4148 | Kim.parducci@gmail.com

February 27, 2025

Justin Gindlesperger, Community Planner III
City of Central Point
Community Development
130 S Third Street
Central Point, Oregon 97502

RE: Gebhard Village Subdivision – Beebe Road / Hamrick Road Impact

Dear Justin,

Southern Oregon Transportation Engineering, LLC prepared a Traffic Impact Analysis (TIA) October 2, 2024 for the Gebhard Village Master Plan and Tentative Subdivision Plan. The analysis concluded that the stop-controlled intersection of Beebe Road / Hamrick Road exceeds the City's level of service (LOS) "D" standard under all analysis scenarios and is projected to operate at a LOS "F" under design year 2027 build conditions during the p.m. peak hour. At the time of the study, it was our understanding that the intersection already had a planned, funded project (traffic signal) that would provide adequate mitigation within two to four years. We now understand that the intersection has a planned project, but funding has not been fully established.

If a traffic signal is currently planned but not funded, then we recommend the proposed development pay a proportional share toward the cost of a traffic signal at Beebe Road / Hamrick Road. This can be based on total entering volume. Our analysis shows the proposed Gebhard Village Subdivision generates 46 total p.m. peak hour trips on the transportation system with 28 p.m. trips reaching the intersection of Beebe Road / Hamrick Road. The total entering volume of p.m. trips at the Beebe / Hamrick intersection under design year 2027 no-build conditions is 1,198 trips. The proposed development impact at the time of development is, therefore, 2.3%.

We hope this provides the additional information needed to deem the application complete.

Sincerely,

Kimberly Parducci PE, PTOE
SOUTHERN OREGON TRANSPORTATION ENGINEERING, LLC

Cc: Matt Samitore, Central Point Parks and Public Works Director
Stephanie Powers, Central Point Planning Director
Client

FINDINGS OF FACT AND CONCLUSION OF LAW

BEFORE THE CITY OF CENTRAL POINT PLANNING COMMISSION

IN THE MATTER OF AN APPLICATION FOR THE APPROVAL FOR THE MASTER PLAN OF GEBHARD VILLAGE SUBDIVISION.

APPLICANT: Lowman Revocable Trust
4462 Coal Mine Road
Medford, OR 97504

AGENT: Neathamer Surveying, Inc.
P.O. Box 1584
Medford, OR 97501

A. BACKGROUND INFORMATION

The subject property is comprised of 8.18 gross acres located at 4920 and 4922 Gebhard Road (being commonly known as Jackson County Assessment Map No. 37 2W 02AA, Tax Lot 2800), in the Transit Oriented Development District (ETOD) and zoned Medium Mix Residential (MMR). The site is unimproved land bounded by Willow Bend, Phase 1 of the White Hawk TOD Master Plan to the south.

A pre-application conference was held on July 27, 2021 (File No. PRE-21007).

B. SCOPE, PURPOSE, AND OVERVIEW OF THE APPLICATION

The purpose of this application is for the approval of the Master Plan for Gebhard Village Subdivision, consisting of a total of 78 dwelling units in two phases.

C. CRITERIA AND FINDINGS OF FACT

The following sections of Title 17 ZONING of the Central Point Municipal Code (CPMC) are found to be relevant to the subject application:

17.65.040 | LAND USE

17.65.040(A) | Residential (TOD)

1. LMR--Low Mix Residential. This is the lowest density residential zone in the district. Single-family detached residences are intended to be the primary housing type; however, attached single-family and lower density multifamily housing types, such as duplex and triplex, for example, are also allowed and encouraged.

2. MMR--Medium Mix Residential. This medium density residential zone focuses on higher density forms of residential living. The range of housing types includes higher density single-family, such as zero lot line and attached single-family dwellings, and a variety of multifamily residences. Low impact commercial activities may also be allowed.

3. HMR--High Mix Residential/Commercial. This is the highest density residential zone intended to be near the center of the TOD district. High density forms of multifamily housing, such as multiplexes or apartments, are encouraged along with complementary ground floor commercial uses. Low impact commercial activities may also be allowed. Low density residential types, including large and standard lot single-family detached housing, are not permitted.

FINDINGS OF FACT

The subject property is within the MMR (ETOD) zoning district, being subject to 17.65.040(A)(2) above. There are four different proposed residential housing types: detached single-family dwellings, duplexes, triplexes and quadplexes. The proposed mix is consistent with the intent of the MMR district and provides a variety of housing options for residents in the area.

17.65.040(B) | Employment (TOD)

1. EC--Employment Commercial. Retail, service, and office uses are primarily intended for this district. Activities which are oriented and complementary to pedestrian travel and transit are encouraged. Development is expected to support pedestrian access and transit use. Automobile-oriented activities are generally not included in the list of permitted uses. Residential uses above ground floor commercial uses are also consistent with the purpose of this zone.

2. GC--General Commercial. Commercial and industrial uses are primarily intended for this district. Activities which are oriented and complementary to pedestrian travel and transit are encouraged. Residential uses above ground floor commercial uses are also consistent with the purpose of this zone.

FINDINGS OF FACT

This criterion is not applicable to the subject development.

17.65.040(C) | Civic (TOD)

Civic uses such as government offices, schools, and community centers are the primary uses intended in this district. These uses can play an important role in the vitality of the TOD district.

FINDINGS OF FACT

This criterion is not applicable to the subject development.

17.65.040(D) | Open Space (TOD)

Because the density of development will generally be higher than other areas in the region, providing open space and recreation opportunities for the residents and employees in the TOD district becomes very important. This zone is intended to provide a variety of outdoor and recreation amenities.

FINDINGS OF FACT

An open space area has been integrated in the design and includes several amenities for the nearby residents as required per 17.65.040(D). Refer to the Master Plan for detailed information regarding the proposed layout for the open space and recreation facilities.

17.65.050 | ZONING REGULATIONS

17.65.050(A) | Permitted Uses

Permitted uses in Table 1 are shown with a "P." These uses are allowed if they comply with the applicable provisions of this title. They are subject to the same application and review process as other permitted uses identified in this title.

FINDINGS OF FACT

The proposed duplex, triplex and quadplex dwellings are permitted uses per Table 1 of 17.65.050.

17.65.050(B) | Limited Uses

Limited uses in Table 1 are shown with an "L." These uses are allowed if they comply with the specific limitations described in this chapter and the applicable provisions of this title. They are subject to the same application and review process as other permitted uses identified in this title.

FINDINGS OF FACT

Pursuant to said Table 1, the proposed detached single-family residential dwellings are a limited use allowed, "as a transition between lower density zones." Said detached dwellings are proposed along the northeasterly boundary, adjacent to the existing residences, which will act as a buffer to the denser multiplex units.

17.65.050(C) | Conditional Uses

Conditional uses in Table 1 are shown with a "C." These uses are allowed if they comply with the applicable provisions of this title. They are subject to the same application and review process as other conditional uses identified in this title.

FINDINGS OF FACT

There are no conditional uses proposed for the subject development.

17.65.050(D) | Density

The allowable residential density and employment building floor area are specified in Table 2.

FINDINGS OF FACT

There is a total of 8.18 gross acres in the project, 2.62 acres of which are to be dedicated as public streets, resulting in a total of 5.56 net acres. Table 2 of 17.65.050 permits a range of 14 to 32 units per net acres in the MMR district, resulting in 78 units (min) and 178 units (max) for the project. The applicant is proposing 78 units, meeting the minimum required units.

17.65.050(E) | Dimensional Standards

The dimensional standards for lot size, lot dimensions, building setbacks, and building height are specified in Table 2.

FINDINGS OF FACT

All proposed lots meet the minimum standards specified in said Table 2.

17.65.050(F) | Development Standards

1. Housing Mix. The required housing mix for the TOD district is shown in Table 2.

2. Accessory Units. Accessory units are allowed as indicated in Table 1. Accessory units shall meet the following standards:

a. A maximum of one accessory unit is permitted per single-family unit;

b. An accessory unit shall have a maximum floor area of eight hundred square feet;

c. The applicable zoning standards in Table 2 shall be satisfied.

3. Parking Standards. The off-street parking and loading requirements in Chapter 17.64 shall apply to the TOD overlay.

FINDINGS OF FACT

As there are 78 dwelling units being proposed, a total of three or more housing types are required per said Table 2. The applicant is proposing a total of four housing types, satisfying the required housing mix.

No accessory units are proposed in the subject development.

Table 17.64.02 does not require a minimum or maximum number of off-street parking spaces for the proposed housing types.

17.67.040 | CIRCULATION AND ACCESS STANDARDS

17.67.040(A) | Public Street Standards

1. Except for specific transportation facilities identified in a TOD overlay master plan, the street dimensional standards set forth in the City of Central Point Department of Public Works Standard Specifications and Uniform Standard Details for Public Works Construction, Section 300, Street

Construction shall apply for all development located within the TOD overlay which is approved according to the provisions in Section 17.65.020 and Chapter 17.66.

2. Block perimeters shall not exceed two thousand feet measured along the public street right-of-way.

3. Block lengths for public streets shall not exceed six hundred feet between through streets, measured along street right-of-way.

4. Public alleys or major off-street bike/pedestrian pathways, designed as provided in this chapter, may be used to meet the block length or perimeter standards of this section.

5. The standards for block perimeters and lengths shall be modified to the minimum extent necessary based on findings that strict compliance with the standards is not reasonably practicable or appropriate due to:

a. Topographic constraints;

b. Existing development patterns on abutting property which preclude the logical connection of streets or accessways;

c. Railroads;

d. Traffic safety concerns;

e. Functional and operational needs to create a large building; or

f. Protection of significant natural resources.

6. All utility lines shall be underground but utility vault access lids may be located in the sidewalk area.

7. Connections shall be provided between new streets in a TOD overlay and existing local and minor collector streets.

8. Pedestrian/Bike Accessways Within Public Street Right-of-Way.

a. Except for specific accessway facilities identified in a TOD overlay master plan, the following accessway dimensional standards set forth in the City of Central Point Department of Public Works Standard Specifications and Uniform Standard Details for Public Works Construction, Section 300, Street Construction shall apply for any development located within the TOD overlay which is approved according to the provisions in Section 17.65.020 and Chapter 17.66.

b. In transit station areas, one or more pedestrian-scaled amenities shall be required with every one hundred square feet of the sidewalk area, including but not limited to:

i. Street furniture;

ii. Plantings;

iii. Distinctive paving;

iv. Drinking fountains; and

v. Sculpture.

c. Sidewalks adjacent to undeveloped parcels may be temporary.

d. Public street, driveway, loading area, and surface parking lot crossings shall be clearly marked with textured accent paving or painted stripes.

e. The different zones of a sidewalk should be articulated using special paving or concrete scoring.

9. Public Off-Street Accessways.

a. Pedestrian accessways and greenways should be provided as needed to supplement pedestrian routes along public streets.

b. Major off-street pedestrian accessways shall incorporate all of the following design criteria:

i. The applicable standards in the City of Central Point Department of Public Works Standard Specifications and Uniform Standard Details for Public Works Construction, Section 300, Street Construction;

ii. Minimum ten-foot vertical clearance;

iii. Minimum twenty-foot horizontal barrier clearance for pathway;

iv. Asphalt, concrete, gravel, or wood chip surface as approved by the city, with a compacted subgrade;

v. Nonskid boardwalks if wetland construction is necessary; and

vi. Minimum one hundred square feet of trailhead area at intersections with other pedestrian improvements. A trail map sign shall be provided at this location.

c. Minor off-street trails shall be a minimum of five feet wide, have a minimum vertical clearance of eight feet, a minimum two-foot horizontal clearance from edge of pathway and be constructed of gravel or wood chips, with a compacted subgrade.

FINDINGS OF FACT

The proposed lots along the northeasterly portion of the project abut an existing residential development without access to a street connection to satisfy the block perimeter and length thresholds of 2,000 feet and 600 feet per CPMC 17.67.040(A)(2) and (3). However, CPMC 17.67.040(A)(5)(b) allows modification to these standards due to, "... existing development patterns on abutting property which preclude the logical connection of streets or accessways." As there is not a logical connection of streets or accessways on the abutting property, this block is allowed to exceed the block perimeter and length standards. All other remaining blocks meet said standards.

Proposed utilities are intended to be installed underground pursuant to CPMC 17.67.040(A)(6). More information regarding the underground infrastructure can be found in the Master Plan.

The only existing street connection adjacent to the project is Annalise Street, which has been designed to align with the existing right-of-way and extend northerly, meeting the requirement per CPMC 17.67.040(A)(7), which states, "connections shall be provided between new streets in a TOD overlay and existing local and minor collector streets."

All pedestrian street crossings will be marked as required per CPMC 17.67.040(A)(8).

There are two minor off-street pedestrian walkways proposed within the Common Area "A" to provide an amenity in the open space area for the development. Said walkways have been designed to meet the requirements of CPMC 17.67.040(A)(9)(c). More information regarding the design of the open space can be found in the Master Plan.

17.67.040(B) | Parking Lot Driveways

1. Parking lot driveways that link public streets and/or private streets with parking stalls shall be designed as private streets, unless one of the following is met:

a. The parking lot driveway is less than one hundred feet long;

b. The parking lot driveway serves one or two residential units; or

c. The parking lot driveway provides direct access to angled parking stalls.

2. The number and width of driveways and curb cuts should be minimized and consolidated when possible.

3. Where possible, parking lots for new development shall be designed to provide vehicular and pedestrian connections to adjacent sites.

4. Large driveways should use distinctive paving patterns.

FINDINGS OF FACT

This criterion is not applicable as there are no parking lots proposed in the subject development.

17.67.040(C) | On-Site Pedestrian and Bicycle Circulation

Attractive access routes for pedestrian travel should be provided by:

1. Reducing distances between destinations or activity areas such as public sidewalks and building entrances. Where appropriate, develop pedestrian routes through sites and buildings to supplement the public right-of-way;

2. Providing an attractive, convenient pedestrian accessway to building entrances;

3. Bridging across barriers and obstacles such as fragmented pathway systems, wide streets, heavy vehicular traffic, and changes in level by connecting pedestrian pathways with clearly marked crossings and inviting sidewalk design;

4. Integrating signage and lighting system which offers interest and safety for pedestrians;

5. Connecting parking areas and destinations with pedestrian paths identified through use of distinctive paving materials, pavement striping, grade separations, or landscaping.

FINDINGS OF FACT

The open space and recreation area has been located near the center of the development to encourage pedestrian access. Sidewalks will be constructed throughout the development, with short distances to building entrances. A multi-use path and minor off-street trail has also been incorporated in the development to provide attractive access routes for pedestrians and cyclists, as required per CPMC 17.67.040(A)(9)(C). Decorative street lighting in a similar style that was used in Willow Bend, Phase 1 of White Hawk TOD Master Plan southerly of the project will be used to provide continuity for the area and illuminate the accessways.

17.67.050 | SITE DESIGN STANDARDS

17.67.050(A) | Adjacent Off-Site Structures and Uses

1. All off-site structures, including septic systems, drain fields, and domestic wells (within one hundred feet) shall be identified and addressed in the master plan, land division, or site plan process in a manner that preserves and enhances the livability and future development needs of off-site structures and uses consistent with the purpose of the TOD overlay and as necessary to improve the overall relationship of a development or an individual building to the surrounding context.

2. Specific infrastructure facilities identified on site in the master plan, land division, and/or site plan shall comply with the underground utility standards set forth in the City of Central Point Department of Public Works Standard Specifications and Uniform Standard Details for Public Works Construction, Section 400, Storm Water Sewer System and, more specifically, Section 420.10.02, Ground Water Control Plan, in order to safeguard the water resources of adjacent uses.

FINDINGS OF FACT

An Adjacent Land Use Plan has been included as an exhibit to the Master Plan which identifies the surrounding structures and uses. The proposed development (including the infrastructure facilities) have been designed in such a way to not adversely impact neighboring uses. More information regarding the adjacent uses and mitigative measures can be found in the Master Plan.

17.67.050(B) | Natural Features

1. Buildings should be sited to preserve significant trees.

2. Buildings should be sited to avoid or lessen the impact of development on environmentally critical areas such as steep slopes, wetlands, and stream corridors.

3. Whenever possible, wetlands, groves, and natural areas should be maintained as public preserves and as open space opportunities in neighborhoods.

FINDINGS OF FACT

There are a few mature trees located on the site as shown on the Tentative Plan exhibit in the Master Plan. Said trees were considered during the design of the project. However, due to the size constraints of the property in conjunction with the required street and connection to Annalise Street to the south, many of the existing trees are located in the proposed rights-of-way and will not be able to be preserved. Efforts will be made to retain the walnut tree located at the northeast corner of proposed Lot 43.

Two small wetlands (totaling 0.1 acre) were identified on the project, but are not subject to state permit (and preservation) requirements. More information regarding environmental considerations can be found in the Master Plan.

17.67.050(C) | Topography

1. Buildings and other site improvements should reflect, rather than obscure, natural topography.

2. Buildings and parking lots should be designed to fit into hillsides, for instance, reducing the need for grading and filling.

3. Where neighboring buildings have responded to similar topographic conditions on their sites in a consistent and positive way, similar treatment for the new structure should be considered.

FINDINGS OF FACT

As the site is generally flat, there are no special construction considerations that need to be implemented on account of the existing topography.

17.67.050(D) | Solar Orientation

1. The building design, massing and orientation should enhance solar exposure for the project, taking advantage of the climate of Central Point for sun-tempered design.

2. Where possible, the main elevation should be facing within twenty-five degrees of due south.

3. In residential developments, the location of rooms should be considered in view of solar exposure, e.g., primary living spaces should be oriented south, but a west facing kitchen should be avoided as it may result in summer overheating.

4. Outdoor spaces should be strategically sited for solar access and the cooling summer winds.

5. Shadow impacts, particularly in winter, on adjacent buildings and outdoor spaces should be avoided.

FINDINGS OF FACT

The majority of the buildings in the project are east-west oriented structures which is consistent with the recommended solar orientation practices to take advantage of sunlight while also being able to control glare. Awnings and eaves have been designed to provide shading during the summer months (with the higher summer sun) while benefiting from passive solar heating during the winter months when the sun is lower.

17.67.050(E) | Existing Buildings on the Site

1. Where a new building shares the site with an admirable existing building or is a major addition to such a building, the design of the new building should be compatible with the original.

2. New buildings proposed for existing neighborhoods with a well-defined and desirable character should be compatible with or complement the architectural character and siting pattern of neighboring buildings.

FINDINGS OF FACT

This criterion is not applicable to the subject development as there are no existing buildings located on-site.

17.67.050(F) | New Prominent Structures

Key public or civic buildings, such as community centers, churches, schools, libraries, post offices, and museums, should be placed in prominent locations, such as fronting on public squares or where pedestrian street vistas terminate, in order to serve as landmarks and to symbolically reinforce their importance.

FINDINGS OF FACT

This criterion is not applicable to the subject development as there are no public or civic buildings proposed.

17.67.050(G) | Views

The massing of individual buildings should be adjusted to preserve important views while benefiting new and existing occupants and surrounding neighborhoods.

FINDINGS OF FACT

The west-facing residences located adjacent to Gebhard Road will be able to benefit from the viewshed provided by the open space lands to the west. The project generally groups similar housing types to be across from one another (except in the transition area to the northeast), to promote a sense of coherence within the project.

17.67.050(H) | Adjoining Uses and Adjacent Services

1. When more intensive uses, such as neighborhood commercial or multifamily dwellings, are within or adjacent to existing single-family neighborhoods, care should be taken to minimize the impact of noise, lighting, and traffic on adjacent dwellings.

2. Activity or equipment areas should be strategically located to avoid disturbing adjacent residents.

3. All on-site service areas, loading zones and outdoor storage areas, waste storage, disposal facilities, transformer and utility vaults, and similar activities shall be located in an area not visible from a street or urban space.

4. Screening shall be provided for activities, areas and equipment that will create noise, such as loading and vehicle areas, air conditioning units, heat pumps, exhaust fans, and garbage compactors, to avoid disturbing adjacent residents.

5. Group mailboxes are limited to the number of houses on any given block of development. Only those boxes serving the units may be located on the block. Multiple units of mailboxes may be combined within a centrally located building of four walls that meets the design guidelines for materials, entrance, roof form, windows, etc. The structure must have lighting both inside and out.

FINDINGS OF FACT

There are no commercial uses or services proposed within the development or neighboring properties. However, the surrounding, lower-density residential uses were considered during the design of the project and care was taken to reduce impacts to the neighboring properties by intentionally placing the lower-density housing types adjacent to these areas as a buffer.

17.67.050(I) | Transitions in Density

1. Higher density, attached dwelling developments shall minimize impact on adjacent existing lower density, single-family dwelling neighborhoods by adjusting height, massing and materials and/or by providing adequate buffer strips with vegetative screens.

2. Adequate buffer strips with vegetative screens shall be placed to mitigate the impact of higher density development on adjacent lower density development.

3. New residential buildings within fifty feet of existing low density residential development shall be no higher than thirty-five feet and shall be limited to single-family detached or attached units, duplexes, triplexes or fourplexes.

4. New commercial buildings within fifty feet of existing low density residential development shall be no higher than forty-five feet.

5. Dwelling types in a TOD overlay shall be mixed to encourage interaction among people of varying backgrounds and income levels.

6. Zoning changes should occur mid-block, not at the street centerline, to ensure that compatible building types face along streets and within neighborhoods. When dissimilar building types face each other across the street because the zoning change is at the street centerline or more infill housing is desired (for instance, duplexes across the street from single dwellings), design shall ensure similarity in massing, setback, and character.

7. Density should be increased incrementally, to buffer existing neighborhoods from incompatible building types or densities. Sequence density, generally, as follows: large lot single dwelling, small lot single dwelling, duplex, townhomes, courtyard multifamily apartments, large multifamily apartments, and mixed use buildings.

FINDINGS OF FACT

As previously mentioned, density within the project was designed to integrate a variety of housing types while being harmonious with the surrounding uses. More information regarding the location of the specific housing types can be found in the Master Plan.

17.67.050(J) | Parking

1. Parking Lot Location.

a. Off-street surface parking lots shall be located to the side or rear of buildings. Parking at midblock or behind buildings is preferred.

b. Off-street surface parking lots shall not be located between a front facade of a building and a public street.

c. If a building adjoins streets or accessways on two or more sides, off-street parking shall be allowed between the building and the pedestrian route in the following order of priority:

1st. Accessways;

2nd. Streets that are nontransit streets;

3rd. Streets that are transit streets.

d. Parking lots and garages should not be located within twenty feet of a street corner.

2. Design.

a. All perimeter and interior landscaped areas must have protective curbs along the edges. Trees must have adequate protection from car doors and bumpers.

b. A portion of the standard parking space may be landscaped instead of paved. The landscaped area may be up to two feet in front of the space as measured from a line parallel to the direction of the bumper of a vehicle using the space. Landscaping must be ground cover plants. The landscaping does not apply towards any perimeter or interior parking lot landscaping requirements, but does count towards any overall site landscaping requirement.

c. In order to control dust and mud, all vehicle areas must be paved.

d. All parking areas must be striped in conformance with the city of Central Point parking dimension standards.

e. Thoughtful siting of parking and vehicle access should be used to minimize the impact of automobiles on the pedestrian environment, adjacent properties, and pedestrian safety.

f. Large parking lots should be divided into smaller areas, using, for example, landscaping or special parking patterns.

g. Parking should be located in lower or upper building levels or in less visible portions of site.

3. Additional Standards for LMR, MMR, and HMR Zones.

a. When parking must be located to the side of buildings, parking frontage should be limited to approximately fifty percent of total site frontage.

b. Where possible, alleys should be used to bring the vehicle access to the back of the site.

4. For parking structures, see Section 17.67.070(H).

FINDINGS OF FACT

Parking will be provided by attached residential garages which will be able to accommodate one or two vehicles, depending on the housing type and have been designed to meet the city code requirements. On-street parking will also be available. There are no parking structures/lots proposed for this development.

17.67.050(K) | Landscaping

1. Perimeter Screening and Planting.

a. Landscaped buffers should be used to achieve sufficient screening while still preserving views to allow areas to be watched and guarded by neighbors.

b. Landscaping should be used to screen and buffer unsightly uses and to separate such incompatible uses as parking areas and waste storage and pickup areas.

2. Parking Lot Landscaping and Screening.

...

3. Landscaping Near Buildings. Landscaping shall serve as a screen or buffer to soften the appearance of structures or uses such as parking lots or large blank walls, or to increase the attractiveness of common open spaces.

4. Service Areas. Service areas, loading zones, waste disposal or storage areas must be fully screened from public view.

...

5. Street Trees. Street trees shall be required along both sides of all public streets with a spacing of twenty feet to forty feet on center depending on the mature width of the tree crown, and planted a minimum of two feet from the back of curb. Trees in the right-of-way or sidewalk easements shall be approved according to size, quality, and tree well design, if applicable, and irrigation shall be required. Tree species shall be chosen from the city of Central Point approved street tree list.

FINDINGS OF FACT

Each lot is intended to be landscaped to soften the appearance of the buildings. Drought resistant, native plantings shall be used with water-wise irrigation practices. Street trees will be installed in the planter strips consistent with those requirements listed in CPMC 17.67.050(K) above. More information regarding the landscaping for the open space and recreation area can be found in the Master Plan.

17.67.050(L) | Lighting

1. Minimum Lighting Levels. Minimum lighting levels shall be provided for public safety in all urban spaces open to public circulation.

a. A minimum average light level of one and two-tenths footcandles is required for urban spaces and sidewalks.

b. Metal-halide or lamps with similar color, temperature and efficiency ratings shall be used for general lighting at building exteriors, parking areas, and urban spaces. Sodium-based lamp elements are not allowed.

c. Maximum lighting levels should not exceed six footcandles at intersections or one and one-half footcandles in parking areas.

2. Fixture Design in Public Rights-of-Way.

a. Pedestrian-scale street lighting shall be provided including all pedestrian streets along arterials, major collectors, minor collectors and local streets.

b. Pedestrian street lights shall be no taller than twenty feet along arterials and collectors, and sixteen feet along local streets.

3. On-Site Lighting. Lighting shall be incorporated into the design of a project so that it reinforces the pedestrian environment, provides continuity to an area, and enhances the drama and presence of architectural features. Street lighting should be provided along sidewalks and in medians. Selected street light standards should be appropriately scaled to the pedestrian environment. Adequate illumination should be provided for building entries, corners of buildings, courtyards, plazas and walkways.

a. Accessways through surface parking lots shall be well lighted with fixtures no taller than twenty feet.

b. Locate and design exterior lighting of buildings, signs, walkways, parking lots, and other areas to avoid casting light on nearby properties.

c. Fixture height and lighting levels shall be commensurate with their intended use and function and shall assure compatibility with neighboring land uses. Baffles shall be incorporated to minimize glare and to focus lighting on its intended area.

d. Additional pedestrian-oriented site lighting including step lights, well lights and bollards shall be provided along all courtyard lanes, alleys and off-street bike and pedestrian pathways.

e. In addition to lighting streets, sidewalks, and public spaces, additional project lighting is encouraged to highlight and illuminate building entrances, landscaping, parks, and special features.

FINDINGS OF FACT

Street lighting is proposed to be similar in style to those used in the neighboring development, Willow Bend, Phase 1. Refer to Figures 7 through 9 in the Master Plan for images of the existing light fixtures along Gebhard Road, the internal streets and alleyways. All street lighting levels will adhere to allowed footcandle ranges per CPMC 17.67.050(L)(1).

17.67.050(M) | Signs

1. The provisions of this section are to be used in conjunction with the city sign regulations in Chapter 15.24. The sign requirements in Chapter 15.24 shall govern in the TOD overlay with the exception of the following:

a. The types of signs permitted shall be limited only to those signs described in this chapter.

b. Decorative exterior murals are allowed and are subject to review and criteria by planning commission or architectural review committee appointed by city council.

c. Signs that use images and icons to identify store uses and products are encouraged.

d. Projecting signs located to address the pedestrian are encouraged.

2. Sign Requirements. Signs within the TOD overlay shall comply with the standards in Table 17.67.050(1).

3. Sign Materials. Unless otherwise exempt, or authorized by the planning commission, all signs must comply with the following design criteria:

a. The base materials for a freestanding sign shall be natural materials including stone, brick, or aggregate.

b. Building/sign proportionality as referenced in Table 17.67.050(1).

c. Sign illumination shall be limited to external illumination to include conventional lighting and neon, if neon is applied to the sign plane area. External illumination is understood to include "back lit" or "halo" lighting. Internally illuminated signs are prohibited except as provided under Table 17.67.050(1) for scoreboards.

4. Prohibited Signs.

a. Internally illuminated signs;

b. Roof signs;

c. Reader boards;

d. Flashing signs;

e. Electronic message/image signs on which copy is created through the use of a pattern of lights in a dot matrix configuration, which may be changed intermittently;

f. Bench signs;

g. Balloons or streamers.

FINDINGS OF FACT

Other than the required street signage, no other signs are proposed within the subject development.

17.67.060 | PUBLIC PARKS AND OPEN SPACE DESIGN STANDARDS

17.67.060(A) | General Design Requirements

Parks and open spaces shall be provided in the TOD overlay and shall be designed to accommodate a variety of activities ranging from active play to passive contemplation for all ages and accessibility.

FINDINGS OF FACT

The open space for the project has been designed in two phases to accommodate various activities. The first phase includes two concrete walkways providing pedestrian access through the open space, three turf grass areas of varying sizes, ornamental plantings, two benches with handicap spaces, a drinking fountain, recycle and disposal facilities. Phase two includes a graveled area with a covered gathering and picnic table.

In addition to recreational facilities, a majority of stormwater runoff is intended to be collected and treated in a detention facility located within Common Area "A". The detention facility may be above or below ground (or a combination thereof which is to be determined during the detailed design phase of the project). Should the detention facility (or a portion thereof) be above ground, the north-south walkway may be relocated as needed. More information regarding the proposed landscaping can be found in the Master Plan.

17.67.060(B) | Parks and Open Space Location

1. Parks and open spaces shall be located within walking distance of all those living, working, and shopping in the TOD overlay.

2. Parks and open spaces shall be easily and safely accessed by pedestrians and bicyclists.

3. For security purposes, parks and open spaces shall be visible from nearby residences, stores or offices.

4. Parks and open space shall be available for both passive and active use by people of all ages.

5. Parks and open space in predominantly residential neighborhoods shall be located so that windows from the living areas (kitchens, family rooms, living rooms but not bedrooms or bathrooms) of a minimum of four residences face onto it.

FINDINGS OF FACT

The open space has been centrally located in the project to encourage safe, pedestrian friendly access to the park and recreation area for all of the residents. Vehicular access is also readily available as the park is surrounded by streets and an alley along a majority of its boundaries. The park has also been situated to be faced by four residences, being Lots 12 through 14 and Lot 57.

17.67.060(C) | Parks and Open Space Amount and Size

1. Common open spaces will vary in size depending on their function and location.

2. The total amount of common open space provided in a TOD overlay shall be adequate to meet the needs of those projected (at the time of build out) to live, work, shop, and recreate there.

3. All TOD projects requiring master plans shall be required to reserve, improve and/or establish parks and open space which, excluding schools and civic plazas, meet or exceed the following requirements:

a. For single-family detached and attached residences, including duplex units, townhouses and row houses: four hundred square feet for each dwelling.

b. For multifamily residences, including multistory apartments, garden apartments, and senior housing: six hundred square feet for each dwelling.

c. Nonresidential development: at least ten percent of the development's site area.

FINDINGS OF FACT

There are a total of 78 proposed residential dwelling units. CPMC 17.67.060(C)(a) requires a minimum of 400 square feet of open space for each dwelling unit. The following calculation was used to determine the minimum required open space:

78 dwelling units x 400 square feet / dwelling unit = 31,200 square feet (minimum)

Common Area "A" is comprised of 32,504 square feet, meeting the minimum requirement calculated hereinabove.

17.67.060(D) | Parks and Open Space Design

1. Parks and open spaces shall include a combination garbage/recycling bin and a drinking fountain at a frequency of one combination garbage/recycling bin and one drinking fountain per site or one combination garbage/recycling bin and one drinking fountain per two acres, whichever is less, and at least two of the following improvements:

a. Benches or a seating wall;

b. Public art such as a statue;

c. Water feature or decorative fountain;

d. Children's play structure including swing and slide;

e. Gazebo or picnic shelter;

f. Picnic tables with barbecue;

g. Open or covered outdoor sports court for one or more of the following: tennis, skateboard, basketball, volleyball, badminton, racquetball, handball/paddleball;

h. Open or covered outdoor swimming and/or wading pool or play fountain suitable for children to use; or

i. Outdoor athletic fields for one or more of the following: baseball, softball, Little League, soccer.

2. All multifamily buildings that exceed twenty-five units and may house children shall provide at least one children's play structure on site.

3. For safety and security purposes, parks and open spaces shall be adequately illuminated.

FINDINGS OF FACT

A combination garbage/recycle bin and a drinking fountain have been included in the landscape plan for the open space area. Additionally, two benches (Phase 1) and a covered picnic shelter (Phase 2) have been implemented in the design, satisfying the criterion per CPMC 17.67.060(D)(1)(a) and (e). The proposed street lighting will provide adequate illumination for safety and security of the open space and recreation area.

17.67.070 | BUILDING DESIGN STANDARDS

17.67.060(A) | General Design Requirements

1. In recognition of the need to use natural resources carefully and with maximum benefit, the use of "sustainable design" practices is strongly encouraged. In consideration of the climate and ecology of the Central Point area, a variety of strategies can be used to effectively conserve energy and resources:

a. Natural ventilation;

b. Passive heating and cooling;

c. Daylighting;

d. Sun-shading devices for solar control;

e. Water conservation;

f. Appropriate use of building mass and materials; and

g. Careful integration of landscape and buildings. It is recommended that an accepted industry standard such as the U.S. Green Building Council's LEEDTM program be used to identify the most effective strategies. (Information on the LEEDTM program can be obtained from the U.S. Green Building Council's website, www.usgbc.org.)

2. All development along pedestrian routes shall be designed to encourage use by pedestrians by providing a safe, comfortable, and interesting walking environment.

3. Convenient, direct and identifiable building access shall be provided to guide pedestrians between pedestrian streets, accessways, transit facilities and adjacent buildings.

4. Adequate operable windows or roof-lights should be provided for ventilation and summer heat dissipation.

FINDINGS OF FACT

Architectural Plans have been prepared and included as Exhibit 6. All building elements, including roof design, window placement, porch coverings, interior layouts, garage locations, architectural details and materials shall be constructed to be consistent with said plans. Earth tone color palettes

shall be used for interior and exterior surfaces, with an emphasis placed on varying the colors on the exterior buildings to promote variety among the development.

Where possible, sustainable building practices shall be used. Examples of such practices include the installation of ductless heating and cooling systems, water efficient plumbing fixtures and Energy Star Certified appliances. Windows with screened openings shall be placed throughout the structures to allow for ventilation and summer heat dissipation.

Pedestrian access is encouraged by placing routes close to building entrances that connect to the public sidewalk system. A trail is proposed to encompass the open space area which will be centrally located for easy access for the residents.

17.67.060(B) | Architectural Character

1. General.

a. The architectural characteristics of surrounding buildings, including historic buildings, should be considered, especially if a consistent pattern is already established by similar or complementary building articulation, building scale and proportions, setbacks, architectural style, roof forms, building details and fenestration patterns, or materials. In some cases, the existing context is not well defined, or may be undesirable. In such cases, a well-designed new project can establish a pattern or identity from which future development can take its cues.

b. Certain buildings, because of their size, purpose or location, should be given prominence and distinct architectural character, reflective of their special function or position. Examples of these special buildings include theaters, hotels, cultural centers, and civic buildings.

c. Attention should be paid to the following architectural elements:

i. Building forms and massing;

ii. Building height;

iii. Rooflines and parapet features;

iv. Special building features (e.g., towers, arcades, entries, canopies, signs, and artwork);

v. Window size, orientation and detailing;

vi. Materials and color; and

vii. The building's relationship to the site, climate, topography and surrounding buildings.

2. Commercial and High Mix Residential.

…

FINDINGS OF FACT

Willow Bend, Phase 1, of the White Hawk TOD Master Plan shares similar characteristics with this project, including two-story attached single-family dwellings. The intent of this development is to integrate cues from the existing structures while creating new architectural elements to provide a pleasing combination of individuality and continuity.

For example, similar siding materials have been incorporated, such as James Hardie horizontal lap siding and shingles that are present in the adjacent project. Also, street lighting is proposed to be similar to the existing development to the south.

New attributes such as sill and apron windows, cantilever outlookers, false louvered vent details and knee braces for the roof supports have been added to create architectural interest and variety among the structures. A variety of columnar wraps and railing styles are present for the covered porches to provide further differentiation.

Refer to Figures 12 through 14 of the Master Plan for examples of the architectural character of several of the existing structures recently constructed as part of the Willow Bend development.

17.67.060(C) | Building Entries

1. General.

a. The orientation of building entries shall:

i. Orient the primary entrance toward the street rather than the parking lot;

ii. Connect the building's main entrance to the sidewalk with a well-defined pedestrian walkway.

b. Building facades over two hundred feet in length facing a street shall provide two or more public building entrances off the street.

c. All entries fronting a pedestrian accessway shall be sheltered with a minimum four-foot overhang or shelter.

d. An exception to any part of the requirements of this section shall be allowed upon finding that:

i. The slope of the land between the building and the pedestrian street is greater than 1:12 for more than twenty feet and that a more accessible pedestrian route to the building is available from a different side of the building; or

ii. The access is to a courtyard or clustered development and identified pedestrian accessways are provided through a parking lot to directly connect the building complex to the most appropriate major pedestrian route(s).

2. Commercial and High Mix Residential.

…

3. Residential.

a. The main entrance of each primary structure should face the street the site fronts on, except on corner lots, where the main entrance may face either of the streets or be oriented to the corner. For attached dwellings, duplexes, and multi-dwellings that have more than one main entrance, only one main entrance needs to meet this guideline. Entrances that face a shared landscaped courtyard are exempt.

b. Residential buildings fronting on a street shall have an entrance to the building opening on to the street.

i. Single-family detached, attached and row house/townhouse residential units fronting on a pedestrian street shall have separate entries to each dwelling unit directly from the street.

ii. Ground floor and upper story dwelling units in a multifamily building fronting a street may share one or more building entries accessible directly from the street, and shall not be accessed through a side yard except for an accessory unit to a single-family detached dwelling.

c. The main entrances to houses and buildings should be prominent, interesting, and pedestrian-accessible. A porch should be provided to shelter the main entrance and create a transition from outdoor to indoor space.

d. Generally, single-dwelling porches should be at least eight feet wide and five feet deep and covered by a roof supported by columns or brackets. If the main entrance is to more than one dwelling unit, the covered area provided by the porch should be at least twelve feet wide and five feet deep.

e. If the front porch projects out from the building, it should have a roof pitch which matches the roof pitch of the house. If the porch roof is a deck or balcony, it may be flat.

f. Building elevation changes are encouraged to make a more prominent entrance. The maximum elevation for the entrance should not be more than one-half story in height, or six feet from grade, whichever is less.

g. The front entrance of a multi-dwelling complex should get architectural emphasis, to create both interest and ease for visual identification.

FINDINGS OF FACT

Buildings are oriented to have the primary entries facing the streets with concrete accessways extending from the sidewalk to the front door of each dwelling. Said entries shall be sheltered as shown on in the Architectural Plans in the Master Plan, meeting the required four foot covered pedestrian access standard per CPMC 17.67.070(C)(1)(c) and porch requirements per CPMC 17.67.070(C)(3) .

17.67.060(D) | Building Facades

1. General.

a. All building frontages greater than forty feet in length shall break any flat, monolithic facade by including discernible architectural elements such as, but not limited to: bay windows, recessed entrances and windows, display windows, cornices, bases, pilasters, columns or other architectural details or articulation combined with changes in materials, so as to provide visual interest and a sense of division, in addition to creating community character and pedestrian scale. The overall design shall recognize that the simple relief provided by window cutouts or sills on an otherwise flat facade, in and of itself, does not meet the requirements of this subsection.

b. Building designs that result in a street frontage with a uniform and monotonous design style, roofline or facade treatment should be avoided.

c. Architectural detailing, such as but not limited to, trellis, long overhangs, deep inset windows, should be incorporated to provide sun-shading from the summer sun.

d. To balance horizontal features on longer facades, vertical building elements shall be emphasized.

e. The dominant feature of any building frontage that is visible from a pedestrian street or public open space shall be the habitable area with its accompanying windows and doors. Parking lots, garages, and solid wall facades (e.g., warehouses) shall not dominate a pedestrian street frontage.

f. Developments shall be designed to encourage informal surveillance of streets and other public spaces by maximizing sight lines between the buildings and the street.

g. All buildings, of any type, constructed within any TOD overlay shall be constructed with exterior building materials and finishes that are of high quality to convey permanence and durability.

h. The exterior walls of all building facades along pedestrian routes, including side or return facades, shall be of suitable durable building materials including the following: stucco, stone, brick, terra cotta, tile, cedar shakes and shingles, beveled or ship-lap or other narrow-course horizontal boards or siding, vertical board-and-batten siding, articulated architectural concrete or concrete masonry units (CMU), or similar materials which are low maintenance, weather-resistant, abrasion-resistant, and easy to clean. Prohibited building materials include the following: plain concrete, plain concrete block, corrugated metal, unarticulated board siding (e.g., T1-11 siding, plain plywood, sheet pressboard), Exterior Insulated Finish Systems (EIFS), and similar quality, nondurable materials.

i. All visible building facades along or off a pedestrian route, including side or return facades, are to be treated as part of the main building elevation and articulated in the same manner. Continuity of use of the selected approved materials must be used on these facades.

j. Ground-floor openings in parking structures, except at points of access, must be covered with grilles, mesh or lattice that obscures at least thirty percent of the interior view (e.g., at least thirty percent solid material to seventy percent transparency).

k. Appropriately scaled architectural detailing, such as but not limited to moldings or cornices, is encouraged at the roofline of commercial building facades, and where such detailing is present, should be a minimum of at least eight inches wide.

l. Compatible building designs along a street should be provided through similar massing (building facade, height and width as well as the space between buildings) and frontage setbacks.

2. Commercial and High Mix Residential/Commercial.

...

3. Residential.

a. The facades of single-family attached and detached residences (including duplexes, triplexes, fourplexes, townhouses, and row houses) shall comply with the following standards:

i. No more than forty-five percent of the horizontal length of the ground floor front elevation of a single-family detached or attached dwelling with frontage on a public street, except alleys, shall be an attached garage.

ii. Residential building elevations facing a pedestrian route shall not consist of undifferentiated blank walls, but shall be articulated with architectural details such as windows, dormers, porch details, balconies or bays.

iii. For any exterior wall which is within twenty feet of and facing onto a street or public open space and which has an unobstructed view of that pedestrian street or public open space, at least twenty percent of the ground floor wall area shall be comprised of either display area, windows, or doorways.

iv. Architectural detailing is encouraged to provide variation among attached units. Architectural detailing includes but is not limited to the following: the use of different exterior siding materials or trim, shutters, different window types or sizes, varying roof lines, balconies or porches, and dormers. The overall design shall recognize that color variation, in and of itself, does not meet the requirements of this subsection.

v. Fences or hedges in a front yard shall not exceed three feet in height. Side yard fencing shall not exceed three feet in height between the front building facade and the street. Fences beyond the front facade of the building in a sideyard or back yard and along a street, alley, property line, or bike/pedestrian pathway shall not exceed four feet in height. Fences over four feet in height are not permitted and hedges or vegetative screens in no case shall exceed six feet in height.

b. The facades of multifamily residences shall comply with the following standards:

i. Building elevations, including the upper stories, facing a pedestrian route shall not consist of undifferentiated blank walls, but shall be articulated with architectural detailing such as windows, balconies, and dormers.

ii. For any exterior wall which is within twenty feet of and facing onto a pedestrian street or public open space and which has an unobstructed view of that pedestrian street or public open space, at least twenty percent of the ground floor wall area shall be comprised of either display area, windows, or doorways.

iii. Arcades or awnings should be provided over sidewalks where ground floor retail or commercial exists, to shelter pedestrians from sun and rain.

FINDINGS OF FACT

As many of the proposed residential structures are multi-plex dwellings, much attention was focused on designing diversity within the building streetscape to avoid monotonous repetition. The alleyways made it possible to rear load all of the triplex and four-plex structures, placing the garage doors out of sight from street views. Main living areas for these dwellings were then arranged to be facing the streets, with large windows and extended trim detailing providing informal surveillance of the public spaces. Other elements that were included to add interest are pergola and metal coverings. Variations among the rooflines, garage doors (for those structures not rear-loaded) and windows were also integrated to create uniqueness among the building facades. Refer to the streetscapes shown on sheets A-1 through A-3 of the Architectural Plans in the Master Plan for the overall result of how these elements have been incorporated in the project.

17.67.060(E) | Roofs

1. Commercial and High Mix Residential/Commercial.

…

2. Residential.

a. Flat roofs with a parapet and cornice are allowed for multifamily residences in all TOD, LMR, MMR and HMR districts, in which the minimum for sloped roofs is 5:12.

b. Flat roofs with a parapet and cornice are allowed for single-family attached and detached residences (including duplexes, triplexes, fourplexes, townhouses, and row houses) in all TOD residential districts, except the LMR zone.

c. For all residences with sloped roofs, the roof slope shall be at least 5:12, and no more than 12:12. Eaves shall overhang building walls at a minimum twelve inches deep on all sides (front, back, sides) of a residential structure.

d. Roof shapes, surface materials, colors, mechanical equipment and other penthouse functions should be integrated into the total building design. Roof terraces and gardens are encouraged.

FINDINGS OF FACT

Roofs will be constructed as shown on sheets A-1 through A-26 of the Architectural Plans using architectural composition shingles with a minimum of a 30-year warranty. Roof slopes will be installed at a ratio of 5/12, with eaves extending past the building by a minimum of 12 inches.

17.67.060(F) | Exterior Building Lighting

1. Commercial and High Mix Residential/Commercial.

…

2. Residential.

a. Lighting shall not draw inordinate attention to the building facade.

b. Porch and entry lights are encouraged on all dwellings to create a safe and inviting pedestrian environment at night.

c. No exterior lighting exceeding one hundred watts per fixture is permitted in any residential area.

FINDINGS OF FACT

Exterior light fixtures on the buildings will incorporate the use of shrouds and directional lighting to highlight architectural interest, reduce glare and illuminate the surrounding area to create an inviting and safe atmosphere. Warm white (2700 to 3000K) or soft white (3000K - 3500K) lighting color temperatures shall be used. More information regarding the proposed exterior lighting can be found in the Master Plan.

17.67.060(G) | Service Zones

1. Buildings and sites shall be organized to group the utilitarian functions away from the public view.

2. Delivery and loading operations, mechanical equipment (HVAC), trash compacting/collection, and other utility and service functions shall be incorporated into the overall design of the building(s) and the landscaping.

3. The visual and acoustic impacts of these functions, along with all wall- or ground-mounted mechanical, electrical and communications equipment, shall be out of view from adjacent properties and public pedestrian streets.

4. Screening materials and landscape screens shall be architecturally compatible with and not inferior to the principal materials of the building.

a. The visual impact of chimneys and equipment shall be minimized by the use of parapets, architectural screening, rooftop landscaping, or by using other aesthetically pleasing methods of screening and reducing the sound of such equipment.

FINDINGS OF FACT

Any mechanical/utilities servicing the structures (e.g. HVAC equipment) shall be installed in inconspicuous areas as to not deter from the front facade of the structures. Landscaping will also be installed to provide a buffer to reduce the noise and reduce the visual presence of the equipment.

There are no delivery, loading or other service zones that are proposed to be integrated in the development.

17.67.060(H) | Parking Structures

1. Parking garage exteriors should be designed to visually respect and integrate with adjacent buildings.

2. Garage doors and entrances to parking areas should be located in a sensitive manner using single curb cuts when possible.

3. Residential parking structures must comply with the facade requirements for residential developments.

FINDINGS OF FACT

Attached garages are included for all proposed residential housing types. Garage doors were designed to integrate with the structures by utilizing a mixture of traditional and carriage style design elements as shown in sheets A-1 through A-26 of the Architectural Plans in the Master Plan. All garage doors shall incorporate windows near the top sections of the doors in an effort to blend with the rest of the structure and minimize their visual impact.

E. CONCLUSION OF LAW

The Planning Commission concludes that the subject application is consistent with the relevant criteria for a land division found in Title 17 of the Central point Municipal Code and can therefore be approved.

Respectfully Submitted,

Neathamer Surveying, Inc.

Nathan Ruf, CFM

Dated: January 23, 2025

PLANNING DEPARTMENT SUPPLEMENTAL FINDINGS OF FACT AND CONCLUSIONS OF LAW
File No.: MP-25001

Before the City of Central Point Planning Commission
Consideration of the Gebhard Village
Eastside Transit Oriented Development
Master Plan

Applicant:	)	Supplemental Findings of Fact
Lowman Revocable Trust	)	and
4462 Coal Mine Road	)	Conclusions of Law
Medford OR 97504	)	

PART 1
INTRODUCTION

The applicant submitted the Gebhard Village Master Plan application for development of a residential subdivision, including public streets, parks and open space, storm drain facilities and utilities in the Eastside Transit Oriented Development (ETOD) Overlay. The property is zoned Medium Mix Residential (MMR) and is located along Gebhard Road, north of the intersection with Beebe Road.

A master plan application is reviewed as a Type III application. Type III applications are reviewed in accordance with procedures provided in Section 17.05.400, which provides the basis for decisions upon standards and criteria in the development code and the comprehensive plan, when appropriate.

Applicable Review Criteria for TOD master plans are set forth in Chapter 17.66, Application Review Process for the TOD Overlay and include:

1. CPMC 17.65.040 and 17.65.050 relating to the TOD Overlay
2. CPMC 17.66.030 A(3) and 17.66.030 B – Submittal Requirements
3. CPMC 17.67, Design Standards—TOD Overlay;
4. CPMC 17.60, General Regulations unless superseded by Sections 17.65.040 through 17.65.070
5. CPMC 17.65.050(F)(3), Parking Standard, and CPMC 17.64, Off-Street Parking and Loading
6. CPMC 17.70, Historic Preservation Overlay

PROJECT BACKGROUND

The property is located along the east side of Gebhard Road, north of the intersection with Beebe Road, within the Medium Mix Residential (MMR) zoning district of the Eastside Transit Oriented Development (ETOD) Overlay. It is the Applicant's objective to obtain master plan approval to facilitate development of a residential subdivision on the property within the context of existing and planned development in the ETOD.

The proposed Gebhard Village encompasses the 8.18-acre project site. As shown on the Vicinity Map (Figure 1), the abutting property in the ETOD to the south is under

development as the Willow Bend Subdivision. The property to the northeast is developed with single-family residences in the R-3 zoning district. The properties to the southeast and to the west across Gebhard Road are undeveloped. Gebhard Village will continue established circulation patterns and development will be consistent with surrounding properties.

Since Master Plan compliance is required for land divisions greater than two (2) acres, the application for master plan approval is accompanied by, and being processed concurrently with, an application for a Tentative Subdivision Plan (see File No. SUB-25001) that reviews criteria for subdivision design standards (CPMC 16.10).

Staff has reviewed the Applicant's Findings, incorporated herein as Exhibit "A", and found that they address the applicable development code criteria for the proposed master plan, except CPMC 17.65.025 and Chapter 17.66. The following findings address the special conditions and application review process for the TOD overlay:

PART 2 – CHAPTER 17.65
LAND USE AND ZONING REGULATIONS
TOD OVERLAY

The purpose of the Central Point Transit Oriented Development (TOD) overlay is to promote efficient and sustainable land development and the increased use of transit as required by the Oregon Transportation Planning Rule. The sections of CPMC 17.65 applicable to the application are:

17.65.025 Special Conditions.

On occasion it may be necessary to impose interim development restrictions on certain TOD overlay areas. Special conditions will be identified in this section for each TOD overlay.

A. Eastside Transit Oriented Development Overlay (ETOD) Agricultural Mitigation. All development shall acknowledge the presence of active farm uses within the ETOD area by recording a right-to-farm disclosure statement as a condition of final plat, transfer of property, or site plan and architectural review approval. The ETOD agricultural mitigation shall be removed at such time as the urban growth boundary is incorporated and completely builds out.

B. Eastside Transit Oriented Development Overlay (ETOD) Shallow Wells. Prior to development within the ETOD, a water table analysis shall be conducted to determine the local water table depth. Any development impacting the water table will require further analysis to determine the effect on neighboring wells and the development shall be expected to mitigate that impact.

The ETOD agricultural and shallow wells mitigation shall be removed at such time as the urban growth boundary is incorporated and parcels within the ETOD are built to urban standards and connected to city water.

Finding 17.65.025: *The project site is located in the ETOD and the Master Plan application acknowledges the presence of active farm uses nearby. As a condition of approval, the applicant will be required to record a right-to-farm disclosure prior to final plat.*

The applicant has provided a water table analysis, completed by Apex Engineers, dated July 25, 2024, that examines the potential effects on neighboring wells from the development in the ETOD. Based on the conclusions of the analysis and the proposed development plans for Gebhard Village, there are no shallow wells on the project site and development is not anticipated to impact the water table or surrounding wells unless installation of water and sanitary sewer lines extend below the water table. As conditioned in the Public Works Staff Report dated March 14, 2025, all underground public utilities will be required to implement the mitigation actions necessary to avoid impacts to shallow wells in the vicinity. These will be reviewed at the time of Civil Improvement Plan review by the City Engineer prior to the start of any construction

Conclusion 17.65.025: *Complies as conditioned.*

PART 3 – CHAPTER 17.66
APPLICATION REVIEW PROCESS FOR THE TOD OVERLAY

This chapter describes the review procedures to be followed for development proposed within the TOD overlay which are identified on the official city zoning map. The sections of CPMC 17.66 applicable to the application are:

CPMC 17.66.030, Application and Review

A. There are four types of applications which are subject to review within the Central Point TOD overlay.

1. TOD Overlay Master Plan. TOD District or Corridor Master Plan. Master plan approval shall be required for:

a. Development or land division applications which involve two or more acres of land; or

b. Modification to a valid master plan approval which involve one or more of the following:
   i. An increase in dwelling unit density which exceeds five percent of approved density;
   ii. An increase in commercial gross floor area of ten percent or two thousand square feet, whichever is greater;
   iii. A change in the type and location of streets, accessways, and parking areas where off-site traffic would be affected; or
   iv. A modification of a condition imposed as part of the master plan approval.

2. Site Plan and Architectural Review. The provisions of Chapter 17.72, Site Plan and Architectural Review, shall apply to permitted uses and limited uses within the TOD overlay. For site plan and architectural review applications involving two or more acres of land, a master plan approval, as provided in this chapter, shall be approved prior to, or concurrently with, a site plan and architectural review application.

3. Land Division. Partitions and subdivisions shall be reviewed as provided in Title 16, Subdivisions. For a land division application involving two or more acres of land, a master plan approval, as provided in this chapter, shall be approved prior to, or concurrently with, a land division application.

4. Conditional Use. Conditional uses shall be reviewed as provided in Chapter 17.76, Conditional Use Permits.

Finding CPMC 17.66.030(A)*: The Gebhard Village Master Plan is for a 67-lot subdivision on a property of approximately 8.18 acres, with approximately 5.56 acres of net residential area. The current application is to satisfy the master plan requirements for development and land division proposals involving two or more acres. The master plan application is processed and reviewed concurrently with an application for tentative subdivision plan (File No. SUB-25001).*

Conclusion CPMC 17.66.030(A): *Consistent.*

B. Submittal Requirements. A master plan shall include the following elements:

1. Introduction. A written narrative describing:

    a. Duration of the master plan;

    b. Site location map;

    c. Land use and minimum and maximum residential densities proposed;

    d. Identification of other approved master plans within the project area (one hundred feet).

Finding CPMC 17.66.030(B)(1): *The Master Plan provides a written analysis of the subdivision and project area. The proposed 67-lot /78-unitsubdivision will be completed in two (2) phases within five (5) years. The Master Plan identifies the location of the subject property within the ETOD and other approved master plans in the vicinity, including Willow Bend to the south of the project site.*

Conclusion CPMC 17.66.030(B): *Consistent.*

2. Site Analysis Map. A map and written narrative of the project area addressing site amenities and challenges on the project site and adjacent lands within one hundred feet of the project site.

    a. Master Utility Plan. A plan and narrative addressing existing and proposed utilities and utility extensions for water, sanitary sewer, storm water, gas, electricity, and agricultural irrigation.

    b. Adjacent Land Use Plan. A map identifying adjacent land uses and structures within one hundred feet of the project perimeter and remedies for preservation of livability of adjacent land uses.

Finding CPMC 17.66.030(B)(2): *The Master Plan identifies existing and proposed utilities and adjacent land uses. As evidenced by the findings and conclusions set forth in the Applicant's Findings, the Master Plan satisfies the approval criteria for the TOD Corridor and is consistent with the adjacent land uses.*

Conclusion CPMC 17.66.030(B)(2): *Consistent*

3. Transportation and Circulation Plan. A transportation impact analysis (TIA) identifying planned transportation facilities, services and networks to be provided concurrently with the development of the master plan and addressing Section 17.67.040, Circulation and access standards.

Finding CPMC 17.66.030(B)(3): *The Master Plan for Gebhard Village connects to and continues the circulation patterns established by Willow Bend to the south. Additional streets are proposed throughout Gebhard Village, with connection to Gebhard Road to the west, in accordance with Public Works Standards and Specifications. A Traffic Impact Analysis (TIA) for the proposed development shows traffic from Gebhard Village will contribute to traffic signal warrants being met at the Beebe Road/Hamrick Road intersection. As conditioned in the Public Works Staff Report dated March 14, 2025, the Applicant is required to contribute a proportional share of signal installation costs for the traffic signal at Beebe Road and Hamrick Road.*

Conclusion CPMC 17.66.030(B)(3): *Complies as conditioned.*

4. Site Plan. A plan and narrative addressing Section 17.67.050, Site design standards.

Finding CPMC 17.66.030(B)(4): *As evidenced by the Applicant's findings and conclusions for CPMC 17.67.050 and the Gebhard Village Master Plan, including the Tentative Plan (Figure 1) and the Adjacent Land Use Plan (Exhibit 4), the site design standards for the TOD Overlay are satisfied.*

Conclusion CPMC 17.66.030(B)(4): *Consistent.*

5. Recreation and Open Space Plan. A plan and narrative addressing Section 17.67.060, Public parks and open space design standards.

Finding CPMC 17.66.030(B)(5): *As evidenced by the Applicant's findings and conclusions for CPMC 17.67.060 and the Gebhard Village Master Plan, including the Open Space Landscape Plan (Exhibit 7), the approval criteria for parks and open space for the TOD Overlay are satisfied.*

Conclusion CPMC 17.66.030(B)(5): *Consistent.*

6. Building Design Plan. A written narrative and illustrations addressing Section 17.67.070, Building design standards.

Finding CPMC 17.66.030(B)(6): *As evidenced by the Applicant's findings and conclusions for CPMC 17.66.030 and the Gebhard Village Master Plan, including the Architectural Plans (Exhibit 6), the approval criteria for building design standards for the TOD Overlay are satisfied.*

Conclusion CPMC 17.66.030(B)(6): *Consistent*

7. Transit Plan. A plan identifying proposed, or future, transit facilities (if any).

Finding CPMC 17.66.030(B)(7): *The project site is not located in area planned for future transit services. The Master Plan provides connected pedestrian facilities via the public sidewalk system. However, no additional transit facilities are required or proposed at this time.*

Conclusion: CPMC 17.66.030(B)(7): *Not applicable.*

8. Environmental Plan. A plan identifying environmental conditions such as wetlands, flood hazard areas, groundwater conditions, and hazardous sites on and adjacent to the project site.

Finding CPMC 17.66.030(B)(8): *The site does not contain mapped wetlands, flood hazard areas, and the riparian area for Bear Creek is not adjacent to or near the project site. The ETOD, including the project site, has been identified as an area with soil contamination due to past farming practices and includes shallow groundwater wells. The Master Plan includes analysis of soil conditions on site and confirms contamination that requires mitigation prior to development of the property.*

As evidenced by the findings and conclusions set forth in Part 2 herein, the Master Plan satisfies the approval criteria for identifying and protecting shallow groundwater wells in the vicinity of the proposed development.

Conclusion CPMC 17.66.030(B)(8): *Complies as conditioned.*

CPMC 17.66.040 Parks and Open Space

Common park and open space shall be provided for all residential development within a TOD overlay as per Section 17.67.060.

Finding CPMC 17.66.040: *As evidenced in the Gebhard Village Master Plan, as shown on the Tentative Plan (Exhibit 1) and the Open Space Landscape Plan (Exhibit 7), common park and open space is included as part of the proposal. As evidenced by the Applicant's findings and conclusions for CPMC 17.67.060, the proposed common park and open space areas satisfy the approval criteria for parks and open space for the TOD Overlay.*

Conclusion CPMC 17.66.040: *Consistent.*

CPMC 17.66.050 Application Approval Criteria

A. TOD Overlay Master Plan. A master plan shall be approved when the approval authority finds that the following criteria are satisfied or can be shown to be inapplicable:

1. Sections 17.65.040 and 17.65.050, relating to the TOD Overlay;

Findings CPMC 17.65.040 and 17.65.050: *As evidenced by the Applicant's findings and conclusions for CPMC 17.65.040 and 17.65.050, the proposed development satisfies the approval criteria for land use and zoning standards for the TOD Overlay as conditioned.*

Conclusion CPMC 17.65.040 and 17.65.050: *Complies as conditioned.*

2. Chapter 17.67, Design Standards--TOD Overlay;

Findings CPMC 17.67: *As evidenced by the Applicant's findings and conclusions for CPMC 17.67, the proposed Master Plan satisfies the approval criteria for design standards for the TOD Overlay.*

Conclusion CPMC 17.67: *Consistent.*

3. Section 17.65.050(F)(3), Parking Standards, and Chapter 17.64, Off-Street Parking and Loading;

Findings CPMC 17.65.050(F)(3): *As amended by Ordinance 2100, adopted June 6, 2023, Chapter 17.64 does not impose minimum or maximum parking requirements on residential uses; therefore, parking and loading requirements are not required for this application.*

Conclusion CPMC 17.65.050(F)(3): *Not applicable.*

B. Site Plan and Architectural Review. A site plan and architectural review application shall be approved when the approval authority finds that the following criteria are satisfied or can be shown to be inapplicable:

Finding CPMC 17.66.050(D): *The application is for a Master Plan. An application for Tentative Plan is being processed and reviewed concurrently (see File No. SUB-25001). There is no site plan application as part of the submittal.*

Conclusion CPMC 17.66.050(D): *Not applicable.*

C. Land Division. A land division application shall be approved when the approval authority finds that the following criteria are satisfied or can be shown to be inapplicable:

1. The provisions of Title 16, Subdivisions; and

2. The proposed land division complies with the approved TOD district or corridor master plan for the property, if required; and

3. Chapter 17.67, Design Standards--TOD District and TOD Corridor.

Finding CPMC 17.66.050(C): *As evidenced by the findings and conclusions set forth herein, the proposed subdivision tentative plan satisfies the approval criteria.*

Conclusion CPMC 17.66.050(C): *Consistent.*

D. Conditional Use.

Finding CPMC 17.66.050(D): *The application is for a new Master Plan in the ETOD Overlay. An application for Tentative Plan is being processed and reviewed concurrently (see File No. SUB-25001). There are no conditional uses as part of the submittal.*

Conclusion CPMC 17.66.050(D): *Not applicable.*

CPMC 17.66.060 Conditions of approval

The approval authority may apply reasonable conditions of approval to ensure that the applicable standards of this code are satisfied.

Finding CPMC 17.66.060: *As evidenced by the findings and conclusions set forth herein, reasonable conditions apply to ensure the standards of this code are satisfied.*

Conclusion CPMC 17.66.060: *Consistent.*

PART 4
SUMMARY CONCLUSION

As evidenced in the Applicant's findings and conclusions, as well as the application materials in the record, along with Planning Department Supplemental Findings set forth herein, the proposed Gebhard Village Master Plan is consistent with applicable standards and criteria in the Central Point Municipal Code as conditioned.

PUBLIC WORKS STAFF REPORT

March 14, 2025

AGENDA ITEM: Gebhard Village (MP-25001/SUB-25001)

A proposed 78-unit subdivision along the Gebhard Road frontage. The 8.18-acre site (37S 2W 02AA, Tax Lot 2800) is within the Medium Mixed Residential (MMR) zone and is within the Transit Oriented Development (TOD Overlay.

Applicant: Lowman Revocable Trust

Traffic:

The Applicant is proposing a 67-lot subdivision. The TIA, performed by Southern Oregon Transportation Engineering, for this proposed development estimates this will generate 46 PHT's. Access at the time of development is proposed on Gebhard Road at two new local street intersections (Bryce Pelia Way and Logue Street) and one existing local street intersection (Denson Street). The existing Annalise Street will extend north through Gebhard Village as well.

The new local street intersections, at Bryce Pelia Way and Logue Street, on Gebhard Road were shown to meet AASHTO recommended intersection sight distances.

The proposed new local street intersection of Logue Street and Gebhard Road is not shown to meet intersection spacing standards as set for in the Public Works Standards and Specifications Table 300-4, which requires 300 feet between intersections on a collector street. The proposed location, however, is approximately 235 feet south of Green Valley Way and is not shown to have any safety concerns. Sight distance is shown to be adequate, there is no history of collisions along Gebhard Road and a center turn lane is not shown to be warranted at the proposed location.

A supplemental letter from Southern Oregon Transportation Engineering states that the proposed development impact at time of development will be 2.3% of traffic under design year 2027 no-build conditions. Accordingly, this will be the proportional share for cost of construction of new traffic signals at Beebe Road/Hamrick Road intersection.

The TIA concludes that the subdivision can be approved without causing adverse impacts to the transportation system.

City staff concurs with the TIA findings.

Existing Infrastructure:

Water:	There is an 16-inch ductile iron water line, in Gebhard Road. There is an 8-inch ductile iron water line in Denson Street.
Streets:	Gebhard Road is an unimproved Collector Street. Denson Street is a new local Street.

Stormwater: There is an existing 42-inch Storm Drain line, within Denson Street, existing now. Flow is east to west. There is also a 48-inch Storm Drain line to the north of the site, running west from Green Valley Way. Flow is east to west.

Background:

The Applicant proposes an 78-unit, Medium Mixed Residential development extending north on the existing Annalise Street. The property fronts Gebhard Road to the west, and Denson Street to the south.

Issues:

The project must receive and treat offsite stormwater runoff from the Himmelman property to the east at two locations. The first location is at the southeast area of the site, where surface water flows in northwesterly direction from the Himmelmann orchard area. The second location is on the east border of the site in the area of the proposed Bryce Pelia Way. This area has an existing approximately 8" underground pipe flowing westerly, that currently daylights at a bubbler assembly on the site.

Onsite stormwater runoff shall be treated onsite before it enters the existing storm drain system from the proposed subdivision.

Overhead utilities along the Gebhard Road frontage will need to be converted to underground.

Conditions of Approval:

Prior to the building permit issuance and the start of construction activities on the site, the following conditions shall be satisfied:

1. Public Street Construction - Applicant shall construct the proposed public streets to City Street Standards. Construction shall demonstrate compliance with the Public Works Standard Specifications and Uniform Details for Construction. Accordingly, the improvements along the Gebhard Road frontage must include sidewalk and landscape row.

2. Gebhard Road Existing Overhead utilities – The Applicant shall convert all overhead utilities along the frontage of Gebhard Road to underground. No overhead utilities will be allowed.

3. Civil Improvement Plan Review – The Applicant shall submit civil improvement plans for stormwater infrastructure construction demonstrating compliance with the approved NPDES Stormwater Management Plan.

4. Erosion and Sediment Control – The proposed development will disturb greater than 5 acres and requires an erosion and sediment control permit (NPDES 1200-C) from DEQ. The Applicant shall obtain a 1200-C permit from DEQ.

Prior to the final plat, the Applicant shall comply with the following conditions of approval:

1. PW Standards and Specifications – Applicant shall demonstrate that all Public Works infrastructure construction complies with the Standards Specifications and Uniform Details for Construction.

2. Stormwater Quality Operations & Maintenance – The Applicant shall record and submit to the Public Works Department an Operations and Maintenance Manual and Declaration of Covenants for Operation and Maintenance of the Stormwater Quality Features as required by the Rogue Valley Stormwater Quality Manual.

3. Public Utilities and Street Dedication and Improvement – Dedicate the public right-of-way and complete all street improvements within the tentative plat.

4. Over Head Utilities – Overhead utilities along the Gebhard Road frontage shall be converted to underground facilities.

5. Public Works As-Builts – Provide an accurate and stamped set of as-built drawings.

6. Intersection Mitigation - The proposed development pay a proportional share toward the cost of a traffic signal at Beebe Road / Hamrick Road. This is based on total entering volume, or 2.3% of traffic, at time of proposed development.

Justin P. Gindlesperger

From: Mark Northrop <MarkN@jcfd3.com>
Sent: Wednesday, March 12, 2025 3:31 PM
To: Justin P. Gindlesperger; Derek Zwagerman; Spencer Davenport (spencer.davenport@district6.org); Chadd Griffin; Matt Samitore; Greg Graves; Mike Ono; surveyor@jacksoncounty.org; 'David.McFadden@avistacorp.com'; 'chad.murders@ecso911.com'; emalanche@roguedisposal.com; Mark Kimmelshue; 'rrvid@rrvid.org'; Nick Bakke; nickolas.c.eufemi@usps.gov
Cc: Stephanie Powers
Subject: Re: Request for Comments - MP-25001 & SUB-25001

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Fire District 3 comments are as follows.

1. The alleys shall be signed Fire Lane No Parking.
2. Two new hydrants shall be installed on Annalise Street, subject to location approved by FD3
3. Gebhard Road may require No Parking Signage depending upon roadway width.

DFM Mark Northrop, IAAI, CFI
Jackson County Fire District 3
8383 Agate Rd, White City, OR 97503
Markn@jcfd3.com
Office: 541.831.2776
Cell 541.660.7689
www.jcfd3.com

ROGUE VALLEY
SEWER SERVICES
CLEAN WATER - HEALTHY COMMUNITIES

March 11, 2025

City of Central Point Planning Department
155 South Second Street
Central Point, Oregon 97502

Re: PRE 21007 – Gebhard Village Sub, Map 37 2W 02AA, Tax Lot 2800

There is an existing 10 inch sewer along the south property boundary of tax lot 2800 and a 15 inch sewer to the north along Gebhard Road. Sewer service for the proposed development can be had by sewer main extensions as generally shown on the submitted conceptual plan.

Rogue Valley Sewer Services requests that approval of this development be subject to the following conditions:

1. The applicant must submit sewer construction plans to RVSS for review and approval prior to construction, sign a project sewer agreement, and pay all related inspection fees.

Feel free to call me if you have any questions.

Sincerely,

Nicholas R Bakke, PE
District Engineer

PLANNING COMMISSION RESOLUTION NO. 931

A RESOLUTION OF THE PLANNING COMMISSION APPROVING A MASTER PLAN APPLICATION FOR DEVELOPMENT IN THE TOD DISTRICT TO BE KNOWN AS GEBHARD VILLAGE SUBJECT TO CONDITIONS OF APPROVAL

(FILE NO. MP-25001)

WHEREAS, the applicant has submitted a master plan application for approval of Gebhard Village, a residential development consisting of property identified on the Jackson County Assessor's map as 37S 2W 02AA, Tax Lot 2800, Central Point, Oregon; and

WHEREAS, the project site is located in the Medium Mix Residential (MMR) zoning district within the Transit Oriented Development (TOD) Overlay; and

WHEREAS, the application has been found to be consistent with the applicable approval criteria set forth in Title 17, Zoning as conditioned per the Staff Report dated April 1, 2025; and

WHEREAS, on April 1, 2025, at a duly noticed public hearing, the City of Central Point Planning Commission considered the Applicant's request for Master Plan approval for Gebhard Village.

NOW, THEREFORE, BE IT RESOLVED,

Section 1: The City of Central Point Planning Commission hereby approves the Master Plan application for Gebhard Village File No. MP-25001 subject to the conditions in the Staff Report dated April 1, 2025 (Exhibit 1).

Section 2: This decision is based upon the Planning Department Staff Report dated April 1, 2025, attached hereto as Exhibit 1, including all attachments thereto.

PASSED by the Planning Commission and signed by me in authentication of its passage this 1st day of April, 2025.

_____
Planning Commission Chair

ATTEST:

_____
City Representative

PLANNING
CITY OF CENTRAL POINT, OREGON

Staff Report

Gebhard Village
Tentative Subdivision Plan
File No. SUB-25001

April 1, 2025

Item Summary

Consideration of a Tentative Plan application to develop a 67-lot/78-unit subdivision on 8.18 acres in the Medium Mix Residential (LMR) zoning district in the Eastside Transit Oriented Development (ETOD) Ovelay. The project site is located at 4922 Gebhard Road and is identified on the Jackson County Assessor's Map as 37S 2W 02AA, Tax Lot 2800.
Applicant: Lowman Revocable Trust; **Agent**: Neathamer Surveying, Inc. (Bob Neathamer)

Approval Criteria: CPMC 16.10 (Tentative Plans) and CPMC 17.65, TOD Overlay.

Associated Files: MP-2501

Staff Source

Justin Gindlesperger, Community Planner III

Background

The Applicant submitted a tentative plan application for Gebhard Village to subdivide 8.18 acres into a 67-lot ETOD subdivision (Attachment "A-2"). The project site is along Gebhard Road in the western portion of the ETOD. The tentative plan is being reviewed concurrently with a master plan application (MP-25001) for the subject property. The Master Plan serves as a blueprint to guide future development of the site. The tentative plan application initiates the land divison process that subdivides the land in accordance with CPMC 16.10, Tentative Plans, following the guidance set by the master plan.

Description:
As shown on the Tentative Plan (Attachment "A-2"), Gebhard Village will be completed in two (2) phases. The tentative plan proposes a new street network, with connection to Gebhard Road. This network will provide circulation within the site, connections to existing and future development on adjacent sites with circulation throughout the ETOD.

The proposal is within the minimum/maximum density allowed on the site by proposing 78 units on 5.56 net acres – subtracting proposed right-of-way as per Note 'f', Table 2, CPMC 17.65.050. The resulting 14 units/acre is consistent with the required 14-32 units/acre required in the MMR zone. As demonstrated in the Planning Department Findings of Fact and Conclusions of Law (Attachment "D"), the proposal meets the lot dimension standards in the LMR zone.

Utilities are available to the site with sewer main abutting the south of the property in the right-of-way of Denson Street. Water is available in the right-of-way of Gebhard Road and will be extended into the project area. A drainage facility is proposed within the project area, collecting stormwater from the development and flowing to additional facilities to the west.

Issues

There are four (4) issues relative to this application as follows:

1. **Soil Mitigation**. The Gebhard Village Master Plan sets forth mitigation requirements to remediate arsenic contamination in the soils on the project site based on findings from an Independent Cleanup Program Report, consistent with the Department of Environmental Quality (DEQ) standards. Based on the findings of this assessment, it is recommended to remove organics and vegetation from the site, mix the top 12-inches of soil to distribute the concentration levels and scarify the site prior to final grading

   Comment: The applicant is responsible for the remediation of the site that ensures proper remediation, and requirements that are designed to protect the environment and human health. Staff recommends Condition of Approval No. 1(b) requiring the applicant to submit final authorization that the soil remediation plan was completed and no further action on the site is required.

2. **Shallow Wells.** Construction of public utilities as part of the tentative plat process may impact the water table and shallow wells within the vicinity of the project site. The applicant submitted a report prepared by APEX dated July 25, 2024 (Attachment “C”) addressing the potential impacts and necessary mitigation measures.

   Comment: Based on the conclusions of the analysis and the proposed development plans for Gebhard Village, the development is not anticipated to impact the water table or surrounding wells unless installation of water and sanitary sewer lines extend below the water table.

   Staff recommends Condition of Approval No. 1(d)(i) requiring the applicant to implement mitigation actions identified in the APEX Report as necessary to avoid impacts to surrounding wells. Mitigation plans will be reviewed by the City Engineer during the Civil Improvement Plan review process prior to approval by the Public Works Department.

3. **Agriculture Mitigation**. The ETOD is identified as an area of the City that maintains active farm uses. Urban uses and developments to urban standards may conflict with agricultural practices. As a requirement to develop in the ETOD developments must recognize these uses until the ETOD is completely annexed and developed.

   Comment: At this time, developments in the ETOD are required to record a right-to-farm disclosure statement as a condition of final plat. Staff recommends Condition of Approval No. 1(c) requiring the applicant to record a right-to-farm disclosure statement prior to final plat of Gebhard Village.

4. **Street Names.** All street names shall be approved by the City of Central Point and regional emergency services providers.

   Comment: Staff recommends Condition of Approval No. 1(a) requiring the applicant to provide documentation of approved street name for the proposed public street.

Findings of Fact & Conclusions of Law

The Gebhard Village Tentative Plan has been evaluated against the applicable criteria set forth in CPMC 17.66 and CPMC 16.10 and found to comply as evidenced in the Gebhard Village Tentative Plan (Attachment “B”), the Planning Department Findings (Attachment “D”) and the Staff Report dated April 1, 2025.

Recommended Conditions of Approval

1. Prior to final plat approval, the applicant shall satisfy the following conditions:

   a. Provide documentation of approved street names for the proposed public street.

   b. Provide a copy of a “No Further Action’ letter from DEQ indicating that remediation of on-site contamination is completed;

   c. Provide recorded copies of a right-to-farm disclosure, as required by CPMC 17.65.025(A);

   d. Demonstrate compliance with the conditions listed in the Public Works Department Staff Report (Attachment “E”), including but not limited to:

      i. Submit Civil Improvement Drawings for infrastructure construction, including but not limited to, streets, landscape row and street trees, sidewalk, access approach, street lighting, and utilities with necessary shallow well mitigation.

      ii. Submit a stormwater management plan for the proposed demonstrating compliance with the MS4 Phase II stormwater quality standards.

      iii. Obtain a 1200-C permit from DEQ and provide a copy to the Public Works Department. The proposed development will disturb more than 5 acres and requires an erosion and sediment control permit (NPDES 1200-C) from the Department of Environmental Quality (DEQ).

      iv. Pay all System Development Charges and permit fees.

   e. Coordinate with Fire District #3 to plan the location of and install fire lane signs and fire hydrants in accordance with Fire District #3 comments, dated March 12, 2025 (Attachment “E”).

f. Comply with conditions of approval listed in the Rogue Valley Sewer Staff Report, dated March 11, 2025 (Attachment “F”)

2. Prior to Public Works Final Inspection, the applicant shall demonstrate compliance with the following:

    a. Complete public infrastructure and civil improvements per Civil Improvement Plans approved by the Public Works Department and a fully executed development agreement and bond, if applicable. The Engineer-of-Record shall certify that all improvements were constructed per the approved plans.

    b. Complete stormwater management improvements per the Stormwater Management Plan approved by the Public Works Department. The Engineer-of-Record shall certify that the construction of the drainage system was constructed per the approved plans.

    c. Record an operations and maintenance agreement for all new stormwater quality features.

3. Any modifications to the site layout, including but not limited to stormwater quality treatment facility type and location, shall be subject to review in accordance with CPMC 17.09, Modifications to Approved Plans and Conditions of Approval.

Attachments

Attachment “A-1” – Project Location Map
Attachment “A-2” – Tentative Subdivision Plan
Attachment “B” – Independent Cleanup Program Report, dated July 27, 2018
Attachment “C” – Shallow Well Assessment, dated July 25, 2024
Attachment “D” – Planning Department Findings of Fact
Attachment “E” – Public Works Department Staff Report, dated 03/14/2025
Attachment “F” – Fire District No. 3 Staff Report, dated 03/12/2025
Attachment “G” – Rogue Valley Sewer Services Staff Report, dated 03/11/2025
Attachment “H” – Resolution No. 932

Action

Open a public hearing and consider the proposed Tentative Subdivision Plan application and 1) approve; 2) approve with revisions; or 3) deny the application.

Recommendation

Approve Resolution No. 932, a Resolution approving the Gebhard Village Tentative Subdivision Plan application subject to the recommended conditions of approval set forth in the Staff Report dated April 1, 2025 and the Planning Department Findings of Fact..

Recommended Motion

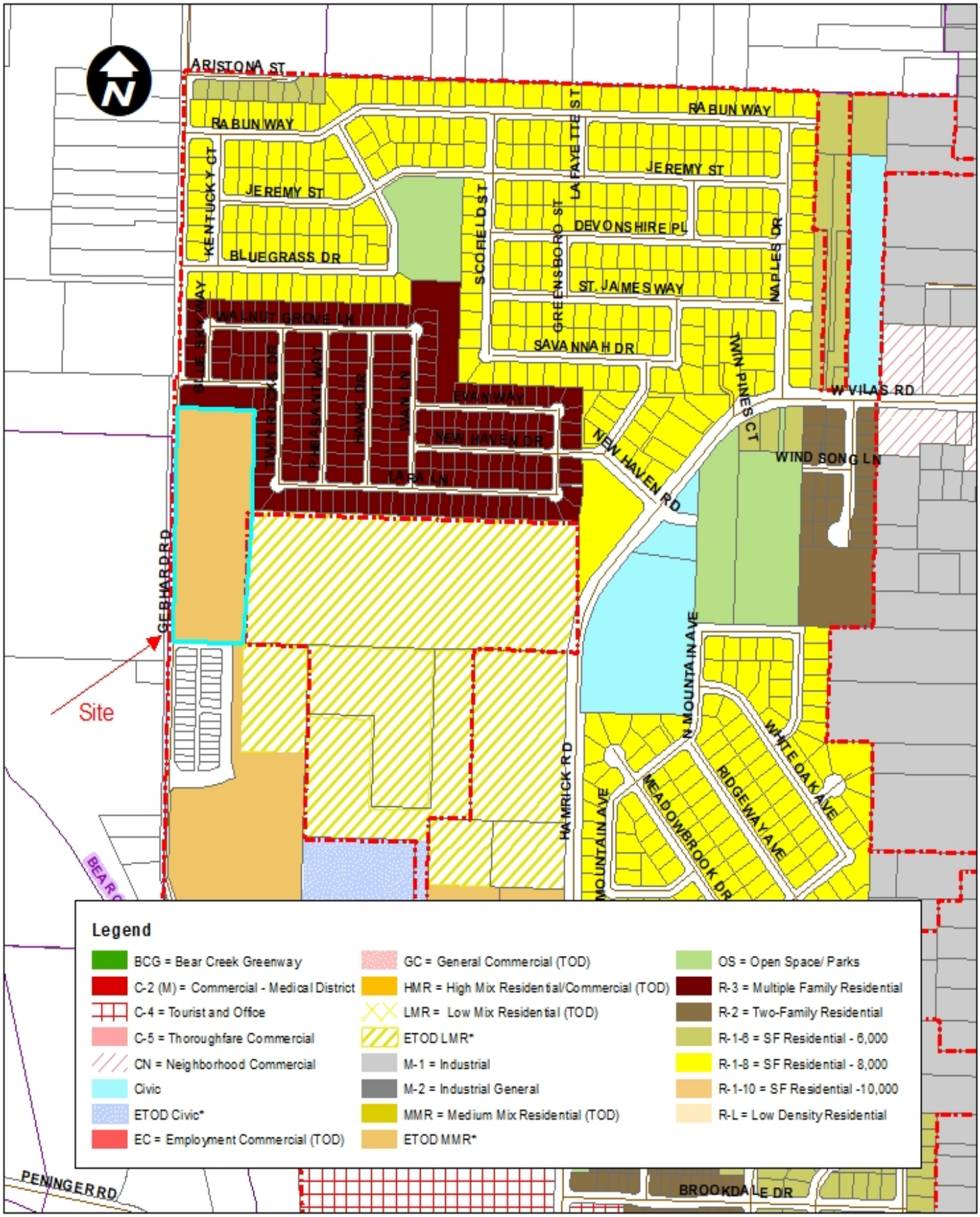
I move to approve Resolution No. 932, a Resolution approving the Gebhard Village Tentative Subdivision Plan application per the Staff Report dated April 1, 2025.

