



July 15, 2024

Project No. 9081.03.016

Tina Elayer

Oregon Department of Environmental Quality

Western Region

165 East 7th Avenue, Suite 100

Eugene, Oregon 97401

Re: 2023 Annual Report for Stella-Jones Corporation, Eugene, Oregon; Environmental Cleanup Site Information Identification Number 63

Dear Tina Elayer:

Maul Foster & Alongi, Inc. (MFA), has prepared this annual report for the Stella-Jones Corporation (Stella-Jones) wood-treating facility located at 90049 Highway 99 North in Eugene, Oregon (the site). The site previously referred to as McFarland Cascade Pole and Lumber Company is currently owned and operated by Stella-Jones. This annual report summarizes groundwater monitoring, extraction and treatment, well-abandonment, and site-related correspondence between Stella-Jones, MFA, the Oregon Department of Environmental Quality (DEQ), and the Oregon Department of Transportation (ODOT) for the October 1, 2022 through September 30, 2023 annual reporting period.

Monitoring Network and Treatment System Summary

Stella-Jones operates a groundwater treatment system as an interim remedial action measure (IRAM) that extracts and treats impacted groundwater and light nonaqueous-phase liquid (LNAPL) released from historical practices as outlined in the Remedial Action Work Plan (Work Plan)¹.

The IRAM consists of four recovery wells (R-1, R-2, R-3, and R-4; Figure 1), a water treatment system, and a vacuum-enhanced recovery (VER) system. Recovery wells R-1 and R-2 are used to extract groundwater and LNAPL; the DEQ authorized suspension of pumping at R-4 on January 28, 2013, and suspension of pumping at R-3 on September 25, 2015. Subsequently, DEQ authorized the abandonment of R-4 on October 31, 2022, which was then abandoned from May 31 to June 2, 2023. Well abandonment activities were communicated in detail to DEQ in the April 2024 well abandonment report².

Either the portable VER system or a shallow well hand pump is employed at selected on-site wells (AGI-6, MT-2, MT-3, MT-4, R-5, 96-2, and 96-3) for the removal of LNAPL. The VER system enhances LNAPL recovery by increasing the gradient and accelerating the movement of water and LNAPL through the aquifer. The VER increases water movement by creating areas of vacuum (i.e., negative pressure).

¹ MFA, 2013. *Remedial Action Work Plan. McFarland Cascade Holdings, Inc. Wood treating Facility, Eugene, Oregon*. Maul Foster & Alongi, Inc.: Portland, OR. August 27.

² MFA. 2024. *Recovery Well R-4 and Monitoring Well 92-9B Abandonment Report; McFarland Cascade Pole and Lumber Company Site, Eugene, Oregon; Environmental Cleanup Site; Information Identification Number 63*. Maul Foster & Alongi, Inc.: Portland, OR. April 15.

Actions Taken

Communications and Submittals

The following summarizes communications and submittals between Stella-Jones, MFA, DEQ, and ODOT during the reporting period.

Monthly IRAM and VER operations reports for September 2022 through August 2023 were submitted electronically to DEQ via email on October 12, November 9, and December 6, 2022, and January 10, February 14, March 13, April 10³, May 4, June 5⁴, July 10, August 3, and September 8, 2023.

On October 17 and 18, 2022, the DEQ requested additional information regarding monitoring well 92-9 to inform the decision to decommission a damaged monitoring well (92-9B). MFA provided the requested information to DEQ via email on October 20, 2022.

On October 31, 2022, the DEQ provided a letter authorizing the abandonment of monitoring well 92-9B and recovery well R-4, and the modification of the reporting requirements from a semiannual to an annual reporting schedule.

On February 2, 2023, MFA on behalf of Stella-Jones requested a 60-day extension to DEQ for the construction completion report documenting the septic, water main, and parking lot construction activities at the site.

On February 2, 2023, DEQ approved the extension request for the construction completion report.

On March 23, 2023, MFA on behalf of Stella-Jones submitted the construction completion report documenting the septic tank abandonment, water main repair, and parking lot upgrade to DEQ.

On March 30, 2023, Stella-Jones provided notification to ODOT that the spring 2022 semiannual monitoring event was scheduled to take place on April 5 and 6, 2023, and that Stella-Jones' representatives would be accessing ODOT property for the purposes of groundwater monitoring.

On May 19, 2023, MFA provided notification to ODOT that representatives of Stella-Jones, MFA, Applied Professional Services, Inc, Holt Services, and public utility locators responding to a *CALL BEFORE YOU DIG* request, planned to access the ODOT property for the purpose of abandoning monitoring well 92-9B and recovery well R-4. The access dates ranged from May 22 to June 7, 2023. On May 22 through 24, 2023, ODOT notified MFA that the ODOT permit #05M43173, which provided access to the worksite on ODOT property, was expired. ODOT requested Stella-Jones send an updated insurance certificate. Stella-Jones and ODOT agreed that Stella-Jones would provide an updated insurance policy to renew the permit. The permit, in turn, was renewed.

On May 22 through 24, 2023, during the previously mentioned communications about Stella-Jones permit renewal, ODOT requested a separate permit for unloading and loading of the drilling rig and equipment for decommissioning monitoring well 92-9B and recovery well R-4. Stella-Jones submitted a new permit application and traffic control plan for this activity. Stella-Jones responded to clarifying questions asked by ODOT regarding the traffic control permit and whether Stella-Jones planned to conduct work in the ODOT right of way or just load/unload equipment in the right of way. Stella-Jones clarified that loading/unloading activities would occur in the right of way, but all other work to

³ Initial report was sent on April 10; a follow up email from MFA was sent April 25 with corrected information. DEQ responded on April 26 indicating the email was sufficient notification and no updated log was needed.

⁴ Initial report was sent on June 2, and a corrected report was sent on June 5.

abandon the wells would take place on the adjacent ODOT property. Based on this clarification, ODOT approved and issued permit #05M43671 for the loading/unloading activities in the right of way.

On May 24, 2023, Stella-Jones provided notification to ODOT that representatives of Stella-Jones would be accessing the ODOT property to complete preparation for the well abandonment scheduled for the following week.

On May 24, 2023, MFA notified DEQ that the abandonment of monitoring well 92-9B and recovery well R-4 was scheduled to begin on May 31, 2023 and the anticipated completion date was on or before June 7, 2023.⁵

On May 26, 2023, MFA provided notification to ODOT of the upcoming work that would be conducted on the ODOT property referenced in permits #05M43173 and #05M43671. Activities scheduled under permit #05M43173 included access to the property on May 30, 2023 for well abandonment preparations, and well abandonment activities anticipated to take place from May 31 through June 7, 2023. Activities scheduled under permit #05M43671 included unloading the drill rig and associated equipment on May 31, 2023 and demobing the equipment sometime between June 5 and 7, 2023. ODOT would be notified once the loading date was confirmed.

On June 2, 2023, MFA provided notification to ODOT that the demobing of equipment would take place on June 6, 2023.

On August 21, 2023, MFA on behalf of Stella-Jones, submitted the 2022 Annual Report for the site to DEQ. This report covered the monitoring period from October 1, 2021 to September 30, 2022.

On August 28, 2023, Stella-Jones provided notification to ODOT that the fall 2023 semiannual monitoring event was scheduled to take place on September 12 and 13, 2022, and that Stella-Jones' representatives would be accessing ODOT property for the purposes of groundwater monitoring.

On August 28, 2023, Stella-Jones notified ODOT that it planned to access the ODOT property on August 30th between 9:00 am to 3:00 pm to prepare for the fall 2023 semiannual monitoring event.

On August 28 through September 11, 2023, Stella-Jones requested ODOT check the current state of the encampment prior to Stella-Jones representatives accessing that area for the upcoming scheduled sampling activities.

Groundwater Sampling and Surface Water Sampling

In accordance with the Work Plan, groundwater and surface water sampling was conducted at the locations summarized in Table 1 and shown on Figure 1.

See Table 1 for the list of wells sampled and the analysis schedule agreed upon in the Work Plan. Samples collected from R-3 and the North and South Ponds were additionally analyzed for pentachlorophenol (PCP) by U.S. Environmental Protection Agency (EPA) Method SW8041A to meet screening level requirements for those locations

Fieldwork conducted on January 17, 2023 included groundwater sampling at three wells and surface water sampling at the North and South Ponds (see Table 1 and Figure 1).

⁵ Final abandonment report was submitted to DEQ on April 18, 2024.

Fieldwork conducted on April 5 and 6, 2023, included groundwater sampling of 10 wells (see Table 1 and Figure 1).

Fieldwork conducted on September 12 and 13, 2023, included groundwater sampling at 10 wells (see Table 1 and Figure 1). A total of 11 wells were scheduled for sampling, but R-4 was abandoned from May 31 to June 2, 2023, and so was not sampled in September 2023. It will be removed from the monitoring schedule going forward.

Water Level Monitoring

In accordance with the Work Plan, water level monitoring was conducted at the locations summarized in Table 1 and shown on Figure 1.

The Work Plan specifies monthly and semiannual water level monitoring at monitoring well 92-9b and recovery well R-4; however, monitoring well 92-9B was struck and damaged by a car on October 5, 2021, and water levels from this well were not measured during the monitoring period due to the damage. As approved by DEQ on October 31, 2022, 92-9B and recovery well R-4 were abandoned as described in the Well Abandonment report submitted to DEQ on April 18, 2024. Due to their abandonment, water levels will no longer be collected at these two locations.

The Work Plan specifies monthly water level monitoring at 25 locations (24 well locations and the North Pond). As noted in Table 1, 92-9B and R-4 were abandoned, and monthly water level measurements were therefore collected at 23 locations. Water level measurements were collected by Stella-Jones staff and were provided to DEQ in the monthly IRAM and VER operations reports over the course of the monitoring period.

A total of 36 locations (35 wells and the North Pond) were scheduled for water level measurements during the March and September events (see Table 1 and Figure 1). As noted in Table 1, 92-9B and R-4 were abandoned, and water level measurements were therefore collected at 35 locations in March and 34 locations in September. Water level measurements were collected by both Stella-Jones staff and their representatives during these events.

Water level data are summarized in Table 2. Potentiometric surface maps are provided in Figures 2A through 2L.

Treatment System

In addition to the sampling required by the workplan, SJ staff conduct monthly monitoring of PCP at the influent and midpoint of the IRAM treatment system, and PCP concentration and potential hydrogen (pH) at the effluent. Results are shown on Table 7.

Data Collected

Data collected during the sampling and monitoring events described above for the October 1, 2022 to September 30, 2023 reporting period are summarized in the attached tables and figures. Field data forms for the water level, LNAPL level⁶, and groundwater sampling activities are provided in Attachment A. Laboratory reports and data validation memoranda are provided in Attachment B. Based on the data validation, the data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

⁶ LNAPL level is recorded as DTO (depth to oil) in the field forms.

The Work Plan states that groundwater samples are to be analyzed for phenols by EPA Method 8040, and semivolatile organic compounds by EPA Method 8270SIM. The updated EPA Method 8270E meets the programmatic requirements for both Method 8040 and Method 8270SIM and is the most current method. Samples were analyzed by the updated method in addition to the cases where Method 8041A is also used to meet project reporting limits.

Analytical results for chlorophenols for the January, April, and September 2023 monitoring events are summarized in Table 5.

Analytical results for semivolatile organic compounds for the April and September 2023 monitoring events are summarized in Table 6.

Water level data are summarized in Table 2. Potentiometric surface maps are provided in Figures 2A through 2L.

A summary of the IRAM pumping rates and LNAPL recovery for R-1 and R-2 along with the Treatment Plant's groundwater discharge over the monitoring period are shown in Table 3.

A summary of the VER LNAPL recovery volumes for recovery well R-5 and six monitoring wells (AGI-6, MT-2, MT-3, MT-4, 96-2, and 96-3) over the monitoring period are shown in Tables 4.

Figures 3A and 3B show the PCP concentration plume, based on data from the April and September 2023 monitoring events, respectively. A graph of the PCP concentrations in the recovery wells over time is included as Figure 4.

Monthly monitoring results showing PCP concentration at the influent and midpoint of the IRAM treatment system, and PCP concentration and potential hydrogen (pH) at the effluent, are shown on Table 7.

As requested by DEQ, Table 8 now includes PCP data for the North and South Ponds from 2008 to the most recent monitoring event in January 2023.

Actions Anticipated

It is anticipated that the 2024 annual report for the October 1, 2023 through September 30, 2024 reporting period will include the following:

- Semiannual and monthly water level monitoring at the locations shown on Table 1, excluding 92-9B and R-4. As noted above, the number of monitoring locations have been reduced for both the semiannual and monthly events due to the abandonment of 92-9B and R-4.
- Groundwater and surface water sampling at the locations and periods shown on Table 1, excluding R-4. As noted above, the number of groundwater monitoring locations has been reduced due to the abandonment of R-4.
- IRAM operations at R-1 and R-2.
- VER extraction at wells with recoverable quantities of LNAPL.


Discussions and Problems Encountered

No problems have been encountered since the previous annual report.

Sincerely,

Maul Foster & Alongi, Inc.

David Weatherby, RG
Principal Geologist


Cody Schweitzer
Project Environmental Scientist

Attachments

Limitations

Figures

Figure 1—Well Locations
Figure 2A—Potentiometric Surface Map—October 2022
Figure 2B—Potentiometric Surface Map—November 2022
Figure 2C—Potentiometric Surface Map—December 2022
Figure 2D—Potentiometric Surface Map—January 2023
Figure 2E—Potentiometric Surface Map—February 2023
Figure 2F—Potentiometric Surface Map—March 2023
Figure 2G—Potentiometric Surface Map—April 2023
Figure 2H—Potentiometric Surface Map—May 2023
Figure 2I—Potentiometric Surface Map—June 2023
Figure 2J—Potentiometric Surface Map—July 2023
Figure 2K—Potentiometric Surface Map—August 2023
Figure 2L—Potentiometric Surface Map—September 2023
Figure 3A—PCP Concentrations in Groundwater—April 2023
Figure 3B—PCP Concentrations in Groundwater—September 2023
Figure 4—Pentachlorophenol Concentrations in Recovery Wells Over Time

Tables

Table 1—Monitoring Program
Table 2—Water Level Monitoring
Table 3—IRAM System Summary
Table 4—VER LNAPL Recovery Summary
Table 5—Chlorophenol Analytical Results
Table 6—Semivolatile Organic Compound Analytical Results
Table 7—IRAM Treatment System Monthly Monitoring Results
Table 8—Pentachlorophenol Analytical Results in North Pond and South Pond

A—Fluid Level Measurements and Groundwater Sampling Forms

B—Laboratory Reports and Data Validation Memoranda

cc: Alex Clark, Stella-Jones
Brian Widmer, Stella-Jones

Limitations

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

Figures




MAUL
FOSTER
ALONGI

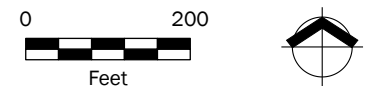


Figure 1
Well Locations
McFarland Cascade Pole
and Lumber Company
Eugene, OR

Legend

-  Monitoring Well
-  Piezometer
-  Recovery Well
-  Abandoned Monitoring Well
-  Abandoned Recovery Well
-  Surface Water Sample Location
-  Tax Lot

Note
Well locations are based on data provided by AECOM.
Well locations are for visualization purposes only and
should not be used for distance, area, or volume
calculations.



Data Sources

Aerial photograph obtained from the State of Oregon (2022); tax lot data obtained from Lane County (2023).



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

© 2024 Maul Foster & Alongi, Inc.

Path: C:\Workspace\9081_03 McFarland Cascade Pole and Lumber\48 Pro\W9081_03_016_005_2023_Report.aprx Fig 2A Potentiometric October 2022
Project: W9081_03_016 Produced By: jroberts Reviewed By: cschweitzer Print Date: 4/11/2024



Figure 2A
Potentiometric Surface Map
October 2022
McFarland Cascade Pole
and Lumber Company
Eugene, OR

- Legend**
- Monitoring Well
 - Piezometer
 - Recovery Well
 - Water Level Elevation Contour (feet)
 - Railroad

Notes
All wells shown are included in semiannual water-level monitoring.
Potentiometric surface generated with Spatial Analyst extension for ArcGIS Pro 3.2.2 using natural neighbor interpolation method.
Well locations are based on data provided by AECOM. Well locations are for visualization purposes only and should not be used for distance, area or volume calculations.
Water level measurements were taken on October 27, 2022.
Water level elevation contours that make sharp angles are likely artifacts of the interpolation process rather than precise representations of groundwater flow behavior.
NM = not measured.
' = feet.



Data Sources
Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).

 **MAUL FOSTER ALONGI**
p. 971 544 2139 | www.maulfooster.com

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.
© 2024 Maul Foster & Alongi, Inc.

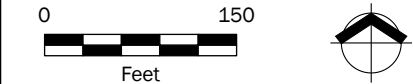
Path: C:\Workspace\9081_03 McFarland Cascade Pole and Lumber\16 Proj\MS081_03_016_005_2023_Report\aprx\Fig 2B Potentiometric November 2022
Project: MS081_03_016 Produced By: jroberts Reviewed By: cschweitzer Print Date: 4/11/2024



Figure 2B
Potentiometric Surface Map
November 2022
McFarland Cascade Pole and Lumber Company
Eugene, OR

- Legend**
- Monitoring Well
 - Piezometer
 - Recovery Well
 - Railroad
 - Water Level Elevation Contour (feet)

Notes
All wells shown are included in semiannual water-level monitoring.
Potentiometric surface generated with Spatial Analyst extension for ArcGIS Pro 3.2.2 using natural neighbor interpolation method.
Well locations are based on data provided by AECOM. Well locations are for visualization purposes only and should not be used for distance, area or volume calculations.
Water level measurements were taken on November 23, 2022.
Water level elevation contours that make sharp angles are likely artifacts of the interpolation process rather than precise representations of groundwater flow behavior.
NM = not measured.
' = feet.



Data Sources
Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.
© 2024 Maul Foster & Alongi, Inc.