PLANNING

CITY OF CENTRAL POINT, OREGON

File No.: MP-25001 & SUB-25001

Proposed Master Plan Application
& Subdivision Tentative Plan



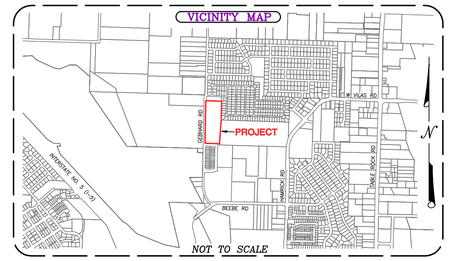
A TENTATIVE PLAN FOR:
GEBHARD VILLAGE SUBDIVISION

Located in the Northeast One-quarter of Section 2,
Township 37 South, Range 2 West of the Willamette
Meridian, in the City of Central Point,
Jackson County, Oregon.

PREPARED FOR:

LOWMAN REVOCABLE TRUST
4462 Coal Mine Road
Medford, OR 97504

VICINITY MAP



NOT TO SCALE

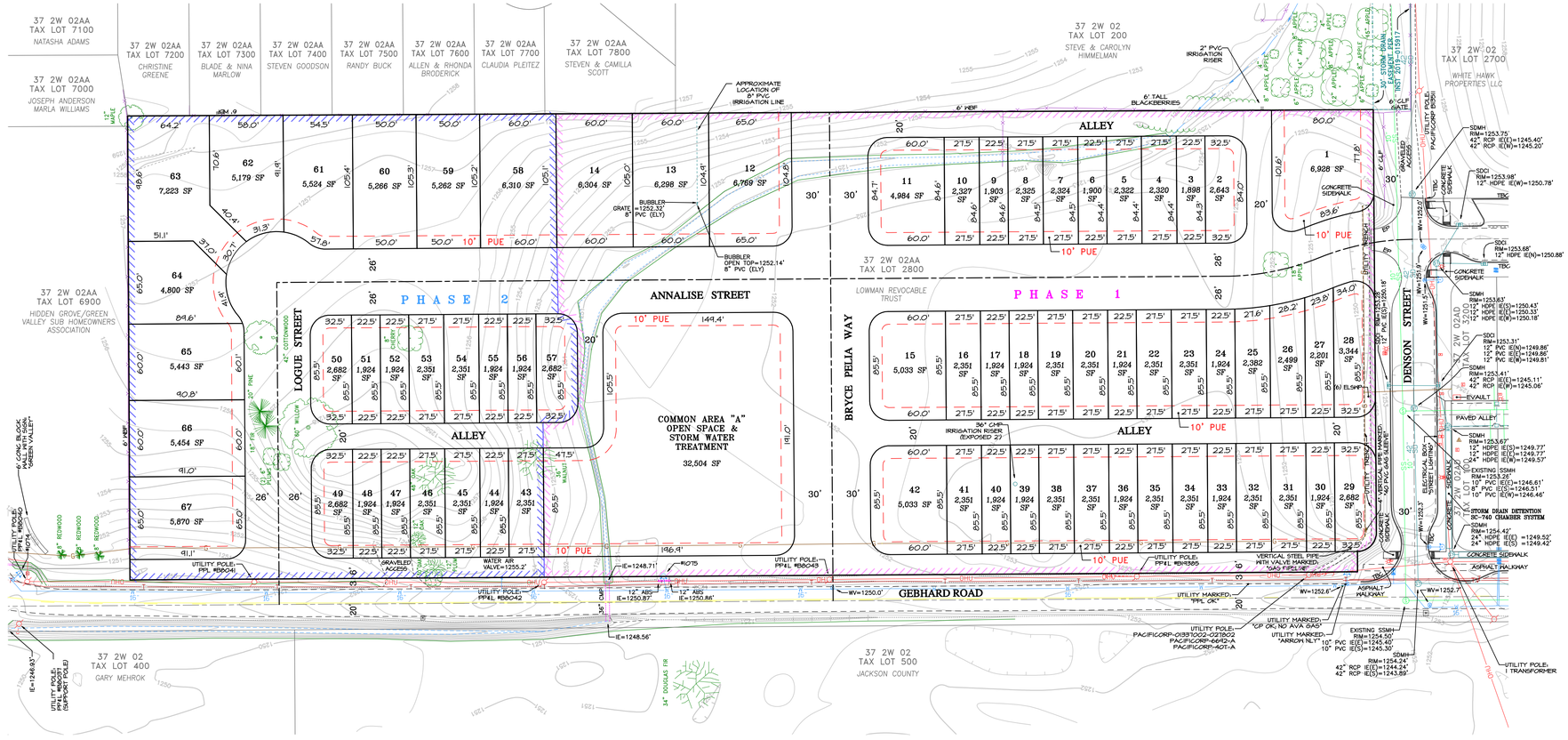

37 2W 02AA TAX LOT 7100 NATASHA ADAMS
37 2W 02AA TAX LOT 7000 JOSEPH ANDERSON MARLA WILLIAMS
37 2W 02AA TAX LOT 7200 CHRISTINE GREENE
37 2W 02AA TAX LOT 7300 BLADE & NINA MARLOW
37 2W 02AA TAX LOT 7400 STEVEN GOODSON
37 2W 02AA TAX LOT 7500 RANDY BUCK
37 2W 02AA TAX LOT 7600 ALLEN & RHONDA BRODERICK
37 2W 02AA TAX LOT 7700 CLAUDIA PLEITEZ
37 2W 02AA TAX LOT 7800 STEVEN & CAMILLA SCOTT
37 2W 02 TAX LOT 200 STEVE & CAROLYN HIMMELMAN
37 2W 02 TAX LOT 2700 WHITE HAWK PROPERTIES LLC
37 2W 02AA TAX LOT 6900 HIDDEN GROVE/GREEN VALLEY SUB HOMEOWNERS ASSOCIATION
37 2W 02AA TAX LOT 2800 LOWMAN REVOCABLE TRUST
37 2W 02 TAX LOT 400 GARY MEHROK
37 2W 02 TAX LOT 500 JACKSON COUNTY
37 2W 02AD TAX LOT 3200
PHASE 1
PHASE 2
ANNALISE STREET
LOGUE STREET
BRYCE PELIA WAY
DENSON STREET
ALLEY
COMMON AREA "A" OPEN SPACE & STORM WATER TREATMENT 32,504 SF
GEBHARD ROAD
APPROXIMATE LOCATION OF 8" PVC IRRIGATION LINE
2" PVC IRRIGATION RISER
6' TALL BLACKBERRIES
6' HWF
6' CLF
6' CLF GATE
10' PUE
26' PAVED ALLEY
SDMH RIM=1253.75' 42" RCP IE(E)=1245.40' 42" RCP IE(W)=1245.20'
SDCI RIM=1253.98' 12" HDPE IE(W)=1250.78'
SDCI RIM=1253.68' 12" HDPE IE(W)=1250.88'
SDMH RIM=1253.63' 12" HDPE IE(S)=1250.43' 12" HDPE IE(E)=1250.33' 12" HDPE IE(W)=1250.18'
SDCI RIM=1253.31' 12" PVC IE(W)=1249.86' 12" PVC IE(E)=1249.66' 12" PVC IE(W)=1249.81'
SDMH RIM=1253.41' 42" RCP IE(E)=1245.11' 42" RCP IE(W)=1245.06'
EVAULT
SDMH RIM=1253.67' 12" HDPE IE(S)=1249.77' 12" HDPE IE(E)=1249.77' 24" HDPE IE(W)=1249.57'
EXISTING SSMH RIM=1253.26' 10" PVC IE(E)=1246.61' 8" PVC IE(S)=1246.51' 10" PVC IE(W)=1246.46'
STORM DRAIN DETENTION BC-760 CRAMDEN SYSTEM
SDMH RIM=1254.42' 24" HDPE IE(E) =1249.52' 24" HDPE IE(S) =1249.42'
CONCRETE SIDEWALK
ASPHALT RAILWAY
EXISTING SSMH RIM=1254.50' 10" PVC IE(E)=1245.40' 10" PVC IE(S)=1245.30'
SDMH RIM=1254.24' 42" RCP IE(E)=1244.24' 42" RCP IE(S)=1243.89'
UTILITY POLE PACIFICORP-01331002-021802 PACIFICORP-6642-A PACIFICORP-AOT-A
UTILITY MARKED "GAS FIRELINE"
UTILITY MARKED "CP OK, NO AVA GAS"
UTILITY MARKED "ARROW N.T."
UTILITY MARKED "PPL OK"
VERTICAL STEEL PIPE WITH VALVE MARKED "GAS"
UTILITY POLE PP&L #BH305
UTILITY POLE PP&L #BB043
UTILITY POLE PP&L #BB042
UTILITY POLE PP&L #BB041
UTILITY POLE PP&L #BB040
UTILITY POLE PP&L #BB044
UTILITY POLE PP&L #BB045
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EXHIBIT "8"

Cascadia Associates, LLC

Independent Cleanup Program Report

Gebhard Village Site

4920 Gebhard Road

Central Point, Oregon

Prepared for:

Mr. Dan Mahar
DRM Construction, LLC
PO Box 4428
Medford, Oregon 97501

Prepared by:

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Portland, Oregon 97219

Project No. 0063-001-001
July 27, 2018

Independent Cleanup Program Report

Gebhard Village Site

4920 Gebhard Road

Central Point, Oregon

Prepared for:

DRM Construction

Project No. 0063-001-001

July 27, 2018

Prepared by:

Amanda Spencer, P.E., R.G.

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CONTENTS

1.0 INTRODUCTION 1
2.0 SITE BACKGROUND 2
2.1 Site Location 2
2.2 Site Description 2
2.3 Site Ownership 2
2.4 Regulatory History 2
2.5 Previous Investigations 2
3.0 ENVIRONMENTAL SETTING 4
3.1 Climate Information 4
3.2 Topography 4
3.3 Surface Water Hydrology 4
3.4 Regional and Site Geology and Soils 4
3.5 Regional and Site HydroGEOlogy 4
4.0 2018 SITE INVESTIGATION 5
4.1 Scope of Work and Rationale 5
4.1.1 First Phase of Investigation: January 4, 2018 5
4.1.2 Second Phase of Investigation: February 28 – March 1, 2018 6
4.2 Methods and procedures 6
4.2.1 Soil Borings and Soil Sample Collection 6
4.2.2 Groundwater Sampling 7
4.2.3 Investigation-Derived Waste 7
4.3 Chemical Analysis 8
4.4 Results 8
4.4.1 January 4, 2018 Investigation Analytical Results 8
4.4.2 February 28 - March 1, 2018 Investigation Analytical Results 9
5.0 NATURE AND EXTENT 12
5.1 Nature and Source 12
5.2 Extent 12
6.0 POTENTIAL EXPOSURE PATHWAYS AND RISK ASSESSMENT 14
6.1 Groundwater Pathway 14

6.2 Soil Pathway via direct contact or ingestion 14
6.3 Surface water and sediment pathway 14
6.4 Air Pathways of exposure 15
7.0 FATE AND TRANSPORT 16
7.1 Transport 16
7.2 Degredation/persistence 16
7.3 Demonstration of no impact to groundwater 16
7.4 Locality of the facility 17
8.0 LAND AND WATER USE DETERMINATIONS 18
8.1 Current and future land use 18
8.1.1 Current Site Use 18
8.1.2 Current Land Use in Site Vicinity 18
8.1.3 Future Site Use 18
8.1.4 Future Land Use in Site Vicinity 18
8.2 Beneficial uses of water 18
9.0 SUMMARY AND CONCLUSIONS 19
10.0 REFERENCES 20

TABLES

Table 1 Soil Analytical Results – Metals and Nitrate
Table 2 Soil Analytical Results – Organic Pesticides
Table 3 Soil Analytical Results – Polycyclic Aromatic Hydrocarbons
Table 4 Groundwater Analytical Results – Metals and Nitrate
Table 5 Groundwater Analytical Results – Total Petroleum Hydrocarbons
Table 6 Groundwater Analytical Results – Organic Pesticides
Table 7 Groundwater Analytical Results – Polycyclic Aromatic Hydrocarbons
Table 8 Groundwater Analytical Results – Volatile Organic Compounds

FIGURES

Figure 1 Site Location
Figure 2 Site Layout and Boring Locations
Figure 3 Arsenic Concentrations in Shallow Soil
Figure 4 Lead Concentrations in Shallow Soil

APPENDICES

Appendix A Desktop Environmental Review Report
Appendix B Exploration Logs
Appendix C Laboratory Reports and Data Quality Review
Appendix D Calculations for 95% Upper Confidence Level on the Mean Arsenic and Lead Concentrations

1.0 INTRODUCTION

DRM Construction, LLC plans to develop the property at 4920 Gebhard Road, Central Point, Oregon (the Site) for use as a high density residential development (townhomes). This Independent Cleanup Pathway (ICP) Report was prepared for and is submitted on behalf of DRM Construction, following Oregon Department of Environmental Quality (DEQ) guidance for ICP report preparation.

A Desktop Environmental Review and Environmental Assessment were completed for the Site in 2017 and 2018 by Cascadia Associates, LLC (Cascadia). The Desktop Environmental Review identified that a portion of the Site was formerly used as a commercial chicken farm and that historically the Site was surrounded by orchards. In 2018, field investigations were conducted and identified arsenic concentrations in surface soil (0 to 0.5 feet below ground surface [bgs]) above regional background arsenic levels. Lead was identified at one surface location at a concentration above DEQ risk-based screening concentrations (RBCs) for residential site use. Arsenic and lead concentrations in sub-surface soil (1.0 to 1.5 feet bgs) are below RBCs and/or background levels for the region.

In May 2018, DRM Construction entered the ICP to obtain DEQ review and approval of proposed risk management measures to be implemented to mitigate potential unacceptable risk posed by arsenic in Site surface soil. This ICP report presents the results of the desktop environmental review, site characterization activities, risk-screening of site data, and a risk assessment of arsenic and lead concentrations in soil, including an evaluation of nature and extent, and potentially complete exposure pathways. As detailed in the following sections, the conclusion from the evaluation of the data and risk assessment are that the lead and arsenic present in site soil will not present an unacceptable health risk.

2.0 SITE BACKGROUND

2.1 SITE LOCATION

The Site is located at 4920 Gebhard Road in Central Point, Oregon (Figure 1).

2.2 SITE DESCRIPTION

The Jackson County tax lot number for the 7.43-acre Site is 2800. The Site is undeveloped and gradually slopes to the southwest. Gebhard Road bounds the Site to the west; a residential driveway bounds the Site to the south. The northern and eastern extents of the Site are bound by residential developments. The Site layout is shown on Figure 2.

Debris material was observed during a site visit in January 2018 in the northwest quadrant of the Site at the location shown on Figure 2. Additionally, what appears to be a former drywell is located near the western-central property boundary (Figure 2).

2.3 SITE OWNERSHIP

The Site is currently owned by James L. Lowman and Magna O. Carrico-Lowman, Trustees of the April 12, 2012 Lowman Revocable Trust. According to a review of city directories, the Site was previously occupied by Joshua Sizemore in 2008, and Roxanne Atteberry in 1995 and 2003. The occupant was listed as unknown in 2003 and the address of 4920 Gebhard Road was not listed in 1992 and 2013. City directory listings were not available for the Site for the period prior to 1992.

2.4 REGULATORY HISTORY

DRM Construction submitted an ICP application on behalf of the property owners in May of 2018 to support potential development of the property for residential use. To the knowledge of Cascadia, the Site was not regulated by State or federal environmental regulatory agencies prior to its entry into the ICP in 2018.

2.5 PREVIOUS INVESTIGATIONS

A Desktop Environmental Review was completed in October 2017 by Cascadia for DRM Construction. The review identified the following environmental concerns for the Site:

1) **Commercial Chicken Farm.** A commercial chicken farm was located in the southern half of the Site from at least 1974 to at least 1994. Arsenic was often used in feed to reduce parasites in the chickens during this operational time frame and could have impacted soil if the feed was placed on the ground or through chicken feces that dropped to the ground. In addition (although not as common), other heavy metals such as copper, zinc, and cadmium, may become concentrated in chicken feces and can impact soil if the feces are not removed.

In addition, the nitrates and ammonia from chicken feces left on the ground can impacted groundwater if exposed to rain or other infiltrating surface water.

2) **Drainage Ditch.** A drainage ditch or creek is visible bisecting the property as early as 1939. This ditch originates northwest of the Site and appears to drain agricultural areas off the Site. If pesticides were used on these off-site agricultural fields, it is possible that these pesticides could have become entrained in surface water runoff from the fields and into the drainage ditch, and be present in onsite ditch sediment.

3) **Orchards on Surrounding Properties.** The aerial photographs show orchards on adjacent properties from at least 1939 through the 1990s. Soil sampling at the property directly south of the Site indicated elevated arsenic concentrations in surface soil near the property line due to the apparent use of lead arsenate pesticides on the orchard formerly located in the northwest corner of this property. It is possible that overspray of pesticides used on this orchard or the other adjacent orchards could have impacted surface soil at the Site with arsenic, lead, or organic pesticides.

A copy of the Desktop Environmental Review report is included in Appendix A.

3.0 ENVIRONMENTAL SETTING

3.1 CLIMATE INFORMATION

Average annual precipitation in Central Point, Oregon is 18.34 inches. The temperature ranges from an average low of approximately 33°F in January to an average high of approximately 91°F in July (National Climatic Data Center website, 2018).

3.2 TOPOGRAPHY

The Site gradually slopes to the southwest and lies at an approximate elevation of 1,250 feet above mean sea level (MSL).

3.3 SURFACE WATER HYDROLOGY

A drainage ditch bisects the center of the Site from west to east.

3.4 REGIONAL AND SITE GEOLOGY AND SOILS

The Property is in the Bear Creek Valley region. The regional geology consists of quaternary older alluvium that is a mixture of unconsolidated gravel, sand, silt, and clay in varying proportions; thickness ranges up to 60 feet in the region (State of Oregon Department of Geology and Mineral Industries, 1977b). This alluvium is possibly underlain by quaternary bench gravels that are a mixture of semi-consolidated gravel, sand, clay, and silt up to 70 feet thick. The bedrock geologic unit in the Bear Creek Valley is cretaceous sedimentary rock consisting of hard conglomerate and sandstone overlain by mudstone with thick sandstone interbeds (State of Oregon Department of Geology and Mineral Industries, 1977b).

Soil encountered at the Site to the depths explored (16 feet bgs) consists of clay with trace amounts of sand and gravels encountered in some areas.

3.5 REGIONAL AND SITE HYDROGEOLOGY

Regionally, the quaternary older alluvium and bench gravels underlying the property contain restrictive soil layers and are subject to poor drainage, ponding, and high groundwater (State of Oregon Department of Geology and Mineral Industries, 1977a). The Bear Creek Valley has a shallow water-bearing zone, with groundwater encountered at less than 50 feet bgs on average (City of Medford Comprehensive Plan Environmental Element, 2003). The primary aquifer in the area is located in the alluvial deposits found in the region.

Groundwater at the Site is encountered between 8.5 and 12.0 feet bgs. Based on the Site topography and the presence of Bear Creek southwest of the Site, groundwater at the Site likely flows southwest towards Bear Creek.

4.0 2018 SITE INVESTIGATION

To assess whether soil may have been impacted by pesticide use or the former chicken farm, a soil and grab groundwater sampling program was implemented. The Site investigation was completed during two mobilizations, one on January 4, 2018 and one from February 28 through March 1, 2018. The scope, methods, and results of this investigation are presented in this section.

4.1 SCOPE OF WORK AND RATIONALE

Site investigation field activities were performed at the Site in two phases; the first phase was conducted on January 4, 2018, and focused on sampling surface soil (i.e., the upper 6 inches of soil). Soil samples were collected in a gridded pattern at approximate 100-foot spacing to provide a comprehensive characterization of surface soil at the Site. During the initial field sampling effort, three stockpiles of soil and debris were identified and sampled. The second phase was conducted from February 28 through March 1, 2018, and included both shallow soil and grab groundwater sampling.

4.1.1 First Phase of Investigation: January 4, 2018

On January 4, 2018, Cascadia collected 33 surface (0 to 6 inches bgs) soil samples (SS-1 through SS-30, and Stockpile 1, Stockpile 2, and Stockpile 3) at the Site. Thirty of the surface soil samples were collected on a gridded pattern as shown on Figure 2; three of the surface soil samples were collected from stockpiled soil at the Site.

All of the surface soil samples collected in the first phase of the investigation were analyzed for lead and arsenic. In addition, selected samples were analyzed for additional constituents, as follows:

- Four of the 30 surface soil samples collected from the gridded locations were analyzed for total metals (arsenic, lead, copper, cadmium, and zinc) and organic pesticides to assess whether pesticide use at adjacent orchards or the chicken farm operations impacted surface soil at the Site.
- Seven of the 30 surface soil samples collected from the gridded locations in the southern portion of the Site were analyzed for nitrates in addition to lead and arsenic to assess the potential impact to surface soil from the former chicken farm.
- Three of the 30 surface soil samples collected from the gridded locations were located in the drainage ditch/creek and were analyzed for total metals and organic pesticides to assess whether runoff from other properties impacted ditch sediment on the Site.
- The three samples collected from the stockpiled soil were analyzed for polynuclear aromatic hydrocarbons (PAHs) and total metals.

The remaining 16 surface soil samples collected from the gridded locations were analyzed for lead and arsenic to assess whether lead arsenate use at adjacent orchards impacted Site soil.

4.1.2 Second Phase of Investigation: February 28 – March 1, 2018

Analytical data obtained from soil samples collected during the January 4, 2018 sampling event indicated that surface soil at the Site contains arsenic and lead (at one sampling location) above applicable DEQ risk-based screening concentrations (RBCs). Additionally, during the January 4, 2018 sampling event, Cascadia identified a suspected historical drywell on the southwestern portion of the Site; the approximate location is shown on Figure 2 at the DW-GW identifier. For this reason, Cascadia re-mobilized to the Site to collect shallow soil samples to better assess the vertical extent of the arsenic and lead, and to collect grab groundwater samples to assess whether the presence of the arsenic, lead or historical nitrates had impacted groundwater beneath the Site. In total, Cascadia collected 60 shallow soil samples from the 30 gridded locations (in addition to the 30 surface soil samples that were previously collected during the initial investigation). The shallow soil samples were collected from two depth intervals at each location: from 12 to 18 inches and 24 to 30 inches. The soil samples from the 24- to 30-inch depth interval were held by the analytical laboratory pending the results of the 12- to 18-inch depth interval.

Cascadia also collected groundwater samples from three boring locations at the Site: SS-5, SS-30, and DW-GW; Figure 2 shows the locations of these borings. As shown on Figure 2, one grab groundwater sample was collected adjacent to the suspected former dry well; one grab groundwater sample was collected from the northeast quadrant of the Site; and a third groundwater sample was collected from the southwest quadrant.

4.2 METHODS AND PROCEDURES

Prior to and during the field investigations, the following preparatory activities were completed:

- The Oregon Utility Notification Center was notified of the proposed work;
- A site-specific health and safety plan was prepared to govern the activities of Cascadia staff;
- Exploration locations were identified and marked; and
- A private utility locating contractor, Rogue Locating, was retained to identify subsurface utilities near proposed explorations.

4.2.1 Soil Borings and Soil Sample Collection

During the January 4, 2018 event, surface soil samples were collected from 0 to 6 inches bgs using hand tools (e.g., a hand auger, shovel and/or hand trowel). Hand tools were decontaminated prior to use at each sampling location. Vegetation was scraped clear from each location prior to sample collection.

Soil and groundwater borings advanced during the February 28 to March 1, 2018 field event were completed using a hand auger or Geoprobe 6600 direct-push drilling equipment. Pacific Soil and Water, LLC of Tigard, Oregon, was retained to provide and operate the direct push drilling rig. Drilling and hand auger equipment that encountered soil was decontaminated prior to use at each sampling location. Explorations advanced for soil sampling only were completed to depths of

30 inches; borings advanced for grab groundwater sampling were completed to depths of 16 feet bgs. Subsurface borings were completed in accordance with the Oregon Groundwater Law (Oregon Revised Statutes [ORS] Chapter 537) and the Rules for Construction and Maintenance of Monitoring Wells and Other Holes in Oregon (Oregon Administrative Rules [OAR] Chapter 690, Division 240).

The deeper (16-foot) borings were advanced using 2.25-inch-diameter sampling equipment. Soil samples were collected continuously in 4-foot increments for lithologic evaluation. The soils were described using the Unified Soil Classification System (USCS) and screened for potential impacts based on visual observations and headspace vapor measurements using a photo-ionization detector (PID) calibrated to isobutylene.

Discrete soil samples were placed in laboratory-supplied sample containers. Sample containers were stored in an iced cooler under chain of custody control. A Cascadia field representative was present during the investigation activities to observe and document drilling procedures, collect samples, perform field screening activities, select and prepare samples for laboratory analysis, and prepare lithologic logs. Lithologic logs for the 16-foot depth boring are included in Appendix B.

Following completion of the soil boring activities, the borings were backfilled with 3/8-inch bentonite chips to within 6 inches of the ground surface. The upper portion of each boring was patched to match the surrounding surface.

4.2.2 Groundwater Sampling

Deeper borings were advanced at locations SS-5 GW, SS-30 GW, and adjacent to the suspected historical drywell (DW GW) to allow groundwater sample collection. The borings were advanced until the subsurface soil became wet, indicating that groundwater was encountered, and then advanced an additional 5 to 6 feet to allow for groundwater sample collection. Wet soil was encountered at a depth of 10 to 11 feet in each of the borings.

Temporary polyvinyl chloride (PVC) well casings, each with a 10-foot screened interval, were installed into the three deeper borings once the final depth of 16 feet bgs had been reached. Prior to collection of the groundwater samples, the depth to groundwater was measured in the well casings. Measured groundwater depths ranged between 8.5 and 12 feet bgs. A peristaltic pump and new polyethylene tubing were used to purge groundwater from the casing until the groundwater was visibly clear. Following purging, groundwater samples were collected into laboratory-supplied containers and placed in an iced cooler under chain of custody control.

4.2.3 Investigation-Derived Waste

Investigation-derived waste (IDW), consisting of soil cuttings and decontamination water, was placed in a labeled 55-gallon drum and stored on-site.

4.3 CHEMICAL ANALYSIS

Cascadia submitted a total of 63 soil samples and three groundwater samples to ESC Lab Sciences of Mount Juliet, Tennessee, an Oregon Environmental Laboratory Accreditation Program (ORELAP)-accredited laboratory, for one or more of the following chemical analyses:

- Total/Dissolved metals (arsenic, barium, chromium, selenium, silver, mercury, lead, copper, cadmium, and zinc) by Environmental Protection Agency (EPA) 6000/7000 series methods;
- Organic pesticides by EPA Method 8081;
- Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270;
- Volatile Organic Compounds (VOCs) by EPA Method 8260B;
- Diesel-, gasoline-, and residual-range hydrocarbons by NWTPH-Gx and NWTPH-Dx; and
- Nitrates by EPA Method 9056A.

The laboratory reports, including a data quality review, are included in Appendix C.

4.4 RESULTS

4.4.1 January 4, 2018 Investigation Analytical Results

The analytical results for metals and nitrate; pesticides; and PAHs found in Site surface (0 to 6 inches bgs) soil during the initial site assessment are presented in Tables 1 through 3, respectively. The analytical results and comparison to applicable screening levels are described in the following subsections.

Metals in Soil

Thirty-three soil samples were submitted for analysis of arsenic, cadmium, copper, lead, and/or zinc; results are summarized in Table 1. Cadmium, copper, and zinc concentrations detected in the samples were within regional background.

Arsenic concentrations in soil are shown on Figure 3. Arsenic was detected in surface soil at concentrations ranging from 3.53 milligram per kilogram (mg/kg) to 26.9 mg/kg. Because the residential use RBC for arsenic is very low (0.43 mg/kg), detected concentrations were above the RBC, and the arsenic was compared to regional background to better understand whether previous on- and off-site property uses in the area had impacted Site soil. Fourteen of the 33 surface samples were above the regional background level of 12 mg/kg[1].

[1] Regional background is based on the 2013 DEQ report: *Development of Oregon Background Metals Concentrations in Soil*. The Site is located on the boundary between the Klamath Mountain and Cascade Mountain physiographic provinces. Background levels for arsenic were higher in the Cascade Mountain physiographic province (19 mg/kg) than in the Klamath Mountain physiographic province (12 mg/kg). To be conservative, the Klamath Mountain background level was assumed for comparison purposes in this report.

Lead concentrations in soil are shown on Figure 4. Lead was detected above the above the method reporting limit (MRL) in 33 soil samples at concentrations ranging from 2.61 mg/kg to 417 mg/kg. While lead was detected above the regional background of 36 mg/kg (DEQ, 2013)[2] at 21 locations, lead only exceeded the DEQ RBC of 400 mg/kg (for residential ingestion, inhalation, and dermal contact scenarios) in one sample (SS-29 located near the northern Site boundary).

Nitrate in Soil

Nitrates were analyzed in eight soil samples from the area of the former chicken farm. Results are summarized in Table 1. Nitrate concentrations ranged from 0.993 mg/kg to 26.4 mg/kg. The DEQ has not established RBCs for nitrate in soil nor have regional background concentrations been identified.

Pesticides in Soil

Pesticides were analyzed in 10 samples across the Site to assess whether possible pesticide use at orchards historically located adjacent to the Site may have impacted Site soil. Results are summarized in Table 2. Organic pesticides including 4,4 DDE and 4,4 DDT were identified above the method detection limits (MDLs) but below the MRLs in three soil samples. The concentrations of 4,4 DDE and 4,4 DDT in these samples were reported as estimated concentrations. The estimated concentrations reported for these compounds are well below the DEQ RBCs (Table 2).

PAHs in Soil

PAHs were analyzed in the samples collected from the three soil stockpiles. Benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, and naphthalene were detected above laboratory MDLs but below MRLs in nine samples. The estimated concentrations reported for these compounds are well below the DEQ RBCs (Table 3).

4.4.2 February 28 - March 1, 2018 Investigation Analytical Results

Additional soil and groundwater sampling were conducted to better assess Site conditions, as described in Section 4.1.2. Results of the second phase of investigation are described below.

Soil Results

As detailed above, arsenic was detected in surface soil at concentrations above regional background at 14 locations; therefore, additional soil sampling was conducted to assess the vertical extent of arsenic in shallow soil. During the second phase of investigation, soil samples were collected at depth intervals of 12 to 18 inches and 24 to 30 inches at the same gridded locations accessed during the first phase of the investigation. Samples from the 12- to 18-inch depth interval were

[2] Based on the Klamath Mountain physiographic province.

analyzed for arsenic, and the samples from the 24- to 30-inch depth interval were held pending the results of the shallower samples. After review of the 12- to 18-inch sample results which indicated arsenic results within the range of background as detailed in Section 5.0, additional analyses of the 24- to 30-inch samples was not deemed necessary.

Additionally, lead was detected above the RBC at one surface soil location (SS-29); therefore the 12- to 18-inch sample from this location was also analyzed for lead. Table 1 summarizes the arsenic and lead results.

Arsenic. Arsenic was detected in the 12- to 18-inch samples at concentrations ranging from 0.869 mg/kg to 25.8 mg/kg (Figure 3) and exceeded the regional background level of 12 mg/kg in five samples (Table 1).

Lead. Lead was detected in the 12- to 18-inch sample collected at location SS-29 at a concentration of 2.69 mg/kg (Figure 4). These results demonstrate that the lead concentrations above RBC are limited both laterally and vertically around location SS-29.

Groundwater Results

Groundwater Samples from Locations SS-5 and SS-30. Grab groundwater samples from the northern and southern portions of the Site were collected and analyzed for total and dissolved arsenic and nitrates to assess whether arsenic and nitrates in surface soil may have impacted groundwater; results are tabulated in Table 4.

Nitrate was detected in the groundwater samples at concentrations of 1,080 and 4,200 µg/L, which is well below the federal maximum contaminant level (MCL) for drinking water for nitrate of 10,000 µg/L. The DEQ has not yet established RBCs pertaining to nitrate in groundwater.

The metals concentrations are well below the DEQ RBCs and/or MCLs, with the exception of total arsenic. Total arsenic was detected at 26.7 microgram per liter (µg/L) at location SS-5 and 11.7 µg/L at location SS-30; dissolved arsenic was not detected above the MRL of 10 µg/L at either location. The MCL for arsenic is 10 ug/L.

Because total arsenic was detected but dissolved arsenic was below detection limits, the data indicates that the grab groundwater sampling techniques may have entrained sediment in the water samples and the dissolved results may be more representative of groundwater conditions at the Site. Further supporting this conclusion are the groundwater sample results from the property directly south of the Site. Groundwater samples collected from the property to the south did not contain arsenic above the MCL (Apex, 2017); however, the arsenic concentrations in soil at that property were significantly higher than those detected at this Site. Additionally, arsenic concentrations in groundwater samples collected from a domestic well located to the southwest of the Site were low and below the MCL. These results support that previous agricultural activities at and adjacent to the Site have not contributed arsenic to the groundwater significantly if at all.

Finally, it is anticipated that the proposed development of this Site would include the use of City water and groundwater will not be accessed for domestic purposes (if at all).

Groundwater Adjacent to the Suspected Former Dry Well. The grab groundwater sample collected from the boring installed adjacent to the suspected former dry well was analyzed for metals; nitrates; total petroleum hydrocarbons in the gasoline-, diesel-, and residual oil-hydrocarbon ranges; pesticides; PAHs; and VOCs; results are summarized on Tables 4, 5, 6, 7, and 8, respectively. Metals concentrations were below MRLs or below DEQ RBCs, where detected. Petroleum hydrocarbons, pesticides, PAHs, and VOCs were not detected in the sample. Therefore, use, if any, of this possible former dry well has not impacted groundwater.

5.0 NATURE AND EXTENT

This section discusses the nature and extent of lead and arsenic in Site soil. Results of groundwater sampling show that arsenic and lead in shallow soil have not impacted groundwater.

5.1 NATURE AND SOURCE

Arsenic is found at variable concentrations, some well below background and some slightly above background. The variable distribution suggests the arsenic may be representative of background conditions or may be due to overspray of lead arsenate from adjacent orchards. The arsenic is not concentrated in the southern portion of the Site where the former commercial layer operation was conducted; therefore, it does not appear that the chicken farm on the Site impacted Site soil with arsenic.

Consistent with arsenic, lead was observed at several surface locations above regional background. Similar to arsenic, the presence of the lead might be due to historical use and overspray of lead arsenate at adjacent orchards or could be consistent with regional background conditions.

5.2 EXTENT

Arsenic. Figure 3 summarizes the arsenic results. Arsenic concentrations at various surface soil locations across the Site are above the regional background concentration of 12 mg/kg in shallow soil. It is noted that DEQ utilized a 95% upper confident level (UCL) on the mean to develop regional background concentrations in its *Development of Oregon Background Metals Concentrations in Soil report* (DEQ, 2013). Background concentrations of arsenic in the Klamath Mountain region ranged from less than 1.0 mg/kg up to 28 mg/kg; the 95% UCL of the Klamath Mountain dataset for arsenic was 12 mg/kg, which is the selected "background" concentration. Because the range of arsenic concentrations at the Site (i.e., less than 1.0 mg/kg up to 26.9 mg/kg) is within the background range for the Klamath Mountain region, the 95% UCL of the mean was calculated to better assess whether the arsenic at the Site is representative of background. To calculate the 95% UCL, the EPA's PRO-UCL tool was utilized; input and output from the PRO-UCL runs are contained in Appendix D. The results of the PRO-UCL calculation for the 95% UCL on the Site arsenic dataset was 11.43 mg/kg.

Lead. Figure 4 summarizes the lead results. One surface soil sample contained a concentration of lead greater that the DEQ RBC for residential exposure. However, the lead concentration of 2.69 mg/kg in the 12- to 18-inch sample at this location was below the residential RBC of 400 mg/kg and well within regional background levels of 34 mg/kg. Surface soil samples collected at the other locations at the Site did not exhibit lead concentrations above DEQ RBCs.

The 95% UCL on the mean was calculated for lead in shallow soil (i.e., 0 to 18 inches) and was 89.26 mg/kg (Appendix D), which is below the RBC of 400 mg/kg and supports that the presence of lead in site soil does not present an unacceptable risk to human health.

6.0 POTENTIAL EXPOSURE PATHWAYS AND RISK ASSESSMENT

Because lead and arsenic were identified at variable concentrations in shallow soil at the Site, with some concentrations above regional background, an assessment of potential exposure pathways and potential for unacceptable risk was conducted. The following potential exposure pathways were identified and evaluated for potentially unacceptable risk:

- Direct contact or ingestion of groundwater;
- Direct contact with shallow soil;
- Migration from soil or groundwater to nearby surface water or sediment; and
- Migration from soil to air.

6.1 GROUNDWATER PATHWAY

As detailed in Section 4.2.1, the results of groundwater sampling conducted at the Site show that arsenic and lead in the surface soil of the Site have not impacted groundwater. Because the lead and arsenic in Site soil (if derived from lead arsenate use at adjacent properties) have been present for 30 or more years, future impact to groundwater is unlikely. Therefore, there are no current or future potential groundwater pathways of exposure to either humans or ecological aquatic receptors.

6.2 SOIL PATHWAY VIA DIRECT CONTACT OR INGESTION

The Site is currently vacant, and redevelopment is being planned. The focus of this report is on potential future exposure pathways. Future human receptors include construction workers, Site occupants and visitors in residential portions. Construction workers may be exposed to impacted soil at the Site via direct contact or ingestion during future construction activities. There is also the potential for future residents and site visitors to be exposed to impacted soil at the Site via direct contact or ingestion. However, the 95% UCL for arsenic concentrations in shallow soil at the Site is within background for this region, and the 95% UCL for lead is well below DEQ's residential RBC of 400 mg/kg. Therefore, the presence of arsenic and lead in shallow soil at the Site will not present an unacceptable risk to human receptors.

Future terrestrial receptors could be exposed to shallow soil in areas that have not been covered by pavement or buildings. However, given the nature of the redevelopment (high density residential with maintained landscape areas), the potential for terrestrial receptors to access the Site is limited, and therefore this pathway is not considered complete.

6.3 SURFACE WATER AND SEDIMENT PATHWAY

The nearest surface water to the Site is Bear Creek, located approximately 900 feet southwest of the Site. Dissolved constituents from the Site (i.e., arsenic and lead) have not impacted groundwater at

the Site and therefore do not have the potential to migrate via groundwater to Bear Creek. A drainage ditch runs through the Site; however, no constituents of concern were identified in the samples collected from the bed of the drainage ditch. Once redevelopment commences, the drainage ditch will be graded and removed as a part of Site development.

Therefore, the surface water and sediment pathways of exposure are not complete.

6.4 AIR PATHWAYS OF EXPOSURE

The detected compounds would not volatilize and be transported by air, and therefore, potential air pathways of exposure by volatilization are not complete.

Future air pathways of exposure to impacted soil particulates are potentially complete. The potential exists for future construction workers, residents, and site visitors to be exposed to impacted soil at the Site via inhalation of particulates (i.e., dust). However, as noted above, the arsenic in shallow soil is within regional background and the lead concentrations are below DEQ RBCs for residential site use based on the 95% UCL. Therefore, the presence of arsenic and lead in shallow soil at the Site does not present an unacceptable health risk via the air pathway.

7.0 FATE AND TRANSPORT

The presence of arsenic in shallow soil at the Site is within the range of regional background; lead concentrations are slightly above regional background but are below RBCs. It is possible that some of the arsenic and lead in shallow Site soil could be from overspray of lead arsenate at orchards historically present adjacent to the Site. Therefore, this section focuses on the fate and transport of lead and arsenic.

7.1 TRANSPORT

The arsenic and lead present in Site surface soil does not have significant (if any) potential to migrate beyond the Site boundary. Arsenic and lead are primarily immobile in agricultural soil and tend to remain in the upper layers of soil indefinitely (U.S. Department of Health and Human Services, 2003a, U.S. Department of Health and Human Services, 2003b).

Groundwater samples collected from the Site indicate that the presence of arsenic and lead in surface soil have not affected groundwater at the Site.

7.2 DEGREDATION/PERSISTENCE

Arsenic is an element and as such is persistent in the environment, unable to be broken down or destroyed but is readily transformed from one form to another. The range of the relative bioavailability of arsenic in residential soil used in risk assessments is typically 10 to 60 percent. Depending on soil conditions such as pH and oxidation-reduction potential, arsenic can exist at various oxidation states and as various chemical species in soil. This transformation between oxidation states and as various chemical species in soil. This transformation between oxidation states and species is known as the arsenic cycle and is influenced by biotic and abiotic processes in the environment (U.S. Department of Health and Human Services, 2003a). Most forms of arsenic are relatively immobile in soil and based on groundwater sampling results, the form of arsenic present on Site is immobile and insoluble.

Analogous to arsenic; lead is a stable element that does not readily degrade. The form by which lead exists in soils is influenced by the properties of the soil. Chemical and biotic processes transform anthropogenic sources of lead, including lead arsenate, to forms which are adsorbed to the soil (U.S. Department of Health and Huma Services, 2003b). Similar to arsenic, most forms of lead are relatively immobile in soil.

7.3 DEMONSTRATION OF NO IMPACT TO GROUNDWATER

As detailed in Section 4.4.2, the suspected historical use of lead arsenate at adjacent properties has not impacted the area groundwater significantly, if at all. This is demonstrated by the absence of dissolved arsenic in groundwater samples collected from the Site.

7.4 LOCALITY OF THE FACILITY

The locality of the facility (LOF) is limited to the Site. Soil has limited ability to migrate and Site impacts, if any, are due to historical lead arsenate use at adjacent properties. As discussed in section 4.4.2, groundwater at the Site has not been impacted.

8.0 LAND AND WATER USE DETERMINATIONS

8.1 CURRENT AND FUTURE LAND USE

8.1.1 Current Site Use

The property is currently vacant and unused.

8.1.2 Current Land Use in Site Vicinity

Currently, the property is located in an agricultural/residential area. Gebhard Road bounds the Site to the west; a residential driveway bounds the Site to the south. The northern and eastern extents of the Site are bound by residential developments.

8.1.3 Future Site Use

A residential development is planned at the Site.

8.1.4 Future Land Use in Site Vicinity

The city of Central Point has a comprehensive plan for development of the city and surrounding areas. The comprehensive plan shows that the future land use in the Site vicinity is low to high density residential with park and open spaces to the southwest of the property, in the vicinity of Bear Creek.

8.2 BENEFICIAL USES OF WATER

The Site is currently vacant. Future residences constructed at the Site will be provided municipal water through the city of Central Point, which purchases water from the Medford Water Commission. The Medford Water Commission's primary water source is Big Butte Springs located approximately 20 miles northeast of the Site. The Rogue River, located approximately 5 miles northeast of the Site, provides supplemental water during the summer months.

The nearest surface water to the Site is Bear Creek, which is used for recreational purposes, including fishing.

9.0 SUMMARY AND CONCLUSIONS

A comprehensive soil and groundwater field investigation was conducted to assess whether the historical use of the Site for a commercial chicken layer operation or historical lead arsenate use on adjacent orchards impacted Site soil or groundwater.

The soil sampling results indicated the presence of lead and arsenic at variable concentrations, some above and some below the regional background levels for these constituents. A closer evaluation indicated that the arsenic concentrations were within the range of background for the Klamath Mountain physiographic region, the region the Site is located, and that the 95% UCL of the Site data was below the 95% UCL background concentration for arsenic. While the 95% UCL for lead concentrations was above regional background, it was well below the DEQ's RBC for residential site use of 400 mg/kg.

The results of groundwater sampling both at the Site as conducted during this investigation and conducted for a recent investigation of the property to the south (Apex, 2017) demonstrate that groundwater at and downgradient of the Site has not been impacted by lead or arsenic above naturally occurring levels or MCLs. Groundwater samples collected adjacent to a suspected former dry well at the Site did not contain detectable concentrations of TPH, PAHs, VOCs, or pesticides, and metals concentrations were low and below MCLs.

An assessment of potentially complete exposure pathways and an evaluation for potentially unacceptable health risk support that the groundwater and surface water pathways are incomplete, and soil and air (via dust) pathways will not present an unacceptable health risk because arsenic is within regional background levels in shallow soil and lead concentrations are below DEQ's RBCs.

Therefore, based on the results of the soil and groundwater sampling and a risk assessment of the collected data, the presence of arsenic and lead in shallow soil at the Site will not present an unacceptable health risk and no further action is needed at this Site.

10.0 REFERENCES

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TABLES

Table 1
Soil Analytical Data - Metals and Nitrate
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	STOCKPILE 1	STOCKPILE 2	STOCKPILE 3	SS-1	SS-1 (1-1.5)	SS-2	SS-2 (1-1.5)	SS-3	SS-3 (1-1.5)	SS-4	SS-4 (1-1.5)	SS-5	SS-5 (1-1.5)	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	01/04/2018	01/04/2018	01/04/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	03/01/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5									
Concentrations (mg/kg)															*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
ARSENIC	**3.34**	**3.86**	**3.16**	**23**	**1.86 J**	**5.43**	**1.19 J**	**4.7**	**8.16**	**15.9**	**25.8**	**5.5**	**2.92**	12	0.43	1	2	15	420	--	--	--
CADMIUM	<0.579	**0.324 J**	**0.212 J**	**0.153 J**	--	**0.124 J**	--	**0.122 J**	--	--	--	**0.145 J**	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	**15.8**	**51.1**	**22.4**	**62.9**	--	**36.6**	--	**26.3**	--	--	--	**35.5**	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	**2.61**	**163**	**5.78**	**82.8**	--	**3.45**	--	**12.2**	--	**46.5**	--	**4.8**	--	36	400	400	800	800	800	30	30	30
ZINC	**41**	**226**	**60.6**	**74.2**	--	**72.5**	--	**46.4**	--	--	--	**72.8**	--	140	--	--	--	--	--	--	--	--
NITRATE	--	--	--	--	--	**26.4**	--	--	--	**14.5**	--	**3.59 B**	--									

Sample ID	SS-6	SS-6 (1-1.5)	SS-7	SS-7 (1-1.5)	SS-8	SS-8 (1-1.5)	SS-9	SS-9 (1-1.5)	SS-10	SS-10 (1-1.5)	SS-11	SS-11 (1-1.5)	SS-12	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5									
Concentrations (mg/kg)															*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
ARSENIC	**4.47**	**0.997 J**	**19**	**14.2**	**16.8**	**2.11 J**	**10.1**	**7.99**	**6.54**	**13.7**	**17.7**	**4.14**	**12.9**	12	0.43	1	2	15	420	--	--	--
CADMIUM	--	--	--	--	--	--	--	--	--	--	--	--	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	--	--	--	--	--	--	--	--	--	--	--	--	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	**26.6**	--	**55**	--	**49.7**	--	**33.7**	--	**25.2**	--	**50.6**	--	**40**	36	400	400	800	800	800	30	30	30
ZINC	--	--	--	--		--	--	--	--	--	--	--	--	140	--	--	--	--	--	--	--	--
NITRATE	**10.6**	--	**0.993 J**	--	**5.71**	--	**11**	--	--	--	--	--	--									

Sample ID	SS-12 (1-1.5)	SS-13	SS-13 (1-1.5)	SS-14	SS-14 (1-1.5)	SS-15	SS-15 (1-1.5)	SS-16	SS-16 (1-1.5)	SS-17	SS-17 (1-1.5)	SS-18	SS-18 (1-1.5)	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5									
Concentrations (mg/kg)															*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
ARSENIC	**2.25 J**	**20**	**4.19**	**13.3**	**1.41 J**	**15.8**	**2.74**	**18.4**	**0.869 J**	**14.8**	**1.75 J**	**11.8**	**0.809 J**	12	0.43	1	2	15	420	--	--	--
CADMIUM	--	--	--	--	--	--	--	--	--	--	--	**0.183 J**	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	--	--	--	--	--	--	--	--	--	--	--	**42.4**	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	--	**61.1**	--	**34.7**	--	**60.1**	--	**61.5**	--	**47.1**	--	**50.5**	--	36	400	400	800	800	800	30	30	30
ZINC	--	--	--	--	--	--	--	--	--		--	**93.5**	--	140	--	--	--	--	--	--	--	--
NITRATE	--	--	--	--	--	--	--	--	--	--	--	--	--									

Sample ID	SS-19	SS-19 (1-1.5)	SS-20	SS-20 (1-1.5)	SS-21	SS-21 (1-1.5)	SS-22	SS-22 (1-1.5)	SS-23	SS-23 (1-1.5)	SS-24	SS-24 (1-1.5)	SS-25	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	02/28/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5									
Concentrations (mg/kg)															*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
ARSENIC	**11.2**	**4.26**	**15.5**	**12.2**	**11.4**	**1.96 J**	**3.53**	**3.59**	**4.31**	**2.51**	**24.5**	**5.07**	**11.3**	12	0.43	1	2	15	420	--	--	--
CADMIUM	**0.144 J**	--	**0.293 J**	--	--	--	--	--	--	--	--	--	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	**41**	--	**49.5**	--	--	--	--	--	--	--	--	--	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	**9.1**	--	**107**	--	**51.1**	--	**15.3**	--	**32.6**	--	**109**	--	**79.6**	36	400	400	800	800	800	30	30	30
ZINC	**74.3**	--	**119**	--	--	--	--	--	--	--	--	--	--	140	--	--	--	--	--	--	--	--
NITRATE	--	--	--	--	--	--	--	--	--	--	--	--	--									

Sample ID	SS-25 (1-1.5)	SS-26	SS-26 (1-1.5)	SS-27	SS-27 (1-1.5)	SS-28	SS-28 (1-1.5)	SS-29	SS-29 (1-1.5)	SS-30	SS-30 (1-1.5)	DEQ Default Background Concentration (mg/kg)	*DEQ Risk-Based Concentrations (mg/kg)*							
Sample Date	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018	01/04/2018	03/01/2018		*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Leaching to Groundwater*		
Sample Depth (feet bgs)	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 -0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5										
Concentrations (mg/kg)													*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*
ARSENIC	**10.9**	**20.2**	**15**	**24.9**	**4.73**	**26.9**	**12.2**	**9.31**	**2.37 J**	**12.1**	**7.39**	12	0.43	1	2	15	420	--	--	--
CADMIUM	--	--	--	--	--	**0.213 J**	--	**0.592 J**	--	**0.161 J**	--	0.52	78	160	1,100	350	9,700	--	--	--
COPPER	--	--	--	--	--	**44.9**	--	**30.1**	--	**31.1**	--	110	3,100	6,200	47,000	14,000	390,000	--	--	--
LEAD	--	**103**	--	**102**	--	**115**	--	**417**	**2.69**	**82.2**	--	36	400	400	800	800	800	30	30	30
ZINC	--	--	--	--	--	**68**	--	**230**	--	**72.8**	--	140	--	--	--	--	--	--	--	--
NITRATE	--	--	--	--	--	--	--	**2.41**	--	--	--									

Notes:

<0.00656 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit
-- = not applicable or not established
J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.
Bold = Analyte was detected above the laboratory method detection limit.
Shaded values exceed background and/or DEQ Risk-Based Concentrations
RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015
mg/kg = milligrams per kilogram

Table 2
Soil Analytical Data - Pesticides
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	STOCKPILE 1	STOCKPILE 2	STOCKPILE 3	SS-1	SS-3	SS-18	SS-19	SS-20	SS-28	SS-30	DEQ Risk-Based Concentrations (mg/kg)							
Sample Date	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	01/04/2018	Soil Ingestion, Dermal Contact, and Inhalation					Soil Leaching to Groundwater		
Sample Depth	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 -0.5	0 - 0.5								
Concentrations (mg/kg)											Res.	Urb. Res.	Occupational	Construction Worker	Excavation Worker	Res.	Urb. Res.	Occupational
ALDRIN	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	0.03	0.08	0.13	1.1	30	0.023	0.1	0.1
ALPHA BHC	<0.0232 J3	<0.0219 J3	<0.0221 J3	<0.0279 J3	<0.0227 J3	<0.0263 J3	<0.0256 J3	<0.026 J3	<0.0245 J3	<0.0246 J3	--	--	--	--	--	--	--	--
BETA BHC	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
DELTA BHC	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
GAMMA BHC	<0.0232 J3	<0.0219 J3	<0.0221 J3	<0.0279 J3	<0.0227 J3	<0.0263 J3	<0.0256 J3	<0.026 J3	<0.0245 J3	<0.0246 J3	--	--	--	--	--	--	--	--
CHLORDANE	<0.232	<0.219	<0.221	<0.279	<0.227	<0.263	<0.256	<0.26	<0.245	<0.246	--	--	--	--	--	--	--	--
4,4-DDD	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	2.7	6.6	12	94	2,600	1.1	3.7	2.6
4,4-DDE	<0.0232	**0.00485 J**	<0.0221	<0.0279	<0.0227	**0.0314**	<0.0256	<0.026	**0.0152 J**	**0.00567 J**	1.8	4.5	8.2	66	1,800	1.6	7.4	7.5
4,4-DDT	<0.0232	**0.00368 J**	<0.0221	<0.0279	<0.0227	**0.00507 J**	<0.0256	<0.026	<0.0245	**0.00546 J**	1.9	4.6	8.5	66	1,800	12	46	70
DIELDRIN	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDOSULFAN I	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDOSULFAN II	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDOSULFAN SULFATE	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDRIN	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDRIN ALDEHYDE	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
ENDRIN KETONE	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
HEXACHLOROBENZENE	<0.0232 J3	<0.0219 J3	<0.0221 J3	<0.0279 J3	<0.0227 J3	<0.0263 J3	<0.0256 J3	<0.026 J3	<0.0245 J3	<0.0246 J3	--	--	--	--	--	--	--	--
HEPTACHLOR	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
HEPTACHLOR EPOXIDE	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
METHOXYCHLOR	<0.0232	<0.0219	<0.0221	<0.0279	<0.0227	<0.0263	<0.0256	<0.026	<0.0245	<0.0246	--	--	--	--	--	--	--	--
TOXAPHENE	<0.463	<0.437	<0.442	<0.557	<0.454	<0.526	<0.512	<0.52	<0.489	<0.492	--	--	--	--	--	--	--	--

Notes:

<0.0232 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit

-- = not applicable or not established

J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.

Bold = Analyte was detected above the laboratory method detection limit.

RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015

mg/kg = milligrams per kilogram

Table 3
Soil Analytical Data - Polycyclic Aromatic Hydrocarbons
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	STOCKPILE 1	STOCKPILE 2	STOCKPILE 3	*DEQ Risk-Based Concentrations (mg/kg)*													
Sample Date	01/04/2018	01/04/2018	01/04/2018	*Soil Ingestion, Dermal Contact, and Inhalation*					*Soil Volatilization to Outdoor Air*			*RBCs - Soil Vapor Intrusion into Buildings*			*Soil Leaching to Groundwater*		
Sample Depth	0 - 0.5	0 - 0.5	0 - 0.5														
Concentrations (mg/kg)				*Res.*	*Urb. Res.*	*Occ.*	*Const.*	*Exc.*	*Res.*	*Urb. Res.*	*Occ.*	*Res.*	*Urb. Res.*	*Occ.*	*Res.*	*Urb. Res.*	*Occ.*
ANTHRACENE	<0.00695	<0.00656	<0.00663	23,000	47,000	350,000	110,000	--	--	--	--	--	--	--	--	--	--
ACENAPHTHENE	<0.00695	<0.00656	<0.00663	4,700	9,400	70,000	21,000	590,000	--	--	--	--	--	--	--	--	--
ACENAPHTHYLENE	<0.00695	<0.00656	<0.00663	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BENZO(A)ANTHRACENE	<0.00695	**0.000758 J**	**0.000699 J**	0.15	0.34	2.9	24	660	--	--	--	--	--	--	0.6	2.3	8.8
BENZO(A)PYRENE	<0.00695	<0.00656	<0.00663	0.015	0.034	0.29	2.4	67	--	--	--	--	--	--	0.6	1.9	-
BENZO(B)FLUORANTHENE	<0.00695	**0.000966 J**	**0.000757 J**	0.15	0.34	2.9	24	670	--	--	--	--	--	--	6.2	--	--
BENZO(G,H,I)PERYLENE	**0.00301 J**	**0.00094 J**	**0.000822 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BENZO(K)FLUORANTHENE	**0.000706 J**	<0.00656	<0.00663	1.5	3.4	29	240	6,700	--	--	--	--	--	--	--	--	--
CHRYSENE	<0.00695	**0.000669 J**	<0.00663	15	34	290	2,400	67,000	--	--	--	--	--	--	--	--	--
DIBENZ(A,H)ANTHRACENE	<0.00695	<0.00656	<0.00663	0.015	0.034	0.29	2	67	--	--	--	--	--	--	2.0	--	--
FLUORANTHENE	**0.000804 J**	**0.000822 J**	**0.000678 J**	2,400	4,800	30,000	10,000	280,000	--	--	--	--	--	--	--	--	--
FLUORENE	<0.00695	<0.00656	<0.00663	3,100	6,300	47,000	14,000	390,000	--	--	--	--	--	--	--	--	--
INDENO(1,2,3-CD)PYRENE	<0.00695	**0.000719 J**	**0.00071 J**	0.15	0.34	2.9	24	670	--	--	--	--	--	--	--	--	--
NAPHTHALENE	**0.00503 B J**	**0.00346 B J**	**0.00384 B J**	5.3	25	23	580	16,000	6.4	15	83	6.4	15	83	0.077	0.37	0.34
PHENANTHRENE	<0.00695	<0.00656	<0.00663	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PYRENE	<0.00695	**0.001 J**	**0.00078 J**	--	3,600	23,000	7,500	210,000	--	--	--	--	--	--	--	--	--
1-METHYLNAPHTHALENE	<0.0232	<0.0219	<0.0221	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	<0.0232	<0.0219	<0.0221	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-CHLORONAPHTHALENE	<0.0232	<0.0219	<0.0221	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

<0.00656 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit

-- = not applicable or not established

J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.

Bold = Analyte was detected above the laboratory method detection limit.

RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015

mg/kg = milligrams per kilogram

Table 4
Groundwater Analytical Data - Metals and Nitrate
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	SS-5 GW	DW GW	SS-30 GW	Maximum Contaminant Level in Drinking Water[a] (µg/L)
Sample Date	03/01/2018	03/01/2018	03/01/2018	
Results (µg/L)				
ARSENIC	**26.7**	<10.0	**11.7**	10
ARSENIC,DISSOLVED	<10.0	<10.0	<10.0	--
BARIUM	--	**41.3**		2
BARIUM,DISSOLVED	--	**39.2**	--	2000
CADMIUM	--	<2.00	--	5
CADMIUM,DISSOLVED	--	<2.00	--	--
CHROMIUM	--	<10.0	--	100
CHROMIUM,DISSOLVED	--	<10.0	--	--
LEAD	--	**4.4 J**	--	15[b]
LEAD,DISSOLVED	--	**3.59 J**	--	--
SELENIUM	--	<10.0	--	50
SELENIUM,DISSOLVED	--	<10.0	--	--
SILVER	--	<5.00	--	100[c]
SILVER,DISSOLVED	--	<5.00	--	--
MERCURY	--	<0.200	--	2[d]
MERCURY,DISSOLVED	--	<0.200	--	--
NITRATE	**1,080**	--	**4,240**	**10,000**

Notes:

[a]Maximum Contaminant Levels (MCLs) from Environmental Protection Agency (EPA) National Primary Drinking Water Regulations. EPA 816-F-09-004. May, 2009.

[b]Lead is regulated by a Treatment Technique that requires systems to control the corrosiveness of their water. If more than 10 percent of tap water samples exceed the action level, water systems must take additional steps.

[c]Secondary MCL (non-enforceable guideline)

[d]Mercury MCL derived for inorganic mercury

µg/L = micrograms per liter

<10.0 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit

-- = not applicable or not established

J = concentration is less than the reporting limit but greater than the laboratory detection limit. The reported value is an estimate.

Bold = Analyte was detected above the laboratory method detection limit.

Shading indicates concentration exceeds one or more screening levels.

Table 5
Groundwater Analytical Data - Total Petroleum Hydrocarbons
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	Sample Date	Petroleum Hydrocarbons		
		Gasoline-Range	Diesel-Range	Residual Oil-Range
		Concentrations in µg/L		
SS-5 GW	3/1/2018	--	--	--
DW GW	3/1/2018	<100	<125	<313
SS-30 GW	3/1/2018	--	--	--
DEQ Risk-Based Concentrations (µg/L)				
Groundwater Ingestion and Inhalation from Tapwater - Res.		110	110	--
Groundwater Ingestion and Inhalation from Tapwater - Urb. Res.		110	110	--
Groundwater Ingestion and Inhalation from Tapwater - Occ.		450	430	--
Groundwater Volatilization to Outdoor Air - Res.		--	--	--
Groundwater Volatilization to Outdoor Air - Urb. Res.		--	--	--
Groundwater Volatilization to Outdoor Air - Occ.		--	--	--
Groundwater Vapor Intrusion into Building - Res.		22,000	--	--
Groundwater Vapor Intrusion into Building - Urb. Res.		22,000	--	--
Groundwater Vapor Intrusion into Building - Occ.		--	--	--
Groundwater in Excavations - Const. and Exc. Worker		14,000	--	--

Notes:

<100 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit
-- = not applicable or not established
RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015
µg/L = micrograms per liter

Table 6
Groundwater Analytical Data - Pesticides
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	SS-5 GW	DW GW	SS-30 GW
Sample Date	03/01/2018	03/01/2018	03/01/2018
Analyte			
Results (µg/L)			
ALDRIN	--	<0.0715	--
ALPHA BHC	--	<0.0715	--
BETA BHC	--	<0.0715	--
DELTA BHC	--	<0.0715	--
GAMMA BHC	--	<0.0715	--
CHLORDANE	--	<0.715	--
4,4-DDD	--	<0.0715	--
4,4-DDE	--	<0.0715	--
4,4-DDT	--	<0.0715	--
DIELDRIN	--	<0.0715	--
ENDOSULFAN I	--	<0.0715	--
ENDOSULFAN II	--	<0.0715	--
ENDOSULFAN SULFATE	--	<0.0715	--
ENDRIN	--	<0.0715	--
ENDRIN ALDEHYDE	--	<0.0715	--
ENDRIN KETONE	--	<0.0715	--
HEXACHLOROBENZENE	--	<0.0715	--
HEPTACHLOR	--	<0.0715	--
HEPTACHLOR EPOXIDE	--	<0.0715	--
METHOXYCHLOR	--	<0.0715	--
TOXAPHENE	--	<0.500	--

Notes:

<0.0715 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit
-- = not applicable or not established
RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015
µg/L = micrograms per liter

Table 7
Groundwater Analytical Data - Polycyclic Aromatic Hydrocarbons
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	SS-5 GW	DW GW	SS-30 GW
Sample Date	3/1/2018	3/1/2018	3/1/2018
Results (µg/L)			
ANTHRACENE	--	<0.150 J4	--
ACENAPHTHENE	--	<0.150	--
ACENAPHTHYLENE	--	<0.150 J4	--
BENZO(A)ANTHRACENE	--	<0.150	--
BENZO(A)PYRENE	--	<0.150	--
BENZO(B)FLUORANTHENE	--	<0.150	--
BENZO(G,H,I)PERYLENE	--	<0.150	--
BENZO(K)FLUORANTHENE	--	<0.150	--
CHRYSENE	--	<0.150	--
DIBENZ(A,H)ANTHRACENE	--	<0.150	--
FLUORANTHENE	--	<0.150	--
FLUORENE	--	<0.150	--
INDENO(1,2,3-CD)PYRENE	--	<0.150	--
NAPHTHALENE	--	<0.750	--
PHENANTHRENE	--	<0.150	--
PYRENE	--	<0.150	--
1-METHYLNAPHTHALENE	--	<0.750	--
2-METHYLNAPHTHALENE	--	<0.750	--
2-CHLORONAPHTHALENE	--	<0.750 J4	--

Notes:

<0.150 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit
-- = not applicable or not established
J4 = The QC sample associated with this analyte was outside of the established quality control range for accuracy
RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015
µg/L = micrograms per liter

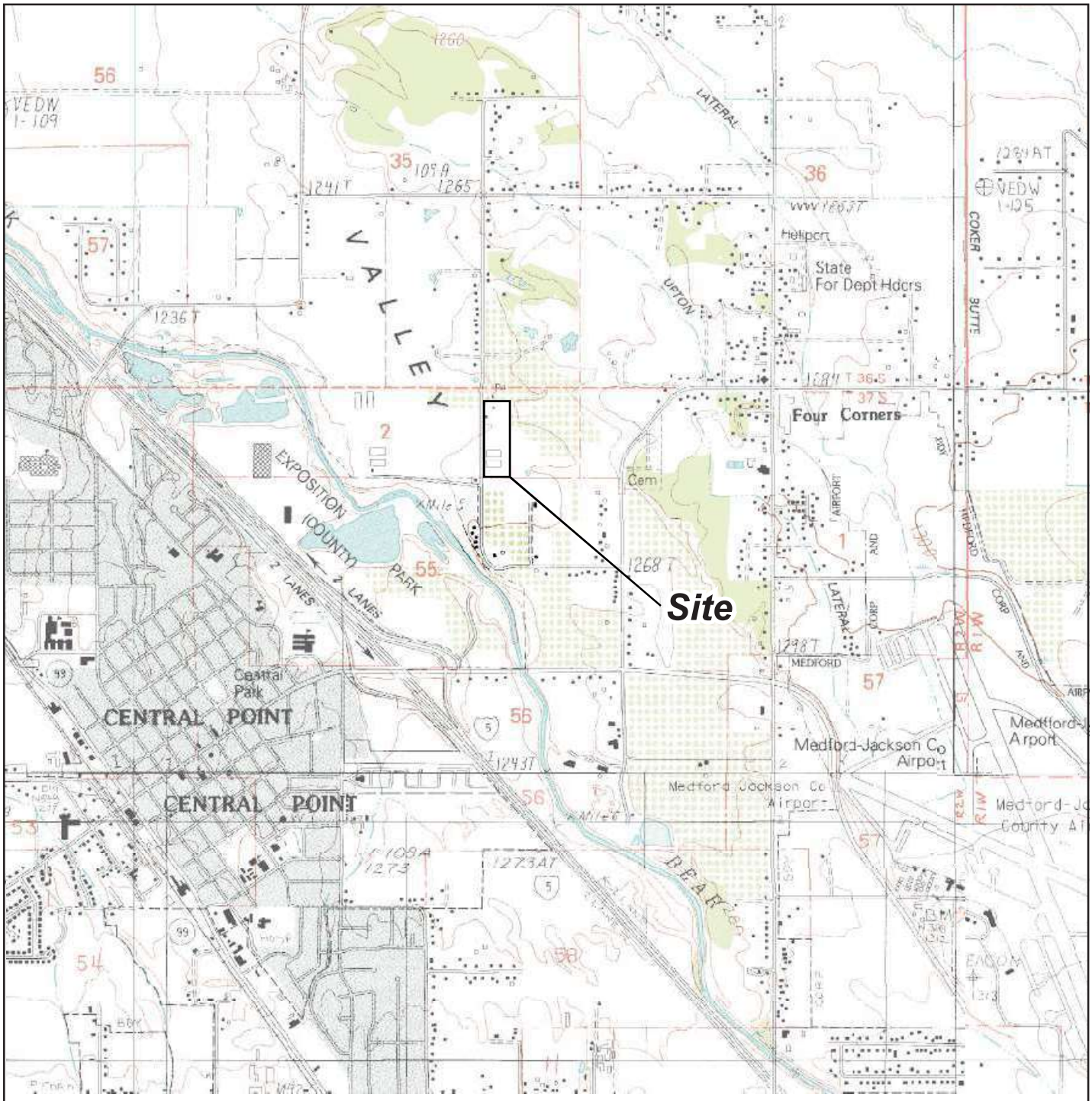
Table 8
Groundwater Analytical Data - Volatile Organic Hydrocarbons
Independent Cleanup Program Report
Gebhard Village Site
Central Point, Oregon

Sample ID	SS-5 GW	DW GW	SS-30 GW
Sample Date	03/01/2018	03/01/2018	03/01/2018
Results (µg/L)			
ACETONE	--	<250 J3	--
ACROLEIN	--	<250 J4	--
ACRYLONITRILE	--	<50.0	--
BENZENE	--	<5.0	--
BROMOBENZENE	--	<5.0	--
BROMODICHLOROMETHANE	--	<5.0	--
BROMOFORM	--	<5.0	--
BROMOMETHANE	--	<25.0	--
N-BUTYLBENZENE	--	<5.0	--
SEC-BUTYLBENZENE	--	<5.0	--
TERT-BUTYLBENZENE	--	<5.0	--
CARBON DISULFIDE	--	<5.0	--
CARBON TETRACHLORIDE	--	<5.0	--
CHLOROBENZENE	--	<5.0	--
CHLORODIBROMOMETHANE	--	<5.0	--
CHLOROETHANE	--	<25.0	--
CHLOROFORM	--	<25.0	--
CHLOROMETHANE	--	<12.5	--
2-CHLOROTOLUENE	--	<5.0	--
4-CHLOROTOLUENE	--	<5.0	--
1,2-DIBROMO-3-CHLOROPROPANE	--	<25.0	--
1,2-DIBROMOETHANE	--	<5.0	--
DIBROMOMETHANE	--	<5.0	--
1,2-DICHLOROBENZENE	--	<5.0	--
1,3-DICHLOROBENZENE	--	<5.0	--
1,4-DICHLOROBENZENE	--	<5.0	--
DICHLORODIFLUOROMETHANE	--	<25.0	--
1,1-DICHLOROETHANE	--	<5.0	--
1,2-DICHLOROETHANE	--	<5.0	--
1,1-DICHLOROETHENE	--	<5.0	--
CIS-1,2-DICHLOROETHENE	--	<5.0	--
TRANS-1,2-DICHLOROETHENE	--	<5.0	--
1,2-DICHLOROPROPANE	--	<5.0	--
1,1-DICHLOROPROPENE	--	<5.0	--
1,3-DICHLOROPROPANE	--	<5.0	--
CIS-1,3-DICHLOROPROPENE	--	<5.0	--
TRANS-1,3-DICHLOROPROPENE	--	<5.0	--
2,2-DICHLOROPROPANE	--	<5.0	--
DI-ISOPROPYL ETHER	--	<5.0	--
ETHYLBENZENE	--	<5.0	--
HEXACHLORO-1,3-BUTADIENE	--	<5.0	--
ISOPROPYLBENZENE	--	<5.0	--
P-ISOPROPYLTOLUENE	--	<5.0	--
2-BUTANONE (MEK)	--	<50.0	--
METHYLENE CHLORIDE	--	<25.0	--
4-METHYL-2-PENTANONE (MIBK)	--	<50.0	--
METHYL TERT-BUTYL ETHER	--	<5.0	--
NAPHTHALENE	--	<25.0	--
N-PROPYLBENZENE	--	<5.0	--
STYRENE	--	<5.0	--
1,1,1,2-TETRACHLOROETHANE	--	<5.0	--
1,1,2,2-TETRACHLOROETHANE	--	<5.0	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	<5.0	--
TETRACHLOROETHENE	--	<5.0	--
TOLUENE	--	<5.0	--
1,2,3-TRICHLOROBENZENE	--	<5.0	--
1,2,4-TRICHLOROBENZENE	--	<5.0	--
1,1,1-TRICHLOROETHANE	--	<5.0	--
1,1,2-TRICHLOROETHANE	--	<5.0	--
TRICHLOROETHENE	--	<5.0	--
TRICHLOROFLUOROMETHANE	--	<25.0	--
1,2,3-TRICHLOROPROPANE	--	<12.5	--
1,2,4-TRIMETHYLBENZENE	--	<5.0	--
1,2,3-TRIMETHYLBENZENE	--	<5.0	--
1,3,5-TRIMETHYLBENZENE	--	<5.0	--
VINYL CHLORIDE	--	<5.0	--
XYLENES, TOTAL	--	<15.0	--

Notes:

<0.150 indicates that the constituent was not detected at a concentration exceeding the listed reporting limit
-- = not applicable or not established
J3 = The QC sample associated with this analyte was outside of the established quality control range for precision
J4 = The QC sample associated with this analyte was outside of the established quality control range for accuracy
RBCs = Risk-Based Concentrations; Oregon Department of Environmental Quality, Updated November 1, 2015
µg/L = micrograms per liter

FIGURES



Base map prepared from the USGS 7.5-minute quadrangle of Sams Valley, Oregon, 1983, as provided by Topozone.

0 2,000 4,000

Approximate Scale in Feet



N

SITE LOCATION MAP

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project Number	0063-001-001	Figure
July 2018		1



LEGEND:

- Site Boundary
- ● Soil Sampling Location
- ⊗ Approximate Location of Suspect Former Dry Well and Adjacent Boring for Grab Groundwater Sample
- ⊙ Soil and Groundwater Sampling Location

0 100 200

SCALE IN FEET

1" = 100'

N W E S

Drwn: JJT

SITE LAYOUT AND BORING LOCATIONS

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project No. 0063-001-001

July 2018

Figure 2

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LEGEND:

- Site Boundary
- Soil Sampling Location
- Approximate Location of Suspect Former Dry Well and Adjacent Boring for Grab Groundwater Sample
- Arsenic Concentrations in mg/kg
- Sampling Depth in Inches

6" 23.0
18" 1.86

0 100 200

SCALE IN FEET

1" = 100'

N W E S

Drwn: JJT

ARSENIC CONCENTRATIONS IN SHALLOW SOIL

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project No. 0063-001-001

July 2018

Figure 3

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LEGEND:

- Site Boundary
- Soil Sampling Location
- Approximate Location of Suspect Former Dry Well and Adjacent Boring for Grab Groundwater Sample
- Lead Concentrations in mg/kg (e.g. 6" 417 / 18" 2.69)
- Sampling Depth in Inches

0 100 200

SCALE IN FEET

1" = 100'

N W E S

Drwn: JJT

LEAD CONCENTRATIONS IN SHALLOW SOIL

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project No. 0063-001-001

July 2018

Figure 4

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APPENDIX A

DESKTOP ENVIRONMENTAL REVIEW

October 19, 2017

Mr. Dan Mahar
DRM Construction, LLC
PO Box 4428
Medford, Oregon 97501

Subject: Desktop Environmental Review
Gebhard Village Site
4920 Gebhard Road
Central Point, Oregon

Dear Mr. Mahar:

This letter report and work plan presents the results of a "desktop" review of available historical information on past site uses for the subject site and the scope of work for field investigation to assess whether past uses at the site or adjacent parcels may have impacted soil and/or groundwater. The subject site is located at 4920 Gebhard Road in Central Point, Oregon (referred to herein as "the Site"); Figure 1 provides a site location map. We understand that DMR Construction is planning to redevelop the property for residential use and that the City of Central Point is requesting this investigation to evaluate whether hazardous substances are present in soil or groundwater at the Site from pesticide use at adjacent properties and/or the Site, or from other historical Site uses. This desktop review is aimed to meet the goals for the City of Central Point's request to develop the scope of work for a proposed soil and/or groundwater investigation of the Site; however, it does not meet the standard of practice for an ASTM E1527-13 Phase I Environmental Site Assessment.

SCOPE OF SERVICES

Cascadia Associates, LLC. (Cascadia) performed the following tasks for this study:

- Retained an outside vendor to provide a summary of federal, state, and local environmental database listings for the Site and nearby properties; and
- Reviewed historical resources on site use information including historical aerial photography, historical topographic maps and city directory listings for the Site.

Sanborn fire insurance maps have not been prepared for the Site.

Cascadia Associates, LLC

Based on the results of the study, a work plan for soil and groundwater investigation of the Site was developed. The methods and results of each above task are described below, followed by the work plan for Site investigation.

REVIEW OF DATABASE LISTINGS

Cascadia reviewed a compilation of federal, state, and local environmental database listings for the Site and other properties within distances specified by ASTM E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. Four environmental sites were identified; the environmental site name, address, regulatory listing, and available information is summarized in the below table. Copy of the database report is contained in Attachment A.

Site Name	Address	Regulatory List	Summary
Beebe Road	717 Beebe Road	ECSI, VCP	Elevated arsenic in soil due to previous pesticide use; groundwater not impacted (Apex, 2016). This property is located directly south of Gebhard Village Site.
DiCarlo Homes Oil Release	Beebe Road and Hamrick Road	ECSI, FINDS	Lubricating oil and diesel fuel release to soil. Soil removal action performed; groundwater tested and results were non-detect for petroleum hydrocarbons and polynuclear aromatic hydrocarbons (PAHs). Property given a No Further Action designation by DEQ (see Attachment A)
Pacific NW Bell-CE	E. Pine St. and Freeman	ECSI, FINDS	Petroleum reported in a telephone vault in 1987. Source presumed to be a traffic accident that occurred near the vault. Case given a No Further Action designation (see Attachment A).
LTM-Hamrick Road	3959 Hamrick Rd.	CRL, ECSI, VCP, NPDES	Petroleum hydrocarbons in soil and groundwater; investigations initiated in 1992; cleanup initiated in early 2000s; last status update listed as 2006. This property is located almost one mile south/southeast of the Gebhard Village Site in a hydraulically cross- or downgradient direction and it is unlikely to have impacted soil or groundwater at the Site.

ECSI – Oregon Department of Environmental Quality (DEQ) Environmental Cleanup Site Inventory
VCP – DEQ Voluntary Cleanup Program site
FINDS – Facility Index System/Facility Registry System
CRL – DEQ's confirmed release list
NPDES – DEQ's wastewater permit site list

Based on the information reviewed regarding the four properties listed on state cleanup database lists, only one, the 717 Beebe Road property, has the potential to have impacted the Site. The remaining three properties are too distant and/or have received No Further Action designations from the state.

Regulatory files were reviewed for the 717 Beebe Road property and indicate that the property was in agricultural use from at least the 1930s up to about 2002, including an apple orchard in the northwest corner from at least 1939 to at least 1976. Site investigations were conducted to assess whether potential pesticide use associated with the prior agricultural use of the property had impacted soil and/or groundwater. Results of the field investigations indicated the presence of arsenic concentrations above regional background levels and exceeding DEQ's human health risk based screening levels (RBSLs) in soil in and around the former apple orchard area (Apex, 2016). Soil sampling conducted at the northern property line indicated the presence of arsenic above RBSLs and regional background directly adjacent to the Gebhard Village Site.

REVIEW OF HISTORICAL RESOURCES

The following historical resources were reviewed to ascertain historical property use: aerial photography, historical topographic maps, city directory listings, and Sanborn fire insurance maps.

Cascadia reviewed aerial photographs from 1939, 1951, 1953, 1974, 1976, 1982, 1994, 2005, 2006, 2011, and 2012; copies of the aerial photographs are contained in Attachment B. Results of the review indicate:

- **1939 –** Several structures are visible near the northeastern property boundary and another is visible on the northwest/central portion of the Site. The Site appears graded but it is unclear whether it is in agricultural use. Orchards are present on adjacent properties to the northwest, north, east, and southeast. A creek appears to bisect the center of the Site from west to east.
- **1951/1953 –** The quality of the photographs is not as clear as the 1939 photograph, but the same structures at the Site appear to be present. A drainage ditch or creek is visible bisecting the approximate center of the Site and continues along the eastern boundary. Orchards are still visible to the northwest, north, east, and southeast of the Site.
- **1974/1976 –** The structures and the drainage ditch are visible. In addition, what appears to be two commercial-sized chicken coops are visible in the southern portion of the property. The orchards on the adjacent properties are still present and a large field west of the Site appears to be in crops.
- **1982 –** The Site and adjacent properties uses appear the same; however, the central portion of the Site between the drainage ditch and the chicken coops appears to be in crops.
- **1994 –** The Site and adjacent properties uses appear the same as in the prior photographs, although it is unclear whether the central portion of the Site is being used for crops. The orchard to the southeast of the Site is no longer present.
- **2005/2006 –** The chicken coops and other structures at the Site are no longer present; however, the drainage ditch is still visible. The orchards on the adjacent properties have been removed. A large residential development is present to the north/northeast of the Site.
- **2011/2012 –** The Site and surrounding properties appear largely the same as in the 2005 and 2006 photographs.

Cascadia reviewed historical topographic maps for the years 1938, 1954, 1983, and 2014; copies are contained in Attachment C. The 1938 map denotes the presence of one residential structure at the at the approximate location of the structure identified in the 1939 aerial photograph in the northwest/central portion of the property. The 1954 map indicates the present of three structures in the northwest/central

portion of the property. The 1983 denotes the presence of these three structures as well as showing the presence of the large commercial chicken coops in the southern portion of the property. No structures are identified on the 2014 map. On each of the four maps the topography of the Site appears relatively flat and the drainage ditch is not identified.

Cascadia reviewed historical city directories for years between and including 1992 and 2013; a copy of the city directory report is contained in Attachment D. The city directory listings indicate that the Site was occupied by Joshua Sizemore in 2008, and Roxanne Atteberry in 1995 and 2003. The occupant was listed as unknown in 2003 and the address of 4920 Gebhard Road was not listed in 1992 and 2013. City directory listings were not available for the Site for the period prior to 1992 and after 2013.

PROPOSED FIELD INVESTIGATION

The review of environmental databases and historical information indicated the following potential environmental concerns at the Site that would benefit from field investigation to assess whether soil or groundwater has been impacted:

1) **Commercial Chicken Farm.** Aerial photographs indicated the potential presence of a commercial chicken farm at the Site in the 1970s, 1980s and 1990s. Conversations with Mr. Bob Neathamer, confirmed that the buildings located on the southern portion of the Site from at least 1974 to at least 1994 were used for commercial chicken layers. Arsenic was often used in feed to reduce parasites in the chickens during this operational time frame and could have impacted soil if the feed was placed on the ground or through chicken feces that dropped to the ground. Other heavy metals such as copper, zinc, and cadmium, are often concentrated in chicken feces and can impact soil if the feces are not removed. In addition, the nitrates and ammonia from chicken feces left on the ground can impacted groundwater if exposed to rain or other infiltrating surface water.
2) **Drainage Ditch.** A drainage ditch or creek is visible bisecting the property as early as 1939. It is possible that this ditch drained agricultural fields and runoff containing pesticides from these fields could have drained through the Site.
3) **Orchards on Surrounding Properties.** The aerial photographs show orchards on adjacent properties from at least the 1940s through the 1990s. Soil sampling at the property directly south of the Site indicated elevated arsenic concentrations in surface soil near the property line due to the apparent use of lead arsenate pesticides on the orchard formerly located in the northwest corner of this property. It is possible that overspray of pesticides used on this orchard or the other adjacent orchards could have impacted surface soil at the Site with arsenic, lead, or organic pesticides.