Path: C:\Workspace\9081_03_McFarland Cascade Pole and Lumber\16_Proj\Map081_03_016_005_2023_Report.aprx; Fig 2C Potentiometric December 2022
Print Date: 4/11/2024
Reviewed By: cschweitzer
Produced By: jroberts
Project: M9081_03_016



Figure 2C
Potentiometric Surface Map
December 2022
McFarland Cascade Pole
and Lumber Company
Eugene, OR

- Legend**
- Monitoring Well
 - Piezometer
 - Recovery Well
 - Water Level Elevation Contour (feet)
 - Railroad

Notes
All wells shown are included in semiannual water-level monitoring.
Potentiometric surface generated with Spatial Analyst extension for ArcGIS Pro 3.2.2 using natural neighbor interpolation method.
Well locations are based on data provided by AECOM. Well locations are for visualization purposes only and should not be used for distance, area or volume calculations.
Water level measurements were taken on December 29, 2022.
Water level elevation contours that make sharp angles are likely artifacts of the interpolation process rather than precise representations of groundwater flow behavior.
NM = not measured.
' = feet.



Data Sources
Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).

 **MAUL FOSTER & ALONGI**
p. 971 544 2139 | www.maulfooster.com

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.
© 2024 Maul Foster & Alongi, Inc.

Path: C:\Workspace\9081_03 McFarland Cascade Pole and Lumber\46 Proj\W9081_03_016_005_2023_Report.aprx; Fig 2D Potentiometric January 2023
Project: W9081_03_016 Produced By: jroberts Reviewed By: cschweitzer Print Date: 4/11/2024

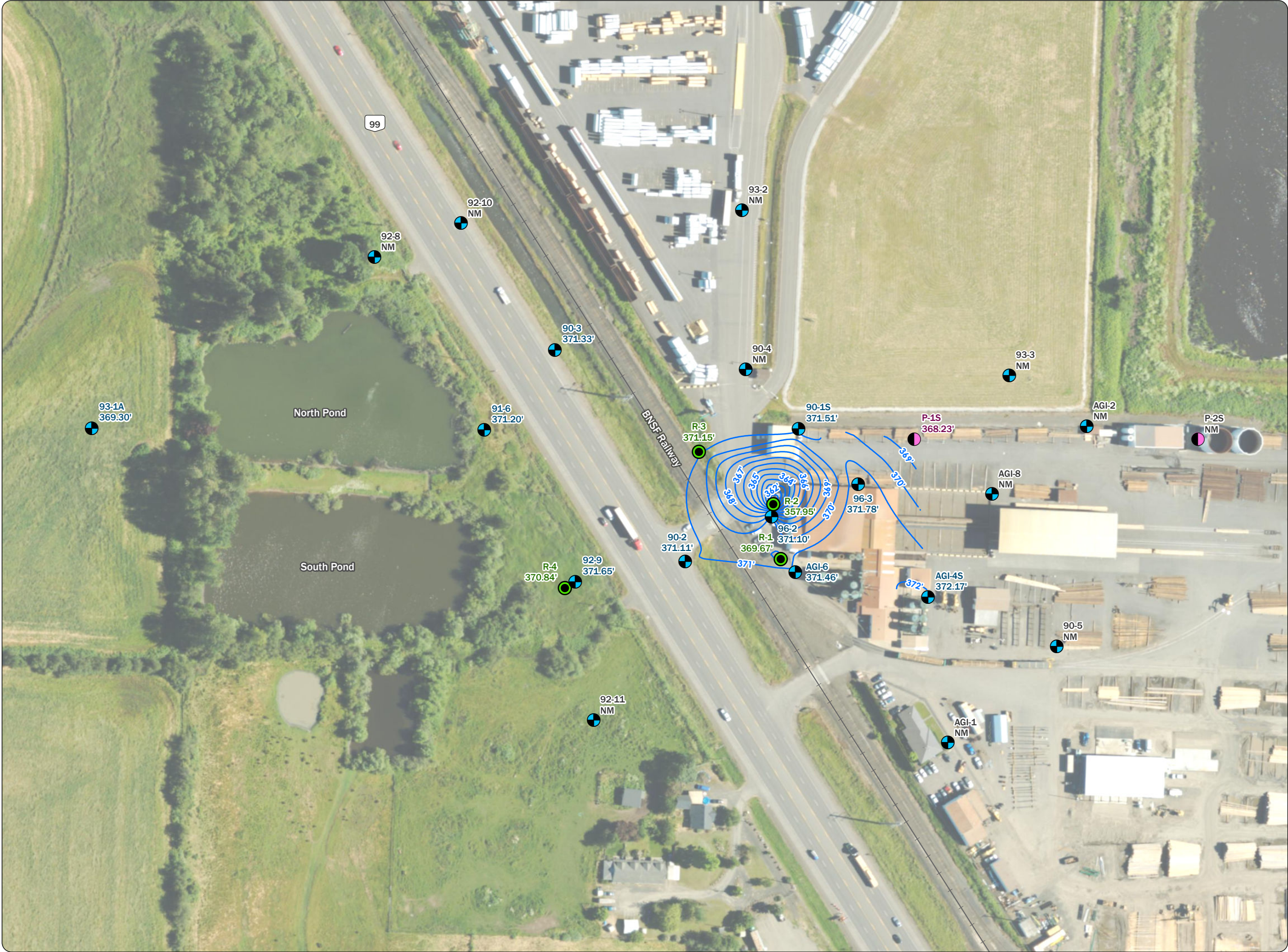
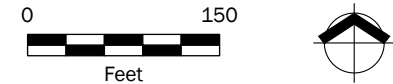


Figure 2D
Potentiometric Surface Map
January 2023
McFarland Cascade Pole
and Lumber Company
Eugene, OR

- Legend**
- Monitoring Well
 - Piezometer
 - Recovery Well
 - Water Level Elevation Contour (feet)
 - Railroad

Notes
All wells shown are included in semiannual water-level monitoring.
Potentiometric surface generated with Spatial Analyst extension for ArcGIS Pro 3.2.2 using natural neighbor interpolation method.
Well locations are based on data provided by AECOM. Well locations are for visualization purposes only and should not be used for distance, area or volume calculations.
Water level measurements were taken on January 31, 2023.
Water level elevation contours that make sharp angles are likely artifacts of the interpolation process rather than precise representations of groundwater flow behavior.
NM = not measured.
' = feet.



Data Sources
Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).

 **MAUL FOSTER & ALONGI**
p. 971 544 2139 | www.maulfooster.com

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.
© 2024 Maul Foster & Alongi, Inc.

Path: C:\Workspace\9081.03 McFarland Cascade Pole and Lumber\16 Pro.M9081_03_016_005_2023_Report.aprx [Fig.2E Potentiometric February 2023]
Project: M9081.03.016 Produced By: jroberts Reviewed By: cschweitzer Print Date: 4/11/2024



Figure 2E
Potentiometric Surface Map
February 2023
McFarland Cascade Pole and Lumber Company
Eugene, OR

- Legend**
- Monitoring Well
 - Piezometer
 - Recovery Well
 - Water Level Elevation Contour (feet)
 - Railroad

Notes
All wells shown are included in semiannual water-level monitoring.
Potentiometric surface generated with Spatial Analyst extension for ArcGIS Pro 3.2.2 using natural neighbor interpolation method.
Well locations are based on data provided by AECOM. Well locations are for visualization purposes only and should not be used for distance, area or volume calculations.
Water level measurements were taken on February 23, 2023.
Water level elevation contours that make sharp angles are likely artifacts of the interpolation process rather than precise representations of groundwater flow behavior.
NM = not measured.
' = feet.



Data Sources
Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.
© 2024 Maul Foster & Alongi, Inc.

Project: M9081.03.016 Produced By: jroberts Reviewed By: cschweitzer Print Date: 4/11/2024 Path: C:\Workspace\9081.03 McFarland Cascade Pole and Lumber\GIS\Pre\Map\9081_03_016_005_2023 Report.aprx [Fig 2F Potentiometric March 2023]



Figure 2F
Potentiometric Surface Map
March 2023

McFarland Cascade Pole
and Lumber Company
Eugene, OR

Legend

- Monitoring Well
- Piezometer
- Recovery Well
- Water Level Elevation Contour (feet)
- Railroad

Notes
All wells shown are included in semiannual water-level monitoring.
Potentiometric surface generated with Spatial Analyst extension for ArcGIS Pro 3.2.2 using natural neighbor interpolation method.
Well locations are based on data provided by AECOM. Well locations are for visualization purposes only and should not be used for distance, area or volume calculations.
Water level measurements were taken on March 31, 2023.
Water level elevation contours that make sharp angles are likely artifacts of the interpolation process rather than precise representations of groundwater flow behavior.
NM = not measured.
' = feet.



Data Sources
Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).

 **MAUL FOSTER ALONGI**
p. 971 544 2139 | www.maulfooster.com

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.
© 2024 Maul Foster & Alongi, Inc.

Path: C:\Workspace\9081.03 McFarland Cascade Pole and Lumber\16 Pro\MS081_03_016_005_2023 Report.aprx Fig 2G Potentiometric April 2023
Project: MS081.03.016 Produced By: jroberts Reviewed By: cschweitzer Print Date: 4/11/2024



Figure 2G
Potentiometric Surface Map
April 2023

McFarland Cascade Pole
and Lumber Company
Eugene, OR

Legend

- Monitoring Well
- Piezometer
- Recovery Well
- Water Level Elevation Contour (feet)
- Railroad

Notes
All wells shown are included in semiannual water-level monitoring.
Potentiometric surface generated with Spatial Analyst extension for ArcGIS Pro 3.2.2 using natural neighbor interpolation method.
Well locations are based on data provided by AECOM. Well locations are for visualization purposes only and should not be used for distance, area or volume calculations.
Water level measurements were taken on April 5, 2023.
Water level elevation contours that make sharp angles are likely artifacts of the interpolation process rather than precise representations of groundwater flow behavior.
NM = not measured.
' = feet.



Data Sources
Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).

 **MAUL FOSTER & ALONGI**
p. 971 544 2139 | www.maulfooster.com

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.
© 2024 Maul Foster & Alongi, Inc.

Path: C:\Workspace\9081.03 McFarland Cascade Pole and Lumber\16 Proj\M9081_03_016_005_2023_Report\airx\Fig 2H Potentiometric May 2023
Project: M9081.03.016 Produced By: jroberts Reviewed By: cschweitzer Print Date: 4/11/2024

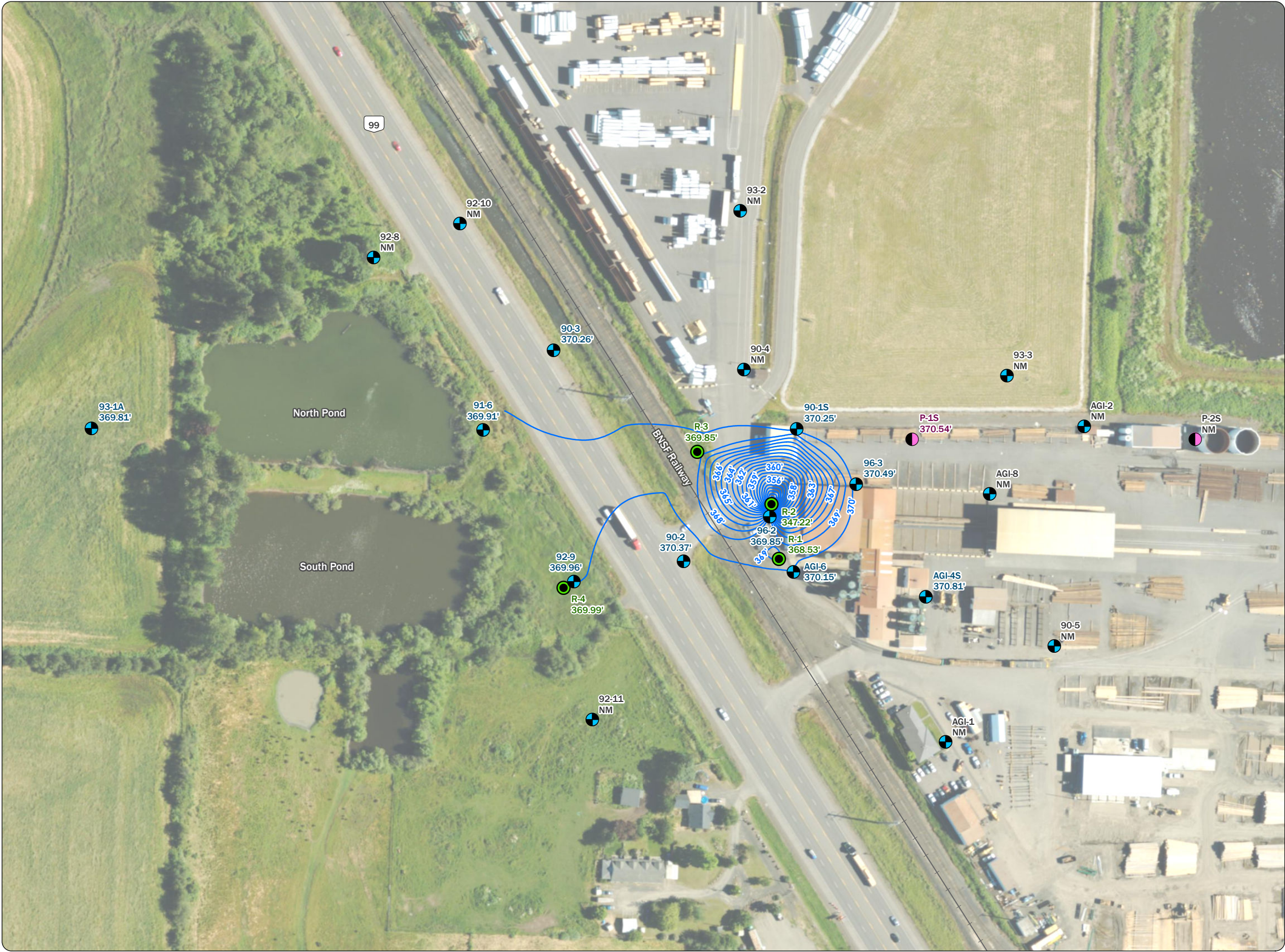


Figure 2H
Potentiometric Surface Map
May 2023

McFarland Cascade Pole
and Lumber Company
Eugene, OR

Legend

- Monitoring Well
- Piezometer
- Recovery Well
- Water Level Elevation Contour (feet)
- Railroad

Notes
All wells shown are included in semiannual water-level monitoring.
Potentiometric surface generated with Spatial Analyst extension for ArcGIS Pro 3.2.2 using natural neighbor interpolation method.
Well locations are based on data provided by AECOM. Well locations are for visualization purposes only and should not be used for distance, area or volume calculations.
Water level measurements were taken on May 25, 2023.
Water level elevation contours that make sharp angles are likely artifacts of the interpolation process rather than precise representations of groundwater flow behavior.
NM = not measured.
' = feet.



Data Sources
Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).



MAUL FOSTER & ALONGI
p. 971 544 2139 | www.maulfooster.com

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.
© 2024 Maul Foster & Alongi, Inc.

Path: C:\Workspace\9081.03 McFarland Cascade Pole and Lumber\16 Pro.M9081.03-016_005_2023 Report.aprx [Fig.21 Potentiometric June 2023]
Print Date: 4/11/2024
Reviewed By: cschweitzer
Produced By: jroberts
Project: M9081.03-016

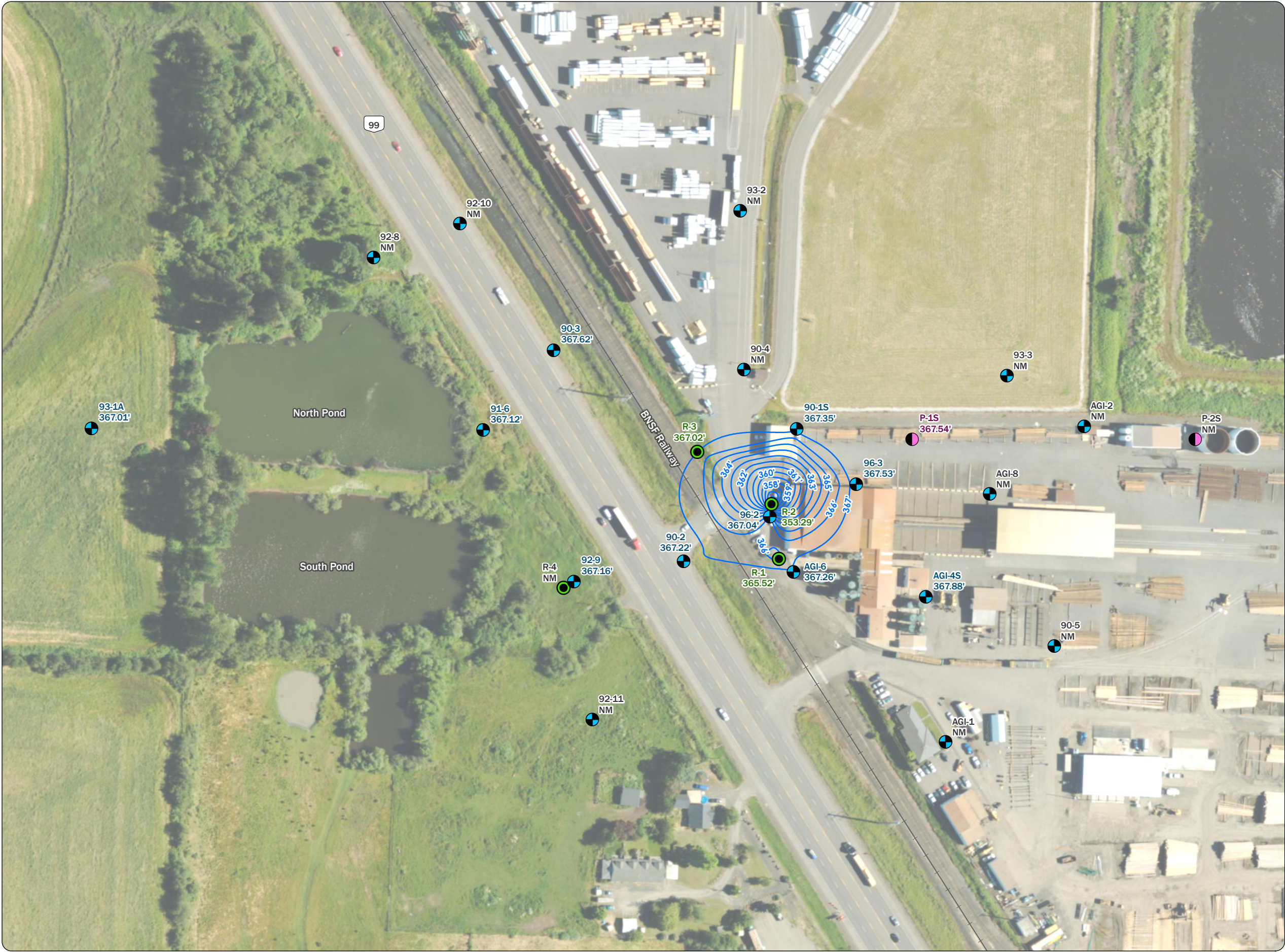


Figure 21
Potentiometric Surface Map
June 2023

McFarland Cascade Pole
and Lumber Company
Eugene, OR

Legend

- Monitoring Well
- Piezometer
- Recovery Well
- Water Level Elevation Contour (feet)
- Railroad

Notes
All wells shown are included in semiannual water-level monitoring.
Potentiometric surface generated with Spatial Analyst extension for ArcGIS Pro 3.2.2 using natural neighbor interpolation method.
Well locations are based on data provided by AECOM. Well locations are for visualization purposes only and should not be used for distance, area or volume calculations.
Water level measurements were taken on June 28, 2023.
Water level elevation contours that make sharp angles are likely artifacts of the interpolation process rather than precise representations of groundwater flow behavior.
NM = not measured.
' = feet.