It is noted that septic systems and other domestic infrastructure (e.g., underground heating oil or fuel tanks - USTs) may have been associated with the structures formerly located in the central and northern portions of the site. The database reviews completed for this assessment did not identify any permitted USTs at the Site; however, it is possible these structures were installed prior to the implementation of permitting requirements. This work plan does not propose to further assess for the potential current or former presence of septic systems, USTs, or other domestic infrastructure. If this would be of value, we can discuss the additional scope of work needed to include these assessments.

Cascadia Associates, LLC

To assess whether soil may have been impacted by pesticide use or the former chicken farm, we recommend surface soil sampling across the Site and grab groundwater sampling. In addition, we recommend collecting soil samples from within the drainage ditch/creek that bisects the property to assess whether runoff from nearby and upstream agricultural properties have impacted sediment in the on-Site portion of the creek.

Figure 2 identifies proposed sampling locations. Thirty surface soil samples collected in a gridded pattern at approximate 100-foot spacing and three grab groundwater sampling locations are proposed. Specifically, the scope and objective of the proposed sampling program is as follows:

- Four of the 30 surface soil samples will be analyzed for total metals (arsenic, lead, copper, cadmium, and zinc) and organic pesticides to assess whether pesticide use at adjacent orchards or the chicken farm operations may have impacted surface soil at the Site.
- Seven of the 30 surface soil samples located in the southern portion of the Site will be analyzed for lead, arsenic, and nitrates to assess the potential impact to surface soil from the former chicken farm.
- Three of the 30 surface soil samples are located in the drainage ditch/creek and will be analyzed for total metals and organic pesticides to assess whether runoff from other properties have impacted creek sediment on the Site.
- The remaining 16 surface soil samples will be analyzed for lead and arsenic to assess whether lead arsenate use at adjacent orchards has impacted Site soil.
- Three grab groundwater samples will be collected to assess for the presence of nitrates in groundwater; two of these will be located within the former area of the chicken farm and the third will be collected from the northern portion of the Site to assess background nitrate conditions.

Attachment E presents a sampling and analysis plan (SAP) that describes the methods and procedures to be used to complete the proposed sampling program.

CLOSING

We appreciate the opportunity to be of service to DRM Construction, LLC. Please do not hesitate to contact me if you have any questions.

Sincerely,

Cascadia Associates, LLC

Amanda Spencer, R.G., P.E.

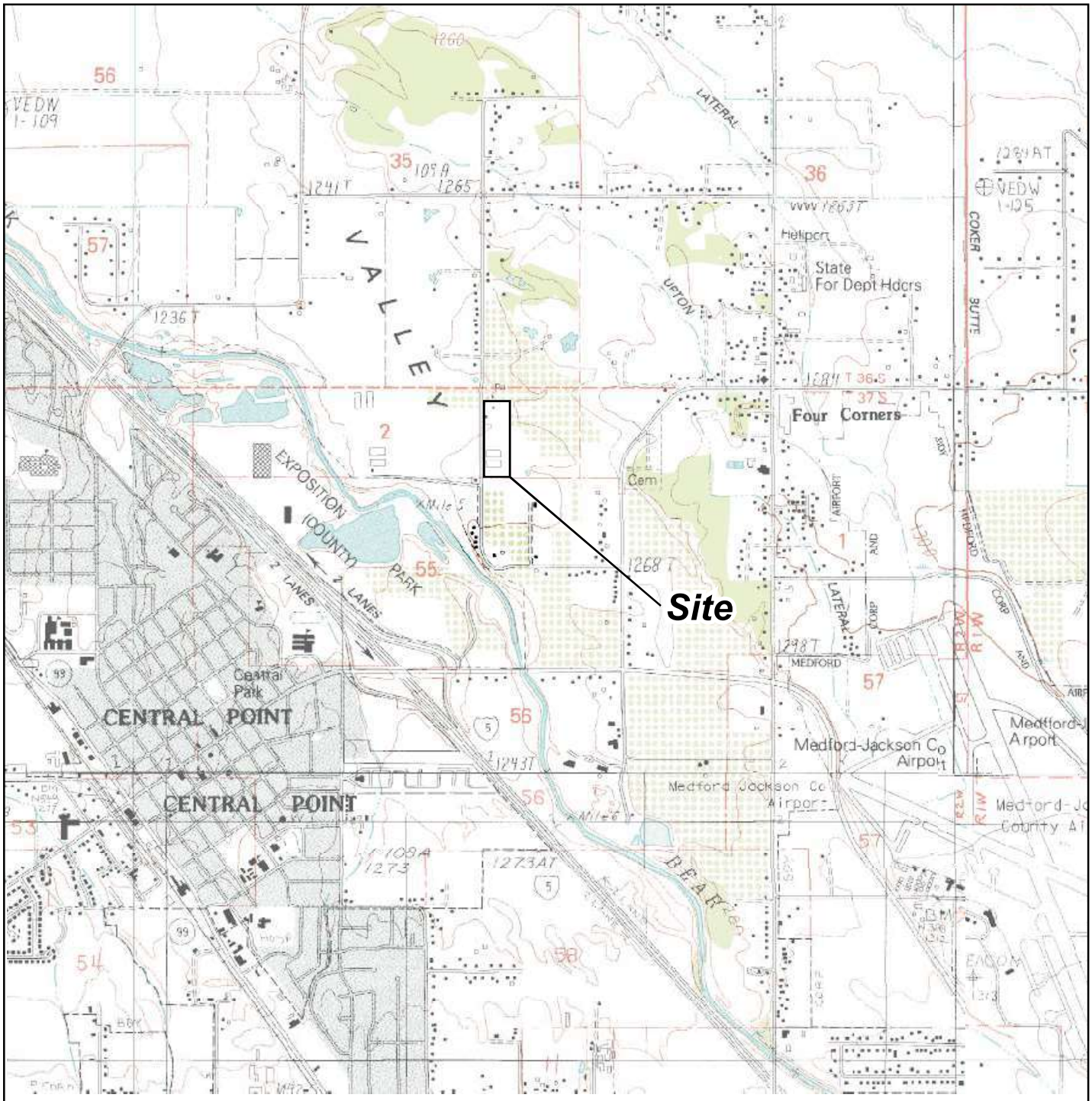
Principal

Cascadia Associates, LLC

ATTACHMENTS

Figure 1 Site Location Map
Figure 2 Proposed Sampling Locations
Attachment A EDR Regulatory Database and Sanborn Map Reports
Attachment B Aerial Photographs
Attachment C Historical Topographic Maps
Attachment D Historical City Directories Report
Attachment E Sampling and Analysis Plan

FIGURES



Base map prepared from the USGS 7.5-minute quadrangle of Sams Valley, Oregon, 1983, as provided by Topozone.

0 2,000 4,000

Approximate Scale in Feet



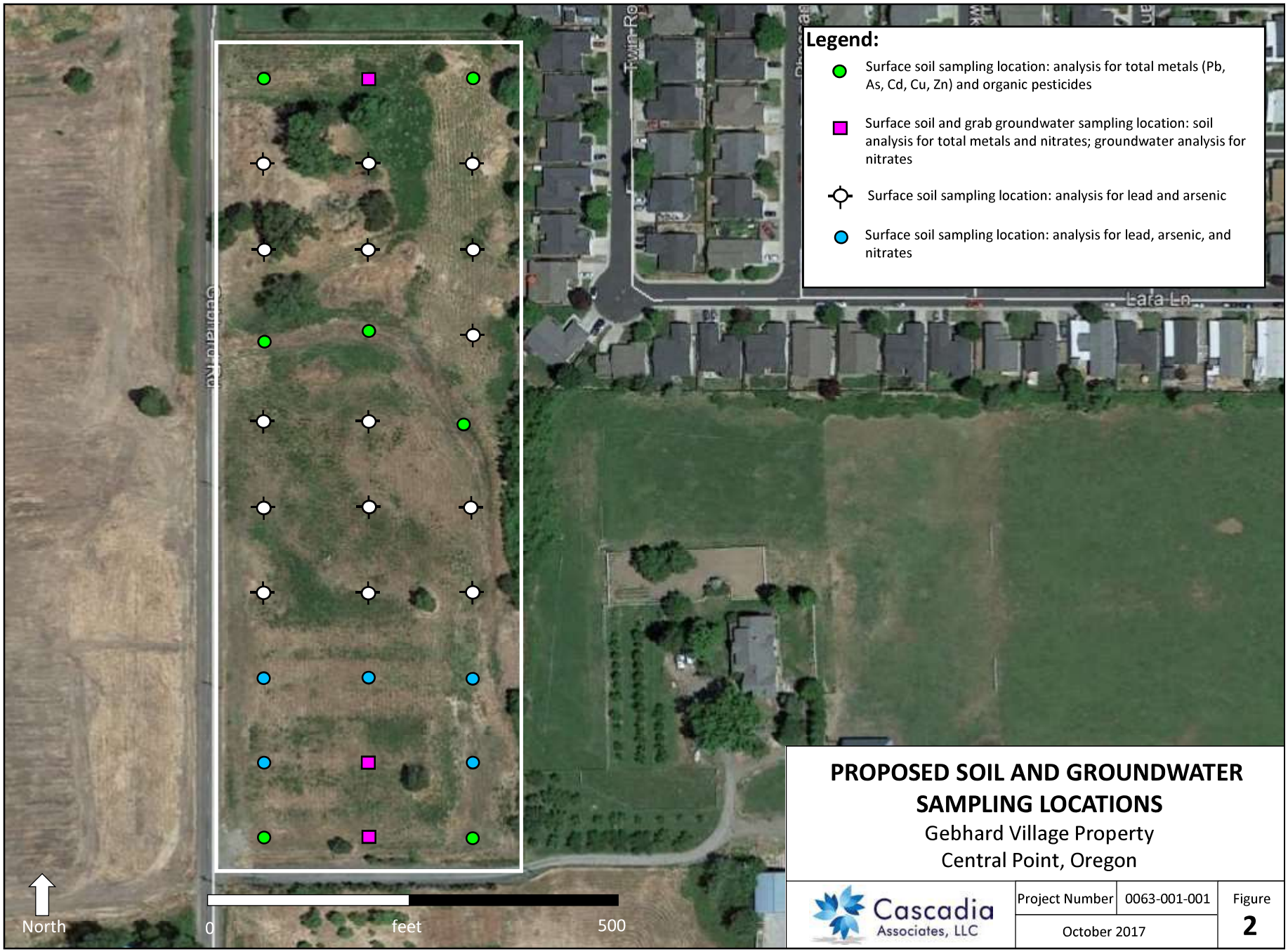
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SITE LOCATION MAP

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC

Project Number	0063-001-001	Figure
October 2017		1



PROPOSED SOIL AND GROUNDWATER SAMPLING LOCATIONS

Gebhard Village Property
Central Point, Oregon

Cascadia Associates, LLC	Project Number	0063-001-001	Figure
	October 2017		2

ATTACHMENT A

EDR REGULATORY DATABASE AND SANBORN MAP REPORTS

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502

Inquiry Number: 5054391.2s
September 19, 2017

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

FORM-LBC-CHM

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	32
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-11
Physical Setting Source Map Findings	A-13
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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TC5054391.2s

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

4920 GEBHARD ROAD
CENTRAL POINT, OR 97502

COORDINATES

Latitude (North):	42.3877150 - 42° 23' 15.77''
Longitude (West):	122.9000810 - 122° 54' 0.29''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	508224.9
UTM Y (Meters):	4692616.0
Elevation:	1253 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	6071147 SAMS VALLEY, OR
Version Date:	2014
South Map:	6071123 MEDFORD WEST, OR
Version Date:	2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140618
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
4920 GEBHARD ROAD
CENTRAL POINT, OR 97502

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	BEEBE ROAD	718 BEEBE RD.	ECSI, VCP	Higher	1845, 0.349, SSE
2	DECARLO HOMES OIL RE	BEEBE RD & HAMRICK R	ECSI, FINDS	Higher	2667, 0.505, SE
3	PACIFIC NW BELL - CE	E PINE ST & FREEMAN	ECSI, FINDS	Higher	4313, 0.817, SW
4	LTM - HAMRICK ROAD A	3959 HAMRICK RD.	CRL, ECSI, VCP, NPDES	Higher	5098, 0.966, SSE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List

US INST CONTROL Sites with Institutional Controls

Federal ERNS list

ERNS Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF Solid Waste Facilities List

State and tribal leaking storage tank lists

LUST Leaking Underground Storage Tank Database
INDIAN LUST Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST Underground Storage Tank Listing
UST Underground Storage Tank Database
AST Aboveground Storage Tanks
INDIAN UST Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

ENG CONTROLS Engineering Controls Recorded at ESCI Sites
INST CONTROL Institutional Controls Recorded at ESCI Sites

State and tribal voluntary cleanup sites

INDIAN VCP Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS Brownfields Projects

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY Recycling Facility Location Listing
HIST LF Old Closed SW Disposal Sites
INDIAN ODI Report on the Status of Open Dumps on Indian Lands
ODI Open Dump Inventory
DEBRIS REGION 9 Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

AOCONCERN Columbia Slough
US HIST CDL Delisted National Clandestine Laboratory Register

CDL	Uninhabitable Drug Lab Properties
US CDL	National Clandestine Laboratory Register

Local Land Records

LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	Spill Database
OR HAZMAT	Hazmat/Incidents
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
ECHO	Enforcement & Compliance History Information
UXO	Unexploded Ordnance Sites
FUELS PROGRAM	EPA Fuels Program Registered Listing
AIRS	Oregon Title V Facility Listing

COAL ASH - Coal Ash Disposal Sites Listing
DRYCLEANERS - Drycleaning Facilities
Financial Assurance - Financial Assurance Information Listing
HSIS - Hazardous Substance Information Survey
MANIFEST - Manifest Information
NPDES - Wastewater Permits Database
UIC - Underground Injection Control Program Database

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP - EDR Proprietary Manufactured Gas Plants
EDR Hist Auto - EDR Exclusive Historic Gas Stations
EDR Hist Cleaner - EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS - Recovered Government Archive State Hazardous Waste Facilities List
RGA LF - Recovered Government Archive Solid Waste Facilities List
RGA LUST - Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

CRL: Sites that are or may be contaminated and may require cleanup.

A review of the CRL list, as provided by EDR, and dated 11/01/2016 has revealed that there is 1 CRL site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LTM - HAMRICK ROAD A	***3959 HAMRICK RD.***	***SSE 1/2 - 1 (0.966 mi.)***	***4***	***18***
Facility Status: Other remedial or investigative action recommended Facility Id: 1393				

EXECUTIVE SUMMARY

ECSI: The Environmental Cleanup Site Information System records information about sites in Oregon that may be of environmental interest. The data come from the Department of Environmental Quality.

A review of the ECSI list, as provided by EDR, and dated 01/01/2017 has revealed that there are 4 ECSI sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BEEBE ROAD Investigation: Suspect State ID Number: 4529	***718 BEEBE RD.***	***SSE 1/4 - 1/2 (0.349 mi.)***	***1***	***8***
DECARLO HOMES OIL RE Investigation: No Further Action State ID Number: 2266	***BEEBE RD & HAMRICK R***	***SE 1/2 - 1 (0.505 mi.)***	***2***	***10***
PACIFIC NW BELL - CE Investigation: No Further Action State ID Number: 670	***E PINE ST & FREEMAN***	***SW 1/2 - 1 (0.817 mi.)***	***3***	***14***
LTM - HAMRICK ROAD A Investigation: Listed on the CRL/Inventory State ID Number: 1393	***3959 HAMRICK RD.***	***SSE 1/2 - 1 (0.966 mi.)***	***4***	***18***

State and tribal voluntary cleanup sites

VCP: Responsible parties have entered into an agreement with DEQ to voluntarily address contamination associated with their property.

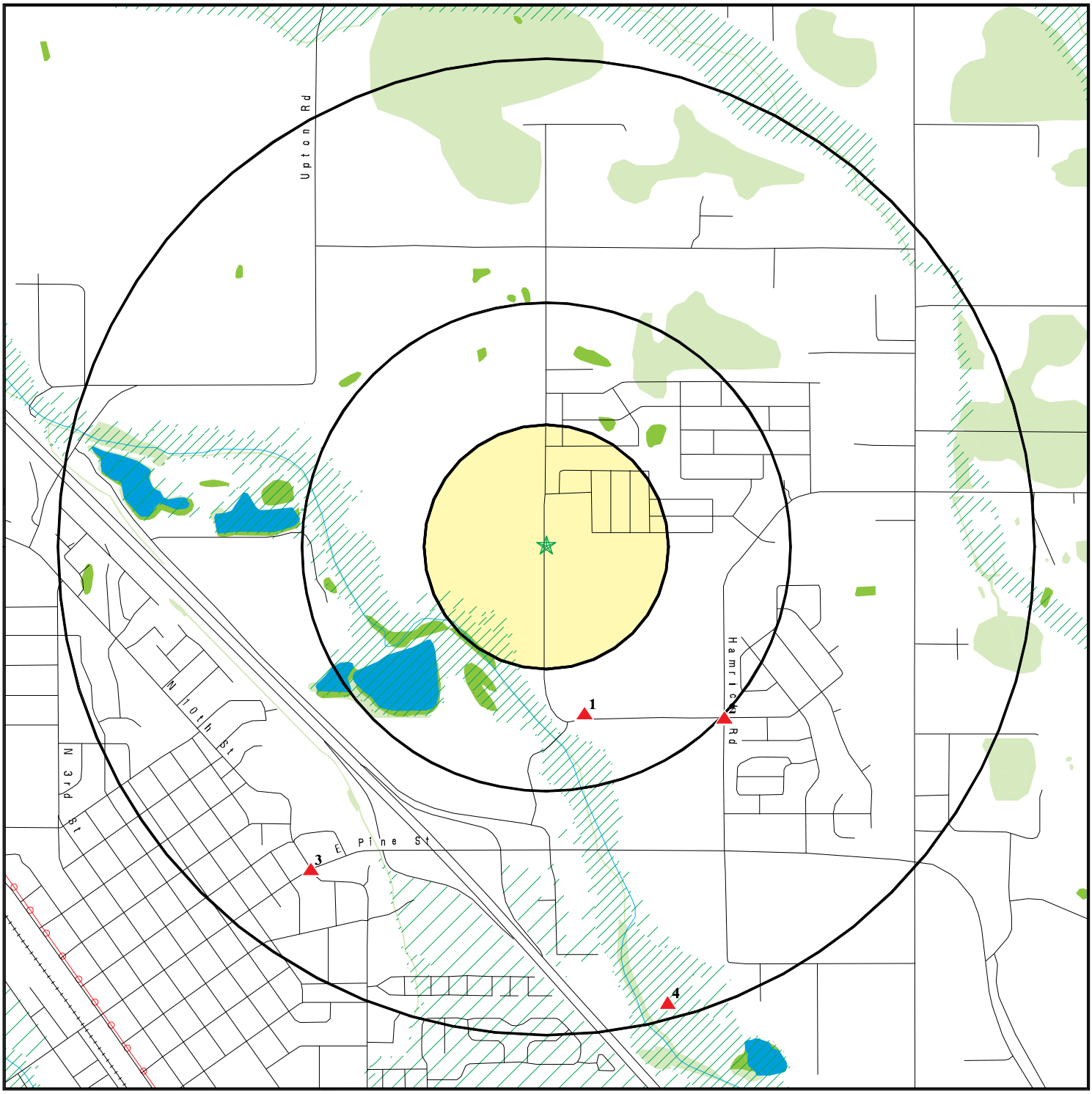
A review of the VCP list, as provided by EDR, and dated 01/03/2017 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BEEBE ROAD ECS Site ID: 4529	***718 BEEBE RD.***	***SSE 1/4 - 1/2 (0.349 mi.)***	***1***	***8***

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 5054391.2S



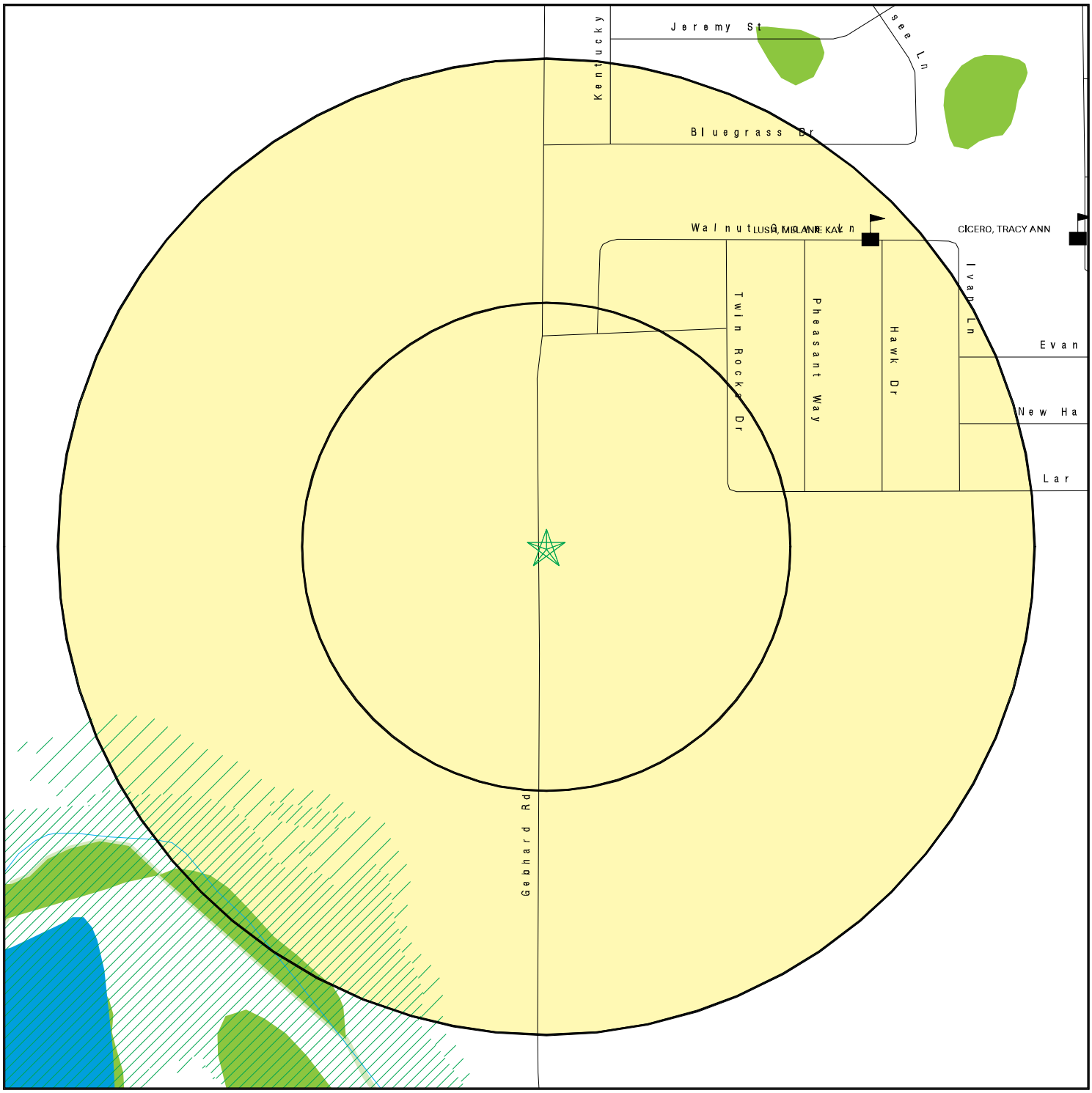
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Upgradient Area
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Gebhard Village	CLIENT:	Cascadia Associates LLC
ADDRESS:	4920 Gebhard Road Central Point OR 97502	CONTACT:	Amanda Spencer
		INQUIRY #:	5054391.2s
LAT/LONG:	42.387715 / 122.900081	DATE:	September 19, 2017 4:31 pm

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DETAIL MAP - 5054391.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Gebhard Village	CLIENT: Cascadia Associates LLC
ADDRESS: 4920 Gebhard Road Central Point OR 97502	CONTACT: Amanda Spencer
LAT/LONG: 42.387715 / 122.900081	INQUIRY #: 5054391.2s DATE: September 19, 2017 4:34 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
CRL	1.000		0	0	0	1	NR	1
ECSI	1.000		0	0	1	3	NR	4
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	1	NR	NR	1
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
AOCONCERN	1.000		0	0	0	0	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
OR HAZMAT	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HSIS	TP		NR	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	0	0	2	4	0	6

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
SSE
1/4-1/2
0.349 mi.
1845 ft.

BEEBE ROAD
718 BEEBE RD.
CENTRAL POINT, OR 97502

ECSI **S107543469**
VCP **N/A**

Relative:
Higher

Actual:
1265 ft.

ECSI:

State ID Number:	4529
Brown ID:	0
Study Area:	False
Region ID:	3
Legislatve ID:	0
Investigation:	Suspect
FACA ID:	90685
Further Action:	0
Lat/Long (dms):	42 23 1.00 / -122 53 57.50
County Code:	15.00
Score Value:	Not reported
Cerclis ID:	Not reported
Township Coord.:	37.00
Township Zone:	S
Range Coord:	2.00
Range Zone:	W
Section Coord:	2
Qtr Section:	Not reported
Tax Lots:	Not reported
Size:	18 acres
NPL:	False
Orphan:	False
Updated By:	GWISTAR
Update Date:	01/29/2008
Created Date:	11/09/2005
Decode For RegionID:	Western Region
Decode For BrownID:	Not reported
Decode For Furtheract:	Not reported
Decode For Investstat:	Suspect
Decode For Legislative:	Not reported

Narrative:

NARR ID:	5747441
NARR Code:	Contamination
Created By:	MENGLIS
Created Date:	11/09/2005
Updated By:	GWISTAR
Updated Date:	01/18/2006
Decode for NarcdID:	Contamination
NARR Comments:	A 4-acre portion of the 18-acre site was used as an orchard from approximately 1939 to 1970. Arsenic above regional background has been detected in the upper 2 feet in the orchard area. Elevated arsenic does not appear to be present outside of the orchard area. Low lead (29.2 mg/kg) and trace DDT (0.11 mg/kg), DDE (0.21 mg/kg) and dieldrin (0.03 mg/kg) were also detected.

NARR ID:	5747442
NARR Code:	Remedial Action
Created By:	MENGLIS
Created Date:	11/09/2005
Updated By:	GWISTAR
Updated Date:	12/05/2007
Decode for NarcdID:	Remedial Action

BEEBE ROAD (Continued) **S107543469**

NARR Comments: (11/9/05 GB/ICP) This site has been placed on the ICP waiting list.(A. Obery 2/1/07) ICP results report - interim deliverable. DEQ provided a response letter dated Jan 19, 2007.[Site has been placed on hold, awaiting a project manager to be reassigned.]

Administrative Action:
Action ID: 9413
Region: Western Region
Complete Date: 07/31/2012
Rank Value: Not reported
Cleanup Flag: False
Created Date: 12/10/2014
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: Closeout activities on completed project
Further Action: 0
Comments: Not reported

Action ID: 9424
Region: Not reported
Complete Date: 11/09/2005
Rank Value: Not reported
Cleanup Flag: False
Created Date: 11/09/2005
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Not reported
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9519
Region: Western Region
Complete Date: 02/16/2007
Rank Value: Not reported
Cleanup Flag: False
Created Date: 11/09/2005
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: VCS Waiting List
Further Action: 0
Comments: ICP Waiting List(2/16/07) signed Independent Cleanup Agreement received.

Action ID: 9433
Region: Western Region
Complete Date: 07/31/2012
Rank Value: Not reported
Cleanup Flag: False
Created Date: 02/01/2007
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action

BEEBE ROAD (Continued) **S107543469**

Action Code Flag: False
Action: INDEPENDENT CLEANUP
Further Action: 0
Comments: Not reported

VCS:
ECS Site ID: 4529
Facility Size: 18 acres
Action: Closeout activities on completed project
Start Date: 07/31/2012
End Date: 07/31/2012
Facility Status: Completed
Program: ICP
Latitude: 42.3836
Longitude: -122.8993

---

2 **DECARLO HOMES OIL RELEASE** **ECSI 1006853494**
SE **BEEBE RD & HAMRICK RD** **FINDS N/A**
1/2-1 **CENTRAL POINT, OR 97502**
0.505 mi.
2667 ft.

Relative:
Higher

Actual:
1271 ft.

ECSI:
State ID Number: 2266
Brown ID: 0
Study Area: False
Region ID: 3
Legislatve ID: 0
Investigation: No Further Action
FACA ID: 40714
Further Action: 0
Lat/Long (dms): 42 22 57.12 / -122 53 33.54
County Code: 15.00
Score Value: Not reported
Cerclis ID: Not reported
Township Coord.: 37.00
Township Zone: S
Range Coord: 2.00
Range Zone: W
Section Coord: 1
Qtr Section: Not reported
Tax Lots: Not reported
Size: 1.5 acre
NPL: False
Orphan: False
Updated By: GWISTAR
Update Date: 02/25/2009
Created Date: 10/08/1998
Decode For RegionID: Western Region
Decode For BrownID: Not reported
Decode For Furtheract: Not reported
Decode For Investstat: No Further Action
Decode For Legislative: Not reported

Hazardous Release:
Substance ID.: 121982
Haz Release ID: 381808
Qty Released: Unknown

DECARLO HOMES OIL RELEASE (Continued) **1006853494**

Date Released: 08131998
Update Date: 08/10/1998
Update By: Not reported
Substance Code: ECD169
Substance Name: DIESEL - FUEL OIL
Substance Abbrev.: Not reported
Substance Category ID: 8529
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Substance Category ID: 8529
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Sampling Result ID: 340223
Feature Id: Not reported
Hazard Release Id: 381808
Medium: 703
Substance Abbrev.: Not reported
Unit Code: 110
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 08/13/1998
End Date: 08/13/1998
Min Concentration: .00
Max Concentration: 3100.00
Sample Comment: (mjs/10-12-98)Post removal sampling indicated TPH-Diesel results in soil at 38 to 1,100 ppm. PAH analysis indicated Nondetects for all samples.
Last Update By: mjs
Update Date: 10/15/1998
Decode for MediumID: Soil
Sampling Result ID: 340224
Feature Id: Not reported
Hazard Release Id: 381808
Medium: 698
Substance Abbrev.: Not reported
Unit Code: 109
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 08/13/1998
End Date: 08/13/1998
Min Concentration: .00
Max Concentration: 300.00
Sample Comment: (mjs/10-12-98)Subsequent groundwater sampling showed nondetect for diesel.
Last Update By: mjs
Update Date: 10/15/1998
Decode for MediumID: Groundwater

Substance ID.: 121988

DECARLO HOMES OIL RELEASE (Continued) **1006853494**

Haz Release ID: 381809
Qty Released: Unknown
Date Released: 08131998
Update Date: 08/10/1998
Update By: Not reported
Substance Code: ECD198
Substance Name: OIL - LUBRICATING
Substance Abbrev.: Not reported
Substance Category ID: 8531
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Substance Category ID: 8531
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Sampling Result ID: 340222
Feature Id: Not reported
Hazard Release Id: 381809
Medium: 703
Substance Abbrev.: Not reported
Unit Code: 110
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 08/13/1998
End Date: 08/13/1998
Min Concentration: .00
Max Concentration: 6800.00
Sample Comment: (mjs/10-12-98)Post removal sampling results indicated TPH-Lube oil at 130 to 800 mg/Kg, however, PAH results were nondetect for all samples.
Last Update By: mjs
Update Date: 10/15/1998
Decode for MediumID: Soil

Narrative:
NARR ID: 5737908
NARR Code: Data Sources
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Data Sources
NARR Comments: OERS 98-1485

NARR ID: 5737909
NARR Code: Hazardous Substance/Waste Types
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Hazardous Substance/Waste Types
NARR Comments: An unknown volume of heavy oil was released.

NARR ID: 5737910

DECARLO HOMES OIL RELEASE (Continued) **1006853494**

NARR Code: Manner of Release
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Manner of Release
NARR Comments: (8/13/98 MJS/SAS) Spill/release on 6/22/98 during trench excavation to install storm drain for new development. Pocket of oil encountered. Not reported

Administrative Action:

Action ID: 9424
Region: Western Region
Complete Date: Not reported
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9425
Region: Western Region
Complete Date: 10/12/1998
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: SITE EVALUATION
Further Action: Not reported
Comments: State Screening

Action ID: 9443
Region: Western Region
Complete Date: 12/17/1998
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: NO FURTHER STATE ACTION REQUIRED
Further Action: Not reported
Comments: Not reported

FINDS:

Registry ID: 110014156260

DECARLO HOMES OIL RELEASE (Continued) **1006853494**

Environmental Interest/Information System
OR-DEQ (Oregon - Department Of Environmental Quality) is a regulatory agency whose job is to protect the quality of Oregon's Environment. DEQ uses a combination of technical assistance, inspections and permitting to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

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3 SW 1/2-1 0.817 mi. 4313 ft.

PACIFIC NW BELL - CENTRAL POINT
E PINE ST & FREEMAN RD
CENTRAL POINT, OR 97502

ECSI 1006854822
FINDS N/A

Relative: Higher

Actual: 1266 ft.

ECSI:

State ID Number:	670
Brown ID:	0
Study Area:	False
Region ID:	3
Legislatve ID:	0
Investigation:	No Further Action
FACA ID:	40010
Further Action:	0
Lat/Long (dms):	42 22 42.60 / -122 54 26.30
County Code:	15.00
Score Value:	Not reported
Cerclis ID:	Not reported
Township Coord.:	37.00
Township Zone:	S
Range Coord:	2.00
Range Zone:	W
Section Coord:	2
Qtr Section:	Not reported
Tax Lots:	100,900,1000
Size:	Not reported
NPL:	False
Orphan:	False
Updated By:	GWISTAR
Update Date:	02/25/2009
Created Date:	11/07/1988
Decode For RegionID:	Western Region
Decode For BrownID:	Not reported
Decode For Furtheract:	Not reported
Decode For Investstat:	No Further Action
Decode For Legislative:	Not reported

Hazardous Release:

Substance ID.:	121994
Haz Release ID:	385275
Qty Released:	unknown
Date Released:	Prior to 6-87
Update Date:	07/11/1988
Update By:	Not reported
Substance Code:	ECD222

PACIFIC NW BELL - CENTRAL POINT (Continued) **1006854822**

Substance Name: PETROLEUM
Substance Abbrev.: Not reported
Substance Category ID: 8533
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Substance Category ID: 8533
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Comment ID: 304363
Release Code: Data Sources
Release Comments: SWR Spill file
Decode for Relcomcd: Data Sources
Sampling Result ID: 346484
Feature Id: Not reported
Hazard Release Id: 385275
Medium: 703
Substance Abbrev.: Not reported
Unit Code: Not reported
Observation: False
Owner Operator: False
Lab Data: False
Sample Depth: Not reported
Start Date: Not reported
End Date: Not reported
Min Concentration: Not reported
Max Concentration: Not reported
Sample Comment: Hydrocarbon ID
Last Update By: CONV
Update Date: 09/13/1994
Decode for MediumID: Soil

Narrative:
NARR ID: 5727619
NARR Code: Contamination
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Contamination
NARR Comments: (1/18/95 CPJ/SAS) PNB representative reported petroleum in a telephone vault when the vault was opened on June 9, 1987. DEQ investigation found three possible sources, all service stations. Tanks at the stations were tested and found to be tight. DEQ visited the site 12/8/88. The vault was reopened; no petroleum product was detected in the standing water. Regional personnel believe the source was a vehicle accident at the intersection of Freeman and Pine Sts.

NARR ID: 5727620
NARR Code: Hazardous Substance/Waste Types
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Hazardous Substance/Waste Types

PACIFIC NW BELL - CENTRAL POINT (Continued) **1006854822**

NARR Comments: petroleum

NARR ID: 5727621
NARR Code: Manner of Release
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Manner of Release
NARR Comments: Source of contamination not known, but release occurred before June 1987.

Administrative Action:
Action ID: 9425
Region: Western Region
Complete Date: 01/18/1995
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: SITE EVALUATION
Further Action: Not reported
Comments: Not reported

Action ID: 9437
Region: Western Region
Complete Date: 01/18/1995
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Listing Review completed
Further Action: Not reported
Comments: Not reported

Action ID: 9443
Region: Western Region
Complete Date: 01/18/1995
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: NO FURTHER STATE ACTION REQUIRED
Further Action: Not reported
Comments: Not reported

Action ID: 9424
Region: Headquarters
Complete Date: Not reported

PACIFIC NW BELL - CENTRAL POINT (Continued) **1006854822**

Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Headquarters
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9508
Region: Headquarters
Complete Date: 02/11/1994
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Headquarters
Category: Remedial Action
Action Code Flag: False
Action: Site Screening recommended (EV)
Further Action: Not reported
Comments: Not reported

Action ID: 9445
Region: Headquarters
Complete Date: Not reported
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Headquarters
Category: Listing Action
Action Code Flag: False
Action: Responsible party notified re 11/88 Inventory listing
Further Action: Not reported
Comments: Not reported

Operations:
Operation Id: 131971
Operation Status: Unknown
Common Name: Pacific NW Bell - Central Point
Yrs of Operation: Not reported
Comments: Telephone (electrical) vault.
Updated Date: 09/13/1994
Updated By: CONV
Decode for OpstatID: Unknown
Operations SIC Id: 195143
SIC Code: 7389
Created By: Not reported
Created Date: 12/17/2002

FINDS:

Registry ID: 110014170994

PACIFIC NW BELL - CENTRAL POINT (Continued) **1006854822**

Environmental Interest/Information System
OR-DEQ (Oregon - Department Of Environmental Quality) is a regulatory agency whose job is to protect the quality of Oregon's Environment. DEQ uses a combination of technical assistance, inspections and permitting to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

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4 **LTM - HAMRICK ROAD ASPHALT PLANT** **CRL** **S108661048**
SSE **3959 HAMRICK RD.** **ECSI** **N/A**
1/2-1 **CENTRAL POINT, OR 97502** **VCP**
0.966 mi. **NPDES**
5098 ft.

Relative:
Higher

Actual:
1267 ft.

CRL:
Facility ID: 1393
Location ID: 3554
Status Code: LIS
Facility Status: Other remedial or investigative action recommended
Lat/Long: 42.375 / -122.8938

ECSI:

State ID Number:	1393
Brown ID:	0
Study Area:	False
Region ID:	3
Legislatve ID:	0
Investigation:	Listed on the CRL/Inventory
FACA ID:	3554
Further Action:	260
Lat/Long (dms):	42 22 30.00 / -122 53 37.70
County Code:	15.00
Score Value:	Not reported
Cerclis ID:	Not reported
Township Coord.:	37.00
Township Zone:	S
Range Coord:	2.00
Range Zone:	W
Section Coord:	1
Qtr Section:	Not reported
Tax Lots:	Not reported
Size:	Not reported
NPL:	False
Orphan:	False
Updated By:	MROSENB
Update Date:	08/27/2012
Created Date:	06/09/1993
Decode For RegionID:	Western Region
Decode For BrownID:	Not reported
Decode For Furtheract:	Low
Decode For Investstat:	Listed on the CRL/Inventory
Decode For Legislative:	Not reported
Alias Name:	MDU Resources

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Alias Name: Central Point Concrete
Alias Name: Lininger Tru-Mix - Hamrick Rd
Alias Name: LTM Inc.

Hazardous Release:
Substance ID.: 121989
Haz Release ID: 379891
Qty Released: unknown
Date Released: unknown
Update Date: 08/16/2001
Update By: Not reported
Substance Code: ECD200
Substance Name: OIL OR FUEL RELATED COMPOUNDS
Substance Abbrev.: Not reported
Substance Category ID: 8532
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Substance Category ID: 8532
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Sampling Result ID: 338618
Feature Id: Not reported
Hazard Release Id: 379891
Medium: 703
Substance Abbrev.: Not reported
Unit Code: Not reported
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 03/15/1999
End Date: Not reported
Min Concentration: Not reported
Max Concentration: Not reported
Sample Comment: 990 mg/kg
Last Update By: gmw
Update Date: 08/16/2001
Decode for MediumID: Soil
Sampling Result ID: 338619
Feature Id: Not reported
Hazard Release Id: 379891
Medium: 698
Substance Abbrev.: Not reported
Unit Code: Not reported
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 03/15/1999
End Date: Not reported
Min Concentration: Not reported
Max Concentration: Not reported
Sample Comment: 250 mg/L
Last Update By: gmw

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Update Date: 08/16/2001
Decode for MediumID: Groundwater

Substance ID.: 121982
Haz Release ID: 383665
Qty Released: unknown
Date Released: unknown
Update Date: 11/12/1991
Update By: Not reported
Substance Code: ECD169
Substance Name: DIESEL - FUEL OIL
Substance Abbrev.: Not reported
Substance Category ID: 8529
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Substance Category ID: 8529
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Sampling Result ID: 344122
Feature Id: Not reported
Hazard Release Id: 383665
Medium: 703
Substance Abbrev.: Not reported
Unit Code: Not reported
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 03/15/1999
End Date: Not reported
Min Concentration: Not reported
Max Concentration: Not reported
Sample Comment: 450 mg/kg
Last Update By: gmw
Update Date: 08/16/2001
Decode for MediumID: Soil
Sampling Result ID: 344123
Feature Id: Not reported
Hazard Release Id: 383665
Medium: 698
Substance Abbrev.: Not reported
Unit Code: Not reported
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: Not reported
Start Date: 03/15/1999
End Date: Not reported
Min Concentration: Not reported
Max Concentration: Not reported
Sample Comment: 38 mg/L
Last Update By: gmw
Update Date: 08/16/2001

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Decode for MediumID: Groundwater

Narrative:

NARR ID: 5733030
NARR Code: Contamination
Created By: Not reported
Created Date: 12/17/2002
Updated By: GWISTAR
Updated Date: 12/24/2002
Decode for NarcdID: Contamination
NARR Comments: (12/8/92 BPeterson/SWR) DEQ reviewed information indicating that a release of a hazardous substance has contaminated soil and groundwater at the site. According to Century West Engineering, there are two primary areas of diesel-related contamination: the asphalt plant and SUMP-1. (MLC CU/WR 1/4/00) In 3/99, test pits were excavated in the vicinity of a proposed storm sewer line. The highest soil diesel concentration was 450 ppm, and the highest oil level in soil was 990 ppm. The highest groundwater diesel concentration was 100 mg/L, and the highest groundwater oil concentration was 250 mg/L. There are 21 monitoring wells on-site, which are analyzed for TPH (total, diesel, and heavy oil) and PAHs. The highest TPH-D result in groundwater was 38 mg/L (MW-3) on 12/97.

NARR ID: 5733031
NARR Code: Data Sources
Created By: Not reported
Created Date: 12/17/2002
Updated By: MCAMARA
Updated Date: 09/09/2004
Decode for NarcdID: Data Sources
NARR Comments: 1) Site Characterization Report by Century West Engineering (3/23/92)2) Corrective Action Plan by Century West Engineering (9/1/92)3) DEQ options letter (8/12/92)4) Notification of Hazardous Substance Release by DEQ (12/11/92)5) Risk Evaluation Report, LTM Hamrick Road Site, Medford, Oregon by Parametric (3/17/04)

NARR ID: 5733032
NARR Code: Hazardous Substance/Waste Types
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Hazardous Substance/Waste Types
NARR Comments: Diesel, oil, PAHs.

NARR ID: 5733033
NARR Code: Site Location
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Site Location
NARR Comments: SW 1/4 of the SW 1/4 of section 1; SE 1/4 of the SE 1/4 of section 2; NE 1/4 of the NE 1/4 of section 11; NW 1/4 of the NW 1/4 of section 12 Not reported

NARR ID: 5733034
NARR Code: Manner of Release

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Manner of Release
NARR Comments: Underground storage tank (UST) leaks and surface spills.

NARR ID: 5733035
NARR Code: Media Contamination
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Media Contamination
NARR Comments: Groundwater, soil, and possibly surface water.

NARR ID: 5733036
NARR Code: Pathways Other Hazards
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Pathways & Other Hazards
NARR Comments: (1992 Century West Eng.) Site is bounded north by light industry, east by orchards, south and west by Bear Creek. There are approximately 850 wells within a 2-mile radius; 90 percent of these are domestic (mostly drawing water from 40 to 70 feet below grade). Historically, petroleum products have been stored primarily in above-ground storage tanks (ASTs); however, several USTs were used for diesel and waste oils.

NARR ID: 5733037
NARR Code: Remedial Action
Created By: Not reported
Created Date: 12/17/2002
Updated By: MCAMARA
Updated Date: 12/15/2006
Decode for NarcdID: Remedial Action
NARR Comments: (12/11/92 BP/SWR) Further action recommended. Partial cleanup has occurred, but additional sampling and cleanup is needed. Site was referred to SAS. (1/4/00 M2C/1/4/2000) There has been quarterly groundwater sampling from monitoring wells MW-1 through MW-19 & RW-1 since 1995. The wells have been analyzed for diesel/heavy oils and PAHs. Starting in spring 1999, monitoring wells MW-4, MW-5, MW-6, & RW-1 will be sampled annually. MW-7 will be sampled semi-annually. MW-13 & MW-17 will be used for water level measurement only. MW-1 through MW-3, MW-8 through MW-12, MW-14 through MW-16, & MW-18 through MW-19 will continue to be sampled quarterly. In May 1999, MW-20 & MW-21 were installed near Bear Creek. These wells will be sampled quarterly for diesel/heavy oils & PAHs.(9/8/04 M2C/VCP) LTM has conducted several investigations in the following areas: 1) the pipe plant area, 2) the smudge pot area, 3) the maintance shop area, 4) the lube room area, 5) the Hayes oil tank area, 6) the truck wash down area, and 7) the SUMP-1 and asphalt plant areas. Remedial activities have included contaminated soil excavation, treatment and disposal, construction of a product recovery trench, and installation of groundwater mnitoring well network. The remaining area to be

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

evaluated was potential impacts to Bear Creek. In July 2002, Parametric completed a seep investigation along the north bank of Bear Creek, in the vicinity of groundwater contaminated with low concentrations of petroleum hydrocarbons. Soil and water samples were collected. The sample results indicated that site contaminants have been released or are currently being released into Bear Creek. In October 2003, Parametric collected additional samples from seeps along the bank, sediment in Bear Creek and surface water in Bear Creek. Parametric presented sample results and evaluation in their Risk Evaluation Report dated March 2004. DEQ is reviewing the report.(1/28/05 M2C/VCP) Parametrix has proposed abandoning the following wells: MW-1, MW-4, MW-5, MW-6, MW-7, MW-11, MW-13, MW-17, MW-18, MW-19, and RW-1. The concentrations in these wells are below drinking water screening values and are not needed for groundwater flow direction. DEQ agrees to the decommissioning of these wells according to Oregon Water Resources (WRD) regulations. (4/20/05 M2C/VCP) The Risk Evaluation Report summarized site characterization and remedial activities, beneficial water use determination, land use determination, human health risk evaluation, and ecological risk evaluation. The report indicated that residual soil and groundwater contamination is present on-site and in seep samples along the bank of Bear Creek. There was no residual contamination found in Bear Creek sediments and surface water. Eight PAHs found in bank samples Seep-5, Seep-6, and Seep-7 exceeded ecological screening values for freshwater sediments. Even though the associated Bear Creek sediment samples contained no PAHs, DEQ is concerned during high water flow (winter months) that ecological receptors may come in contact with contaminated sediment. DEQ recommends that a biologist assess whether the seep sediment sample area provides aquatic habitat during high water events. If that is the case, sediment toxicity testing is an option that can be conducted on seep sediments to determine if site-related chemicals found in the seep sediments would have a significant impact to aquatic life. (12/15/06 M2C/VCP) This site is currently on DEQ's waiting list for a project manager due to staffing issues. Contact Western Region Cleanup Manager for status of waiting list.

NARR ID: 5733038
NARR Code: Health Threats
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Health Threats
NARR Comments: Groundwater contamination and potential impacts to Bear Creek.

Administrative Action:
Action ID: 9498
Region: Western Region
Complete Date: 06/05/2001
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Proposal for Confirmed Release List recommended

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Further Action: Not reported
Comments: Not reported

Action ID: 9499
Region: Western Region
Complete Date: 06/05/2001
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Proposal for Inventory recommended
Further Action: Not reported
Comments: Not reported

Action ID: 9467
Region: Western Region
Complete Date: 08/20/2001
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Facility proposed for Inventory
Further Action: Not reported
Comments: Not reported

Action ID: 9459
Region: Western Region
Complete Date: 07/28/1997
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: PRELIMINARY ASSESSMENT EQUIVALENT
Further Action: Not reported
Comments: file review summary

Action ID: 9484
Region: Western Region
Complete Date: 07/31/2001
Rank Value: Not reported
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: REMEDIAL INVESTIGATION
Further Action: 0

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Comments: Not reported

Action ID: 9519
Region: Western Region
Complete Date: 06/30/1996
Rank Value: 6
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: VCS Waiting List
Further Action: Not reported
Comments: Not reported

Action ID: 9424
Region: Not reported
Complete Date: Not reported
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Not reported
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9431
Region: Not reported
Complete Date: 06/05/2001
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Not reported
Category: Listing Action
Action Code Flag: False
Action: Place on hold
Further Action: Not reported
Comments: Not reported

Action ID: 9425
Region: Western Region
Complete Date: 12/10/1992
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: SITE EVALUATION
Further Action: Not reported
Comments: Not reported

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Action ID: 9437
Region: Western Region
Complete Date: 12/10/1992
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Listing Review completed
Further Action: Not reported
Comments: Not reported

Action ID: 9498
Region: Western Region
Complete Date: 12/11/1992
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Proposal for Confirmed Release List recommended
Further Action: Not reported
Comments: Not reported

Action ID: 9439
Region: Western Region
Complete Date: 01/18/2002
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Facility placed on Inventory
Further Action: Not reported
Comments: Not reported

Action ID: 9438
Region: Western Region
Complete Date: 01/18/2002
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Facility placed on Confirmed Release List
Further Action: Not reported
Comments: Not reported

Action ID: 9465

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Region: Western Region
Complete Date: 08/20/2001
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Listing Action
Action Code Flag: False
Action: Facility proposed for Confirmed Release List
Further Action: Not reported
Comments: Not reported

Action ID: 9521
Region: Western Region
Complete Date: 12/11/1992
Rank Value: Not reported
Cleanup Flag: False
Created Date: 05/22/2003
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: OPTN
Further Action: 0
Comments: Not reported

Action ID: 9470
Region: Western Region
Complete Date: 01/30/2009
Rank Value: Not reported
Cleanup Flag: False
Created Date: 01/30/2009
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: Other remedial or investigative action recommended
Further Action: 0
Comments: Not reported

Operations:
Operation Id: 132707
Operation Status: Active
Common Name: LTM - Hamrick RD Asphalt Plant
Yrs of Operation: 1940s to present
Comments: Primarily used for ashpalt and concrete operations; site includes office buildings and maintenance shops.
Updated Date: 09/13/1994
Updated By: CONV
Decode for OpstatID: Active
Operations SIC Id: 195703
SIC Code: 2951
Created By: Not reported
Created Date: 12/17/2002

VCS:

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

ECS Site ID: 1393
Facility Size: Not reported
Action: Other remedial or investigative action recommended
Start Date: 01/30/2009
End Date: 01/30/2009
Facility Status: Inactive
Program: VCP
Latitude: 42.375
Longitude: -122.8938

NPDES:
WQ File Nbr: 50776
Legal Name: LTM, INCORPORATED
Region: Not reported
Pri SIC: 3273
Facility Type: Not reported
Latitude: Not reported
Longitude: Not reported
Category: Not reported
Permit Type: GEN10
Permit Active: Not reported
Is Active?: FALSE
Permit Description: Not reported
Expiration Date: Not reported
EPA Number: Not reported
UIC Facility: Not reported
Admin Agent: Not reported
Last Action Date: Not reported
Permit Writer: Not reported
Compliance Inspector: Not reported
DMR Reviewer: Not reported
Application Number: Not reported
Class: Not reported
Start Date: Not reported
Region Decode: Not reported

WQ File Nbr: 50776
Legal Name: LTM, INCORPORATED
Region: Not reported
Pri SIC: 3273
Facility Type: Not reported
Latitude: Not reported
Longitude: Not reported
Category: Not reported
Permit Type: GEN12A
Permit Active: Not reported
Is Active?: FALSE
Permit Description: Not reported
Expiration Date: Not reported
EPA Number: Not reported
UIC Facility: Not reported
Admin Agent: Not reported
Last Action Date: Not reported
Permit Writer: Not reported
Compliance Inspector: Not reported
DMR Reviewer: Not reported
Application Number: Not reported

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Class:	Not reported
Start Date:	Not reported
Region Decode:	Not reported
WQ File Nbr:	50776
Legal Name:	LTM, INCORPORATED
Region:	Not reported
Pri SIC:	3273
Facility Type:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Category:	Not reported
Permit Type:	GEN15A
Permit Active:	Not reported
Is Active?:	FALSE
Permit Description:	Not reported
Expiration Date:	Not reported
EPA Number:	Not reported
UIC Facility:	Not reported
Admin Agent:	Not reported
Last Action Date:	Not reported
Permit Writer:	Not reported
Compliance Inspector:	Not reported
DMR Reviewer:	Not reported
Application Number:	Not reported
Class:	Not reported
Start Date:	Not reported
Region Decode:	Not reported
WQ File Nbr:	50776
Legal Name:	LTM, INCORPORATED
Region:	Not reported
Pri SIC:	3273
Facility Type:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Category:	Not reported
Permit Type:	GEN54
Permit Active:	Not reported
Is Active?:	FALSE
Permit Description:	Not reported
Expiration Date:	Not reported
EPA Number:	Not reported
UIC Facility:	Not reported
Admin Agent:	Not reported
Last Action Date:	Not reported
Permit Writer:	Not reported
Compliance Inspector:	Not reported
DMR Reviewer:	Not reported
Application Number:	Not reported
Class:	Not reported
Start Date:	Not reported
Region Decode:	Not reported
WQ File Nbr:	50776
Legal Name:	LTM, INCORPORATED
Region:	Not reported

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Pri SIC:	3273
Facility Type:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Category:	Not reported
Permit Type:	WPCF-IW-Mii
Permit Active:	Not reported
Is Active?:	FALSE
Permit Description:	Not reported
Expiration Date:	Not reported
EPA Number:	Not reported
UIC Facility:	Not reported
Admin Agent:	Not reported
Last Action Date:	Not reported
Permit Writer:	Not reported
Compliance Inspector:	Not reported
DMR Reviewer:	Not reported
Application Number:	Not reported
Class:	Not reported
Start Date:	Not reported
Region Decode:	Not reported

WQ File Nbr:	50776
Legal Name:	LTM, INCORPORATED
Region:	Not reported
Pri SIC:	3273
Facility Type:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Category:	Not reported
Permit Type:	WPCF-IW-N
Permit Active:	Not reported
Is Active?:	FALSE
Permit Description:	Not reported
Expiration Date:	Not reported
EPA Number:	Not reported
UIC Facility:	Not reported
Admin Agent:	Not reported
Last Action Date:	Not reported
Permit Writer:	Not reported
Compliance Inspector:	Not reported
DMR Reviewer:	Not reported
Application Number:	Not reported
Class:	Not reported
Start Date:	Not reported
Region Decode:	Not reported

WQ File Nbr:	50776
Legal Name:	LTM, INCORPORATED
Region:	Not reported
Pri SIC:	3273
Facility Type:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Category:	Not reported
Permit Type:	WPCFOS-Bix
Permit Active:	Not reported

LTM - HAMRICK ROAD ASPHALT PLANT (Continued) **S108661048**

Is Active?:	FALSE
Permit Description:	Not reported
Expiration Date:	Not reported
EPA Number:	Not reported
UIC Facility:	Not reported
Admin Agent:	Not reported
Last Action Date:	Not reported
Permit Writer:	Not reported
Compliance Inspector:	Not reported
DMR Reviewer:	Not reported
Application Number:	Not reported
Class:	Not reported
Start Date:	Not reported
Region Decode:	Not reported

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/08/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 99

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/07/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/21/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 02/07/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/10/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 101

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 101

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 43

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/28/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

CRL: Confirmed Release List and Inventory
All facilities with a confirmed release.

Date of Government Version: 11/01/2016
Date Data Arrived at EDR: 11/17/2016
Date Made Active in Reports: 01/31/2017
Number of Days to Update: 75

Source: Department of Environmental Quality
Telephone: 503-229-6170
Last EDR Contact: 08/17/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Quarterly

ECSI: Environmental Cleanup Site Information System
Sites that are or may be contaminated and may require cleanup.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 70

Source: Department of Environmental Quality
Telephone: 503-229-6629
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities List
Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 01/24/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 52

Source: Department of Environmental Quality
Telephone: 503-229-6299
Last EDR Contact: 07/17/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 04/04/2017
Date Data Arrived at EDR: 05/18/2017
Date Made Active in Reports: 06/30/2017
Number of Days to Update: 43

Source: Department of Environmental Quality
Telephone: 503-229-5790
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/07/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/06/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/14/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Varies

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 10/04/2016
Date Data Arrived at EDR: 11/17/2016
Date Made Active in Reports: 01/31/2017
Number of Days to Update: 75

Source: Department of Environmental Quality
Telephone: 503-229-5815
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Quarterly

AST: Aboveground Storage Tanks
Aboveground storage tank locations reported to the Office of State Fire Marshal.

Date of Government Version: 09/01/2016
Date Data Arrived at EDR: 09/20/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 52

Source: Office of State Fire Marshal
Telephone: 503-378-3473
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/06/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 01/14/2017
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/07/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Recorded at ESCI Sites

Engineering controls are physical measures selected or approved by the Director for the purpose of preventing or minimizing exposure to hazardous substances. Engineering controls may include, but are not limited to, fencing, capping, horizontal or vertical barriers, hydraulic controls, and alternative water supplies.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 70

Source: Department of Environmental Quality
Telephone: 503-229-5193
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

INST CONTROL: Institutional Controls Recorded at ESCI Sites

An institutional control is a legal or administrative tool or action taken to reduce the potential for exposure to hazardous substances. Institutional controls may include, but are not limited to, use restrictions, environmental monitoring requirements, and site access and security measures.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 70

Source: Department of Environmental Quality
Telephone: 503-229-5193
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

VCS: Voluntary Cleanup Program Sites

Responsible parties have entered into an agreement with DEQ to voluntarily address contamination associated with their property.

Date of Government Version: 01/03/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 70

Source: DEQ
Telephone: 503-229-5256
Last EDR Contact: 06/30/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/27/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Projects

Brownfields investigations and/or cleanups that have been conducted in Oregon.

Date of Government Version: 11/01/2016
Date Data Arrived at EDR: 11/17/2016
Date Made Active in Reports: 01/31/2017
Number of Days to Update: 75

Source: Department of Environmental Quality
Telephone: 503-229-6801
Last EDR Contact: 08/17/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Semi-Annually

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/19/2017
Date Data Arrived at EDR: 06/20/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/20/2017
Next Scheduled EDR Contact: 10/02/2017
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facility Location Listing

A listing of recycling facility locations.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/01/2016
Date Made Active in Reports: 02/01/2017
Number of Days to Update: 62

Source: Department of Environmental Quality
Telephone: 503-229-5353
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Quarterly

HIST LF: Old Closed SW Disposal Sites

A list of solid waste disposal sites that have been closed for a long while.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 07/08/2003
Date Made Active in Reports: 07/18/2003
Number of Days to Update: 10

Source: Department of Environmental Quality
Telephone: 503-229-5409
Last EDR Contact: 07/08/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/24/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 08/29/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/09/2017
Date Data Arrived at EDR: 03/08/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 93

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: No Update Planned

AOC MU: East Multnomah County Area
Approximate extent of TSA VOC plume February , 2002

Date of Government Version: N/A
Date Data Arrived at EDR: 10/07/2002
Date Made Active in Reports: 10/22/2002
Number of Days to Update: 15

Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 03/13/2007
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

AOC COL: Columbia Slough
Columbia Slough waterway boundaries.

Date of Government Version: 08/10/2005
Date Data Arrived at EDR: 05/17/2006
Date Made Active in Reports: 06/16/2006
Number of Days to Update: 30

Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 03/13/2007
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CDL 2: Clandestine Drug Lab Site Listing
A listing of clandestine drug lab site locations included in the Incident database.

Date of Government Version: 03/23/2016
Date Data Arrived at EDR: 05/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 38

Source: Oregon State Police
Telephone: 503-373-1540
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

CDL: Uninhabitable Drug Lab Properties
The properties listed on these county pages have been declared by a law enforcement agency to be unfit for use due to meth lab and/or storage activities. The properties are considered uninhabitable until cleaned up by a state certified decontamination contractor and a certificate of fitness is issued by the Oregon Health Division.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 01/31/2017
Number of Days to Update: 35

Source: Department of Consumer & Business Services
Telephone: 503-378-4133
Last EDR Contact: 08/08/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/09/2017
Date Data Arrived at EDR: 03/08/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 93

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/26/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 37

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/28/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Annually

SPILLS: Spill Data

Oil and hazardous material spills reported to the Environmental Response Program.

Date of Government Version: 01/03/2017
Date Data Arrived at EDR: 01/04/2017
Date Made Active in Reports: 01/31/2017
Number of Days to Update: 27

Source: Department of Environmental Quality
Telephone: 503-229-5815
Last EDR Contact: 06/30/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Semi-Annually

HAZMAT: Hazmat/Incidents

Hazardous material incidents reported to the State Fire Marshal by emergency responders. The hazardous material may or may not have been released.

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 11/02/2016
Date Made Active in Reports: 11/14/2016
Number of Days to Update: 12

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Semi-Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 05/01/2006
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/25/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/12/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/14/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 05/10/2017
Date Data Arrived at EDR: 05/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 121

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 08/07/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/24/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/21/2017
Next Scheduled EDR Contact: 10/02/2017
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/23/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/08/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2017
Date Data Arrived at EDR: 02/09/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/24/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 08/08/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 127
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/10/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/08/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/08/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 35
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/12/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 77

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/21/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 08/25/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/11/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/22/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 08/11/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Annually

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/08/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 38

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing
This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/01/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/01/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/14/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 21

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/07/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/23/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 9

Source: EPA
Telephone: (206) 553-1200
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 07/17/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 03/19/2017
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 91
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/24/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/17/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 29
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/17/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

AIRS: Oregon Title V Facility Listing
A listing of Title V facility source and emissions information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 03/15/2016
Number of Days to Update: 25
Source: Department of Environmental Quality
Telephone: 503-229-6459
Last EDR Contact: 06/30/2017
Next Scheduled EDR Contact: 04/17/2047
Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Sites Listing
A listing of coal ash disposal sites.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 11/14/2016
Number of Days to Update: 67
Source: Department of Environmental Quality
Telephone: 541-298-7255
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Facilities
A listing of registered drycleaning facilities in Oregon.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 05/03/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 41
Source: Department of Environmental Quality
Telephone: 503-229-6783
Last EDR Contact: 07/31/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial assurance information for hazardous waste facilities.

Date of Government Version: 12/27/2016
Date Data Arrived at EDR: 12/30/2016
Date Made Active in Reports: 01/31/2017
Number of Days to Update: 32
Source: Department of Environmental Quality
Telephone: 541-633-2011
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
Financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 01/24/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 52

Source: Department of Environmental Quality
Telephone: 503-229-5521
Last EDR Contact: 08/21/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

HSIS: Hazardous Substance Information Survey

Companies in Oregon submitting the Hazardous Substance Information Survey and either reporting or not reporting hazardous substances.

Date of Government Version: 09/01/2016
Date Data Arrived at EDR: 09/20/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 52

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Semi-Annually

OR MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 05/24/2016
Date Made Active in Reports: 08/10/2016
Number of Days to Update: 78

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 08/07/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Annually

NPDES: Wastewater Permits Database

A listing of permitted wastewater facilities.

Date of Government Version: 12/06/2016
Date Data Arrived at EDR: 12/09/2016
Date Made Active in Reports: 04/14/2017
Number of Days to Update: 126

Source: Department of Environmental Quality
Telephone: 503-229-5657
Last EDR Contact: 08/07/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

UIC: Underground Injection Control Program Database

DEQ's Underground Injection Control Program is authorized by the Environmental Protection Agency (EPA) to regulate all underground injection in Oregon to protect groundwater resources.

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/17/2017
Number of Days to Update: 70

Source: Department of Environmental Quality
Telephone: 503-229-5945
Last EDR Contact: 06/27/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/27/2013
Number of Days to Update: 179

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/30/2017
Date Data Arrived at EDR: 02/01/2017
Date Made Active in Reports: 02/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/11/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.
Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.
Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Child Care Listings
Source: Employment Department
Telephone: 503-947-1420

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data
Source: Oregon Geospatial Enterprise Office
Telephone: 503-378-2166

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

GEBHARD VILLAGE
4920 GEBHARD ROAD
CENTRAL POINT, OR 97502

TARGET PROPERTY COORDINATES

Latitude (North):	42.387715 - 42° 23' 15.77''
Longitude (West):	122.900081 - 122° 54' 0.29''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	508224.9
UTM Y (Meters):	4692616.0
Elevation:	1253 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	6071147 SAMS VALLEY, OR
Version Date:	2014
South Map:	6071123 MEDFORD WEST, OR
Version Date:	2014

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

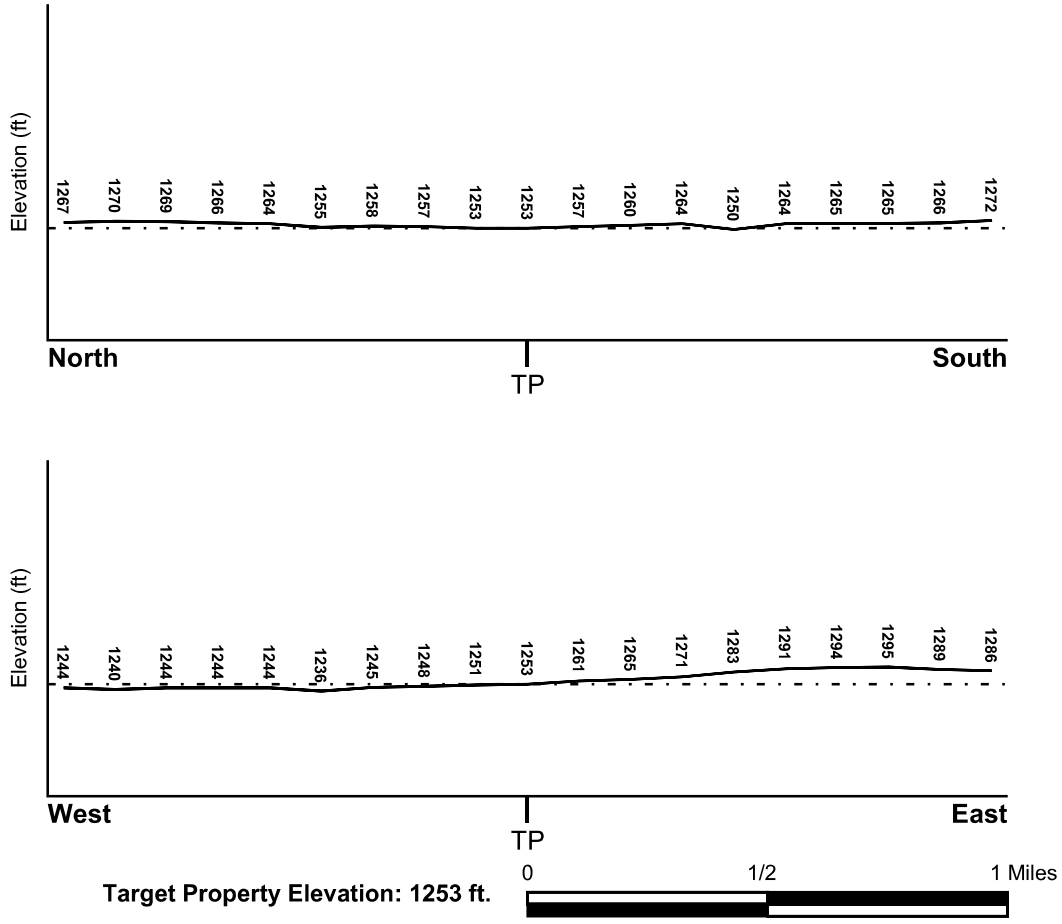
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
41029C1769F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
41029C1768F	FEMA FIRM Flood data
41029C1956F	FEMA FIRM Flood data
41029C1957F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
SAMS VALLEY	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

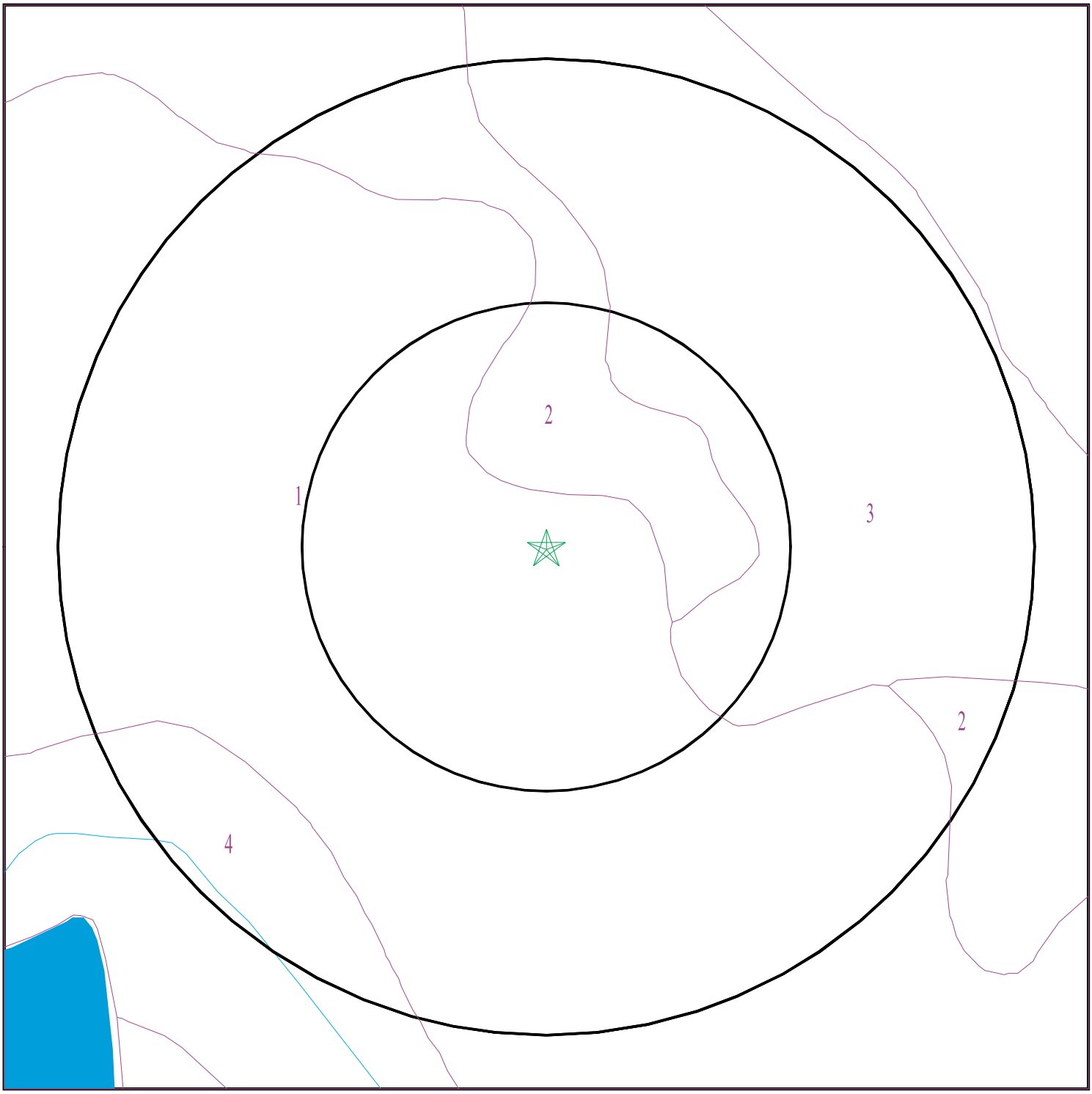
Era:	Cenozoic
System:	Tertiary
Series:	Eocene
Code:	Tec *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Continental Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5054391.2s



SITE NAME:	Gebhard Village	CLIENT:	Cascadia Associates LLC
ADDRESS:	4920 Gebhard Road Central Point OR 97502	CONTACT:	Amanda Spencer
LAT/LONG:	42.387715 / 122.900081	INQUIRY #:	5054391.2s
		DATE:	September 19, 2017 4:35 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Medford

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 153 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.3 Min: 5.6
2	11 inches	22 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.3 Min: 5.6
3	22 inches	53 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.3 Min: 5.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	53 inches	70 inches	stratified sandy clay loam to silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.3 Min: 5.6

Soil Map ID: 2

Soil Component Name: Kubli

Soil Surface Texture: loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 53 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 6.6
2	14 inches	31 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 6.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	31 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 7.3 Min: 6.6

Soil Map ID: 3

Soil Component Name: Kerby

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 5.6
2	7 inches	53 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 1.4	Max: 6.5 Min: 5.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	53 inches	59 inches	very gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 141 Min: 42	Max: 6.5 Min: 5.6

Soil Map ID: 4

Soil Component Name: Camas

Soil Surface Texture: gravelly sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	59 inches	extremely gravelly coarse sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 705 Min: 141	Max: 7.3 Min: 5.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000986357	0 - 1/8 Mile SSE
2	USGS40000986368	0 - 1/8 Mile NNE
4	USGS40000986397	1/4 - 1/2 Mile North
A5	USGS40000986344	1/4 - 1/2 Mile SE
6	USGS40000986342	1/4 - 1/2 Mile SSE
A7	USGS40000986343	1/4 - 1/2 Mile SE
8	USGS40000986345	1/4 - 1/2 Mile SE
9	USGS40000986414	1/2 - 1 Mile North
10	USGS40000986413	1/2 - 1 Mile NNW
11	USGS40000986369	1/2 - 1 Mile West
13	USGS40000986418	1/2 - 1 Mile NNE
19	USGS40000986334	1/2 - 1 Mile SSE
20	USGS40000986346	1/2 - 1 Mile WSW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
23	USGS40000986427	1/2 - 1 Mile North
24	USGS40000986330	1/2 - 1 Mile SSE
25	USGS40000986333	1/2 - 1 Mile SE
26	USGS40000986406	1/2 - 1 Mile WNW
27	USGS40000986434	1/2 - 1 Mile NNW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

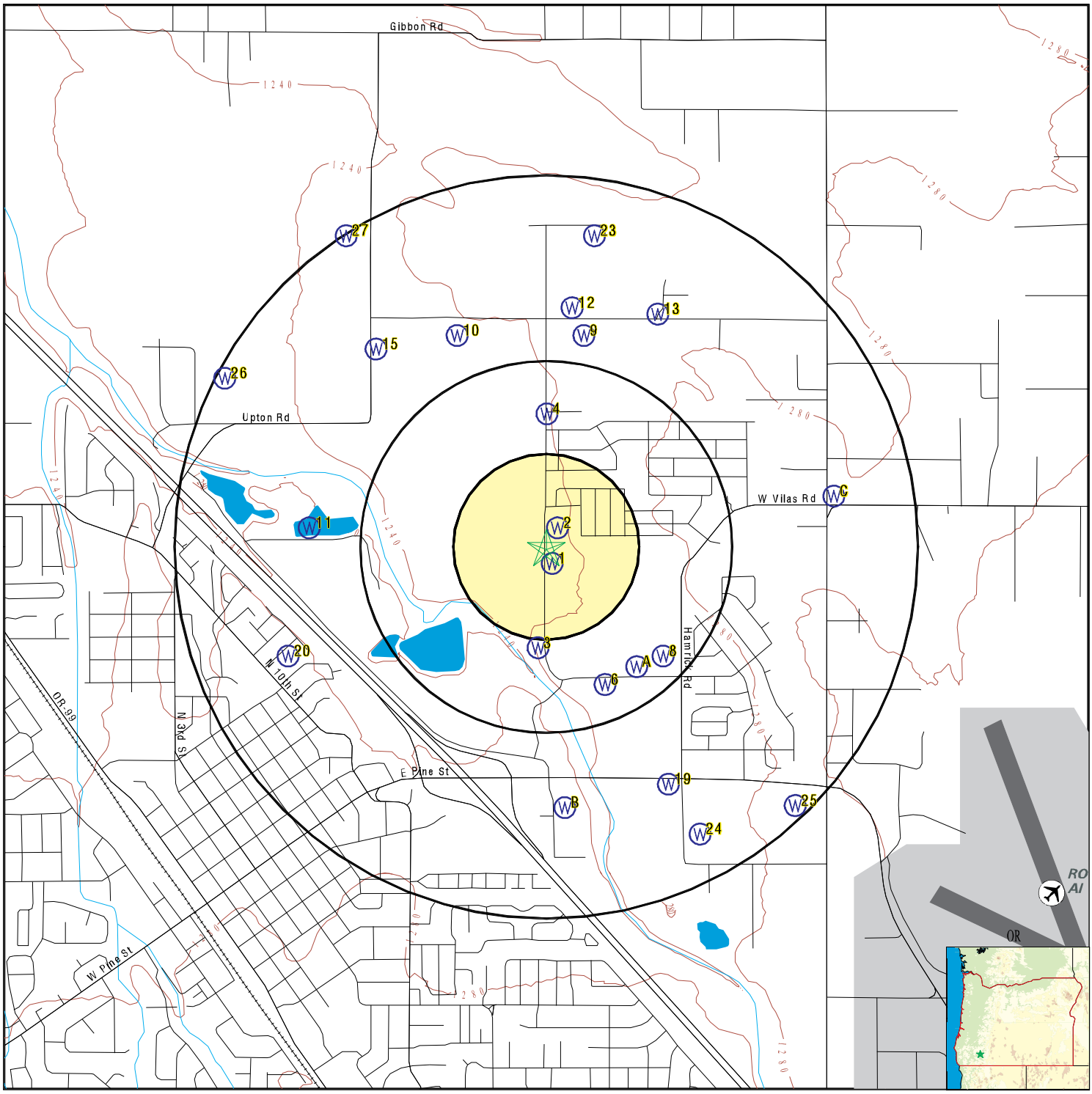
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
3	ORI500000052076	1/4 - 1/2 Mile South
12	ORI500000046963	1/2 - 1 Mile North
B14	ORI500000051512	1/2 - 1 Mile South
15	ORI500000051637	1/2 - 1 Mile NW
B16	ORI500000051510	1/2 - 1 Mile South
B17	ORI500000051509	1/2 - 1 Mile South
B18	ORI500000051508	1/2 - 1 Mile South
C21	ORI500000053362	1/2 - 1 Mile East
C22	ORI500000053361	1/2 - 1 Mile East

PHYSICAL SETTING SOURCE MAP - 5054391.2s



County Boundary
Major Roads
Contour Lines
Airports
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
GI Indeterminate Groundwater Flow at Location
GV Groundwater Flow Varies at Location
Oil, gas or related wells

SITE NAME:	Gebhard Village	CLIENT:	Cascadia Associates LLC
ADDRESS:	4920 Gebhard Road Central Point OR 97502	CONTACT:	Amanda Spencer
		INQUIRY #:	5054391.2s
LAT/LONG:	42.387715 / 122.900081	DATE:	September 19, 2017 4:35 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
SSE **FED USGS** **USGS40000986357**
0 - 1/8 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422314122535501		
Monloc name:	37S/02W-02AAC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3870699
Longitude:	-122.8997637	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1253
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19691016	Welldepth:	76
Welldepth units:	ft	Wellholedepth:	76
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1969-10-16	21.00	

2
NNE **FED USGS** **USGS40000986368**
0 - 1/8 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422319122535501		
Monloc name:	37S/02W-02AAB1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3884587
Longitude:	-122.8994859	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1245.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19661110	Welldepth:	70
Welldepth units:	ft	Wellholedepth:	70
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-15	11.34	

Note: The site had been pumped recently.

3
South
1/4 - 1/2 Mile
Higher

OR WELLS **ORI500000052076**

Fid:	52075	Well inspe:	0
Physical l:	Not Reported	Inspection:	2012-04-11 00:00:00.000
Startcard :	205620	Wl county :	JACK
Wl nbr:	61181	Startcar00:	20562
Well tag n:	10719	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	HIGHLANDER FOREST LLC		
Street:	1240	City:	CENTR
State:	OR	Zip:	97502
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	0
Consultant:	0	Water in v:	0
Seal test :	Not Reported	Samples ta:	0
Casing dia:	6.00	Csg above :	1.10
Csg gauge:	0.250	Borehole d:	10.00
Dedicated :	0	Access por:	1
Access p00:	APT	Measuring :	1.10
Measurin00:	1	Depth belo:	141.0
Depth be00:	Not Reported	Tape hold:	20.00
Tape missi:	0.00	Tape cut:	7.60
Water leve:	STC	Water le00:	ETP
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	LATE		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	1
Drill ro00:	0	Drill cabl:	0

Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	Not Reported	Use domest:	1
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	LINER
Well tag00:	107198	Bonded lic:	1661
Unbonded l:	Not Reported	Bonded dri:	BRAD,
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	300	Township:	37
Township c:	S	Range:	2
Range char:	W	Sctn:	2
Qtr40:	SW	Qtr160:	NE
Latitude d:	42.38378000	Longitude :	-122.90051000
Gps horizo:	15.40000000	Year const:	Not Reported
Date const:	2012-	Date con00:	2012-
Deficienci:	Y	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	METAL INTERLOCKING STRAP UPSIDE DOWN		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	OLD A	Site visit:	Not Reported
Type of lo:	W	Casing cap:	SNT
Pictures t:	1	Street of :	4613 GEBHARD RD
Street o00:	4613 GEBHARD RD CENTRAL POINT		
Last updt :	2012-07-16 16:43:46.840		
Last upd00:	omeag	Rec creati:	2012-07-16 16:39:25.543
Rec crea00:	omeag		
Latitude:	42.38378		
Loongitude:	-122.90051		
Site id:	ORI500000052076		

4
North
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000986397**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422335122535601		
Monloc name:	36S/02W-35DAC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3929031
Longitude:	-122.9000416	Sourcemap scale:	62500

Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1245.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19620801	Welldepth:	120
Welldepth units:	ft	Wellholedepth:	120
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-16	12.00	

Note: The site was being pumped.

A5
SE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000986344**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422300122534101		
Monloc name:	37S/02W-02ADD2		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3831811
Longitude:	-122.8958746	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1264
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19651110	Welldepth:	66.5
Welldepth units:	ft	Wellholedepth:	66.5
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1965-11-10	8.00	

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

6
SSE | **FED USGS** | **USGS40000986342**
1/4 - 1/2 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422257122534501		
Monloc name:	37S/02W-02ADD1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3823477
Longitude:	-122.8969857	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1250.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19660514	Welldepth:	12
Welldepth units:	ft	Wellholedepth:	12
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-15	1.64	

A7
SE | **FED USGS** | **USGS40000986343**
1/4 - 1/2 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422259122533702		
Monloc name:	37S/02W-01BCC2		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3829033
Longitude:	-122.8947634	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1260.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19570919	Welldepth:	97
Welldepth units:	ft	Wellholedepth:	97
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1957-09-19	10.00	

8
SE **FED USGS** **USGS40000986345**
1/4 - 1/2 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422301122533401		
Monloc name:	37S/02W/01BCC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3834589
Longitude:	-122.89393	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1260.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19691103	Welldepth:	275
Welldepth units:	ft	Wellholedepth:	275
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-15	6.96	

9
North **FED USGS** **USGS40000986414**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422347122534801		
Monloc name:	36S/02W-35DAA1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3959587
Longitude:	-122.8980972	Sourcemap scale:	62500

Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1250.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19790606	Welldepth:	140
Welldepth units:	ft	Wellholedepth:	140
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-16	15.29	

10
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000986413**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422346122541301		
Monloc name:	36S/02W-35DBB2		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3959586
Longitude:	-122.904764	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1240.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19770221	Welldepth:	75
Welldepth units:	ft	Wellholedepth:	75
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-16	5.00	

11
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000986369**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422319122544101		
Monloc name:	37S/02W-02BBA1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3884586
Longitude:	-122.9125419	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1230.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19610424	Welldepth:	150
Welldepth units:	ft	Wellholedepth:	150
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-22	9.97	

12
North
1/2 - 1 Mile
Higher

OR WELLS **ORI500000046963**

Fid:	46962	Well inspe:	0
Physical l:	Not Reported	Inspection:	2008-09-26 00:00:00.000
Startcard :	1005070	Wl county :	JACK
Wl nbr:	58934	Startcar00:	Not Reported
Well tag n:	Not Reported	No log:	Not Reported
Property o:	Not Reported	Inspecti00:	Not Reported
Special st:	0	Title:	Not Reported
Inspecti01:	Not Reported	Witnesses:	Not Reported
Name owner:	RIGGS, LARRY		
Street:	Not Reported	City:	Not Reported
State:	Not Reported	Zip:	Not Reported
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	Not Reported	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	Not Reported
Rough log :	Not Reported	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	Not Reported
Protective:	Not Reported	Well locke:	Not Reported
Consultant:	Not Reported	Water in v:	Not Reported
Seal test :	Not Reported	Samples ta:	Not Reported

Casing dia:	Not Reported	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	Not Reported
Dedicated :	Not Reported	Access por:	Not Reported
Access p00:	Not Reported	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	Not Reported
Tape missi:	Not Reported	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	Not Reported
Cascading :	Not Reported	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	Not Reported
Drill ro00:	Not Reported	Drill cabl:	Not Reported
Drill ca00:	Not Reported	Drill reve:	Not Reported
Drill re00:	Not Reported	Drill auge:	Not Reported
Drill push:	Not Reported	Drill hand:	Not Reported
Drill holl:	Not Reported	Drill soni:	Not Reported
Drill othe:	Not Reported	Use domest:	Not Reported
Use irriga:	Not Reported	Use commun:	Not Reported
Use indust:	Not Reported	Use livest:	Not Reported
Use dewate:	Not Reported	Use monito:	Not Reported
Use therma:	Not Reported	Use inject:	Not Reported
Use piezom:	Not Reported	Use observ:	Not Reported
Use recove:	Not Reported	Use other:	Not Reported
Bentonite :	Not Reported	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	96741	Bonded lic:	1207
Unbonded l:	Not Reported	Bonded dri:	Not Reported
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	1001	Township:	36
Township c:	S	Range:	2
Range char:	W	Sctn:	35
Qtr40:	SE	Qtr160:	NE
Latitude d:	42.39704000	Longitude :	-122.89872000
Gps horizo:	4.00000000	Year const:	2008
Date const:	Not Reported	Date con00:	Not Reported
Deficienci:	N	Previous i:	0
Inspected :	TNK	Inspecte00:	126381
Wm region:	SW		
Well tag a:	HOSE CLAMP		
Well tag01:	Not Reported	Depth:	58.21
Static wat:	20.45	Status of :	CMP
Location r:	Not Reported	Site visit:	Not Reported
Type of lo:	W	Casing cap:	SS
Pictures t:	0	Street of :	684 WILSON RD
Street o00:	684 WILSON RD CENTRAL POINT		
Last updt :	2008-10-13 14:21:22.060		
Last upd00:	kellytn	Rec creati:	2009-06-01 06:51:00.000
Rec crea00:	OWRD\migrate		
Latitude:	42.39704		
Loongitude:	-122.89872		
Site id:	ORI500000046963		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

13
NNE
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000986418**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422349122533501		
Monloc name:	36S/02W-36BCC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3967921
Longitude:	-122.8942082	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1173.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Quaternary Alluvium		
Aquifer type:	Not Reported		
Construction date:	19860729	Welldepth:	80
Welldepth units:	ft	Wellholedepth:	80
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 31

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1992-02-25	18.58				
1992-01-23	22.01				
Note: A nearby site that taps the same aquifer was being pumped.					
1991-12-18	22.99				
1991-11-19	32.43				
Note: The site had been pumped recently.					
1991-10-24	32.88				
1991-09-30	32.17				
Note: The site had been pumped recently.					
1991-08-27	42.86		1991-07-29	41.71	
1991-06-24	44.88				
Note: The site had been pumped recently.					
1991-05-17	30.78				
Note: The site had been pumped recently.					
1991-02-15	25.43		1991-01-17	24.19	
1990-12-19	23.44		1990-11-14	25.18	
1990-10-19	32.13		1990-08-09	27.78	
1990-06-06	19.45		1990-05-01	18.83	
1990-04-13	17.45		1990-03-08	17.93	
1990-02-01	18.25		1990-01-13	19.12	
1989-12-06	19.6		1989-11-08	19.32	
1989-10-06	18.24		1989-09-08	19.44	
1989-08-07	47.71				
Note: The site was being pumped.					

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1989-07-08	17.97		1989-06-07	18.69	
1989-05-17	14.54		1986-07-29	30	

B14
South
1/2 - 1 Mile
Higher

OR WELLS **ORI500000051512**

Fid:	51511	Well inspe:	0
Physical l:	Not Reported	Inspection:	2011-11-08 00:00:00.000
Startcard :	1015168	Wl county :	JACK
Wl nbr:	60994	Startcar00:	10151
Well tag n:	10609	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	TRAVEL CENTER DEVELOP LLC		
Street:	P.O.	City:	LEXIN
State:	KY	Zip:	40554
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	0	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	1
Consultant:	0	Water in v:	0
Seal test :	Not Reported	Samples ta:	0
Casing dia:	2.00	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	4.00
Dedicated :	0	Access por:	0
Access p00:	NON	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	OBS
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	DRILLERS QQ LOCATIONS DO NOT MATCH WITH GPS READING		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	DIREC	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0

Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	106090	Bonded lic:	1522
Unbonded l:	10443	Bonded dri:	MICHA
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	2301	Township:	37
Township c:	S	Range:	2
Range char:	W	Sctn:	2
Qtr40:	SE	Qtr160:	SE
Latitude d:	42.37765000	Longitude :	-122.89902000
Gps horizo:	Not Reported	Year const:	Not Reported
Date const:	2011-	Date con00:	2011-
Deficienci:	Y	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	METAL INTERLOCKING BAND ON LOCK		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	Not Reported
Location r:	WELL	Site visit:	Not Reported
Type of lo:	M	Casing cap:	Not Reported
Pictures t:	1	Street of :	1600 E PINE STRE
Street o00:	1600 E PINE STREET, CENTRAL POINT, OR		
Last updt :	2011-11-09 10:08:36.010		
Last upd00:	omeag	Rec creati:	2011-11-09 10:06:04.243
Rec crea00:	omeag		
Latitude:	42.37765		
Loongitude:	-122.89902		
Site id:	ORI500000051512		

15
NW
1/2 - 1 Mile
Lower

OR WELLS **ORI500000051637**

Fid:	51636	Well inspe:	0
Physical l:	Not Reported	Inspection:	2011-12-07 00:00:00.000
Startcard :	205615	Wl county :	JACK
Wl nbr:	61088	Startcar00:	20561
Well tag n:	10718	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	DEREK, KANE		
Street:	6873	City:	CENTR
State:	OR	Zip:	97502
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	0
Consultant:	0	Water in v:	0
Seal test :	PP	Samples ta:	0

Casing dia:	6.00	Csg above :	1.70
Csg gauge:	0.250	Borehole d:	10.00
Dedicated :	0	Access por:	0
Access p00:	APT	Measuring :	1.70
Measurin00:	1	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	DRY	Water le00:	OBS
Cascading :	0	Pump type:	SBM
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	PUMP ENCLOSED IN REMOVAL STRUCTURE		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	1
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	Not Reported	Use domest:	1
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	PUMP
Well tag00:	107186	Bonded lic:	1661
Unbonded l:	Not Reported	Bonded dri:	BRAD,
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	1200	Township:	36
Township c:	S	Range:	2
Range char:	W	Sctn:	35
Qtr40:	NE	Qtr160:	SW
Latitude d:	42.39543000	Longitude :	-122.90903000
Gps horizo:	25.70000000	Year const:	Not Reported
Date const:	2011-	Date con00:	2011-
Deficienci:	N	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	METAL INTERLOCKING BAND		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	WELL	Site visit:	Not Reported
Type of lo:	W	Casing cap:	SNT
Pictures t:	1	Street of :	5418 UPTON RD, C
Street o00:	5418 UPTON RD, CENTRAL POINT, OR 97502		
Last updt :	2011-12-19 11:51:53.547		
Last upd00:	omeag	Rec creati:	2011-12-19 11:48:45.587
Rec crea00:	omeag		
Latitude:	42.39543		
Loongitude:	-122.90903		
Site id:	ORI500000051637		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B16
South
1/2 - 1 Mile
Higher | **OR WELLS** | **ORI500000051510**

Fid:	51509	Well inspe:	0
Physical l:	Not Reported	Inspection:	2011-11-08 00:00:00.000
Startcard :	1015169	Wl county :	JACK
Wl nbr:	60995	Startcar00:	10151
Well tag n:	10609	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	TRAVEL CENTER DEVELOP LLC		
Street:	P.O.	City:	LEXIN
State:	KY	Zip:	40554
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	ATTAC
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	1
Consultant:	0	Water in v:	0
Seal test :	Not Reported	Samples ta:	0
Casing dia:	2.00	Csg above :	Not Reported
Csg gauge:	40.00	Borehole d:	4.00
Dedicated :	0	Access por:	0
Access p00:	NON	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	OBS
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	DRILL		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	DIREC	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0

Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	106091	Bonded lic:	1522
Unbonded l:	10443	Bonded dri:	MICHA
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	2301	Township:	37
Township c:	S	Range:	2
Range char:	W	Sctn:	2
Qtr40:	SE	Qtr160:	SE
Latitude d:	42.37751000	Longitude :	-122.89944000
Gps horizo:	17.70000000	Year const:	Not Reported
Date const:	2011-	Date con00:	2011-
Deficienci:	Y	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	PLASTIC INTERLOCKING BAND		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	WELL	Site visit:	Not Reported
Type of lo:	M	Casing cap:	Not Reported
Pictures t:	1	Street of :	1600 E PINE STRE
Street o00:	1600 E PINE STREET, CENTRAL POINT, OR		
Last updt :	2011-11-09 09:55:40.800		
Last upd00:	omeag	Rec creati:	2011-11-09 09:52:59.383
Rec crea00:	omeag		
Latitude:	42.37751		
Loongitude:	-122.89944		
Site id:	ORI500000051510		

B17
South
1/2 - 1 Mile
Higher

OR WELLS **ORI500000051509**

Fid:	51508	Well inspe:	0
Physical l:	Not Reported	Inspection:	2011-11-08 00:00:00.000
Startcard :	1015166	Wl county :	JACK
Wl nbr:	60992	Startcar00:	10151
Well tag n:	10608	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	TRAVEL CENTER DEVELOP LLC		
Street:	P.O.	City:	LEXIN
State:	KY	Zip:	40554
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	ATTAC
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	1
Consultant:	0	Water in v:	0
Seal test :	Not Reported	Samples ta:	0

Casing dia:	2.00	Csg above :	Not Reported
Csg gauge:	40.00	Borehole d:	4.00
Dedicated :	0	Access por:	0
Access p00:	NON	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	OBS
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	DRILL		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	DIREC	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	106087	Bonded lic:	1522
Unbonded l:	10443	Bonded dri:	MICHA
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	2301	Township:	37
Township c:	S	Range:	2
Range char:	W	Sctn:	2
Qtr40:	SE	Qtr160:	SE
Latitude d:	42.37752000	Longitude :	-122.89906000
Gps horizo:	17.20000000	Year const:	Not Reported
Date const:	2011-	Date con00:	2011-
Deficienci:	Y	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	PLASTIC INTERLOCKING BAND		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	WELL	Site visit:	Not Reported
Type of lo:	M	Casing cap:	Not Reported
Pictures t:	1	Street of :	1600 E PINE STRE
Street o00:	1600 E PINE STREET, CENTRAL POINT, OR		
Last updt :	2011-11-09 09:48:46.400		
Last upd00:	omeag	Rec creati:	2011-11-09 09:46:35.943
Rec crea00:	omeag		
Latitude:	42.37752		
Loongitude:	-122.89906		
Site id:	ORI500000051509		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B18
South
1/2 - 1 Mile
Higher | **OR WELLS** | **ORI500000051508**

Fid:	51507	Well inspe:	0
Physical l:	Not Reported	Inspection:	2011-11-08 00:00:00.000
Startcard :	1015167	Wl county :	JACK
Wl nbr:	60993	Startcar00:	10151
Well tag n:	10608	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	TRAVEL CENTER DEVELOP LLC		
Street:	P.O.	City:	LEXIN
State:	KY	Zip:	40554
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	ATTAC
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	1
Consultant:	0	Water in v:	0
Seal test :	Not Reported	Samples ta:	0
Casing dia:	2.00	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	4.00
Dedicated :	0	Access por:	0
Access p00:	Not Reported	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	OBS
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	DISCR		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	DIREC	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0

Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	106088	Bonded lic:	1522
Unbonded l:	10443	Bonded dri:	MICHA
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	2301	Township:	37
Township c:	S	Range:	2
Range char:	W	Sctn:	2
Qtr40:	SE	Qtr160:	SE
Latitude d:	42.37751000	Longitude :	-122.89888000
Gps horizo:	21.90000000	Year const:	Not Reported
Date const:	2011-	Date con00:	2011-
Deficienci:	Y	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	PLASTIC INTERLOCKING BAND		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	WELL	Site visit:	Not Reported
Type of lo:	M	Casing cap:	Not Reported
Pictures t:	1	Street of :	1600 E PINE STRE
Street o00:	1600 E PINE STREET, CENTRAL POINT, OR		
Last updt :	2011-11-09 09:44:27.640		
Last upd00:	omeag	Rec creati:	2011-11-09 09:40:42.040
Rec crea00:	omeag		
Latitude:	42.37751		
Loongitude:	-122.89888		
Site id:	ORI500000051508		

19
SSE
1/2 - 1 Mile
Higher

FED USGS **USGS40000986334**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422243122533301		
Monloc name:	37S/02W-01CBC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3784589
Longitude:	-122.8936522	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1245.00
Vert measure units:	feet	Vertacc measure val:	020
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Eocene Series		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	113
Welldepth units:	ft	Wellholedepth:	113
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1951-06-17	11.29	

20
WSW
1/2 - 1 Mile
Higher

FED USGS **USGS40000986346**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422301122544501		
Monloc name:	37S/02W-02BCC1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3834586
Longitude:	-122.913653	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1242.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19760623	Welldepth:	199
Welldepth units:	ft	Wellholedepth:	200
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-06-23	26.00	

C21
East
1/2 - 1 Mile
Higher

OR WELLS **ORI500000053362**

Fid:	53361	Well inspe:	0
Physical l:	Not Reported	Inspection:	2013-05-24 00:00:00.000
Startcard :	1019569	Wl county :	JACK
Wl nbr:	61460	Startcar00:	10195
Well tag n:	10455	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	LEATHERS FUELS		
Street:	255 D	City:	FAIRV

State:	OR	Zip:	97024
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	1
Consultant:	0	Water in v:	0
Seal test :	PP	Samples ta:	0
Casing dia:	2.00	Csg above :	Not Reported
Csg gauge:	40.00	Borehole d:	3.50
Dedicated :	0	Access por:	0
Access p00:	NON	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	OBS
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0
Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	PUSH	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	1
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	104559	Bonded lic:	1537
Unbonded l:	10622	Bonded dri:	SCOTT
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	1201	Township:	36
Township c:	S	Range:	2
Range char:	W	Sctn:	36
Qtr40:	SW	Qtr160:	SE
Latitude d:	42.38959000	Longitude :	-122.88516000
Gps horizo:	66.50000000	Year const:	Not Reported
Date const:	2013-	Date con00:	2013-
Deficienci:	N	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	UV STRAP		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	WELL	Site visit:	Not Reported

Type of lo:	M	Casing cap:	SBC
Pictures t:	1	Street of :	5020 TABLE ROCK
Street o00:	5020 TABLE ROCK RD., CENTRAL POINT, OR 97502		
Last updt :	2013-06-18 09:26:58.610		
Last upd00:	omeag	Rec creati:	2013-06-18 09:25:45.000
Rec crea00:	omeag		
Latitude:	42.38959		
Loongitude:	-122.88516		
Site id:	ORI500000053362		

C22
East
1/2 - 1 Mile
Higher

OR WELLS **ORI500000053361**

Fid:	53360	Well inspe:	0
Physical l:	Not Reported	Inspection:	2013-05-24 00:00:00.000
Startcard :	1019570	Wl county :	JACK
Wl nbr:	61461	Startcar00:	10195
Well tag n:	10456	No log:	0
Property o:	Not Reported	Inspecti00:	CMP
Special st:	0	Title:	WIN
Inspecti01:	NEW	Witnesses:	Not Reported
Name owner:	LEATHERS FUELS		
Street:	255 D	City:	FAIRV
State:	OR	Zip:	97024
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	1	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling00:	0
Rough log :	0	Well tag r:	Not Reported
Monitoring:	Not Reported	Monitori00:	0
Protective:	0	Well locke:	1
Consultant:	0	Water in v:	0
Seal test :	PP	Samples ta:	0
Casing dia:	2.00	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	3.50
Dedicated :	0	Access por:	0
Access p00:	NON	Measuring :	Not Reported
Measurin00:	Not Reported	Depth belo:	Not Reported
Depth be00:	Not Reported	Tape hold:	0.00
Tape missi:	0.00	Tape cut:	Not Reported
Water leve:	Not Reported	Water le00:	OBS
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmete00:	Not Reported
Flowmete01:	Not Reported	Flowmete02:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti02:	Not Reported		
Work new:	1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro00:	0	Drill cabl:	0

Drill ca00:	0	Drill reve:	0
Drill re00:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	PUSH	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	1
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti00:	Not Reported	Measuremen:	Not Reported
Well tag00:	104560	Bonded lic:	1537
Unbonded l:	10622	Bonded dri:	SCOTT
Unbonded d:	Not Reported	County cod:	JACK
Tax lot:	1201	Township:	36
Township c:	S	Range:	2
Range char:	W	Sctn:	36
Qtr40:	SW	Qtr160:	SE
Latitude d:	42.38980000	Longitude :	-122.88474000
Gps horizo:	9.90000000	Year const:	Not Reported
Date const:	2013-	Date con00:	2013-
Deficienci:	N	Previous i:	0
Inspected :	Not Reported	Inspecte00:	111768
Wm region:	SW		
Well tag a:	UV STRAP		
Well tag01:	DRL	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	Not Reported	Site visit:	Not Reported
Type of lo:	M	Casing cap:	Not Reported
Pictures t:	1	Street of :	5020 TABLE ROCK
Street o00:	5020 TABLE ROCK RD., CENTRAL POINT, OR 97502		
Last updt :	2013-06-18 09:22:15.133		
Last upd00:	omeag	Rec creati:	2013-06-18 09:19:56.127
Rec crea00:	omeag		
Latitude:	42.3898		
Loongitude:	-122.88474		
Site id:	ORI500000053361		

23
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000986427**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422400122534701		
Monloc name:	36S/02W-35ADA1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3998475
Longitude:	-122.8975417	Sourcemap scale:	62500

Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1245.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19731102	Welldepth:	120
Welldepth units:	ft	Wellholedepth:	120
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1973-11-03	28.00	

24
SSE **FED USGS** **USGS40000986330**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422236122532701		
Monloc name:	37S/02W-01CCD1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3765145
Longitude:	-122.8919854	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1273
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19610901	Welldepth:	115
Welldepth units:	ft	Wellholedepth:	115
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1961-09-01	30.00	

25
SE **FED USGS** **USGS40000986333**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422240122530901		
Monloc name:	37S/02W-01CDA1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3776257
Longitude:	-122.8869853	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1275.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Eocene Series		
Aquifer type:	Not Reported		
Construction date:	19660714	Welldepth:	128
Welldepth units:	ft	Wellholedepth:	128
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1966-07-14	6.00	

26
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000986406**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422340122550001		
Monloc name:	36S/02W-34DAD2		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3942918
Longitude:	-122.9169867	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1230.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19740903	Welldepth:	43
Welldepth units:	ft	Wellholedepth:	43
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-17	11.50	

Note: The site was being pumped.

27
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000986434**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-422407122543601		
Monloc name:	36S/02W-35BBD1		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17100308	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3998474
Longitude:	-122.9105977	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1240.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19760209	Welldepth:	220
Welldepth units:	ft	Wellholedepth:	220
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1980-01-16	20.99	

Note: Other conditions existed that would affect the measured water level.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: OR Radon

Radon Test Results

Zipcode	Num Tests	Maximum	Minimum	Average	# > 4 pCi/L
97502	7	0.7	0.4	0.6	0

Federal EPA Radon Zone for JACKSON County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for JACKSON COUNTY, OR

Number of sites tested: 23

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	0.970 pCi/L	100%	0%	0%
Basement	1.880 pCi/L	78%	22%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data
Source: Oregon Geospatial Enterprise Office
Telephone: 503-378-2166

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data
Source: Department of Water Resources
Telephone: 503-986-0843

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Locations
Source: Department of Geology and Mineral Industries
Telephone: 971-673-1540
A listing of oil and gas well locations in the state.

RADON

State Database: OR Radon
Source: Oregon Health Services
Telephone: 503-731-4272
Radon Levels in Orgeon

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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Gebhard Village
4920 Gebhard Road
Central Point, OR 97502

Inquiry Number: 5054391.3
September 19, 2017

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

09/19/17

Site Name:

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502
EDR Inquiry # 5054391.3

Client Name:

Cascadia Associates LLC
6915 SW Macadam Ave Ste 255
Portland, OR 97219
Contact: Amanda Spencer

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Cascadia Associates LLC were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 91A1-4CC7-8464

PO # NA

Project Gebhard Village

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 91A1-4CC7-8464

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

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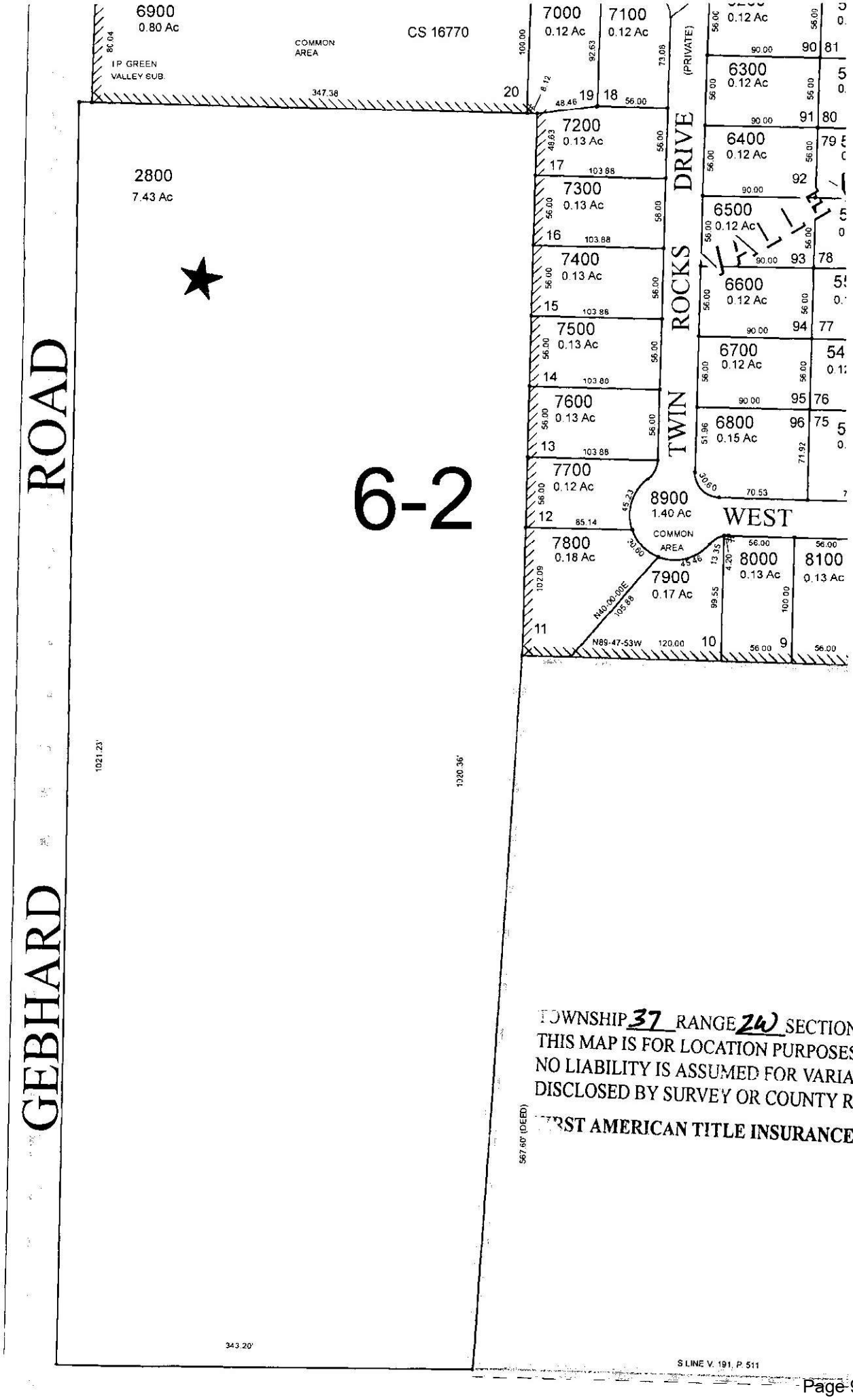
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TOWNSHIP 37 RANGE 24W SECTION 02 AA N↑
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DISCLOSED BY SURVEY OR COUNTY RECORDS.
FIRST AMERICAN TITLE INSURANCE COMPANY

ATTACHMENT B

AERIAL PHOTOGRAPHS



INQUIRY #: 5054391.9

YEAR: 1974

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 1953

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 1951

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 1939

= 500'

N

EDR

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502

Inquiry Number: 5054391.9
September 20, 2017

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

09/20/17

Site Name:

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502
EDR Inquiry # 5054391.9

Client Name:

Cascadia Associates LLC
6915 SW Macadam Ave Ste 255
Portland, OR 97219
Contact: Amanda Spencer

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2011	1"=500'	Flight Year: 2011	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1994	1"=500'	Acquisition Date: May 24, 1994	USGS/DOQQ
1982	1"=500'	Flight Date: July 16, 1982	USDA
1976	1"=500'	Flight Date: June 28, 1976	USGS
1974	1"=500'	Flight Date: July 13, 1974	USGS
1953	1"=500'	Flight Date: August 08, 1953	USGS
1951	1"=500'	Flight Date: August 08, 1951	USGS
1939	1"=500'	Flight Date: January 01, 1939	USGS

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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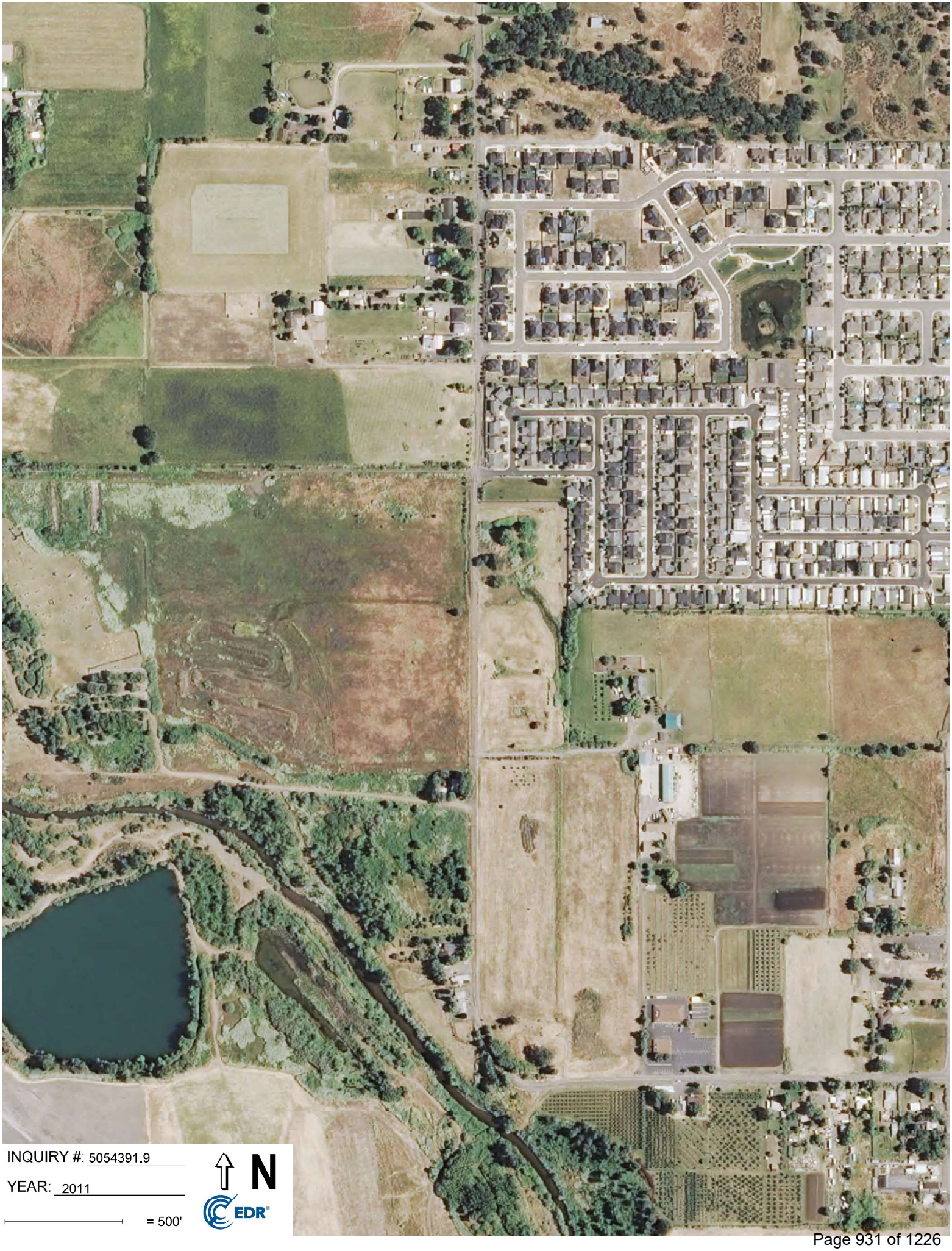
INQUIRY #: 5054391.9

YEAR: 2012

= 500'

N

EDR



INQUIRY #: 5054391.9

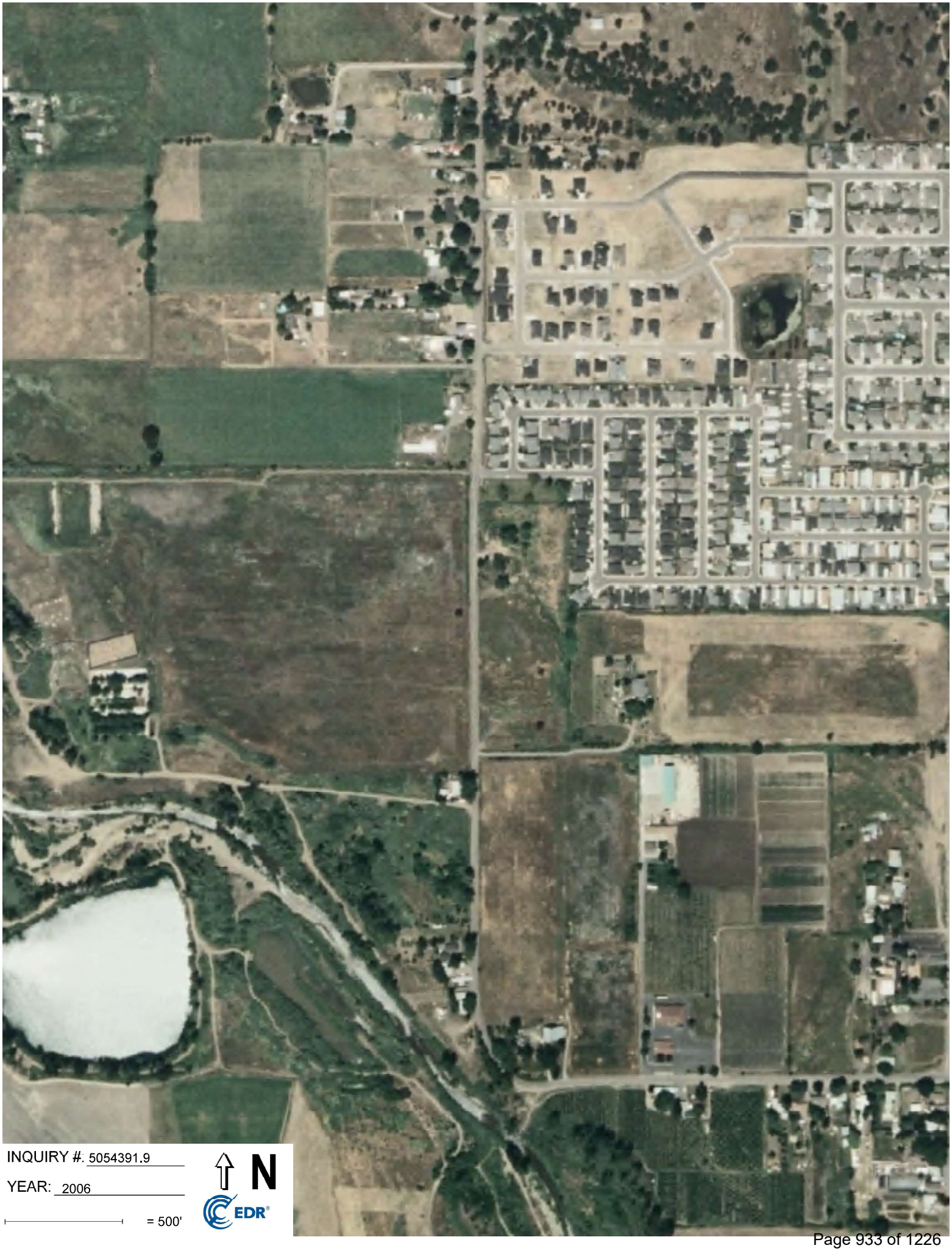
YEAR: 2011

= 500'

N

EDR


INQUIRY #: 5054391.9
YEAR: 2009
= 500'
N
EDR



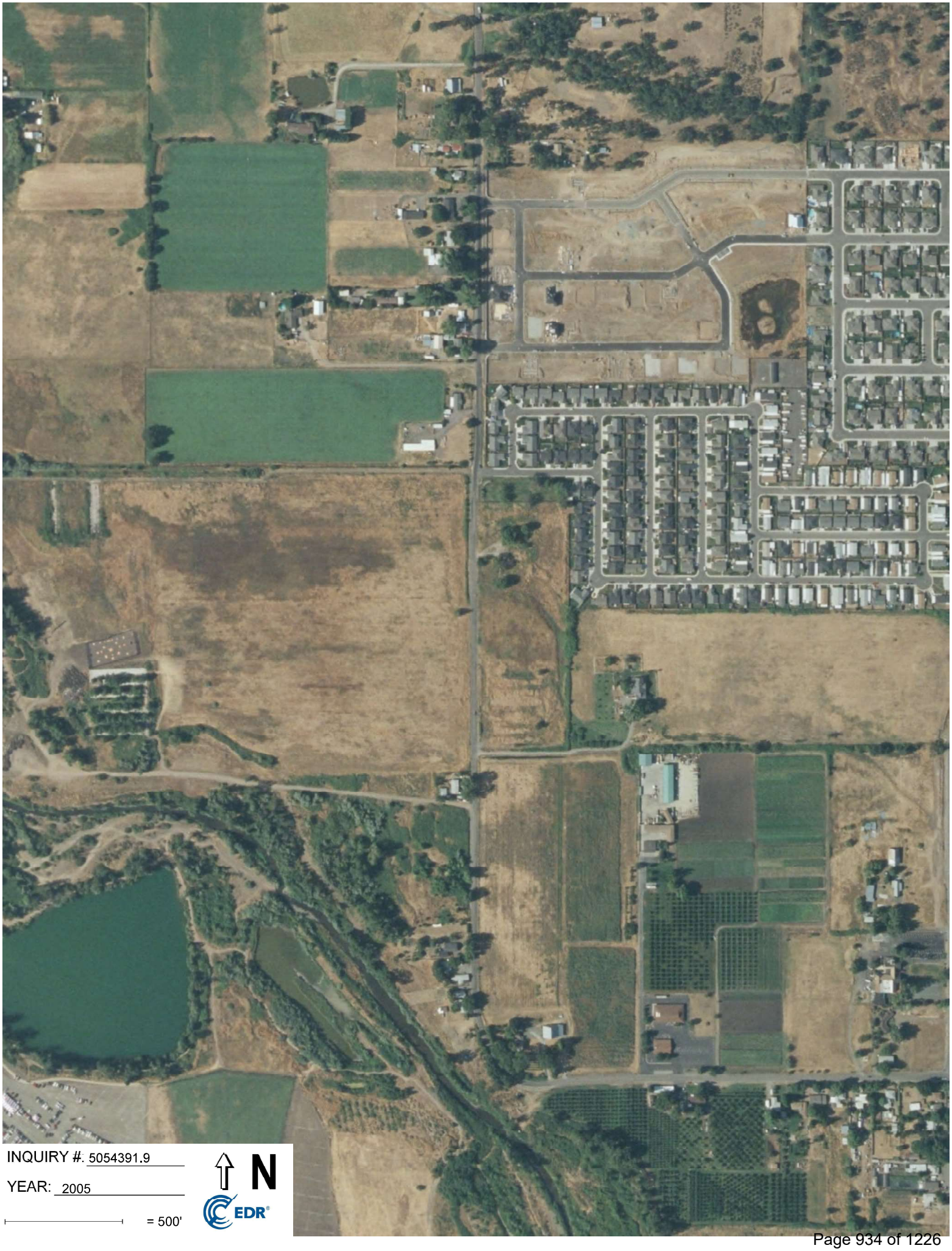
INQUIRY #: 5054391.9

YEAR: 2006

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 2005

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 1994

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 1982

= 500'

N

EDR



INQUIRY #: 5054391.9

YEAR: 1976

= 500'

N

EDR

ATTACHMENT C

HISTORICAL TOPOGRAPHIC MAPS

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502

Inquiry Number: 5054391.4
September 19, 2017

EDR Historical Topo Map Report
with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

09/19/17

Site Name:

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502
EDR Inquiry # 5054391.4

Client Name:

Cascadia Associates LLC
6915 SW Macadam Ave Ste 255
Portland, OR 97219
Contact: Amanda Spencer

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Cascadia Associates LLC were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA
Project: Gebhard Village

Coordinates:

Latitude:	42.387715 42° 23' 16" North
Longitude:	-122.900081 -122° 54' 0" West
UTM Zone:	Zone 10 North
UTM X Meters:	508224.63
UTM Y Meters:	4692830.07
Elevation:	1253.04' above sea level

Maps Provided:

2014
1983
1954
1938

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2014 Source Sheets



Sams Valley
2014
7.5-minute, 24000



Medford West
2014
7.5-minute, 24000



Eagle Point
2014
7.5-minute, 24000



Medford East
2014
7.5-minute, 24000

1983 Source Sheets



Eagle Point
1983
7.5-minute, 24000
Aerial Photo Revised 1967



Medford East
1983
7.5-minute, 24000
Aerial Photo Revised 1976



Sams Valley
1983
7.5-minute, 24000
Aerial Photo Revised 1976



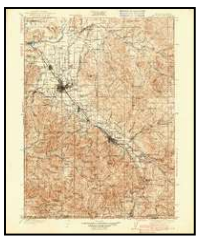
Medford West
1983
7.5-minute, 24000
Aerial Photo Revised 1976

1954 Source Sheets



Medford
1954
15-minute, 62500
Aerial Photo Revised 1951

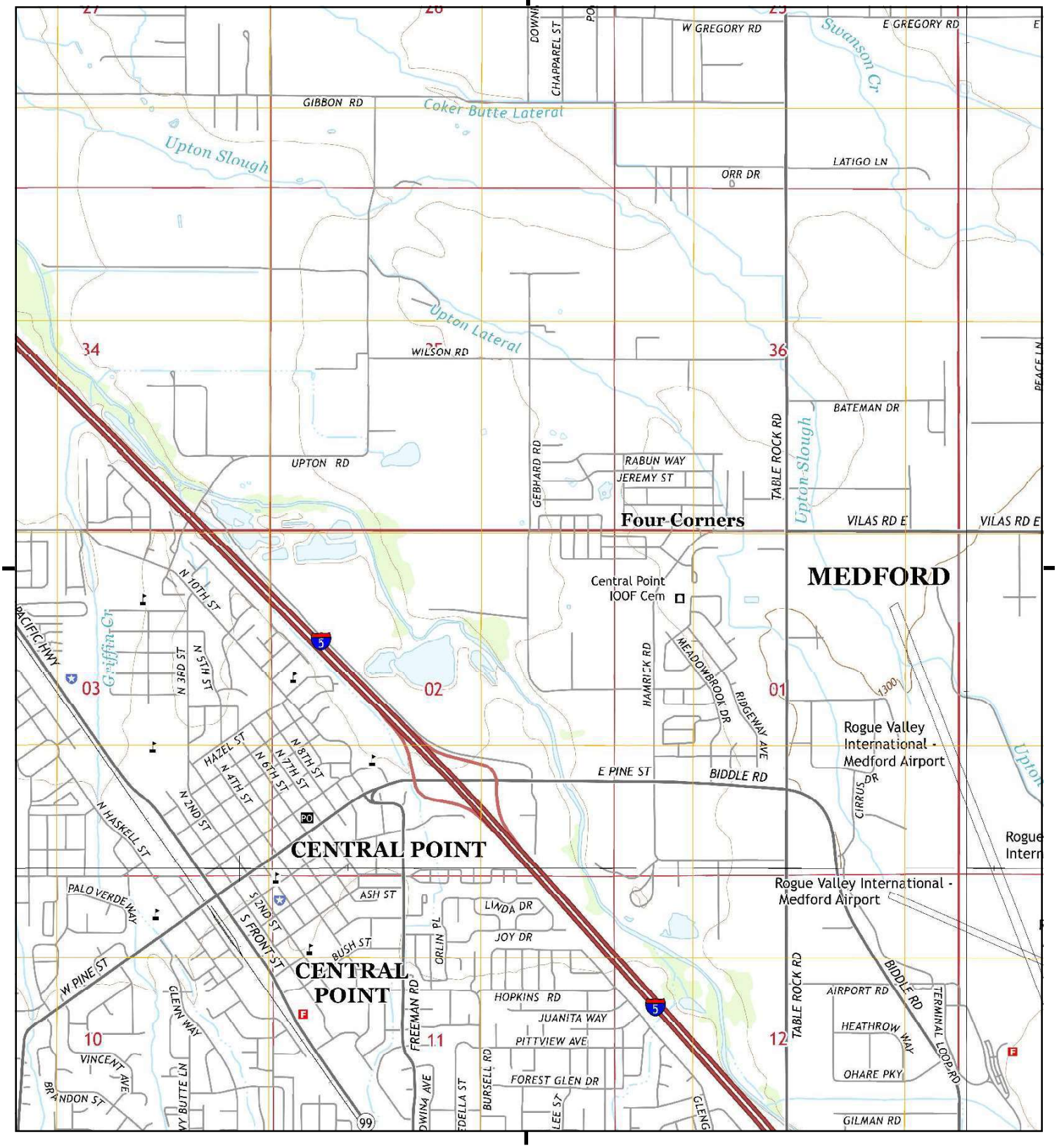
1938 Source Sheets



Medford
1938
30-minute, 125000

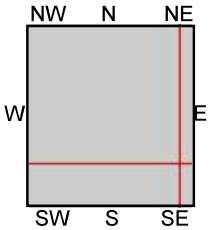
Historical Topo Map

2014



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



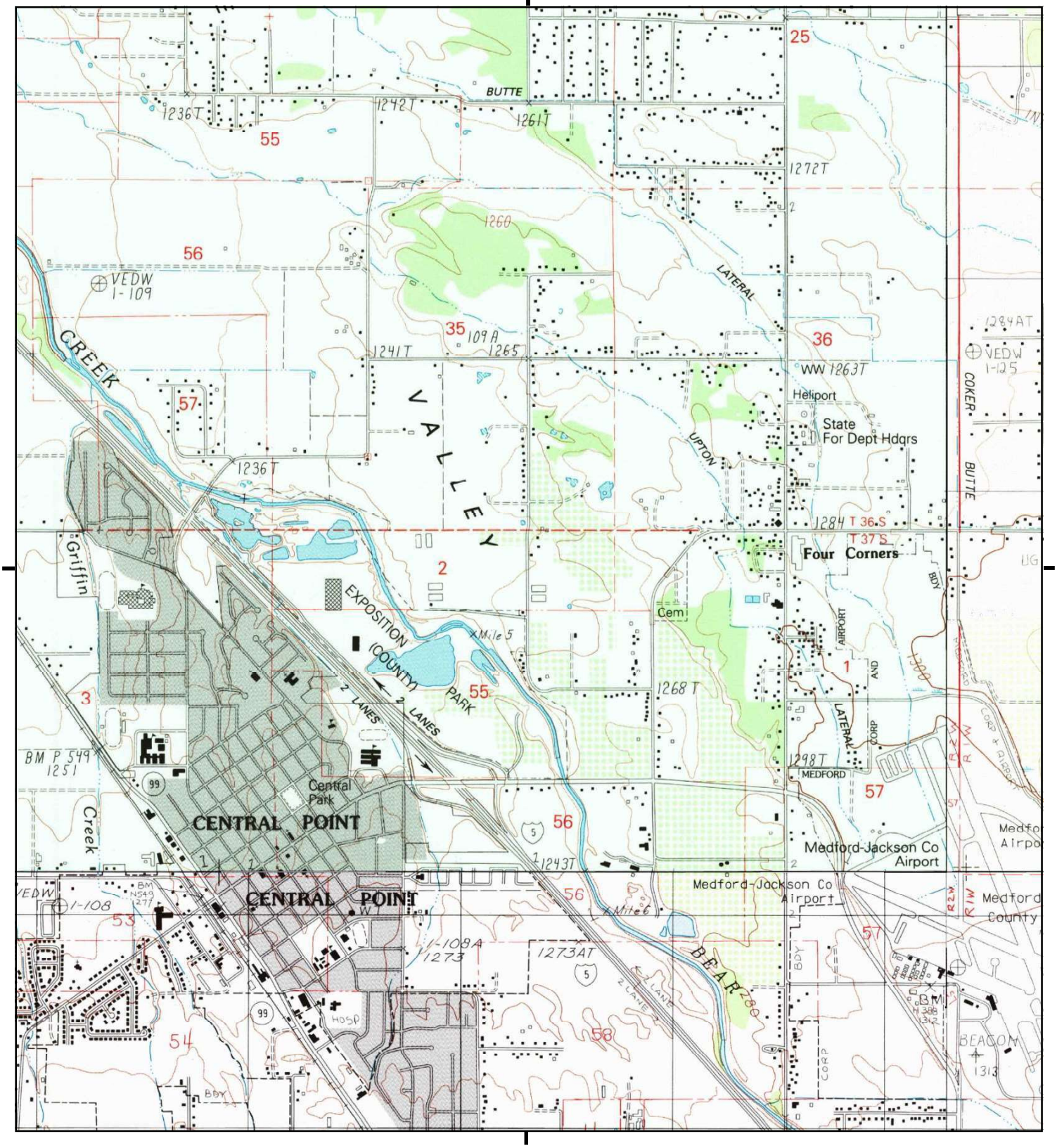
TP, Sams Valley, 2014, 7.5-minute
NE, Eagle Point, 2014, 7.5-minute
SE, Medford East, 2014, 7.5-minute
S, Medford West, 2014, 7.5-minute

SITE NAME: Gebhard Village
ADDRESS: 4920 Gebhard Road
Central Point, OR 97502
CLIENT: Cascadia Associates LLC

N

Historical Topo Map

1983



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

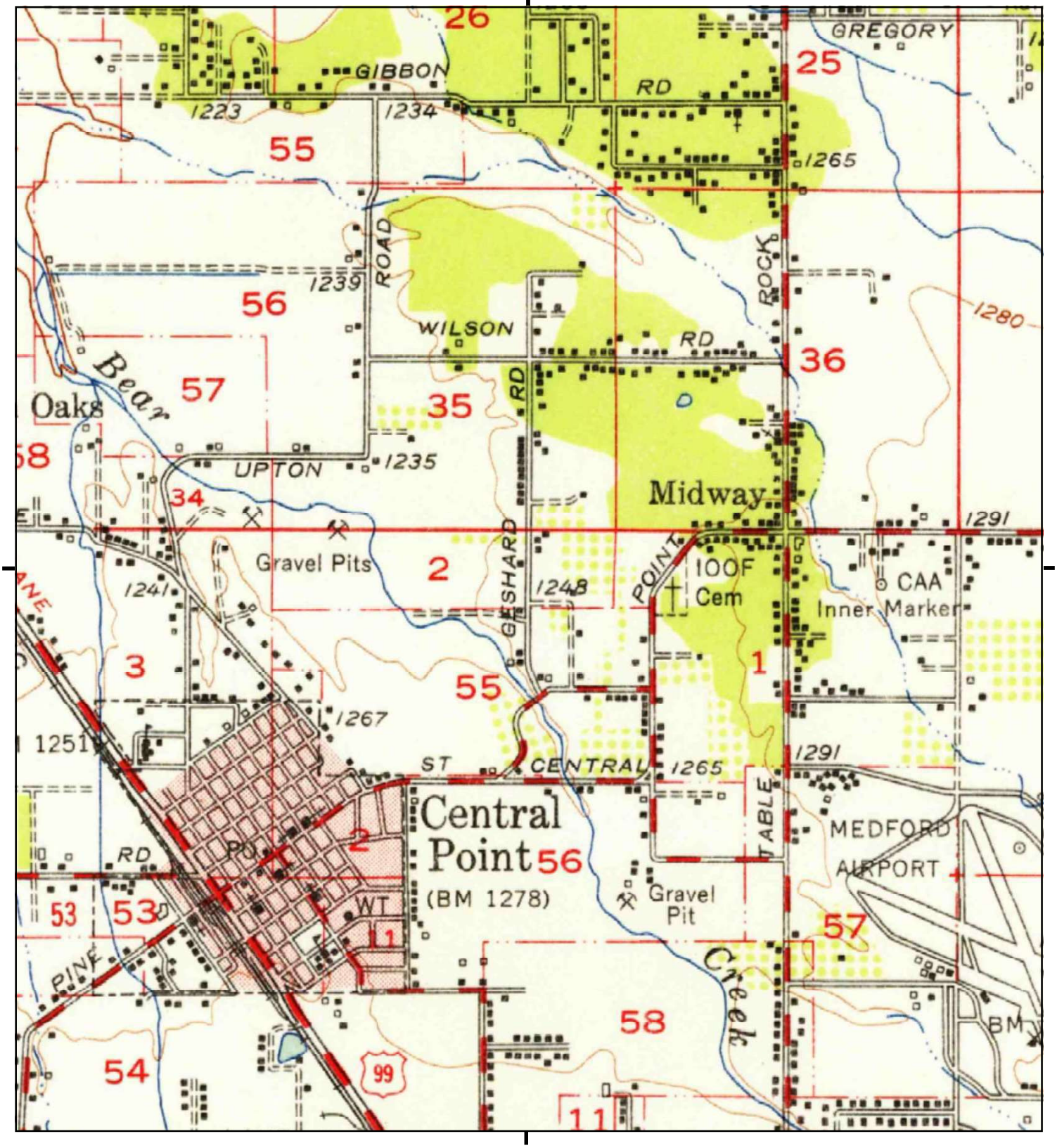
TP, Sams Valley, 1983, 7.5-minute
NE, Eagle Point, 1983, 7.5-minute
SE, Medford East, 1983, 7.5-minute
S, Medford West, 1983, 7.5-minute

SITE NAME: Gebhard Village
ADDRESS: 4920 Gebhard Road
Central Point, OR 97502
CLIENT: Cascadia Associates LLC

N

Historical Topo Map

1954



This report includes information from the following map sheet(s).

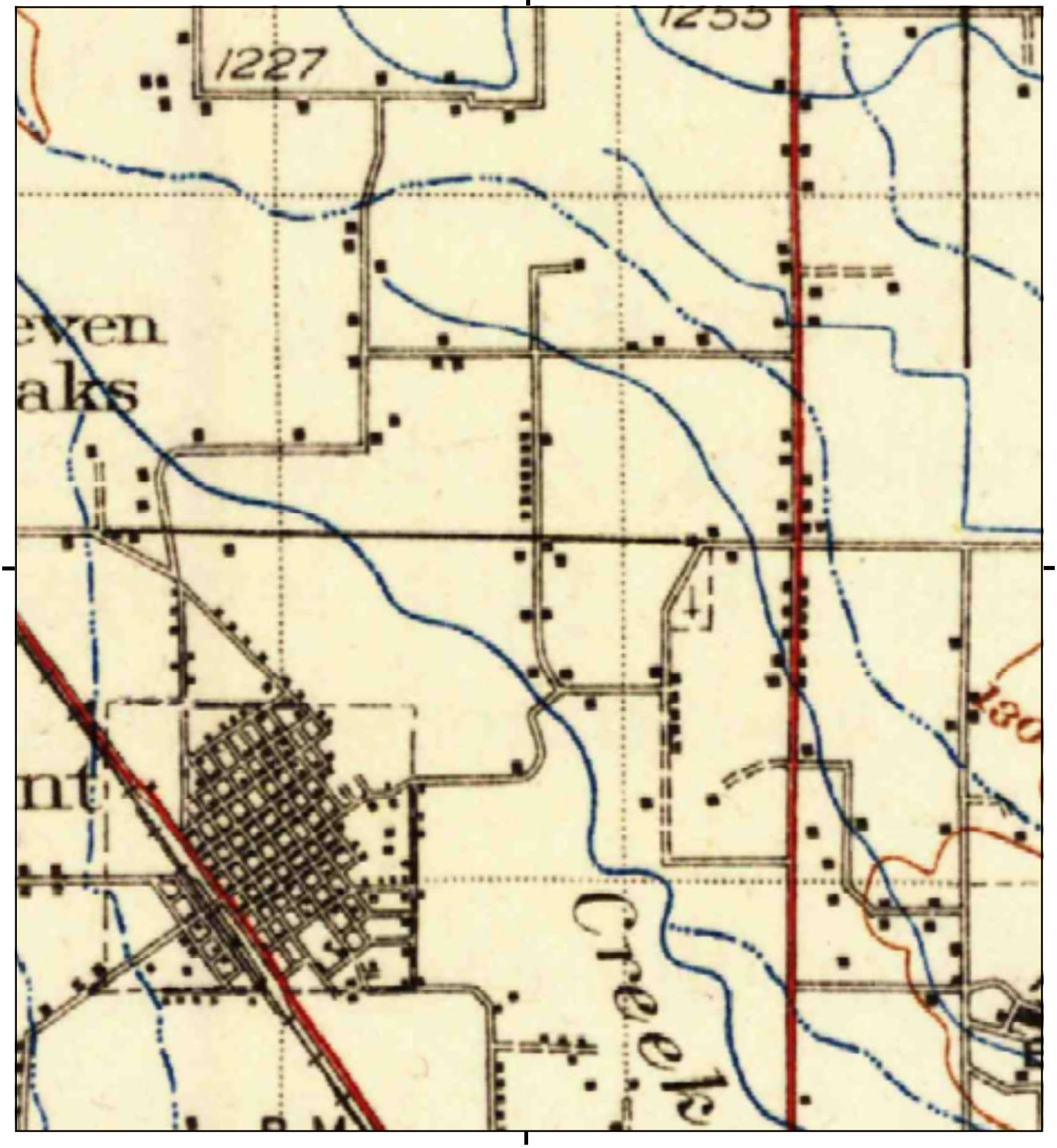
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Medford, 1954, 15-minute

SITE NAME: Gebhard Village
ADDRESS: 4920 Gebhard Road
Central Point, OR 97502
CLIENT: Cascadia Associates LLC

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Medford, 1938, 30-minute

SITE NAME: Gebhard Village
ADDRESS: 4920 Gebhard Road
Central Point, OR 97502
CLIENT: Cascadia Associates LLC

N

ATTACHMENT D

HISTORICAL CITY DIRECTORIES REPORT

Gebhard Village
4920 Gebhard Road
Central Point, OR 97502

Inquiry Number: 5054391.5
September 21, 2017

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2013	☑	☑	Cole Information Services
2008	☑	☑	Cole Information Services
2003	☑	☑	Cole Information Services
1999	☑	☑	Cole Information Services
1995	☑	☑	Cole Information Services
1992	☑	☑	Cole Information Services
1988	☐	☐	Polk's City Directory
1983	☐	☐	Polk's City Directory
1978	☐	☐	Polk's City Directory
1973	☐	☐	Polk's City Directory
1968	☐	☐	Polk's City Directory
1964	☐	☐	Polk's City Directory

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FINDINGS

TARGET PROPERTY STREET

4920 Gebhard Road
Central Point, OR 97502

Year	*CD Image*	*Source*	
GEBHARD RD			
2013	pg A2	Cole Information Services	
2008	pg A4	Cole Information Services	
2003	pg A6	Cole Information Services	
1999	pg A8	Cole Information Services	
1995	pg A10	Cole Information Services	
1992	pg A12	Cole Information Services	
1988	-	Polk's City Directory	Street not listed in Source
1983	-	Polk's City Directory	Street not listed in Source
1978	-	Polk's City Directory	Street not listed in Source
1973	-	Polk's City Directory	Street not listed in Source
1968	-	Polk's City Directory	Street not listed in Source
1964	-	Polk's City Directory	Street not listed in Source

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
BEEBE RD			
2013	pg. A1	Cole Information Services	
2008	pg. A3	Cole Information Services	
2003	pg. A5	Cole Information Services	
1999	pg. A7	Cole Information Services	
1995	pg. A9	Cole Information Services	
1992	pg. A11	Cole Information Services	
1988	-	Polk's City Directory	Street not listed in Source
1983	-	Polk's City Directory	Street not listed in Source
1978	-	Polk's City Directory	Street not listed in Source
1973	-	Polk's City Directory	Street not listed in Source
1968	-	Polk's City Directory	Street not listed in Source
1964	-	Polk's City Directory	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
-	✓	Cole Information Services

BEEBE RD 2013

443	RITA TYNER
444	JAMES HURGER
445	OCCUPANT UNKNOWN
446	OCCUPANT UNKNOWN
456	OCCUPANT UNKNOWN
477	TAMMY PRICE
495	OCCUPANT UNKNOWN
507	KRISTEN CALLAHAN
511	ERNEST MINGUS
523	LL PICOLLO
587	OCCUPANT UNKNOWN
600	SHEPHERD OF THE VALLEY CATHOLIC CHUR
628	AUGUST PICOLLO
718	OCCUPANT UNKNOWN
2403	SARAH EILERTSON
2411	LLOYD INGRAM
2519	JAMES STEWART
2524	RAYMOND WILKERSON
2527	SEAN JEPSEN
2532	OCCUPANT UNKNOWN
2535	REBECCA CROFT
2543	RAYMOND BITTERLING
2610	ANTHONY MINGUS
2618	OCCUPANT UNKNOWN
2628	OCCUPANT UNKNOWN
2651	DUSTIN DALTON
2657	BLAKE IRONSIDE
2863	MICHAEL LALLO
2868	OCCUPANT UNKNOWN
2876	LOUIS BROWN
2882	GUTTRDONE

Target Street	Cross Street	Source
✓	-	Cole Information Services

GEBHARD RD 2013

4603	NANCY HACKWORTH
4605	JOHN HAWKINS
4609	OCCUPANT UNKNOWN
4613	SERGIO MEJIA
4617	DAVE WEBB
4757	RANDAL WALES
5055	OCCUPANT UNKNOWN
5095	KENNETH DUNCAN
5117	WADE DEBRICK
5123	SAMUEL INKLEY
5133	ELLEFSON ROGER
	HAZEL BROWN
5139	RICKIE NUNES
5161	KENNETH WARNER
5183	TOM THOMPSON
5203	DON HUBBARD
5218	ANNA HERRING
5223	MARY CAMPBELL
5243	OCCUPANT UNKNOWN
5263	DANNIE HOY
5275	ALFRED JONES
5278	CENTRAL ALTERNATIVE MEDICINE
	DAVID HIBBARD
5333	DAVID GRANT
5342	KEVIN CLABORN

Target Street	Cross Street	Source
-	✓	Cole Information Services

BEEBE RD 2008

443	RITA TYNER
444	ANTHONY KIRBY
445	FRANK BURKE
446	OCCUPANT UNKNOWN
456	OCCUPANT UNKNOWN
	PRECISION POWER WASH
495	OCCUPANT UNKNOWN
507	THOMAS BROWN
511	ERNEST MINGUS
523	LL PICOLLO
600	ROMAN CATHOLIC
628	ALLIED CONCRETE PRODUCTS INC
	OCCUPANT UNKNOWN
718	ALBERT MCMURRAY

Target Street	Cross Street	Source
✓	-	Cole Information Services

GEBHARD RD 2008

4603	WILLIAM JESCHKE
4605	JOHN HAWKINS
4609	BOBBY MILARD
4611	MARCELLA SUTTON
4613	OCCUPANT UNKNOWN
4617	DAVE WEBB
4757	RANDAL WALES
4820	ERICK HULL
4848	STEVE HIMMELMAN
4918	MARVIN TOBIASSON
4920	JOSHUA SIZEMORE
4922	RON MILLER
5055	LISA MORGAN
5095	JERRY DUNCAN
5117	WADE DEBRICK
	WADES REPAIR
5123	SAMUEL INKLEY
5133	ROGER ELLEFSON
5139	MERCEDES LONG
5161	KENNETH WARNER
5183	LOUIS THOMPSON
5203	DON HUBBARD
5218	ANNA HERRING
5223	MARY CAMPBELL
5243	COLBY CALLAHAN
5263	DANNIE HOY
	STREAMLINE DESIGN & DRAFTING
5275	A C JONES
	ALFRED JONES
5278	HEIDI JENSEN
5342	OCCUPANT UNKNOWN

Target Street	Cross Street	Source
-	✓	Cole Information Services

BEEBE RD 2003

445	KATHLEEN METCALF
446	OCCUPANT UNKNOWN
456	DAN WALTERS
477	MIKE FORD
495	JIM RAGER
507	OCCUPANT UNKNOWN
511	ERNEST MINGUS
523	BEEBE FARMS
600	OCCUPANT UNKNOWN
	SHPHRD OF THE VLY CTHLC CHRCH
628	AUGUST PICOLLO
718	ALBERT MCMURRAY
	SUSAN I MCMURRAY & MCMR DOW

Target Street	Cross Street	Source
✓	-	Cole Information Services

GEBHARD RD 2003

4603	STEVEN GOOGE
4605	OCCUPANT UNKNOWN
4609	MARCELLA SUTTON
4613	LISA CODER
4617	DAVE WEBB
4757	JEFF SCHMITZ
4920	OCCUPANT UNKNOWN
4922	AMBASSADOR JANITORIAL
	ROGER CASE
5055	SAMUEL INKLEY
5095	ROSALEE DUNCAN
5098	ANDREW COATS
5117	WADE DEBRICK
	WADES REPAIR
5123	SAMUEL INKLEY
5133	ROGER ELLEFSON
5139	MARVIN MASTEN
5161	KENNETH WARNER
5203	DONALD HUBBARD
5223	MARY CAMPBELL
5238	CHARLES JAKABOSKY
5243	BILL KROPP
5263	DANNIE HOY
5275	ALFRED SR
	JACKIE JONES
5333	ANNA ALTER
5342	MICHAEL JOHNSON

Target Street	Cross Street	Source
-	✓	Cole Information Services

BEEBE RD 1999

443	OCCUPANT UNKNOWN
445	K METCALF
	KEVIN PEARSON
446	EDWIN GEBHARD
456	DAN WALTERS
477	MIKE FORD
495	JIM RAGER
507	KAYCE BROWN
511	MARTY MINGUS
523	KENNETH BEEBE
600	CATHOLIC CHURCH SHEPHERD OF THE VALLEY
628	AUGUST PICOLLO

Target Street	Cross Street	Source
✓	-	Cole Information Services

GEBHARD RD 1999

4605	AUDREY MAY
4609	OCCUPANT UNKNOWN
4611	OCCUPANT UNKNOWN
4617	DAVE WEBB
4757	SUSAN BRINKLEY
4920	ROXANNE ATTEBERRY
4922	ROGER CASE
5055	ADRIENE MELLECKER
	GRANT JOLLIFFE
	SAM INKLEY
5095	GARY COMBS
5098	OCCUPANT UNKNOWN
5117	WADE DEBRICK
5123	SAMUEL INKLEY
5183	CHESTER THOMPSON
5203	DON HUBBARD
5218	AL HERRING
5223	MARY CAMPBELL
5238	GERALD JAKABOSKY
5243	BILL KROPP
5263	DANNIE HOY
5275	ALFRED JONES
5278	LEON CALLAHAN
	LEONS CUSTOM FARM BUTCHERING
5333	OCCUPANT UNKNOWN
5342	MIKE JOHNSON

Target Street	Cross Street	Source
-	✓	Cole Information Services

BEEBE RD 1995

444 OCCUPANT UNKNOWNN
445 OCCUPANT UNKNOWNN
446 GEBHARD, HELEN M
456 OCCUPANT UNKNOWNN
477 FORD, MIKE B
495 RAGER, JIM H
511 MINGUS, MARTY
523 BEEBE, KENNETH R
600 MCGARVEY, VINCENT
SHEPHERD OF THE VALLEY
628 PICOLLO, AUGUST J

Target Street	Cross Street	Source
✓	-	Cole Information Services

GEBHARD RD 1995

4603	OCCUPANT UNKNOWNN
4605	COSTELLO, JOHN
4611	OCCUPANT UNKNOWNN
4613	OCCUPANT UNKNOWNN
4617	WEBB, DAVE
4757	THORNE, CHARLES D
4920	ATTEBERRY, ROXANNE
5055	BLANCHARD, HARLEY
5095	SCHAFER, DAN
5098	MAY, GERALD
5117	DEBRICK, WADE
5123	INKLEY, SAMUEL C
5139	ELLSWORTH, KEVIN
5161	OCCUPANT UNKNOWNN
5203	HUBBARD, DON A
5223	OCCUPANT UNKNOWNN
5238	JAKABOSKY, GERALD L
5243	MCCORD, WILLIAM A
5263	HOY, DANNIE
5275	JOHNSON, CHARLES
5278	CALLAHAN, LEON
	LEONS CUSTOM FARM BUTCHERING
5333	OCCUPANT UNKNOWNN
5342	JOHNSON, MIKE

Target Street	Cross Street	Source
-	✓	Cole Information Services

BEEBE RD 1992

445	PIERCE, RON
446	GEBHARD, EDWIN W
456	WALTERS, DAN
477	FORD, MIKE B
495	RAGER, JIM H
511	MINGUS, MARTY
523	BEEBE, KENNETH R
600	CATH CH SHPHRD VLY
	SHPHRD OF VLY CATH
718	DOW, FERN
	NIXON, M

Target Street	Cross Street	Source
✓	-	Cole Information Services

GEBHARD RD 1992

4605	YOUNG, JOHN W
4611	FADDIS, L
4617	WEBB, DAVE
5055	BLANCHARD, HARLEY
5095	SCHAFER, DAN
5098	GEBHARD, F H
5117	DEBRICK, WADE
5123	INKLEY, SAMUEL C
5133	MEANS, SYDNEY J
	TERRY, DOVEY A
5139	ELLSWORTH, KEVIN
5203	HUBBARD, DON A
5238	JAKABOSKY, GERALD L
5243	MCCORD, WILLIAM A
5263	HOY, DANNIE
5275	JOHNSON, CHARLES
5278	CALLAHAN, LEON
	LEONS CSTM FARM BC
5342	JOHNSON, MIKE

ATTACHMENT E

SAMPLING AND ANALYSIS PLAN

1. PURPOSE AND SCOPE

This Standard Operating Procedure (SOP) describes the methods for observing and sampling from push-probes (i.e., GeoProbe™, AMS PowerProbe™, or similar). Subsurface soil cores may be obtained using this system for purposes of determining subsurface soil conditions and for obtaining soil samples for physical and/or chemical evaluation. Grab groundwater samples may be collected using temporary well screens. Soil vapor samples may be obtained using temporary well points. Shallow (less than 50 feet), small-diameter (2-inch max) pre-packed wells may also be installed using push-probe equipment. This procedure is applicable during all Cascadia Associates, LLC (Cascadia) push-probe activities.

2. EQUIPMENT AND MATERIALS

The following materials are necessary for this procedure:

- Traffic cones, tools, keys, and buckets/drums
- Water quality meter with calibration solutions (record daily calibration/calibration check in field notes)
- Sampling equipment (water level probe, pumps, tubing) and laboratory-supplied sample containers
- Field documentation materials
- Decontamination materials
- Personal protective equipment (as required by project Health and Safety Plan)

3. METHODOLOGY

Coring Procedure (Conducted by Drilling Subcontractor):

The sampling procedure includes driving a 2-inch outside-diameter, 5-foot-long, push-probe soil sampler to the desired depth using a combination of hydraulic pressure and mechanical hammer blows. When the sampling depth is reached, the pin attaching the sampler's tip is released (if a tip is used), which allows the tip to slide inside the sampler (Macro-Core Sampler with removable plastic liner). The sampler is driven the length of the sampler to collect a soil core, which is then withdrawn from the exploration. When the sampler is retrieved from the borehole the drive head/cutting shoe is detached and the liner is removed and the liner is cut open to expose the recovered soil core. Soil cores are collected continuously to the full depth of the exploration unless otherwise specified in a project-specific sampling and analysis plan (SAP). Verify that the subcontractor decontaminates the sampling device prior to its initial use and following collection of each soil sample.

Logging and Soil Sample Collection:

Remove the soil core from the sampler for field screening, description, and placement into sample jars. Soil samples will be collected for field screening and possible chemical analysis on two foot intervals unless otherwise specified in a project-specific SAP. The sampling interval will be determined in the field based on recovery, soil variability, and evidence of contamination.

Complete field screening as specified in the applicable SOP. Soil samples should be collected using different procedures for volatile on non-volatile analyses, as follows.

- Volatile Analyses. Sampling for volatile organics analysis (VOA) is different than other routine physical or chemical testing because of the potential loss of volatiles during sampling. To limit volatile loss, the soil sample must be obtained as quickly and as directly as possible. If a VOA sample is to collected as part of a multiple analyte sample, the VOA sample portion will be obtained first. The VOA sample should be obtained from a discrete portion of the entire collected sample and should not be composited or homogenized. Sample bottles should be filled to capacity, with no headspace.
- Other Analyses. Soil samples for non-volatile analyses will be thoroughly homogenized in a stainless-steel bowl prior to bottling. Sample homogenizing is accomplished by manually mixing the entire soil sample in the stainless-steel bowl with a clean sampling tool until a uniform mixture is achieved. The sample jar should be filled completely.

Grab Groundwater Sample Collection:

Collect grab groundwater samples using a sampling attachment with a 4 to 5-foot-long temporary screen (specify to drillers whether to use decontaminated stainless steel or disposable PVC. Also, specify whether a filter pack is necessary based on field observations). Obtain samples using a peristaltic pump unless otherwise specified in the SAP with new tubing for each boring. Record field parameters (e.g., temperature, conductivity, and pH) prior to sampling.

Backfilling the Excavation (Conducted by Drilling Subcontractor):

After sampling activities are completed, abandon each exploration in accordance with Oregon Water Resources Department (OWRD) regulations and procedures (or other regulatory authority if work is completed outside of the State of Oregon. The abandonment procedure typically consists of filling the exploration with granular bentonite and hydrating the bentonite with water. Match the surface completion to the surrounding materials.

1. PURPOSE AND SCOPE

This Standard Operating Procedure (SOP) provides instructions for standard field screening. Field screening results are used to aid in the selection of soil samples for chemical analysis. This procedure is applicable during all Cascadia Associates, LLC (Cascadia) soil sampling operations.

Standard field screening techniques include the use of a photoionization detector (PID) to assess for volatile organic compounds (VOCs) and for the presence of separate-phase petroleum hydrocarbons using a sheen test. These methods will not detect all potential contaminants, so selection of screening techniques shall be based on an understanding of the site history. The PID is not compound or concentration-specific, but it can provide a qualitative indication of the presence of VOCs. PID measurements are affected by other field parameters such as temperature and soil moisture. Other field screening methods, such as screening for dense non-aqueous phase liquid (DNAPL) using dye or UV light, are not considered "standard" and will be detailed in the site-specific sampling and analysis plan (SAP).

2. EQUIPMENT AND MATERIALS

The following materials are necessary for this procedure:

- PID with calibration gas (record daily calibration/calibration check in field notes);
- Plastic resealable bags (for PID measurement); and
- Glass jars or stainless steel bowls (for sheen testing).

3. METHODOLOGY

Each soil sample will be field screened for VOCs using a PID and for the presence of separate-phase petroleum hydrocarbons using a sheen test.

PID lamps come in multiple sizes, typically 9.8, 10.6, and 11.7 electron volts (eV). The eV rating for the lamp must be greater than the ionization potential (in eV) of a compound for the PID to detect the compound. For petroleum hydrocarbons, a lamp of at least 9.8 eV should be used. For typical chlorinated alkenes (dichloroethene, trichloroethene, tetrachloroethene, or vinyl chloride), a lamp of at least 10.6 eV should be used. The compatibility of the lamp size with the site constituents should be verified prior to the field event and will be detailed in the site-specific SAP.

PID Calibration Procedure: The PID used on-site should be calibrated daily or more frequently if needed. Calibration of the PID should be documented in field notes. Calibrations procedures should be conducted per the manufacturer's instructions.

PID Screening Procedure:

- Place a representative portion (approximately one ounce) of freshly exposed, uncompacted soil into a clean resealable plastic bag.
- Seal the bag and break up the soil to expose vapors from the soil matrix.
- Allow the bag to sit to reach ambient temperature. Note: Ambient temperature and

weather conditions/humidity should be recorded in field notes. Changes in ambient temperature and weather during the field work should also be recorded, as temperature and humidity can affect PID readings.

- Carefully insert the intake port of the PID into the plastic bag.
- Record the PID measurement in the field notes or boring logs.

Sheen Test Procedure:

- Following the PID screen, place approximately one ounce of freshly exposed, uncompacted soil into a clean glass jar or stainless steel bowl.
- Add enough water to cover the sample.
- Observe the water surface for signs of discoloration/sheen and characterize based on the descriptions below.

No Sheen (NS)	No visible sheen on the water surface
Biogenic Film (BF)	Dull, platy/blocky or foamy film.
Slight Sheen (SS)	Light sheen with irregular spread, not rapid. May have small spots of color/iridescence. Majority of water surface not covered by sheen.
Moderate Sheen (MS)	Medium to heavy coverage, some color/iridescence, spread is irregular to flowing. Sheen covering a large portion of water surface.
Heavy Sheen (HS)	Heavy sheen coverage with color/iridescence, spread is rapid, entire water surface covered with sheen. Separate-phase hydrocarbons may be evident during sheen test.

1. PURPOSE AND SCOPE

This Standard Operating Procedure (SOP) describes the methods for documenting environmental field activities. The purpose of establishing SOPs for field notes and documentation is to establish a consistent method and format for the use and control of documentation generated during daily field activities. Field notes and records are intended to provide sufficient information that can be used to recreate the field activities, as well as, the collection of environmental data. Information placed in these documents and/or records shall be factual, detailed and objective.

2. EQUIPMENT AND MATERIALS

The following materials are necessary for this procedure:

- Bound field books;
- Black waterproof and/or indelible ink pens; and
- Field forms.

3. METHODOLOGY

This SOP primarily includes the documentation procedures for the field logbooks. However, procedures discussed in this SOP are applicable to all other types of field documentation collected, and should be universal in application. Details of other field records and forms (e.g. boring logs, sample labels, chain of custody records, and waste containment labels are discussed in the specific SOP associated with that field activity (e.g. borehole drilling, sample handling, investigative derived waste), and not covered in detail in this SOP.

Field Logbooks:

Field personnel will keep accurate written records of their daily activities in a bound logbook that will be sufficient to recreate the project field activities without reliance on memory. This information will be recorded in chronological order. All entries will be legible, written in black waterproof or indelible ink, and contain accurate and inclusive documentation of field activities, including field data observations, deviations from project plans, problems encountered, and actions taken to solve the problem. Each page of the field logbook will be consecutively numbered, signed and dated by the field author(s). Pages should not be removed for any reason.

There should be no blank lines on a page. A single blank line or a partial blank line (such as at the end of a paragraph) should be lined to the end of the page. If only part of a page is used, the remainder of the page should have an "X" drawn across it.

In addition to documenting field activities, field logbooks will include the following:

- Date and time of activities,
- Site location,
- Purpose of site visit,
- Site and weather conditions,

- Personnel present, including sampling crew, facility/site personnel and representatives (including site arrival and departure times),
- Subcontractors present,
- Regulatory agencies and their representatives (including phone numbers, site arrival and departure times),
- Level of health and safety protection,
- Sampling methodology and information,
- Sample locations (sketches are helpful),
- Source of sample(s), sample identifications, sample container types and preservatives used, and lot numbers for bottles and preservatives (if applicable and if not recorded on other forms or in a sample control logbook),
- A chronological description of the field observations and events,
- Specific considerations associated with sample acquisition (e.g., field parameter measurements, field screening data, HASP monitoring data, etc.) (if not recorded on another form),
- Wastes generated, containment units (including volumes, matrix, etc), and storage location (if not recorded on another form),
- Field quality assurance/quality control samples collection, preparation, and origin (if not recorded on other forms or in a sample control logbook),
- The manufacturer, model and serial number of field instruments (e.g., PID, water quality, etc.) shall be recorded, if not using a calibration form. Also, source lot # and expiration date of standard shall be recorded if calibrated in the field.
- Well construction materials, water source(s), and other materials used on-site (if not recorded on another form).
- Sample conditions that could potentially affect the sample results,
- If deviating from plan, clearly state the reason(s) for deviation,
- Persons contacted and topics discussed,
- Documentation of exclusion zone set-up and location,
- Documentation of decontamination procedures, and
- Daily Summary.

Field situations vary widely. No general rules can specify the extent of information that must be entered in a logbook. However, records should contain sufficient information so that someone can reconstruct the field activity without relying on the collector's memory. Language used shall be objective, factual, and free of personal opinions. Hypothesis for observed phenomena may be

recorded, however, they must be clearly indicated as such and only relate to the subject observation.

Logbooks will be assigned to a specific sampling team. If it is necessary to transfer the log book to alternative team member during field work, the person relinquishing the log book will sign and date the log book at the time of transfer.

Field logbooks should consist of a bound book, in which the insertion or removal of pages will be visibly noticeable after the logbook has been assembled. Logbooks can be prepared by gluing or laminating pages together either at the left side or top of the page. If inclement weather is expected, logbooks may have plastic laminated front and back covers to protect the interior pages, and should not be broken apart for coping. Loose-leaf binding, such as comb binding is not considered hard binding. To maintain the integrity of the logbook, pages should be consecutively numbered prior to use. Logbook pages can be of any format, and may include blank pages for recording or field forms that are used for specific tasks. As an alternative, commercially bound and consecutive page numbered field logbooks may also be used.

Additional Field Forms/Records:

Additional field records may be required for each specific field event. The use of these records and examples are described in other SOPs specific for the activity (e.g. Borehole Logging SOP, Groundwater Sampling and Purging SOP, etc.). These other records may include:

- Borehole Logs during drilling,
- Well Construction and Development records,
- Groundwater Purge and Sample Collection Records,
- Water Level Monitoring,
- Investigation Derived Waste (IDW) Tracking Records,
- Instrument Calibration Records, and
- Health and Safety Monitoring Records and sign-off sheets.

Prior to field activities, the field sampling personnel will coordinate with the Project Manager, or designee, to determine which additional records will be required for the specific field task. These additional records will be maintained in a field file or a three-ring notebook throughout the duration of the field activities, or included in a specially prepared site-specific notebook. If the field notebook is being created, the forms may be part of the laminated book.

Corrections:

If an error is made in the field, logbook corrections will be made by drawing a single line through the error, entering the correct information, and initialing and dating the change. Materials that obliterate the original information, such as correction fluids and/or mark-out tapes, are prohibited. All corrections will be initialed and dated. Some projects require that a brief reason for the change must also be added where the correction was made. Ask the Project Manager, if this requirement is necessary.

Documentation Reviews:

Periodically, the Project Manager, or designee, will review the field logbooks pertaining to the activities under their supervision. The elements of this review will include technical content, consistency, and compliance with the project plans and SOPs. Discrepancies and errors identified during the review should be resolved between reviewer and author of the field documentation. Corrections and/or additions of information shall be initialed and dated by the field author or reviewer.