Data Sources
Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).

 **MAUL FOSTER & ALONGI**
p. 971 544 2139 | www.maulfooster.com

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.
© 2024 Maul Foster & Alongi, Inc.

Project: M9081.03.016 Produced By: jroberts Reviewed By: cschweitzer Print Date: 4/11/2024 Path: C:\Workspace\9081.03 McFarland Cascade Pole and Lumber\16\Pro\M9081.03_016_005_2023 Report.aprx [Fig 2] Potentiometric July 2023

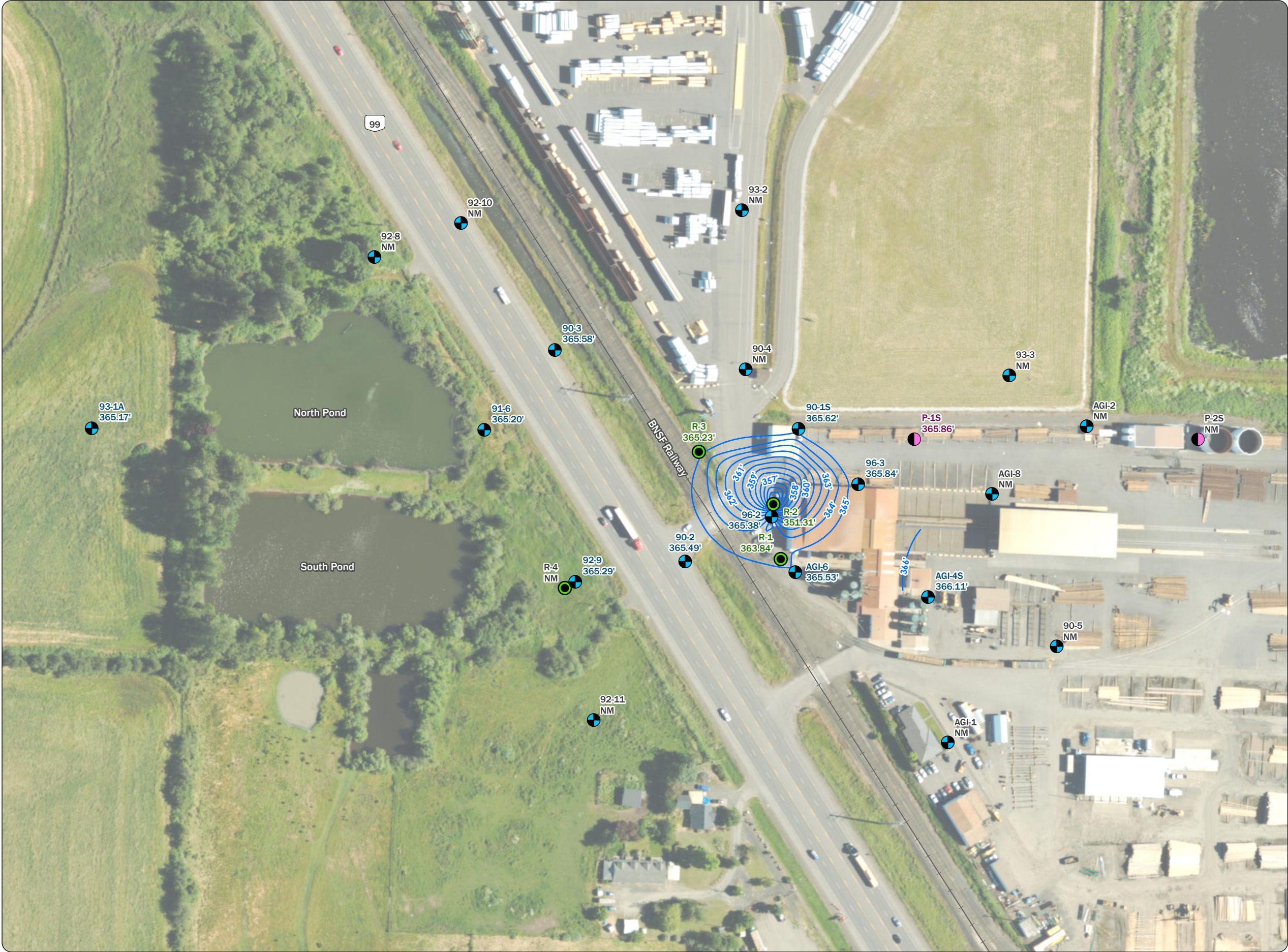


Figure 2J
Potentiometric Surface Map
July 2023
McFarland Cascade Pole
and Lumber Company
Eugene, OR

- Legend**
- Monitoring Well
 - Piezometer
 - Recovery Well
 - Water Level Elevation Contour (feet)
 - Railroad

Notes
All wells shown are included in semiannual water-level monitoring.
Potentiometric surface generated with Spatial Analyst extension for ArcGIS Pro 3.2.2 using natural neighbor interpolation method.
Well locations are based on data provided by AECOM.
Well locations are for visualization purposes only and should not be used for distance, area or volume calculations.
Water level measurements were taken on July 27, 2023.
Water level elevation contours that make sharp angles are likely artifacts of the interpolation process rather than precise representations of groundwater flow behavior.
NM = not measured.
' = feet.



Data Sources
Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).

 **MAUL FOSTER & ALONGI**
p. 971 544 2139 | www.maulfooster.com

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.
© 2024 Maul Foster & Alongi, Inc.

Path: C:\Workspace\9081.03 McFarland Cascade Pole and Lumber\16 Pro\Map081_03_016_005_2023_Report.aprx Fig 2K Potentiometric August 2023
Project: M9081.03.016 Produced By: jroberts
Reviewed By: cschweitzer
Print Date: 4/11/2024

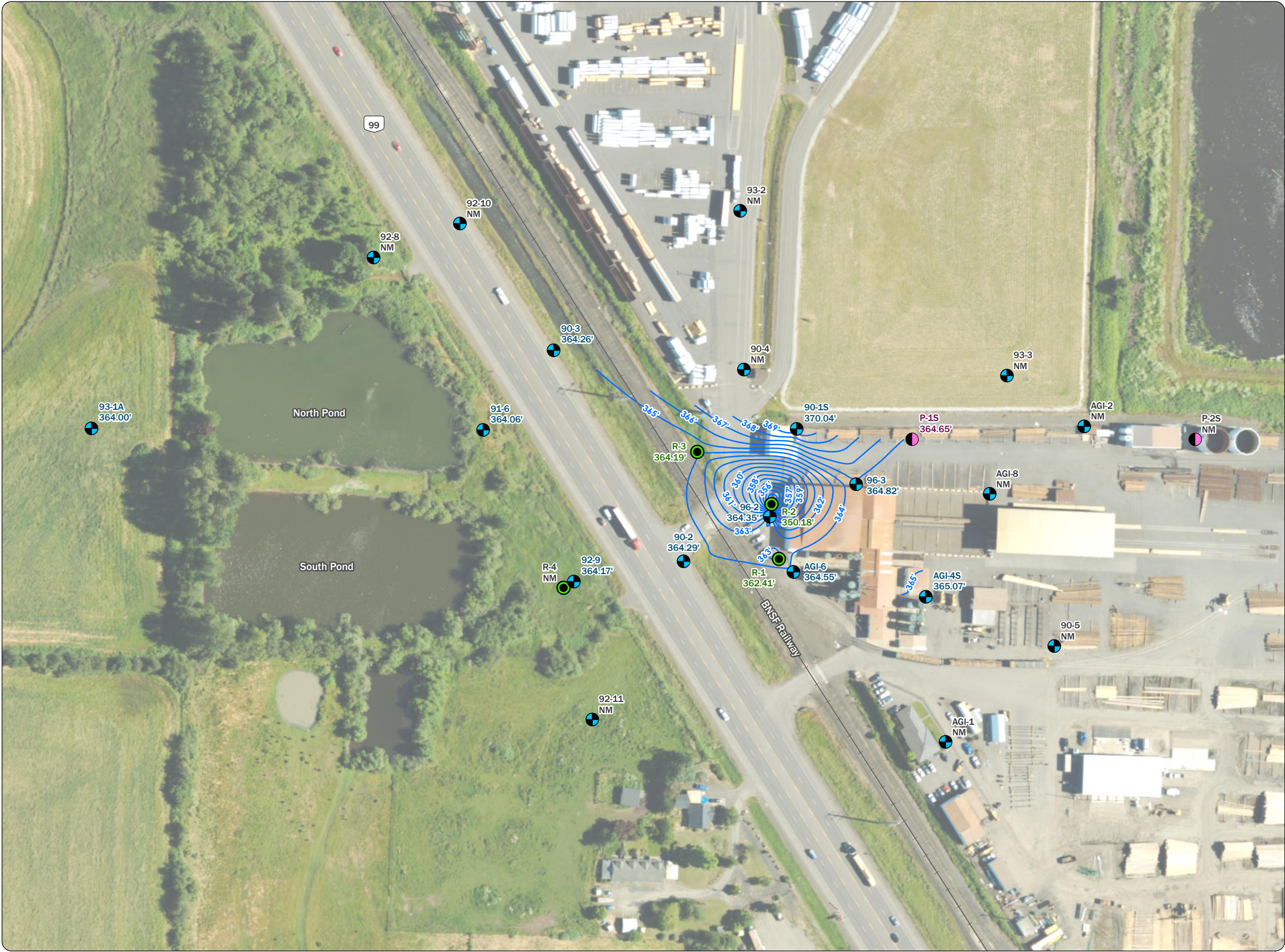


Figure 2K
Potentiometric Surface Map
August 2023
McFarland Cascade Pole
and Lumber Company
Eugene, OR

- Legend**
- Monitoring Well
 - Piezometer
 - Recovery Well
 - Water Level Elevation Contour (feet)
 - Railroad

Notes
All wells shown are included in semiannual water-level monitoring.
Potentiometric surface generated with Spatial Analyst extension for ArcGIS Pro 3.2.2 using natural neighbor interpolation method.
Well locations are based on data provided by AECOM. Well locations are for visualization purposes only and should not be used for distance, area or volume calculations.
Water level measurements were taken on August 30, 2023.
Water level elevation contours that make sharp angles are likely artifacts of the interpolation process rather than precise representations of groundwater flow behavior.
NM = not measured.
' = feet.



Data Sources
Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.
© 2024 Maul Foster & Alongi, Inc.

Path: C:\Workspace\9081_03 McFarland Cascade Pole and Lumber\46 Pro\W9081_03_016_2023_2023 Report.aprx Fig 2L Potentiometric September 2023
Print Date: 4/11/2024
Reviewed By: cschweitzer
Produced By: jroberts
Project: W9081_03_016





Figure 3A
PCP Concentration
in Groundwater
April 2023

McFarland Cascade Pole
and Lumber Company
Eugene, OR

Legend

- Monitoring Well
- Piezometer
- Recovery Well
- LNAPL Present

**PCP Concentration in
Groundwater (µg/L)**

- < 1
- 1 - 10
- 10 - 100

Railroad

Notes

PCP concentrations have historically been non-detect in wells 90-3, 93-2, and 93-9; a value of half the method reporting limit was used for the interpolation.

The September 2022 result for 93-3 of 0.102J was used for the interpolation because this well was not sampled during the spring 2023 event.

Well locations are based on data provided by AECOM. The locations of these wells are for visualization purposes only and should not be used for distance, area or volume calculations.

Where both field sample and field sample duplicate data were available, the higher detected value was used.

J = result is an estimated value.

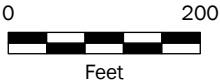
LNAPL = Light Non-Aqueous Phase Liquid.

µg/L = micrograms per liter.

NS = no sample collected.

PCP = pentachlorophenol.

U = not detected at or above the method reporting limit.



Data Sources

Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

© 2024 Maul Foster & Alongi, Inc.



Figure 3B
PCP Concentration
in Groundwater
September 2023

McFarland Cascade Pole
and Lumber Company
Eugene, OR

Legend

- Monitoring Well
- Piezometer
- Recovery Well
- LNAPL Present

PCP Concentration in
Groundwater (µg/L)

- < 1
- 1-10

Railroad

Notes

PCP concentrations have historically been non-detect in wells 90-3, 93-2, and 93-9; a value of half the method reporting limit was used for the interpolation.

R-4 was abandoned from May 31 to June 2, 2023 and so was not sampled in the fall 2023 event.

Well locations are based on data provided by AECOM. The locations of these wells are for visualization purposes only and should not be used for distance, area or volume calculations.

Where both field sample and field sample duplicate data were available, the higher detected value was used.

J = result is an estimated value.

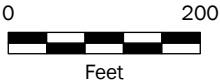
LNAPL = Light Non-Aqueous Phase Liquid.

µg/L = micrograms per liter.

NS = no sample collected.

PCP = pentachlorophenol.

U = not detected at or above the method reporting limit.



Data Sources

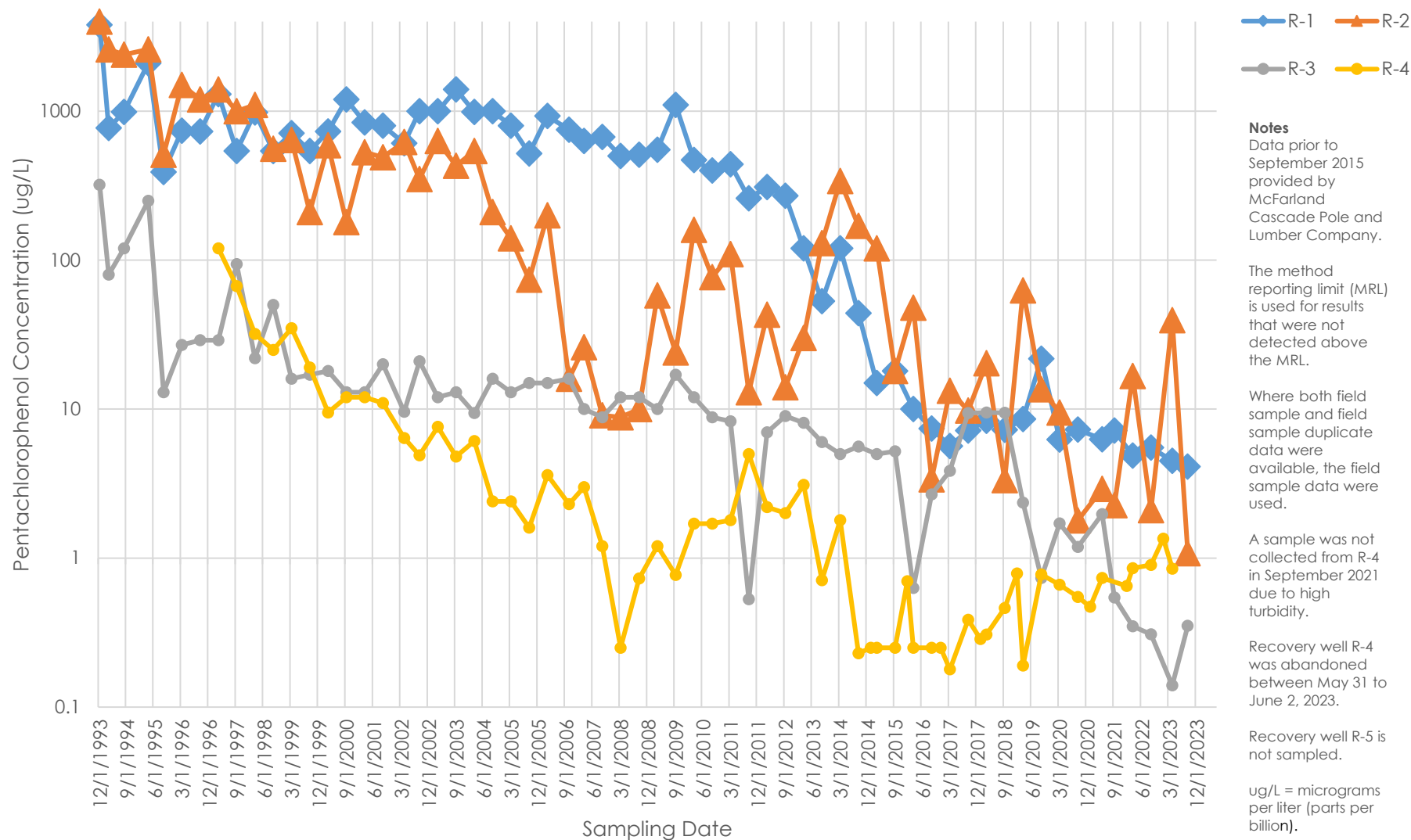
Well locations obtained from AECOM; aerial photograph obtained from the State of Oregon (2022).



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

© 2024 Maul Foster & Alongi, Inc.

Figure 4
Pentachlorophenol Concentrations in Recovery Wells Over Time
McFarland Cascade Pole and Lumber Company
Eugene, Oregon



Tables



MAUL
FOSTER
ALONGI

Table 1
Monitoring Program
Stella-Jones Corporation
Eugene, Oregon

Location	Water Level Monitoring			Groundwater Sampling					Surface Water Sampling
	Monthly	Semiannual (March/April and August/September)	Used for Potentiometric Surface Maps	March/April		August/September		December/January	December/January
				Chlorophenols	SVOCs	Chlorophenols	SVOCs	Chlorophenols	Chlorophenols
Monitoring Wells									
AGI-1		X	X						
AGI-2		X	X						
AGI-4N	X	X							
AGI-4S	X	X	X						
AGI-6	X	X	X						
AGI-8		X	X						
90-1S	X	X	X						
90-1D	X	X		X		X			
90-2	X	X	X						
90-3	X	X	X						
90-4		X	X						
90-5		X	X	X					
91-6	X	X	X						
92-8		X	X						
92-9	X	X	X	X		X		X	
92-9B	X ¹	X ¹							
92-10		X	X						
92-11		X	X						
93-1A	X	X	X			X		X	
93-1B	X	X							
93-2		X	X						
93-3		X	X			X			
93-4				X		X			
93-8				X		X			
96-2	X	X	X						
96-3	X	X	X						
P-1S	X	X	X						

Table 1
Monitoring Program
Stella-Jones Corporation
Eugene, Oregon

Location	Water Level Monitoring			Groundwater Sampling					Surface Water Sampling
	Monthly	Semiannual (March/April and August/September)	Used for Potentiometric Surface Maps	March/April		August/September		December/January	December/January
				Chlorophenols	SVOCs	Chlorophenols	SVOCs	Chlorophenols	Chlorophenols
P-2S		X	X						
P2D				X		X			
MT-1	X	X							
MT-2	X	X							
MT-3	X	X							
MT-4	X	X							
Recovery Wells									
R-1	X	X	X	X	X	X	X		
R-2	X	X	X	X	X	X	X		
R-3	X	X	X	X ²	X	X ²	X		
R-4	X ¹	X ¹	X ¹	X ¹		X ¹		X ¹	
R-5	X	X							
Ponds									
North	X	X							X ²
South									X ²
IRAM Treatment System									
Monthly for Chlorophenols									
Notes ¹ Monitoring well 92-9B was damaged on October 5, 2021 and can no longer be used for water level monitoring. On October 31, 2022, the DEQ provided a letter authorizing the abandonment of monitoring well 92-9B and recovery well R-4. These wells were abandoned between May 31 to June 6, 2023. Recovery well R-4 was not apart of the monitoring program after abandonment. ² Samples are also analyzed for low level pentachlorophenol by U.S. Environmental Protection Agency Method 8041A to meet project reporting limit needs. Chlorophenols and SVOCs analyzed by U.S. Environmental Protection Agency Method 8270E. The current monitoring program was agreed to as part of the Remedial Action Work Plan, prepared by Maul Foster & Alongi, Inc., for McFarland Cascade Holdings, Inc., on August 27, 2013. DEQ = Oregon Department of Environmental Quality. IRAM = interim remedial action measure. SVOC = semivolatile organic compound. X = planned water level measurement, data use, or groundwater/surface water sample.									

Table 2
Water Level Monitoring
Stella-Jones Corporation
Eugene, Oregon



Location	TOC	10/27/2022					11/23/2022					12/29/2022				
		DTW	DT-LNAPL	LNAPL Thickness	CDTW	CELEV	DTW	DT-LNAPL	LNAPL Thickness	CDTW	CELEV	DTW	DT-LNAPL	LNAPL Thickness	CDTW	CELEV
AGI-1	377.39	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AGI-2	379.52	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AGI-4N	379.61	14.66	--	0.00	14.66	364.95	12.90	--	0.00	12.90	366.71	8.58	--	0.00	8.58	371.03
AGI-4S	379.57	14.23	--	0.00	14.23	365.34	12.46	--	0.00	12.46	367.11	8.31	--	0.00	8.31	371.26
AGI-6	378.77	14.25	14.20	0.05	14.20	364.57	12.60	12.55	0.05	12.55	366.22	8.35	8.31	0.04	8.31	370.46
AGI-8	378.47	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
90-1S	376.24	11.43	--	0.00	11.43	364.81	9.74	--	0.00	9.74	366.50	5.42	--	0.00	5.42	370.82
90-1D	377.07	12.97	--	0.00	12.97	364.10	11.38	--	0.00	11.38	365.69	7.27	--	0.00	7.27	369.80
90-2	373.42	8.82	--	0.00	8.82	364.60	7.47	--	0.00	7.47	365.95	2.74	--	0.00	2.74	370.68
90-3	372.91	7.64	--	0.00	7.64	365.27	6.30	--	0.00	6.30	366.61	1.50	--	0.00	1.50	371.41
90-4	375.56	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
90-5	379.08	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
91-6	374.23	10.21	--	0.00	10.21	364.02	8.84	--	0.00	8.84	365.39	5.74	--	0.00	5.74	368.49
92-8	375.96	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
92-9	375.10	10.95	--	0.00	10.95	364.15	9.53	--	0.00	9.53	365.57	6.19	--	0.00	6.19	368.91
92-9B ^(a)	374.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
92-10	375.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
92-11	377.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
93-1A	375.61	11.66	--	0.00	11.66	363.95	10.29	--	0.00	10.29	365.32	6.93	--	0.00	6.93	368.68
93-1B	375.60	12.38	--	0.00	12.38	363.22	10.97	--	0.00	10.97	364.63	6.75	--	0.00	6.75	368.85
93-2	377.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
93-3	379.43	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
96-2	376.38	12.85	11.87	0.98	11.95	364.43	10.35	10.29	0.06	10.29	366.09	6.24	6.21	0.03	6.21	370.17
96-3	377.83	12.86	12.78	0.08	12.79	365.04	11.20	11.10	0.10	11.11	366.72	6.73	6.68	0.05	6.68	371.15
P-1S	377.22	12.12	--	0.00	12.12	365.10	10.40	--	0.00	10.40	366.82	8.95	--	0.00	8.95	368.27
P-2S	377.39	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
R-1	374.94	12.68	12.03	0.65	12.08	362.86	11.21	10.49	0.72	10.55	364.39	7.05	6.29	0.76	6.35	368.59
R-2	374.89	24.11	--	0.00	24.11	350.78	21.10	--	0.00	21.10	353.79	16.50	--	0.00	16.50	358.39
R-3	375.56	11.21	--	0.00	11.21	364.35	9.66	--	0.00	9.66	365.90	5.50	--	0.00	5.50	370.06
R-4 ^(b)	372.89	8.75	--	0.00	8.75	364.14	7.30	--	0.00	7.30	365.59	3.94	--	0.00	3.94	368.95
R-5	377.22	14.09	13.64	0.45	13.68	363.54	13.89	11.83	2.06	11.99	365.23	11.11	7.42	3.69	7.72	369.50
MT-1	377.39	12.64	--	0.00	12.64	364.75	10.92	--	0.00	10.92	366.47	6.75	--	0.00	6.75	370.64
MT-2	377.32	12.73	12.71	0.02	12.71	364.61	11.51	11.50	0.01	11.50	365.82	7.35	--	0.00	7.35	369.97
MT-3	374.94	14.38	12.60	1.78	12.74	362.20	11.52	--	0.00	11.52	363.42	6.90	6.88	0.02	6.88	368.06
MT-4	374.89	11.23	10.70	0.53	10.74	364.15	9.15	9.11	0.04	9.11	365.78	6.55	4.48	2.07	4.65	370.24
North Pond	375.15	0.00	--	0.00	0.00	375.15	0.61	--	0.00	0.61	374.54	3.40	--	0.00	3.40	371.75

Table 2
Water Level Monitoring
Stella-Jones Corporation
Eugene, Oregon



Location	TOC	01/31/2023					02/23/2023					03/31/2023				
		DTW	DT-LNAPL	LNAPL Thickness	CDTW	CELEV	DTW	DT-LNAPL	LNAPL Thickness	CDTW	CELEV	DTW	DT-LNAPL	LNAPL Thickness	CDTW	CELEV
AGI-1	377.39	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AGI-2	379.52	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AGI-4N	379.61	7.82	--	0.00	7.82	371.79	8.40	--	0.00	8.40	371.21	7.22	--	0.00	7.22	372.39
AGI-4S	379.57	7.40	--	0.00	7.40	372.17	8.10	--	0.00	8.10	371.47	6.95	--	0.00	6.95	372.62
AGI-6	378.77	7.34	7.31	0.03	7.31	371.46	7.95	7.91	0.04	7.91	370.86	6.82	6.79	0.03	6.79	371.98
AGI-8	378.47	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
90-1S	376.24	4.73	--	0.00	4.73	371.51	5.22	--	0.00	5.22	371.02	4.11	--	0.00	4.11	372.13
90-1D	377.07	6.88	--	0.00	6.88	370.19	7.00	--	0.00	7.00	370.07	5.81	--	0.00	5.81	371.26
90-2	373.42	2.31	--	0.00	2.31	371.11	1.72	--	0.00	1.72	371.70	1.22	--	0.00	1.22	372.20
90-3	372.91	1.58	--	0.00	1.58	371.33	1.57	--	0.00	1.57	371.34	1.39	--	0.00	1.39	371.52
90-4	375.56	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
90-5	379.08	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
91-6	374.23	3.03	--	0.00	3.03	371.20	3.62	--	0.00	3.62	370.61	2.73	--	0.00	2.73	371.50
92-8	375.96	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
92-9	375.10	3.45	--	0.00	3.45	371.65	4.36	--	0.00	4.36	370.74	3.42	--	0.00	3.42	371.68
92-9B ^(a)	374.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
92-10	375.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
92-11	377.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
93-1A	375.61	6.31	--	0.00	6.31	369.30	5.05	--	0.00	5.05	370.56	4.13	--	0.00	4.13	371.48
93-1B	375.60	6.24	--	0.00	6.24	369.36	6.34	--	0.00	6.34	369.26	5.23	--	0.00	5.23	370.37
93-2	377.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
93-3	379.43	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
96-2	376.38	5.34	5.28	0.06	5.28	371.10	5.85	5.81	0.04	5.81	370.57	4.81	4.78	0.03	4.78	371.60
96-3	377.83	6.09	6.05	0.04	6.05	371.78	6.70	6.65	0.05	6.65	371.18	5.44	5.41	0.03	5.41	372.42
P-1S	377.22	8.99	--	0.00	8.99	368.23	5.98	--	0.00	5.98	371.24	4.70	--	0.00	4.70	372.52
P-2S	377.39	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
R-1	374.94	6.15	5.19	0.96	5.27	369.67	6.60	5.70	0.90	5.77	369.17	4.92	4.60	0.32	4.63	370.31
R-2	374.89	21.91	16.51	5.40	16.94	357.95	23.10	16.80	6.30	17.30	357.59	16.28	16.20	0.08	16.21	358.68
R-3	375.56	4.41	--	0.00	4.41	371.15	4.94	--	0.00	4.94	370.62	3.93	--	0.00	3.93	371.63
R-4 ^(b)	372.89	2.05	--	0.00	2.05	370.84	2.16	--	0.00	2.16	370.73	1.20	--	0.00	1.20	371.69
R-5	377.22	13.23	6.31	6.92	6.86	370.36	13.59	6.87	6.72	7.41	369.81	12.66	5.71	6.95	6.27	370.95
MT-1	377.39	5.91	--	0.00	5.91	371.48	6.50	--	0.00	6.50	370.89	5.41	--	0.00	5.41	371.98
MT-2	377.32	6.50	6.09	0.41	6.12	371.20	7.15	6.44	0.71	6.50	370.82	6.23	5.45	0.78	5.51	371.81
MT-3	374.94	6.02	5.98	0.04	5.98	368.96	6.41	6.35	0.06	6.35	368.59	5.83	5.81	0.02	5.81	369.13
MT-4	374.89	8.89	3.47	5.42	3.90	370.99	10.07	3.98	6.09	4.47	370.42	8.89	2.84	6.05	3.32	371.57
North Pond	375.15	6.26	--	0.00	6.26	368.89	5.90	--	0.00	5.90	369.25	6.80	--	0.00	6.80	368.35

Table 2
Water Level Monitoring
Stella-Jones Corporation
Eugene, Oregon



Location	TOC	04/05/2023					05/25/2023					06/28/2023				
		DTW	DT-LNAPL	LNAPL Thickness	CDTW	CELEV	DTW	DT-LNAPL	LNAPL Thickness	CDTW	CELEV	DTW	DT-LNAPL	LNAPL Thickness	CDTW	CELEV
AGI-1	377.39	3.11	--	0.00	3.11	374.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AGI-2	379.52	6.57	--	0.00	6.57	372.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AGI-4N	379.61	6.96	--	0.00	6.96	372.65	9.15	--	0.00	9.15	370.46	12.06	--	0.00	12.06	367.55
AGI-4S	379.57	6.76	--	0.00	6.76	372.81	8.76	--	0.00	8.76	370.81	11.69	--	0.00	11.69	367.88
AGI-6	378.77	6.57	6.55	0.02	6.55	372.22	8.65	8.62	0.03	8.62	370.15	11.54	11.51	0.03	11.51	367.26
AGI-8	378.47	4.55	--	0.00	4.55	373.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
90-1S	376.24	3.84	--	0.00	3.84	372.40	5.99	--	0.00	5.99	370.25	8.89	--	0.00	8.89	367.35
90-1D	377.07	5.53	--	0.00	5.53	371.54	7.74	--	0.00	7.74	369.33	10.54	--	0.00	10.54	366.53
90-2	373.42	0.92	--	0.00	0.92	372.50	3.05	--	0.00	3.05	370.37	6.20	--	0.00	6.20	367.22
90-3	372.91	1.35	--	0.00	1.35	371.56	2.65	--	0.00	2.65	370.26	5.29	--	0.00	5.29	367.62
90-4	375.56	3.03	--	0.00	3.03	372.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
90-5	379.08	5.17	--	0.00	5.17	373.91	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
91-6	374.23	2.59	--	0.00	2.59	371.64	4.32	--	0.00	4.32	369.91	7.11	--	0.00	7.11	367.12
92-8	375.96	4.35	--	0.00	4.35	371.61	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
92-9	375.10	3.26	--	0.00	3.26	371.84	5.14	--	0.00	5.14	369.96	7.94	--	0.00	7.94	367.16
92-9B ^(a)	374.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
92-10	375.97	4.68	--	0.00	4.68	371.29	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
92-11	377.95	5.89	--	0.00	5.89	372.06	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
93-1A	375.61	3.96	--	0.00	3.96	371.65	5.80	--	0.00	5.80	369.81	8.60	--	0.00	8.60	367.01
93-1B	375.60	4.95	--	0.00	4.95	370.65	7.29	--	0.00	7.29	368.31	9.98	--	0.00	9.98	365.62
93-2	377.66	6.25	--	0.00	6.25	371.41	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
93-3	379.43	6.50	--	0.00	6.50	372.93	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
96-2	376.38	4.60	4.53	0.07	4.54	371.84	6.60	6.52	0.08	6.53	369.85	9.41	9.33	0.08	9.34	367.04
96-3	377.83	5.21	5.15	0.06	5.15	372.68	7.39	7.34	0.05	7.34	370.49	10.34	10.30	0.04	10.30	367.53
P-1S	377.22	4.43	--	0.00	4.43	372.79	6.68	--	0.00	6.68	370.54	9.68	--	0.00	9.68	367.54
P-2S	377.39	4.17	--	0.00	4.17	373.22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
R-1	374.94	5.22	4.35	0.87	4.42	370.52	7.50	6.31	1.19	6.41	368.53	10.84	9.30	1.54	9.42	365.52
R-2	374.89	16.05	--	0.00	16.05	358.84	28.35	27.61	0.74	27.67	347.22	21.60	--	0.00	21.60	353.29
R-3	375.56	3.72	--	0.00	3.72	371.84	5.71	--	0.00	5.71	369.85	8.54	--	0.00	8.54	367.02
R-4 ^(b)	372.89	1.02	--	0.00	1.02	371.87	2.90	--	0.00	2.90	369.99	NM	NM	NM	NM	NM
R-5	377.22	12.62	5.43	7.19	6.01	371.21	13.76	7.63	6.13	8.12	369.10	13.90	10.80	3.10	11.05	366.17
MT-1	377.39	5.13	--	0.00	5.13	372.26	7.13	--	0.00	7.13	370.26	10.06	--	0.00	10.06	367.33
MT-2	377.32	5.88	5.02	0.86	5.09	372.23	8.45	8.10	0.35	8.13	369.19	10.52	10.11	0.41	10.14	367.18
MT-3	374.94	6.13	5.15	0.98	5.23	369.71	10.60	7.25	3.35	7.52	367.42	10.75	10.03	0.72	10.09	364.85
MT-4	374.89	9.11	2.50	6.61	3.03	371.86	9.42	4.85	4.57	5.22	369.67	10.06	8.00	2.06	8.16	366.73
North Pond	375.15	6.90	--	0.00	6.90	368.25	5.30	--	0.00	5.30	369.85	2.50	--	0.00	2.50	372.65