APPENDIX B

EXPLORATION LOGS

Cascadia Associates, LLC	PROJECT: **Phase II ESA**	BORING ID: **DW GW**	
	LOCATION: **4920 Gebhard Road, Central Point, OR**	WELL ID: **NA**	
	DRILLING CONTRACTOR: **Pacific Soil and Water**	NORTHING:	EASTING:
	DRILLING EQUIPMENT: **Geoprobe 6600**	SURFACE ELEV. (NAVD88): **Not measured**	TOC ELEVATION: **NA**
	DRILLING METHOD: **Direct-push**	TOTAL DEPTH: **16**	DEPTH TO WATER: **8**
LOGGED BY: **JM**	SAMPLING METHOD: **2.25-Inch Single Tube Sampler**	DATE STARTED: **3/1/18**	DATE COMPLETED: **3/1/18**

Elev. (feet)	USCS	Graphic Log	Description	Driven/Rec. (ft.)	Headspace Vapor (ppm)	Sample	Well Construction	Water Level
0	CL		Light brown clay with trace silt, dark brown, stiff, slightly moist	4.0/4.0	<5		Well Construction: 3/4-in Casing, Screen, Filter Sand, End Cap	▽
2					<5			
4					<5			
6	CL		Increasing silt content	4.0/4.0	<5			
8					<5			
10	CL		Becomes wet with trace coarse gravel present	4.0/4.0	<5			
12					<5			
14				4.0/4.0	<5	DW GW		
16								

NOTES: A grab groundwater sample (DW GW) was collected from a temporary monitoring well. The monitoring well was removed after sample collection.

Cascadia Associates, LLC	PROJECT: **Phase II ESA**	BORING ID: **SS-30 GW**	
	LOCATION: **4920 Gebhard Road, Central Point, OR**	WELL ID: **NA**	
	DRILLING CONTRACTOR: **Pacific Soil and Water**	NORTHING:	EASTING:
	DRILLING EQUIPMENT: **Geoprobe 6600**	SURFACE ELEV. (NAVD88): **Not measured**	TOC ELEVATION: **NA**
	DRILLING METHOD: **Direct-push**	TOTAL DEPTH: **16**	DEPTH TO WATER: **12**
LOGGED BY: **JM**	SAMPLING METHOD: **2.25-Inch Single Tube Sampler**	DATE STARTED: **3/1/18**	DATE COMPLETED: **3/1/18**

Elev. (feet)	USCS	Graphic Log	Description	Driven/Rec. (ft.)	Headspace Vapor (ppm)	Sample	Well Construction	Water Level
0	CL		Light brown clay with silt, medium stiff, moist	4.0/4.0	<5	SS-30 (1-1.5)	Well Construction: 3/4-in Casing, Screen, Filter Sand, End Cap	
2					<5	SS-30 (2 -2.5)		
4				4.0/4.0	<5			
6					<5			
8					<5			
10				4.0/4.0	<5			
12	CL		Becomes wet		<5			
14				4.0/4.0	<5			
16					<5	SS-30 GW		

NOTES: A grab groundwater sample (SS-30 GW) was collected from a temporary monitoring well. The monitoring well was removed after sample collection.

Cascadia Associates, LLC

PROJECT: **Phase II ESA**		BORING ID: **SS-5 GW**	
LOCATION: **4920 Gebhard Road, Central Point, OR**		WELL ID: **NA**	
DRILLING CONTRACTOR: **Pacific Soil and Water**		NORTHING:	EASTING:
DRILLING EQUIPMENT: **Geoprobe 6600**		SURFACE ELEV. (NAVD88): **Not measured**	TOC ELEVATION: **NA**
DRILLING METHOD: **Direct-push**		TOTAL DEPTH: **16**	DEPTH TO WATER: **8.5**
LOGGED BY: **JM**	SAMPLING METHOD: **2.25-Inch Single Tube Sampler**	DATE STARTED: **3/1/18**	DATE COMPLETED: **3/1/18**

Elev. (feet)	USCS	Description	Driven/Rec. (ft.)	Headspace Vapor (ppm)	Sample
0	CL	Clay, dark brown, medium stiff, slightly moist	4.0/4.0	<5	SS-5 (1-1.5)
2				<5	SS-5 (2 - 2.5)
4			4.0/4.0	<5	
6				<5	
8	CL	Trace gravel present		<5	
10	GW	Gravel, light gray to light brown, angular to rounded, loose, wet	4.0/4.0	<5	
12				<5	
14			0.0/4.0	<5	SS-5 GW
16				<5	

Well Construction: 3/4-in Casing, Screen, Filter Sand, End Cap

Water Level

NOTES: A grab groundwater sample (SS-5) was collected from a temporary monitoring well. The monitoring well was removed after sample collection.

APPENDIX C

LABORATORY REPORTS AND

DATA QUALITY REVIEW

LABORATORY DATA QUALITY ASSURANCE REVIEW

This appendix presents a quality assurance review of laboratory analytical data collected for this project. Soil and groundwater analyses were performed by ESC Lab Sciences of Mt. Juliet, Tennessee, under sample delivery groups L975975, L975143, and L891794.

Quality assurance/quality control (QA/QC) is discussed below.

- Samples were received by the analytical laboratory in good condition and in the appropriate, laboratory-supplied sample containers.
- Samples were received by the laboratory within the recommended temperature range.
- The samples were analyzed within their respective method holding times.

The following describes the results of the data quality review and any qualifiers that were added to the data by the laboratory or Cascadia as a result of the data quality review.

- Several data values in both laboratory reports were reported as estimates, because the detected concentration is below the lowest point of the calibration curve, but above the specified laboratory method detection limit (MDL). As a result, the affected data are flagged with the J qualifier in the laboratory report and data tables and should be treated as estimates.
- In laboratory report L961534, nitrate and naphthalene were detected in the laboratory method blank (MB) water samples for batches WG1062016 and WG1060573. For this reason, groundwater analytical results for nitrate associated with batch WG1062016 were flagged with the B qualifier.
- The matrix spike duplicate (MSD) recovery and matrix spike (MS)/MSD recovery relative percent difference (RPD) for hexachlorobenzene for a sample associated with batch WG1060458 for report L961534 were outside of quality control limits and were flagged in the report with the J3 qualifier. The associated laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries were within quality control limits. The affected sample is not associated with this project, and no data were qualified as a result.
- The MSD recovery and MS/MSD recovery RPD for acetone and acrolein for a sample associated with batch WG1080087 for report L974248 were outside of quality control limits and were flagged in the report with the J3 or J4 qualifier. The associated LCS and LCSD recoveries were within quality control limits. The affected sample is not associated with this project, and no data were qualified as a result.
- The MSD recovery and MS/MSD recovery RPD for anthracene and acenaphthylene for a sample associated with batch WG1080437 for report L974248 were outside of quality control limits and were flagged in the report with the J4 qualifier. The associated LCS and LCSD recoveries were within quality control limits. The affected sample is not associated with this project, and no data were qualified as a result.

Cascadia reviewed the laboratory narratives, data, and quality control data and determined that the data are of sufficient quality for evaluating soil and groundwater conditions at the site.

ANALYTICAL REPORT

January 15, 2018

Cascadia Associates- Portland, OR

Sample Delivery Group:	L961534
Samples Received:	01/06/2018
Project Number:	0063-001-001
Description:	Gephard Village Soil Sampling

Report To:

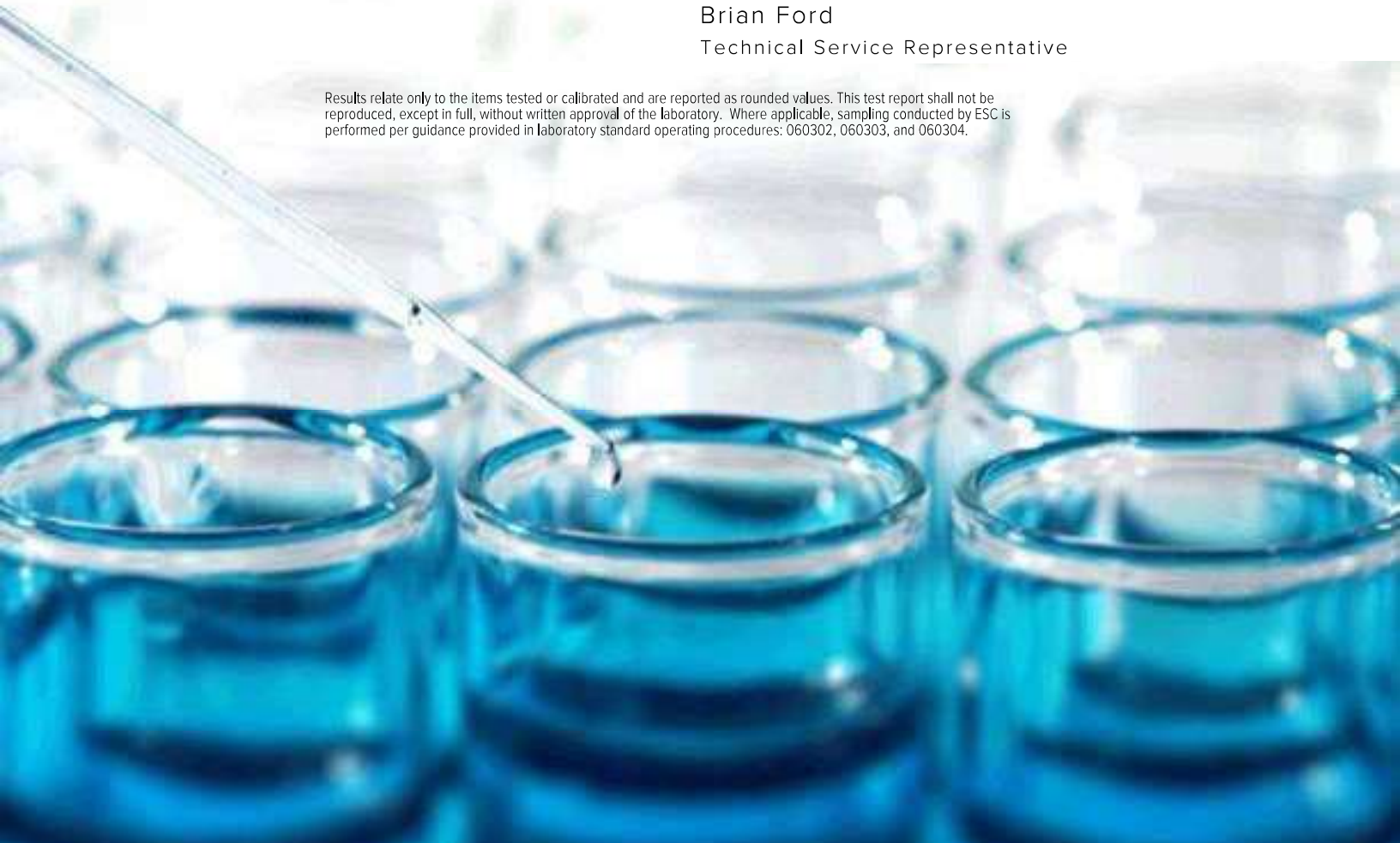
Joel Mattecheck
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



Cp: Cover Page 1
Tc: Table of Contents 2
Ss: Sample Summary 4
Cn: Case Narrative 9
Sr: Sample Results 10
SS-1 L961534-01 10
SS-2 L961534-02 11
SS-3 L961534-03 12
SS-6 L961534-04 13
SS-5 L961534-05 14
SS-4 L961534-06 15
SS-7 L961534-07 16
SS-8 L961534-08 17
SS-9 L961534-09 18
SS-12 L961534-10 19
STOCKPILE 1 L961534-11 20
SS-13 L961534-12 22
SS-14 L961534-13 23
SS-15 L961534-14 24
SS-18 L961534-15 25
SS-17 L961534-16 26
SS-16 L961534-17 27
SS-10 L961534-18 28
SS-11 L961534-19 29
SS-19 L961534-20 30
SS-20 L961534-21 31
STOCKPILE 2 L961534-22 32
SS-21 L961534-23 34
SS-24 L961534-24 35
SS-23 L961534-25 36
SS-22 L961534-26 37
SS-27 L961534-27 38
SS-26 L961534-28 39
SS-25 L961534-29 40
SS-28 L961534-30 41
SS-29 L961534-31 42
SS-30 L961534-32 43
STOCKPILE 3 L961534-33 44
Qc: Quality Control Summary 46
Total Solids by Method 2540 G-2011 46

Wet Chemistry by Method 9056A 56
Metals (ICP) by Method 6010B 58
Pesticides (GC) by Method 8081 60
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM 62
GI: Glossary of Terms 64
AI: Accreditations & Locations 65
Sc: Sample Chain of Custody 66

SS-1 L961534-01 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 10:30 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060864	1	01/09/18 11:06	01/09/18 11:17	JD
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:32	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 15:51	VKS

SS-2 L961534-02 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 10:45 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060779	1	01/09/18 12:42	01/09/18 12:53	KDW
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 17:23	DR
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:35	TRB

SS-3 L961534-03 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:00 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060784	1	01/10/18 11:03	01/10/18 11:05	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:45	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 16:05	VKS

SS-6 L961534-04 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:05 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060779	1	01/09/18 12:42	01/09/18 12:53	KDW
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 17:36	DR
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:48	TRB

SS-5 L961534-05 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:15 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060779	1	01/09/18 12:42	01/09/18 12:53	KDW
Wet Chemistry by Method 9056A	WG1062016	1	01/11/18 17:47	01/11/18 21:13	MAJ
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:51	TRB

SS-4 L961534-06 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:20 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060779	1	01/09/18 12:42	01/09/18 12:53	KDW
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 18:43	DR
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:55	TRB

SS-7 L961534-07 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:30 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060784	1	01/10/18 11:03	01/10/18 11:05	KDW
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 19:24	DR
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:58	TRB

SS-8 L961534-08 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:50 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060776	1	01/09/18 12:55	01/09/18 13:07	KDW
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 19:37	DR
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:01	TRB

SS-9 L961534-09 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 11:57 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060776	1	01/09/18 12:55	01/09/18 13:07	KDW
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 19:50	DR
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 01:16	TRB

SS-12 L961534-10 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 12:05 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060784	1	01/10/18 11:03	01/10/18 11:05	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:05	TRB

STOCKPILE 1 L961534-11 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 16:20 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060784	1	01/10/18 11:03	01/10/18 11:05	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:08	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 16:19	VKS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1060573	1	01/08/18 12:44	01/13/18 14:37	KM

SS-13 L961534-12 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 12:30 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060779	1	01/09/18 12:42	01/09/18 12:53	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:11	TRB

SS-14 L961534-13 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 12:40 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060785	1	01/09/18 11:55	01/09/18 12:06	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:15	TRB

SS-15 L961534-14 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 13:00 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060864	1	01/09/18 11:06	01/09/18 11:17	JD
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:25	TRB

SS-18 L961534-15 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 13:06 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060789	1	01/09/18 06:32	01/09/18 06:38	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:28	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 16:34	VKS

SS-17 L961534-16 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 13:30 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060789	1	01/09/18 06:32	01/09/18 06:38	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:31	TRB

SS-16 L961534-17 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 13:35 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060783	1	01/09/18 12:27	01/09/18 12:40	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:35	TRB

SS-10 L961534-18 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 13:45 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060954	1	01/10/18 11:10	01/10/18 11:22	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:38	TRB

SS-11 L961534-19 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 13:55 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1059974	1	01/09/18 14:06	01/09/18 14:22	JD
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:41	TRB

SS-19 L961534-20 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 14:10 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060789	1	01/09/18 06:32	01/09/18 06:38	KDW
Metals (ICP) by Method 6010B	WG1060286	1	01/07/18 18:57	01/09/18 02:45	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 16:48	VKS

SS-20 L961534-21 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 14:30 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060784	1	01/10/18 11:03	01/10/18 11:05	KDW
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:20	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 17:02	VKS

STOCKPILE 2 L961534-22 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 16:30 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060784	1	01/10/18 11:03	01/10/18 11:05	KDW
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:23	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 17:17	VKS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1060573	1	01/08/18 12:44	01/10/18 17:33	DMG

SS-21 L961534-23 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 14:34 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:33	TRB

SS-24 L961534-24 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 14:45 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:36	TRB

SS-23 L961534-25 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 14:55 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:03	TRB

SS-22 L961534-26 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 15:00 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060776	1	01/09/18 12:55	01/09/18 13:07	KDW
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:39	TRB

SS-27 L961534-27 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 15:05 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:43	TRB

SS-26 L961534-28 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 15:10 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:46	TRB

SS-25 L961534-29 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 15:15 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060783	1	01/09/18 12:27	01/09/18 12:40	KDW
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:49	TRB

SS-28 L961534-30 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 15:25 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060785	1	01/09/18 11:55	01/09/18 12:06	KDW
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:53	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 17:31	VKS

SS-29 L961534-31 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 15:40 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Wet Chemistry by Method 9056A	WG1060746	1	01/09/18 13:00	01/09/18 20:04	DR
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:56	TRB

SS-30 L961534-32 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 16:00 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060790	1	01/09/18 11:20	01/09/18 11:31	JD
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 00:59	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 14:53	VKS

STOCKPILE 3 L961534-33 Solid

Collected by: Joel Mattecheck | Collected date/time: 01/04/18 16:40 | Received date/time: 01/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1060785	1	01/09/18 11:55	01/09/18 12:06	KDW
Metals (ICP) by Method 6010B	WG1060289	1	01/07/18 19:00	01/09/18 01:02	TRB
Pesticides (GC) by Method 8081	WG1060458	1	01/08/18 06:46	01/08/18 17:46	VKS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1060573	1	01/08/18 12:44	01/10/18 17:55	DMG

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford

Brian Ford
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	71.7		1	01/09/2018 11:17	WG1060864

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	23.0		0.906	2.79	1	01/09/2018 01:32	WG1060286
Cadmium	0.153	J	0.0976	0.697	1	01/09/2018 01:32	WG1060286
Copper	62.9		0.739	2.79	1	01/09/2018 01:32	WG1060286
Lead	82.8		0.265	0.697	1	01/09/2018 01:32	WG1060286
Zinc	74.2		0.822	6.97	1	01/09/2018 01:32	WG1060286

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00188	0.0279	1	01/08/2018 15:51	WG1060458
Alpha BHC	U	J3	0.00190	0.0279	1	01/08/2018 15:51	WG1060458
Beta BHC	U		0.00223	0.0279	1	01/08/2018 15:51	WG1060458
Delta BHC	U		0.00199	0.0279	1	01/08/2018 15:51	WG1060458
Gamma BHC	U	J3	0.00202	0.0279	1	01/08/2018 15:51	WG1060458
Chlordane	U		0.0544	0.279	1	01/08/2018 15:51	WG1060458
4,4-DDD	U		0.00217	0.0279	1	01/08/2018 15:51	WG1060458
4,4-DDE	U		0.00215	0.0279	1	01/08/2018 15:51	WG1060458
4,4-DDT	U		0.00279	0.0279	1	01/08/2018 15:51	WG1060458
Dieldrin	U		0.00212	0.0279	1	01/08/2018 15:51	WG1060458
Endosulfan I	U		0.00208	0.0279	1	01/08/2018 15:51	WG1060458
Endosulfan II	U		0.00223	0.0279	1	01/08/2018 15:51	WG1060458
Endosulfan sulfate	U		0.00210	0.0279	1	01/08/2018 15:51	WG1060458
Endrin	U		0.00219	0.0279	1	01/08/2018 15:51	WG1060458
Endrin aldehyde	U		0.00180	0.0279	1	01/08/2018 15:51	WG1060458
Endrin ketone	U		0.00230	0.0279	1	01/08/2018 15:51	WG1060458
Hexachlorobenzene	U	J3	0.00173	0.0279	1	01/08/2018 15:51	WG1060458
Heptachlor	U		0.00215	0.0279	1	01/08/2018 15:51	WG1060458
Heptachlor epoxide	U		0.00224	0.0279	1	01/08/2018 15:51	WG1060458
Methoxychlor	U		0.00248	0.0279	1	01/08/2018 15:51	WG1060458
Toxaphene	U		0.0502	0.557	1	01/08/2018 15:51	WG1060458
(S) Decachlorobiphenyl	*74.4*			*10.0-148*		*01/08/2018 15:51*	WG1060458
(S) Tetrachloro-m-xylene	*82.9*			*21.0-146*		*01/08/2018 15:51*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.1		1	01/09/2018 12:53	WG1060779

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	26.4		0.0145	1.25	1	01/09/2018 17:23	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	5.43		0.811	2.50	1	01/09/2018 01:35	WG1060286
Cadmium	0.124	J	0.0873	0.624	1	01/09/2018 01:35	WG1060286
Copper	36.6		0.661	2.50	1	01/09/2018 01:35	WG1060286
Lead	3.45		0.237	0.624	1	01/09/2018 01:35	WG1060286
Zinc	72.5		0.736	6.24	1	01/09/2018 01:35	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	88.1		1	01/10/2018 11:05	WG1060784

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	4.70		0.738	2.27	1	01/09/2018 01:45	WG1060286
Cadmium	0.122	J	0.0795	0.568	1	01/09/2018 01:45	WG1060286
Copper	26.3		0.602	2.27	1	01/09/2018 01:45	WG1060286
Lead	12.2		0.216	0.568	1	01/09/2018 01:45	WG1060286
Zinc	46.4		0.670	5.68	1	01/09/2018 01:45	WG1060286

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00153	0.0227	1	01/08/2018 16:05	WG1060458
Alpha BHC	U	J3	0.00154	0.0227	1	01/08/2018 16:05	WG1060458
Beta BHC	U		0.00182	0.0227	1	01/08/2018 16:05	WG1060458
Delta BHC	U		0.00162	0.0227	1	01/08/2018 16:05	WG1060458
Gamma BHC	U	J3	0.00165	0.0227	1	01/08/2018 16:05	WG1060458
Chlordane	U		0.0443	0.227	1	01/08/2018 16:05	WG1060458
4,4-DDD	U		0.00177	0.0227	1	01/08/2018 16:05	WG1060458
4,4-DDE	U		0.00175	0.0227	1	01/08/2018 16:05	WG1060458
4,4-DDT	U		0.00227	0.0227	1	01/08/2018 16:05	WG1060458
Dieldrin	U		0.00173	0.0227	1	01/08/2018 16:05	WG1060458
Endosulfan I	U		0.00169	0.0227	1	01/08/2018 16:05	WG1060458
Endosulfan II	U		0.00182	0.0227	1	01/08/2018 16:05	WG1060458
Endosulfan sulfate	U		0.00171	0.0227	1	01/08/2018 16:05	WG1060458
Endrin	U		0.00178	0.0227	1	01/08/2018 16:05	WG1060458
Endrin aldehyde	U		0.00146	0.0227	1	01/08/2018 16:05	WG1060458
Endrin ketone	U		0.00187	0.0227	1	01/08/2018 16:05	WG1060458
Hexachlorobenzene	U	J3	0.00141	0.0227	1	01/08/2018 16:05	WG1060458
Heptachlor	U		0.00175	0.0227	1	01/08/2018 16:05	WG1060458
Heptachlor epoxide	U		0.00183	0.0227	1	01/08/2018 16:05	WG1060458
Methoxychlor	U		0.00202	0.0227	1	01/08/2018 16:05	WG1060458
Toxaphene	U		0.0409	0.454	1	01/08/2018 16:05	WG1060458
(S) Decachlorobiphenyl	*64.8*			*10.0-148*		*01/08/2018 16:05*	WG1060458
(S) Tetrachloro-m-xylene	*76.4*			*21.0-146*		*01/08/2018 16:05*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.0		1	01/09/2018 12:53	WG1060779

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	10.6		0.0133	1.15	1	01/09/2018 17:36	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.47		0.747	2.30	1	01/09/2018 01:48	WG1060286
Lead	26.6		0.218	0.574	1	01/09/2018 01:48	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.4		1	01/09/2018 12:53	WG1060779

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	3.59	B	0.0146	1.26	1	01/11/2018 21:13	WG1062016

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	5.50		0.818	2.52	1	01/09/2018 01:51	WG1060286
Cadmium	0.145	J	0.0881	0.630	1	01/09/2018 01:51	WG1060286
Copper	35.5		0.667	2.52	1	01/09/2018 01:51	WG1060286
Lead	4.80		0.239	0.630	1	01/09/2018 01:51	WG1060286
Zinc	72.8		0.743	6.30	1	01/09/2018 01:51	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.3		1	01/09/2018 12:53	WG1060779

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	14.5		0.0144	1.25	1	01/09/2018 18:43	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	15.9		0.809	2.49	1	01/09/2018 01:55	WG1060286
Lead	46.5		0.237	0.623	1	01/09/2018 01:55	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.5		1	01/10/2018 11:05	WG1060784

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	0.993	J	0.0154	1.33	1	01/09/2018 19:24	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	19.0		0.861	2.65	1	01/09/2018 01:58	WG1060286
Lead	55.0		0.252	0.663	1	01/09/2018 01:58	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.4		1	01/09/2018 13:07	WG1060776

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	5.71		0.0141	1.21	1	01/09/2018 19:37	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	16.8		0.788	2.43	1	01/09/2018 02:01	WG1060286
Lead	49.7		0.230	0.606	1	01/09/2018 02:01	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	01/09/2018 13:07	WG1060776

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	11.0		0.0146	1.26	1	01/09/2018 19:50	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	10.1		0.818	2.52	1	01/09/2018 01:16	WG1060286
Lead	33.7		0.239	0.629	1	01/09/2018 01:16	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.2		1	01/10/2018 11:05	WG1060784

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	12.9		0.821	2.53	1	01/09/2018 02:05	WG1060286
Lead	40.0		0.240	0.631	1	01/09/2018 02:05	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	86.3		1	01/10/2018 11:05	WG1060784

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	3.34		0.753	2.32	1	01/09/2018 02:08	WG1060286
Cadmium	U		0.0811	0.579	1	01/09/2018 02:08	WG1060286
Copper	15.8		0.614	2.32	1	01/09/2018 02:08	WG1060286
Lead	2.61		0.220	0.579	1	01/09/2018 02:08	WG1060286
Zinc	41.0		0.683	5.79	1	01/09/2018 02:08	WG1060286

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00156	0.0232	1	01/08/2018 16:19	WG1060458
Alpha BHC	U	J3	0.00158	0.0232	1	01/08/2018 16:19	WG1060458
Beta BHC	U		0.00185	0.0232	1	01/08/2018 16:19	WG1060458
Delta BHC	U		0.00166	0.0232	1	01/08/2018 16:19	WG1060458
Gamma BHC	U	J3	0.00168	0.0232	1	01/08/2018 16:19	WG1060458
Chlordane	U		0.0452	0.232	1	01/08/2018 16:19	WG1060458
4,4-DDD	U		0.00181	0.0232	1	01/08/2018 16:19	WG1060458
4,4-DDE	U		0.00178	0.0232	1	01/08/2018 16:19	WG1060458
4,4-DDT	U		0.00232	0.0232	1	01/08/2018 16:19	WG1060458
Dieldrin	U		0.00176	0.0232	1	01/08/2018 16:19	WG1060458
Endosulfan I	U		0.00173	0.0232	1	01/08/2018 16:19	WG1060458
Endosulfan II	U		0.00185	0.0232	1	01/08/2018 16:19	WG1060458
Endosulfan sulfate	U		0.00175	0.0232	1	01/08/2018 16:19	WG1060458
Endrin	U		0.00182	0.0232	1	01/08/2018 16:19	WG1060458
Endrin aldehyde	U		0.00149	0.0232	1	01/08/2018 16:19	WG1060458
Endrin ketone	U		0.00191	0.0232	1	01/08/2018 16:19	WG1060458
Hexachlorobenzene	U	J3	0.00144	0.0232	1	01/08/2018 16:19	WG1060458
Heptachlor	U		0.00178	0.0232	1	01/08/2018 16:19	WG1060458
Heptachlor epoxide	U		0.00186	0.0232	1	01/08/2018 16:19	WG1060458
Methoxychlor	U		0.00206	0.0232	1	01/08/2018 16:19	WG1060458
Toxaphene	U		0.0417	0.463	1	01/08/2018 16:19	WG1060458
(S) Decachlorobiphenyl	*48.3*			*10.0-148*		*01/08/2018 16:19*	WG1060458
(S) Tetrachloro-m-xylene	*66.9*			*21.0-146*		*01/08/2018 16:19*	WG1060458

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Anthracene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Acenaphthene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Acenaphthylene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Benzo(a)anthracene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Benzo(a)pyrene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Benzo(b)fluoranthene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Benzo(g,h,i)perylene	0.00301	J	0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Benzo(k)fluoranthene	0.000706	J	0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Chrysene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Dibenz(a,h)anthracene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Fluoranthene	0.000804	J	0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Fluorene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Indeno(1,2,3-cd)pyrene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Naphthalene	0.00503	B J	0.00232	0.0232	1	01/13/2018 14:37	WG1060573
Phenanthrene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
Pyrene	U		0.000695	0.00695	1	01/13/2018 14:37	WG1060573
1-Methylnaphthalene	U		0.00232	0.0232	1	01/13/2018 14:37	WG1060573
2-Methylnaphthalene	U		0.00232	0.0232	1	01/13/2018 14:37	WG1060573
2-Chloronaphthalene	U		0.00232	0.0232	1	01/13/2018 14:37	WG1060573
(S) Nitrobenzene-d5	*97.1*			*14.0-149*		*01/13/2018 14:37*	WG1060573
(S) 2-Fluorobiphenyl	*63.2*			*34.0-125*		*01/13/2018 14:37*	WG1060573
(S) p-Terphenyl-d14	*48.8*			*23.0-120*		*01/13/2018 14:37*	WG1060573

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.8		1	01/09/2018 12:53	WG1060779

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	20.0		0.815	2.51	1	01/09/2018 02:11	WG1060286
Lead	61.1		0.238	0.627	1	01/09/2018 02:11	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.6		1	01/09/2018 12:06	WG1060785

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	13.3		0.796	2.45	1	01/09/2018 02:15	WG1060286
Lead	34.7		0.233	0.612	1	01/09/2018 02:15	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.4		1	01/09/2018 11:17	WG1060864

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	15.8		0.819	2.52	1	01/09/2018 02:25	WG1060286
Lead	60.1		0.239	0.630	1	01/09/2018 02:25	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	76.0		1	01/09/2018 06:38	WG1060789

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	11.8		0.856	2.63	1	01/09/2018 02:28	WG1060286
Cadmium	0.183	J	0.0921	0.658	1	01/09/2018 02:28	WG1060286
Copper	42.4		0.698	2.63	1	01/09/2018 02:28	WG1060286
Lead	50.5		0.250	0.658	1	01/09/2018 02:28	WG1060286
Zinc	93.5		0.777	6.58	1	01/09/2018 02:28	WG1060286

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00178	0.0263	1	01/08/2018 16:34	WG1060458
Alpha BHC	U	J3	0.00179	0.0263	1	01/08/2018 16:34	WG1060458
Beta BHC	U		0.00211	0.0263	1	01/08/2018 16:34	WG1060458
Delta BHC	U		0.00188	0.0263	1	01/08/2018 16:34	WG1060458
Gamma BHC	U	J3	0.00191	0.0263	1	01/08/2018 16:34	WG1060458
Chlordane	U		0.0513	0.263	1	01/08/2018 16:34	WG1060458
4,4-DDD	U		0.00205	0.0263	1	01/08/2018 16:34	WG1060458
4,4-DDE	0.0314		0.00203	0.0263	1	01/08/2018 16:34	WG1060458
4,4-DDT	0.00507	J	0.00263	0.0263	1	01/08/2018 16:34	WG1060458
Dieldrin	U		0.00200	0.0263	1	01/08/2018 16:34	WG1060458
Endosulfan I	U		0.00196	0.0263	1	01/08/2018 16:34	WG1060458
Endosulfan II	U		0.00211	0.0263	1	01/08/2018 16:34	WG1060458
Endosulfan sulfate	U		0.00199	0.0263	1	01/08/2018 16:34	WG1060458
Endrin	U		0.00207	0.0263	1	01/08/2018 16:34	WG1060458
Endrin aldehyde	U		0.00170	0.0263	1	01/08/2018 16:34	WG1060458
Endrin ketone	U		0.00217	0.0263	1	01/08/2018 16:34	WG1060458
Hexachlorobenzene	U	J3	0.00163	0.0263	1	01/08/2018 16:34	WG1060458
Heptachlor	U		0.00203	0.0263	1	01/08/2018 16:34	WG1060458
Heptachlor epoxide	U		0.00212	0.0263	1	01/08/2018 16:34	WG1060458
Methoxychlor	U		0.00234	0.0263	1	01/08/2018 16:34	WG1060458
Toxaphene	U		0.0474	0.526	1	01/08/2018 16:34	WG1060458
(S) Decachlorobiphenyl	*38.4*			*10.0-148*		*01/08/2018 16:34*	WG1060458
(S) Tetrachloro-m-xylene	*52.5*			*21.0-146*		*01/08/2018 16:34*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.7		1	01/09/2018 06:38	WG1060789

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	14.8		0.826	2.54	1	01/09/2018 02:31	WG1060286
Lead	47.1		0.241	0.635	1	01/09/2018 02:31	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.9		1	01/09/2018 12:40	WG1060783

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	18.4		0.793	2.44	1	01/09/2018 02:35	WG1060286
Lead	61.5		0.232	0.610	1	01/09/2018 02:35	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.1		1	01/10/2018 11:22	WG1060954

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	6.54		0.811	2.50	1	01/09/2018 02:38	WG1060286
Lead	25.2		0.237	0.624	1	01/09/2018 02:38	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.1		1	01/09/2018 14:22	WG1059974

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	17.7		0.822	2.53	1	01/09/2018 02:41	WG1060286
Lead	50.6		0.240	0.632	1	01/09/2018 02:41	WG1060286

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	78.2		1	01/09/2018 06:38	WG1060789

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	11.2		0.831	2.56	1	01/09/2018 02:45	WG1060286
Cadmium	0.144	J	0.0895	0.639	1	01/09/2018 02:45	WG1060286
Copper	41.0		0.678	2.56	1	01/09/2018 02:45	WG1060286
Lead	9.10		0.243	0.639	1	01/09/2018 02:45	WG1060286
Zinc	74.3		0.755	6.39	1	01/09/2018 02:45	WG1060286

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00173	0.0256	1	01/08/2018 16:48	WG1060458
Alpha BHC	U	J3	0.00174	0.0256	1	01/08/2018 16:48	WG1060458
Beta BHC	U		0.00205	0.0256	1	01/08/2018 16:48	WG1060458
Delta BHC	U		0.00183	0.0256	1	01/08/2018 16:48	WG1060458
Gamma BHC	U	J3	0.00185	0.0256	1	01/08/2018 16:48	WG1060458
Chlordane	U		0.0499	0.256	1	01/08/2018 16:48	WG1060458
4,4-DDD	U		0.00200	0.0256	1	01/08/2018 16:48	WG1060458
4,4-DDE	U		0.00197	0.0256	1	01/08/2018 16:48	WG1060458
4,4-DDT	U		0.00256	0.0256	1	01/08/2018 16:48	WG1060458
Dieldrin	U		0.00194	0.0256	1	01/08/2018 16:48	WG1060458
Endosulfan I	U		0.00191	0.0256	1	01/08/2018 16:48	WG1060458
Endosulfan II	U		0.00205	0.0256	1	01/08/2018 16:48	WG1060458
Endosulfan sulfate	U		0.00193	0.0256	1	01/08/2018 16:48	WG1060458
Endrin	U		0.00201	0.0256	1	01/08/2018 16:48	WG1060458
Endrin aldehyde	U		0.00165	0.0256	1	01/08/2018 16:48	WG1060458
Endrin ketone	U		0.00211	0.0256	1	01/08/2018 16:48	WG1060458
Hexachlorobenzene	U	J3	0.00159	0.0256	1	01/08/2018 16:48	WG1060458
Heptachlor	U		0.00197	0.0256	1	01/08/2018 16:48	WG1060458
Heptachlor epoxide	U		0.00206	0.0256	1	01/08/2018 16:48	WG1060458
Methoxychlor	U		0.00228	0.0256	1	01/08/2018 16:48	WG1060458
Toxaphene	U		0.0460	0.512	1	01/08/2018 16:48	WG1060458
(S) Decachlorobiphenyl	*49.6*			*10.0-148*		*01/08/2018 16:48*	WG1060458
(S) Tetrachloro-m-xylene	*64.4*			*21.0-146*		*01/08/2018 16:48*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.9		1	01/10/2018 11:05	WG1060784

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	15.5		0.845	2.60	1	01/09/2018 00:20	WG1060289
Cadmium	0.293	J	0.0911	0.650	1	01/09/2018 00:20	WG1060289
Copper	49.5		0.689	2.60	1	01/09/2018 00:20	WG1060289
Lead	107		0.247	0.650	1	01/09/2018 00:20	WG1060289
Zinc	119		0.767	6.50	1	01/09/2018 00:20	WG1060289

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00176	0.0260	1	01/08/2018 17:02	WG1060458
Alpha BHC	U	J3	0.00177	0.0260	1	01/08/2018 17:02	WG1060458
Beta BHC	U		0.00208	0.0260	1	01/08/2018 17:02	WG1060458
Delta BHC	U		0.00186	0.0260	1	01/08/2018 17:02	WG1060458
Gamma BHC	U	J3	0.00189	0.0260	1	01/08/2018 17:02	WG1060458
Chlordane	U		0.0507	0.260	1	01/08/2018 17:02	WG1060458
4,4-DDD	U		0.00203	0.0260	1	01/08/2018 17:02	WG1060458
4,4-DDE	U		0.00200	0.0260	1	01/08/2018 17:02	WG1060458
4,4-DDT	U		0.00260	0.0260	1	01/08/2018 17:02	WG1060458
Dieldrin	U		0.00198	0.0260	1	01/08/2018 17:02	WG1060458
Endosulfan I	U		0.00194	0.0260	1	01/08/2018 17:02	WG1060458
Endosulfan II	U		0.00208	0.0260	1	01/08/2018 17:02	WG1060458
Endosulfan sulfate	U		0.00196	0.0260	1	01/08/2018 17:02	WG1060458
Endrin	U		0.00204	0.0260	1	01/08/2018 17:02	WG1060458
Endrin aldehyde	U		0.00168	0.0260	1	01/08/2018 17:02	WG1060458
Endrin ketone	U		0.00215	0.0260	1	01/08/2018 17:02	WG1060458
Hexachlorobenzene	U	J3	0.00161	0.0260	1	01/08/2018 17:02	WG1060458
Heptachlor	U		0.00200	0.0260	1	01/08/2018 17:02	WG1060458
Heptachlor epoxide	U		0.00209	0.0260	1	01/08/2018 17:02	WG1060458
Methoxychlor	U		0.00232	0.0260	1	01/08/2018 17:02	WG1060458
Toxaphene	U		0.0468	0.520	1	01/08/2018 17:02	WG1060458
(S) Decachlorobiphenyl	*46.1*			*10.0-148*		*01/08/2018 17:02*	WG1060458
(S) Tetrachloro-m-xylene	*63.6*			*21.0-146*		*01/08/2018 17:02*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	91.5		1	01/10/2018 11:05	WG1060784

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	3.86		0.710	2.19	1	01/09/2018 00:23	WG1060289
Cadmium	0.324	J	0.0765	0.546	1	01/09/2018 00:23	WG1060289
Copper	51.1		0.579	2.19	1	01/09/2018 00:23	WG1060289
Lead	163		0.208	0.546	1	01/09/2018 00:23	WG1060289
Zinc	226		0.645	5.46	1	01/09/2018 00:23	WG1060289

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00147	0.0219	1	01/08/2018 17:17	WG1060458
Alpha BHC	U	J3	0.00149	0.0219	1	01/08/2018 17:17	WG1060458
Beta BHC	U		0.00175	0.0219	1	01/08/2018 17:17	WG1060458
Delta BHC	U		0.00156	0.0219	1	01/08/2018 17:17	WG1060458
Gamma BHC	U	J3	0.00158	0.0219	1	01/08/2018 17:17	WG1060458
Chlordane	U		0.0426	0.219	1	01/08/2018 17:17	WG1060458
4,4-DDD	U		0.00170	0.0219	1	01/08/2018 17:17	WG1060458
4,4-DDE	0.00485	J	0.00168	0.0219	1	01/08/2018 17:17	WG1060458
4,4-DDT	0.00368	J	0.00219	0.0219	1	01/08/2018 17:17	WG1060458
Dieldrin	U		0.00166	0.0219	1	01/08/2018 17:17	WG1060458
Endosulfan I	U		0.00163	0.0219	1	01/08/2018 17:17	WG1060458
Endosulfan II	U		0.00175	0.0219	1	01/08/2018 17:17	WG1060458
Endosulfan sulfate	U		0.00165	0.0219	1	01/08/2018 17:17	WG1060458
Endrin	U		0.00172	0.0219	1	01/08/2018 17:17	WG1060458
Endrin aldehyde	U		0.00141	0.0219	1	01/08/2018 17:17	WG1060458
Endrin ketone	U		0.00180	0.0219	1	01/08/2018 17:17	WG1060458
Hexachlorobenzene	U	J3	0.00135	0.0219	1	01/08/2018 17:17	WG1060458
Heptachlor	U		0.00168	0.0219	1	01/08/2018 17:17	WG1060458
Heptachlor epoxide	U		0.00176	0.0219	1	01/08/2018 17:17	WG1060458
Methoxychlor	U		0.00194	0.0219	1	01/08/2018 17:17	WG1060458
Toxaphene	U		0.0393	0.437	1	01/08/2018 17:17	WG1060458
(S) Decachlorobiphenyl	*48.4*			*10.0-148*		*01/08/2018 17:17*	WG1060458
(S) Tetrachloro-m-xylene	*64.4*			*21.0-146*		*01/08/2018 17:17*	WG1060458

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Anthracene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Acenaphthene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Acenaphthylene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Benzo(a)anthracene	0.000758	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Benzo(a)pyrene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Benzo(b)fluoranthene	0.000966	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Benzo(g,h,i)perylene	0.000940	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Benzo(k)fluoranthene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Chrysene	0.000669	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Dibenz(a,h)anthracene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Fluoranthene	0.000822	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Fluorene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Indeno(1,2,3-cd)pyrene	0.000719	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Naphthalene	0.00346	B J	0.00219	0.0219	1	01/10/2018 17:33	WG1060573
Phenanthrene	U		0.000656	0.00656	1	01/10/2018 17:33	WG1060573
Pyrene	0.00100	J	0.000656	0.00656	1	01/10/2018 17:33	WG1060573
1-Methylnaphthalene	U		0.00219	0.0219	1	01/10/2018 17:33	WG1060573
2-Methylnaphthalene	U		0.00219	0.0219	1	01/10/2018 17:33	WG1060573
2-Chloronaphthalene	U		0.00219	0.0219	1	01/10/2018 17:33	WG1060573
(S) Nitrobenzene-d5	*93.0*			*14.0-149*		*01/10/2018 17:33*	WG1060573
(S) 2-Fluorobiphenyl	*70.1*			*34.0-125*		*01/10/2018 17:33*	WG1060573
(S) p-Terphenyl-d14	*70.9*			*23.0-120*		*01/10/2018 17:33*	WG1060573

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	73.7		1	01/09/2018 11:31	WG1060790

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	11.4		0.882	2.71	1	01/09/2018 00:33	WG1060289
Lead	51.1		0.258	0.678	1	01/09/2018 00:33	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.8		1	01/09/2018 11:31	WG1060790

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	24.5		0.846	2.60	1	01/09/2018 00:36	WG1060289
Lead	109		0.247	0.651	1	01/09/2018 00:36	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.8		1	01/09/2018 11:31	WG1060790

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.31		0.757	2.33	1	01/09/2018 00:03	WG1060289
Lead	32.6		0.221	0.583	1	01/09/2018 00:03	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	01/09/2018 13:07	WG1060776

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.53		0.712	2.19	1	01/09/2018 00:39	WG1060289
Lead	15.3		0.208	0.547	1	01/09/2018 00:39	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.8		1	01/09/2018 11:31	WG1060790

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	24.9		0.785	2.41	1	01/09/2018 00:43	WG1060289
Lead	102		0.229	0.604	1	01/09/2018 00:43	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.2		1	01/09/2018 11:31	WG1060790

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	20.2		0.801	2.46	1	01/09/2018 00:46	WG1060289
Lead	103		0.234	0.616	1	01/09/2018 00:46	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.7		1	01/09/2018 12:40	WG1060783

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	11.3		0.859	2.64	1	01/09/2018 00:49	WG1060289
Lead	79.6		0.251	0.661	1	01/09/2018 00:49	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	81.7		1	01/09/2018 12:06	WG1060785

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	26.9		0.795	2.45	1	01/09/2018 00:53	WG1060289
Cadmium	0.213	J	0.0856	0.612	1	01/09/2018 00:53	WG1060289
Copper	44.9		0.648	2.45	1	01/09/2018 00:53	WG1060289
Lead	115		0.232	0.612	1	01/09/2018 00:53	WG1060289
Zinc	68.0		0.722	6.12	1	01/09/2018 00:53	WG1060289

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00165	0.0245	1	01/08/2018 17:31	WG1060458
Alpha BHC	U	J3	0.00166	0.0245	1	01/08/2018 17:31	WG1060458
Beta BHC	U		0.00196	0.0245	1	01/08/2018 17:31	WG1060458
Delta BHC	U		0.00175	0.0245	1	01/08/2018 17:31	WG1060458
Gamma BHC	U	J3	0.00177	0.0245	1	01/08/2018 17:31	WG1060458
Chlordane	U		0.0477	0.245	1	01/08/2018 17:31	WG1060458
4,4-DDD	U		0.00191	0.0245	1	01/08/2018 17:31	WG1060458
4,4-DDE	0.0152	J	0.00188	0.0245	1	01/08/2018 17:31	WG1060458
4,4-DDT	U		0.00245	0.0245	1	01/08/2018 17:31	WG1060458
Dieldrin	U		0.00186	0.0245	1	01/08/2018 17:31	WG1060458
Endosulfan I	U		0.00182	0.0245	1	01/08/2018 17:31	WG1060458
Endosulfan II	U		0.00196	0.0245	1	01/08/2018 17:31	WG1060458
Endosulfan sulfate	U		0.00185	0.0245	1	01/08/2018 17:31	WG1060458
Endrin	U		0.00192	0.0245	1	01/08/2018 17:31	WG1060458
Endrin aldehyde	U		0.00158	0.0245	1	01/08/2018 17:31	WG1060458
Endrin ketone	U		0.00202	0.0245	1	01/08/2018 17:31	WG1060458
Hexachlorobenzene	U	J3	0.00152	0.0245	1	01/08/2018 17:31	WG1060458
Heptachlor	U		0.00188	0.0245	1	01/08/2018 17:31	WG1060458
Heptachlor epoxide	U		0.00197	0.0245	1	01/08/2018 17:31	WG1060458
Methoxychlor	U		0.00218	0.0245	1	01/08/2018 17:31	WG1060458
Toxaphene	U		0.0440	0.489	1	01/08/2018 17:31	WG1060458
(S) Decachlorobiphenyl	*30.6*			*10.0-148*		*01/08/2018 17:31*	WG1060458
(S) Tetrachloro-m-xylene	*54.6*			*21.0-146*		*01/08/2018 17:31*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.9		1	01/09/2018 11:31	WG1060790

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Nitrate	2.41		0.0143	1.24	1	01/09/2018 20:04	WG1060746

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	9.31		0.804	2.47	1	01/09/2018 00:56	WG1060289
Cadmium	0.592	J	0.0865	0.618	1	01/09/2018 00:56	WG1060289
Copper	30.1		0.655	2.47	1	01/09/2018 00:56	WG1060289
Lead	417		0.235	0.618	1	01/09/2018 00:56	WG1060289
Zinc	230		0.729	6.18	1	01/09/2018 00:56	WG1060289

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	81.3		1	01/09/2018 11:31	WG1060790

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	12.1		0.800	2.46	1	01/09/2018 00:59	WG1060289
Cadmium	0.161	J	0.0861	0.615	1	01/09/2018 00:59	WG1060289
Copper	31.1		0.652	2.46	1	01/09/2018 00:59	WG1060289
Lead	82.2		0.234	0.615	1	01/09/2018 00:59	WG1060289
Zinc	72.8		0.726	6.15	1	01/09/2018 00:59	WG1060289

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00166	0.0246	1	01/08/2018 14:53	WG1060458
Alpha BHC	U	J3	0.00167	0.0246	1	01/08/2018 14:53	WG1060458
Beta BHC	U		0.00197	0.0246	1	01/08/2018 14:53	WG1060458
Delta BHC	U		0.00176	0.0246	1	01/08/2018 14:53	WG1060458
Gamma BHC	U	J3	0.00178	0.0246	1	01/08/2018 14:53	WG1060458
Chlordane	U		0.0480	0.246	1	01/08/2018 14:53	WG1060458
4,4-DDD	U		0.00192	0.0246	1	01/08/2018 14:53	WG1060458
4,4-DDE	0.00567	J	0.00189	0.0246	1	01/08/2018 14:53	WG1060458
4,4-DDT	0.00546	J	0.00246	0.0246	1	01/08/2018 14:53	WG1060458
Dieldrin	U		0.00187	0.0246	1	01/08/2018 14:53	WG1060458
Endosulfan I	U		0.00183	0.0246	1	01/08/2018 14:53	WG1060458
Endosulfan II	U		0.00197	0.0246	1	01/08/2018 14:53	WG1060458
Endosulfan sulfate	U		0.00186	0.0246	1	01/08/2018 14:53	WG1060458
Endrin	U		0.00193	0.0246	1	01/08/2018 14:53	WG1060458
Endrin aldehyde	U		0.00159	0.0246	1	01/08/2018 14:53	WG1060458
Endrin ketone	U		0.00203	0.0246	1	01/08/2018 14:53	WG1060458
Hexachlorobenzene	U	J3	0.00153	0.0246	1	01/08/2018 14:53	WG1060458
Heptachlor	U		0.00189	0.0246	1	01/08/2018 14:53	WG1060458
Heptachlor epoxide	U		0.00198	0.0246	1	01/08/2018 14:53	WG1060458
Methoxychlor	U		0.00219	0.0246	1	01/08/2018 14:53	WG1060458
Toxaphene	U		0.0443	0.492	1	01/08/2018 14:53	WG1060458
(S) Decachlorobiphenyl	*76.5*			*10.0-148*		*01/08/2018 14:53*	WG1060458
(S) Tetrachloro-m-xylene	*84.1*			*21.0-146*		*01/08/2018 14:53*	WG1060458

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	90.5		1	01/09/2018 12:06	WG1060785

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Arsenic	3.16		0.718	2.21	1	01/09/2018 01:02	WG1060289
Cadmium	0.212	J	0.0773	0.552	1	01/09/2018 01:02	WG1060289
Copper	22.4		0.585	2.21	1	01/09/2018 01:02	WG1060289
Lead	5.78		0.210	0.552	1	01/09/2018 01:02	WG1060289
Zinc	60.6		0.652	5.52	1	01/09/2018 01:02	WG1060289

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Aldrin	U		0.00149	0.0221	1	01/08/2018 17:46	WG1060458
Alpha BHC	U	J3	0.00150	0.0221	1	01/08/2018 17:46	WG1060458
Beta BHC	U		0.00177	0.0221	1	01/08/2018 17:46	WG1060458
Delta BHC	U		0.00158	0.0221	1	01/08/2018 17:46	WG1060458
Gamma BHC	U	J3	0.00160	0.0221	1	01/08/2018 17:46	WG1060458
Chlordane	U		0.0431	0.221	1	01/08/2018 17:46	WG1060458
4,4-DDD	U		0.00172	0.0221	1	01/08/2018 17:46	WG1060458
4,4-DDE	U		0.00170	0.0221	1	01/08/2018 17:46	WG1060458
4,4-DDT	U		0.00221	0.0221	1	01/08/2018 17:46	WG1060458
Dieldrin	U		0.00168	0.0221	1	01/08/2018 17:46	WG1060458
Endosulfan I	U		0.00165	0.0221	1	01/08/2018 17:46	WG1060458
Endosulfan II	U		0.00177	0.0221	1	01/08/2018 17:46	WG1060458
Endosulfan sulfate	U		0.00167	0.0221	1	01/08/2018 17:46	WG1060458
Endrin	U		0.00173	0.0221	1	01/08/2018 17:46	WG1060458
Endrin aldehyde	U		0.00142	0.0221	1	01/08/2018 17:46	WG1060458
Endrin ketone	U		0.00182	0.0221	1	01/08/2018 17:46	WG1060458
Hexachlorobenzene	U	J3	0.00137	0.0221	1	01/08/2018 17:46	WG1060458
Heptachlor	U		0.00170	0.0221	1	01/08/2018 17:46	WG1060458
Heptachlor epoxide	U		0.00178	0.0221	1	01/08/2018 17:46	WG1060458
Methoxychlor	U		0.00197	0.0221	1	01/08/2018 17:46	WG1060458
Toxaphene	U		0.0398	0.442	1	01/08/2018 17:46	WG1060458
(S) Decachlorobiphenyl	*71.7*			*10.0-148*		*01/08/2018 17:46*	WG1060458
(S) Tetrachloro-m-xylene	*79.0*			*21.0-146*		*01/08/2018 17:46*	WG1060458

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Anthracene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Acenaphthene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Acenaphthylene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Benzo(a)anthracene	0.000699	J	0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Benzo(a)pyrene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Benzo(b)fluoranthene	0.000757	J	0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Benzo(g,h,i)perylene	0.000822	J	0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Benzo(k)fluoranthene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Chrysene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Dibenz(a,h)anthracene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Fluoranthene	0.000678	J	0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Fluorene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Indeno(1,2,3-cd)pyrene	0.000710	J	0.000663	0.00663	1	01/10/2018 17:55	WG1060573

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Naphthalene	0.00384	B J	0.00221	0.0221	1	01/10/2018 17:55	WG1060573
Phenanthrene	U		0.000663	0.00663	1	01/10/2018 17:55	WG1060573
Pyrene	0.000780	J	0.000663	0.00663	1	01/10/2018 17:55	WG1060573
1-Methylnaphthalene	U		0.00221	0.0221	1	01/10/2018 17:55	WG1060573
2-Methylnaphthalene	U		0.00221	0.0221	1	01/10/2018 17:55	WG1060573
2-Chloronaphthalene	U		0.00221	0.0221	1	01/10/2018 17:55	WG1060573
(S) Nitrobenzene-d5	*96.1*			*14.0-149*		*01/10/2018 17:55*	WG1060573
(S) 2-Fluorobiphenyl	*64.1*			*34.0-125*		*01/10/2018 17:55*	WG1060573
(S) p-Terphenyl-d14	*66.2*			*23.0-120*		*01/10/2018 17:55*	WG1060573

Method Blank (MB)

(MB) R3278464-1 01/09/18 14:22

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.001			

L961178-02 Original Sample (OS) • Duplicate (DUP)

(OS) L961178-02 01/09/18 14:22 • (DUP) R3278464-3 01/09/18 14:22

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	83.7	85.2	1	2		5

Laboratory Control Sample (LCS)

(LCS) R3278464-2 01/09/18 14:22

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278452-1 01/09/18 13:07

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.002			

L961517-14 Original Sample (OS) • Duplicate (DUP)

(OS) L961517-14 01/09/18 13:07 • (DUP) R3278452-3 01/09/18 13:07

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	89.7	89.3	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278452-2 01/09/18 13:07

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278447-1 01/09/18 12:53

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.002			

L961532-03 Original Sample (OS) • Duplicate (DUP)

(OS) L961532-03 01/09/18 12:53 • (DUP) R3278447-3 01/09/18 12:53

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.1	92.1	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278447-2 01/09/18 12:53

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278442-1 01/09/18 12:40

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.002			

L961543-09 Original Sample (OS) • Duplicate (DUP)

(OS) L961543-09 01/09/18 12:40 • (DUP) R3278442-3 01/09/18 12:40

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.9	89.5	1	3		5

Laboratory Control Sample (LCS)

(LCS) R3278442-2 01/09/18 12:40

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278693-1 01/10/18 11:05

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0			

L961534-21 Original Sample (OS) • Duplicate (DUP)

(OS) L961534-21 01/10/18 11:05 • (DUP) R3278693-3 01/10/18 11:05

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	76.9	77.0	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278693-2 01/10/18 11:05

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278439-1 01/09/18 12:06

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.001			

L961534-13 Original Sample (OS) • Duplicate (DUP)

(OS) L961534-13 01/09/18 12:06 • (DUP) R3278439-3 01/09/18 12:06

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	81.6	81.9	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278439-2 01/09/18 12:06

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278433-1 01/09/18 06:38

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.001			

L961543-10 Original Sample (OS) • Duplicate (DUP)

(OS) L961543-10 01/09/18 06:38 • (DUP) R3278433-3 01/09/18 06:38

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.9	88.9	1	1		5

Laboratory Control Sample (LCS)

(LCS) R3278433-2 01/09/18 06:38

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278457-1 01/09/18 11:31

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.002			

L961537-02 Original Sample (OS) • Duplicate (DUP)

(OS) L961537-02 01/09/18 11:31 • (DUP) R3278457-3 01/09/18 11:31

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	78.3	78.5	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278457-2 01/09/18 11:31

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278454-1 01/09/18 11:17

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.001			

L961534-14 Original Sample (OS) • Duplicate (DUP)

(OS) L961534-14 01/09/18 11:17 • (DUP) R3278454-3 01/09/18 11:17

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	79.4	79.6	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278454-2 01/09/18 11:17

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278677-1 01/10/18 11:22

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.002			

L961543-08 Original Sample (OS) • Duplicate (DUP)

(OS) L961543-08 01/10/18 11:22 • (DUP) R3278677-3 01/10/18 11:22

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	97.4	97.4	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3278677-2 01/10/18 11:22

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3278382-1 01/09/18 15:49

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Nitrate	U		0.0116	1.00

L961650-01 Original Sample (OS) • Duplicate (DUP)

(OS) L961650-01 01/09/18 20:31 • (DUP) R3278382-7 01/09/18 20:44

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	0.832	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278382-2 01/09/18 16:02 • (LCSD) R3278382-3 01/09/18 16:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Nitrate	20.0	18.8	20.5	94.2	102	80-120			8.17	15

L961534-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L961534-06 01/09/18 18:43 • (MS) R3278382-5 01/09/18 18:57 • (MSD) R3278382-6 01/09/18 19:10

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate	62.3	14.5	76.4	68.9	99.5	87.4	1	80-120			10.4	15

Method Blank (MB)

(MB) R3278985-2 01/11/18 19:11

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Nitrate	0.307	J	0.0116	1.00

L962300-01 Original Sample (OS) • Duplicate (DUP)

(OS) L962300-01 01/12/18 00:17 • (DUP) R3278985-5 01/12/18 00:38

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	5.20	4	1	26	P1	15

L962605-02 Original Sample (OS) • Duplicate (DUP)

(OS) L962605-02 01/12/18 05:44 • (DUP) R3278985-8 01/12/18 06:05

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.795	0.611	1	26.2	J P1	15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278985-3 01/11/18 19:31 • (LCSD) R3278985-4 01/11/18 19:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Nitrate	20.0	19.1	18.9	95.7	94.6	80-120			1.11	15

L962600-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L962600-01 01/12/18 02:40 • (MS) R3278985-6 01/12/18 03:01 • (MSD) R3278985-7 01/12/18 04:02

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate	50.0	0.530	52.6	51.4	104	102	1	80-120			2.23	15

Method Blank (MB)

(MB) R3278125-1 01/09/18 01:06

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Cadmium	U		0.07	0.500
Copper	U		0.53	2.00
Lead	U		0.19	0.500
Zinc	U		0.59	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278125-2 01/09/18 01:09 • (LCSD) R3278125-3 01/09/18 01:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	98.8	98.2	98.8	98.2	80-120			0.624	20
Cadmium	100	97.8	97.5	97.8	97.5	80-120			0.36	20
Copper	100	101	100	101	100	80-120			0.765	20
Lead	100	98.9	99.0	98.9	99	80-120			0.124	20
Zinc	100	100	99.9	100	99.9	80-120			0.394	20

L961534-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L961534-09 01/09/18 01:16 • (MS) R3278125-6 01/09/18 01:25 • (MSD) R3278125-7 01/09/18 01:28

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	126	10.1	131	134	95.7	98.5	1	75-125			2.62	20
Cadmium	126	0.223	124	124	98.3	98.2	1	75-125			0.0676	20
Copper	126	44.1	177	173	106	102	1	75-125			2.41	20
Lead	126	33.7	156	162	97.6	102	1	75-125			3.61	20
Zinc	126	119	230	247	88.6	102	1	75-125			7.15	20

Method Blank (MB)

(MB) R3278127-1 01/08/18 23:54

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Cadmium	U		0.07	0.500
Copper	U		0.53	2.00
Lead	U		0.19	0.500
Zinc	0.641	J	0.59	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278127-2 01/08/18 23:57 • (LCSD) R3278127-3 01/09/18 00:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	99.6	98.9	99.6	98.9	80-120			0.735	20
Cadmium	100	99.6	99.1	99.6	99.1	80-120			0.499	20
Copper	100	101	101	101	101	80-120			0.264	20
Lead	100	102	102	102	102	80-120			0.327	20
Zinc	100	104	104	104	104	80-120			0.451	20

L961534-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L961534-25 01/09/18 00:03 • (MS) R3278127-6 01/09/18 00:13 • (MSD) R3278127-7 01/09/18 00:16

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	117	4.31	110	111	90.5	91.5	1	75-125			1.03	20
Cadmium	117	0.284	108	107	92.3	91.9	1	75-125			0.473	20
Copper	117	28.2	138	142	93.9	97.4	1	75-125			2.89	20
Lead	117	32.6	148	143	99.4	95	1	75-125			3.56	20
Zinc	117	86.0	191	190	90.1	88.9	1	75-125			0.731	20

Method Blank (MB)

(MB) R3278030-3 01/08/18 13:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.00135	0.0200
Alpha BHC	U		0.00136	0.0200
Beta BHC	U		0.00160	0.0200
Delta BHC	U		0.00143	0.0200
Gamma BHC	U		0.00145	0.0200
4,4-DDD	U		0.00156	0.0200
4,4-DDE	U		0.00154	0.0200
4,4-DDT	U		0.00200	0.0200
Dieldrin	U		0.00152	0.0200
Endosulfan I	U		0.00149	0.0200
Endosulfan II	U		0.00160	0.0200
Endosulfan sulfate	U		0.00151	0.0200
Endrin	U		0.00157	0.0200
Endrin aldehyde	U		0.00129	0.0200
Endrin ketone	U		0.00165	0.0200
Heptachlor	U		0.00154	0.0200
Heptachlor epoxide	U		0.00161	0.0200
Hexachlorobenzene	U		0.00124	0.0200
Methoxychlor	U		0.00178	0.0200
Chlordane	U		0.0390	0.200
Toxaphene	U		0.0360	0.400
(S) Decachlorobiphenyl	*76.4*			*10.0-148*
(S) Tetrachloro-m-xylene	*84.2*			*21.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278030-1 01/08/18 12:44 • (LCSD) R3278030-2 01/08/18 12:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aldrin	0.0667	0.0476	0.0596	71.3	89.4	55.0-137			22.5	29
Alpha BHC	0.0667	0.0449	0.0640	67.3	96.0	55.0-136		J3	35.1	28
Beta BHC	0.0667	0.0469	0.0615	70.4	92.3	53.0-133			27.0	28
Delta BHC	0.0667	0.0477	0.0612	71.4	91.8	53.0-139			24.9	29
Gamma BHC	0.0667	0.0473	0.0640	70.9	96.0	54.0-136		J3	30.1	29
4,4-DDD	0.0667	0.0474	0.0577	71.1	86.6	51.0-141			19.6	29
4,4-DDE	0.0667	0.0479	0.0592	71.8	88.7	53.0-142			21.0	30
4,4-DDT	0.0667	0.0477	0.0582	71.5	87.3	47.0-143			19.8	30
Dieldrin	0.0667	0.0490	0.0602	73.4	90.2	54.0-141			20.5	29
Endosulfan I	0.0667	0.0476	0.0585	71.3	87.8	54.0-141			20.7	29

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278030-1 01/08/18 12:44 • (LCSD) R3278030-2 01/08/18 12:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Endosulfan II	0.0667	0.0467	0.0567	70.0	85.0	53.0-140			19.4	28
Endosulfan sulfate	0.0667	0.0469	0.0575	70.3	86.1	52.0-141			20.2	29
Endrin	0.0667	0.0469	0.0570	70.4	85.4	52.0-137			19.3	29
Endrin aldehyde	0.0667	0.0339	0.0414	50.8	62.0	30.0-127			19.9	31
Endrin ketone	0.0667	0.0510	0.0610	76.4	91.5	51.0-139			18.0	28
Heptachlor	0.0667	0.0485	0.0607	72.7	91.0	53.0-144			22.4	29
Heptachlor epoxide	0.0667	0.0480	0.0585	72.0	87.7	54.0-137			19.7	28
Hexachlorobenzene	0.0667	0.0417	0.0556	62.5	83.4	50.0-135		J3	28.6	28
Methoxychlor	0.0667	0.0483	0.0574	72.4	86.1	49.0-145			17.2	29
(S) Decachlorobiphenyl				*64.1*	*71.0*	*10.0-148*				
(S) Tetrachloro-m-xylene				*67.4*	*80.3*	*21.0-146*				

L961534-32 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L961534-32 01/08/18 14:53 • (MS) R3278030-4 01/08/18 15:08 • (MSD) R3278030-5 01/08/18 15:22

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aldrin	0.0821	U	0.0685	0.0652	83.5	79.5	1	19.0-152			4.90	24
Alpha BHC	0.0821	U	0.0755	0.0736	92.0	89.7	1	39.0-152			2.52	21
Beta BHC	0.0821	U	0.0758	0.0719	92.4	87.6	1	38.0-150			5.32	20
Delta BHC	0.0821	U	0.0710	0.0688	86.5	83.8	1	34.0-155			3.20	21
Gamma BHC	0.0821	U	0.0778	0.0740	94.8	90.2	1	38.0-153			4.94	21
4,4-DDD	0.0821	U	0.0678	0.0640	82.7	77.9	1	22.0-160			5.90	25
4,4-DDE	0.0821	0.00567	0.0724	0.0754	81.4	85.0	1	10.0-160			3.98	27
4,4-DDT	0.0821	0.00546	0.0692	0.0698	77.7	78.3	1	10.0-160			0.728	28
Dieldrin	0.0821	U	0.0697	0.0674	84.9	82.2	1	30.0-158			3.24	25
Endosulfan I	0.0821	U	0.0682	0.0656	83.1	79.9	1	31.0-155			3.89	25
Endosulfan II	0.0821	U	0.0667	0.0636	81.3	77.5	1	32.0-156			4.68	25
Endosulfan sulfate	0.0821	U	0.0671	0.0641	81.8	78.1	1	31.0-158			4.53	24
Endrin	0.0821	U	0.0658	0.0634	80.2	77.3	1	30.0-149			3.62	25
Endrin aldehyde	0.0821	U	0.0638	0.0609	77.7	74.3	1	20.0-157			4.57	26
Endrin ketone	0.0821	U	0.0720	0.0698	87.7	85.1	1	32.0-154			2.98	23
Heptachlor	0.0821	U	0.0702	0.0677	85.5	82.5	1	18.0-160			3.60	23
Heptachlor epoxide	0.0821	U	0.0663	0.0647	80.8	78.8	1	31.0-154			2.46	25
Hexachlorobenzene	0.0821	U	0.0641	0.0605	78.1	73.7	1	26.0-146			5.84	21
Methoxychlor	0.0821	U	0.0699	0.0679	85.2	82.8	1	10.0-160			2.91	27
(S) Decachlorobiphenyl					*67.4*	*64.4*		*10.0-148*				
(S) Tetrachloro-m-xylene					*76.9*	*73.8*		*21.0-146*				

Method Blank (MB)

(MB) R3278807-3 01/10/18 12:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	0.00245	J	0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) Nitrobenzene-d5	*92.6*			*14.0-149*
(S) 2-Fluorobiphenyl	*87.1*			*34.0-125*
(S) p-Terphenyl-d14	*78.3*			*23.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278807-1 01/10/18 12:04 • (LCSD) R3278807-2 01/10/18 12:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0796	0.0789	99.5	98.7	50.0-125			0.796	20
Acenaphthene	0.0800	0.0744	0.0733	93.1	91.6	52.0-120			1.61	20
Acenaphthylene	0.0800	0.0791	0.0777	98.9	97.2	51.0-120			1.73	20
Benzo(a)anthracene	0.0800	0.0726	0.0692	90.7	86.5	46.0-121			4.73	20
Benzo(a)pyrene	0.0800	0.0754	0.0746	94.3	93.2	42.0-121			1.12	20
Benzo(b)fluoranthene	0.0800	0.0751	0.0769	93.8	96.1	42.0-123			2.38	20
Benzo(g,h,i)perylene	0.0800	0.0870	0.0850	109	106	43.0-128			2.30	20
Benzo(k)fluoranthene	0.0800	0.0941	0.0912	118	114	45.0-128			3.10	20
Chrysene	0.0800	0.0837	0.0852	105	107	48.0-127			1.80	20
Dibenz(a,h)anthracene	0.0800	0.0843	0.0833	105	104	43.0-132			1.24	20
Fluoranthene	0.0800	0.0791	0.0748	98.9	93.5	49.0-129			5.57	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3278807-1 01/10/18 12:04 • (LCSD) R3278807-2 01/10/18 12:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.0800	0.0713	0.0702	89.1	87.8	50.0-120			1.56	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0881	0.0859	110	107	44.0-131			2.53	20
Naphthalene	0.0800	0.0828	0.0811	103	101	50.0-120			2.07	20
Phenanthrene	0.0800	0.0717	0.0701	89.7	87.6	48.0-120			2.35	20
Pyrene	0.0800	0.0710	0.0672	88.7	84.0	48.0-135			5.42	20
1-Methylnaphthalene	0.0800	0.0776	0.0756	97.0	94.5	52.0-122			2.58	20
2-Methylnaphthalene	0.0800	0.0726	0.0716	90.7	89.5	52.0-120			1.42	20
2-Chloronaphthalene	0.0800	0.0771	0.0752	96.4	94.0	50.0-120			2.57	20
(S) Nitrobenzene-d5				*97.8*	*93.3*	*14.0-149*				
(S) 2-Fluorobiphenyl				*91.7*	*88.8*	*34.0-125*				
(S) p-Terphenyl-d14				*83.8*	*79.0*	*23.0-120*				

L961505-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L961505-03 01/12/18 16:16 • (MS) R3279132-1 01/12/18 16:37 • (MSD) R3279132-2 01/12/18 16:59

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0896	U	0.0947	0.0917	106	102	1	20.0-136			3.23	24
Acenaphthene	0.0896	U	0.0924	0.0886	103	98.9	1	29.0-124			4.17	20
Acenaphthylene	0.0896	U	0.0989	0.0949	110	106	1	35.0-120			4.16	20
Benzo(a)anthracene	0.0896	U	0.0861	0.0818	96.0	91.3	1	13.0-132			5.03	27
Benzo(a)pyrene	0.0896	U	0.0853	0.0819	95.2	91.4	1	14.0-138			4.10	27
Benzo(b)fluoranthene	0.0896	U	0.0869	0.0772	97.0	86.1	1	10.0-129			11.9	31
Benzo(g,h,i)perylene	0.0896	U	0.0787	0.0745	87.8	83.1	1	10.0-133			5.56	30
Benzo(k)fluoranthene	0.0896	U	0.0936	0.0828	104	92.3	1	15.0-131			12.3	27
Chrysene	0.0896	U	0.0898	0.0851	100	95.0	1	15.0-137			5.35	25
Dibenz(a,h)anthracene	0.0896	U	0.0872	0.0833	97.3	92.9	1	15.0-132			4.60	27
Fluoranthene	0.0896	0.000695	0.0943	0.0919	104	102	1	13.0-139			2.55	28
Fluorene	0.0896	U	0.0827	0.0990	92.2	110	1	27.0-122			18.0	22
Indeno(1,2,3-cd)pyrene	0.0896	U	0.0824	0.0779	91.9	86.9	1	11.0-133			5.56	29
Naphthalene	0.0896	0.00225	0.0898	0.0911	97.7	99.1	1	18.0-136			1.42	21
Phenanthrene	0.0896	0.00123	0.0888	0.0855	97.7	94.0	1	15.0-133			3.80	25
Pyrene	0.0896	0.000829	0.0991	0.0923	110	102	1	11.0-146			7.12	29
1-Methylnaphthalene	0.0896	U	0.0858	0.0926	95.7	103	1	24.0-137			7.56	22
2-Methylnaphthalene	0.0896	U	0.0816	0.0931	91.0	104	1	23.0-136			13.1	22
2-Chloronaphthalene	0.0896	U	0.0824	0.0887	92.0	99.0	1	36.0-120			7.38	20
(S) Nitrobenzene-d5					*98.9*	*101*		*14.0-149*				
(S) 2-Fluorobiphenyl					*86.0*	*94.6*		*34.0-125*				
(S) p-Terphenyl-d14					*102*	*92.9*		*23.0-120*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Cascadia Associates- Portland, OR
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Billing Information:
Accounts Payable- Chris Breemer
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Pres Chk

Report to: Amanda Spencer / aspencer@cascadiaassociates.com
Joel Mattecheck

Email To: **jmattecheck@cascadiaassociates.com**

Project Description: **Gephard Village Soil Sampling**

City/State Collected: **Oregon**

Phone: 503 906 6577
Fax:

Client Project # **0063-001-001**

Lab Project # **CASASCTOR**

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: Date

Quote #

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total Metals (pb, As, cd, Cu, Zn)	Total Metals (pb, As)	Nitrates	Organic Pesticides						Hold Remaining Sample Volume for Follow UPS	Remarks	Sample # (lab only)
SS-1	Grab	Soil		1/4/18	1030	1	X			X						X		01
SS-2				1/4/18	1045	1	X		X							X		02
SS-3				1/4/18	1100	1	X			X						X		03
~~SS-6~~ SS-6				1/4/18	1105	1		X	X							X		06
SS-5				1/4/18	1115	1	X	X	X							X		05
SS-4				1/4/18	1120	1		X	X							X		04
SS-7				1/4/18	1130	1		X	X							X		07
SS-8				1/4/18	1150	1		X	X							X		08
SS-9				1/4/18	1157	1		X	X							X		09
SS-12				1/4/18	1205	1		X								X		10

Analysis / Container / Preservative

Chain of Custody Page 1 of 3

ESC LABORATORIES
YOUR LAB OF CHOICE
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L# 961534
G087

Acctnum: CASASCTOR
Template:
Prelogin:
TSR:
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Additional samples: Stockpile 1, 1/4/18, 1620, Analyze for: PAHs, Organic Pesticides, Total Metals (pb, As, cd, Cu, Zn) pH _____ Temp _____ Flow _____ Other _____

Samples returned via: ___ UPS ___ FedEx ___ Courier ___ _____

Tracking # 774661466539 4

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
	1/5/18	1500			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.7 °C Bottles Received: 38	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 01-06-18 Time: 0845	Hold: Condition: NCF / OK

Chain of Custody Page 2 of 3

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 961454

Table #

Acctnum: CASASCTOR

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Cascadia Associates- Portland, OR
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: **Joel Mattecheck** / Amanda Spencer (aspencer@cascadiaassociates.com)

Email To: **jmattecheck@cascadiaassociates.com**

Project Description: **Gephard Village Soil Sampling**

City/State Collected: **Oregon**

Phone: 5039066577
Fax:

Client Project # **0063-001-001**

Lab Project # **CASASCTOR**

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Quote #

Immediately Packed on Ice: N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	Total Metals (pb, As, cd, cu, Zn)	Total Metals (Pb, As)	Nitrates	Organic Pesticides						Hold Remaining Volume for follow-ups	Remarks	Sample # (lab only)
SS-13	Grab	Soil		1/4/18	1230	1		X								X		12
SS-14					1240	1		X								X		13
SS-15					1300	1		X								X		14
SS-18					1306	1	X			X						X		15
SS-17					1330	1		X								X		16
SS-16					1335	1		X								X		17
SS-10					1345	1		X								X		18
SS-11					1355	1		X								X		19
SS-19					1410	1	X			X						X		20
SS-20					1430	1	X			X						X		21

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: Additional sample: Stockpile 2, 1/4/18, 1630 Analyze for: PAHs, Organic Pesticides, Total Metals (pb, As, cd, Cu, Zn)

pH ___ Temp 22 Flow ___ Other ___

Samples returned via: ___ UPS ___ FedEx ___ Courier ___ ___

Tracking # 146614666539 4

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: ___ Y ___ N
Preservation Correct/Checked: ___ Y ___ N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	1/5/18	1500		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.7+0 °C Bottles Received: 23
				If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 01-06-18 Time: 0845
			Marina Kelley 857	Hold:

Condition: NCF / OK

Cascadia Associates- Portland, OR
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219
Pres Chk

Report to: **Joel Mattecheck** / aspencer@cascadia ass... / Amanda Spencer
Email To: **jmattecheck@cascadiaassociates.com**; ociates.com

Project Description: **Gephard Village Soil Sampling**
City/State Collected: **Oregon**

Phone:
Fax:
Client Project # **0063-001-001**
Lab Project # **CASASCTOR**

Collected by (print): **Joel Mattecheck**
Site/Facility ID #
P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y X
Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Quote #
Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 3 of 3

ESC LABS
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 961534
Table #
Acctnum: **CASASCTOR**
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total Metals (Pb, As, Cd, Cu, Zn)	Total Metals (Pb, As)	Nitrates	Organic Pesticides	(Hold Remaining Sample Volume for Follow-up)	Remarks	Sample # (lab only)
SS-21	Grab	Soil		1/4/18	1430	1		X			X		23
SS-24					1445	1		X			X		24
SS-23					1455	1		X			X		25
SS-22					1500	1		X			X		26
SS-27					1505	1		X			X		27
SS-26					1510	1		X			X		28
SS-25					1515	1		X			X		29
SS-28					1525	1	X		[illegible]	X	X		30
SS-29					1540	1	X		X		X		31
SS-30					1600	1	X		[illegible]	X	X		32

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: Additional sample: Stockpile 3, 1/4/18, 1640, Analyze for: PAHs, Organic Pesticides, Total Metals (Pb, As, Cd, Cu, Zn) pH Temp 33 Flow Other

Samples returned via: __ UPS X FedEx __ Courier
Tracking # 7426614666 5394

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: X __N
Bottles arrive intact: X __N
Correct bottles used: X __N
Sufficient volume sent: X __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
[signature]	1/5/18	1500	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]

Trip Blank Received: Yes (No) HCl / MeOH TBR
Temp: 5.7 °C Bottles Received: 33
Date: 01-06-18 Time: 0815
If preservation required by Login: Date/Time
Hold: Condition: NCF / OK

ANALYTICAL REPORT

March 20, 2018

Cascadia Associates- Portland, OR

Sample Delivery Group:	L974248
Samples Received:	03/02/2018
Project Number:	0063-001-001
Description:	Gephard Village Phase II Field Investigation

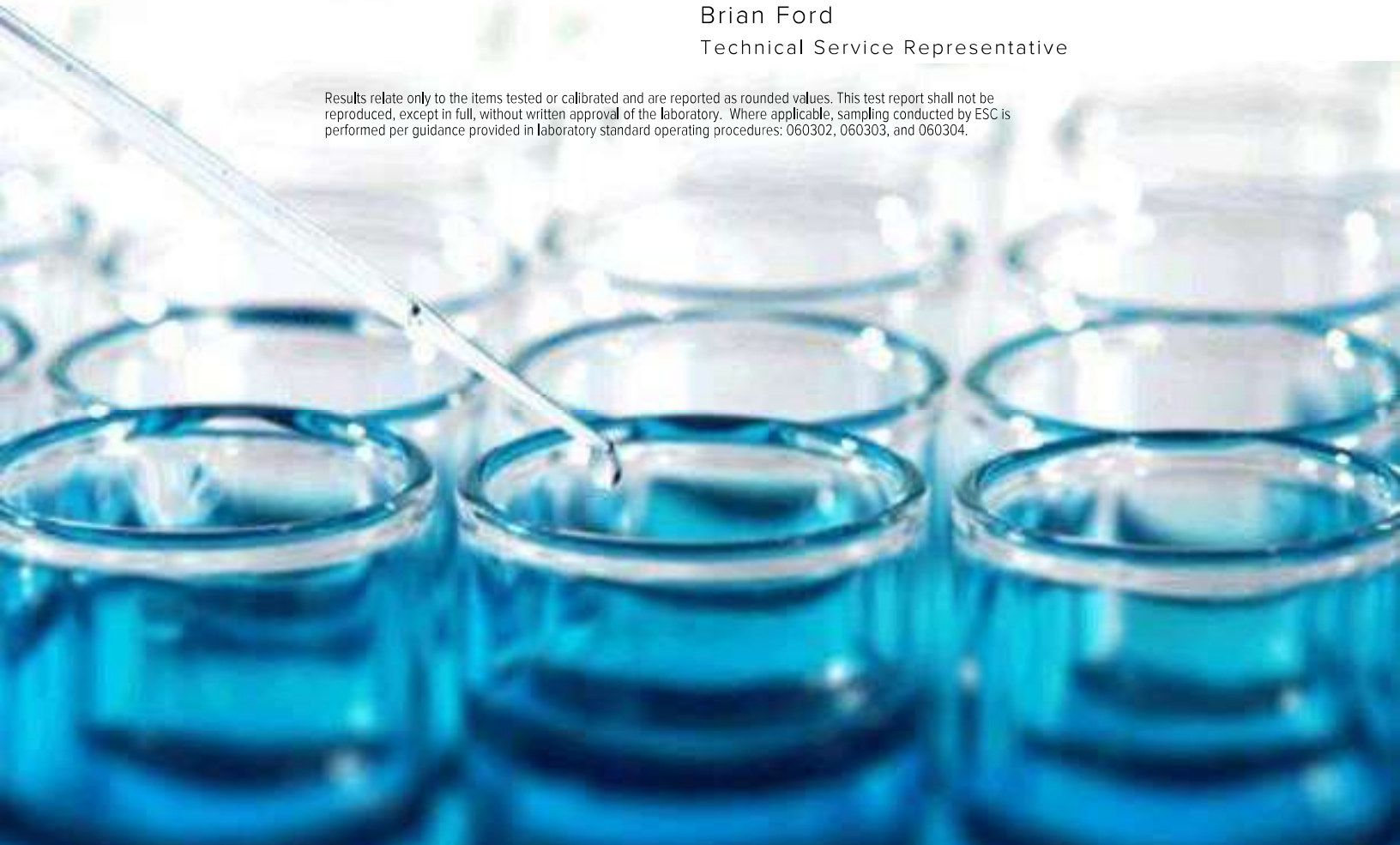
Report To:

Joel Mattecheck
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Entire Report Reviewed By:

Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.esclabsciences.com

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 4

Cn: Case Narrative 9

Sr: Sample Results 10

SS-1 (1-1.5) L974248-01 10

SS-2 (1-1.5) L974248-02 11

SS-3 (1-1.5) L974248-03 12

SS-6 (1-1.5) L974248-04 13

SS-7 (1-1.5) L974248-05 14

SS-8 (1-1.5) L974248-06 15

SS-9 (1-1.5) L974248-07 16

SS-12 (1-1.5) L974248-08 17

SS-11 (1-1.5) L974248-09 18

SS-10 (1-1.5) L974248-10 19

SS-13 (1-1.5) L974248-11 20

SS-14 (1-1.5) L974248-12 21

SS-15 (1-1.5) L974248-13 22

SS-18 (1-1.5) L974248-14 23

SS-17 (1-1.5) L974248-15 24

SS-16 (1-1.5) L974248-16 25

SS-19 (1-1.5) L974248-17 26

SS-20 (1-1.5) L974248-18 27

SS-21 (1-1.5) L974248-19 28

SS-4 (1-1.5) L974248-20 29

SS-5 (1-1.5) L974248-21 30

SS-5 GW L974248-22 31

DW GW L974248-23 32

SS-24 (1-1.5) L974248-24 36

SS-27 (1-1.5) L974248-25 37

SS-30 (1-1.5) L974248-26 38

SS-30 GW L974248-27 39

SS-29 (1-1.5) L974248-28 40

SS-26 (1-1.5) L974248-29 41

SS-25 (1-1.5) L974248-30 42

SS-28 (1-1.5) L974248-31 43

SS-23 (1-1.5) L974248-32 44

SS-22 (1-1.5) L974248-33 45

Qc: Quality Control Summary 46

Total Solids by Method 2540 G-2011 46

Wet Chemistry by Method 9056A 50
Mercury by Method 7470A 51
Metals (ICP) by Method 6010B 53
Volatile Organic Compounds (GC) by Method NWTPHGX 57
Volatile Organic Compounds (GC/MS) by Method 8260B 58
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT 62
Pesticides (GC) by Method 8081 63
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM 65
Gl: Glossary of Terms 67
Al: Accreditations & Locations 68
Sc: Sample Chain of Custody 69

SS-1 (1-1.5) L974248-01 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 09:30 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081608	1	03/08/18 11:10	03/08/18 13:01	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 02:45	TRB

SS-2 (1-1.5) L974248-02 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 10:00 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081608	1	03/08/18 11:10	03/08/18 13:01	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 02:58	TRB

SS-3 (1-1.5) L974248-03 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 10:30 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081608	1	03/08/18 11:10	03/08/18 13:01	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:00	TRB

SS-6 (1-1.5) L974248-04 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 10:50 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081608	1	03/08/18 11:10	03/08/18 13:01	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:08	TRB

SS-7 (1-1.5) L974248-05 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 11:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081608	1	03/08/18 11:10	03/08/18 13:01	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:10	TRB

SS-8 (1-1.5) L974248-06 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 11:30 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081608	1	03/08/18 11:10	03/08/18 13:01	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:13	TRB

SS-9 (1-1.5) L974248-07 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 11:50 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:15	TRB

SS-12 (1-1.5) L974248-08 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 12:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:18	TRB

SS-11 (1-1.5) L974248-09 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 12:30 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:20	TRB

SS-10 (1-1.5) L974248-10 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 12:45 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:23	TRB

SS-13 (1-1.5) L974248-11 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 12:55 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:25	TRB

SS-14 (1-1.5) L974248-12 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 13:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:28	TRB

SS-15 (1-1.5) L974248-13 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 13:30 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:30	TRB

SS-18 (1-1.5) L974248-14 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 13:50 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:38	TRB

SS-17 (1-1.5) L974248-15 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 14:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:40	TRB

SS-16 (1-1.5) L974248-16 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 14:30 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081610	1	03/08/18 10:01	03/08/18 10:10	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:43	TRB

SS-19 (1-1.5) L974248-17 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 14:50 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:45	TRB

SS-20 (1-1.5) L974248-18 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 15:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:48	TRB

SS-21 (1-1.5) L974248-19 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 15:40 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:50	TRB

SS-4 (1-1.5) L974248-20 Solid

Collected by: Joel Mattecheck | Collected date/time: 02/28/18 16:00 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080343	1	03/05/18 10:43	03/06/18 03:53	TRB

SS-5 (1-1.5) L974248-21 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 08:40 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:36	ST

SS-5 GW L974248-22 GW

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 12:00 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 9056A	WG1079833	1	03/02/18 18:57	03/02/18 18:57	MAJ
Metals (ICP) by Method 6010B	WG1080267	1	03/06/18 15:46	03/07/18 00:36	TRB
Metals (ICP) by Method 6010B	WG1080282	1	03/05/18 22:07	03/06/18 03:19	TRB

DW GW L974248-23 GW

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 11:00 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1079520	1	03/06/18 05:17	03/06/18 22:02	EL
Mercury by Method 7470A	WG1080607	1	03/05/18 14:22	03/06/18 12:47	ABL
Metals (ICP) by Method 6010B	WG1080267	1	03/06/18 15:46	03/07/18 00:39	TRB
Metals (ICP) by Method 6010B	WG1080282	1	03/05/18 22:07	03/06/18 03:22	TRB
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1080521	1	03/05/18 16:34	03/05/18 16:34	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1080087	5	03/03/18 17:36	03/03/18 17:36	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1080087	5	03/07/18 17:20	03/07/18 17:20	BMB
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1079407	1.25	03/06/18 12:42	03/09/18 21:00	MTJ
Pesticides (GC) by Method 8081	WG1080046	1	03/04/18 20:51	03/06/18 16:33	VKS
Pesticides (GC) by Method 8081	WG1080046	1.43	03/04/18 20:51	03/05/18 18:38	VKS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1080437	3	03/05/18 07:19	03/05/18 19:41	KM

SS-24 (1-1.5) L974248-24 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 11:20 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:39	ST

SS-27 (1-1.5) L974248-25 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 11:40 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:43	ST

SS-30 (1-1.5) L974248-26 Solid

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 11:50 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:46	ST

SS-30 GW L974248-27 GW

Collected by: Joel Mattecheck | Collected date/time: 03/01/18 12:10 | Received date/time: 03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 9056A	WG1079833	1	03/02/18 19:11	03/02/18 19:11	MAJ
Metals (ICP) by Method 6010B	WG1080267	1	03/06/18 15:46	03/07/18 00:43	TRB
Metals (ICP) by Method 6010B	WG1080282	1	03/05/18 22:07	03/06/18 03:26	TRB

SS-29 (1-1.5) L974248-28 Solid

Collected by	Collected date/time	Received date/time
Joel Mattecheck	03/01/18 12:20	03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:49	ST

SS-26 (1-1.5) L974248-29 Solid

Collected by	Collected date/time	Received date/time
Joel Mattecheck	03/01/18 12:35	03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081612	1	03/08/18 09:50	03/08/18 09:59	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:53	ST

SS-25 (1-1.5) L974248-30 Solid

Collected by	Collected date/time	Received date/time
Joel Mattecheck	03/01/18 12:45	03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081614	1	03/08/18 09:01	03/08/18 09:13	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 18:56	ST

SS-28 (1-1.5) L974248-31 Solid

Collected by	Collected date/time	Received date/time
Joel Mattecheck	03/01/18 12:55	03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081614	1	03/08/18 09:01	03/08/18 09:13	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 19:06	ST

SS-23 (1-1.5) L974248-32 Solid

Collected by	Collected date/time	Received date/time
Joel Mattecheck	03/01/18 13:10	03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081614	1	03/08/18 09:01	03/08/18 09:13	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 19:09	ST

SS-22 (1-1.5) L974248-33 Solid

Collected by	Collected date/time	Received date/time
Joel Mattecheck	03/01/18 13:20	03/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1081614	1	03/08/18 09:01	03/08/18 09:13	JD
Metals (ICP) by Method 6010B	WG1080344	1	03/05/18 16:35	03/06/18 19:12	ST

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford

Brian Ford
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.1		1	03/08/2018 13:01	WG1081608

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.86	J	0.812	2.50	1	03/06/2018 02:45	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	69.9		1	03/08/2018 13:01	WG1081608

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.19	J	0.930	2.86	1	03/06/2018 02:58	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.1		1	03/08/2018 13:01	WG1081608

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	8.16		0.792	2.44	1	03/06/2018 03:00	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.7		1	03/08/2018 13:01	WG1081608

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	0.997	J	0.733	2.26	1	03/06/2018 03:08	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.5		1	03/08/2018 13:01	WG1081608

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	14.2		0.797	2.45	1	03/06/2018 03:10	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.2		1	03/08/2018 13:01	WG1081608

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.11	J	0.821	2.53	1	03/06/2018 03:13	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.1		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	7.99		0.832	2.56	1	03/06/2018 03:15	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.6		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.25	J	0.817	2.51	1	03/06/2018 03:18	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.4		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.14		0.819	2.52	1	03/06/2018 03:20	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.8		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	13.7		0.794	2.44	1	03/06/2018 03:23	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.6		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.19		0.817	2.51	1	03/06/2018 03:25	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.0		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.41	J	0.813	2.50	1	03/06/2018 03:28	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.9		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.74		0.834	2.57	1	03/06/2018 03:30	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.5		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	0.809	J	0.807	2.48	1	03/06/2018 03:38	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.8		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.75	J	0.836	2.57	1	03/06/2018 03:40	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.8		1	03/08/2018 10:10	WG1081610

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	0.869	J	0.825	2.54	1	03/06/2018 03:43	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.1		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.26		0.801	2.46	1	03/06/2018 03:45	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	12.2		0.818	2.52	1	03/06/2018 03:48	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.96	J	0.817	2.52	1	03/06/2018 03:50	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.2		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	25.8		0.864	2.66	1	03/06/2018 03:53	WG1080343

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.4		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.92		0.830	2.55	1	03/06/2018 18:36	WG1080344

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate	1080		22.7	100	1	03/02/2018 18:57	WG1079833

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic	26.7		6.50	10.0	1	03/07/2018 00:36	WG1080267
Arsenic,Dissolved	U		6.50	10.0	1	03/06/2018 03:19	WG1080282

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0490	0.200	1	03/06/2018 12:47	WG1080607
Mercury,Dissolved	U		0.0490	0.200	1	03/06/2018 22:02	WG1079520

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic	U		6.50	10.0	1	03/07/2018 00:39	WG1080267
Arsenic,Dissolved	U		6.50	10.0	1	03/06/2018 03:22	WG1080282
Barium	41.3		1.70	5.00	1	03/07/2018 00:39	WG1080267
Barium,Dissolved	39.2		1.70	5.00	1	03/06/2018 03:22	WG1080282
Cadmium	U		0.700	2.00	1	03/07/2018 00:39	WG1080267
Cadmium,Dissolved	U		0.700	2.00	1	03/06/2018 03:22	WG1080282
Chromium	U		1.40	10.0	1	03/07/2018 00:39	WG1080267
Chromium,Dissolved	U		1.40	10.0	1	03/06/2018 03:22	WG1080282
Lead	4.40	J	1.90	5.00	1	03/07/2018 00:39	WG1080267
Lead,Dissolved	3.59	J	1.90	5.00	1	03/06/2018 03:22	WG1080282
Selenium	U		7.40	10.0	1	03/07/2018 00:39	WG1080267
Selenium,Dissolved	U		7.40	10.0	1	03/06/2018 03:22	WG1080282
Silver	U		2.80	5.00	1	03/07/2018 00:39	WG1080267
Silver,Dissolved	U		2.80	5.00	1	03/06/2018 03:22	WG1080282

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/05/2018 16:34	WG1080521
(S) a,a,a-Trifluorotoluene(FID)	*91.7*			*77.0-122*		*03/05/2018 16:34*	WG1080521

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J3	50.0	250	5	03/03/2018 17:36	WG1080087
Acrolein	U	J4	44.4	250	5	03/03/2018 17:36	WG1080087
Acrylonitrile	U		9.35	50.0	5	03/03/2018 17:36	WG1080087
Benzene	U		1.66	5.00	5	03/03/2018 17:36	WG1080087
Bromobenzene	U		1.76	5.00	5	03/03/2018 17:36	WG1080087
Bromodichloromethane	U		1.90	5.00	5	03/03/2018 17:36	WG1080087
Bromoform	U		2.34	5.00	5	03/03/2018 17:36	WG1080087
Bromomethane	U		4.33	25.0	5	03/03/2018 17:36	WG1080087
n-Butylbenzene	U		1.80	5.00	5	03/03/2018 17:36	WG1080087
sec-Butylbenzene	U		1.82	5.00	5	03/03/2018 17:36	WG1080087
tert-Butylbenzene	U		2.00	5.00	5	03/03/2018 17:36	WG1080087
Carbon disulfide	U		1.38	5.00	5	03/03/2018 17:36	WG1080087
Carbon tetrachloride	U		1.90	5.00	5	03/03/2018 17:36	WG1080087
Chlorobenzene	U		1.74	5.00	5	03/03/2018 17:36	WG1080087
Chlorodibromomethane	U		1.64	5.00	5	03/03/2018 17:36	WG1080087
Chloroethane	U		2.26	25.0	5	03/03/2018 17:36	WG1080087
Chloroform	U		1.62	25.0	5	03/03/2018 17:36	WG1080087
Chloromethane	U		1.38	12.5	5	03/03/2018 17:36	WG1080087
2-Chlorotoluene	U		1.88	5.00	5	03/03/2018 17:36	WG1080087
4-Chlorotoluene	U		1.76	5.00	5	03/03/2018 17:36	WG1080087
1,2-Dibromo-3-Chloropropane	U		6.65	25.0	5	03/03/2018 17:36	WG1080087
1,2-Dibromoethane	U		1.90	5.00	5	03/03/2018 17:36	WG1080087
Dibromomethane	U		1.73	5.00	5	03/03/2018 17:36	WG1080087

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		1.74	5.00	5	03/03/2018 17:36	WG1080087
1,3-Dichlorobenzene	U		1.10	5.00	5	03/03/2018 17:36	WG1080087
1,4-Dichlorobenzene	U		1.37	5.00	5	03/03/2018 17:36	WG1080087
Dichlorodifluoromethane	U		2.76	25.0	5	03/03/2018 17:36	WG1080087
1,1-Dichloroethane	U		1.30	5.00	5	03/03/2018 17:36	WG1080087
1,2-Dichloroethane	U		1.80	5.00	5	03/03/2018 17:36	WG1080087
1,1-Dichloroethene	U		1.99	5.00	5	03/03/2018 17:36	WG1080087
cis-1,2-Dichloroethene	U		1.30	5.00	5	03/03/2018 17:36	WG1080087
trans-1,2-Dichloroethene	U		1.98	5.00	5	03/03/2018 17:36	WG1080087
1,2-Dichloropropane	U		1.53	5.00	5	03/03/2018 17:36	WG1080087
1,1-Dichloropropene	U		1.76	5.00	5	03/03/2018 17:36	WG1080087
1,3-Dichloropropane	U		1.83	5.00	5	03/03/2018 17:36	WG1080087
cis-1,3-Dichloropropene	U		2.09	5.00	5	03/03/2018 17:36	WG1080087
trans-1,3-Dichloropropene	U		2.10	5.00	5	03/03/2018 17:36	WG1080087
2,2-Dichloropropane	U		1.60	5.00	5	03/03/2018 17:36	WG1080087
Di-isopropyl ether	U		1.60	5.00	5	03/03/2018 17:36	WG1080087
Ethylbenzene	U		1.92	5.00	5	03/03/2018 17:36	WG1080087
Hexachloro-1,3-butadiene	U		1.28	5.00	5	03/03/2018 17:36	WG1080087
Isopropylbenzene	U		1.63	5.00	5	03/03/2018 17:36	WG1080087
p-Isopropyltoluene	U		1.75	5.00	5	03/03/2018 17:36	WG1080087
2-Butanone (MEK)	U		19.6	50.0	5	03/03/2018 17:36	WG1080087
Methylene Chloride	U		5.00	25.0	5	03/03/2018 17:36	WG1080087
4-Methyl-2-pentanone (MIBK)	U		10.7	50.0	5	03/03/2018 17:36	WG1080087
Methyl tert-butyl ether	U		1.84	5.00	5	03/03/2018 17:36	WG1080087
Naphthalene	U		5.00	25.0	5	03/03/2018 17:36	WG1080087
n-Propylbenzene	U		1.74	5.00	5	03/03/2018 17:36	WG1080087
Styrene	U		1.54	5.00	5	03/03/2018 17:36	WG1080087
1,1,1,2-Tetrachloroethane	U		1.92	5.00	5	03/03/2018 17:36	WG1080087
1,1,2,2-Tetrachloroethane	U		0.650	5.00	5	03/03/2018 17:36	WG1080087
1,1,2-Trichlorotrifluoroethane	U		1.52	5.00	5	03/03/2018 17:36	WG1080087
Tetrachloroethene	U		1.86	5.00	5	03/07/2018 17:20	WG1080087
Toluene	U		2.06	5.00	5	03/03/2018 17:36	WG1080087
1,2,3-Trichlorobenzene	U		1.15	5.00	5	03/03/2018 17:36	WG1080087
1,2,4-Trichlorobenzene	U		1.78	5.00	5	03/03/2018 17:36	WG1080087
1,1,1-Trichloroethane	U		1.60	5.00	5	03/03/2018 17:36	WG1080087
1,1,2-Trichloroethane	U		1.92	5.00	5	03/03/2018 17:36	WG1080087
Trichloroethene	U		1.99	5.00	5	03/03/2018 17:36	WG1080087
Trichlorofluoromethane	U		6.00	25.0	5	03/03/2018 17:36	WG1080087
1,2,3-Trichloropropane	U		4.04	12.5	5	03/03/2018 17:36	WG1080087
1,2,4-Trimethylbenzene	U		1.86	5.00	5	03/03/2018 17:36	WG1080087
1,2,3-Trimethylbenzene	U		1.60	5.00	5	03/03/2018 17:36	WG1080087
1,3,5-Trimethylbenzene	U		1.94	5.00	5	03/03/2018 17:36	WG1080087
Vinyl chloride	U		1.30	5.00	5	03/03/2018 17:36	WG1080087
Xylenes, Total	U		5.30	15.0	5	03/03/2018 17:36	WG1080087
(S) Toluene-d8	*106*			*80.0-120*		*03/07/2018 17:20*	WG1080087
(S) Toluene-d8	*104*			*80.0-120*		*03/03/2018 17:36*	WG1080087
(S) Dibromofluoromethane	*94.7*			*76.0-123*		*03/07/2018 17:20*	WG1080087
(S) Dibromofluoromethane	*102*			*76.0-123*		*03/03/2018 17:36*	WG1080087
(S) 4-Bromofluorobenzene	*92.0*			*80.0-120*		*03/03/2018 17:36*	WG1080087
(S) 4-Bromofluorobenzene	*95.4*			*80.0-120*		*03/07/2018 17:20*	WG1080087

Sample Narrative:

L974248-23 WG1080087: Lowest possible dilution due to sediment in sample vial.

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		41.2	125	1.25	03/09/2018 21:00	WG1079407
Residual Range Organics (RRO)	U		103	313	1.25	03/09/2018 21:00	WG1079407
(S) o-Terphenyl	*86.5*			*31.0-160*		*03/09/2018 21:00*	WG1079407

Pesticides (GC) by Method 8081

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Aldrin	U		0.0116	0.0715	1.43	03/05/2018 18:38	WG1080046
Alpha BHC	U		0.0237	0.0715	1.43	03/05/2018 18:38	WG1080046
Beta BHC	U		0.0263	0.0715	1.43	03/05/2018 18:38	WG1080046
Delta BHC	U		0.0282	0.0715	1.43	03/05/2018 18:38	WG1080046
Gamma BHC	U		0.0252	0.0715	1.43	03/05/2018 18:38	WG1080046
Chlordane	U		0.140	0.715	1.43	03/05/2018 18:38	WG1080046
4,4-DDD	U		0.0243	0.0715	1.43	03/05/2018 18:38	WG1080046
4,4-DDE	U		0.0234	0.0715	1.43	03/05/2018 18:38	WG1080046
4,4-DDT	U		0.0253	0.0715	1.43	03/05/2018 18:38	WG1080046
Dieldrin	U		0.0107	0.0715	1.43	03/05/2018 18:38	WG1080046
Endosulfan I	U		0.0256	0.0715	1.43	03/05/2018 18:38	WG1080046
Endosulfan II	U		0.0252	0.0715	1.43	03/05/2018 18:38	WG1080046
Endosulfan sulfate	U		0.0280	0.0715	1.43	03/05/2018 18:38	WG1080046
Endrin	U		0.0270	0.0715	1.43	03/05/2018 18:38	WG1080046
Endrin aldehyde	U		0.0203	0.0715	1.43	03/05/2018 18:38	WG1080046
Endrin ketone	U		0.0243	0.0715	1.43	03/05/2018 18:38	WG1080046
Hexachlorobenzene	U		0.0192	0.0715	1.43	03/05/2018 18:38	WG1080046
Heptachlor	U		0.0154	0.0715	1.43	03/05/2018 18:38	WG1080046
Heptachlor epoxide	U		0.0250	0.0715	1.43	03/05/2018 18:38	WG1080046
Methoxychlor	U		0.0276	0.0715	1.43	03/05/2018 18:38	WG1080046
Toxaphene	U		0.168	0.500	1	03/06/2018 16:33	WG1080046
(S) Decachlorobiphenyl	*55.6*			*10.0-144*		*03/06/2018 16:33*	WG1080046
(S) Decachlorobiphenyl	*69.3*			*10.0-144*		*03/05/2018 18:38*	WG1080046
(S) Tetrachloro-m-xylene	*83.5*			*10.0-135*		*03/05/2018 18:38*	WG1080046
(S) Tetrachloro-m-xylene	*88.8*			*10.0-135*		*03/06/2018 16:33*	WG1080046

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U	J4	0.0420	0.150	3	03/05/2018 19:41	WG1080437
Acenaphthene	U		0.0300	0.150	3	03/05/2018 19:41	WG1080437
Acenaphthylene	U	J4	0.0360	0.150	3	03/05/2018 19:41	WG1080437
Benzo(a)anthracene	U		0.0123	0.150	3	03/05/2018 19:41	WG1080437
Benzo(a)pyrene	U		0.0348	0.150	3	03/05/2018 19:41	WG1080437
Benzo(b)fluoranthene	U		0.00636	0.150	3	03/05/2018 19:41	WG1080437
Benzo(g,h,i)perylene	U		0.00681	0.150	3	03/05/2018 19:41	WG1080437
Benzo(k)fluoranthene	U		0.0408	0.150	3	03/05/2018 19:41	WG1080437
Chrysene	U		0.0324	0.150	3	03/05/2018 19:41	WG1080437
Dibenz(a,h)anthracene	U		0.0119	0.150	3	03/05/2018 19:41	WG1080437
Fluoranthene	U		0.0471	0.150	3	03/05/2018 19:41	WG1080437
Fluorene	U		0.0255	0.150	3	03/05/2018 19:41	WG1080437
Indeno(1,2,3-cd)pyrene	U		0.0444	0.150	3	03/05/2018 19:41	WG1080437
Naphthalene	U		0.0594	0.750	3	03/05/2018 19:41	WG1080437
Phenanthrene	U		0.0246	0.150	3	03/05/2018 19:41	WG1080437
Pyrene	U		0.0351	0.150	3	03/05/2018 19:41	WG1080437
1-Methylnaphthalene	U		0.0246	0.750	3	03/05/2018 19:41	WG1080437
2-Methylnaphthalene	U		0.0271	0.750	3	03/05/2018 19:41	WG1080437
2-Chloronaphthalene	U	J4	0.0194	0.750	3	03/05/2018 19:41	WG1080437

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Nitrobenzene-d5	*119*			*31.0-160*		*03/05/2018 19:41*	WG1080437
(S) 2-Fluorobiphenyl	*97.8*			*48.0-148*		*03/05/2018 19:41*	WG1080437
(S) p-Terphenyl-d14	*68.7*			*37.0-146*		*03/05/2018 19:41*	WG1080437

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.9		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	5.07		0.804	2.47	1	03/06/2018 18:39	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.9		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.73		0.803	2.47	1	03/06/2018 18:43	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.1		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	7.39		0.801	2.46	1	03/06/2018 18:46	WG1080344

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate	4240		22.7	100	1	03/02/2018 19:11	WG1079833

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic	11.7		6.50	10.0	1	03/07/2018 00:43	WG1080267
Arsenic,Dissolved	U		6.50	10.0	1	03/06/2018 03:26	WG1080282

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.37	J	0.817	2.52	1	03/06/2018 18:49	WG1080344
Lead	2.69		0.239	0.629	1	03/06/2018 18:49	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.1		1	03/08/2018 09:59	WG1081612

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	15.0		0.832	2.56	1	03/06/2018 18:53	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.6		1	03/08/2018 09:13	WG1081614

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	10.9		0.807	2.48	1	03/06/2018 18:56	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.9		1	03/08/2018 09:13	WG1081614

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	12.2		0.794	2.44	1	03/06/2018 19:06	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.9		1	03/08/2018 09:13	WG1081614

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.51		0.757	2.33	1	03/06/2018 19:09	WG1080344

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.0		1	03/08/2018 09:13	WG1081614

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.59		0.756	2.32	1	03/06/2018 19:12	WG1080344

Method Blank (MB)

(MB) R3291873-1 03/08/18 13:01

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L974248-01 Original Sample (OS) • Duplicate (DUP)

(OS) L974248-01 03/08/18 13:01 • (DUP) R3291873-3 03/08/18 13:01

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	80.1	79.2	1	1.08		5

Laboratory Control Sample (LCS)

(LCS) R3291873-2 03/08/18 13:01

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3291857-1 03/08/18 10:10

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L974248-16 Original Sample (OS) • Duplicate (DUP)

(OS) L974248-16 03/08/18 10:10 • (DUP) R3291857-3 03/08/18 10:10

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	78.8	78.8	1	0.0486		5

Laboratory Control Sample (LCS)

(LCS) R3291857-2 03/08/18 10:10

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3291854-1 03/08/18 09:59

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L974248-17 Original Sample (OS) • Duplicate (DUP)

(OS) L974248-17 03/08/18 09:59 • (DUP) R3291854-3 03/08/18 09:59

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	81.1	80.9	1	0.267		5

Laboratory Control Sample (LCS)

(LCS) R3291854-2 03/08/18 09:59

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3291848-1 03/08/18 09:13

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L974310-01 Original Sample (OS) • Duplicate (DUP)

(OS) L974310-01 03/08/18 09:13 • (DUP) R3291848-3 03/08/18 09:13

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	78.7	79.0	1	0.328		5

Laboratory Control Sample (LCS)

(LCS) R3291848-2 03/08/18 09:13

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3290253-1 03/02/18 12:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Nitrate	U		22.7	100

L974267-02 Original Sample (OS) • Duplicate (DUP)

(OS) L974267-02 03/02/18 19:38 • (DUP) R3290253-4 03/02/18 20:24

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	2410	2410	1	0.145		15

L974350-03 Original Sample (OS) • Duplicate (DUP)

(OS) L974350-03 03/02/18 23:04 • (DUP) R3290253-7 03/02/18 23:18

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	33.4	32.4	1	3.04	J	15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290253-2 03/02/18 12:24 • (LCSD) R3290253-3 03/02/18 12:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Nitrate	8000	8140	8140	102	102	80.0-120			0.0393	15

L974267-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974267-02 03/02/18 19:38 • (MS) R3290253-5 03/02/18 20:37 • (MSD) R3290253-6 03/02/18 20:50

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate	5000	2410	7400	7500	99.6	102	1	80.0-120			1.43	15

L974350-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L974350-03 03/02/18 23:04 • (MS) R3290253-8 03/02/18 23:31

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5000	33.4	4900	97.4	1	80.0-120	

Method Blank (MB)

(MB) R3291016-1 03/06/18 21:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Mercury,Dissolved	U		0.0490	0.200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291016-2 03/06/18 21:58 • (LCSD) R3291016-3 03/06/18 22:00

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Mercury,Dissolved	3.00	2.80	2.68	93.3	89.3	80.0-120			4.39	20

L974248-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974248-23 03/06/18 22:02 • (MS) R3291016-4 03/06/18 22:05 • (MSD) R3291016-5 03/06/18 22:07

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Mercury,Dissolved	3.00	U	2.75	2.83	91.7	94.3	1	75.0-125			2.77	20

Method Blank (MB)

(MB) R3290872-1 03/06/18 12:34

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.0490	0.200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290872-2 03/06/18 12:36 • (LCSD) R3290872-3 03/06/18 12:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	2.66	2.74	88.8	91.4	80.0-120			2.89	20

L974724-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974724-03 03/06/18 12:41 • (MS) R3290872-4 03/06/18 12:43 • (MSD) R3290872-5 03/06/18 12:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	U	2.89	3.00	96.5	100	1	75.0-125			3.68	20

Method Blank (MB)

(MB) R3291034-1 03/06/18 23:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Arsenic	U		6.50	10.0
Barium	U		1.70	5.00
Cadmium	U		0.700	2.00
Chromium	U		1.40	10.0
Lead	U		1.90	5.00
Selenium	U		7.40	10.0
Silver	U		2.80	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291034-2 03/06/18 23:36 • (LCSD) R3291034-3 03/06/18 23:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	1000	939	943	93.9	94.3	80.0-120			0.431	20
Barium	1000	974	979	97.4	97.9	80.0-120			0.557	20
Cadmium	1000	950	954	95.0	95.4	80.0-120			0.434	20
Chromium	1000	976	976	97.6	97.6	80.0-120			0.0733	20
Lead	1000	990	997	99.0	99.7	80.0-120			0.714	20
Selenium	1000	948	953	94.8	95.3	80.0-120			0.581	20
Silver	200	180	180	90.0	89.9	80.0-120			0.117	20

L974141-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974141-03 03/06/18 23:42 • (MS) R3291034-5 03/06/18 23:49 • (MSD) R3291034-6 03/06/18 23:52

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	1000	ND	982	970	98.2	97.0	1	75.0-125			1.20	20
Barium	1000	114	1090	1070	97.1	95.6	1	75.0-125			1.41	20
Cadmium	1000	ND	970	959	97.0	95.9	1	75.0-125			1.12	20
Chromium	1000	ND	977	963	97.7	96.3	1	75.0-125			1.53	20
Lead	1000	ND	1010	1000	101	100	1	75.0-125			0.354	20
Selenium	1000	ND	986	972	98.6	97.2	1	75.0-125			1.48	20
Silver	200	ND	184	181	92.1	90.7	1	75.0-125			1.48	20

Method Blank (MB)

(MB) R3290704-1 03/06/18 02:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Arsenic,Dissolved	U		6.50	10.0
Barium,Dissolved	U		1.70	5.00
Cadmium,Dissolved	U		0.700	2.00
Chromium,Dissolved	U		1.40	10.0
Lead,Dissolved	U		1.90	5.00
Selenium,Dissolved	U		7.40	10.0
Silver,Dissolved	U		2.80	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290704-2 03/06/18 02:29 • (LCSD) R3290704-3 03/06/18 02:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1000	964	960	96.4	96.0	80.0-120			0.382	20
Barium,Dissolved	1000	1000	994	100	99.4	80.0-120			0.782	20
Cadmium,Dissolved	1000	972	967	97.2	96.7	80.0-120			0.466	20
Chromium,Dissolved	1000	979	977	97.9	97.7	80.0-120			0.298	20
Lead,Dissolved	1000	988	979	98.8	97.9	80.0-120			0.822	20
Selenium,Dissolved	1000	976	969	97.6	96.9	80.0-120			0.704	20
Silver,Dissolved	200	188	186	93.8	93.1	80.0-120			0.717	20

L974146-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974146-02 03/06/18 02:36 • (MS) R3290704-5 03/06/18 02:42 • (MSD) R3290704-6 03/06/18 02:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1000	U	981	986	98.1	98.6	1	75.0-125			0.544	20
Barium,Dissolved	1000	10.9	989	997	97.8	98.6	1	75.0-125			0.777	20
Cadmium,Dissolved	1000	U	977	978	97.7	97.8	1	75.0-125			0.0768	20
Chromium,Dissolved	1000	U	963	965	96.3	96.5	1	75.0-125			0.170	20
Lead,Dissolved	1000	U	981	985	98.1	98.5	1	75.0-125			0.351	20
Selenium,Dissolved	1000	U	985	1000	98.5	100	1	75.0-125			1.66	20
Silver,Dissolved	200	U	189	190	94.4	94.8	1	75.0-125			0.359	20

Method Blank (MB)

(MB) R3290708-1 03/06/18 02:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.650	2.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290708-2 03/06/18 02:40 • (LCSD) R3290708-3 03/06/18 02:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	101	102	101	102	80.0-120			0.692	20

L974248-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974248-01 03/06/18 02:45 • (MS) R3290708-6 03/06/18 02:53 • (MSD) R3290708-7 03/06/18 02:55

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	125	1.86	118	118	92.8	93.3	1	75.0-125			0.531	20

Method Blank (MB)

(MB) R3291009-1 03/06/18 17:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.650	2.00
Lead	U		0.190	0.500

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291009-2 03/06/18 17:51 • (LCSD) R3291009-3 03/06/18 17:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	103	109	103	109	80.0-120			5.84	20
Lead	100	101	107	101	107	80.0-120			5.89	20

L974040-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974040-09 03/06/18 17:57 • (MS) R3291009-6 03/06/18 18:07 • (MSD) R3291009-7 03/06/18 18:10

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	136	6.92	151	145	106	102	1	75.0-125			3.94	20
Lead	136	9.17	157	150	109	103	1	75.0-125			4.75	20

Method Blank (MB)

(MB) R3290945-3 03/05/18 11:37

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*92.7*			*77.0-122*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290945-1 03/05/18 10:30 • (LCSD) R3290945-2 03/05/18 10:52

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	5010	5010	91.1	91.2	72.0-134			0.0331	20
(S) a,a,a-Trifluorotoluene(FID)				*108*	*109*	*77.0-122*				

L974024-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974024-19 03/05/18 12:52 • (MS) R3290945-4 03/05/18 20:38 • (MSD) R3290945-5 03/05/18 21:00

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	352	5110	5140	86.5	87.0	1	23.0-159			0.482	20
(S) a,a,a-Trifluorotoluene(FID)					*104*	*105*		*77.0-122*				

Method Blank (MB)

(MB) R3290930-3 03/03/18 11:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Acrolein	U		8.87	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00

Method Blank (MB)

(MB) R3290930-3 03/03/18 11:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Hexachloro-1,3-butadiene	0.415	J	0.256	1.00
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	0.370	J	0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,3-Trimethylbenzene	U		0.321	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*99.0*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.8*			*80.0-120*

Method Blank (MB)

(MB) R3291127-1 03/06/18 23:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Tetrachloroethene	U		0.372	1.00
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*93.1*			*76.0-123*
(S) 4-Bromofluorobenzene	*103*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290930-1 03/03/18 10:04 • (LCSD) R3290930-2 03/03/18 10:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	195	148	156	118	10.0-160		J3	27.6	23
Acrolein	125	241	231	193	185	10.0-160	J4	J4	4.09	20
Acrylonitrile	125	144	128	115	102	60.0-142			11.8	20
Benzene	25.0	26.2	25.6	105	103	69.0-123			2.16	20
Bromobenzene	25.0	24.3	25.0	97.1	99.9	79.0-120			2.87	20
Bromodichloromethane	25.0	26.7	26.7	107	107	76.0-120			0.191	20
Bromoform	25.0	20.5	21.2	82.0	84.7	67.0-132			3.20	20
Bromomethane	25.0	32.1	27.4	128	110	18.0-160			15.8	20
n-Butylbenzene	25.0	27.6	26.7	111	107	72.0-126			3.30	20
sec-Butylbenzene	25.0	28.3	27.9	113	112	74.0-121			1.18	20
tert-Butylbenzene	25.0	26.5	26.4	106	105	75.0-122			0.728	20
Carbon disulfide	25.0	26.2	26.0	105	104	55.0-127			0.767	20
Carbon tetrachloride	25.0	27.2	27.0	109	108	63.0-122			0.746	20
Chlorobenzene	25.0	25.4	24.9	101	99.4	79.0-121			2.01	20
Chlorodibromomethane	25.0	26.6	25.9	107	104	75.0-125			2.71	20
Chloroethane	25.0	24.8	28.5	99.2	114	47.0-152			13.7	20
Chloroform	25.0	26.7	25.8	107	103	72.0-121			3.46	20
Chloromethane	25.0	25.5	26.0	102	104	48.0-139			2.02	20
2-Chlorotoluene	25.0	25.6	25.9	102	104	74.0-122			1.13	20
4-Chlorotoluene	25.0	25.1	25.5	100	102	79.0-120			1.41	20
1,2-Dibromo-3-Chloropropane	25.0	26.4	24.8	106	99.3	64.0-127			6.12	20
1,2-Dibromoethane	25.0	25.5	25.1	102	100	77.0-123			1.61	20
Dibromomethane	25.0	26.3	25.4	105	102	78.0-120			3.48	20
1,2-Dichlorobenzene	25.0	26.3	25.2	105	101	80.0-120			4.47	20
1,3-Dichlorobenzene	25.0	27.1	26.6	109	106	72.0-123			1.99	20
1,4-Dichlorobenzene	25.0	25.9	25.5	104	102	77.0-120			1.63	20
Dichlorodifluoromethane	25.0	30.1	30.7	120	123	49.0-155			2.16	20
1,1-Dichloroethane	25.0	26.4	25.9	106	104	70.0-126			1.75	20
1,2-Dichloroethane	25.0	26.0	25.3	104	101	67.0-126			2.92	20
1,1-Dichloroethene	25.0	26.8	26.8	107	107	64.0-129			0.191	20
cis-1,2-Dichloroethene	25.0	25.4	24.9	101	99.7	73.0-120			1.75	20
trans-1,2-Dichloroethene	25.0	25.8	25.1	103	100	71.0-121			2.82	20
1,2-Dichloropropane	25.0	27.1	26.9	108	107	75.0-125			0.807	20
1,1-Dichloropropene	25.0	27.5	26.6	110	107	71.0-129			3.11	20
1,3-Dichloropropane	25.0	25.6	25.4	102	101	80.0-121			0.988	20
cis-1,3-Dichloropropene	25.0	26.3	26.4	105	106	79.0-123			0.359	20
trans-1,3-Dichloropropene	25.0	26.9	26.5	108	106	74.0-127			1.62	20
2,2-Dichloropropane	25.0	28.2	26.8	113	107	60.0-125			5.33	20
Di-isopropyl ether	25.0	26.9	26.1	108	104	59.0-133			3.17	20
Ethylbenzene	25.0	25.7	25.2	103	101	77.0-120			2.17	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290930-1 03/03/18 10:04 • (LCSD) R3290930-2 03/03/18 10:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hexachloro-1,3-butadiene	25.0	24.6	24.1	98.6	96.3	64.0-131			2.30	20
Isopropylbenzene	25.0	26.1	26.3	104	105	75.0-120			0.852	20
p-Isopropyltoluene	25.0	28.7	28.1	115	112	74.0-126			1.93	20
2-Butanone (MEK)	125	154	137	123	109	37.0-158			11.8	20
Methylene Chloride	25.0	24.9	24.7	99.8	98.8	66.0-121			0.985	20
4-Methyl-2-pentanone (MIBK)	125	141	136	113	108	59.0-143			3.89	20
Methyl tert-butyl ether	25.0	27.2	25.2	109	101	64.0-123			7.93	20
Naphthalene	25.0	27.0	24.8	108	99.3	62.0-128			8.41	20
n-Propylbenzene	25.0	25.7	26.2	103	105	79.0-120			2.19	20
Styrene	25.0	26.7	27.6	107	111	78.0-124			3.51	20
1,1,1,2-Tetrachloroethane	25.0	26.6	25.5	106	102	75.0-122			4.17	20
1,1,2,2-Tetrachloroethane	25.0	26.1	25.6	104	102	71.0-122			2.13	20
Tetrachloroethene	25.0	30.4	29.0	122	116	70.0-127			4.74	20
Toluene	25.0	25.5	25.2	102	101	77.0-120			1.10	20
1,1,2-Trichlorotrifluoroethane	25.0	28.2	28.0	113	112	61.0-136			0.499	20
1,2,3-Trichlorobenzene	25.0	25.3	23.5	101	94.0	61.0-133			7.53	20
1,2,4-Trichlorobenzene	25.0	25.4	23.5	102	93.9	69.0-129			7.99	20
1,1,1-Trichloroethane	25.0	27.7	27.2	111	109	68.0-122			2.00	20
1,1,2-Trichloroethane	25.0	25.7	25.1	103	101	78.0-120			2.26	20
Trichloroethene	25.0	25.9	26.1	104	104	78.0-120			0.603	20
Trichlorofluoromethane	25.0	24.2	24.4	96.9	97.8	56.0-137			0.911	20
1,2,3-Trichloropropane	25.0	26.5	26.3	106	105	72.0-124			0.779	20
1,2,3-Trimethylbenzene	25.0	27.7	26.4	111	106	75.0-120			4.79	20
1,2,4-Trimethylbenzene	25.0	26.4	26.1	106	105	75.0-120			0.997	20
1,3,5-Trimethylbenzene	25.0	25.3	25.5	101	102	75.0-120			0.995	20
Vinyl chloride	25.0	26.6	27.0	106	108	64.0-133			1.38	20
Xylenes, Total	75.0	79.4	77.4	106	103	77.0-120			2.55	20
(S) Toluene-d8				*99.0*	*99.3*	*80.0-120*				
(S) Dibromofluoromethane				*103*	*101*	*76.0-123*				
(S) 4-Bromofluorobenzene				*96.3*	*99.5*	*80.0-120*				

Method Blank (MB)

(MB) R3292103-1 03/09/18 15:25

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		33.3	100
Residual Range Organics (RRO)	U		83.3	250
(S) o-Terphenyl	*64.7*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3292103-2 03/09/18 15:41 • (LCSD) R3292103-3 03/09/18 15:57

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	750	801	756	107	101	50.0-150			5.86	20
Residual Range Organics (RRO)	750	674	683	89.8	91.1	50.0-150			1.35	20
(S) o-Terphenyl				*93.2*	*90.4*	*31.0-160*				

L973944-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L973944-21 03/11/18 00:57 • (MS) R3292503-1 03/11/18 01:17 • (MSD) R3292503-2 03/11/18 01:37

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	750	U	1150	1080	153	144	1	50.0-150	J5		5.78	20
Residual Range Organics (RRO)	750	U	895	896	119	119	1	50.0-150			0.126	20
(S) o-Terphenyl					*90.1*	*93.9*		*31.0-160*				

Method Blank (MB)

(MB) R3290595-3 03/05/18 11:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aldrin	U		0.00813	0.0500
Alpha BHC	U		0.0166	0.0500
Beta BHC	U		0.0184	0.0500
Delta BHC	U		0.0197	0.0500
Gamma BHC	U		0.0176	0.0500
4,4-DDD	U		0.0170	0.0500
4,4-DDE	U		0.0164	0.0500
4,4-DDT	U		0.0177	0.0500
Dieldrin	U		0.00751	0.0500
Endosulfan I	U		0.0179	0.0500
Endosulfan II	U		0.0176	0.0500
Endosulfan sulfate	U		0.0196	0.0500
Endrin	U		0.0189	0.0500
Endrin aldehyde	U		0.0142	0.0500
Endrin ketone	U		0.0170	0.0500
Heptachlor	U		0.0108	0.0500
Heptachlor epoxide	U		0.0175	0.0500
Hexachlorobenzene	U		0.0134	0.0500
Methoxychlor	U		0.0193	0.0500
Chlordane	U		0.0977	0.500
Toxaphene	U		0.168	0.500
(S) Decachlorobiphenyl	*61.8*			*10.0-144*
(S) Tetrachloro-m-xylene	*60.0*			*10.0-135*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290595-1 03/05/18 11:16 • (LCSD) R3290595-2 03/05/18 11:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aldrin	1.00	0.624	0.581	62.4	58.1	35.0-126			7.21	24
Alpha BHC	1.00	0.819	0.749	81.9	74.9	55.0-133			8.92	20
Beta BHC	1.00	0.771	0.709	77.1	70.9	59.0-131			8.38	20
Delta BHC	1.00	0.783	0.740	78.3	74.0	61.0-134			5.63	20
Gamma BHC	1.00	0.795	0.732	79.5	73.2	56.0-133			8.23	20
4,4-DDD	1.00	0.848	0.785	84.8	78.5	59.0-138			7.76	20
4,4-DDE	1.00	0.793	0.709	79.3	70.9	58.0-131			11.2	20
4,4-DDT	1.00	0.800	0.800	80.0	80.0	43.0-147			0.00472	20
Dieldrin	1.00	0.819	0.765	81.9	76.5	62.0-136			6.78	20
Endosulfan I	1.00	0.795	0.735	79.5	73.5	62.0-137			7.73	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290595-1 03/05/18 11:16 • (LCSD) R3290595-2 03/05/18 11:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Endosulfan II	1.00	0.797	0.743	79.7	74.3	62.0-136			7.05	20
Endosulfan sulfate	1.00	0.827	0.766	82.7	76.6	60.0-139			7.65	20
Endrin	1.00	0.824	0.767	82.4	76.7	58.0-135			7.07	20
Endrin aldehyde	1.00	0.745	0.753	74.5	75.3	56.0-128			1.13	20
Endrin ketone	1.00	0.843	0.788	84.3	78.8	54.0-142			6.86	20
Heptachlor	1.00	0.676	0.623	67.6	62.3	37.0-134			8.20	24
Heptachlor epoxide	1.00	0.806	0.750	80.6	75.0	60.0-132			7.21	20
Hexachlorobenzene	1.00	0.625	0.571	62.5	57.1	35.0-120			8.95	25
Methoxychlor	1.00	1.05	0.968	105	96.8	44.0-160			7.72	22
(S) Decachlorobiphenyl				*80.3*	*75.0*	*10.0-144*				
(S) Tetrachloro-m-xylene				*77.5*	*71.9*	*10.0-135*				

Method Blank (MB)

(MB) R3290829-3 03/05/18 18:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0140	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.0120	0.0500
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	0.00272	J	0.00212	0.0500
Benzo(g,h,i)perylene	U		0.00227	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Fluoranthene	U		0.0157	0.0500
Fluorene	U		0.00850	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	U		0.0198	0.250
Phenanthrene	U		0.00820	0.0500
Pyrene	U		0.0117	0.0500
1-Methylnaphthalene	U		0.00821	0.250
2-Methylnaphthalene	U		0.00902	0.250
2-Chloronaphthalene	U		0.00647	0.250
(S) Nitrobenzene-d5	*160*			*31.0-160*
(S) 2-Fluorobiphenyl	*137*			*48.0-148*
(S) p-Terphenyl-d14	*123*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290829-1 03/05/18 17:30 • (LCSD) R3290829-2 03/05/18 17:52

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	2.88	2.72	144	136	64.0-142	J4		5.53	20
Acenaphthene	2.00	2.59	2.31	129	116	66.0-132			11.1	20
Acenaphthylene	2.00	2.72	2.43	136	122	65.0-132	J4		11.3	20
Benzo(a)anthracene	2.00	2.55	2.21	128	111	59.0-134			14.1	20
Benzo(a)pyrene	2.00	2.50	2.21	125	111	61.0-145			12.0	20
Benzo(b)fluoranthene	2.00	2.31	2.12	115	106	57.0-136			8.55	20
Benzo(g,h,i)perylene	2.00	2.45	2.18	122	109	54.0-140			11.7	20
Benzo(k)fluoranthene	2.00	2.60	2.31	130	115	57.0-141			12.0	20
Chrysene	2.00	2.69	2.32	135	116	63.0-140			14.9	20
Dibenz(a,h)anthracene	2.00	2.47	2.22	123	111	49.0-141			10.5	20
Fluoranthene	2.00	2.82	2.57	141	128	65.0-143			9.19	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3290829-1 03/05/18 17:30 • (LCSD) R3290829-2 03/05/18 17:52

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	2.00	2.48	2.17	124	108	64.0-129			13.5	20
Indeno(1,2,3-cd)pyrene	2.00	2.46	2.20	123	110	53.0-141			11.2	20
Naphthalene	2.00	2.49	2.21	124	110	68.0-129			11.8	20
Phenanthrene	2.00	2.50	2.34	125	117	62.0-132			6.55	20
Pyrene	2.00	2.71	2.38	135	119	58.0-156			13.1	20
1-Methylnaphthalene	2.00	2.40	2.14	120	107	68.0-137			11.6	20
2-Methylnaphthalene	2.00	2.32	2.04	116	102	68.0-134			13.1	20
2-Chloronaphthalene	2.00	2.67	2.36	133	118	65.0-129	J4		12.3	20
(S) Nitrobenzene-d5				*155*	*140*	*31.0-160*				
(S) 2-Fluorobiphenyl				*133*	*121*	*48.0-148*				
(S) p-Terphenyl-d14				*120*	*105*	*37.0-146*				

L974669-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974669-02 03/06/18 00:02 • (MS) R3290829-4 03/06/18 00:24 • (MSD) R3290829-5 03/06/18 00:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	0.130	2.73	2.88	130	138	1	60.0-142			5.47	20
Acenaphthene	2.00	0.328	2.48	2.65	108	116	1	46.0-149			6.39	20
Acenaphthylene	2.00	U	2.41	2.60	120	130	1	54.0-142			7.47	20
Benzo(a)anthracene	2.00	U	2.13	2.31	107	115	1	55.0-134			7.72	20
Benzo(a)pyrene	2.00	U	2.09	2.25	104	112	1	58.0-136			7.34	20
Benzo(b)fluoranthene	2.00	U	1.92	2.10	95.9	105	1	54.0-130			8.86	20
Benzo(g,h,i)perylene	2.00	U	1.97	2.12	98.4	106	1	46.0-135			7.57	20
Benzo(k)fluoranthene	2.00	U	2.18	2.26	109	113	1	52.0-131			3.76	20
Chrysene	2.00	U	2.25	2.36	112	118	1	55.0-137			4.73	20
Dibenz(a,h)anthracene	2.00	U	2.01	2.19	101	110	1	36.0-140			8.47	20
Fluoranthene	2.00	0.178	2.57	2.70	119	126	1	58.0-144			5.20	20
Fluorene	2.00	0.301	2.42	2.54	106	112	1	49.0-142			5.11	20
Indeno(1,2,3-cd)pyrene	2.00	U	1.95	2.14	97.5	107	1	46.0-134			9.26	20
Naphthalene	2.00	0.0526	2.18	2.42	106	118	1	29.0-154			10.6	20
Phenanthrene	2.00	0.378	2.64	2.77	113	120	1	44.0-145			4.78	20
Pyrene	2.00	0.0176	2.30	2.43	114	120	1	62.0-150			5.21	20
1-Methylnaphthalene	2.00	0.300	2.31	2.49	101	110	1	26.0-160			7.55	20
2-Methylnaphthalene	2.00	0.0845	1.98	2.17	94.7	104	1	51.0-150			9.27	20
2-Chloronaphthalene	2.00	U	2.17	2.39	109	119	1	57.0-136			9.29	20
(S) Nitrobenzene-d5					*148*	*136*		*31.0-160*				
(S) 2-Fluorobiphenyl					*118*	*114*		*48.0-148*				
(S) p-Terphenyl-d14					*109*	*109*		*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: Joel Mattecheck

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected: Central point OR

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day X Standard

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table A186

Acctnum: CASASCTOR
Template: T133139
Prelogin: P640497
TSR: 110 - Brian Ford
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	HOLD	Remarks	Sample # (lab only)
SS-1 (1-1.5)	Grab	SS		2/28/18	0930	1	X				
SS-1 (2-2.5)		SS		2/28/18	0950	1			X		-01
SS-2 (1.-1.5)		SS		2/28/18	1000	1	X				
SS-2 (2-2.5)		SS		2/28/18	1020	1			X		-02
SS-3 (1-1.5)		SS		2/28/18	1030	1	X				
SS-3 (2-2.5)		SS		2/28/18	1040	1			X		-03
SS-6 (1-1.5)		SS		2/28/18	1050	1	X				
SS-6 (2-2.5)		SS		2/28/18	1100	1			X		-04
SS-7 (1-1.5)		SS		2/28/18	1110	1	X				
SS-7 (2-2.5)		SS		2/28/18	1120	1			X		-05

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ___

Remarks: H= HOLD

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
___ UPS ___ FedEx ___ Courier ___

Tracking # 7215 4516 3151
7466 1466 1675

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	3/1/18	1500	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / (No) HCL / MeoH TBR

Temp: 0.6 °C Bottles Received: 81

Date: 3/2/18 Time: 845

If preservation required by Login: Date/Time

3-018

Condition: NCF / OK

Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: Joel Mattecheck

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected: Central Point OR

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Quote #

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: Standard

Immediately Packed on Ice N ___ Y X

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	HOLD	Remarks	Sample # (lab only)
SS-8 (1-1.5)	Grab	SS		2/28/18	1130	1	X				
SS-8 (2-2.5)		SS		2/28/18	1140	1	X		X		-06
SS-9 (1-1.5)		SS		2/28/18	1150	1	X				
SS-9 (2-2.5)		SS		2/28/18	1200	1	X		X		-07
SS-12 (1-1.5)		SS		2/28/18	1210	1	X				
SS-12 (2-2.5)		SS		2/28/18	1220	1	X		X		-08
SS-11 (1-1.5)		SS		2/28/18	1230	1	X				
SS-11 (2-2.5)		SS		2/28/18	1240	1	X		X		-09
SS-10 (1-1.5)		SS		2/28/18	1245	1	X				
SS-10 (2-2.5)		SS		2/28/18	1250	1	X		X		-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: #2 HOLD

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ___ FedEx ___ Courier _____

Tracking # 7215 4516 3151 7466 1466 1675

Relinquished by : (Signature) — Date: 3/1/18 — Time: 1500
Received by: (Signature)

Relinquished by : (Signature) — Date: — Time:
Received by: (Signature)

Relinquished by : (Signature) — Date: — Time:
Received for lab by: (Signature) EG — Date: 3/2/18 — Time: 845

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 0.6 °C Bottles Received: 81

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
a subsidiary of Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table #

Acctnum: CASASCTOR
Template: T133139
Prelogin: P640497
TSR: 110 - Brian Ford
PB:

Shipped Via:

Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: Joel Mattecheck

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected: Central Point OR

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day — Standard

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
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Fax: 615-758-5859

L# L974248

Table #

Acctnum: CASASCTOR
Template: T133139
Prelogin: P640497
TSR: 110 - Brian Ford
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	HOLD	Remarks	Sample # (lab only)
SS-13 (1-1.5)	Grab	SS		2/28/18	1255	1	X				
SS-13 (2-2.5)		SS		2/28/18	1300	1			X		-11
SS-14 (1-1.5)		SS		2/28/18	1310	1	X				
SS-14 (2-2.5)		SS		2/28/18	1315	1			X		-12
SS-15 (1-1.5)		SS		2/28/18	1330	1	X				
SS-15 (2-2.5)		SS		2/28/18	1340	1			X		-13
SS-18 (1-1.5)		SS		2/28/18	1350	1	X				
SS-18 (2-2.5)		SS		2/28/18	1400	1			X		-14
SS-17 (1-1.5)		SS		2/28/18	1410	1	X				
SS-17 (2-2.5)		SS		2/28/18	1420	1			X		-15

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 1+2 HOLD

pH _____ Temp _____

7215 4516 3151 Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 7466 1466 1625

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	3/1/18	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No HCL / MeoH TBR

Temp: 0.6°C Bottles Received: 81

Date: 3/2/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: Joel Mattecheck

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected: Central Point OR

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day X standard

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table #

Acctnum: CASASCTOR

Template: T133139

Prelogin: P640497

TSR: 110 - Brian Ford

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	Remarks	Sample # (lab only)
SS-16 (1-1.5')	Grab	SS		2/28/18	1430		X			-16
SS-16 (2-2.5)		SS		2/28/18	1440		H			
SS-19 (1-1.5)		SS		2/28/18	1450		X			-17
SS-19 (2-2.5)		SS		2/28/18	1500		H			
SS-20 (1-1.5)		SS		2/28/18	1510		X			-18
SS-20 (2-2.5)		SS		2/28/18	1520		H			
SS-21 (1-1.5)		SS		2/28/18	1540		X			-19
SS-21 (2-2.5)		SS		2/28/18	1550		H			
SS-4 (1-1.5)		SS		2/28/18	1600		X			-20
SS-4 (2-2.5)		SS		2/28/18	1610		H			

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 7215 4516 3151 7466 1466 1675

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
	3/1/18	1500			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.6 °C Bottles Received: 81	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3/2/18 Time: 845	Hold: Condition: NCF / OK

Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: Joel Mattecheck

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected: Central Point OR

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel M.

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day X Standard

Quote #

Date Results Needed

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
A subsidiary of Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table #

Acctnum: CASASCTOR

Template: T133139

Prelogin: P640497

TSR: 110 - Brian Ford

PB:

Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	T. Arsenic (2)	D. Arsenic (2)	Nitrates	TPH: (EPA 8015B)	VOCs (8260)	RCRA Metals (Total and Dissolved) (12) (EPA 6000 series)	Pesticides (EPA 8081)	PAHs (8270 SIMs)	Remarks	Sample # (lab only)
SS-5 (1-1.5)	Grab	SS		3/1/18	0840	1	X											
SS-5 (2.0-2.5)		SS		3/1/18	0850	1	H											-21
SS-5 GW	GW	GW		3/1/18	1200	3			X	X	X							
DW GW	GW	GW		3/1/18	1100	15						X	X	X	X	X		-22
SS-24 (1-1.5)		SS		3/1/18	1120	1	X											-23
SS-24 (2-2.5)		SS		3/1/18	1130	1	H											-24
SS-27 (1-1.5)		SS		3/1/18	1140	1	X											
SS-27 (2-2.5)		SS		3/1/18	1145	1	H											-25
SS-30 (1-1.5)		SS		3/1/18	1150	1	X											
SS-30 (2-2.5)		SS		3/1/18	1200	1	H											-26

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Dissolved Metal samples Filtered in the Field
Hz HOLD
7215 4516 3151

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ___ FedEx ___ Courier ___

Tracking # 7466 1466 1675

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes (No) HCL / MeoH TBR
	3/1/18	1500		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 6.6 °C Bottles Received: 81
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3/2/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
Ste. 250
Portland, OR 97219

Pres Chk

Report to: Joel Mattecheck

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected:

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard TAT

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table #

Acctnum: CASASCTOR

Template: T133139

Prelogin: P640497

TSR: 110 - Brian Ford

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	Nitrates	T. Arsenic	D. Arsenic	Remarks	Sample # (lab only)
SS-30 GW	Grab	~~SS~~ GW		3/1/18	1210	3			X	X	X		-27
SS-29 (1-1.5)		SS		3/1/18	1220	1	X	X					-28
SS-29 (2-2.5)		SS		3/1/18	1230	1	H						
SS-26 (1-1.5)				3/1/18	1235	1	X						-29
SS-26 (2-2.5)				3/1/18	1240	1	H						
SS-25 (1-1.5)				3/1/18	1245	1	X						-30
SS-25 (2-2.5)				3/1/18	1250	1	H						
SS-28 (1-1.5)				3/1/18	1255	1	X						-31
SS-28 (2-2.5)				3/1/18	1300	1	H						
SS-23 (1-1.5)				3/1/18	1310	1	X						-32

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: H=hold

pH ___ Temp ___

Flow ___ Other ___

Samples returned via:
___ UPS ___ FedEx ___ Courier ___

Tracking # 7215 4576 3151 5271 8 7466 1466 1675

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	3/1/18	1500		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 6.6 °C Bottles Received: 81
				If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3/2/18 Time: 8:45
				Hold: Condition: NCF / OK

Cascadia Associates- Portland, OR

6915 SW Macadam Ave
Ste. 250
Portland OR 97219

Report to: Joel Mattecheck

Billing Information:
Accounts Payable- Chris Breemer
6915 SW Macadam Ave
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Portland, OR 97219

Pres Chk

Email To: jmattecheck@cascadiaassociates.com; aspencer@cascadiaassociates.com

Project Description: Gephard Village Phase II Field Investiga

City/State Collected: Central Point OR

Phone: 503-906-6577
Fax:

Client Project # 0063-001-001

Lab Project # CASASCTOR-0063001001

Collected by (print): Joel Mattecheck

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard TAT

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Total As 6010 4ozClr-NoPres	Total Pb 6010 4ozClr-NoPres	Remarks	Sample # (lab only)
SS-23 (2.0-2.5)	Grab	SS		3/1/18	1315	1	H			
SS-22 (1-1.5)		SS		3/1/18	1320	2	X			
SS-22 (2-2.5)		SS		3/1/18	1325	1	H			-38
		SS								
		SS								
		SS								
		SS								
		SS								
		SS								
		SS								

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
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Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L974248

Table #

Acctnum: CASASCTOR
Template: T133139
Prelogin: P640497
TSR: 110 - Brian Ford
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: H = Hold

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ___ UPS ___ FedEx ___ Courier _____

Tracking # 7215 4516 3151 7466 1466 1675

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	3/1/18	1500	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 0.6 °C Bottles Received: 8

Date: 3/2/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ESC Lab Sciences
Non-Conformance Form

Login #: L974248	Client: CASASCTOR	Date:	Evaluated by:

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	X	Login Clarification Needed		**If Broken Container:**
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: What TPH for GW sample DW GW at 1100?

Client informed by:		Call		Email	x	Voice Mail		Date:03/02/18	Time:1415
TSR Initials:bjf	Client Contact: Joel Mattecheck								

Login Instructions:

TPH=NWTPHDXNOSGT and NWTPHGX

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APPENDIX D

CALCULATIONS FOR 95% UPPER CONFIDENCE LEVEL ON THE MEAN ARSENIC AND LEAD CONCENTRATIONS

	As
1	3.34
2	3.86
3	3.16
4	23
5	1.86
6	5.43
7	1.19
8	4.7
9	8.16
10	15.9
11	25.8
12	5.5
13	2.92
14	4.47
15	0.997
16	19
17	14.2
18	16.8
19	2.11
20	10.1
21	7.99
22	6.54
23	13.7
24	17.7
25	4.14
26	12.9
27	2.25
28	20
29	4.19
30	13.3
31	1.41
32	15.8
33	2.74
34	18.4
35	0.869
36	14.8
37	1.75
38	11.8
39	0.809
40	11.2
41	4.26
42	15.5
43	12.2
44	11.4
45	1.96
46	3.53
47	3.59
48	4.31
49	2.51
50	24.5
51	5.07
52	11.3
53	10.9
54	20.2
55	15
56	24.9
57	4.73
58	26.9
59	12.2
60	9.31
61	2.37
62	12.1
63	7.39

1	**UCL Statistics for Uncensored Full Data Sets**											
2												
3	User Selected Options											
4	Date/Time of Computation	ProUCL 5.17/26/2018 2:51:01 PM										
5	From File	Data-AS-All-New.xls										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10												
11	**As**											
12												
13	**General Statistics**											
14	Total Number of Observations	63				Number of Distinct Observations	62					
15						Number of Missing Observations	0					
16	Minimum	0.809				Mean	9.538					
17	Maximum	26.9				Median	7.99					
18	SD	7.259				Std. Error of Mean	0.915					
19	Coefficient of Variation	0.761				Skewness	0.709					
20												
21	**Normal GOF Test**											
22	Shapiro Wilk Test Statistic	0.895				**Shapiro Wilk GOF Test**						
23	5% Shapiro Wilk P Value	1.0743E-5				Data Not Normal at 5% Significance Level						
24	Lilliefors Test Statistic	0.171				**Lilliefors GOF Test**						
25	5% Lilliefors Critical Value	0.111				Data Not Normal at 5% Significance Level						
26	**Data Not Normal at 5% Significance Level**											
27												
28	**Assuming Normal Distribution**											
29	**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**						
30	95% Student's-t UCL	11.07				95% Adjusted-CLT UCL (Chen-1995)	11.13					
31						95% Modified-t UCL (Johnson-1978)	11.08					
32												
33	**Gamma GOF Test**											
34	A-D Test Statistic	0.818				**Anderson-Darling Gamma GOF Test**						
35	5% A-D Critical Value	0.769				Data Not Gamma Distributed at 5% Significance Level						
36	K-S Test Statistic	0.114				**Kolmogorov-Smirnov Gamma GOF Test**						
37	5% K-S Critical Value	0.114				Detected data appear Gamma Distributed at 5% Significance Level						
38	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
39												
40	**Gamma Statistics**											
41	k hat (MLE)	1.511				k star (bias corrected MLE)	1.449					
42	Theta hat (MLE)	6.313				Theta star (bias corrected MLE)	6.581					
43	nu hat (MLE)	190.4				nu star (bias corrected)	182.6					
44	MLE Mean (bias corrected)	9.538				MLE Sd (bias corrected)	7.923					
45						Approximate Chi Square Value (0.05)	152.4					
46	Adjusted Level of Significance	0.0462				Adjusted Chi Square Value	151.7					
47												
48	**Assuming Gamma Distribution**											
49	95% Approximate Gamma UCL (use when n>=50)	11.43				95% Adjusted Gamma UCL (use when n<50)	11.48					
50												
51	**Lognormal GOF Test**											
52	Shapiro Wilk Test Statistic	0.933				**Shapiro Wilk Lognormal GOF Test**						

53				5% Shapiro Wilk P Value		0.00263		Data Not Lognormal at 5% Significance Level				
54				Lilliefors Test Statistic		0.146		**Lilliefors Lognormal GOF Test**				
55				5% Lilliefors Critical Value		0.111		Data Not Lognormal at 5% Significance Level				
56				**Data Not Lognormal at 5% Significance Level**								
57												
58				**Lognormal Statistics**								
59				Minimum of Logged Data		-0.212		Mean of logged Data				1.889
60				Maximum of Logged Data		3.292		SD of logged Data				0.946
61												
62				**Assuming Lognormal Distribution**								
63				95% H-UCL		13.51		90% Chebyshev (MVUE) UCL				14.52
64				95% Chebyshev (MVUE) UCL		16.46		97.5% Chebyshev (MVUE) UCL				19.15
65				99% Chebyshev (MVUE) UCL		24.44						
66												
67				**Nonparametric Distribution Free UCL Statistics**								
68				**Data appear to follow a Discernible Distribution at 5% Significance Level**								
69												
70				**Nonparametric Distribution Free UCLs**								
71				95% CLT UCL		11.04		95% Jackknife UCL				11.07
72				95% Standard Bootstrap UCL		10.99		95% Bootstrap-t UCL				11.22
73				95% Hall's Bootstrap UCL		11.19		95% Percentile Bootstrap UCL				11.04
74				95% BCA Bootstrap UCL		11.11						
75				90% Chebyshev(Mean, Sd) UCL		12.28		95% Chebyshev(Mean, Sd) UCL				13.52
76				97.5% Chebyshev(Mean, Sd) UCL		15.25		99% Chebyshev(Mean, Sd) UCL				18.64
77												
78				**Suggested UCL to Use**								
79				95% Approximate Gamma UCL		11.43						
80												
81	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test											
82	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL											
83												
84	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
85	Recommendations are based upon data size, data distribution, and skewness.											
86	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
87	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
88												

1	Pb_0-0.5
2	2.61
3	163
4	5.78
5	82.8
6	3.45
7	12.2
8	46.5
9	4.8
10	26.6
11	55
12	49.7
13	33.7
14	25.2
15	50.6
16	40
17	61.1
18	34.7
19	60.1
20	61.5
21	47.1
22	50.5
23	9.1
24	107
25	51.1
26	15.3
27	32.6
28	109
29	79.6
30	103
31	102
32	115
33	417
34	82.2

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	ProUCL 5.17/27/2018 9:27:56 AM
From File	data-UCL_Pb.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Pb_0-0.5

General Statistics

Total Number of Observations	33	Number of Distinct Observations	33
		Number of Missing Observations	0
Minimum	2.61	Mean	64.84
Maximum	417	Median	50.5
SD	73.92	Std. Error of Mean	12.87
Coefficient of Variation	1.14	Skewness	3.579

Normal GOF Test

Shapiro Wilk Test Statistic	0.65	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.931	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.215	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.152	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	86.64	95% Adjusted-CLT UCL (Chen-1995)	94.57
		95% Modified-t UCL (Johnson-1978)	87.97

Gamma GOF Test

A-D Test Statistic	0.523	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.773	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.104	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.157	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.134	k star (bias corrected MLE)	1.051
Theta hat (MLE)	57.18	Theta star (bias corrected MLE)	61.69
nu hat (MLE)	74.84	nu star (bias corrected)	69.37
MLE Mean (bias corrected)	64.84	MLE Sd (bias corrected)	63.25
		Approximate Chi Square Value (0.05)	51.2
Adjusted Level of Significance	0.0419	Adjusted Chi Square Value	50.39

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	87.86	95% Adjusted Gamma UCL (use when n<50)	89.26

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.928	**Shapiro Wilk Lognormal GOF Test**

53				5% Shapiro Wilk Critical Value		0.931		Data Not Lognormal at 5% Significance Level				
54				Lilliefors Test Statistic		0.165		**Lilliefors Lognormal GOF Test**				
55				5% Lilliefors Critical Value		0.152		Data Not Lognormal at 5% Significance Level				
56				**Data Not Lognormal at 5% Significance Level**								
57												
58				**Lognormal Statistics**								
59				Minimum of Logged Data		0.959		Mean of logged Data			3.67	
60				Maximum of Logged Data		6.033		SD of logged Data			1.138	
61												
62				**Assuming Lognormal Distribution**								
63				95% H-UCL		126.8		90% Chebyshev (MVUE) UCL			124.1	
64				95% Chebyshev (MVUE) UCL		147.4		97.5% Chebyshev (MVUE) UCL			179.7	
65				99% Chebyshev (MVUE) UCL		243.2						
66												
67				**Nonparametric Distribution Free UCL Statistics**								
68				**Data appear to follow a Discernible Distribution at 5% Significance Level**								
69												
70				**Nonparametric Distribution Free UCLs**								
71				95% CLT UCL		86.01		95% Jackknife UCL			86.64	
72				95% Standard Bootstrap UCL		85.86		95% Bootstrap-t UCL			104.4	
73				95% Hall's Bootstrap UCL		182.9		95% Percentile Bootstrap UCL			87.19	
74				95% BCA Bootstrap UCL		98.2						
75				90% Chebyshev(Mean, Sd) UCL		103.4		95% Chebyshev(Mean, Sd) UCL			120.9	
76				97.5% Chebyshev(Mean, Sd) UCL		145.2		99% Chebyshev(Mean, Sd) UCL			192.9	
77												
78				**Suggested UCL to Use**								
79				95% Adjusted Gamma UCL		89.26						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	Recommendations are based upon data size, data distribution, and skewness.											
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
84	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
85												


Cascadia
Associates, LLC

EXHIBIT "12"

July 25, 2024

Jack Galpin
744 Cardley Ave,
Medford, Oregon 97504

Re: Assessment of Potential Groundwater Impacts to Shallow Wells
Proposed Sunnybrook Development
4630 Hamrick Road, Central Point, Oregon
32-24007645

Dear Mr. Galpin:

This letter provides the results of an assessment of shallow wells in the vicinity of the proposed Sunnybrook Development at 4630 Hamrick Road in Central Point, Oregon for Galpin Homes, LLC (Galpin). Apex Companies, LLC (Apex) understands that the City of Central Point requires an evaluation of the potential for impacts to the water levels in domestic wells near the development due to the installation of utilities within the subdivision. The results of the assessment and an evaluation of potential impacts to groundwater elevations in the vicinity of the proposed development of the Site are provided below.

SHALLOW WELL ASSESSMENT

Apex reviewed Oregon Water Resources Department (OWRD) online files to identify registered wells within 1,000 feet of the proposed Sunnybrook Development. Additionally, Apex reviewed the *White Hawk Development – Well Survey Results* letter completed for the White Hawk Transit Oriented Development project (Apex, 2016). Sixteen wells were identified as being potentially located within 1,000 feet of the proposed Sunnybrook Development. Table 1 summarizes the information on the identified wells, and Figure 2 shows approximate well locations by parcel. Exact well locations have not been identified, and it is unknown how many of the wells are still in use. OWRD well logs, where available, are included in Attachment A, and Attachment B includes the 2016 *White Hawk Development – Well Survey Results* letter (Apex, 2016). Three wells were previously identified as potentially being within the proposed Sunnybrook Development area; however, only one well has been located during pre-development surveys.

The well logs in the OWRD database suggest that, in the vicinity of the development, the soil consists of clay to depths of 6 to 12 feet below ground surface (bgs) underlain by sand and gravel to at least 40 to 50 feet bgs in most locations. The top of claystone, siltstone, or sandstone is present in many of the wells at depths ranging from 4 to 60 feet bgs.

Based on the information obtained from the OWRD well logs and the 2016 well survey for White Hawk development, the completed well depths within the vicinity of the proposed development range from 10 to 50 feet bgs, where known. The static water level at the time of drilling reported on the well logs ranges from 4 feet bgs in well 13 (JACK12241) to 41 feet bgs in well 6 (JACK52926), both located to the southwest of the property. At least three of the well logs are for well deepening (well 6, well 9, and well 13), indicating that there is a long-term lowering in the water table in the area and shallow static water levels reported at the time of drilling may no longer be representative of site conditions. The depth to static water in wells drilled since 1990 ranges from 12 to 41 feet bgs and is likely more representative of current conditions.

EVALUATION OF THE POTENTIAL FOR IMPACTS DURING EXCAVATION AND UTILITY INSTALLATION

Depth to first encountered water for shallow wells in the area appears to be at least 12 feet bgs as described above. Based on the OWRD well logs, it appears that most (if not all) of the wells are sealed to at least 9 feet bgs and are accessing water below that depth.

During development, imported soil will be used to raise the existing grade by 3 to 4 feet. Based on development plans provided by Galpin, utilities will be installed at a maximum depth of 9 feet below existing grade, and in many cases at shallower depths. It is unlikely that the installation of utilities in the subdivision will intercept the water table. In the unlikely event that groundwater is encountered, local groundwater levels could be impacted by the following:

- Dewatering during construction;
- Infiltration into drain lines; or
- Longitudinal flow in trench backfill.

If dewatering is necessary during construction, the water table could be lowered locally and may impact the static water levels in nearby water wells. This effect would be temporary, and conditions would be expected to return to normal within a short period after completion of the dewatering activities.

Long-term, if the storm or sanitary lines leak, infiltration into the lines could potentially lower the water table in the vicinity of the utilities to the base of the lines; however, this effect would likely extend only a few feet from the utility trenches. This potential impact can be addressed through construction methodologies that meet industry performance standards and city codes.

Given the native soil conditions (clay soils in the upper 6 to 12 feet), the trench backfill could potentially be more permeable than the native soil in the areas where the native clay extends below the bottom depth of the utility bedding. Depending on the depth to which the trench penetrates the water table, longitudinal flow could occur along the trench alignment; however, the influence on the shallow water table would likely be limited to only a few feet laterally from the utility trench.

POTENTIAL MITIGATION

The proposed Sunnybrook Development is not expected to impact groundwater levels in local wells, as excavation and development plans provided by Galpin do not include depths that would likely be below the water table. Additionally, the development will be provided with municipal water supply and sewer services and is not anticipated to impact water availability. If installation does extend below the water table, low-permeability plugs can be used to inhibit flow along the trench line. Assuming crushed rock is used for trench backfill, adding 5 percent (dry weight) bentonite to the backfill would be sufficient to reduce the permeability of the backfill. The bentonite plugs should be placed from the bottom of the trench to 1 foot above the water table in the full width of the trench with a minimum length of 5 feet. A plug should be placed at the low end of each main sewer line.

If you have any questions or need further information, please contact us at your convenience.

Sincerely,

Tess Chadil
Project Manager

Steve Misner, R.G.
Senior Associate Hydrogeologist

ATTACHMENTS

Table 1 – Galpin Homes Well Log Search

Figure 1 – Site Location Map
Figure 2 – Location of Wells Near Proposed Sunnybrook Development

Attachment A – OWRD Well Logs
Attachment B – White Hawk Development – Well Survey Results (Apex 2016)

REFERENCES

Apex Companies, LLC, 2016. *White Hawk Development – Well Survey Results*, *Central Point, Oregon*. November 16, 2016.

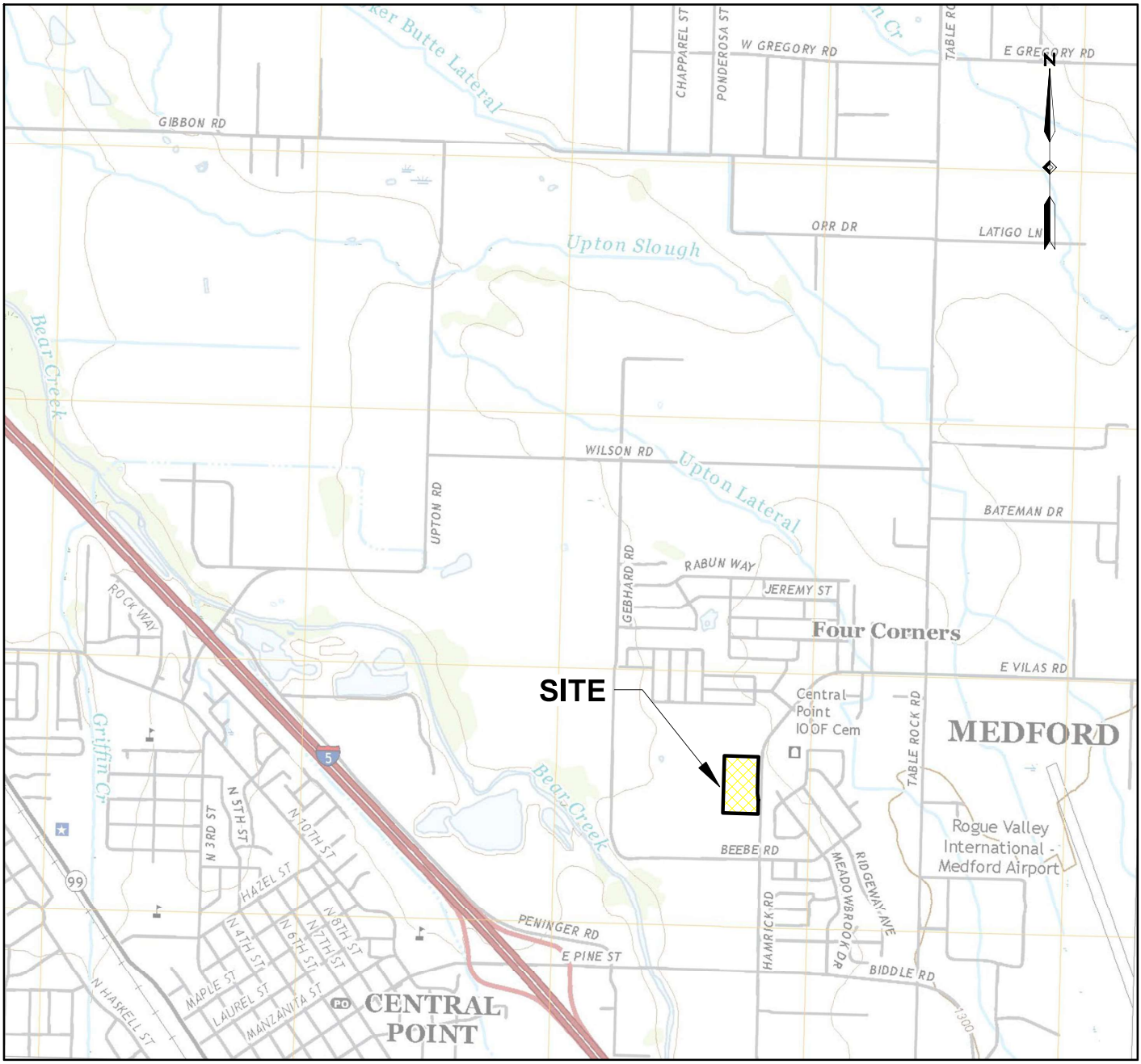
"Oregon Water Resources Department Well Report Query." *Well Report Query*, Oregon Water Resources Department, apps.wrd.state.or.us/apps/gw/well_log/Default.aspx. Accessed 25 July 2024.

Table 1. Galpin Homes Well Log Search
Proposed Sunnybrook Development
4613 Hamrick Road Central Point, Oregon

Shallow Wells Within 1,000 feet of Proposed Sunnybrook Development									
Map ID	**Location**	**Tax Lot**	**Street Number**	**Street**	**Owner**	**Well Log #**	**Well Depth**	**Date Installed**	**Static Water Level**
W-1	372W01	1100	4475	Hamrick Rd	Muse	JACK 12222	60	1960	25
W-2	372W01	1100	4475	Hamrick Rd	Muse	JACK 62111	45	2015	12
W-3	372W01	Unk.	Unk.	Unk.	Gebhard	JACK 34914	10	Pre 1948	7
W-4	372W01	2500	507	Beebe Rd	Beebe	JACK 52862	144	1998	12
W-5	372W02	Unk.	Unk.	Unk.	Childress	JACK 34915	14	1938	10
W-6	372W02	200	511	Beebe Rd	Mingus	JACK52926	204 feet	1999	41
W-7	372W02	200	511	Beebe Rd	Mingus	JACK55868		2003	12
W-8	372W02	200	511	Beebe Rd	Mingus	JACK52660	59 feet	1998	41
W-9	372W02	3100	600	Beebe Rd	Shep. of Valley	JACK 30394	90	1990	17
W-10	372W02	Unk.	Unk.	Beebe Rd	Beebe	JACK 12262	12	1966	9
W-11	372W02	200	4848	Gebhard Rd	Himmelman	JACK 33759	100	1994	22
W-12	372W02	2700	718	Beebe Rd	Nixon	JACK 12239	100	1989	28
W-13	372W02	3000	628	Beebe Rd	Picollo	JACK12241	60 feet	1983	4
W-14	372W02	3000	628	Beebe Rd	Picollo	n/a	12 feet	Unk.	12
W-15	372W02	3000	628	Beebe Rd	Picollo	n/a	34 feet	1940	34
W-16	372W01	Unk.	4713	Hamrick Rd	Houser	JACK 12201	37	1963	12

Notes:

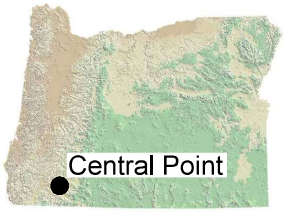
1. See Figure 1 for approximate well location
2. Static water level as measured at time of drilling



Sams Valley, Oregon

United States Geological Survey
7.5 Minute Series Topographic Map
Contour Interval: 20 feet
Scale: 1 inch = 24,000 feet
Date: 2020

0 2,000 4,000
Scale in Feet



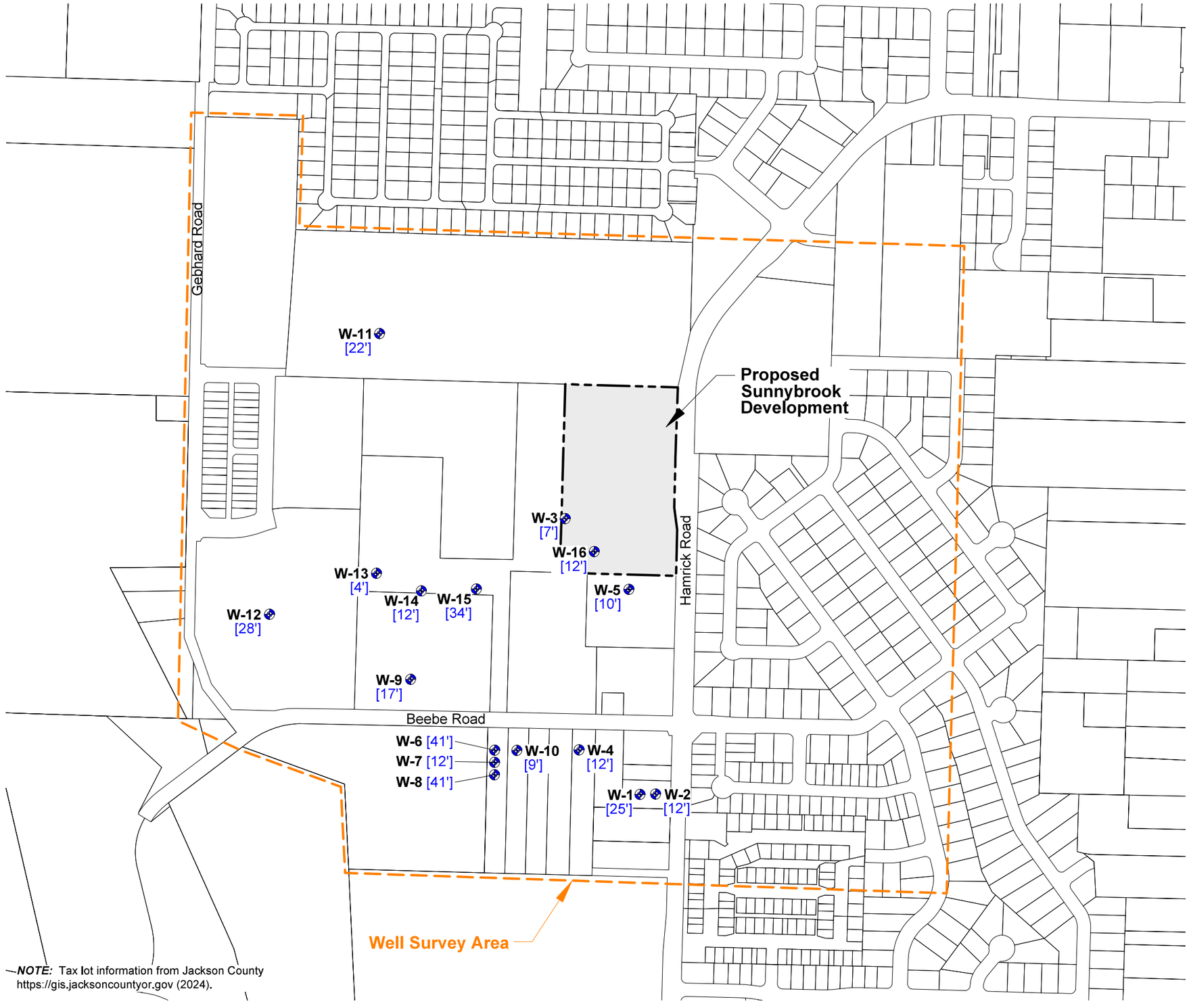
OREGON

Site Location Map

Assessment of Groundwater Impacts to Shallow Wells
4630 Hamrick Road
Central Point, Oregon

Apex Companies, LLC 15618 SW 72nd Avenue Tigard, Oregon 97224	Project Number: 32-24007645	Drawn: JP	Approved: TC	Figure 1
	July 2024			

I:\Client\Galpin Homes, LLC\Central Point\32-24007645 01 (Site Location).dwg Modified 7/25/2024 by JPoore



Legend:

W-12 [28'] Approximate Water Well Location

[Static Water Level] in Feet Below Ground Surface

N

0 400 800

Scale in Feet

Location of Wells Near Proposed Sunnybrook Development

Assessment of Groundwater Impacts to Shallow Wells
4630 Hamrick Road
Central Point, Oregon

Apex Companies, LLC
15618 SW 72nd Avenue
Tigard, Oregon 97224

Project Number:	Drawn:	Approved:	Figure
32-24007645	JP	TC	2
July 2024			

I:\Client\Galpin Homes, LLC\Central Point\32-24007645 02 (Well Locations).dwg Modified 7/25/2024 by JPoore

Attachment A

OWRD Well Logs

JACK 12201

RECEIVED AUG 23 1963

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2W-1M

State Permit No.