Table 2
Water Level Monitoring
Stella-Jones Corporation
Eugene, Oregon



Location	TOC	07/27/2023					08/30/2023					09/12/2023				
		DTW	DT-LNAPL	LNAPL Thickness	CDTW	CELEV	DTW	DT-LNAPL	LNAPL Thickness	CDTW	CELEV	DTW	DT-LNAPL	LNAPL Thickness	CDTW	CELEV
AGI-1	377.39	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	12.44	--	0.00	12.44	364.95
AGI-2	379.52	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	14.71	--	0.00	14.71	364.81
AGI-4N	379.61	13.79	--	0.00	13.79	365.82	14.75	--	0.00	14.75	364.86	14.95	--	0.00	14.95	364.66
AGI-4S	379.57	13.46	--	0.00	13.46	366.11	14.50	--	0.00	14.50	365.07	14.62	--	0.00	14.62	364.95
AGI-6	378.77	13.24	--	0.00	13.24	365.53	14.24	14.22	0.02	14.22	364.55	14.50	14.48	0.02	14.48	364.29
AGI-8	378.47	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	13.73	--	0.00	13.73	364.74
90-1S	376.24	10.62	--	0.00	10.62	365.62	6.20	--	0.00	6.20	370.04	11.81	--	0.00	11.81	364.43
90-1D	377.07	12.15	--	0.00	12.15	364.92	13.20	--	0.00	13.20	363.87	13.37	--	0.00	13.37	363.70
90-2	373.42	7.93	--	0.00	7.93	365.49	9.13	--	0.00	9.13	364.29	9.33	--	0.00	9.33	364.09
90-3	372.91	7.33	--	0.00	7.33	365.58	8.65	--	0.00	8.65	364.26	8.84	--	0.00	8.84	364.07
90-4	375.56	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	10.97	--	0.00	10.97	364.59
90-5	379.08	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	14.01	--	0.00	14.01	365.07
91-6	374.23	9.03	--	0.00	9.03	365.20	10.17	--	0.00	10.17	364.06	10.41	--	0.00	10.41	363.82
92-8	375.96	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	12.13	--	0.00	12.13	363.83
92-9	375.10	9.81	--	0.00	9.81	365.29	10.93	--	0.00	10.93	364.17	11.16	--	0.00	11.16	363.94
92-9B ^(a)	374.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
92-10	375.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	12.55	--	0.00	12.55	363.42
92-11	377.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	13.87	--	0.00	13.87	364.08
93-1A	375.61	10.44	--	0.00	10.44	365.17	11.61	--	0.00	11.61	364.00	11.80	--	0.00	11.80	363.81
93-1B	375.60	11.51	--	0.00	11.51	364.09	12.52	--	0.00	12.52	363.08	12.66	--	0.00	12.66	362.94
93-2	377.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	14.09	--	0.00	14.09	363.57
93-3	379.43	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	14.70	--	0.00	14.70	364.73
96-2	376.38	11.11	10.99	0.12	11.00	365.38	12.80	11.96	0.84	12.03	364.35	13.15	12.14	1.01	12.22	364.16
96-3	377.83	12.01	11.99	0.02	11.99	365.84	13.10	13.00	0.10	13.01	364.82	13.31	13.20	0.11	13.21	364.62
P-1S	377.22	11.36	--	0.00	11.36	365.86	12.57	--	0.00	12.57	364.65	12.55	--	0.00	12.55	364.67
P-2S	377.39	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	12.07	--	0.00	12.07	365.32
R-1	374.94	12.42	10.99	1.43	11.10	363.84	15.16	12.30	2.86	12.53	362.41	13.96	12.33	1.63	12.46	362.48
R-2	374.89	23.58	--	0.00	23.58	351.31	24.71	--	0.00	24.71	350.18	24.31	--	0.00	24.31	350.58
R-3	375.56	10.33	--	0.00	10.33	365.23	11.37	--	0.00	11.37	364.19	11.55	--	0.00	11.55	364.01
R-4 ^(b)	372.89	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
R-5	377.22	14.20	12.65	1.55	12.77	364.45	14.51	13.73	0.78	13.79	363.43	14.60	13.92	0.68	13.97	363.25
MT-1	377.39	11.72	--	0.00	11.72	365.67	12.75	--	0.00	12.75	364.64	12.91	--	0.00	12.91	364.48
MT-2	377.32	12.17	11.80	0.37	11.83	365.49	13.40	12.80	0.60	12.85	364.47	13.60	13.02	0.58	13.07	364.25
MT-3	374.94	13.20	11.71	1.49	11.83	363.11	14.35	12.69	1.66	12.82	362.12	14.50	12.90	1.60	13.03	361.91
MT-4	374.89	11.30	9.73	1.57	9.86	365.03	11.59	10.82	0.77	10.88	364.01	11.65	11.01	0.64	11.06	363.83
North Pond	375.15	0.80	--	0.00	0.80	374.35	0.00	--	0.00	0.00	375.15	0.00	--	0.00	0.00	375.15

Table 2
Water Level Monitoring
Stella-Jones Corporation
Eugene, Oregon



<p>Notes</p> <p>Elevations are in feet above mean sea level.</p> <p>LNAPL thickness data are in feet.</p> <p>TOC elevation data, formulas, and specific gravity provided by McFarland Cascade Pole and Lumber Company.</p> <p>-- = no LNAPL.</p> <p>CDTW = corrected depth to water. DTW measurement corrected for the presence of LNAPL, using the equation: $DTW - (LNAPL\ Thickness * 0.92)$, which assumes a specific gravity of LNAPL equal to 0.92.</p> <p>CELEV = corrected water elevation. Water elevation corrected for the presence of LNAPL, using the following equation: $TOC - CDTW$.</p> <p>DT-LNAPL = depth to LNAPL.</p> <p>DTW = depth to water.</p> <p>LNAPL = light nonaqueous-phase liquid.</p> <p>NM = not measured.</p> <p>TOC = top of casing.</p> <p>^(a)DTW measurements were not collected at monitoring well 92-9B during the reporting period due to damaged sustained to the well on October 5, 2021. The well was abandoned from May 31 through June 2, 2023</p> <p>^(b)R-4 was abandoned from May 31 to June 2, 2023.</p>

Table 3
IRAM System Summary
Stella-Jones Corporation
Eugene, Oregon



Location:	R-1			R-2			Treatment Plant	
Date	Groundwater Pumping Rates		LNAPL Recovery (gallons) ^(a)	Groundwater Pumping Rates		LNAPL Recovery (gallons) ^(a)	Groundwater Discharge	
	Average GPM	Average GPD		Average GPM	Average GPD		Average GPD ^(b)	Total (gallons)
October 2022	8.7	12,541	0.96	6.0	8,613	0.00	20,608	638,863
November 2022	9.3	13,378	1.06	6.2	8,969	0.00	21,636	649,069
December 2022	9.0	12,909	0.00	6.7	9,617	0.00	21,692	672,454
January 2023	9.5	13,694	1.41	9.1	13,049	7.93	25,893	802,698
February 2023	8.8	12,643	1.32	7.8	11,214	9.26	25,221	706,184
March 2023	8.9	12,833	0.47	8.1	11,630	0.12	28,036	869,113
April 2023	7.7	11,017	1.28	7.1	10,179	0.00	30,850	925,508
May 2023	8.8	12,705	1.75	7.1	10,220	1.09	26,395	818,239
June 2023	8.1	11,691	2.26	5.9	8,449	0.00	17,013	510,391
July 2023	7.9	11,374	2.10	5.2	7,545	0.00	21,916	679,391
August 2023	7.9	11,371	4.20	4.7	6,809	0.00	21,497	666,410
September 2023	6.3	9,007	2.40	4.1	5,971	0.00	17,892	536,763
12 Month Average	8.4	12,097	--	6.5	9,355	--	23,221	--
Total	--	--	19.21	--	--	18.40	--	8,475,083
Notes Data provided by McFarland Cascade Pole and Lumber Company. Pumping at R-3 was discontinued on October 1, 2015, and pumping at R-4 was discontinued on February 8, 2013. -- = not applicable. GPD = gallons per day. GPM = gallons per minute. IRAM = interim remedial action measure. LNAPL = light nonaqueous-phase liquid. ^(a) LNAPL recovery by product pumps. ^(b) Average GPD was calculated by taking last recorded total groundwater discharge in a month divided by the total number of days in the month.								

Table 4
VER LNAPL Recovery Summary
Stella-Jones Corporation
Eugene, Oregon



Date	R-5	96-2	96-3	MT-2	MT-3	MT-4	AGI-6	Total (gallons)
October 2022	0.29	1.44	0.12	0.00	0.29	0.09	0.01	2.24
November 2022	1.35	0.09	0.15	--	--	0.01	0.01	1.61
December 2022	2.27	0.04	0.07	--	0.00	0.34	0.01	2.73
January 2023	4.52	0.09	0.06	0.07	0.01	0.89	0.00	5.64
February 2023	4.39	0.06	0.07	0.12	0.01	0.99	0.01	5.65
March 2023	4.54	0.04	0.04	0.13	0.00	0.99	0.02	5.76
April 2023	4.69	0.19	0.09	0.14	0.16	1.08	0.00	6.35
May 2023	4.00	0.18	0.07	0.06	0.55	0.75	0.00	5.61
June 2023	2.02	0.12	0.06	0.07	0.12	2.06	0.00	4.45
July 2023	1.01	0.18	0.03	0.06	0.24	0.26	--	1.78
August 2023	4.20	1.23	0.15	0.10	0.27	0.13	--	6.08
September 2023	0.44	1.48	0.16	0.09	0.26	0.10	0.00	2.53
Total	33.72	5.14	1.07	0.84	1.91	7.69	0.06	50.43

Notes

Data provided by MCPLC in monthly IRAM and VER operations reports, submitted electronically to the Oregon Department of Environmental Quality via email on November 9, 2022 (for October 2022); December 6, 2022 (for November 2022); January 10, 2023 (for December 2022); February 14, 2023 (for January 2023); March 13, 2023 (for February 2023); April 10, 2023 (for March 2023); May 4, 2023 (for April 2023); June 5, 2023 (for May 2023); July 10, 2023 (for June 2023); August 3, 2023 (for July 2023); September 8, 2023 (August 2023), and October 9, 2023 (for September 2023).

Shading indicates that a shallow well hand pump was used instead of the VER system.

-- = no LNAPL recovery attempted.

IRAM = interim remedial action measure.

LNAPL = light nonaqueous-phase liquid.

MCPLC = McFarland Cascade Pole and Lumber Company,

VER = vacuum-enhanced recovery.

Table 5
Chlorophenol Analytical Results
Stella-Jones Corporation
Eugene, Oregon



Location		Sample Name	Collection Date	Sample Type	2,3,4,5 and 2,3,4,6-Tetrachlorophenol	2,3,5,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	Pentachlorophenol
Units:					ug/L					
EPA, Groundwater and Drinking Water, MCLs [HIDE]					NV	NV	NV	NV	NV	1.0
RBC, Groundwater, Ingestion and Inhalation from Tapwater, Residential [HIDE]					NV	NV	NV	4.4	NV	0.044
EPA, Resident Tapwater, RSLs (THQ =1.0) lower of c/nc [HIDE]					240 (2,3,4,6-TeCP)	NV	1200	4.1	46	0.041
Screening Level ^(a) :					240 ^{(b)(1)}	NV	1,200 ⁽¹⁾	4.4 ⁽²⁾	46.0 ⁽¹⁾	1.0 ⁽³⁾
90-1D	90-1D-0423	04/05/2023	N		0.400 UJ	0.241 J	0.200 U	0.200 U	0.200 U	2.94
	90-1D-0923	09/13/2023	N		0.385 UJ	0.192 U	0.192 U	0.192 U	0.192 U	1.35
90-5	90-5-0423	04/06/2023	N		0.385 UJ	0.414	0.192 U	0.195 J	0.192 U	2.06
92-9	92-9-0123	01/17/2023	N		0.381 UJ	0.231 J	0.190 U	0.190 U	0.190 U	10.7
	92-9-0423	04/05/2023	N		0.392 UJ	0.196 U	0.196 U	0.196 U	0.196 U	5.42
	92-9-0923	09/12/2023	N		0.126 J	0.0643 J-	0.0490 UJ	0.0490 UJ	0.0490 UJ	4.74 J-
93-1A	93-1A-0123	01/17/2023	N		0.100 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.107 J
	DUP-0123	01/17/2023	FD		0.103 UJ	0.0515 U	0.0515 U	0.515 U	0.0515 U	0.125 J
	93-1A-0923	09/12/2023	N		0.100 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.100 U
93-3	93-3-0923	09/12/2023	N		0.0971 UJ	0.0485 U	0.0485 U	0.0485 U	0.0485 U	0.0971 U
93-4	93-4-0423	04/05/2023	N		0.392 UJ	0.196 U	0.196 U	0.196 U	0.196 U	3.32
	93-4-0923	09/12/2023	N		0.100 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.127
93-8	93-8-0423	04/05/2023	N		0.0971 UJ	0.0485 U	0.0485 U	0.0485 U	0.0485 U	0.107 J
	93-8-0923	09/12/2023	N		0.0990 UJ	0.0495 U	0.0495 U	0.0495 U	0.0495 U	0.0990 U
North Pond	NORTH POND-0123	01/17/2023	N		0.337 UJ	0.189 U	0.189 U	0.189 U	0.189 U	0.104 J
P-2D	P-2D-0423	04/06/2023	N		0.385 UJ	0.284 J	0.192 U	0.192 U	0.192 U	3.26
	P-2D-0923	09/13/2023	N		0.381 UJ	0.190 U	0.190 U	0.190 U	0.190 U	0.772
R-1	R-1-0423	04/05/2023	N		0.971 UJ	0.485 U	0.485 U	0.485 U	0.485 U	4.49
	DUP-0423	04/05/2023	FD		0.962 UJ	0.481 U	0.481 U	0.481 U	0.481 U	4.93
	R-1-0923	09/12/2023	N		1.00 UJ	0.500 U	0.500 U	0.500 U	0.500 U	4.11
R-2	R-2-0423	04/05/2023	N		2.05 J	1.27 J	1.18 J	0.971 U	1.94 U	39.6
	R-2-0923	09/12/2023	N		1.00 UJ	0.500 U	0.500 U	0.500 U	0.500 U	1.08
	DUP-0923	09/12/2023	FD		0.952 UJ	0.476 U	0.476 U	0.476 U	0.476 U	1.08
R-3	R-3-0423	04/05/2023	N		4.81 UJ	2.40 U	2.40 U	2.40 U	2.40 U	0.140
	R-3-0923	09/13/2023	N		0.485 UJ	0.243 U	0.243 U	0.243 U	0.243 U	0.352
R-4	R-4-0123	01/17/2023	N		0.0990 UJ	0.0513 J	0.0495 U	0.0495 U	0.495 U	1.35
	R-4-0423	04/05/2023	N		0.0971 UJ	0.0485 U	0.0485 U	0.0485 U	0.0485 U	0.848
	NA	NA	Abandoned ^(c)							
South Pond	SOUTH POND-0123	01/17/2023	N		0.377 UJ	0.189 U	0.189 U	0.189 U	0.189 U	0.092 J

Table 5
Chlorophenol Analytical Results
Stella-Jones Corporation
Eugene, Oregon

Notes

Detections are in **bold** font.

Shading indicates values that exceed screening criteria; non-detects (U or UJ) were not compared with screening criteria.

DEQ = Oregon Department of Environmental Quality.

EPA = U.S. Environmental Protection Agency.

FD = field duplicate sample.

J = result is estimated.

J- = result is estimated, but the result may be biased low.

MCL = maximum contaminant level.

N = normal environmental sample.

NV = no value available.

RBC = risk-based concentration.

RSL = regional screening level.

U = result is non-detect at the laboratory detection limit.

ug/L = micrograms per liter (parts per billion).

UJ = result is non-detect with an estimated detection limit.

^(a)As directed by DEQ, screening levels are applied in the following order: EPA MCL, ⁽³⁾ DEQ RBC for groundwater, ingestion and inhalation from tapwater, ⁽²⁾ and the lower available cancer or noncancer EPA generic RSL for tapwater.⁽¹⁾ If no screening level is available, then "NV" is shown.

^(b)Value displayed is associated with 2,3,4,6-tetrachlorophenol.

^(c)R-4 was abandoned from May 31 to June 2, 2023.

References

⁽¹⁾EPA. 2023. *Regional Screening Level Summary Table (Target Cancer Risk of 1E-06, Hazard Quotient of 1.0)* , U.S. Environmental Protection Agency. November.

⁽²⁾DEQ. 2023. Table: *Risk-Based Concentrations for Individual Chemicals* . Oregon Department of Environmental Quality. August.

⁽³⁾EPA. 2023. MCLs from the Regional Screening Level Summary Table (Target Cancer Risk of 1E-06, Hazard Quotient of 1.0), U.S. Environmental Protection Agency. November.

Table 6
Semivolatile Organic Compound Analytical Results
Stella-Jones Corporation
Eugene, Oregon

Location:	Screening Level ^(a)	R-1			R-2			R-3	R-3
Sample Name:		R-1-0423	DUP-0423	R-1-0923	R-2-0423	R-2-0923	DUP-0923	R-3-0423	R-3-0923
Collection Date:		04/05/2023	04/05/2023	09/12/2023	04/05/2023	09/12/2023	09/12/2023	04/05/2023	09/13/2023
Sample Type:		N	FD	N	N	N	FD	N	N
SVOCs (ug/L)									
1,2,4-Trichlorobenzene	70 ⁽²⁾	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
1,2-Dichlorobenzene	600 ⁽²⁾	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
1,2-Dinitrobenzene	1.9 ⁽¹⁾	2.43 U	2.40 U	2.50 U	4.85 U	2.50 U	2.38 U	12.0 U	1.21 U
1,3-Dichlorobenzene	NV	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
1,3-Dinitrobenzene	2 ⁽¹⁾	2.43 U	2.40 U	2.50 U	4.85 U	2.50 U	2.38 U	12.0 U	1.21 U
1,4-Dichlorobenzene	75 ⁽²⁾	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
1,4-Dinitrobenzene	2 ⁽¹⁾	2.43 U	2.40 U	2.50 U	4.85 U	2.50 U	2.38 U	12.0 U	1.21 U
1-Methylnaphthalene	1.1 ⁽¹⁾	0.567	0.564	0.495	38.3	0.200 U	0.190 U	60.3	126
2,2'-oxybis(1-Chloropropane)	NV	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
2,4-Dimethylphenol	360 ⁽¹⁾	0.485 U	0.481 U	0.500 U	3.50 U	0.500 U	0.476 U	2.40 U	0.243 U
2,4-Dinitrophenol	39 ⁽¹⁾	2.43 U	2.40 U	2.50 U	4.85 U	2.50 U	2.38 U	12.0 U	1.21 U
2,4-Dinitrotoluene	0.24 ⁽¹⁾	0.971 U	0.962 U	1.00 U	3.88 U	1.00 U	0.952 U	4.81 U	2.91 U
2,6-Dinitrotoluene	0.049 ⁽³⁾	0.971 U	0.962 U	1.00 U	1.94 U	1.00 U	0.952 U	4.81 U	0.485 U
2-Chloronaphthalene	750 ⁽¹⁾	0.0971 U	0.0962 U	0.100 U	0.388 U	0.100 U	0.0952 U	0.481 U	0.146 U
2-Chlorophenol	91 ⁽¹⁾	0.485 U	0.481 U	0.500 U	0.971 U	0.500 U	0.476 U	2.40 U	0.243 U
2-Methylnaphthalene	36 ⁽¹⁾	0.303 J	0.312 J	0.279	0.907	0.200 U	0.190 U	26.9	131
2-Methylphenol	930 ⁽¹⁾	0.243 U	0.240 U	0.250 U	0.971 U	0.250 U	0.238 U	1.20 U	0.121 U
2-Nitroaniline	190 ⁽¹⁾	1.94 U	1.92 U	2.00 U	3.88 U	2.00 U	1.90 U	9.62 U	0.971 U
2-Nitrophenol	NV	0.971 U	0.962 U	1.00 U	1.94 U	1.00 U	0.952 U	4.81 U	0.485 U
3- & 4-Methylphenol (m,p-Cresol)	NV	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
3,3-Dichlorobenzidine	0.17 ⁽³⁾	4.85 UJ	4.81 UJ	5.00 UJ	9.71 UJ	5.00 UJ	4.76 UJ	24.0 UJ	2.43 UJ
3-Nitroaniline	NV	1.94 U	1.92 U	2.00 U	3.88 U	2.00 U	1.90 U	9.62 U	0.971 U
4,6-Dinitro-2-methylphenol	1.5 ⁽¹⁾	2.43 U	2.40 U	2.50 U	4.85 U	2.50 U	2.38 U	12.0 U	1.21 U
4-Bromophenylphenyl ether	NV	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
4-Chloro-3-methylphenol	1,400 ⁽¹⁾	0.971 U	0.962 U	1.00 U	1.94 U	1.00 U	0.952 U	4.81 U	0.485 U
4-Chloroaniline	0.37 ⁽¹⁾	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
4-Chlorophenylphenyl ether	NV	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
4-Nitroaniline	3.8 ⁽¹⁾	1.94 U	1.92 U	2.00 U	3.88 U	2.00 U	1.90 U	9.62 U	2.33 U
4-Nitrophenol	NV	0.971 U	0.962 U	1.00 U	7.57 U	1.00 U	0.952 U	4.81 U	1.55 U
Acenaphthene	510 ⁽³⁾	1.47	1.42	1.00	93.2	8.09	10.5	83.0	119
Acenaphthylene	NV	0.0971 U	0.0962 U	0.100 U	2.52 U	1.62	2.22	0.962 U	1.65 U
Aniline	13 ⁽¹⁾	0.485 U	0.481 U	0.500 U	0.971 U	0.500 U	0.476 U	2.40 U	0.243 U
Anthracene	1,800 ⁽¹⁾	0.172 J	0.145 J	0.100 U	10.0	0.171	0.181	5.29	9.25
Benzo(a)anthracene	0.03 ⁽³⁾	0.0971 U	0.0962 U	0.100 U	3.83	0.100 U	0.0966	0.863 J	1.01
Benzo(a)pyrene	0.2 ⁽²⁾	0.146 U	0.144 U	0.150 U	1.45	0.150 U	0.143 U	0.721 U	0.302
Benzo(b)fluoranthene	0.25 ⁽³⁾	0.146 U	0.144 U	0.150 U	1.75	0.150 U	0.143 U	0.744 J	0.419 J
Benzo(ghi)perylene	NV	0.0971 U	0.0962 U	0.100 U	0.276 J	0.100 U	0.0952 U	0.481 U	0.0485 U

Table 6
Semivolatile Organic Compound Analytical Results
Stella-Jones Corporation
Eugene, Oregon



Location:	Screening Level ^(a)	R-1			R-2			R-3	R-3
Sample Name:		R-1-0423	DUP-0423	R-1-0923	R-2-0423	R-2-0923	DUP-0923	R-3-0423	R-3-0923
Collection Date:		04/05/2023	04/05/2023	09/12/2023	04/05/2023	09/12/2023	09/12/2023	04/05/2023	09/13/2023
Sample Type:		N	FD	N	N	N	FD	N	N
Benzo(k)fluoranthene	2.5 ⁽¹⁾	0.146 U	0.144 U	0.150 U	0.878 J	0.150 U	0.143 U	0.721 U	0.207 J
Benzoic acid	75,000 ⁽¹⁾	12.1 U	12.0 U	12.5 U	48.5 U	12.5 U	11.9 U	60.1 U	6.07 U
Benzyl alcohol	2,000 ⁽¹⁾	0.971 U	0.962 U	1.00 U	1.94 U	1.00 U	0.952 U	4.81 U	0.485 U
Bis(2-chloroethoxy)methane	59 ⁽¹⁾	0.243 U	0.240 U	0.250 U	0.971 U	0.250 U	0.238 U	1.20 U	0.243 U
Bis(2-chloroethyl)ether	0.014 ⁽³⁾	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
Bis(2-ethylhexyl)phthalate	6 ⁽²⁾	1.94 U	1.92 U	2.00 U	3.88 U	2.00 U	1.90 U	9.62 U	0.971 U
Butylbenzylphthalate	16 ⁽¹⁾	1.94 U	1.92 U	2.00 U	3.88 U	2.00 U	1.90 U	9.62 U	0.971 U
Carbazole	NV	0.149 J	0.17 J	0.150 U	0.583 U	0.150 U	0.143 U	4.25	10.2
Chrysene	25 ⁽¹⁾	0.0971 U	0.0962 U	0.100 U	3.80	0.100 U	0.0952 U	0.722 J	1.01
Di(2-ethylhexyl)adipate	400 ⁽²⁾	2.43 U	2.40 U	2.50 U	4.85 U	2.50 U	2.38 U	12.0 U	1.21 U
Dibenzo(a,h)anthracene	0.025 ⁽³⁾	0.0971 U	0.0962 U	0.100 U	0.194 U	0.100 U	0.0952 U	0.481 U	0.0485 U
Dibenzofuran	7.9 ⁽¹⁾	0.294	0.282	0.205	31.4	0.100 U	0.0952 U	26.9	54.6
Diethyl phthalate	15,000 ⁽¹⁾	1.94 U	1.92 U	2.00 U	3.88 U	2.00 U	1.90 U	9.62 U	0.971 U
Dimethyl phthalate	NV	1.94 U	1.92 U	2.00 U	3.88 U	2.00 U	1.90 U	9.62 U	0.971 U
Di-n-butyl phthalate	900 ⁽¹⁾	1.94 U	1.92 U	2.00 U	3.88 U	2.00 U	1.90 U	9.62 U	0.971 U
Di-n-octyl phthalate	200 ⁽¹⁾	1.94 U	1.92 U	2.00 U	3.88 U	2.00 U	1.90 U	9.62 U	0.971 U
Fluoranthene	800 ⁽¹⁾	0.291	0.266	0.146	29.7	3.57	4.05	10.1	15.3
Fluorene	280 ⁽³⁾	1.45	1.43	0.942	44.5	0.300 U	0.286 U	32.3	54.7
Hexachlorobenzene	1 ⁽²⁾	0.0971 U	0.0962 U	0.100 U	0.194 U	0.100 U	0.0952 U	0.481 U	0.0485 U
Hexachlorobutadiene	0.14 ⁽¹⁾	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
Hexachlorocyclopentadiene	50 ⁽²⁾	0.485 U	0.481 U	0.500 U	0.971 U	0.500 U	0.476 U	2.40 U	0.243 U
Hexachloroethane	0.34 ⁽³⁾	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
Hydrazine, 1,2-diphenyl	0.078 ⁽¹⁾	0.243 U	0.240 U	0.250 U	0.971 U	0.250 U	0.238 U	1.20 U	0.291 U
Indeno(1,2,3-cd)pyrene	0.25 ⁽¹⁾	0.0971 U	0.0962 U	0.100 U	0.390	0.100 U	0.0952 U	0.481 U	0.0567
Isophorone	78 ⁽¹⁾	0.243 U	0.240 U	0.250 U	0.971 U	0.250 U	0.238 U	1.20 U	0.121 U
Naphthalene	0.17 ⁽³⁾	0.533	0.472	0.405 J+	0.777 U	0.200 U	0.190 U	12.8	483
Nitrobenzene	0.14 ⁽¹⁾	0.971 U	0.962 U	1.00 U	1.94 U	1.00 U	0.952 U	4.81 U	1.26 U
N-Nitrosodimethylamine	0.00011 ⁽¹⁾	0.243 U	0.240 U	0.250 U	0.485 U	0.250 U	0.238 U	1.20 U	0.121 U
N-Nitrosodiphenylamine	13 ⁽³⁾	0.243 U	0.240 U	0.250 U	6.41 U	0.250 U	0.238 U	1.20 U	0.777 U
N-Nitrosodipropylamine	0.011 ⁽³⁾	0.243 U	0.240 U	0.250 U	0.971 U	0.250 U	0.238 U	1.20 U	0.121 U
Phenanthrene	NV	0.299	0.289	0.139	40.3	0.100 U	0.0952 U	34.5	56.5
Phenol	5,800 ⁽¹⁾	1.94 U	1.92 U	2.00 U	3.88 U	2.00 U	1.90 U	9.62 U	0.971 U
Pyrene	110 ⁽³⁾	0.341	0.323	0.221	25.0	3.76	3.90	8.00	11.6
Pyridine	20 ⁽¹⁾	0.971 U	0.962 U	1.00 U	1.94 U	1.00 U	0.952 U	4.81 U	0.485 U

Table 6
Semivolatile Organic Compound Analytical Results
Stella-Jones Corporation
Eugene, Oregon



Notes

Detections are in **bold** font.

Shading indicates values that exceed screening criteria; non-detects (U or UJ) were not compared with screening criteria.

DEQ = Oregon Department of Environmental Quality.

EPA = U.S. Environmental Protection Agency.

FD = field duplicate sample.

J = result is estimated.

J+ = result is estimated, but the result may be biased high.

MCL = maximum contaminant level.

N = normal environmental sample.

NV = no screening value available.

RBC = risk-based concentration.

RSL = regional screening level.

SVOC = semivolatile organic compound.

U = result is non-detect at the method detection limit or method reporting limit.

ug/L = micrograms per liter (parts per billion).

UJ = result is non-detect with an estimated detection limit.

^(a)As directed by DEQ, screening levels are applied in the following order: EPA MCL, ⁽²⁾ DEQ RBC for groundwater, ingestion and inhalation from tapwater, ⁽³⁾ and EPA generic RSL for tapwater.⁽¹⁾ If no screening level is available, then "NV" is shown.

References

⁽¹⁾EPA. 2023. *Regional Screening Level Summary Table (Target Cancer Risk of 1E-06, Hazard Quotient of 1.0)* , U.S. Environmental Protection Agency. November.

⁽²⁾EPA. 2023. *MCLs from the Regional Screening Level Summary Table (Target Cancer Risk of 1E-06, Hazard Quotient of 1.0)*, U.S. Environmental Protection Agency. November.

⁽³⁾DEQ. 2023. *Table: Risk-Based Concentrations for Individual Chemicals* . Oregon Department of Environmental Quality. August.

Table 7
IRAM Treatment System Monthly Monitoring Results
Stella-Jones Corporation
Eugene, Oregon

Location	Parameter	EPA Method Number	Collection Date											
			2022			2023								
			October	November	December	January	February	March	April	May	June	July	August	September
Influent	PCP (ug/L)	8270D SIM	2.17	0.729 J	2.550	1.07	2.19	4.08	2.20	4.48	0.710 U	0.714 U	0.714 U	2.09
Midpoint	PCP (ug/L)	8270D SIM	0.900 J	0.924 J	0.95 J	0.714 J	1.89	4.20	1.74	3.00	0.710 U	0.717 U	0.720 U	3.75
Effluent	PCP (ug/L)	8270D SIM	0.528 U	0.729 J	0.551 U	0.808 J	0.717 U	1.47	0.714 U	0.714 U	0.935	0.717 U	0.720 U	2.12
	pH (Standard Unit)	150.1	7.30	7.32	7.35	7.38	7.35	7.33	7.32	7.32	7.40	7.50	7.40	7.50
Notes Data provided by McFarland Cascade Pole and Lumber Company. Monthly water samples were collected at the IRAM treatment system and analyzed for PCP by EPA Method 8270D SIM. The treatment system influent, midpoint (between the two carbon filters), and effluent at Outfall 001 were sampled and analyzed in accordance with approved plans and permits. EPA = U.S. Environmental Protection Agency. IRAM = interim remedial action measure. PCP = pentachlorophenol. U = result is non-detect at the method detection limit. ug/L = micrograms per liter.														

Table 8
Pentachlorophenol Analytical Results
in North Pond and South Pond
Stella-Jones Corporation
Eugene, Oregon



Location	Collection Date	Sample Type	Pentachlorophenol
Units:			ug/L
AWQC—Aquatic Life Criteria, Freshwater CMC ⁽¹⁾ :			19
AWQC—Aquatic Life Criteria, Freshwater CCC ⁽¹⁾ :			15
AWQC—Human Health, for Consumption of Water and Organisms ⁽¹⁾ :			0.03
AWQC—Human Health, For Consumption of Organism Only ⁽¹⁾ :			0.04
EPA MCL ⁽²⁾ :			1.0
North Pond	January 2008	N	0.18 J
	March 2008	N	0.25 U
	September 2008	N	0.25 U
	December 2008	N	0.25 U
	March 2009	N	0.25 U
	January 2010	N	0.27
	March 2010	N	0.25 U
	December 2010	N	0.25 U
	March 2011	N	0.25 U
	December 2011	N	0.25 U
	March 2012	N	0.25 U
	December 2012	N	0.25 U
	March 2013	N	0.25 U
	December 2013	N	0.63
	January 2014	N	0.25 U
	01/09/2015	N	0.27
	01/06/2016	N	0.25 U
	12/20/2016	N	0.25 U
	01/23/2018	N	0.712
	01/23/2018	FD	0.574
	01/22/2019	N	0.374 U
	01/30/2020	N	0.197
	01/31/2022	N	0.050
	01/17/2023	N	0.104 J
South Pond	January 2008	N	0.31
	December 2008	N	0.25 U
	January 2010	N	0.25 U
	December 2010	N	0.25 U
	December 2011	N	0.25 U
	December 2012	N	0.25 U
	December 2013	N	0.25 U
	01/09/2015	N	0.18 J
	01/06/2016	N	0.25 U
	12/20/2016	N	0.25 U

Table 8
Pentachlorophenol Analytical Results
in North Pond and South Pond
Stella-Jones Corporation
Eugene, Oregon



Location	Collection Date	Sample Type	Pentachlorophenol
Units:			ug/L
AWQC—Aquatic Life Criteria, Freshwater CMC ⁽¹⁾ :			19
AWQC—Aquatic Life Criteria, Freshwater CCC ⁽¹⁾ :			15
AWQC—Human Health, for Consumption of Water and Organisms ⁽¹⁾ :			0.03
AWQC—Human Health, For Consumption of Organism Only ⁽¹⁾ :			0.04
EPA MCL ⁽²⁾ :			1.0
South Pond (cont.)	01/23/2018	N	0.601
	01/22/2019	N	0.374 U
	01/30/2020	N	0.131
	01/31/2022	N	0.083
	01/17/2023	N	0.092 J

Notes

Detections are in **bold** font.

Shading indicates values that exceed screening criteria; non-detects (U or UJ) were not compared with screening criteria.

On October 26, 2020, DEQ temporarily suspended monitoring of wells located on Oregon Department of Transportation property. Because of this, the ponds were not sampled during the Winter 2020-2021 monitoring event.

January 2008–January 2014 data from historical semiannual reports previously submitted to DEQ.

AWQC = aquatic water quality criteria.

CCC = criterion continuous concentration.

CMC = criterion maximum concentration.

DEQ = Oregon Department of Environmental Quality.

EPA = U.S. Environmental Protection Agency.

FD = field duplicate sample.

J = result is estimated.

MCL = maximum contaminant level.

N = normal environmental sample.

U = result is non-detect at the method detection limit.

ug/L = micrograms per liter (parts per billion).

References

⁽¹⁾EPA Water Quality Criteria.