(1) OWNER:
Name Soren Hansen
Address 4173 Hamick Rd
Central Point, Ore.

(2) LOCATION OF WELL:
County Jackson Driller's well number 268
NW ¼ SW ¼ Section 1 T. 37S R. 2W W.M.
Bearing and distance from section or subdivision corner

(3) TYPE OF WORK (check):
New Well ☑ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☑ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☐ Jetted ☐
Dug ☐ Bored ☐

(6) CASING INSTALLED:
Threaded ☐ Welded ☑
6" Diam. from 0 ft. to 35½ ft. Gage .25
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☑ Yes ☐ No
Type of perforator used
Size of perforations ¼ in. by ⅛ in.
12 perforations from 32 ft. to 34½ ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☑ No
Manufacturer's Name
Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal Bentonite & Rings
Depth of seal 30 ft. Was a packer used? No
Diameter of well bore to bottom of seal 6 in.
Were any loose strata cemented off? ☐ Yes ☑ No Depth
Was a drive shoe used? ☑ Yes ☐ No
Was well gravel packed? ☐ Yes ☑ No Size of gravel:
Gravel placed from ft. to ft.
Did any strata contain unusable water? ☐ Yes ☐ No
Type of water? Depth of strata
Method of sealing strata off Hydrated Bentonite

(10) WATER LEVELS:
Static level 12 ft. below land surface Date 7-28-63
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☑ No If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "
Bailer test 17 gal./min. with 10 ft. drawdown after 1 hrs.
Artesian flow g.p.m. Date
Temperature of water 57 Was a chemical analysis made? ☐ Yes ☑ No

(12) WELL LOG:
Diameter of well below casing 6
Depth drilled 40 ft. Depth of completed well 36½ ft.
Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Sticky Top Soil DB Br.	0	1
Clay brown	1	12
Clay & sand "	12	16
Clay sand Gravel Cobbles "	16	21
Conglomerate Firm	21	33
" & Cobbles Tan	33	40

Work started 7-25 1963 Completed 7-28 1963
Date well drilling machine moved off of well 7-29 1963

(13) PUMP:
Manufacturer's Name Universal
Type: Jet H.P. 1

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
NAME Shilts Bros. Well Drilling (Person, firm or corporation) (Type or print)
Address 2034 W. Main Medford
Drilling Machine Operator's License No. 94
[Signed] (Water Well Contractor)
Contractor's License No. 105 Date 7-1, 1963

(USE ADDITIONAL SHEETS IF NECESSARY)

RECEIVED
MAR 8 1960
STATE ENGINEER
SALEM, OREGON

JACK 1222

File Original and First Copy with the STATE ENGINEER, SALEM, OREGON

WATER WELL REPORT
STATE OF OREGON

State Well No. 37/2W-1

State Permit No.

(1) OWNER:
Name MR. T. J. MUSE
Address 4475 HAMRICK ROAD
CENTRAL POINT, ORE

(2) LOCATION OF WELL:
County Jackson Owner's number, if any—
¼ ¼ Section T. 37 R. 2W W.M.
Bearing and distance from section or subdivision corner Claim 55
TOWNSHIP 37 SOUTH RANGE 2 WEST OF THE WILLAMETTE MERIDIAN JACK. CO. 1079.14' N. & E. CORNER CLAIM - N 110.0' - W 220.0' [illegible] LINE TRACT DESCRIBED VOL 284 Pg 213 DEED RECORDS S 110.0' E 220.0' TO PT BEGINNING

(3) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):
Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☒ Jetted ☐
Dug ☐ Bored ☐

(6) CASING INSTALLED:
Threaded ☐ Welded ☒
6 " Diam. from 0 ft. to 45 ft. Gage 1/4
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☒ Yes ☐ No
Type of perforator used
SIZE of perforations ¼ in. by 6 in.
9 perforations from 40 ft. to 45 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☒ No
Manufacturer's Name
Type Model No.
Dia. Slot size Set from ft. to ft.
Dia. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from ft. to ft.
Was a surface seal provided? ☐ Yes ☐ No To what depth? ft.
Material used in seal—
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 25 ft. below land surface Date 2-29-60
Artesian pressure lbs. per square inch Date

Log Accepted by:
[Signed] T J Muse (Owner) Date MAR 7, 1960

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☒ No If yes, by whom? -
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "
Bailer test 30 gal./min. with 45 ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? ☐ Yes ☒ No

(12) WELL LOG:
Diameter of well 6 inches.
Depth drilled 60 ft. Depth of completed well 60 ft.
Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
STICKY SOIL	0	6
RIVER SAND & GRAVEL	6	45
LOSE BROWN SHALE	45	60

Work started Feb. 25 1960 Completed Feb. 29 1960

(13) PUMP:
Manufacturer's Name Advance
Type: Set H.P. 1/2

Well Driller's Statement:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Crater Well Drilling (Person, firm, or corporation) (Type or print)
Address 3061 Crater Lake Ave.
Driller's well number Medford, Oregon
[Signed] (Well Driller)
License No. 83 Date , 19

(USE ADDITIONAL SHEETS IF NECESSARY)

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

JACK 12239

RECEIVED JUL 27 1989 WATER RESOURCES DEPT SALEM, OREGON

37S/2W/2

(START CARD) # 10374

(1) OWNER:

Well Number:

Name MARGARET NIXON

Address 718 BEEBE ROAD

City CENTRAL POINT State OR Zip 97502

(2) TYPE OF WORK:

[X] New Well [ ] Deepen [ ] Recondition [ ] Abandon

(3) DRILL METHOD

[X] Rotary Air [ ] Rotary Mud [ ] Cable

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes [ ] No [X] Depth of Completed Well 100 ft.

Explosives used Yes [ ] No [X] Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
10"	0	50	CEMENT	0	50	13SACKS
6"	50	100				

How was seal placed: Method [ ] A [ ] B [XX] C [ ] D [ ] E

[ ] Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+1	59	.250	XX		XX	
Liner:	4"	0	100			XX	XX	

Final location of shoe(s) 59

(7) PERFORATIONS/SCREENS:

XX Perforations Method SAW

[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
40	60	1X8	X8 60				XX

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [XX] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
12 GPM	72	100	1 hr.

Temperature of water Depth Artesian Flow Found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County JACKSON Latitude ' " Longitude ' "

Township 37N N or S, Range 2W E or W, WM.

Section 02 ¼ ¼

Tax Lot 2700 Lot Block Subdivision

Street Address of Well (or nearest address) SAME AS #1

(10) STATIC WATER LEVEL:

28 ft. below land surface. Date 7-6-89

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 60

From	To	Estimated Flow Rate	SWL
60	90	12GPM	28

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
SOIL, BROWN	0	2	
CLAY, BROWN	2	6	
DECOMPOSED, GRANITE	6	23	
CLAY, BROWN	23	30	
GRAVEL, SMALL	30	40	
CLAY, BLUE	40	46	
CLAYSTONE, BLUE, SOFT	46	100	28

Date started 7-6-89 Completed 7-6-89

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number

Signed MEDINA WELL DRILLING Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1207

Signed Joaquin Medina Date 7-9-89

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/88

WATER WELL REPORT
STATE OF OREGON

JACK 1224

RECEIVED
FEB 22 1983
WATER RESOURCES DEPT.
SALEM, OREGON

State Well No. 37S/2W-2
State Permit No.
Deepened

(1) OWNER:
Name Gus Picollo
Address 628 Bee Be Road
City Central Point State Oregon

(2) TYPE OF WORK (check):
New Well ☐ Deepening ☒ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:
Rotary Air ☒ Driven ☐
Rotary Mud ☐ Dug ☐
Cable ☐ Bored ☐

(4) PROPOSED USE (check):
Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐
Thermal: ☐ Withdrawal ☐ Reinjection ☐

(5) CASING INSTALLED:
Steel ☐ Plastic ☐
Threaded ☐ Welded ☐
..." Diam. from ... ft. to ... ft. Gauge ...
..." Diam. from ... ft. to ... ft. Gauge ...

LINER INSTALLED:
..." Diam. from ... ft. to ... ft. Gauge ...

(6) PERFORATIONS:
Perforated? ☐ Yes ☐ No
Type of perforator used
Size of perforations in. by in.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.

(7) SCREENS:
Well screen installed? ☐ Yes ☐ No
Manufacturer's Name ...
Type ... Model No. ...
Diam. ... Slot Size ... Set from ... ft. to ... ft.
Diam. ... Slot Size ... Set from ... ft. to ... ft.

(8) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☐ No If yes, by whom?
... gal./min. with ... ft. drawdown after ... hrs.
" " " "
Air test ... gal./min. with drill stem at ... ft. ... hrs.
Bailer test ... gal./min. with ... ft. drawdown after ... hrs.
Artesian flow ... g.p.m.
Temperature of water Depth artesian flow encountered ... ft.

(9) CONSTRUCTION:
Special standards: Yes ☐ No ☐
Well seal—Material used ...
Well sealed from land surface to ... ft.
Diameter of well bore to bottom of seal ... in.
Diameter of well bore below seal ... in.
Number of sacks of cement used in well seal ... sacks
How was cement grout placed? ...
Was pump installed? ... Type ... HP ... Depth ... ft.
Was a drive shoe used? ☐ Yes ☐ No Plugs ... Size: location ... ft.
Did any strata contain unusable water? ☐ Yes ☐ No
Type of Water? depth of strata
Method of sealing strata off
Was well gravel packed? ☐ Yes ☐ No Size of gravel: ...
Gravel placed from ... ft. to ... ft.

(10) LOCATION OF WELL:
County Jackson Driller's well number 83-3
¼ ¼ Section 2 T. 37S R. 2W W.M.
Tax Lot # 3000 Lot Blk Subdivision
Address at well location: 628 Bee Be Road
Central Point, Oregon

(11) WATER LEVEL: Completed well.
Depth at which water was first found see below ft.
Static level 4 ft. below land surface. Date 1-18-83
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:
Diameter of well below casing 6 inch
Depth drilled 35 ft. Depth of completed well 45 ft.
Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Increased air return from 75 GPM to 250+ GPM.			
Formations:			
Medium sand with coarse gravel	25	60	4

Work started 1-18 19 83 Completed 1-18 19 83
Date well drilling machine moved off of well 1-18 19 83

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] John Studebaker (Drilling Machine Operator) Date 2-17, 1983
Drilling Machine Operator's License No. 1008

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Name Studebaker Well Drilling (Person, firm or corporation) (Type or print)
Address 4876 Highway 66 Ashland, Oregon 97520
[Signed] John Studebaker (Water Well Contractor)
Contractor's License No. 679 Date 2-17, 1983

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the WATER RESOURCES DEPARTMENT, SALEM, OREGON 97310 within 30 days from the date of well completion.

SP*12658-690

JACK
12262

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

RECEIVED
MAY 31 1966
STATE ENGINEER
SALEM, OREGON

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2W-2
State Permit No.

(1) OWNER:
Name K. W. BEEBE
Address 587 BEEBE RD
CENTRAL POINT ORE

(2) LOCATION OF WELL:
County JACKSON Driller's well number
¼ ¼ Section 2 T. 37S R. 2W W.M.
Bearing and distance from section or subdivision corner
SOUTH SIDE OF BEEBE RD
HALF WAY BETWEEN
K.W BEEBE HOUSE AND
C.R BEEBE HOUSE

(3) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☒ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☐ Jetted ☐
Dug ☐ Bored ☒

(6) CASING INSTALLED:
Threaded ☐ Welded ☐
18 " Diam. from 1FT ABS ft. to 12 ft. Gage CONCRETE
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☒ Yes ☐ No
Type of perforator used
Size of perforations 1 INCH in. by 1 INCH in. 1X1 O
1 INCH perforations from 9 ft. to 12 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☒ No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal CONCRETE
Depth of seal 9 ft. Was a packer used? NO
Diameter of well bore to bottom of seal 24 in.
Were any loose strata cemented off? ☐ Yes ☒ No Depth
Was a drive shoe used? ☐ Yes ☒ No
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from NONE ft. to ft.
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 9 ft. below land surface Date 5-16-66
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☒ Yes ☐ No If yes, by whom? OWNER
Yield: 30 gal./min. with ft. drawdown after 1 hrs.
" " " "
" " " "
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 50 Was a chemical analysis made? ☐ Yes ☒ No

(12) WELL LOG:
Diameter of well below casing NONE
Depth drilled 12 ft. Depth of completed well 12 ft.
Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
BLACK CLAY	0	4
BROWN CLAY	4	7
MEDIUM FINE SAND	7	9
SAND-GRAVEL	9	12
LARGE COBBLES		

Work started 5-14 1966 Completed 5-14 1966
Date well drilling machine moved off of well 5-14 1966

(13) PUMP:
Manufacturer's Name ?
Type: ? H.P. ?

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME LLOYD K. FISCHER
(Person, firm or corporation) (Type or print)
Address 1021 VAWTER RD
Drilling Machine Operator's License No. 43
[Signed] Lloyd K. Fischer
(Water Well Contractor)
Contractor's License No. 346 Date 5-16, 1966

(USE ADDITIONAL SHEETS IF NECESSARY)

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

Jack30894

37S/2W/2

(START CARD) # 21199

(1) OWNER:

Well Number:

Name SHEPPARD OF THE VALLEY/ARCHDIOCESE/PORTLAND

Address 600 BEEBE ROAD

City CENTRAL POINT State OR Zip 97502

(2) TYPE OF WORK:

☐ New Well ☒ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other

(4) PROPOSED USE:

☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes ☐ No ☒ Depth of Completed Well 90 ft.

Explosives used Yes ☐ No ☒ Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
6"	68	90	DEEPENING			

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	N/A				☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	4"	0	90	160	☐	☒	☐	☐
					☐	☐	☐	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

☒ Perforations Method SAW

☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
30	90	1X8X8	60			☐	☒
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
8GPM		90	1 hr.

Temperature of water 54 Depth Artesian Flow Found

Was a water analysis done? ☐ Yes By whom

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County JACKSON Latitude ' " Longitude ' "

Township 37S N or S, Range 2W E or W, WM.

Section 2 ¼ ¼

Tax Lot 3100 Lot Block Subdivision

Street Address of Well (or nearest address) SAME AS #1

(10) STATIC WATER LEVEL:

17 ft. below land surface. Date 9-14-90

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 17SWL

From	To	Estimated Flow Rate	SWL
75	85	8GPM	17

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
CLAYSTONE, BLUE, SOFT	68	90	17

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OCT - 3 1990

WATER RESOURCES DEPT.
SALEM, OREGON

Date started 9-14-90 Completed 9-14-90

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number

Signed MEDINA WELL DRILLING Date

3286 Hanley Road
Central Point, OR 97502

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1207

Signed Joaquin Medina Date 9-17-90

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/88

14

JACK 33759

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OCT 1 3 1994

WATER RES... SALEM, OREGON

37S/2W/26c

JCWP#491-94W

STATE OF OREGON WATER WELL REPORT

(as required by ORS 537.765)

Gribble Well Drilling Nic. (START CARD) # 65619

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number 1

Name Steve Himmelman

Address P.O. Box 411

City Jacksonville State Ore Zip 97530

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 100 ft.

Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
10"	0	35	Bent	0	35	1150 lbs
6"	35	100				

How was seal placed: Method [ ]A [ ]B [ ]C [ ]D [ ]E

[X] Other Poured Dry

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+1	59	250	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:	4"	0	100	160	[ ]	[X]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s) 59'

(7) PERFORATIONS/SCREENS:

[X] Perforations Method Saw

[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
60	100	10"	80	1/8		[ ]	[X]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
30		100	1 hr.

Temperature of water 56 Depth Artesian Flow Found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Jackson Latitude Longitude

Township 37S N or S Range 2W E or W. WM.

Section 2 SW 1/4 NW 1/4

Tax Lot 200 Lot Block Subdivision

Street Address of Well (or nearest address) 4848 Gebhard Rd.

Central Point, Ore. 97502

(10) STATIC WATER LEVEL:

22 ft. below land surface. Date 10/5/94

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 85'

From	To	Estimated Flow Rate	SWL
85	88	30	22

(12) WELL LOG:

Ground Elevation

Material	From	To	SWL
Soil Brown	0	8	
Gravel & Clay Brown	8	19	
Gravel Med. Brown	19	27	
Claystone Brown	27	48	
Claystone Gray	48	100	22

Date started 10/5/94 Completed 10/5/94

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number

Signed Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 705

Signed Date 10-18-94

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

STATE ENGINEER
Salem, Oregon

JACK 34914

Well Record

STATE WELL NO. 37/2W-1E(1)
COUNTY Jackson
APPLICATION NO. GR-534

OWNER: Edwin Gebhard

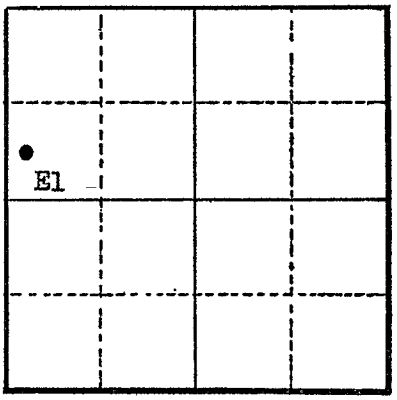
MAILING ADDRESS:

CITY AND STATE: Central Point, Oregon

LOCATION OF WELL: Owner's No.

SW ¼ NW ¼ Sec. 1 T. 37 N. S., R. 2 E. W., W.M.

Bearing and distance from section or subdivision corner 1920' S of N line Sec. 1, 75' E of W line Sec. 1



Altitude at well 1260

TYPE OF WELL: Dug Date Constructed Previous to '48

Depth drilled 10 Depth cased 10

Section 1

CASING RECORD:

5½' diameter casing
0 to 4' cement
4 to 10' galvanized steel

FINISH:

AQUIFERS:

WATER LEVEL:

7

PUMPING EQUIPMENT: Type Rainmaster H.P. 11
Capacity 180 G.P.M.

WELL TESTS:
Drawdown 2 ft. after hours 170 G.P.M.
Drawdown ft. after hours G.P.M.

USE OF WATER Irrigation 7 acres Temp. °F., 19
SOURCE OF INFORMATION GR-534
DRILLER or DIGGER
ADDITIONAL DATA:
Log Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

Sandy loam & clay	0 to 6'
Quicksand & water-bearing gravel	6 to 10'

State Printing 89316

STATE ENGINEER
Salem, Oregon

JACK
34915

Well Record

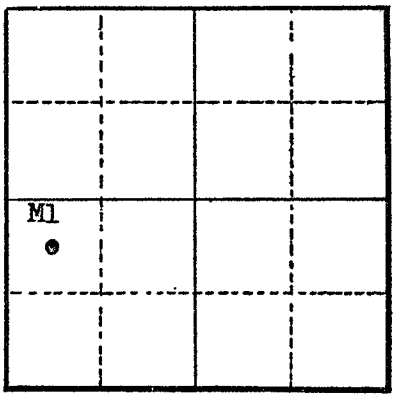
STATE WELL NO. 37/2W-1M(1)
COUNTY Jackson
APPLICATION NO. GR-726

OWNER: Walter L. Childress
MAILING ADDRESS:
CITY AND STATE: Central Point, Oregon

LOCATION OF WELL: Owner's No. 1

NW ¼ SW ¼ Sec. 1 T. 37 N./S., R. 2 E./W., W.M.

Bearing and distance from section or subdivision corner 2205.3' N. & 767.4' E. from SW cor. Sec. 1



Altitude at well 1260' Interpolated

TYPE OF WELL: Dug Date Constructed 1938

Depth drilled 14' Depth cased 13'

Section 1

CASING RECORD:

84" concrete from 0 to 13'

FINISH:

AQUIFERS:

WATER LEVEL:

10'

PUMPING EQUIPMENT: Type Elect. mtr. 1.5" cent. H.P. 2
Capacity 36 G.P.M.

WELL TESTS:
Drawdown 0 - 0.5 ft. after hours 36 G.P.M.
Drawdown ft. after hours G.P.M.

USE OF WATER Irrigation Temp. °F., 19
SOURCE OF INFORMATION GR0726
DRILLER or DIGGER Tom Harris, Gold Hill
ADDITIONAL DATA:
Log No Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

State Printing 89316

jack 5216D

STATE OF OREGON WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

WELL I.D.# ——— L 27891

(START CARD) # 87249

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number 1044-98

Name Ernest Mingus

Address 511 Beebee Rd.

City Central Point State OR. Zip 97502

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD:

☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger

☐ Other

(4) PROPOSED USE:

☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Livestock ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval ☐ Yes ☒ No Depth of Completed Well 59 ft.

Explosives used ☐ Yes ☒ No Type ——— Amount ———

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
10"	0	20	Bentonite	0	20	8 Sacks
6"	20	59				Bentonite

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☒ Other Poured Dry

Backfill placed from ——— ft. to ——— ft. Material ———

Gravel placed from ——— ft. to ——— ft. Size of gravel ———

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+2	61½	.250	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:					☐	☐	☐	☐
					☐	☐	☐	☐

Final location of shoe(s) 59

(7) PERFORATIONS/SCREENS:

☒ Perforations Method Holt Air Perf.

☐ Screens Type ——— Material ———

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
40	56	⅛ x 1	200		6	☒	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
5	18	59	1 hr.

Temperature of water 54 Depth Artesian Flow Found ———

Was a water analysis done? ☐ Yes By whom ———

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ———

Depth of strata: ———

(9) LOCATION OF WELL by legal description:

County Jackson Latitude ——— Longitude ———

Township 37 N or S Range 2 E or W. WM.

Section 02-D SW 1/4 SE 1/4

Tax Lot 200 Lot ——— Block ——— Subdivision ———

Street Address of Well (or nearest address) 511 Beebee Rd

Central Point OR.

(10) STATIC WATER LEVEL:

41 ft. below land surface. Date 10-27-98

Artesian pressure ——— lb. per square inch. Date ———

(11) WATER BEARING ZONES:

Depth at which water was first found 41'

From	To	Estimated Flow Rate	SWL
41	59	5	41

(12) WELL LOG:

Ground Elevation ———

Material	From	To	SWL
Brown clay	0	12	
Med to coarse sand + gravel	12	57	41
Soft gray claystone	57	59	41

RECEIVED
NOV 09 1998
WATER RESOURCES DEPT.
SALEM, OREGON

Date started 10-26-98 Completed 10-27-98

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number 679

Signed John Studebaker Date 11-9-98

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 360

Signed Jack R. Stutzman Date

JACK
52862

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)
Instructions for completing this report are on the last page of this form.

WELL I.D. # L 19077
START CARD # 101206

(1) OWNER: Well Number
Name Thomas + Kayce Brown
Address 507 Beebe Rd
City Central Point State OR Zip 97502

(2) TYPE OF WORK
☒ New Well ☐ Deepening ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD:
☐ Rotary Air ☐ Rotary Mud ☒ Cable ☐ Auger
☐ Other

(4) PROPOSED USE:
☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation
☐ Thermal ☐ Injection ☐ Livestock ☐ Other

(5) BORE HOLE CONSTRUCTION:
Special Construction approval ☐ Yes ☒ No Depth of Completed Well 144 ft.
Explosives used ☐ Yes ☒ No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
10"	0	19'	Bentonite	0	19'	23 sacks
6"	19'	144'				

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☒ Other Bentonite
Backfill placed from ft. to ft. Material
Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+1	65'	.250	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:					☐	☐	☐	☐
					☐	☐	☐	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:
☐ Perforations Method
☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☒ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
20 gpm	110 ft		1 hr.

Temperature of water 52° Depth Artesian Flow Found
Was a water analysis done? ☐ Yes By whom
Did any strata contain water not suitable for intended use? ☐ Too little
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other
Depth of strata:

(9) LOCATION OF WELL by legal description:
County Jackson Latitude — Longitude —
Township 37 N or S Range 2W E or W. WM.
Section 1 NW 1/4 SW 1/4
Tax Lot 2500 Lot Block Subdivision
Street Address of Well (or nearest address) 507 Beebe Rd
Central Point, OR 97502

(10) STATIC WATER LEVEL:
12 ft. below land surface. Date Nov 30, 1998
Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:
Depth at which water was first found 72 Ft

From	To	Estimated Flow Rate	SWL
72'	75'	4 gpm	20'
120'	124'	8 gpm	20'
132'	135'	8 gpm	12'

(12) WELL LOG:
Ground Elevation

Material	From	To	SWL
TOPSOIL	0	4'	
CLAYSTONE (YELLOW)	4'	19'	
CLAYSTONE + GRAVEL (GREEN)	19'	59'	
CLAYSTONE (GREY)	59'	63'	
CLAYSTONE (RED)	63'	92'	
CLAYSTONE (BLUE)	92'	144'	

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DEC 31 1998
WATER RESOURCES DEPT.
SALEM, OREGON

Date started Nov 18, 1998 Completed Nov 30, 1998

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
WWC Number 1705
Signed Scott Clifford Date Nov 30, 1998

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 172
Signed Jack N. Bartlett Date 10 Dec 98

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RECEIVED

FEB 16 1999

WATER RESOURCES DEPT.
SALEM, OREGON

JACK
52926

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form.

WELL I.D. # L 127891
START CARD # 61007

(1) OWNER: Well Number
Name Earnest Mingus
Address 511 Beebe Rd
City Central Point State OR Zip 97502

(2) TYPE OF WORK
☐ New Well ☒ Deepening ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD:
☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger
☐ Other

(4) PROPOSED USE:
☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation
☐ Thermal ☐ Injection ☐ Livestock ☐ Other

(5) BORE HOLE CONSTRUCTION:
Special Construction approval ☐ Yes ☒ No Depth of Completed Well 204 ft.
Explosives used ☐ Yes ☒ No Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
6	59	204	SEAL	NOT		Disturbed

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☐ Other
Backfill placed from ____ ft. to ____ ft. Material ____
Gravel placed from ____ ft. to ____ ft. Size of gravel ____

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	4	0	204	14	☐	☒	☒ glue	☐
					☐	☐	☐	☐

Final location of shoe(s) Existing

(7) PERFORATIONS/SCREENS:
☒ Perforations Method Saw
☐ Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
120	180	12	128	18	4"	☐	☒
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
12		203	1 hr.

Temperature of water 54 Depth Artesian Flow Found ____
Was a water analysis done? ☐ Yes By whom ____
Did any strata contain water not suitable for intended use? ☐ Too little
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ____
Depth of strata: ____

(9) LOCATION OF WELL by legal description:
County Jackson Latitude ____ Longitude ____
Township 37 N or (S) Range 2 E or (W) WM.
Section 2-D SW 1/4 SE 1/4
Tax Lot 200 Lot ____ Block ____ Subdivision ____
Street Address of Well (or nearest address) 511 Beebe Rd
Central Point OR 97502

(10) STATIC WATER LEVEL:
41 ft. below land surface. Date 1-27-99
Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:
Depth at which water was first found 78

From	To	Estimated Flow Rate	SWL
78	162	12	41

(12) WELL LOG:
Ground Elevation ____

Material	From	To	SWL
Sandstone cream	60	78	
claystone Redish	78	96	
Cemented Fine Gravel	96	152	41
Sandstone Green	152	204	

Date started 1-29-99 Completed 1-27-99

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
WWC Number ____
Signed ____ Date ____

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 679
Signed John Studebaker Date 1-28-99

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

JACK 55868

STATE OF OREGON

WATER SUPPLY WELL REPORT

(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form

WELL ID # L L62623

(START CARD) # 153911

(1) OWNER:

Well Number: L62623

Name Earnest Mingus

Address 511 Beebe Rd.

City Central Point State OR Zip 97502

(2) TYPE OF WORK:

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 55 ft.

Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
10	0	55	Bentonite	0	27	50 Sacks
			16 Sand	27	40	20 sacks
			10 x 20 Sand	40	54	20 Sacks
			Sand Gravel	54	55	

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E

[X] Other Poured Dry

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6	+2	31	.250	[X]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

[ ] Perforations Method

[X] Screens Type .020 Material Stainless

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
31	55	.020				[X]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
3 GPM	55	55	6 hr.

Temperature of Water 57 Depth Artesian Flow found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Jackson Latitude Longitude

Township 37S N or S. Range 2W E or W. of WM.

Section 2 SW 1/4 SE 1/4

Tax lot 200 Lot Block Subdivision

Street Address of Well (or nearest address) 511 Beebe Rd.

(10) STATIC WATER LEVEL:

12 ft. below land surface. Date 12/4/2002

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 8

From	To	Estimated Flow Rate	SWL
8	55	3 GPM	12

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
Top Soil	0	2	
Brown Clay	2	8	
Tan clay w/ sand gravel	8	28	
Tan sand w/ gravel	28	30	12
Tan clay w/ gravel	30	55	
Grey Silt Stone	55	56	

ASHLAND DRILLING INC
ALL AMERICAN PUMPS
600 South Pacific Hwy
Talent, OR 97540
541 488 2827

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JAN 10 2003
WATER RESOURCES DEPT.
SALEM, OREGON

Date started 12/2/2002 Completed 12/4/2002

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to my best knowledge and belief.

Signed Ashland Drilling Inc. WWC Number 1657 Date 1/6/2003

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

Signed Ashland Drilling Inc. WWC Number 1478 Date 1/6/2003

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STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

JACK 62111

5/14/2015

WELL I.D. LABEL# L 115720
START CARD # 1026408
ORIGINAL LOG # JACKSON 12222

(1) LAND OWNER

Owner Well I.D.
First Name GLADYS Last Name MUSE
Company
Address 4475 HAMMRICK RD
City CENTRAL POINT State OR Zip 97502

(2) TYPE OF WORK

☐ New Well ☐ Deepening ☐ Conversion
☒ Alteration (complete 2a & 10) ☐ Abandonment(complete 5a)

(2a) PRE-ALTERATION

	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
Casing:						○	○	☐	☐

	Material	From	To	Amt	sacks/lbs
Seal:					

(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud
☐ Reverse Rotary ☐ Other

(4) PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Community
☐ Industrial/ Commericial ☐ Livestock ☐ Dewatering
☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION

Special Standard ☐ (Attach copy)
Depth of Completed Well 45.00 ft.

BORE HOLE

Dia	From	To
6	0	60

SEAL

Material	From	To	Amt	sacks/lbs
		Calculated		
		Calculated		

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☒ Other UNDISTURBED
Backfill placed from ft. to ft. Material
Filter pack from ft. to ft. Material Size
Explosives used: ☐ Yes Type Amount

(5a) ABANDONMENT USING UNHYDRATED BENTONITE

Proposed Amount Actual Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
○	○						○	○	☐	☐
○	○						○	○	☐	☐
○	○						○	○	☐	☐
○	○						○	○	☐	☐
○	○						○	○	☐	☐

Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s)
Temp casing ☐ Yes Dia From To

(7) PERFORATIONS/SCREENS

Perforations Method
Screens Type Material

Perf/ Screen	Casing/ Screen Liner	Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size

(8) WELL TESTS: Minimum testing time is 1 hour

○ Pump ○ Bailer ○ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Temperature °F Lab analysis ☐ Yes By
Water quality concerns? ☐ Yes (describe below) TDS amount

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)

County JACKSON Twp 37.00 S N/S Range 2.00 W E/W WM
Sec 1 SW 1/4 of the NW 1/4 Tax Lot 1100
Tax Map Number Lot
Lat ° ' " or DMS or DD
Long ° ' " or DMS or DD
◉ Street address of well ○ Nearest address
4475 HAMMRICK RD CENTRAL POINT OREGON 97502

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Pre-Alteration	5/14/2015		☐	12
Completed Well			☐	

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES Depth water was first found

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
					☐	
					☐	
					☐	
					☐	
					☐	

(11) WELL LOG

Ground Elevation

Material	From	To

Date Started 5/14/2015 Completed 5/14/2015

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number Date

Signed

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1798 Date 5/14/2015

Signed GARY NEWMAN (E-filed)

Contact Info (optional) Southern Oregon Well Drilling 541-772-1177

ORIGINAL - WATER RESOURCES DEPARTMENT

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

WATER SUPPLY WELL REPORT - continuation page

JACK 62111

5/14/2015

WELL I.D. LABEL# L 115720

START CARD # 1026408

ORIGINAL LOG # JACKSON 12222

(2a) PRE-ALTERATION

Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

Material	From	To	Amt	sacks/lbs

(5) BORE HOLE CONSTRUCTION

BORE HOLE Dia	From	To	SEAL Material	From	To	Amt	sacks/ lbs
					Calculated		
					Calculated		
					Calculated		
					Calculated		

FILTER PACK

From	To	Material	Size

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

(7) PERFORATIONS/SCREENS

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size

(8) WELL TESTS: Minimum testing time is 1 hour

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Water Quality Concerns

From	To	Description	Amount	Units

(10) STATIC WATER LEVEL

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(11) WELL LOG

Material	From	To

Attachment B

White Hawk Development – Well Survey Results (Apex 2016)

November 16, 2016

John Boyd
People's Bank of Commerce
1311 East Barnett Rd.
Medford, Oregon 97504

Re: White Hawk Development – Well Survey Results
718 Beebe Road
Central Point, Oregon
2251-00

Dear Mr. Boyd:

This letter provides the results of a well survey conducted in the vicinity of the proposed White Hawk Development and updates the evaluation of the potential for impacts to the water levels in wells near the development due to the installation of a proposed storm drain line along Gebhard Road. A preliminary evaluation was provided in a letter to you dated August 24, 2015. Subsequent to that letter, the City of Central Point requested that a survey be performed to identify domestic well owners in the vicinity of the development and, where possible, the construction of the wells (e.g., depth, use, screened interval if screened, etc.) to further evaluate the potential for negative impacts to water levels in wells located within the White Hawk transit oriented development (TOD) from the proposed construction of the storm drain line. The survey was completed between December 2015 and April 2016. The results of the survey and an updated evaluation on the potential impacts of the storm drain line on wells identified in the White Hawk TOD are provided below.

WELL SURVEY

A well survey form was sent to the residents located within the White Hawk TOD; Attachment A shows the boundaries and tax lots within the White Hawk TOD. Well surveys were sent to owners of the 31 tax lots within the White Hawk TOD. The well survey was sent at least two times to each tax lot owner; 11 completed surveys were returned to Apex. Attachment B includes copies of the completed surveys. Table 1 summarizes the results of the survey; two surveys were for property outside of the TOD and were not included on Table 1. Results of the well survey indicated the presence of six wells on five tax lots within the TOD. The location of these wells and the reported depth of the well is shown on Figure 1. Where information on the exact location of the well is not available, the location is approximated by placing it in the center of the tax lot for which the information was obtained.

In addition, Apex reviewed Oregon Water Resources Department (OWRD) online files to identify registered wells in the TOD. Ten well logs for wells located on 6 parcels within the TOD were identified. Attachment C contains the identified well logs and Table 2 summarizes the information on the identified wells, by parcel. Two of the parcels[1] with well logs registered by OWRD sent in completed well surveys; the other well logs provided additional information. Additionally, shown on Figure 1 are the locations of wells identified in a report prepared by Don Haggerty, PhD in February 2000[2].

[1] Dino Picollo, parcel 28 and Charlotte Holder, parcel 15; see Table 1.
[2] Haggerty 2000. *Report on Groundwater in the Vicinity of Beebe Rd*., Jackson County, Oregon. February 28, 2000.

It is unknown how many of the wells identified in the OWRD database or in the Haggarty report are still in use as only two property owners[3] with wells identified in the OWRD database and/or the Haggerty report sent back completed well surveys (parcel owners were sent water well surveys in December 2015, January 2016, and/or March 2017). Additionally, the Haggerty report indicated 3 wells to be present on parcel number 15, but the completed well survey for this parcel indicated just one 50-foot deepwell. Figure 1 shows the updated information from the well survey.

Based on the information obtained from the well searches:

- At least six wells are in use in the White Hawk TOD based on the well survey results; the well depths range from 12 to 50 feet, where known.
- An additional 5 to 8 wells were identified from the OWRD w ell log database. Of these, all but two are sealed from ground surface to 20 feet or more. Additionally, the Himmelman well at parcel 30 appears to be 100 feet deep and sealed to 35 feet.
- It is unclear whether the additional wells identified in the OWRD database are still in use.
- The well logs in the OWRD database suggest that, in the vicinity of the development, the soil consists of clay to depths of 8 to 12 feet below grade, underlain be sand and gravel to at least 40 to 50 feet in most locations.

Figure 1 shows that most of the wells are more than 100 feet from the proposed stormdrain line to be installed beneath Gebhard Road. However, wells are reported at parcels 3, 5, and 6 (see Figure 1) and the location of the wells are not known so the wells could be closer to the proposed utility.

EVALUATION OF THE POTENTIAL FOR IMPACTS DURING STORM AND SANITARY LINE INSTALLATION

Depth to first encountered water for shallow wells in the area appears to be about 9 feet below grade, but was historically reported as shallow as 4 feet below grade in some areas. Based on the OWRD well logs, it appears that most (if not all) of the wells are sealed to at least 9 feet below grade and are accessing water below that depth. The proposed storm and sanitary lines may be installed to depths of up to 10 to 12 feet and therefore, may intercept the water table in some areas. Based on this information, installation of the storm and/or sanitary lines could impact groundwater levels (and thereby impact the nearby water wells) from the following:

- Dewatering during construction;
- Infiltration into sewer lines; or
- Longitudinal flow in trench backfill.

If dewatering is necessary during construction, the water table would be lowered and these effects could extend to nearby water wells. This effect would be temporary and conditions would be expected to return to normal within a short period after completion of the work.

Long-term, if the storm or sanitary lines leak, infiltration into the lines could permanently lower the water table in the vicinity of the utilities to the base of the lines; however, this effect would likely extend only a few feet from the utility trench. This potential impact is addressed by quality control during construction to assure the utility lines are installed in alignment, seals are in place, intact and tested, proper pipe bedding is used, and trench backfill is properly compacted. These conditions assure the lines have a tight seal and meet the required performance standards prior to acceptance by the City.

[3] Dino Picollo, parcel 28 and Charlotte Holder, parcel 15; see Table 1.

If trench backfill is more permeable than native soil, water could flow longitudinally along the trench and discharge to surface water, permanently lowering the water table in the vicinity of the trench. Given the native soil conditions (clay soils in the upper 8 to 12 feet), it is possible that the trench backfill could be more permeable than the native soil in the areas where the native clay extends below the bottom depth of the utility bedding. Depending on the depth to which the trench penetrates the water table, longitudinal flow could occur; however, the influence on the shallow water table would likely extend only a few feet laterally from the utility trench. This localized depression in the water table caused by the trench could be addressed by installing low-permeability plugs at intervals in the trench backfill. Given that dewatering of local wells was reported after a drain trench was installed in Beebe Road in 1998, it is recommended that low permeability trench plugs be installed in future utility trenches dug for the project.

MITIGATION RECOMMENDATIONS EVALUATION AND MITIGATION OPTIONS

The potential impact of the installation and presence of the proposed storm and sanitary lines was performed in 2015 and is updated herein based on the updated well information obtained from the wells survey:

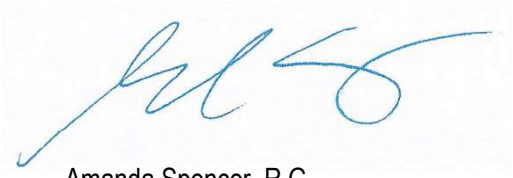
- Up to 21 wells may be located in the vicinity of the proposed project; it is unclear how many of these wells are still in use, however, at least three wells that are likely in use appear to be located within 100 feet of the proposed installation along Gebhard Road. The proposed utility installation is not expected to impact two of these wells because the wells are 35 and 140 feet deep and access water well below the depth of utility installation. The third well, located on parcel 3 (Figure 1) is of unknown depth. It is also unlikely that the utility installation will impact this well because the utility installations will penetrate only a few feet into the water table, if at all, at this location.
- A 12-foot depth well is reportedly located on parcel 28 that may be within 100 feet of proposed storm and sewer lines to be installed along the eastern development boundary (Figure 1). There is the potential that this well could be impacted by the utility installation, if the line extends into the water table at this location.
- Wells located further than 100 feet from the installation would not be anticipated to be impacted by the utility installation.
- It is also noted that three wells have been deepened over a period of 16 years, indicating that there is a long-term reduction in water level in the area.

The following presents mitigation options to address potential concerns:

- Prior to construction of the storm drain line proposed to be placed along Gebhard Road, verify the depth of the well located on parcel 3 and, if the well is less than a total depth of 15 feet, monitor water levels in that well during construction.
- Prior to construction of storm or sewer lines tie-ins to the existing storm or sewer lines beneath Beebe Road, verify the presence of wells located on parcel 10 identified in the Haggerty report that may be located within 100 feet of the tie-ins and are reported to be shallower than 15 feet in depth. If these wells are still present and in use, monitor the water levels during the construction.
- If installation does penetrate the water table, low-permeability plugs can be used to inhibit flow along the trench line. Assuming crushed rock is used for trench backfill, adding 5 percent (dry weight) bentonite to the backfill is sufficient to reduce the permeability of the backfill. The plugs should be placed from the bottom of the trench to 1 foot above the water table the full width of the trench and have a minimum length of 5 feet. A plug should be placed at the low end of each main sewer line.
- In areas where the lines are installed below the water table, particular care needs to be taken to ensure that the lines have a tight seal.

If you have any questions or need further information, please contact us at your convenience.

Sincerely,



Amanda Spencer, R.G.
Principal Hydrogeologist

ATTACHMENTS

Table 1 – Summary of Well Survey Results
Table 2 – OWRD Well Survey Results

Figure 1 – Location of Wells in the White Hawk TOD

Attachment A – White Hawk TOD
Attachment B – Completed Surveys
Attachment C – OWRD Well Logs for Wells Within the TOD

cc: Matt Samitore, City of Central Point

TABLE 1: SUMMARY OF WELL SURVEY RESULTS

Parcel Index	MAP	TAX LOT	Site Num	Site St	Owner	Owner Address (if different from Site Address)	Date Survey sent	Survey Returned?	Well?	Well Depth	Date Installed	Notes
1	372W02	400	No Address			6026 Palmero Cir Cameron Park, CA 95682	Survey sent 12/15	12/22/2015 1/25/2016	N	NA	NA	Undeveloped land
2	372W02	500	No Address			10 S Oakdale Ave Medford, OR 97501	Survey sent 3/3/16	3/11/2016	N	NA	NA	Undeveloped land
3	372W02	2500	4757	Gebhard	Karen and Randall Wales		Survey sent 12/15	12/28/2015	Y	unknown	unknown	domestic use and yard/gardening
4	372W02	600	No Address			1355 Cora Ln Auburn, CA 95603	Survey sent 3/3/16	3/11/2016	N	NA	NA	Undeveloped land
5	372W02	2601	4617	Gebhard	David & Julie Webb		Survey sent 12/15	12/30/2015	Y	35 feet bgs	1930?	domestic use and yard/gardening/orchard
6	372W02	2600	4613	Gebhard	Sergio Mejia		Survey sent 12/15 Resent 3/3/16	N				Survey not completed but OWRD well log found dated 5/4/2012 for a 140 foot well
7	372W02	2602	4603	Gebhard	William Jeshke		Survey sent 12/15 Resent 3/3/16	N				
8	372W02D	501	No Address			PO Box 996 Medford, OR 97501	Survey sent 12/15 Resent 3/3/16	3/11/2016	N			Undeveloped land
10	372W02D	300	587	Beebe	Ken Beebe?		Survey sent 12/15 Resent 3/3/16	N				Completed Survey not received but 3 OWRD well logs identified - See Table 2
11	372W02D	200	511	Beebe	Mingus		Survey sent 3/3/16	N				Completed Survey not received but 3 OWRD well logs identified - See Table 2
12	372W01C	2500	507	Beebe	Terry & Harley Callahan		Survey sent 12/15 Resent 3/3/16	N				
13	372W01C	2400	495	Beebe	James and Michelle Nistler		Survey sent 12/15 Resent 3/3/16	N				
14	372W01C	2300	477	Beebe	Michelle Nistler		Survey sent 12/15 Resent 3/3/16	N				
15	372W01C	2301	445	Beebe	Charlotte Holder		Survey sent 12/15 Resent 3/3/16	1/11/2016	Y	50 feet	1998	lawn, gardening, watering orchard, fire abatement
16	372W01C	2200	443	Beebe	Rita Deann Tyner		Survey sent 12/15 Resent 3/3/16	N				
17	372W01C	1700	4511	Hamrick	James Sutton		Survey sent 12/15 Resent 3/3/16	N				
18	372W01C	1800	4497	Hamrick	Nick Kenneth Lee		Survey sent 12/15 Resent 3/3/16	N				
19	372W01CB	1100	4475	Hamrick	Gladys Muse		Survey sent 12/15 Resent 3/3/16	N				
20	372W01CB	1000	4461	Hamrick	Richard Smith		Survey sent 12/15 Resent 3/3/16	N				

21	372W01CB	900	4439	Hamrick	Humphrey&Windsor LLC		Survey sent 12/15 Resent 3/3/16	N					
22	372W01BC	10100	446	Beebe			Survey sent 3/3/16	N					
23	372W01BC	10200	444	Beebe			Survey sent 3/3/16	N					
24	372W01BC	10000	4615	Hamrick	Edic Sliva		Survey sent 12/15 Resent 3/3/16	N					
25	372W01BC	9800	4630	Hamrick	CA Galpin		Survey sent 12/15 Resent 3/3/16	N					
26	372W01BC	9900	456	Beebe	Picollo LLC		Survey sent 12/15 Resent 3/3/16	N					
27	372W02	3100	600	Beebe	Shepherd of the Valley Catholic Church		Survey sent 12/15 Resent 3/3/16	N					Completed Survey not received but OWRD well log identified - See Table 2
28	372W02	3000	628	Beebe	Dino Picollo		Survey sent 12/15	12/23/2015	2 wells	1 - 12 feet 2 - 34 feet	1 - Unknown 2 - 1940ish		one well at back of lot used for irrigation; second well shared with 523 Beebe for domestic and irrigation OWRD well log from 2/17/1983 for a 60 foot well - see Table 2
30	372W02	200	4848	Gebhard	Steve & Carolyn Himmelman		Survey sent 12/15	1/5/2016	Y	15 feet	unknown		hand dug well domestic use/irrigation/stock watering OWRD well log found from 10/11/1994 for a 100 foot well
31	372W02AA	2800	4920	Gebhard			Survey sent 3/3/16	N					

Note: yellow highlighted: surveys were returned because the post office could not deliver

TABLE 2: OWRD SURVEY RESULTS

Parcel Index	MAP	TAX LOT	Site Num	Site St	Owner	Well Log #	Well Depth	Date Installed	Notes
1	372W02	400	No Address			None	NA	NA	
2	372W02	500	No Address			None	NA	NA	
3	372W02	2500	4757	Gebhard		None	unknown	unknown	domestic use and yard/gardening well onsite based on Well Survey (see Table 1)
4	372W02	600	No Address			None	NA	NA	
5	372W02	2601	4617	Gebhard		None	35 feet bgs	1930?	domestic use and yard/gardening/orchard well onsite based on Well Survey (see Table 1)
6	372W02	2600	4613	Gebhard	Sergio Mejia	JACK61181	140 feet	5/4/2012	sealed from 0 to 50 feet below grade; screened from 50 to 140 feet below grade
7	372W02	2602	4603	Gebhard	William Jeshke	None			
8	372W02D	501	No Address			None			
10	372W02D	300	587	Beebe	Ken Beebe?	JACK12262 JACK12264 JACK12261	12 feet 66.5 feet 13 feet	1965 and 1966	sealed 0 to 9 feet sealed 0 to 20 feet sealed 0 to 9 feet
11	372W02D	200	511	Beebe	Mingus	JACK52926 JACK55868 JACK52660	204 feet 56 feet 59 feet	1999 2003 1998	sealed 0 to 59? Sealed 0 to 27 feet sealed 0 to 20 feet
12	372W01C	2500	507	Beebe	Terry & Harley Callahan	None			
13	372W01C	2400	495	Beebe	James and Michelle Nistler	None			
14	372W01C	2300	477	Beebe	Michelle Nistler	None			
15	372W01C	2301	445	Beebe	Charlotte Holder	None	50 feet	1998	lawn, gardening, watering orchard, fire abatement well onsite based on Well Survey (see Table 1)
16	372W01C	2200	443	Beebe	Rita Deann Tyner	None			
17	372W01C	1700	4511	Hamrick	James Sutton	None			
18	372W01C	1800	4497	Hamrick	Nick Kenneth Lee	None			
19	372W01CB	1100	4475	Hamrick	Gladys Muse	None			
20	372W01CB	1000	4461	Hamrick	Richard Smith	None			
21	372W01CB	900	4439	Hamrick	Humphrey&Windsor LLC	None			
22	372W01BC	10100	446	Beebe		None			
23	372W01BC	10200	444	Beebe		None			
24	372W01BC	10000	4615	Hamrick	Edic Sliva	None			
25	372W01BC	9800	4630	Hamrick	CA Galpin	None			
26	372W01BC	9900	456	Beebe	Picollo LLC	None			

27	372W02	3100	600	Beebe	Shepherd of the Valley Catholic Church	JACK30394	90 feet	1990	Deepening of an existing well from 68 to 90 feet
28	372W02	3000	628	Beebe	Dino Picollo	JACK12241	60 feet	1983	Deepening of an existing well from 35 feet to 60 feet. Sealed from 0 to 35 feet.
30	372W02	200	4848	Gebhard	Steve Himmelman	JACK33759	100 feet	1994	sealed 0 to 35 feet
31	372W02AA	2800	4920	Gebhard		None			



Legend:

- Water Well (Based on Returned Survey; Location Approximate)
- Oregon Water Resources Department (OWRD) Database Well Location
- B1 Water Well (Based on February 2000 Haggerty Report and/or OWRD Database; Existence Not Confirmed)
- [35'] Depth of Well (UNK = Unknown Depth)

Base map prepared from a Well Notiofication Area figure by CES|NW (12/01/2105).

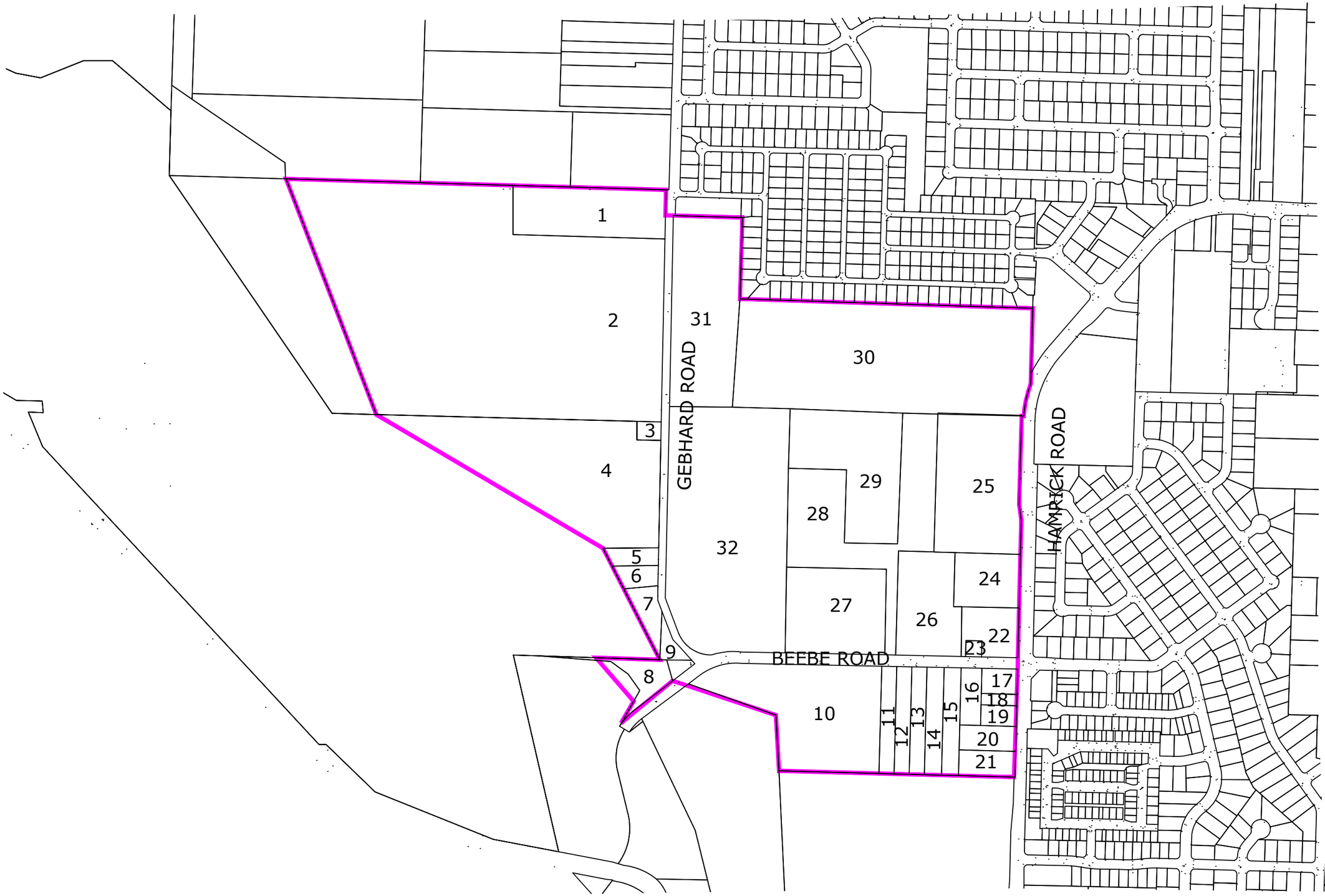
Location of Wells within White Hawk TOD

Well Survey and Evaluation Letter
White Hawk Development
Central Point, Oregon

APEX Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number	2251-00	Figure 1
	November 2016		

Well Survey Results Letter
Attachment A

White Hawk TOD



WHITE HAWK TOD
CASE FILE NO. 14004

PEOPLE'S BANK OF COMMERCE
1311 BARNETT ROAD
MEDFORD, OR 97054
(541) 774-7656

CES|NW
13190 SW 68th Parkway, Suite 150
Tigard, Oregon 97223
503.968.6655 www.cesnw.com

REVISIONS
1910-WELL_NOTICE_AREA.DWG

PROJECT NO.: 1910
DESIGNED BY: ARW
DATE: 12/01/15
DRAWN BY: ARW

WELL NOTIFICATION AREA

SHEET 1
OF 1

PLOTTED: 1/12/2016 11:44 AM

Well Survey Results Letter
Attachment B

Completed Surveys

Received
DEC 21 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 1 A Penninger Rd
   City, State, Zip: CP OR

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

_____
_____
_____
_____

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

_____
_____
_____

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

Received
DEC 28 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 4757 GEBHARD RD
   City, State, Zip: CENTRAL POINT, OR 97502

2. What water source(s) are used on your property?

   (Individual well)
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   (In home domestic use
   Lawn and garden watering)
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

4. When was the well installed? UNKNOWN
5. What is the depth of the well? UNKNOWN
6. Was the well installed by a drilling contractor? UNKNOWN – PROBABLY

VOLUNTARY RESIDENTIAL WATER USE SURVEY

Received
DEC 30 2015
Apex-Portland

1. Please provide your address

   Address: 4617 GEBHARD ROAD
   City, State, Zip: CENTRAL POINT OR. 97502

2. What water source(s) are used on your property?

   [Individual well]
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   [In home domestic use]
   [Lawn and garden watering]
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)
   20 + FRUIT TREES 40 + OTHER TREES
   VERY LARGE GARDEN, GRAPES, RASPBERRIES STRAWBERRIES ETC.

4. When was the well installed? 1930 ?c

5. What is the depth of the well? 35 FEET

6. Was the well installed by a drilling contractor? ?c

Received

DEC 23 2015

Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 628 Beebe Rd
   City, State, Zip: Central Point, OR 97502

2. What water source(s) are used on your property?

   (Individual well)
   (Well shared with one neighbor)
   Central Point Utility Services
   Other (please describe):
   one well on back of property for irrigation, one well for both 628 & 523 Beebe for Household & irrigation

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   (In home domestic use)
   (Lawn and garden watering)
   (Pasture/Crops/Orchard)
   Stock watering
   Other (please describe)

4. When was the well installed? #1 unknown #2 was used for House Built around 1940
5. What is the depth of the well? #1 about 12 #2 about 54'
6. Was the well installed by a drilling contractor?
   unknown #2 assume yes

Received
DEC 22 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 6076 Palmero Circle
   City, State, Zip: Cameron Park, CA. 95682

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   ✓ Other (please describe):
   under Rogue Valley Irrigation District
   No well on property

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

Received
JAN 05 2015
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

Address: P.O. Box 3972 MAIL / 4848 Gebhard Rd
City, State, Zip: Central Point, Or. 97502

2. What water source(s) are used on your property?

(Individual well)
Well shared with one neighbor
Central Point Utility Services
Other (please describe):

_____
_____
_____
_____

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

(In home domestic use)
(Lawn and garden watering)
Pasture/Crops/Orchard
(Stock watering)
Other (please describe)

_____
_____
_____

4. When was the well installed? UNKNOWN
5. What is the depth of the well? 15' APPROX
6. Was the well installed by a drilling contractor? NO - HAND DUG

Receive
JAN 11 2016
Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 445 BEE BE RD.
   City, State, Zip: CENTRAL POINT, OREGON 97502

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

If you do not use an individual well on your property, then no further answers are necessary.

If water from a well is used, we appreciate responses to the following questions:

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)
   FIRE ABATEMENT

4. When was the well installed? 1998
5. What is the depth of the well? 50'
6. Was the well installed by a drilling contractor? YES

Received

MAR 1 0 2016

Apex-Portland

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: Map 372W02D TL 500+600

   City, State, Zip: _____

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

   No water source - bare land

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

Received
JAN 25 2016
Apex-Portland

Property no. 1

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address – Property is on Gebhard Rd. 5 acre parcel No Dwelling

   Address: 6026 Palmero Circle
   City, State, Zip: Cameron Park, CA 95682

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   ✓Other (please describe):
   Rogue River Valley Irrigation District

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

VOLUNTARY RESIDENTIAL WATER USE SURVEY

Received
JAN 25 2016
Apex-Portland

1. Please provide your address

   Address: 1480 E. Pine Street
   City, State, Zip: Central Point, OR. 97502

2. What water source(s) are used on your property?

   (Individual well)
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   (Other (please describe))
   Commercial / Retail

4. When was the well installed?
   About 1950
5. What is the depth of the well?
   not known
6. Was the well installed by a drilling contractor?
   not known

Received
MAR 11 2016
Apex Portland

Lots 2 + 4 + 8

VOLUNTARY RESIDENTIAL WATER USE SURVEY

1. Please provide your address

   Address: 10 S Oakdale Ave #111
   City, State, Zip: Medford OR 97501

2. What water source(s) are used on your property?

   Individual well
   Well shared with one neighbor
   Central Point Utility Services
   Other (please describe):
   Property is currently unused bare land shown on your map as Lots 2 + 4 + 8, with the exception of the greenway path through lot 8
   No water use

If you do not use an individual well on your property, then no further answers are necessary.

<u>If water from a well is used, we appreciate responses to the following questions:</u>

3. What is the well water used for:

   In home domestic use
   Lawn and garden watering
   Pasture/Crops/Orchard
   Stock watering
   Other (please describe)

   _____
   _____
   _____

4. When was the well installed?

5. What is the depth of the well?

6. Was the well installed by a drilling contractor?

Well Survey Results Letter
Attachment C

OWRD Well Logs for Wells Within the TOD

jack 5216D

STATE OF OREGON WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

WELL I.D.# ——— L 27891

(START CARD) # 87249

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number 1044-98

Name Ernest Mingus

Address 511 Beebee Rd.

City Central Point State OR. Zip 97502

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD:

☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger

☐ Other

(4) PROPOSED USE:

☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Livestock ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval ☐ Yes ☒ No Depth of Completed Well 59 ft.

Explosives used ☐ Yes ☒ No Type ——— Amount ———

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
10"	0	20	Bentonite	0	20	8 Sacks
6"	20	59				Bentonite

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☒ Other Poured Dry

Backfill placed from ——— ft. to ——— ft. Material ———

Gravel placed from ——— ft. to ——— ft. Size of gravel ———

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+2	61½	.250	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:					☐	☐	☐	☐
					☐	☐	☐	☐

Final location of shoe(s) 59

(7) PERFORATIONS/SCREENS:

☒ Perforations Method Holt Air Perf.

☐ Screens Type ——— Material ———

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
40	56	⅛ x 1	200		6	☒	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
5	18	59	1 hr.

Temperature of water 54 Depth Artesian Flow Found ———

Was a water analysis done? ☐ Yes By whom ———

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ———

Depth of strata: ———

(9) LOCATION OF WELL by legal description:

County Jackson Latitude ——— Longitude ———

Township 37 N or S Range 2 E or W. WM.

Section 02-D SW 1/4 SE 1/4

Tax Lot 200 Lot ——— Block ——— Subdivision ———

Street Address of Well (or nearest address) 511 Beebee Rd Central Point OR.

(10) STATIC WATER LEVEL:

41 ft. below land surface. Date 10-27-98

Artesian pressure ——— lb. per square inch. Date ———

(11) WATER BEARING ZONES:

Depth at which water was first found 41'

From	To	Estimated Flow Rate	SWL
41	59	5	41

(12) WELL LOG:

Ground Elevation ———

Material	From	To	SWL
Brown clay	0	12	
Med to coarse sand + gravel	12	57	41
Soft gray claystone	57	59	41

RECEIVED
NOV 09 1998
WATER RESOURCES DEPT.
SALEM, OREGON

Date started 10-26-98 Completed 10-27-98

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number 679

Signed John Studebaker Date 11-9-98

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 360

Signed Jack R. Stutzman Date

JACK
12261

RECEIVED
MAY 31 1966
STATE ENGINEER

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2W-2
State Permit No.

(1) OWNER:
Name D R ADAMS
Address 587 BEEBE RD
CENTRAL POINT ORE

(2) LOCATION OF WELL:
County JACKSON Driller's well number
¼ ¼ Section 2 T. 37S R. 2W W.M.
Bearing and distance from section or subdivision corner

(3) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☐ Jetted ☐
Dug ☐ Bored ☒

(6) CASING INSTALLED:
Threaded ☐ Welded ☐
18 " Diam. from 1.A.B.S. ft. to 13 ft. Gage CONCRETE
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☒ Yes ☐ No
Type of perforator used
Size of perforations in. by in.
1 INCH perforations from 9 ft. to 13 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☒ No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal CONCRETE
Depth of seal 9 ft. Was a packer used? NO
Diameter of well bore to bottom of seal 24 in.
Were any loose strata cemented off? ☐ Yes ☒ No Depth
Was a drive shoe used? ☐ Yes ☒ No
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from NONE ft. to ft.
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 9 ft. below land surface Date 5-13-66
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☒ Yes ☐ No If yes, by whom? OWNER
Yield: 15 gal./min. with NONE ft. drawdown after 6 hrs.
" " " "
" " " "
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 49 Was a chemical analysis made? ☐ Yes ☒ No

(12) WELL LOG:
Diameter of well below casing NONE
Depth drilled 13 ft. Depth of completed well 13 ft.

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
BLACK CLAY	0	4
DARK BROWN CLAY	4	6
HARD BROWN CLAY	6	9
SAND - SMALL GRAVEL	9	11
LARGE COBBLES SAND GRAVEL	11	13

Work started 5-13- 1966 Completed 5-13- 1966
Date well drilling machine moved off of well 5-13 1966

(13) PUMP:
Manufacturer's Name ~~NONE~~ ?
Type: ? H.P. ?

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME LLOYD K. FISCHER
(Person, firm or corporation) (Type or print)
Address 1021 VAWTER RD
Drilling Machine Operator's License No. 43
[Signed] Lloyd K. Fischer
(Water Well Contractor)
Contractor's License No. 346 Date 5-16, 1966

(USE ADDITIONAL SHEETS IF NECESSARY)

JACK 55868

STATE OF OREGON

WATER SUPPLY WELL REPORT

(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form

WELL ID # L L62623

(START CARD) # 153911

(1) OWNER:

Well Number: L62623

Name Earnest Mingus

Address 511 Beebe Rd.

City Central Point State OR Zip 97502

(2) TYPE OF WORK:

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 55 ft.

Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
10	0	55	Bentonite	0	27	50 Sacks
			16 Sand	27	40	20 sacks
			10 x 20 Sand	40	54	20 Sacks
			Sand Gravel	54	55	

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E

[X] Other Poured Dry

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6	+2	31	.250	[X]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

[ ] Perforations Method

[X] Screens Type .020 Material Stainless

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
31	55	.020				[X]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
3 GPM	55	55	6 hr.

Temperature of Water 57 Depth Artesian Flow found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Jackson Latitude Longitude

Township 37S N or S. Range 2W E or W. of WM.

Section 2 SW 1/4 SE 1/4

Tax lot 200 Lot Block Subdivision

Street Address of Well (or nearest address) 511 Beebe Rd.

(10) STATIC WATER LEVEL:

12 ft. below land surface. Date 12/4/2002

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 8

From	To	Estimated Flow Rate	SWL
8	55	3 GPM	12

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
Top Soil	0	2	
Brown Clay	2	8	
Tan clay w/ sand gravel	8	28	
Tan sand w/ gravel	28	30	12
Tan clay w/ gravel	30	55	
Grey Silt Stone	55	56	

ASHLAND DRILLING INC
ALL AMERICAN PUMPS
600 South Pacific Hwy
Talent, OR 97540
541 488 2827

RECEIVED
JAN 10 2003
WATER RESOURCES DEPT.
SALEM, OREGON

Date started 12/2/2002 Completed 12/4/2002

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to my best knowledge and belief.

Signed Ashland Drilling Inc. WWC Number 1657 Date 1/6/2003

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

Signed Ashland Drilling Inc. WWC Number 1478 Date 1/6/2003

ORIGINAL - WATER RESOURCES DEPARTMENT FIRST COPY - CONSTRUCTOR SECOND COPY - CUSTOMER

RECEIVED

FEB 16 1999

WATER RESOURCES DEPT.
SALEM, OREGON

JACK
52926

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

Instructions for completing this report are on the last page of this form.

WELL I.D. # L 127891
START CARD # 61007

(1) OWNER: Well Number
Name Earnest Mingus
Address 511 Beebe Rd
City Central Point State OR Zip 97502

(2) TYPE OF WORK
☐ New Well ☒ Deepening ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD:
☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger
☐ Other

(4) PROPOSED USE:
☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation
☐ Thermal ☐ Injection ☐ Livestock ☐ Other

(5) BORE HOLE CONSTRUCTION:
Special Construction approval ☐ Yes ☒ No Depth of Completed Well 204 ft.
Explosives used ☐ Yes ☒ No Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
6	59	204	SEAL	NOT		Disturbed

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☐ Other
Backfill placed from ____ ft. to ____ ft. Material ____
Gravel placed from ____ ft. to ____ ft. Size of gravel ____

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	4	0	204	14	☐	☒	☒ glue	☐
					☐	☐	☐	☐

Final location of shoe(s) Existing

(7) PERFORATIONS/SCREENS:
☒ Perforations Method Saw
☐ Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
120	180	12	128	48	4"	☐	☒
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
12		203	1 hr.

Temperature of water 54 Depth Artesian Flow Found ____
Was a water analysis done? ☐ Yes By whom ____
Did any strata contain water not suitable for intended use? ☐ Too little
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ____
Depth of strata: ____

(9) LOCATION OF WELL by legal description:
County Jackson Latitude ____ Longitude ____
Township 37 N or (S) Range 2 E or (W) WM.
Section 2-D SW 1/4 SE 1/4
Tax Lot 200 Lot ____ Block ____ Subdivision ____
Street Address of Well (or nearest address) 511 Beebe Rd
Central Point OR 97502

(10) STATIC WATER LEVEL:
41 ft. below land surface. Date 1-27-99
Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:
Depth at which water was first found 78

From	To	Estimated Flow Rate	SWL
78	162	12	41

(12) WELL LOG:
Ground Elevation ____

Material	From	To	SWL
Sandstone cream	60	78	
claystone Redish	78	96	
Cemented Fine Gravel	96	152	41
Sandstone Green	152	204	

Date started 1-29-99 Completed 1-27-99

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
WWC Number ____
Signed ____ Date ____

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 679
Signed John Stubblefield Date 1-28-99

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

JACK
12262

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

RECEIVED
MAY 31 1966
STATE ENGINEER
SALEM, OREGON

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2W-2
State Permit No.

(1) OWNER:
Name K. W. BEEBE
Address 587 BEEBE RD
CENTRAL POINT ORE

(2) LOCATION OF WELL:
County JACKSON Driller's well number
¼ ¼ Section 2 T. 37S R. 2W W.M.
Bearing and distance from section or subdivision corner
SOUTH SIDE OF BEEBE RD
HALF WAY BETWEEN
K.W BEEBE HOUSE AND
C.R BEEBE HOUSE

(3) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☒ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☐ Jetted ☐
Dug ☐ Bored ☒

(6) CASING INSTALLED:
Threaded ☐ Welded ☐
18 " Diam. from 1FT ABS ft. to 12 ft. Gage CONCRETE
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☒ Yes ☐ No
Type of perforator used
Size of perforations 1 INCH in. by 1 INCH in. 1X1 O
1 INCH perforations from 9 ft. to 12 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☒ No
Manufacturer's Name
Type Model No.
Dia. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal CONCRETE
Depth of seal 9 ft. Was a packer used? NO
Diameter of well bore to bottom of seal 24 in.
Were any loose strata cemented off? ☐ Yes ☒ No Depth
Was a drive shoe used? ☐ Yes ☒ No
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from NONE ft. to ft.
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 9 ft. below land surface Date 5-16-66
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☒ Yes ☐ No If yes, by whom? OWNER
Yield: 30 gal./min. with ft. drawdown after 1 hrs.
" " " "
" " " "
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 50 Was a chemical analysis made? ☐ Yes ☒ No

(12) WELL LOG:
Diameter of well below casing NONE
Depth drilled 12 ft. Depth of completed well 12 ft.
Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
BLACK CLAY	0	4
BROWN CLAY	4	7
MEDIUM FINE SAND	7	9
SAND-GRAVEL	9	12
LARGE COBBLES		

Work started 5-14 1966 Completed 5-14 1966
Date well drilling machine moved off of well 5-14 1966

(13) PUMP:
Manufacturer's Name ?
Type: ? H.P. ?

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME LLOYD K. FISCHER
(Person, firm or corporation) (Type or print)
Address 1021 VAWTER RD
Drilling Machine Operator's License No. 43
[Signed] Lloyd K. Fischer
(Water Well Contractor)
Contractor's License No. 346 Date 5-16, 1966

(USE ADDITIONAL SHEETS IF NECESSARY)

JACK
12264

RECEIVED
NOV 15 1965
STATE ENGINEER
SALEM, OREGON

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM, OREGON 97310 within 30 days from the date of well completion.

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

State Well No. 37/2w-2
State Permit No.

(1) OWNER:
Name D.R. Adams
Address 587 Beebe Rd.
Medford, Oregon

(2) LOCATION OF WELL:
County Jackson Driller's well number
¼ ¼ Section 2 T. 37 S R. 2W W.M.
Bearing and distance from section or subdivision corner
210FT NORTH & 25FT WEST OF SOUTH EAST CORNER

(3) TYPE OF WORK (check):
New Well ☑ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☑ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☑ Jetted ☐
Dug ☐ Bored ☐

(6) CASING INSTALLED:
Threaded ☐ Welded ☑
6" Diam. from +1 ft. to 50 ft. Gage .250
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☑ Yes ☐ No
Type of perforator used TORCH
Size of perforations 1/4 in. by 1/2 in.
9 perforations from 41 ft. to 49 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed? ☐ Yes ☑ No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Well seal—Material used in seal BENTONITE & CUTTINGS
Depth of seal 20 ft. Was a packer used? NO
Diameter of well bore to bottom of seal 9 1/2 in.
Were any loose strata cemented off? ☐ Yes ☑ No Depth
Was a drive shoe used? ☑ Yes ☐ No
Was well gravel packed? ☐ Yes ☑ No Size of gravel:
Gravel placed from ft. to ft.
Did any strata contain unusable water? ☑ Yes ☐ No
Type of water? SURFACE depth of strata 7T09
Method of sealing strata off BENTONITE

(10) WATER LEVELS:
Static level 8 ft. below land surface Date 11-10-65
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☑ No If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "
Bailer test 5 gal./min. with 53 ft. drawdown after 1 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? ☐ Yes ☑ No

(12) WELL LOG:
Diameter of well below casing 6
Depth drilled 66 1/2 ft. Depth of completed well 66 1/2 ft.
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
SOIL BLACK CLAY	0	4
CLAY & SAND	4	17
CLAY BROWN	17	25
SAND, GRAVEL FINE.	25	49
CLAYSTONE BLUE	49	53
CLAYSTONE	53	60
SANDSTONE	60	66 1/2
WATER	45	49
	59	61

Work started 11-8 19 65 Completed 11-10 19 65
Date well drilling machine moved off of well 11-10 19 65

(13) PUMP:
Manufacturer's Name
Type: H.P.

Water-Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME CRATERWELL DRILLING, INC.
(Person, firm or corporation) (Type or print)
Address 3061 Crater Lake Ave., Medford, Ore.
Drilling Machine Operator's License No. 71
[Signed] P.A. Chitwood
(Water Well Contractor)
Contractor's License No. 83 Date 11-10, 19=65

(USE ADDITIONAL SHEETS IF NECESSARY)

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

Jack30894

37S/2W/2

(START CARD) # 21199

(1) OWNER:

Well Number:

Name SHEPPARD OF THE VALLEY/ARCHDIOCESE/PORTLAND

Address 600 BEEBE ROAD

City CENTRAL POINT State OR Zip 97502

(2) TYPE OF WORK:

☐ New Well ☒ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other

(4) PROPOSED USE:

☒ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes ☐ No ☒ Depth of Completed Well 90 ft.

Explosives used Yes ☐ No ☒ Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
6"	68	90	DEEPENING			

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	N/A				☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	4"	0	90	160	☐	☒	☐	☐
					☐	☐	☐	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

☒ Perforations Method SAW

☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
30	90	1X8X8	60			☐	☒
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
8GPM		90	1 hr.

Temperature of water 54 Depth Artesian Flow Found

Was a water analysis done? ☐ Yes By whom

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County JACKSON Latitude ' " Longitude ' "

Township 37S N or S, Range 2W E or W, WM.

Section 2 ¼ ¼

Tax Lot 3100 Lot Block Subdivision

Street Address of Well (or nearest address) SAME AS #1

(10) STATIC WATER LEVEL:

17 ft. below land surface. Date 9-14-90

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 17SWL

From	To	Estimated Flow Rate	SWL
75	85	8GPM	17

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
CLAYSTONE, BLUE, SOFT	68	90	17

RECEIVED

OCT - 3 1990

WATER RESOURCES DEPT.
SALEM, OREGON

Date started 9-14-90 Completed 9-14-90

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

MEDINA WELL DRILLING

Signed 3286 Hanley Road Central Point OR 97502 WWC Number Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

Signed Joaquin Medina WWC Number 1207 Date 9-17-90

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/88

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

JACK 12239

RECEIVED JUL 27 1989 WATER RESOURCES DEPT SALEM, OREGON

37S/2W/2

(START CARD) # 10374

(1) OWNER:

Well Number:

Name MARGARET NIXON

Address 718 BEEBE ROAD

City CENTRAL POINT State OR Zip 97502

(2) TYPE OF WORK:

[X] New Well [ ] Deepen [ ] Recondition [ ] Abandon

(3) DRILL METHOD

[X] Rotary Air [ ] Rotary Mud [ ] Cable

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes [ ] No [X] Depth of Completed Well 100 ft.

Explosives used Yes [ ] No [X] Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
10"	0	50	CEMENT	0	50	13SACKS
6"	50	100				

How was seal placed: Method [ ] A [ ] B [XX] C [ ] D [ ] E

[ ] Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+1	59	.250	XX		XX	
Liner:	4"	0	100			XX	XX	

Final location of shoe(s) 59

(7) PERFORATIONS/SCREENS:

XX Perforations Method SAW

[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
40	60	1X8	X8 60				XX

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [XX] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
12 GPM	72	100	1 hr.

Temperature of water Depth Artesian Flow Found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County JACKSON Latitude ' " Longitude ' "

Township 37N N or S, Range 2W E or W, WM.

Section 02 ¼ ¼

Tax Lot 2700 Lot Block Subdivision

Street Address of Well (or nearest address) SAME AS #1

(10) STATIC WATER LEVEL:

28 ft. below land surface. Date 7-6-89

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 60

From	To	Estimated Flow Rate	SWL
60	90	12GPM	28

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
SOIL, BROWN	0	2	
CLAY, BROWN	2	6	
DECOMPOSED, GRANITE	6	23	
CLAY, BROWN	23	30	
GRAVEL, SMALL	30	40	
CLAY, BLUE	40	46	
CLAYSTONE, BLUE, SOFT	46	100	28

Date started 7-6-89 Completed 7-6-89

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number

Signed MEDINA WELL DRILLING Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1207

Signed Joaquin Medina Date 7-9-89

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/88

WATER WELL REPORT
STATE OF OREGON

JACK 1224

RECEIVED
FEB 22 1983
WATER RESOURCES DEPT.
SALEM, OREGON

State Well No. 37S/2W-2

State Permit No. deepened

(1) OWNER:
Name Gus Picollo
Address 628 Bee Be Road
City Central Point State Oregon

(2) TYPE OF WORK (check):
New Well ☐ Deepening ☒ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:
Rotary Air ☒ Driven ☐
Rotary Mud ☐ Dug ☐
Cable ☐ Bored ☐

(4) PROPOSED USE (check):
Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐
Thermal: Withdrawal ☐ Reinjection ☐

(5) CASING INSTALLED:
Steel ☐ Plastic ☐
Threaded ☐ Welded ☐
..." Diam. from ... ft. to ... ft. Gauge ...
..." Diam. from ... ft. to ... ft. Gauge ...

LINER INSTALLED:
..." Diam. from ... ft. to ... ft. Gauge ...

(6) PERFORATIONS:
Perforated? ☐ Yes ☐ No
Type of perforator used
Size of perforations in. by in.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.

(7) SCREENS:
Well screen installed? ☐ Yes ☐ No
Manufacturer's Name ...
Type ... Model No. ...
Diam. ... Slot Size ... Set from ... ft. to ... ft.
Diam. ... Slot Size ... Set from ... ft. to ... ft.

(8) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☐ No If yes, by whom?
... gal./min. with ... ft. drawdown after ... hrs.
" " " "
Air test gal./min. with drill stem at ft. hrs.
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m.
Temperature of water Depth artesian flow encountered ... ft.

(9) CONSTRUCTION:
Special standards: Yes ☐ No ☐
Well seal—Material used ...
Well sealed from land surface to ... ft.
Diameter of well bore to bottom of seal ... in.
Diameter of well bore below seal ... in.
Number of sacks of cement used in well seal ... sacks
How was cement grout placed? ...
Was pump installed? ... Type ... HP ... Depth ... ft.
Was a drive shoe used? ☐ Yes ☐ No Plugs ... Size: location ... ft.
Did any strata contain unusable water? ☐ Yes ☐ No
Type of Water? depth of strata
Method of sealing strata off
Was well gravel packed? ☐ Yes ☐ No Size of gravel: ...
Gravel placed from ... ft. to ... ft.