⁽²⁾EPA National Primary Drinking Water Regulations MCL. May 2009. (EPA 816-F-09-004)

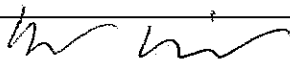
Attachment A


Fluid Level Measurements and Groundwater Sampling Forms



MAUL
FOSTER
ALONGI

	PBS Engineering and Environmental Inc. SURFACE WATER SAMPLING FORM	Project No: 22588.000 Project Name/Location: McFarland Cascade Eugene, Oregon Date: 1/17/23	
		Surface Water Body Name	North Pond
Pond Gauge Elevation (feet)	6.6	Sample ID (if not well ID)	North Pond-0123
Depth to Bottom (feet)	15.20	Sample Time	0740
Sampling method (describe pump or sampler)	New Disposable Bailer	QC Sample type: <u>SPLIT</u>	<input type="checkbox"/> Not collected ID <u>Same</u> Time <u>Same</u>
Purge Rate (mL/min)	NA	Field Personnel	Cary Midwood
		Weather Conditions	Cloudy 40


SURFACE WATER INFORMATION					
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations
0735	6.9	244	7.86	171	clear
FIELD OBSERVATIONS / NOTES SPLIT to ARI					
Signature of Field Personnel: 					

	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000 Project Name/ Location: McFarland Cascade Eugene, Oregon Date: 1/17/23	
		Monitoring Well ID	93-1A
Initial DTW (feet bgs)	4.30	Sample ID (if not well ID)	93-1A-0123
Well depth (feet bgs)	34.5	Sample Time	0950
1 Well Volume (gallons)	4.8	QC Sample type: Dup	<input type="checkbox"/> Not collected ID Dup-0123 Time Same
Sampling method (describe pump or sampler)	New Disposable Bailer	Field Personnel	Cary Midwood
Purge Rate (mL/min)	NA	Weather Conditions	Cloudy

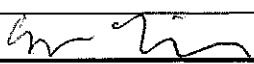
WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
0923	12.6	311	7.70	223	clear	4.8
0932	12.6	320	7.71	230	clear	4.8
0942	12.9	326	7.76	231	clear	4.8
Total Volume Purged						13.6


FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment) Dup from here
Signature of Field Personnel: <i>[Signature]</i>

Note: 0.16 gallons per linear feet for 2" wells utilized to calculate 1 purge volume

	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000 Project Name/ Location: McFarland Cascade Eugene, Oregon Date: 1/17/23	
		Recovery Well ID	R-4
Initial DTW (feet bgs)	NA	Sample ID (if not well ID)	R-4-0123
Well depth (feet bgs)	NA	Sample Time	1020
1 Well Volume (gallons)	NA	QC Sample type: _____	<input checked="" type="checkbox"/> Not collected ID _____ Time _____
Sampling method (describe pump or sampler)	Spigot	Field Personnel	Cary Midwood
Purge Rate (mL/min)	NA	Weather Conditions	Cloudy 40

RECOVERY WELL INFORMATION	
Recovery Wells Operational Upon Arrival	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<i>If the recovery well is not operational upon arrival the well will be turned on prior to sampling and a minimum of 900 gallons of water will be purged prior to sampling.</i>	
Totalizer Reading Start (Gallons):	1269560 @ 0700
Totalizer Reading End (Gallons):	1271570 @ 1610

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1012	13.7	384	7.26	272	Clear	2450
Total Volume Purged						2450
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
Totalizer was working upon arrival. Stopped during Purge at some Time R4 @ 13 gpm total Pumped 2,470 gal						
Signature of Field Personnel: 						

	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000 Project Name/ Location: McFarland Cascade Eugene, Oregon Date: 1/17/22	
		Monitoring Well ID	92-9
	Initial DTW (feet bgs)	7.55	Sample ID (if not well ID)
Well depth (feet bgs)	29.4	Sample Time	1125
1 Well Volume (gallons)	4.2	QC Sample type: _____ ID _____ Time _____	<input checked="" type="checkbox"/> Not collected ID _____ Time _____
Sampling method (describe pump or sampler)	New Disposable Bailer		Field Personnel
Purge Rate (mL/min)	NA	Weather Conditions	Clear 40

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> μ S/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1110	13.0	380	7.44	270	clear	4.2
1116	13.2	391	7.55	278	clear	4.2
1121	13.4	388	7.60	279	clear	4.2
Total Volume Purged						12.6

FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)

Signature of Field Personnel: *[Signature]*

Note: 0.16 gallons per linear feet for 2" wells utilized to calculate 1 purge volume

WELL GAUGING LOG

PROJECT: McFarland Cascade Pole and Lumber Company (MCPLC) - Eugene, OR

PROJECT NO: 22588.000

GAUGED BY: Cary Midwood (PBS) and MCLPC site personnel

Well ID	Date	Time	DTW	DTP	Comments	Measured by PBS	Measured by MCPLC
AGI-1	4/5/23	0747	3.11	--		✓	
AGI-2	4/5/23	0800	6.67	--		✓	
AGI-4S							✓
AGI-4N							✓
AGI-6							✓
AGI-8	4/5/23	0803	4.55	--	Needs new lock	✓	
90-1S							✓
90-1D							✓
90-2							✓
90-3	4/5/23	0850	1.35	--		✓	
90-4	4/5/23	0827	3.03	--		✓	
90-5	4/5/23	0750	3.17	--		✓	
91-6							✓
92-8	4/5/23	0850	5.89	--	92-11 here	✓	
92-9							✓
92-9B							✓
92-10	4/5/23	0835	4.108	--		✓	
92-11	4/5/23	0841	4.55	--	92-8 here	✓	
93-1A							✓
93-1B							✓
93-2	4/5/23	0824	6.25	--		✓	
93-3	4/5/23	0820	6.50	--		✓	
96-2							✓
96-3							✓
P-1S	4/5/23	0809	4.43	--		✓	
P-2S	4/5/23	0856	4.17	--		✓	
P-2D							
R-1							✓
R-2							✓
R-3							✓
R-4							✓
R-5							✓
MT-1							✓
MT-2							✓
MT-3							✓
MT-4							✓
North Pond							✓


Notes:

DTW = depth to water

DTP = depth to product

-- = not applicable

DATE			04/05/23
AGI-4 N	Boiler	DTW	6.96
AGI-4S		DTW	6.76
90-2	Ditch	DTW	0.92
91-6	Pond	DTW	2.59
92-9	R4	DTW	3.26
92-9B	R4	DTW	Down
NORTH POND			6.90
DATE			
R-1		DTO	4.35
		DTW	5.22
R-2		DTO	
		DTW	16.05
R-3	Seneca	DTO	
		DTW	3.72
R-4		DTO	
		DTW	1.02
R-5	Retort	DTO	5.43
		DTW	12.62
AGI-6	R1	DTO	6.55
		DTW	6.57
DATE			
90-1S	GWTS	DTW	3.84
90-1D	GWTS	DTW	5.53
93-1A	FIELD	DTW	3.96
93-1B	FIELD	DTW	4.95
96-2		DTO	4.53
		DTW	4.60
96-3		DTO	5.15
		DTW	5.21
DATE			
MT-1	Gate	DTO	
		DTW	5.13
MT-2		DTO	5.02
		DTW	5.88
MT-3	Breezway	DTO	5.15
		DTW	6.13
MT-4	Pit	DTO	2.50
		DTW	9.11
90-3		DTW	1.35
P-1S		DTW	4.41


	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000 Project Name/ Location: McFarland Cascade Eugene, Oregon Date: 4/5/23	
		Monitoring Well ID	90-1D
		Initial DTW (feet bgs)	5.54
Well depth (feet bgs)	63.8	Sample ID (if not well ID)	90-1D-0423
1 Well Volume (gallons)	9.3216	Sample Time	1000
Sampling method (describe pump or sampler)	New Disposable Bailer	QC Sample type: _____	<input checked="" type="checkbox"/> Not collected ID _____ Time _____
Purge Rate (mL/min)	NA	Field Personnel	Janessa Sandoval Eary Midwood
		Weather Conditions	Overcast

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
0925	13.3	599	7.54	425	clear	9.5
0946	13.3	599	7.62	426	clear	9.5
0952	13.1	602	7.58	428	clear	9.5
Total Volume Purged						26.5

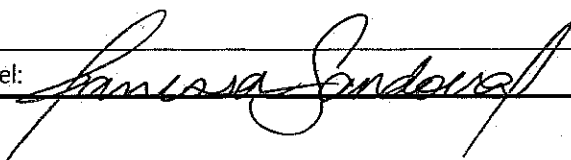
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)


Signature of Field Personnel:

Note: 0.16 gallons per linear feet for 2" wells utilized to calculate 1 purge volume

	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000	
		Project Name/ Location: McFarland Cascade Eugene, Oregon Date: 4/5/23	
		Recovery Well ID	R-1
Initial DTW (feet bgs)	NA	Sample ID (if not well ID)	R-1-0423
Well depth (feet bgs)	NA	Sample Time	1010
1 Well Volume (gallons)	NA	QC Sample type: Duplicate	<input type="checkbox"/> Not collected
Sampling method (describe pump or sampler)	Spigot		ID Dyp-0423 Time same
		Field Personnel	Janessa Sandovar Cary Midwood
Purge Rate (mL/min)	NA	Weather Conditions	overcast


RECOVERY WELL INFORMATION	
Recovery Wells Operational Upon Arrival	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<i>If the recovery well is not operational upon arrival the well will be turned on prior to sampling and a minimum of 700 gallons of water will be purged prior to sampling.</i>	
Totalizer Reading Start (Gallons):	2719560 @ 0215
Totalizer Reading End (Gallons):	2720550 @ 1003

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1005	14.8	488	7.45	346	clear	970
Total Volume Purged						970
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
Signature of Field Personnel: 						

	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000 Project Name/ Location: McFarland Cascade Eugene, Oregon Date: 4/5/23	
		Recovery Well ID	R-2
Initial DTW (feet bgs)	NA	Sample ID (if not well ID)	R-2-0423
Well depth (feet bgs)	NA	Sample Time	1020
1 Well Volume (gallons)	NA	QC Sample type: MS/MSD	<input type="checkbox"/> Not collected ID _____ Time _____
Sampling method (describe pump or sampler)	Spigot	Field Personnel	Javessa Sandoval Cary Midwood
Purge Rate (mL/min)	NA	Weather Conditions	overcast

RECOVERY WELL INFORMATION	
Recovery Wells Operational Upon Arrival	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
If the recovery well is not operational upon arrival the well will be turned on prior to sampling and a minimum of 700 gallons of water will be purged prior to sampling.	
Totalizer Readings Start (Gallons):	9026330 @ 819
Totalizer Readings End (Gallons):	9026730 @ 901 9027850 @ 1013


WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
10/6	15.4	498	7.63	355	clear	1020
Total Volume Purged						1020
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
Signature of Field Personnel: Javessa Sandoval						

	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000 Project Name/ Location: McFarland Cascade Eugene, Oregon Date: 4/5/20
		Monitoring Well ID 93-8
Initial DTW (feet bgs)	4.00	Sample ID (if not well ID) 93-8-0423
Well depth (feet bgs)	45	Sample Time 1120
1 Well Volume (gallons)	6.56	QC Sample <input type="checkbox"/> Not collected type: _____ ID _____ Time _____
Sampling method (describe pump or sampler)	New Disposable Bailer	Field Personnel Janessa Sandover Gary Midwood
Purge Rate (mL/min)	NA	Weather Conditions overcast

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1056	15.2	583	7.49	415	clear	6.5
1105	14.9	592	7.58	420	clear	6.5
1113	14.7	584	7.57	414	clear	6.5
Total Volume Purged						19.5


FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment) water above top of casing
Signature of Field Personnel: <i>Janessa Sandover</i>

Note: 0.16 gallons per linear feet for 2" wells utilized to calculate 1 purge volume

	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000 Project Name/ Location: McFarland Cascade Eugene, Oregon Date: 4/5/23	
		Recovery Well ID	R-3
Initial DTW (feet bgs)	NA	Sample ID (if not well ID)	R-3-0423
Well depth (feet bgs)	NA	Sample Time	1140
1 Well Volume (gallons)	NA	QC Sample type: <u>Field Blank</u>	<input type="checkbox"/> Not collected ID: <u>Field-0423</u> Time: <u>1145</u>
Sampling method (describe pump or sampler)	Spigot	Field Personnel	<u>Janessa Sandoval</u> Gary Midwood
Purge Rate (mL/min)	NA	Weather Conditions	<u>Overcast</u>


RECOVERY WELL INFORMATION	
Recovery Wells Operational Upon Arrival	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<i>If the recovery well is not operational upon arrival the well will be turned on prior to sampling and a minimum of 360 gallons of water will be purged prior to sampling.</i>	
Totalizer Readings Start (Gallons):	<u>7580380 @ 1025</u>
Totalizer Readings End (Gallons):	<u>7581410 @ 1127</u>

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
<u>1130</u>	<u>18.0</u>	<u>1433</u>	<u>7.75</u>	<u>307</u>	<u>Clear</u>	<u>1290</u>
Total Volume Purged						<u>1290</u>
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
<p>split from here. To ARI</p> <p>Field blank from here</p>						
Signature of Field Personnel: <u>Janessa Sandoval</u>						

	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000	
		Project Name/ Location: McFarland Cascade Eugene, Oregon Date: 4/5/23	
		Recovery Well ID	R-4
Initial DTW (feet bgs)	NA	Sample ID (if not well ID)	R-4-0423
Well depth (feet bgs)	NA	Sample Time	1200
1 Well Volume (gallons)	NA	QC Sample type: _____	<input checked="" type="checkbox"/> Not collected ID _____ Time _____
Sampling method (describe pump or sampler)	Spigot	Field Personnel	Janessa Sandoval Gary Midwood
Purge Rate (mL/min)	NA	Weather Conditions	Overcast


RECOVERY WELL INFORMATION	
Recovery Wells Operational Upon Arrival	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
If the recovery well is not operational upon arrival the well will be turned on prior to sampling and a minimum of 900 gallons of water will be purged prior to sampling.	
Totalizer Readings Start (Gallons):	1271800 @ 1025
Totalizer Readings End (Gallons):	1273600 @ 1142

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1148	14.0	398	7.55	276	clear	1790
Total Volume Purged						1740
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
Signature of Field Personnel: Janessa Sandoval						

	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000
		Project Name/ Location: McFarland Cascade Eugene, Oregon
		Date: 4/5/23
		Monitoring Well ID 93-4
Initial DTW (feet bgs)	5.54	Sample ID (if not well ID) 93-4-0423
Well depth (feet bgs)	75	Sample Time 1320
1 Well Volume (gallons)	11.1	QC Sample <input checked="" type="checkbox"/> Not collected
Sampling method (describe pump or sampler)	New Disposable Bailer	type: _____ ID: _____ Time _____
		Field Personnel Vanessa Sandoval Gary Midwood
Purge Rate (mL/min)	NA	Weather Conditions Overcast

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> μ S/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1238	12.4	430	7.35	306	clear	11.0
1249	12.7	423	7.26	299	clear	11.0
1310	12.9	423	7.62	301	clear	11.0
Total Volume Purged						33
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
<div style="text-align: right; margin-right: 100px;">✓</div>						
Signature of Field Personnel: <i>Amara Sanderson</i>						

Note: 0.16 gallons per linear feet for 2" wells utilized to calculate 1 purge volume


	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000 Project Name/ Location: McFarland Cascade Eugene, Oregon Date: 4/5/2023	
		Monitoring Well ID	92-9
Initial DTW (feet bgs)	3.24	Sample ID (if not well ID)	92-9- 0433
Well depth (feet bgs)	29.4	Sample Time	1415
1 Well Volume (gallons)	4.2	QC Sample type:	<input checked="" type="checkbox"/> Not collected ID _____ Time _____
Sampling method (describe pump or sampler)	New Disposable Bailer	Field Personnel	Janessa Sandova Cary Midwood
Purge Rate (mL/min)	NA	Weather Conditions	Overcast

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1354	13.5	395	7.25	280	clear	4.2
1402	14.0	393	7.58	279	clear	4.2
1410	13.6	393	7.61	279	clear	4.2
Total Volume Purged						12.6

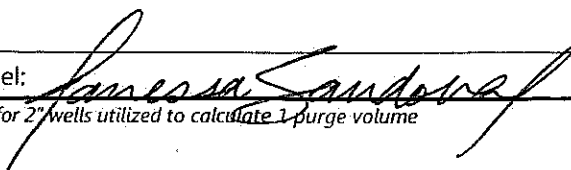
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)

Signature of Field Personnel:

Note: 0.16 gallons per linear feet for 2" wells utilized to calculate 1-purge volume

	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000	
		Project Name/ Location: McFarland Cascade Eugene, Oregon	
		Date: 4/6/2023	
		Monitoring Well ID	90-5
Initial DTW (feet bgs)	4.78	Sample ID (if not well ID)	90-5-0423
Well depth (feet bgs)	20.9	Sample Time	0805
1 Well Volume (gallons)	2.5	QC Sample type:	<input checked="" type="checkbox"/> Not collected ID _____ Time _____
Sampling method (describe pump or sampler)	New Disposable Bailer	Field Personnel	Janessa Sandova Cary-Midwood
Purge Rate (mL/min)	NA	Weather Conditions	Cloudy/light rain

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
0743	10.5	577	6.92	410	clear/Amber	2.5
0749	10.8	612	6.93	434	clear/Amber	2.5
0756	10.6	620	6.94	442	clear/Amber	2.5
Total Volume Purged						7.5

FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment) GW had amber tint, but was mostly clear w/ some small particles present in suspension
Signature of Field Personnel: 

Note: 0.16 gallons per linear feet for 2" wells utilized to calculate 1 purge volume

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
0840	14.2	585	7.44	414	clear	5
0856	14.4	564	7.49	403	Clear	5
0911	14.5	562	7.45	398	Clear	5
Total Volume Purged						15
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
Signature of Field Personnel: <i>[Handwritten Signature]</i>						

Revised 01/07/19

WELL GAUGING LOG

PROJECT: McFarland Cascade Pole and Lumber Company (MCPLC) - Eugene, OR

PROJECT NO: 22588.000

GAUGED BY: Janessa Sandoval (PBS) and MCLPC site personnel

Well ID	Date	Time	DTW	DTP	Comments	Measured by PBS	Measured by MCPLC
AGI-1	9/12/23	0816	12.44	--		✓	
AGI-2	9/12/23	0735	14.71	--		✓	
AGI-4S							✓
AGI-4N							✓
AGI-6							✓
AGI-8	9/12/23	0751	13.73	--		✓	
90-1S							✓
90-1D							✓
90-2							✓
90-3	9/12/23	0906	8.80	--		✓	
90-4	9/12/23	0848	10.97	--		✓	
90-5	9/12/23	0801	14.01	--		✓	
91-6							✓
92-8	9/12/23	0825	12.13	--		✓	
92-9							✓
92-9B							✓
92-10	9/12/23	0914	12.55	--		✓	
92-11	9/12/23	0855	13.81	--		✓	
93-1A							✓
93-1B							✓
93-2	9/12/23	0826	14.09	--		✓	
93-3	9/12/23	0832	14.70	--		✓	
96-2							✓
96-3							✓
P-1S	9/12/23	0728	12.54	--		✓	
P-2S	9/12/23	0742	12.07	--		✓	
P-2D							
R-1							✓
R-2							✓
R-3							✓
R-4							✓
R-5							✓
MT-1							✓
MT-2							✓
MT-3							✓
MT-4							✓
North Pond							✓

Notes:

DTW = depth to water

DTP = depth to product

-- = not applicable

DATE			09/12/23
AGI-4 N	Boiler	DTW	14.95
AGI-4S		DTW	14.62
90-2	Ditch	DTW	9.33
91-6	Pond	DTW	10.41
92-9	R4	DTW	11.16
92-9B	R4	DTW	REMOVED
NORTH POND			0.00
DATE			
R-1		DTO	12.33
		DTW	13.96
R-2		DTO	
		DTW	24.31
R-3	Seneca	DTO	
		DTW	11.55
R-4		DTO	REMOVED
		DTW	REMOVED
R-5	Retort	DTO	13.92
		DTW	14.60
AGI-6	R1	DTO	14.48
		DTW	14.50
DATE			
90-1S	GWTS	DTW	11.81
90-1D	GWTS	DTW	13.37
93-1A	FIELD	DTW	11.80
93-1B	FIELD	DTW	12.66
96-2		DTO	12.14
		DTW	13.15
96-3		DTO	13.20
		DTW	13.31
DATE			
MT-1	Gate	DTO	
		DTW	12.91
MT-2		DTO	13.02
		DTW	13.60
MT-3	Breezway	DTO	12.90
		DTW	14.50
MT-4	Pit	DTO	11.01
		DTW	11.65
90-3		DTW	8.84
P-1S		DTW	12.55