(10) LOCATION OF WELL:
County Jackson Driller's well number 83-3
¼ ¼ Section 2 T. 37S R. 2W W.M.
Tax Lot # 3000 Lot Blk Subdivision
Address at well location: 628 Bee Be Road
Central Point, Oregon

(11) WATER LEVEL: Completed well.
Depth at which water was first found see below ft.
Static level 4 ft. below land surface. Date 1-18-83
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:
Diameter of well below casing 6 inch
Depth drilled 35 ft. Depth of completed well 45 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Increased air return from 75 GPM to 250+ GPM.			
Formations:			
Medium sand with coarse gravel	25	60	4

Work started 1-18 19 83 Completed 1-18 19 83
Date well drilling machine moved off of well 1-18 19 83

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] John Studebaker (Drilling Machine Operator) Date 2-17, 1983
Drilling Machine Operator's License No. 1008

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Name Studebaker Well Drilling (Person, firm or corporation) (Type or print)
Address 4876 Highway 66 Ashland, Oregon 97520
[Signed] John Studebaker (Water Well Contractor)
Contractor's License No. 679 Date 2-17, 1983

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the WATER RESOURCES DEPARTMENT, SALEM, OREGON 97310 within 30 days from the date of well completion.

SP*12658-690

14

JACK 33759

RECEIVED

OCT 1 3 1994

WATER RES...
SALEM, OREGON

37S/2W/2bc

JCWP#491-94W

STATE OF OREGON WATER WELL REPORT

(as required by ORS 537.765)

Gribble Well Drilling Nic. (START CARD) # 65619

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number 1

Name Steve Himmelman

Address P.O. Box 411

City Jacksonville State Ore Zip 97530

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger

[ ] Other

(4) PROPOSED USE:

[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 100 ft.

Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
10"	0	35	Bent	0	35	1150 lbs
6"	35	100				

How was seal placed: Method [ ]A [ ]B [ ]C [ ]D [ ]E

[X] Other Poured Dry

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6"	+1	59	250	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:	4"	0	100	160	[ ]	[X]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s) 59'

(7) PERFORATIONS/SCREENS:

[X] Perforations Method Saw

[ ] Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
60	100	10"	80	1/8		[ ]	[X]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
30		100	1 hr.

Temperature of water 56 Depth Artesian Flow Found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Jackson Latitude Longitude

Township 37S N or S Range 2W E or W. WM.

Section 2 SW 1/4 NW 1/4

Tax Lot 200 Lot Block Subdivision

Street Address of Well (or nearest address) 4848 Gebhard Rd.

Central Point, Ore. 97502

(10) STATIC WATER LEVEL:

22 ft. below land surface. Date 10/5/94

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 85'

From	To	Estimated Flow Rate	SWL
85	88	30	22

(12) WELL LOG:

Ground Elevation

Material	From	To	SWL
Soil Brown	0	8	
Gravel & Clay Brown	8	19	
Gravel Med. Brown	19	27	
Claystone Brown	27	48	
Claystone Gray	48	100	22

Date started 10/5/94 Completed 10/5/94

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number

Signed Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 705

Signed Date 10-18-94

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

STATE OF OREGON
WATER SUPPLY WELL REPORT
(ORS 537.765 & OAR 690-205-0210)
Instructions for completing this report are on the last page of this form.

JACK 61181

WELL LABEL # L 107198
START CARD # 205620
ORIGINAL LOG #

(1) LANDOWNER Owner Well I.D. _____
First Name _____ Last Name _____
Company Highlander Forest L.L.C.
Address 1240 Vista Dr
City Central Point State Or Zip 97502

(2) TYPE OF WORK ☒ New ☐ Conversion ☐ Deepening
☐ Alteration (complete Sections 2a & 10) ☐ Abandonment (complete Section 5a)

(2a) PRE-ALTERATION: Well Depth _____ ft.
Seal Material _____
Casing Type: ☐ Steel ☐ Plastic ☐ Other _____
Casing Gauge _____ Casing Diameter _____

(3) DRILL METHOD ☒ Rotary Air ☐ Rotary Mud ☐ Auger
☐ Cable ☐ Cable Mud ☐ Reverse Rotary ☐ Other _____

(4) PROPOSED USE ☒ Domestic ☐ Irrigation ☐ Community
☐ Industrial/Commercial ☐ Livestock ☐ Dewatering ☐ Injection
☐ Thermal ☐ Other _____

(5) BORE HOLE CONSTRUCTION
Depth of Completed Well 140 ft. Special Standard: ☐ Yes (attach copy)

BORE HOLE Dia	From	To	SEAL Material	From	To	Amount	Scks/lbs
10"	0	50'	Bent	0	50	1200	165
6"	50	140					

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☒ Other Poured dry
Backfill placed from _____ ft. to _____ ft. Material _____
Filter pack from _____ ft. to _____ ft. Material _____ Size _____

(5a) ABANDONMENT USING UNHYDRATED BENTONITE:
Calculated Amount Proposed to be Used: _____ sacks/lbs
Actual Amount Used: _____ sacks/lbs

(6) CASING/LINER

Csng	Linr	Dia	+	From	To	Gauge	Steel	Plastic	Welded	Thrd
x		6"			59	.250	x		x	
	x	4"		0	140	.250		x	x	

Shoe ☐ Inside ☒ Outside ☐ Other Location of shoe(s) 59'
Temporary casing ☐ Yes Diameter _____ From _____ To _____

(7) PERFORATIONS/SCREENS
Perforations Method Saw Cut
Screens Type _____ Material _____

Perf	Scrn	Csng	Linr	Screen Dia	From	To	Screen/ slot width	Slot length	# of slots	Tele/ pipe size
x			x		80	140	1/8	5"	90	

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
1.5		140'	1 hr

Temperature 57 °F Lab analysis ☐ Yes By _____
Water quality concerns? ☐ Yes (describe below) TDS _____ ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)
County Jackson Twp 37 N of S Range 2-W E or W W.M.
Sec 2 _____ 1/4 of the _____ 1/4 Tax Lot _____
Tax Map Number _____ Lot _____
Lat ___°___'___.___" or 42.38270 DMS or DD
Long ___°___'___.___" or 122.85913 DMS or DD
Street Address of Well (or nearest address) 4613 Goldhard Rd
Central Point, Or 97502

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL (ft)
Existing Well/Pre-Alteration				
Completed Well	4/3/12			45

Flowing Artesian? ☐ Yes Dry Hole? ☐ Yes
WATER BEARING ZONES Depth water was first found 80

SWL Date	From	To	Est Flow	SWL (psi)	+	SWL (ft)
4/3/12	80	91	1.5			45

(11) WELL LOG Ground Elevation 1247

Material	From	To
Clay & gravel brown	0	18
Claystone blue	18	42
Granite & boulders Tan	42	51
Claystone - Blue	51	140

Date Started 4/3/12 Completed 4/4/12

(unbonded) Water Well Constructor Certification
I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

RECEIVED
JUN 04 2012
WATER RESOURCES DEPT
SALEM, OREGON

License Number _____ Date _____
Signed _____

(bonded) Water Well Constructor Certification
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1661 Date 5/4/12
Signed Brandon A. Williamson
Contact Info. (optional)

ORIGINAL – WATER RESOURCES DEPARTMENT ONE COPY FOR CONSTRUCTOR ONE COPY FOR CUSTOMER
SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK
01/02/2009

PLANNING DEPARTMENT FINDINGS OF FACT
AND CONCLUSIONS OF LAW
File No.: SUB-25001

Before the City of Central Point Planning Commission
Consideration of a Tentative Plan for the Gebhard Village Subdivision

Applicant:	)	Findings of Fact
Lowman Revocable Trust	)	and
4462 Coal Mine Road	)	Conclusions of Law
Medford OR 97504	)	

PART 1
INTRODUCTION

The applicant submitted a tentative plan application (Type III) for the Gebhard Village Subdivision to subdivide 8.18 acres into 67 lots with a total of 78 units ("Application"). The property is located within the Medium Mix Residential (MMR) zoning district in the Eastside Transit Oriented Development (ETOD) Overlay.

A subdivision tentative plan is reviewed as a Type III application. Type III applications are reviewed in accordance with procedures provided in Section 17.05.400, which provides the basis for decisions upon standards and criteria in the development code and the comprehensive plan, when appropriate.

The standards and criteria for the proposal are set forth in CPMC Title 16, Subdivisions, and Chapter 17.66, Application Review Process for the TOD Overlay. The following findings address each of the standards and criteria as applies to the subdivision tentative plan.

PROJECT BACKGROUND

The project site is along Gebhard Road in the western portion of the ETOD. The abutting property in the ETOD to the south is under development as the Willow Bend Subdivision, formerly known as White Hawk. The property to the northeast is developed with single-family residences in the R-3 zoning district. The properties to the southeast, within the ETOD, and to the west across Gebhard Road are undeveloped.

The proposed density of 14 units per acre is consistent with the minimum/maximum range for density in the MMR zoning district. Access to the proposed development will be provided to Gebhard Road by Denson Street, established as part of the Willow Bend development, and two (2) new public street connections. Connectivity and circulation within Gebhard Village and throughout the ETOD will be provided by connections to Willow Bend, new internal streets and alleyways.

Figure 1. Tentative Plan Cover Sheet

PLANNING

CITY OF CENTRAL POINT, OREGON

File No.: MP-25001 & SUB-25001

Proposed Master Plan Application
& Subdivision Tentative Plan

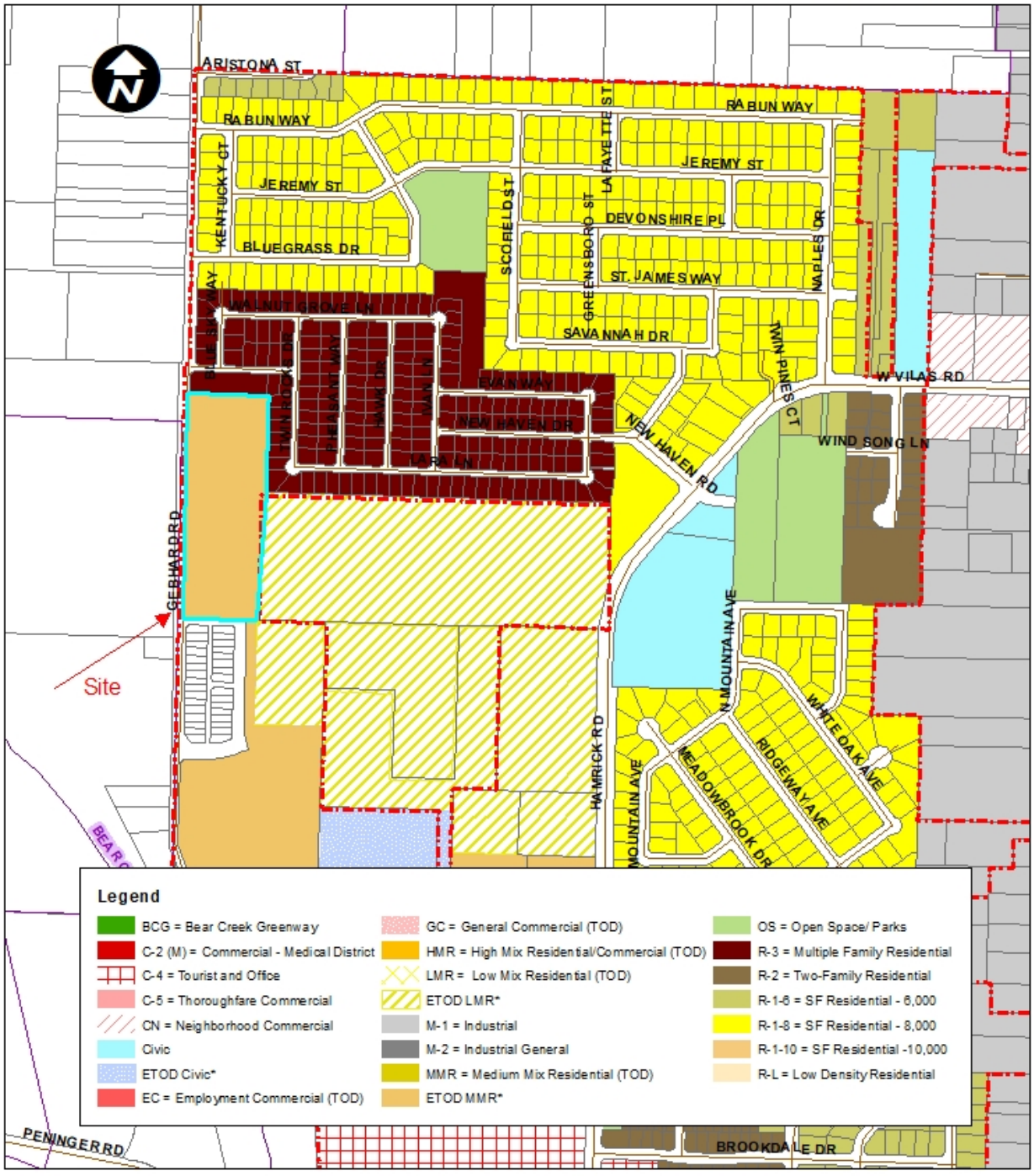


Figure 2. Grading and Drainage Plan

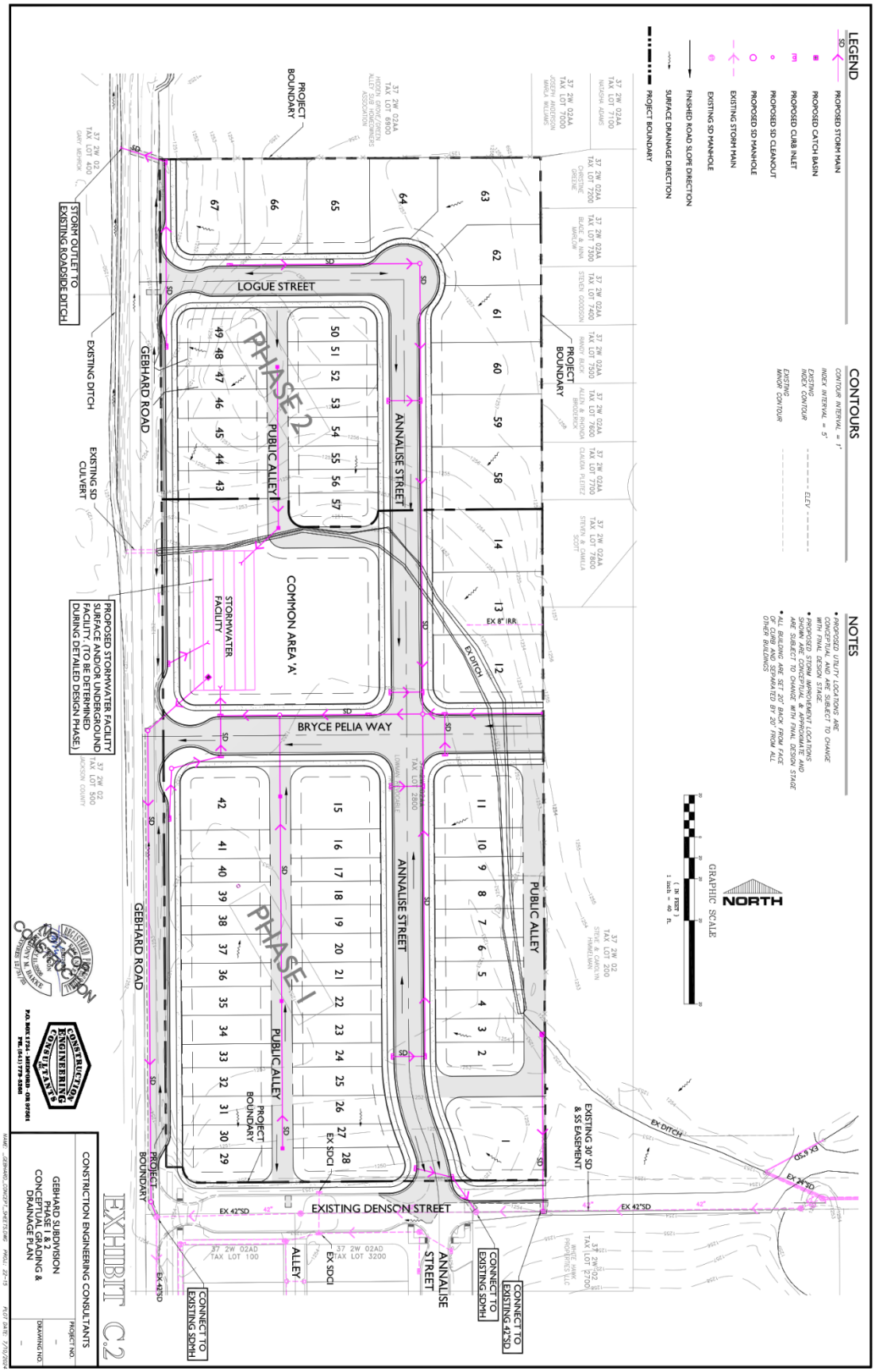


Figure 3. Utility Plan

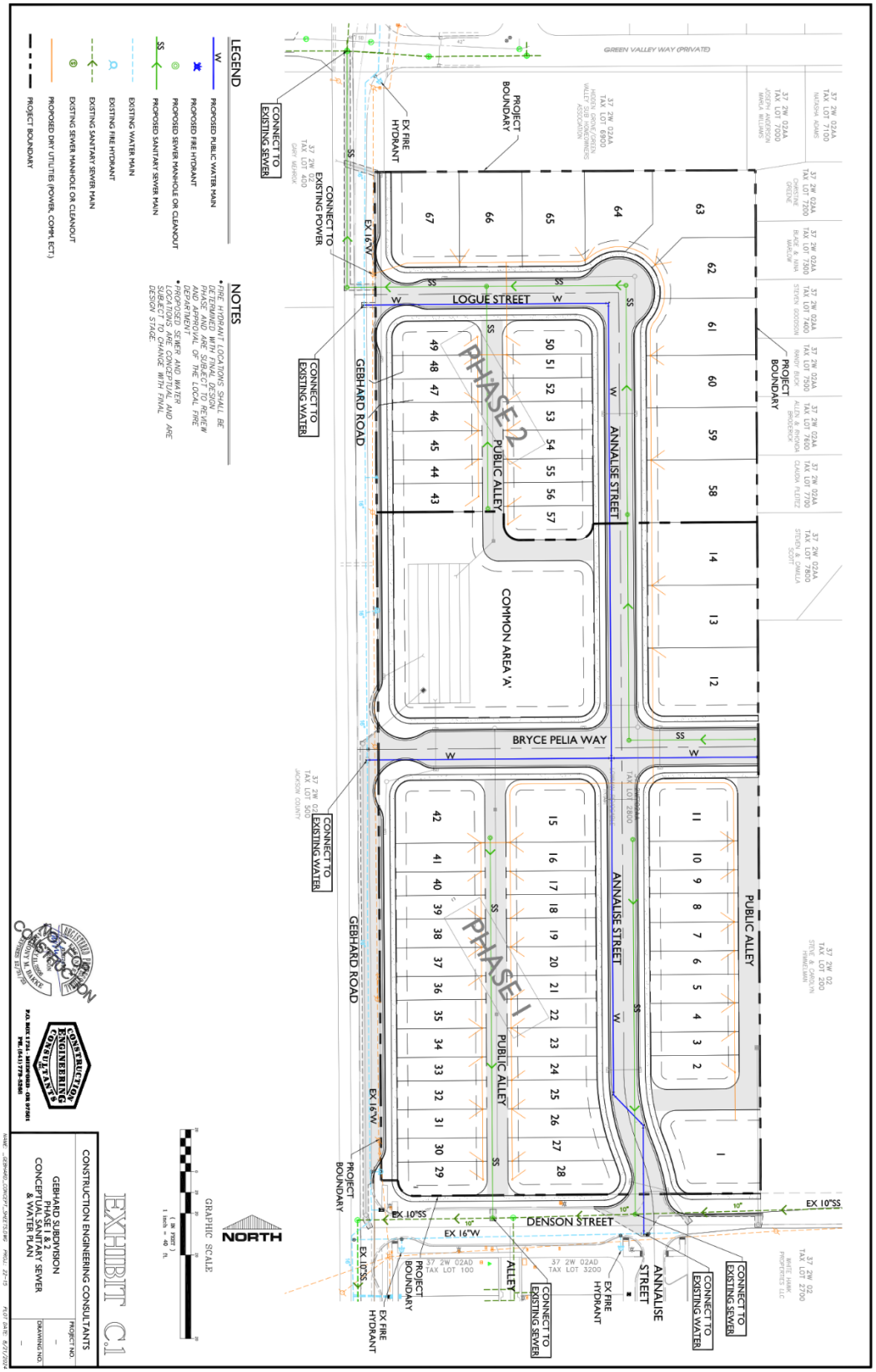
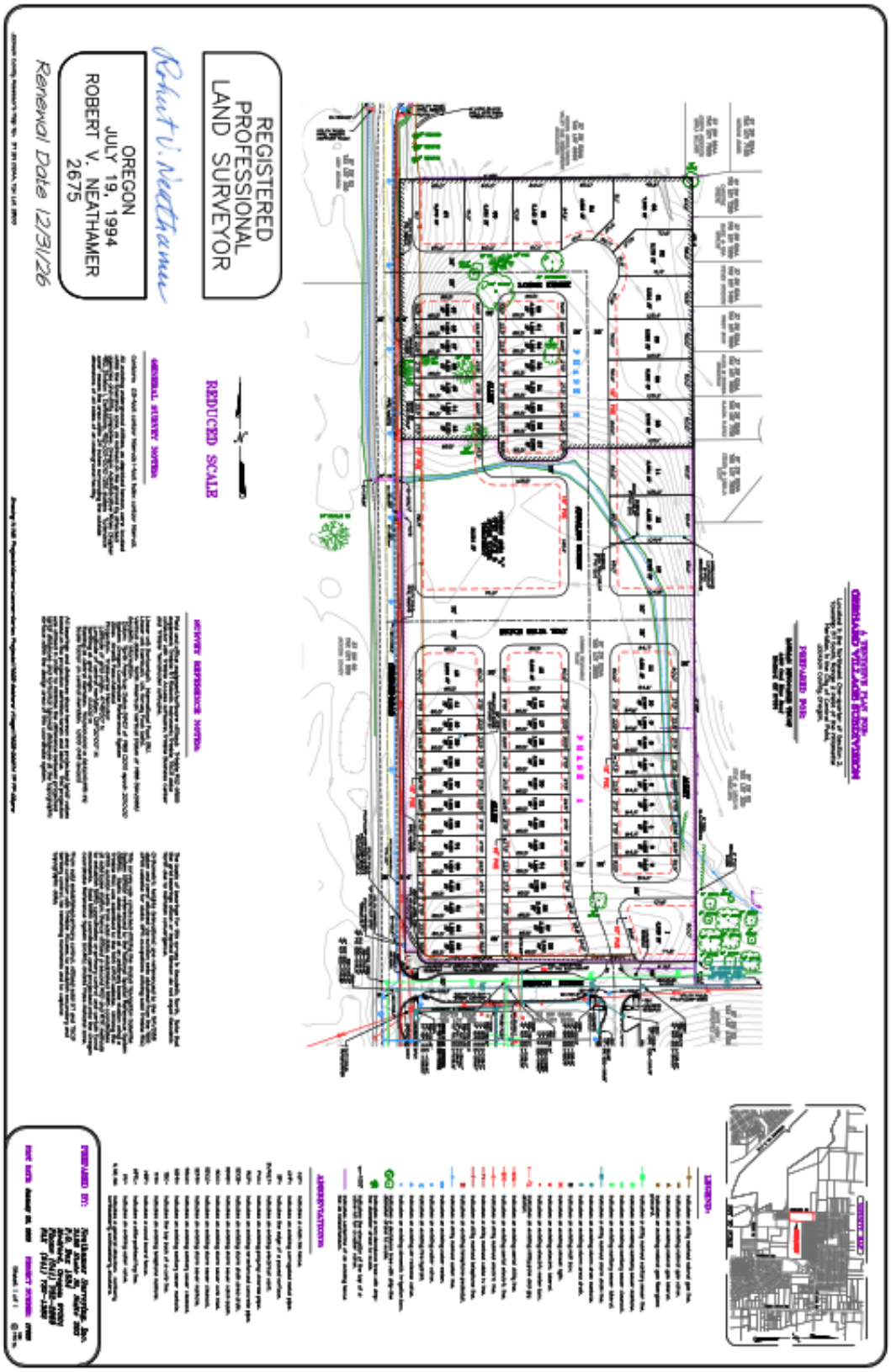


Figure 4. Tentative Plan



PART 2
SUBDIVISIONS

Title 16 of the Central Point Municipal Code (CPMC) establishes standards and criteria for land division applications including tentative plans and final plats. The sections of CPMC 16 applicable to the Application are:

Chapter 16.10 - Tentative Plans.

CPMC 16.10.010 Submission of application – Filing fee.

The applicant shall submit an application and tentative plan together with improvement plans and other supplementary material as may be required to indicate the development plan and shall submit ten copies to the city together with a filing fee defined in the city's adopted planning application fee schedule. The diagrams submitted shall consist of three copies at the scale specified in Section 16.10.020 and one copy in an eight-and-one-half-inch by eleven-inch format.

Finding CPMC 16.10.010: *The applicant submitted the tentative plan application along with the required $4,700 application fee on January 23, 2025. The submittal was reviewed and accepted as complete on March 3, 2025 for review in accordance with the submittal requirements in CPMC 16.10, CPMC 17.05, and CPMC 17.66.*

Conclusion CPMC 16.10.010: *Consistent.*

CPMC 16.10.015 Application and review--Fees.

Applications and review thereof shall conform to the provisions of Chapter 17.05 and all applicable city ordinances and laws of the state. All costs of administrative and legal staff time costs, plans checks, construction inspection, preparation of agreements, in excess of the filing fee, shall be borne by the applicant and paid upon billing by city. Failure to pay such costs as billed shall constitute grounds for denial of final plat approval or building permits.

Finding CPMC 16.10.015: *See Finding CPMC 16.10.010.*

Conclusion: 16.10.015: *Consistent.*

CPMC 16.10.020 Scale.

The tentative plan shall be drawn on a sheet eighteen by twenty-four inches in size or a multiple thereof at a scale of one inch equals one hundred feet or, for areas over one hundred acres, one inch equals two hundred feet, and shall be clearly and legibly reproduced.

Finding CPMC 16.10.020: *The tentative plan is drawn on a sheet that is twenty-four inches by thirty-six inches and at a scale of one-inch equals fifty feet, which is clearly and legibly produced relative to the project area.*

Conclusion CPMC 16.10.020: *Consistent.*

CPMC 16.10.030 General information.

The following general information shall be shown on or included with the tentative plan:

A. Proposed name of the subdivision. This name must not duplicate or resemble the name of another subdivision in the county;

Finding CPMC 16.10.030(A): *The proposed subdivision is named "Gebhard Village" The proposed name must be unique relative to other approved land divisions in Jackson County. As a condition of approval, the applicant is required to submit a subdivision plat name approval from the Jackson County Surveyor.*

Conclusion CPMC 16.10.030(A): *Complies as conditioned.*

B. Date, north point, and scale of drawing;

Finding CPMC 16.10.030(B): *The tentative plan was drawn on January 23, 2025 and includes the scale and north arrow.*

Conclusion CPMC 16.10.030(B): *Consistent.*

C. Location of the subdivision by section, township, and range, and a legal description sufficient to define the location and boundaries of the proposed tract or the tract designation or other description according to the records of the county assessor;

Finding CPMC 16.10.030(C): *Figure 1 provides a site Vicinity Map and Figure 2 provides the section, township and range (37 2W 02AA, Tax Lot 2800). Combined with the legal description submitted with the application, these items define the location and boundaries of the project site.*

Conclusion CPMC 16.10.030(C): *Consistent.*

D. Names and addresses of the owner or owners, applicant and engineer or surveyor;

Finding CPMC 16.10.030(D): *The applicant is listed on the tentative plan (Figure 5) as Lowman Revocable Trust and the surveyor is listed as Neathamer Surveyor, Inc out of Medford, Oregon.*

Conclusion CPMC 16.10.030(D): *Consistent.*

E. A title report indicating all interests of record in the property which is the subject of the application.

Finding CPMC 16.10.030(E): *A title report prepared by First American Title on January 30, 2025 was provided with the application.*

Conclusion CPMC 16.10.030(E): *Consistent.*

CPMC 16.10.040 Existing conditions.

The following existing conditions shall be shown on the tentative plan:

A. The location, widths and names of all existing or platted streets or other public ways within or adjacent to the tract, easements, railroad rights-of-way and such other important features within or adjacent to the tract as may be required by the city;

Finding CPMC 16.10.040(A): *The tentative plat illustrates the location and width of Gebhard Road, which is west of and adjacent to the project site, and Denson Street, which is south of and adjacent to the project site. There are no other existing easements or rights-of-way within or adjacent to the tract.*

Conclusion CPMC 16.10.040(A): *Consistent.*

B. Contour lines related to some established bench mark or other datum as approved by the city when the city determines that the nature of the topography or size of the subdivision requires such data. Contour lines shall have the following minimum intervals:

    1. Two-foot contour intervals for ground slopes less than five percent;

    2. Five-foot contour intervals for ground slopes exceeding five percent;

Finding CPMC 16.10.040(B): *Figure 2 includes topographic information at two-foot contour intervals. The slope of the property is less than five percent.*

Conclusion CPMC 16.10.040(B): *Consistent.*

C. The location of at least one temporary bench mark within the plat boundaries;

Finding CPMC 16.10.040(C): *The tentative plat submittal provides the basis of survey including the bearings and elevations.*

Conclusion CPMC 16.10.040(C): *Consistent.*

D. Location and direction of all watercourses and drainage systems;

Finding CPMC 16.10.040(D): *There is an existing drainage ditch on the project site and an existing 42-inch storm drain line within Denson Street right-of-way to the south. Figure 3 provides location of existing and proposed drainage systems. There are no watercourses on or immediately adjacent to the project site.*

Conclusion CPMC 16.10.040(D): *Consistent.*

E. Natural features, such as rock outcroppings, marshes and wooded areas;

Finding CPMC 16.10.040(E): *The project site is currently undeveloped. Per staff site visits and aerial imagery, the project site contains some vegetation including a few mature trees, but it primarily consists of a flat, open grass field. There are no rock outcroppings or wetland areas on the project site.*

Conclusion 16.10.040(E): *Consistent.*

F. Existing uses of the property, including location of all existing structures which the subdivider proposes to leave on the property after platting;

Finding CPMC 16.10.040(F): *The property is currently undeveloped and there are no structures for removal as part of the proposed subdivision.*

Conclusion CPMC 16.10.040(F): *Not applicable.*

G. The location within the subdivision and in the adjoining streets and property of existing sewers and water mains, culverts and drain pipes, and all other existing or proposed utilities to be used on the property to be subdivided and invert elevations of sewers at points of probable connections;

Finding CPMC 16.10.040(G): *The Applicant's Findings identify the location of existing infrastructure adjacent to the subject property relative to existing conditions.*

Conclusion CPMC 16.10.040(G): *Consistent.*

H. Zoning on and adjacent to the tract.

Finding CPMC 16.10.040(H): *Zoning designations on the project site and adjacent properties are denoted on the Vicinity Map (Figure 1).*

Conclusion CPMC 16.10.040(H): *Consistent.*

CPMC 16.10.050 Additional information.

The following additional information shall also be included on the tentative plan:

A. Streets, showing location, width, proposed names, approximate grades and approximate radii of curves and the relationship of all streets to any projected streets as shown of any development plan adopted by the city;

Finding CPMC 16.10.050(A): *The proposed tentative plan (Figure 5) identifies proposed internal streets, including their location and width. As shown on the tentative plan, the project proposes to align the streets with the streets developed as part of Willow Bend to the south.*

Condition CPMC 16.10.050(A): *Consistent.*

B. Easements, showing the width and purpose;

Finding CPMC 16.10.050(B): *As shown on the tentative plan (Figure 5), a 10-ft Public Utility Easement (PUE) is proposed along the frontage of all proposed lots consistent with the Public Works Standards. No other easements are proposed on the project site.*

Conclusion CPMC 16.10.050(B): *Consistent.*

C. Lots, showing approximate dimensions, area of smallest lot or lots and utility easements and building setback lines to be proposed, if any;

Finding CPMC 16.10.050(C): *Public utility easements and approximate dimensions of each proposed lot are shown on the tentative plan (Figure 5).*

Conclusion CPMC 16.10.050(C): *Consistent.*

D. Sites, if any, proposed for purposes other than dwellings;

Finding CPMC 16.10.050(D): *As shown on the tentative plan (Figure 5), an open space area and stormwater tract are proposed and centrally located within the development.*

Conclusion CPMC 16.10.050(D): *Consistent.*

E. Area in square footage of each lot and the average lot area.

Finding CPMC 16.10.050(E): *The lot area for the each of the proposed lots is provided on the tentative plan (Figure 5).*

Conclusion CPMC 16.10.050(E): *Consistent.*

CPMC 16.10.060 Partial development.

When the property to be subdivided contains only part of the tract owned or controlled by the applicant, the city may require a development plan of a layout for streets, numbered lots, blocks, phases of development, and other improvements in the undivided portion, indicating inter-relationship with the portion sought to be divided. The city shall have authority to require that any adjacent parcel or parcels owned or controlled by the applicant but not included in the proposed subdivision boundaries be included in the development whenever inclusion of such parcel or parcels would be an appropriate extension of the development and in the best interests of the public, considering the development plan and the relationship between the surrounding area and the area of proposed development.

Finding CPMC 16.10.060: *The project site is approximately 8.18 acres and the proposed subdivision, including individual lots, streets and other improvements, will occupy the subject property in its entirety.*

Conclusion CPMC 16.10.060: *Not Applicable.*

16.10.070 Explanatory information.

Any of the following information may be required by the city and, if it cannot be shown practicably on the tentative plan, it shall be submitted in separate statements accompanying the tentative plan:

A. A vicinity map showing all existing subdivisions, streets and un-subdivided land ownerships adjacent to the proposed subdivision and showing how proposed streets may be connected to existing streets;

Finding CPMC 16.10.070(A): *As shown on the Vicinity Map (Figure 1), the proposed subdivision is adjacent to the Willow Bend subdivision to the south and the Green Valley Subdivision to the north and northeast. Figure 5 shows how the proposed streets will connect within the ETOD and the existing Willow Bend development to the south. Green Valley Subdivision is outside the ETOD and no connections are planned between the developments.*

Conclusion CPMC 16.10.070(A): *Consistent.*

B. Proposed deed restrictions in outline form;

Finding CPMC 16.10.070(B): *The project site is located in the ETOD and the Master Plan application (MP-25001) acknowledges the presence of active farm uses nearby. As a condition of approval, the applicant will be required to record a right-to-farm disclosure prior to final plat.*

Conclusion CPMC 16.10.070(B): *Complies as conditioned.*

C. Approximate centerline profiles showing the proposed finished grade of all streets, including the extensions for a reasonable distance beyond the limits of the proposed subdivision;

Finding CPMC 16.10.700(C)*: Street profiles are not provided with the tentative plan application. The Public Works Staff Report dated March 14, 2025 requires that the applicant comply with all Public Works requirements prior to final plat to ensure the streets are completed in accordance with current standards.*

Conclusion CPMC 16.10.070(C): *Complies as conditioned.*

D. The approximate location and size of all proposed and existing water and sewer lines and storm drainage systems.

Finding CPMC 16.10.070(D): *The approximate location of existing and proposed water, sanitary sewer and storm drainage systems are included with the tentative plan application. As required by the Public Works Staff Report dated March 14, 2025, civil improvement plans that are designed in conformance with City Standard Specification and Uniform Details for Construction, including the location of proposed utilities and protection of all existing public facilities. These plans are reviewed by the City Engineer prior to construction on site. Prior to final plat, the location of utilities must be shown on as-built drawings and final installation verified by the engineer of record. Conditions from Rogue Valley Sewer Services requires that the applicant comply with all RVSS requirements prior to construction to ensure the sewer facilities are completed in accordance with current standards.*

Conclusion CPMC 16.10.070(D): *Complies as conditioned.*

CPMC 16.10.080 Tentative plan approval.

A. Approval of the tentative plan shall not constitute final acceptance of the final plat of the proposed subdivision or partition for recording; however, approval of the tentative plan shall be binding upon city for the purpose of the approval of the final plat if the final plat is in substantial compliance with the tentative plan and any conditions of approval thereof. A tentative plan approval shall expire and become void one year from the date on which it was issued unless the final plat has been approved pursuant to Chapter 16.12 or an application for extension is filed and approved subject to the requirements of Section 16.10.100 and Chapter 17.05.

B. When it is the intent to develop a tentative plan and record a final plat in phases, the city, at the time of tentative plat approval, may authorize a time schedule for platting the various phases in periods exceeding one year, but in no case shall the total time period for platting all phases be greater than five years without review of the tentative plan for compliance with the current code and comprehensive plan. Each phase so platted shall conform to the applicable requirements of this chapter. Phases platted after the passage of one year from approval of the tentative plan will be required to modify the tentative plan as necessary to avoid conflicts with changes in the comprehensive plan or this chapter.

Finding CPMC 16.10.080: *Upon receipt of a final plat application within the required time limitation per CPMC 16.12 or CPMC 16.10.100 and 17.05, the City will evaluate the final plat application to assure that the final plat is substantially compliant with the tentative plan and that all conditions have been met. The Applicant's Findings propose the final plat and development will be constructed in two (2) phases and will be completed within five (5) years.*

Conclusion CPMC 16.10.080: *Consistent.*

CPMC 16.10.090 Conditions on tentative plan approval.
The city may attach to any tentative plan approval given under this chapter specific conditions deemed necessary in the interests of the public health, safety or welfare, including but not limited to the following:

A. Construction and installation of any on-site or off-site improvements, including but not limited to sidewalks, curbs, gutters, streets, street signs and street lights, traffic control signs and signals, water, storm drainage, sanitary sewer, and park and recreation improvements. In requiring off-site improvements, the city shall find that said improvements are reasonably related to the development and would serve a public purpose such as mitigating negative impacts of the proposed development.

B. All improvements required under this subsection shall be made at the expense of the applicant, and shall conform to the provisions of the Standard Specifications and Uniform Standard Details for Public Works Construction in the City of Central Point, Oregon, however, the city, in its discretion, may modify such standards and determine site-specific design, engineering and construction specifications when appropriate in the particular development;

C. An agreement by the owner of the property to waive, on his or her behalf, and on behalf of all future owners of the land, any objection to the formation of a local improvement district which may be formed in the future to provide any of the improvements specified in subsection A of this section;

D. An agreement by the owner of the property to enter into a written deferred improvement agreement, providing that one or more of the improvements specified in subsection A of this section shall be made by the owner at some future time to be determined by the city;

E. Any agreement entered into pursuant to subsections B or C of this section shall be recorded in the county recorder's office and shall be intended to thereafter run with the land, so as to bind future owners of the lands affected. Any and all recording costs shall be borne by the applicant;

F. Any other conditions deemed by the city to be reasonable and necessary in the interests of the public health, safety or welfare.

Finding CPMC 16.10.090: *Conditions of approval attached to the tentative plan include providing improvements that are in the interest of the public health, safety and welfare that include sidewalks, curbs, gutters, streets, storm drainage, sanitary sewer, water, park and recreation improvements. Required improvements are related to the development and, as noted in the Parks and Public Works Staff Report, dated March 14, 2025, are required to conform to City of Central Point Standard Specifications and Uniform Details for Public Works Construction. Standards have not been modified for the proposed development and the proposal does not include agreement for local improvement districts nor deferred improvements. Conditions of Approval are listed in the Planning Department Staff Report, dated April 1, 2025.*

Conclusion CPMC 16.10.090: *Consistent.*

Chapter 16.20, Streets and Other Ways – Design Standards.

CPMC 16.20.010 Creation of streets.

A. Streets created by subdivisions and partitions shall be designed and constructed in conformance with the requirements of the city's comprehensive plan, this code, the city's public works standards, and all conditions established by the city.

Finding CPMC 16.20.010(A): *As shown on the Tentative Plan (Figure 5), access to the proposed subdivision will be provided by newly proposed public streets. All streets will be improved to minimum construction standards, per the Public Works Staff Report dated March 14, 2025.*

Conclusion CPMC 16.20.010(A): *Consistent.*

B. The construction of streets shall include subgrade, base, asphaltic concrete surfacing, curbs, gutters, sidewalks, storm drainage, street signs, street lighting, and underground utilities.

Finding CPMC 16.20.010(B): *The application states that the proposed roadways will be designed to comply with the City's codes including the Public Works Design Specifications for street construction. This is supported by the Tentative Plan (Figure 5) and the Public Works Staff Report dated March 14, 2025.*

Conclusion CPMC 16.20.010(B): *Consistent.*

C. All streets, including the entire right-of-way necessary for the installation of the items mentioned in the preceding paragraph, shall be dedicated to the city.

Finding CPMC 16.20.010(C): *The streets, including the entire right-of-way necessary for installation, will be dedicated to the City at the time of final plat.*

Conclusion CPMC 16.20.010(C): *Consistent.*

CPMC 16.20.020 Streets – Generally

The location, width, and grade of streets shall be considered in their relation to existing and planned streets, to topographical conditions as they relate to drainage and the operation of the water, sewer systems, to public convenience and safety and their appropriate relation to the proposed use of the land to be served by such streets. Where location is not shown in a development plan, the arrangement of streets in a subdivision shall either:

A. Provide for the continuation or appropriate projection of existing streets in surrounding areas; or,

Finding CPMC 16.20.020(A): *Figure 5 illustrates how the proposed streets will connect to an existing development within the ETOD to the south, Willow Bend. Connections are not planned to the existing development to the north and northeast, Green Valley Subdivision, that is located outside the ETOD in the R-3 zoning district.*

Conclusion CPMC 16.20.020(A): *Consistent*

B. Conform to the plan for the neighborhood approved or adopted by the city to meet a particular situation where topographical or other conditions make continuance or conformance to existing streets impractical.

Finding CPMC 16.20.020(B): *Figure 5 illustrates how the proposed streets will connect to an existing development within the ETOD to the south, Willow Bend. Connections are not planned to the existing development to the north and northeast, Green Valley Subdivision. As shown on Figure 1, the Green Valley Subdivision is located outside of the ETOD and the development pattern does not facilitate connection to future subdivisions in the area.*

Conclusion CPMC 16.20.020(B): *Not applicable.*

CPMC 16.20.030 Streets--Reserve strips.

Reserve strips (“street plugs”) controlling the access to public ways may be required, in the discretion of city.

Finding CPMC 16.20.030: *Per Figure 5, reserve strips are not proposed or determined necessary for any part of the proposed Gebhard Village.*

Conclusion CPMC 16.20.030: *Not Applicable.*

CPMC 16.20.050 Streets--Extension.

Where a subdivision adjoins acreage, streets which in the option of the city should be continued in the event of the subdivision of the acreage will be required to be provided through to the boundary lines of the tract. Reserve strips and street plugs may be required to preserve the objectives of street extensions.

Finding CPMC 16.20.050: *Figure 5 illustrates how the proposed streets will connect to an existing development within the ETOD to the south, Willow Bend, and extend to the adjacent, undeveloped property to the east.*

Conclusion CPMC 16.20.050: *Consistent.*

CPMC 16.20.060 Existing streets.

Whenever existing streets within a tract are determined by the city to be of inadequate width, additional right-of-way shall be provided as required.

Finding CPMC 16.20.060: *There are no existing streets within the project site. The streets, including the entire right-of-way necessary for installation, will be dedicated to the City at the time of final plat.*

Conclusion CPMC 16.20.060: *Consistent.*

CPMC 16.20.070 Half streets.

Half streets while generally not acceptable may be approved where essential to the reasonable development of the subdivision when in conformity with the other requirements of these regulations and when the city finds it will be practical to require the dedication of the other half when the adjoining property is developed. Whenever a half street is adjacent to a tract to be subdivided, the other half of the street shall be platted within such tract. Reserve strips and street plugs may be required to preserve the objectives of half streets.

Finding CPMC 16.20.070: *As shown on the Tentative Plan (Figure 5), half-streets are not proposed as part of the Gebhard Village tentative plan application.*

Conclusion CPMC 16.20.070: *Consistent.*

CPMC 16.20.080 Cul-de-sac.

A cul-de-sac shall be as short as possible and shall in no event be more than four hundred feet long nor serve more than twelve single-family dwellings or seventy-five dwelling units. All cul-de-sacs shall terminate with a circular turn-around.

Finding CPMC 16.20.080: *As shown on the Tentative Plan (Figure 5), a cul-de-sac is not proposed as part of the Gebhard Village tentative plan application.*

Conclusion CPMC 16.20.080: *Not applicable.*

CPMC 16.20.090 Streets--Names.

No street name shall be used which will duplicate or be confused with the names of existing streets except for extensions of existing streets. Street names and numbers shall conform to the established pattern in the city and the surrounding area and shall be subject to the approval of the city.

Finding CPMC 16.20.090: *The north-south street of the proposed development provides an extension of existing street platted with a previous development. Remaining street names will be subject to approval by the City and Emergency Communications of Southern Oregon prior to Final Plat.*

Conclusion CPMC 16.20.090: *Consistent.*

CPMC 16.20.100 Streets--Adjacent to railroad right-of-way.

Wherever the proposed subdivision contains or is adjacent to a railroad right-of-way, provisions shall be made for a street approximately parallel to and on each side of such right-of-way at a distance to be determined by city. Such distance shall be determined with due consideration at cross streets of the minimum distance required for approach grades to a future grade separation.

Finding CPMC 16.20.100: *As shown on the Tentative Plan (Figure 5), the project site is not adjacent to railroad right-of-way.*

Conclusion CPMC 16.20.100: *Not applicable.*

CPMC 16.20.110 Planting easements.

Where physical conditions require approval of streets less than fifty feet in right-of-way width, additional easements for planting of street trees or shrubs may be required.

Finding CPMC 16.20.110: *Per the Public Works Staff Report dated March 14, 2025, the Public Works Department is not requiring any easements for planting of street trees or shrubs.*

Conclusion CPMC 16.20.110: *Not applicable.*

CPMC 16.20.120 Alleys.

A. Location. Alleys may be provided in commercial and industrial districts, unless other permanent provisions for access to off-street parking and loading facilities are made as approved by the city.

Finding CPMC 16.20.120(A): *As shown on the tentative plat (Figure 5), the proposed development includes alleys for access to rear-loaded garages throughout the development. Access from the alley is consistent with design standards and specifications.*

Conclusion CPMC 16.20.120(A): *Consistent.*

B. Intersections. Alley intersections and sharp changes in alignment shall be avoided. The corners of necessary alley intersections shall have a radius of not less than twenty feet.

Finding CPMC 16.20.120(B): *As shown on the tentative plan (Figure 5), the proposed development does not include sharp changes in alignment and intersections designs are consistent with standards and specifications for street construction.*

Conclusion CPMC 16.20.120(B): *Consistent.*

CPMC 16.20.130 Sidewalks.

Sidewalks shall be constructed in accordance with such standards as are adopted by the city. Sidewalk construction shall be completed on each individual lot prior to the city building inspector granting a certificate of occupancy for any construction upon said individual lot. No application for a building permit shall be granted without a requirement in the building permit for construction of sidewalks to city's standards.

Finding CPMC 16.20.130: *Sidewalks shall be constructed along Gebhard Road to the west, and along all proposed streets within the development per public works standards.*

Conclusion CPMC 16.20.130: *Consistent.*

Chapter 16.24, Blocks and Lots—Design Standards

CPMC 16.24.010 Blocks – Length, Width and Shape

The lengths, widths and shapes of blocks shall be designed with due regard to providing adequate building sites suitable to the special needs of the type and use contemplated, needs for convenient access, circulation, control and safety of street traffic and limitations and opportunities of topography.

Finding CPMC 16.24.010: *Figure 5 illustrates how the proposed streets extend to an existing development, Willow Bend, to the south and may connect to future development on adjacent properties to the east.*

Conclusion CPMC 16.24.010: *Consistent.*

CPMC 16.24.020 Blocks – Sizes

Blocks shall not exceed twelve hundred feet in length except blocks adjacent to arterial streets or unless the previous adjacent layout or topographical conditions justify a variation. The recommended minimum distance between intersections on arterial streets is three hundred feet.

Finding CPMC 16.24.020: *As shown on the tentative plan (Figure 5), block lengths are consistent with this section. Block length for proposed streets is measured along the proposed centerline. Access spacing along Gebhard Raod between the northern most access to the development, Logue Street, and the existing access to Green Valley Subdivision, Green Valley Way, does not comply with minimum spacing standards. As noted in the Parks and Public Works Staff Report, dated March 14, 2025, the Public Works Department concurs with Applicant's Traffic Impact Analysis (TIA), which analyzed the access spacing along Gebhard Road, and found the sight-distance is sufficient to accommodate the access spacing.*

Conclusion CPMC 16.24.020: *Consistent.*

CPMC 16.24.030 Blocks – Easements

A. Utility Lines. Easements for electric lines or other non-city-owned public utilities may be required, and shall be a minimum of ten feet in width located on the exterior portion of a single property. Easements for city utilities (i.e., water, storm drain and sanitary sewer mains) shall be a minimum of fifteen feet in width located on the exterior portion of a single property. Tie-back easements six feet wide by twenty feet long shall be provided for utility poles along lot lines at change of direction points of easements.

1. Structures Located within a City Utility Easement.

    a. Except for public utilities and for signs when developed in accordance with Chapter 15.24 (Sign Code), no person shall locate, construct, or continue to locate a structure (as defined in Chapter 16.08) within a city utility easement (as defined in Chapter 16.08), except as provided in subsections (A)(1)(b) and (A)(2) of this section.

    b. Notwithstanding the foregoing, the city may approve fencing, concrete block walls/fencing, retaining walls, and similar fencing/wall structures that are otherwise in compliance with the building code, and with the clearance provisions noted herein, over an easement subject to the following requirements:

        i. Said fencing or wall structures that interfere with the installation, maintenance, access, or operation of a public utility or city utility may be removed by the utility provider or the city at the sole cost of owner.

        ii. Any replacement or relocation of the fencing or wall structures shall be at the sole cost of the property owner or occupant.

        iii. Owners and occupants of property shall not be entitled to compensation for damages related to removal of the fencing or wall structures.

2. Grass, Asphalt, and Concrete Installed within a City Utility Easement.

    a. Subject to the limitations of the building code, lawful owners and occupants of property may install grass, asphalt and concrete within a city utility easement.

    b. In the course of installing, accessing, maintaining, or operating its facilities in a city utility easement, a public utility or the city, as the case may be, may move or remove any asphalt, concrete, or vegetation located within said easement. After the same are moved or removed and after completion of the necessary work, the grass, asphalt or concrete shall be repaired and replaced in a reasonable manner at the sole cost of the public utility or city.

    c. Owners and occupants of property shall not be entitled to compensation related to damages to grass, asphalt, or concrete so long as the repairs and replacement are done in a reasonable manner and in a reasonable time frame.

Finding CPMC 16.24.030(A): *Per the tentative plat (Figure 5) no structures or fencing are proposed in the City Utility Easements along the proposed streets. Development of the individual lots will be required to comply with the provisions of this section.*

Conclusion CPMC 16.24.030(A): *Consistent.*

B. Watercourses. Where a subdivision is traversed by a watercourse, drainage way, channel or stream, there may be required a stormwater easement or drainage right-of-way conforming substantially with the lines of such watercourse, and such further width as will be adequate for the purpose. Streets, parkways or access roads parallel to major watercourses may be required.

Finding CPMC 16.24.030(B): *The proposed subdivision is traversed by an existing drainage ditch. As shown on the Utility Plan (Figure 3) and the Tentative Plan (Figure 5), water from the ditch will be collected into the proposed stormwater system and discharged into existing facilities south and west of the site.*

Conclusion CPMC 16.24.030(B): *Consistent.*

C. Pedestrian Ways. In any block over seven hundred fifty feet in length a pedestrian way may be required. The minimum width of the pedestrian right-of-way must be at least six feet in width which shall be hard surfaced through the block and curb to curb in order to provide easy access to schools, parks, shopping centers, mass transportation stops or other community services. If conditions require blocks longer than twelve hundred feet, two pedestrian ways may be required for combination pedestrian way and utility easement. When essential for public convenience, such ways may be required to connect to cul-de-sacs. Long blocks parallel to arterial streets may be approved without pedestrian ways if desirable in the interests of traffic safety

Finding CPMC 16.24.030(C): *Per Finding CPMC 16.24.020, the proposed blocks are less than seven hundred fifty feet in length and a pedestrian way is not included as part of the proposed subdivision.*

Conclusion CPMC 16.24.030: *Consistent.*

CPMC 16.24.040 Lots – Uses

A. The city may, in its discretion, deny approval for the creation of any lot by any manner if the effect of such creation of lot would be to facilitate perpetuation of a nonconforming use.

B. No lot shall be created unless it is in compliance with all applicable provision of this code.

Finding CPMC 16.24.040: *As evidenced by the findings and conclusions set forth herein, the lots of the proposed subdivision tentative plan satisfy the approval criteria.*

Conclusion CPMC 16.24.040: *Consistent.*

CPMC 16.24.050 Lots – Sizes and Determination

Lot sizes shall conform with the zoning ordinance and shall be appropriate for the location of the subdivision and for the type of development and use contemplated. In the case of irregular lots, the width shall be measured along the front building line. In no case shall the average depth be more than two and

one-half times the width. Corner lots for residential use shall have sufficient width to permit appropriate building setback from and orientation to both streets.

A. In areas that cannot be connected to sewer lines, minimum lot sizes shall be sufficient to permit sewage disposal by an engineered system in accordance with Department of Environmental Quality, Jackson County environmental quality section, and public works standards. Such lot sizes shall conform to the requirements of the Jackson County environmental quality section.

B. Where property is zoned and planned for business or industrial use, other widths and areas may be required, at the discretion of the city. Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for the off-street service and parking facilities required by the type of use and development contemplated

Finding CPMC 16.24.050: *As evidenced by the findings and conclusions set forth herein, the proposed subdivision tentative plan satisfies the approval criteria.*

Conclusion CPMC 16.24.050: *Consistent.*

CPMC 16.24.060 Through Lots

Through lots shall be avoided except where essential to reduce access to primary or secondary arterial streets or streets of equivalent traffic volume, reduce access to adjacent nonresidential activities, or to overcome specific disadvantages of topography and orientation. A planting screen easement of at least ten feet may be required along the line of lots abutting such adjacent street. There shall be no right of access across such planting screen easements.

Finding CPMC 16.24.060: *As shown on the tentative plan (Figure 5), the proposed development does not include through lots.*

Conclusion CPMC 16.24.060: *Consistent.*

CPMC 16.24.070 Lot Side Lines

The side lines of lots shall run at right angles to the street upon which the lots face, as far as practicable, or on curbed streets they shall be radial to the curve.

Finding CPMC 16.24.070: *As shown on the tentative plan (Figure 5), the sides of the lots are at right angles to the proposed streets.*

Conclusion 16.24.070: *Consistent.*

CPMC 16.24.080 Large Lot Subdivision

In subdividing tracts into large lots which at some future time are likely to be resubdivided, the location of lot lines and other details of the layout shall be such that the resubdivisions may readily take place without violating the requirements of these regulations and without interfering with the orderly development of streets or other utilities. Restrictions of building locations in relationship to future rights-of-way shall be made a matter of record if the city considers it necessary.

Finding CPMC 16.24.080: *As evidenced by the findings and conclusions set forth herein, the proposed subdivision tentative plan satisfies the lot dimension criteria and does not include large lots to be resubdivided at a later time.*

Conclusion CPMC 16.24.080: *Not applicable.*

PART 3
ZONING ORDINANCE

The purpose of Title 17 of the CPMC is to encourage the most appropriate use of land, promote orderly growth of the city, and promote public health, safety, convenience and general welfare. The sections of CPMC 17 applicable to the application are:

Chapter 17.05, Applications and Types of Review Procedures

This Chapter establishes standard decision-making procedures that enable the city, the applicant, and the public to review applications and participate in the local decision making process. There are four (4) types of review procedures, Type I, II, II, and IV that are applied to land use and development applications in Table 17.05.100.1. It also establishes when a Traffic Impact Analysis (TIA) is required.

Finding CPMC 17.05: *As identified in Table I, Section 17.05.100.1 a subdivision tentative plan is reviewed using Type III procedures. As evidenced by the mailed and posted notice documents in Exhibit "A", the application has been noticed and processed in accordance with the Type III review procedures per Section 17.05.400.*

Per Section 17.05.900, a TIA for residential development is required when Average Daily Trips (ADT) exceed 250. The proposed Gebhard Village is estimated to generate 532 ADT. The TIA for Gebhard Village, prepared October 2, 2024, evaluates the impacts of the development the following intersections: 1). Hamrick Road/Beebe Road, 2). Gebhard Road/Wilson Road and 3). Gebhard Road/Sunnybrook access roads. Per the TIA, Gebhard Village contributes to the Hamrick Road/Beebe Road intersection exceeding intersection Level of Service. As noted in the Parks and Public Works Staff Report, dated March 14, 2025, the Applicant is required to contribute funding to a traffic signal project in this location as proportional to the share of traffic generated.

Per CPMC 17.65.050, Table 1, single family detached housing is, "Only permitted as a transition between lower density zones and/or when adjacent to an environmentally sensitive area." The adjoining property, Green Valley Subdivision, to the north and northeast is within the R-3 Multi-family Residential zoning district and is developed with single-family homes at a density of approximately 8 units per acre. As presented, the proposed single-family lots in Gebhard Village offer a transition between existing lower density housing and the higher density housing proposed throughout the rest of Gebhard Village and into the remaining areas of the ETOD

Conclusion CPMC 17.05: *Consistent.*

Chapter 17.65 – TOD Districts and Corridors

The purpose of the Central Point transit oriented development (TOD) district is to promote efficient and sustainable land development and the increased use of transit as required by the Oregon Transportation Planning Rule.

Finding CPMC 17.65: *The proposed tentative plan has been reviewed in accordance with the applicable zoning regulations provided in Chapter 17.65.*

Gebhard Village proposes 67 lots and 78 residential units on 8.18 gross acres. Per CPMC 17.65.070(D), Table 2, net density is the gross acreage minus any right-of-way, environmental or civic land. Based on the Tentative Plan (Figure 5), right-of-way accounts for 2.62 acres resulting in 5.56 acres (net) for the density calculation in this section. Based on the minimum/maximum density requirement for the MMR zone, this requires 78-178 dwelling units on the site. The applicant proposes 78 units, which is within the minimum/maximum range for density in the MMR zone.

Conclusion CPMC 17.65: *Consistent.*

Chapter 17.66 – Application Review Process for the TOD District and Corridor

This chapter describes the review procedures to be followed for development proposed within the TOD district and corridor which are identified on the official city zoning map.

CPMC 17.66.030, Application and Review

A. There are four types of applications which are subject to review within the Central Point TOD district and corridor.

    1. TOD District or Corridor Master Plan. TOD District or Corridor Master Plan. Master plans shall be required for:

        a. Development or land division applications which involve two or more acres of land; or

        b. Modifications to a valid master plan approval which involve one or more of the following;

            i. An increase in dwelling unit density which exceeds fiver percent of approved density;

            ii. An increase in commercial gross floor area of ten percent or two thousand square feet, whichever is greater;

            iii. A change in the type and location of streets, accessways, and parking areas where off-site traffic would be affected; or

            iv. A modification of a condition imposed as part of the master plan approval.

Finding CPMC 17.66.030(A)(1): *The current application is for a 67-lot/78-unit subdivision on a property of approximately 8.18 acres, with approximately 5.56 acres of net residential area. An application for a master plan (File No. MP-25001) was submitted separately and concurrently with the application for the Gebhard Village Tentative Plan.*

Conclusion CPMC 17.66.030(A)(1): *Not applicable.*

2. Site Plan and Architectural Review. The provisions of Chapter 17.72, Site Plan and Architectural Review, shall apply to permitted uses and limited uses within the TOD district and corridor. For site plan and architectural review applications involving two or more acres of land, a master plan approval, as provided in this chapter, shall be approved prior to, or concurrently with, a site plan and architectural review application.

Finding CPMC 17.66.030(A)(2): *The current application is for a subdivision tentative plan and does not include a Site Plan and Architectural Review.*

Conclusion CPMC 17.66.030(A)(2): *Not applicable.*

3. Land Division. Partitions and subdivisions shall be reviewed as provided in Title 16, Subdivisions. For a land division application involving two or more acres of land, a master plan approval, as provided in this chapter, shall be approved prior to, or concurrently with, a land division application.

Finding CPMC 17.66.030(A)(3)*: The subject property is approximately 8.18 acres with approximately 2.62 acres net residential area. As evidenced by the findings and conclusions set forth herein, the proposed subdivision tentative plan satisfies the approval criteria for Title 16, Subdivisions. The application for subdivision tentative plan was submitted concurrently with an application for a master plan (See File No. MP-25001), which is under separate review.*

Conclusion CPMC 17.66.030(A)(3): *Consistent.*

4. Conditional Use. Conditional uses shall be reviewed as provided in Chapter 17.76, Conditional Use Permits.

Finding CPMC 17.66.030(A)(4): *The current application is a 67-lot/78-unit subdivision and does not include a Conditional Use.*

Conclusion CPMC 17.66.030(A): *Not applicable.*

B. Submittal Requirements. A master plan shall include the following elements:

1. Introduction. A written narrative describing:

    a. Duration of the master plan;

    b. Site location map;

c. Land use and minimum and maximum residential densities proposed;

d. Identification of other approved master plans within the project area (one hundred feet).

2. Site Analysis Map. A map and written narrative of the project area addressing site amenities and challenges on the project site and adjacent lands within one hundred feet of the project site.

    a. Master Utility Plan. A plan and narrative addressing existing and proposed utilities and utility extensions for water, sanitary sewer, storm water, gas, electricity, and agricultural irrigation.

    b. Adjacent Land Use Plan. A map identifying adjacent land uses and structures within one hundred feet of the project perimeter and remedies for preservation of livability of adjacent land uses.

3. Transportation and Circulation Plan. A transportation impact analysis (TIA) identifying planned transportation facilities, services and networks to be provided concurrently with the development of the master plan and addressing Section 17.67.040, Circulation and access standards.

4. Site Plan. A plan and narrative addressing Section 17.67.050, Site design standards.

5. Recreation and Open Space Plan. A plan and narrative addressing Section 17.67.060, Public parks and open space design standards.

6. Building Design Plan. A written narrative and illustrations addressing Section 17.67.070, Building design standards.

7. Transit Plan. A plan identifying proposed, or future, transit facilities (if any).

8. Environmental Plan. A plan identifying environmental conditions such as wetlands, flood hazard areas, groundwater conditions, and hazardous sites on and adjacent to the project site.

9. Applications shall be submitted as required in Chapter 17.05.

Finding CPMC 17.66.030(B): *The current application is a subdivision tentative plan and the master plan application is under separate review.*

Conclusion CPMC 17.66.030(B): *Not applicable.*

CPMC 17.66.040 Parks and Open Space

Common park and open space shall be provided for all residential development within a TOD district or corridor as per Section 17.67.060.

Finding CPMC 17.66.040: *As shown on the Tentative Plan (Figure 5), common park and open space is included as part of the proposal.*

Conclusion CPMC 17.66.040: *Consistent.*

CPMC 17.66.050 Application Approval Criteria

A. TOD District or Corridor Master Plan. A master plan shall be approved when the approval authority finds that the following criteria are satisfied or can be shown to be inapplicable:

1. Sections 17.65.040 and 17.65.050, relating to the TOD district;

2. Sections 17.65.060 and 17.65.070, relating to the TOD corridor;

3. Chapter 17.67, Design Standards--TOD District and TOD Corridor;

4. Chapter 17.60, General Regulations, unless superseded by Sections 17.65.040 through 17.65.070;

5. Section 17.65.050, Table 3, TOD District and Corridor Parking Standards, and Chapter 17.64, Off-Street Parking and Loading;

6. Chapter 17.70, Historic Preservation Overlay Zone; and

7. Chapter 17.76, Conditional Use Permits, for any conditional uses proposed as part of the master plan.

Finding CPMC 17.66.050(A): *The current application is for a subdivision tentative plan and the application for master plan (MP-25001) is under separate review.*

Conclusion CPMC 17.66.050(A): *Not applicable.*

B. Site Plan and Architectural Review. A site plan and architectural review application shall be approved when the approval authority finds that the following criteria are satisfied or can be shown to be inapplicable:

1. The provisions of Chapter 17.72, Site Plan and Architectural Review, shall be satisfied; and

2. The proposed improvements comply with the approved TOD district or corridor master plan for the property, if required; and

3. Chapter 17.67, Design Standards--TOD District and TOD Corridor.

Finding CPMC 17.66.050(B): *The application is for a subdivision tentative plan and does not include a Site Plan and Architectural Review.*

Conclusion CPMC 17.66.050(B): *Not applicable.*

C. Land Division. A land division application shall be approved when the approval authority finds that the following criteria are satisfied or can be shown to be inapplicable:

1. The provisions of Title 16, Subdivisions; and

2. The proposed land division complies with the approved TOD district or corridor master plan for the property, if required; and

3. Chapter 17.67, Design Standards--TOD District and TOD Corridor.

Finding CPMC 17.66.050(C): *As evidenced by the findings and conclusions set forth herein, the proposed subdivision tentative plan satisfies the approval criteria.*

Conclusion CPMC 17.66.050(C): *Consistent.*

D. Conditional Use.

1. A conditional use application shall be approved when the approval authority finds that the following criteria are satisfied or can be shown to be inapplicable:

    a. The provisions of Chapter 17.76, Conditional Use Permits; and

    b. The proposed conditional use complies with the approved TOD district or corridor master plan for the property, if required; and

    c. Chapter 17.67, Design Standards--TOD District and TOD Corridor.

2. A conditional use application shall not be required for a conditional use which was approved as part of a valid master plan approval as provided in subsection (A) of this section

Finding CPMC 17.66.050(D): *The current application is a 67-lot/78-unit subdivision and does not include a Conditional Use.*

Conclusion CPMC 17.66.050: *Not applicable.*

CPMC 17.66.060 Conditions of approval

The approval authority may apply reasonable conditions of approval to ensure that the applicable standards of this code are satisfied.

Finding CPMC 17.66.060: *As evidenced by the findings and conclusions set forth herein, reasonable conditions apply to ensure the standards of this code are satisfied.*

Conclusion CPMC 17.66.060: *Consistent.*

CPMC 17.66.070 Approval expiration

A. Application approvals granted according to the provisions of this chapter shall expire and become void one year from the date on which they were issued unless:

1. An application for extension is filed and approved subject to the requirements of Chapter 17.05; or

2. Building permits for the development have been issued and construction diligently pursued to initiate construction.

B. If the time limit for development expired and no extension has been granted, the application shall be void

Finding CPMC 17.66.070: *The application for subdivision tentative plan is reviewed as a Type III application. Type III applications are reviewed in accordance with procedures provided in Section 17.05.400, including approval expiration and extension requests.*

Conclusion CPMC 17.66.070: *Consistent.*

Chapter 17.67, Design Standards – TOD District and TOD Corridor

CPMC 17.67.040 Circulation and access standards

A. Public Street Standards.

1. Except for specific transportation facilities identified in a TOD district or corridor master plan, the street dimensional standards set forth in the City of Central Point Department of Public Works Standard Specifications and Uniform Standard Details for Public Works Construction, Section 300, Street Construction shall apply for all development located within the TOD district and for development within the TOD corridor which is approved according to the provisions in Section 17.65.020 and Chapter 17.66.

Finding 17.67.040(A)(1): *The application states the proposed roadways will be designed to comply with the City's codes including the Public Works Design Specifications for street construction. This is supported by the Tentative Plan (Figure 5) and the Public Works Staff Report dated March 14, 2025.*

Conclusion 17.67.040(A)(1): *Consistent.*

2. Block perimeters shall not exceed two thousand feet measured along the public street right-of-way.

Finding 17.67.040(A)(2): *Figure 5 illustrates how the proposed streets will connect to an existing development, Willow Bend, on the south and extend to the proposed development. Once development is completed, block perimeter length measured along the public street right-of-way when development is approximately 1,400-feet.*

Conclusion 17.67.040(A)(2): *Consistent.*

3. Block lengths for public streets shall not exceed six hundred feet between through streets, measured along street right-of-way.

Finding CPMC 17.67.040(A)(3): *Figure 5 illustrates how the proposed streets will connect to an existing development, Willow Bend, on the south and extend to the proposed development. Once development is completed, block length along the north-south street (Annalise Street) measured along the public street right-of-way is approximately 460-feet.*

Conclusion CPC 17.67.040(A)(3): *Consistent.*

4. Public alleys or major off-street bike/pedestrian pathways, designed as provided in this chapter, may be used to meet the block length or perimeter standards of this section.

Finding CPMC 17.67.040(A)(4): *As shown on the Tentative Plan (Figure 5), alleys are proposed mid-block within the interior subdivision. As evidenced in findings and conclusions of this section, the proposed subdivision complies with block perimeter and block length standards.*

Conclusion CPMC 17.67.040(A)(4): *Consistent.*

5. The standards for block perimeters and lengths shall be modified to the minimum extent necessary based on findings that strict compliance with the standards is not reasonably practicable or appropriate due to:

    a. Topographic constraints;

    b. Existing development patterns on abutting property which preclude the logical connection of streets or accessways;

    c. Railroads;

    d. Traffic safety concerns;

    e. Functional and operational needs to create a large building; or

    f. Protection of significant natural resources.

Finding CPMC 17.67.040(A)(5): *As demonstrated in Finding 17.67.040(A)(2) and (4), the proposal is consistent with the block perimeter and length requirement; therefore, modification of the standard is not necessary.*

Conclusion 17.67.040(A)(5): *Not applicable.*

6. All utility lines shall be underground but utility vault access lids may be located in the sidewalk area.

7. Connections shall be provided between new streets in a TOD district or corridor and existing local and minor collector streets.

8. Pedestrian/Bike Accessways Within Public Street Right-of-Way.

    a. Except for specific accessway facilities identified in a TOD district or corridor master plan, the following accessway dimensional standards set forth in the City of

Central Point Department of Public Works Standard Specifications and Uniform Standard Details for Public Works Construction, Section 300, Street Construction shall apply for any development located within the TOD district and for development within the TOD corridor which is approved according to the provisions in Section17.65.020 and Chapter 17.66.

b. In transit station areas, one or more pedestrian-scaled amenities shall be required with every one hundred square feet of the sidewalk area, including but not limited to:

   i. Street furniture;

   ii. Plantings;

   iii. Distinctive Paving;

   iv. Drinking fountains; and

   v. Sculpture.

c. Sidewalks adjacent to undeveloped parcels may be temporary.

d. Public street, driveway, loading area, and surface parking lot crossings shall be clearly marked with textured accent paving or painted stripes.

e. The different zones of a sidewalk should be articulated using special paving or concrete scoring.

Finding 17.67.040(A)(6-8): *The application states the proposed completion of public streets will be designed to comply with the City's codes including the Public Works Design Specifications for street construction. This is supported by the Tentative Plan (Figure 5) and the Public Works Staff Report dated March 14, 2025. As a condition of approval, sidewalks and landscape rows must be installed along Gebhard Road and all internal subdivision streets.*

Conclusion 17.67.040(A)(6-8): *Complies as conditioned.*

9. Public Off-Street Accessways.

   a. Pedestrian accessways and greenways should be provided as needed to supplement pedestrian routes along public streets.

   b. Off-street pedestrian accessways shall incorporate all of the following design criteria:

      i. The applicable standards in the City of Central Point Department of Public Works Standard Specifications and Uniform Standard Details for Public Works Construction, Section 300, Street Construction;

      ii. Minimum ten-foot vertical clearance;

iii. Minimum twenty-foot horizontal barrier clearance for pathway;

iv. Asphalt, concrete, gravel, or wood chip surface as approved by the city, with a compacted subgrade;

v. Nonskid boardwalks if wetland construction is necessary; and

vi. Minimum one hundred square feet of trailhead area at intersections with other pedestrian improvements. A trail map sign shall be provided at this location.

c. Minor off-street trails shall be a minimum of five feet wide, have a minimum vertical clearance of eight feet, a minimum two-foot horizontal clearance from edge of pathway and be constructed of gravel or wood chips, with a compacted subgrade.

Finding 17.67.040(A)(9): *As shown on the tentative plan (Figure 5), the proposed development does not include pedestrian accessways or greenways.*

Conclusion 17.67.040(A)(9): *Not applicable.*

B. Parking Lot Driveways.

1. Parking lot driveways that link public streets and/or private streets with parking stalls shall be designed as private streets, unless one of the following is met:

a. The parking lot driveway is less than one hundred feet long;

b. The parking lot driveway serves one or two residential units; or

c. The parking lot driveway provides direct access to angled parking stalls.

2. The number and width of driveways and curb cuts should be minimized and consolidated when possible.

3. Where possible, parking lots for new development shall be designed to provide vehicular and pedestrian connections to adjacent sites.

4. Large driveways should use distinctive paving patterns.

Finding 17.67.040(B): *As shown in Figure 5, surface parking areas are not proposed as part of the subdivision development. Driveways and on-site parking will be provided for the individual residential lots.*

Conclusion 17.67.040(B): *Not applicable.*

C. On-Site Pedestrian and Bicycle Circulation. Attractive access routes for pedestrian travel should be provided by:

1. Reducing distances between destinations or activity areas such as public sidewalks and building entrances. Where appropriate, develop pedestrian routes through sites and buildings to supplement the public right-of-way;

2. Providing an attractive, convenient pedestrian accessway to building entrances;

3. Bridging across barriers and obstacles such as fragmented pathway systems, wide streets, heavy vehicular traffic, and changes in level by connecting pedestrian pathways with clearly marked crossings and inviting sidewalk design;

4. Integrating signage and lighting system which offers interest and safety for pedestrians;

5. Connecting parking areas and destinations with pedestrian paths identified through use of distinctive paving materials, pavement striping, grade separations, or landscaping.

Finding 17.67.040(C): *As shown in Figure 5, on-site pedestrian circulation will be provided by completion of sidewalks along Gebhard Road and the internal public streets.*

Conclusion 17.67.040(C): *Consistent.*

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PART 4
GEBHARD VILLAGE MASTER PLAN

The Gebhard Village Master Plan provides the framework for site development and includes a network of public streets internal to the site (See File No. MP-25001).

Finding: *The tentative plan (Figure 5) would result in creation of 67 lots, with 78 residential units, consistent with the Master Plan.*

Conclusion: *Consistent.*

PART 5
SUMMARY CONCLUSION

As evidenced in Planning Department Findings, as well as the application materials in the record the proposed tentative plan application for the Gebhard Village Subdivision is, as conditioned in the Staff Report dated April 1, 2025, in compliance with the applicable criteria set forth in Title 16 and Title 17 of the Central Point Municipal Code.

PUBLIC WORKS STAFF REPORT

March 14, 2025

AGENDA ITEM: Gebhard Village (MP-25001/SUB-25001)

A proposed 78-unit subdivision along the Gebhard Road frontage. The 8.18-acre site (37S 2W 02AA, Tax Lot 2800) is within the Medium Mixed Residential (MMR) zone and is within the Transit Oriented Development (TOD Overlay.

Applicant: Lowman Revocable Trust

Traffic:

The Applicant is proposing a 67-lot subdivision. The TIA, performed by Southern Oregon Transportation Engineering, for this proposed development estimates this will generate 46 PHT's. Access at the time of development is proposed on Gebhard Road at two new local street intersections (Bryce Pelia Way and Logue Street) and one existing local street intersection (Denson Street). The existing Annalise Street will extend north through Gebhard Village as well.

The new local street intersections, at Bryce Pelia Way and Logue Street, on Gebhard Road were shown to meet AASHTO recommended intersection sight distances.

The proposed new local street intersection of Logue Street and Gebhard Road is not shown to meet intersection spacing standards as set for in the Public Works Standards and Specifications Table 300-4, which requires 300 feet between intersections on a collector street. The proposed location, however, is approximately 235 feet south of Green Valley Way and is not shown to have any safety concerns. Sight distance is shown to be adequate, there is no history of collisions along Gebhard Road and a center turn lane is not shown to be warranted at the proposed location.

A supplemental letter from Southern Oregon Transportation Engineering states that the proposed development impact at time of development will be 2.3% of traffic under design year 2027 no-build conditions. Accordingly, this will be the proportional share for cost of construction of new traffic signals at Beebe Road/Hamrick Road intersection.

The TIA concludes that the subdivision can be approved without causing adverse impacts to the transportation system.

City staff concurs with the TIA findings.

Existing Infrastructure:

Water:	There is an 16-inch ductile iron water line, in Gebhard Road. There is an 8-inch ductile iron water line in Denson Street.
Streets:	Gebhard Road is an unimproved Collector Street. Denson Street is a new local Street.

Stormwater: There is an existing 42-inch Storm Drain line, within Denson Street, existing now. Flow is east to west. There is also a 48-inch Storm Drain line to the north of the site, running west from Green Valley Way. Flow is east to west.

Background:

The Applicant proposes an 78-unit, Medium Mixed Residential development extending north on the existing Annalise Street. The property fronts Gebhard Road to the west, and Denson Street to the south.

Issues:

The project must receive and treat offsite stormwater runoff from the Himmelman property to the east at two locations. The first location is at the southeast area of the site, where surface water flows in northwesterly direction from the Himmelmann orchard area. The second location is on the east border of the site in the area of the proposed Bryce Pelia Way. This area has an existing approximately 8" underground pipe flowing westerly, that currently daylights at a bubbler assembly on the site.

Onsite stormwater runoff shall be treated onsite before it enters the existing storm drain system from the proposed subdivision.

Overhead utilities along the Gebhard Road frontage will need to be converted to underground.

Conditions of Approval:

Prior to the building permit issuance and the start of construction activities on the site, the following conditions shall be satisfied:

1. Public Street Construction - Applicant shall construct the proposed public streets to City Street Standards. Construction shall demonstrate compliance with the Public Works Standard Specifications and Uniform Details for Construction. Accordingly, the improvements along the Gebhard Road frontage must include sidewalk and landscape row.

2. Gebhard Road Existing Overhead utilities – The Applicant shall convert all overhead utilities along the frontage of Gebhard Road to underground. No overhead utilities will be allowed.

3. Civil Improvement Plan Review – The Applicant shall submit civil improvement plans for stormwater infrastructure construction demonstrating compliance with the approved NPDES Stormwater Management Plan.

4. Erosion and Sediment Control – The proposed development will disturb greater than 5 acres and requires an erosion and sediment control permit (NPDES 1200-C) from DEQ. The Applicant shall obtain a 1200-C permit from DEQ.

Prior to the final plat, the Applicant shall comply with the following conditions of approval:

1. PW Standards and Specifications – Applicant shall demonstrate that all Public Works infrastructure construction complies with the Standards Specifications and Uniform Details for Construction.

2. Stormwater Quality Operations & Maintenance – The Applicant shall record and submit to the Public Works Department an Operations and Maintenance Manual and Declaration of Covenants for Operation and Maintenance of the Stormwater Quality Features as required by the Rogue Valley Stormwater Quality Manual.

3. Public Utilities and Street Dedication and Improvement – Dedicate the public right-of-way and complete all street improvements within the tentative plat.

4. Over Head Utilities – Overhead utilities along the Gebhard Road frontage shall be converted to underground facilities.

5. Public Works As-Builts – Provide an accurate and stamped set of as-built drawings.

6. Intersection Mitigation - The proposed development pay a proportional share toward the cost of a traffic signal at Beebe Road / Hamrick Road. This is based on total entering volume, or 2.3% of traffic, at time of proposed development.

Justin P. Gindlesperger

From: Mark Northrop <MarkN@jcfd3.com>
Sent: Wednesday, March 12, 2025 3:31 PM
To: Justin P. Gindlesperger; Derek Zwagerman; Spencer Davenport (spencer.davenport@district6.org); Chadd Griffin; Matt Samitore; Greg Graves; Mike Ono; surveyor@jacksoncounty.org; 'David.McFadden@avistacorp.com'; 'chad.murders@ecso911.com'; emalanche@roguedisposal.com; Mark Kimmelshue; 'rrvid@rrvid.org'; Nick Bakke; nickolas.c.eufemi@usps.gov
Cc: Stephanie Powers
Subject: Re: Request for Comments - MP-25001 & SUB-25001

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Fire District 3 comments are as follows.

1. The alleys shall be signed Fire Lane No Parking.
2. Two new hydrants shall be installed on Annalise Street, subject to location approved by FD3
3. Gebhard Road may require No Parking Signage depending upon roadway width.

DFM Mark Northrop, IAAI, CFI
Jackson County Fire District 3
8383 Agate Rd, White City, OR 97503
Markn@jcfd3.com
Office: 541.831.2776
Cell 541.660.7689
www.jcfd3.com

ROGUE VALLEY
SEWER SERVICES
CLEAN WATER - HEALTHY COMMUNITIES

March 11, 2025

City of Central Point Planning Department
155 South Second Street
Central Point, Oregon 97502

Re: PRE 21007 – Gebhard Village Sub, Map 37 2W 02AA, Tax Lot 2800

There is an existing 10 inch sewer along the south property boundary of tax lot 2800 and a 15 inch sewer to the north along Gebhard Road. Sewer service for the proposed development can be had by sewer main extensions as generally shown on the submitted conceptual plan.

Rogue Valley Sewer Services requests that approval of this development be subject to the following conditions:

1. The applicant must submit sewer construction plans to RVSS for review and approval prior to construction, sign a project sewer agreement, and pay all related inspection fees.

Feel free to call me if you have any questions.

Sincerely,

Nicholas R Bakke, PE
District Engineer

(541) 664-6300
www.RVSS.US
138 W Vilas Rd, Central Point, OR 97502
P.O. Box 3130, Central Point, OR 97502

PLANNING COMMISSION RESOLUTION NO. 932

A RESOLUTION OF THE PLANNING COMMISSION APPROVING A TENTATIVE SUBDIVISION FOR A 67 LOT SUBDIVISION TO BE KNOWN AS GEBHARD VILLAGE SUBJECT TO CONDITIONS OF APPROVAL

(File No: SUB-25001)

WHEREAS, the applicant has submitted a tentative plan application to create a 67-lot subdivision consisting of residential property identified on the Jackson County Assessor's map as 37S 2W 02AA, Tax Lot 2800, Central Point, Oregon; and

WHEREAS, the project site is located in the Medium Mix Residential (MMR) zoning district within the Transit Oriented Development (TOD) Overlay; and

WHEREAS, the application has been found to be consistent with the applicable approval criteria set forth in Title 16, Subdivisions and Title 17, Zoning as conditioned per the Staff Report dated April 1, 2025; and

WHEREAS, on April 1, 2025, at a duly noticed public hearing, the City of Central Point Planning Commission considered the Applicant's request for Tentative Plan approval for Gebhard Village subdivision.

NOW, THEREFORE, BE IT RESOLVED:

Section 1: The City of Central Point Planning Commission hereby approves the Tentative Plan application for Gebhard Village subdivision File No. SUB-25001 subject to the conditions in the Staff Report dated April 1, 2025 (Exhibit 1).

Section 2: This decision is based upon the Planning Department Staff Report dated April 1, 2025, attached hereto as Exhibit 1, including all attachments thereto.

PASSED by the Planning Commission and signed by me in authentication of its passage this 1st day of April, 2025.

_____
Planning Commission Chair

ATTEST:

_____
City Representative