WELL PURGING INFORMATION

Note: 0.16 gallons per linear feet for 2" wells utilized to calculate 1 purge volume

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1119	14.4	385	7.15	215	clear	3
1131	15.1	378	7.22	271	clear	3
1141	14.5	381	7.25	271	clear	3
Total Volume Purged						9
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
<p>Signature of Field Personnel: <i>Tanessa Cardoso</i></p>						

Revised 01/07/19


WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1240	13.6	391	7.26	272	clear	10
1300	13.5	384	7.39	273	clear	10
1320	13.4	385	7.43	273	clear	10
Total Volume Purged						30
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						

Signature of Field Personnel: _____

 Date: _____


Revised 01/07/19

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1401	14.8	290	6.54	209	clear	4
1411	15.4	292	6.73	208	clear	4
1421	15.8	292	6.72	207	clear	4
Total Volume Purged						12
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
<div style="border: 1px solid black; height: 150px; margin-top: 10px;"></div>						
Signature of Field Personnel: <i>Lanessa Sandoval</i>						

Revised 01/07/19


WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> μ S/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1522	16.3	397 557	7.03	397	clear	5.2
1530	16.3	540	7.22	385	clear	5.2
1540	16.6	574	7.36	406	clear	5.2
Total Volume Purged						15.6
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
Signature of Field Personnel: 						

Revised 01/07/19

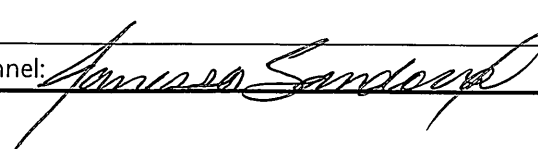
	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000 Project Name/ Location: McFarland Cascade Eugene, Oregon Date: 9/12/2023	
		Recovery Well ID	R-1
Initial DTW (feet bgs)	NA	Sample ID (if not well ID)	R-1- 0923
Well depth (feet bgs)	NA	Sample Time	1615
1 Well Volume (gallons)	NA	QC Sample type: MS/MSD	<input type="checkbox"/> Not collected ID Same Time Same
Sampling method (describe pump or sampler)	Spigot	Field Personnel	Janessa Sandoval
Purge Rate (mL/min)	NA	Weather Conditions	Partly Cloudy

RECOVERY WELL INFORMATION	
Recovery Wells Operational Upon Arrival	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
If the recovery well is not operational upon arrival the well will be turned on prior to sampling and a minimum of 700 gallons of water will be purged prior to sampling.	
Totalizer Reading Start (Gallons):	36 4572390 @ 0713
Totalizer Reading End (Gallons):	4570620 @ 1610

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1611	16.8	470	7.44	336	Clear	4230
Total Volume Purged						4230
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
Signature of Field Personnel: Janessa Sandoval						

	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000 Project Name/ Location: McFarland Cascade Eugene, Oregon Date: 9/12/2023	
		Recovery Well ID	R-2
Initial DTW (feet bgs)	NA	Sample ID (if not well ID)	R-2- 0923
Well depth (feet bgs)	NA	Sample Time	1628
1 Well Volume (gallons)	NA	QC Sample type: Duplicate	<input type="checkbox"/> Not collected ID DUP-0923 Time 0730
Sampling method (describe pump or sampler)	Spigot	Field Personnel	Janessa Sandoval
Purge Rate (mL/min)	NA	Weather Conditions	Sunny

RECOVERY WELL INFORMATION	
Recovery Wells Operational Upon Arrival	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
If the recovery well is not operational upon arrival the well will be turned on prior to sampling and a minimum of 700 gallons of water will be purged prior to sampling.	
Totalizer Readings Start (Gallons):	363200 @ 0713
Totalizer Readings End (Gallons):	365120 @ 1623


WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
1623	16.7	471	7.40	1337	Clear	2420
Total Volume Purged						2420
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
Duplicate taken from here						
Signature of Field Personnel: 						

WELL PURGING INFORMATION						
<div>Time</div> <div><input type="checkbox"/> elapsed</div> <div><input checked="" type="checkbox"/> actual</div>	Temp. (C)	<div>Specific conductivity</div> <div><input type="checkbox"/> mS/cm</div> <div><input checked="" type="checkbox"/> μS/cm</div>	pH	TDS (ppm)	Observations	<div>Volume purged</div> <div><input type="checkbox"/> ltr</div> <div><input checked="" type="checkbox"/> gal</div>
0734	14.9	566	7.31	401	clear	8
0752	14.8	572	7.45	404	clear	8
0808	14.8	569	7.46	405	clear	8
Total Volume Purged						24

FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)

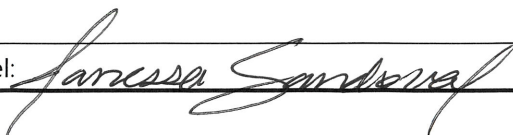
Signature of Field Personnel:

Note: 0.16 gallons per linear feet for 2" wells utilized to calculate 1 purge volume

	PBS Engineering and Environmental Inc. GROUNDWATER SAMPLING FORM	Project No: 22588.000	
		Project Name/ Location: McFarland Cascade Eugene, Oregon	
		Date: 9/13/2023	
		Recovery Well ID	R-3
Initial DTW (feet bgs)	NA	Sample ID (if not well ID)	R-3-
Well depth (feet bgs)	NA	Sample Time	0845
1 Well Volume (gallons)	NA	QC Sample type: Split	<input type="checkbox"/> Not collected ID R3-0923 Time 0845
Sampling method (describe pump or sampler)	Spigot	Field Personnel	Janessa Sandoval
Purge Rate (mL/min)	NA	Weather Conditions	Cloudy

RECOVERY WELL INFORMATION	
Recovery Wells Operational Upon Arrival	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
If the recovery well is not operational upon arrival the well will be turned on prior to sampling and a minimum of 360 gallons of water will be purged prior to sampling.	
Totalizer Readings Start (Gallons):	7582600 @ 0704
Totalizer Readings End (Gallons):	7583790 @ 0828

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
0828	15.7	413	7.76	293	clear	1190
Total Volume Purged						

FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)
Split sample to ARI from here.
Signature of Field Personnel: 

WELL PURGING INFORMATION						
Time <input type="checkbox"/> elapsed <input checked="" type="checkbox"/> actual	Temp. (C)	Specific conductivity <input type="checkbox"/> mS/cm <input checked="" type="checkbox"/> µS/cm	pH	TDS (ppm)	Observations	Volume purged <input type="checkbox"/> ltr <input checked="" type="checkbox"/> gal
0922	15.2	532	7.51	379	clear	3.6
0935	15.3	530	7.40	376	clear	3.6
0947	15.2	529	7.38	375	clear	3.6
						3.6
Total Volume Purged						11
FIELD OBSERVATIONS / NOTES (such as well head condition, groundwater color, sediment load, recovery, sheen, odor, equipment)						
<p>Signature of Field Personnel: <i>James Sandoval</i></p>						

Attachment B

Laboratory Reports and Data Validation Memoranda



MAUL
FOSTER
ALONGI



Analytical Resources, LLC
Analytical Chemists and Consultants

15 February 2023

Kelly Titkemeier
Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland, WA 97209

RE: McFarland Cascade Pole and Lumber Company - Eugene (22588.000)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
23A0367

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Kelly Bottem, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 23A0367		Turn-around Requested: Standard		Page: of	
ARI Client Company: MFA		Phone: 5035015215		Date:	Ice Present? Y
Client Contact: Kelly T. Kempier		No. of Coolers: 1		Cooler Temps: 0.6	
Client Project Name: McFarland		Analysis Requested			
Client Project #: 22544.000					
Sample ID	Date	Time	Matrix	No. Containers	<div style="writing-mode: vertical-rl; transform: rotate(180deg);"> LLP CP 8041 </div>
North Pond - 0123	1/17/23	0740	W	2	
South Pond - 0123	1	0800	1	1	
Comments/Special Instructions		Relinquished by: (Signature) [Signature]		Received by: (Signature) [Signature]	
		Printed Name: Cory McFarland		Printed Name: Phillip Bates	
		Company: PDS		Company: AR	
		Date & Time: 1/17/23 1300		Date & Time: 1/18/23 10:07	
		Relinquished by: (Signature)		Received by: (Signature)	
		Printed Name:		Printed Name:	
		Company:		Company:	
		Date & Time:		Date & Time:	



Analytical Resources, LLC
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
15-Feb-2023 11:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
North Pond-0123	23A0367-01	Water	17-Jan-2023 07:40	18-Jan-2023 10:07
South Pond-0123	23A0367-02	Water	17-Jan-2023 08:00	18-Jan-2023 10:07



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
15-Feb-2023 11:59

Work Order Case Narrative

Pentachlorophenol - EPA Method SW8041A

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.



Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Maul, Foster, and Alami

Project Name: McFarland

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 23A0367

Tracking No: 0201 7710 3585 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 10:02

0.6

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 5009708

Cooler Accepted by: PIB

Date: 1/18/23

Time: 10:07

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

How were bottles sealed in plastic bags? Individually Grouped Not

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI: NA

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: Amber Date: 01/18/23 Time: 1632 Labels checked by: TCS

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
One 500 mL Amber bottle for sample North Pond-0123 received broken

By: PIB Date: 1/18/23



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
15-Feb-2023 11:59

North Pond-0123

23A0367-01 (Water)

Phenols

Method: EPA 8041A

Sampled: 01/17/2023 07:40

Instrument: ECD8 Analyst: JGR

Analyzed: 02/09/2023 22:34

Analysis by: Analytical Resources, LLC

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 23A0367-01 A 01

Preparation Batch: BLA0552

Sample Size: 500 mL

Prepared: 01/24/2023

Final Volume: 5 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Pentachlorophenol	87-86-5	1	0.014	0.025	0.104	ug/L	
Surrogate: 2,4,6-Tribromophenol				10-181 %	58.5	%	
Surrogate: 2,4,6-Tribromophenol [2C]				10-181 %	54.5	%	



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
15-Feb-2023 11:59

South Pond-0123
23A0367-02 (Water)

Phenols

Method: EPA 8041A

Sampled: 01/17/2023 08:00

Instrument: ECD8 Analyst: JGR

Analyzed: 02/09/2023 22:51

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3510C SepF
Preparation Batch: BLA0552
Prepared: 01/24/2023

Sample Size: 500 mL
Final Volume: 5 mL

Extract ID: 23A0367-02 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Pentachlorophenol	87-86-5	1	0.014	0.025	0.092	ug/L	
Surrogate: 2,4,6-Tribromophenol				10-181 %	67.7	%	
Surrogate: 2,4,6-Tribromophenol [2C]				10-181 %	54.4	%	



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
15-Feb-2023 11:59

Analysis by: Analytical Resources, LLC

Phenols - Quality Control

Batch BLA0552 - EPA 8041A

Instrument: ECD8 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BLA0552-BLK1)											
						Prepared: 24-Jan-2023		Analyzed: 09-Feb-2023 21:41			
Pentachlorophenol	ND	0.014	0.025	ug/L							U
Surrogate: 2,4,6-Tribromophenol	0.108			ug/L	0.250		43.3	10-181			
Surrogate: 2,4,6-Tribromophenol [2C]	0.106			ug/L	0.250		42.5	10-181			
LCS (BLA0552-BS1)											
						Prepared: 24-Jan-2023		Analyzed: 09-Feb-2023 21:58			
Pentachlorophenol	0.157	0.014	0.025	ug/L	0.250		62.9	36-159			
Surrogate: 2,4,6-Tribromophenol	0.117			ug/L	0.250		46.8	10-181			
Surrogate: 2,4,6-Tribromophenol [2C]	0.115			ug/L	0.250		46.0	10-181			
LCS Dup (BLA0552-BSD1)											
						Prepared: 24-Jan-2023		Analyzed: 09-Feb-2023 22:16			
Pentachlorophenol	0.172	0.014	0.025	ug/L	0.250		68.7	36-159	8.91	30	
Surrogate: 2,4,6-Tribromophenol	0.116			ug/L	0.250		46.5	10-181			
Surrogate: 2,4,6-Tribromophenol [2C]	0.114			ug/L	0.250		45.6	10-181			



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
15-Feb-2023 11:59

Certified Analyses included in this Report

Analyte

Certifications

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	02/28/2023
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2023
WADOE	WA Dept of Ecology	C558	06/30/2023
WA-DW	Ecology - Drinking Water	C558	06/30/2023



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
15-Feb-2023 11:59

Notes and Definitions

P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Tuesday, January 31, 2023

Kelly Titkemeier

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

RE: A3A0551 - McFarland Cascade-Eugene - 22588.000

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A3A0551, which was received by the laboratory on 1/17/2023 at 11:45:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1

4.2 degC

Cooler #2

4.4 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Kelly Titkemeier**

Report ID:

A3A0551 - 01 31 23 1549

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
92-9-0123	A3A0551-01	Water	01/17/23 11:25	01/17/23 11:45
93-1A-0123	A3A0551-02	Water	01/17/23 09:50	01/17/23 11:45
R-4-0123	A3A0551-03	Water	01/17/23 10:20	01/17/23 11:45
NORTH POND-0123	A3A0551-04	Water	01/17/23 07:40	01/17/23 11:45
SOUTH POND-0123	A3A0551-05	Water	01/17/23 08:00	01/17/23 11:45
DUP-0123	A3A0551-06	Water	01/17/23 07:00	01/17/23 11:45

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3A0551 - 01 31 23 1549

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
92-9-0123 (A3A0551-01)								
				Matrix: Water		Batch: 23A0774		
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.381	0.762	ug/L	4	01/23/23 16:02	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.190	0.381	ug/L	4	01/23/23 16:02	EPA 8270E	
Pentachlorophenol (PCP)	10.7	0.381	0.762	ug/L	4	01/23/23 16:02	EPA 8270E	
2,3,5,6-Tetrachlorophenol	0.231	0.190	0.381	ug/L	4	01/23/23 16:02	EPA 8270E	J
2,4,5-Trichlorophenol	ND	0.190	0.381	ug/L	4	01/23/23 16:02	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.190	0.381	ug/L	4	01/23/23 16:02	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>								
		<i>Recovery:</i>	115 %	<i>Limits:</i>	44-120 %	4	01/23/23 16:02	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			83 %		44-120 %	4	01/23/23 16:02	EPA 8270E
<i>Phenol-d6 (Surr)</i>			26 %		10-133 %	4	01/23/23 16:02	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			69 %		50-134 %	4	01/23/23 16:02	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			48 %		19-120 %	4	01/23/23 16:02	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			107 %		43-140 %	4	01/23/23 16:02	EPA 8270E
93-1A-0123 (A3A0551-02)								
				Matrix: Water		Batch: 23A0774		
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.100	0.200	ug/L	1	01/23/23 18:18	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	01/23/23 18:18	EPA 8270E	
Pentachlorophenol (PCP)	0.107	0.100	0.200	ug/L	1	01/23/23 18:18	EPA 8270E	J
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	01/23/23 18:18	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	01/23/23 18:18	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	01/23/23 18:18	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>								
		<i>Recovery:</i>	102 %	<i>Limits:</i>	44-120 %	1	01/23/23 18:18	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			72 %		44-120 %	1	01/23/23 18:18	EPA 8270E
<i>Phenol-d6 (Surr)</i>			25 %		10-133 %	1	01/23/23 18:18	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			59 %		50-134 %	1	01/23/23 18:18	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			51 %		19-120 %	1	01/23/23 18:18	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			110 %		43-140 %	1	01/23/23 18:18	EPA 8270E
R-4-0123 (A3A0551-03)								
				Matrix: Water		Batch: 23A0774		
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.0990	0.198	ug/L	1	01/23/23 18:52	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.0495	0.0990	ug/L	1	01/23/23 18:52	EPA 8270E	
Pentachlorophenol (PCP)	1.35	0.0990	0.198	ug/L	1	01/23/23 18:52	EPA 8270E	
2,3,5,6-Tetrachlorophenol	0.0513	0.0495	0.0990	ug/L	1	01/23/23 18:52	EPA 8270E	J
2,4,5-Trichlorophenol	ND	0.0495	0.0990	ug/L	1	01/23/23 18:52	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0495	0.0990	ug/L	1	01/23/23 18:52	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>								
		<i>Recovery:</i>	107 %	<i>Limits:</i>	44-120 %	1	01/23/23 18:52	EPA 8270E

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3A0551 - 01 31 23 1549

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-4-0123 (A3A0551-03)		Matrix: Water			Batch: 23A0774			
Surrogate: 2-Fluorobiphenyl (Surr)		Recovery: 74 %	Limits: 44-120 %	1	01/23/23 18:52	EPA 8270E		
Phenol-d6 (Surr)		25 %	10-133 %	1	01/23/23 18:52	EPA 8270E		
p-Terphenyl-d14 (Surr)		72 %	50-134 %	1	01/23/23 18:52	EPA 8270E		
2-Fluorophenol (Surr)		52 %	19-120 %	1	01/23/23 18:52	EPA 8270E		
2,4,6-Tribromophenol (Surr)		105 %	43-140 %	1	01/23/23 18:52	EPA 8270E		
NORTH POND-0123 (A3A0551-04RE1)		Matrix: Water			Batch: 23A0774		R-04	
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.377	0.755	ug/L	4	01/24/23 11:05	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.189	0.377	ug/L	4	01/24/23 11:05	EPA 8270E	
Pentachlorophenol (PCP)	0.402	0.377	0.755	ug/L	4	01/24/23 11:05	EPA 8270E	J
2,3,5,6-Tetrachlorophenol	ND	0.189	0.377	ug/L	4	01/24/23 11:05	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.189	0.377	ug/L	4	01/24/23 11:05	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.189	0.377	ug/L	4	01/24/23 11:05	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 115 %	Limits: 44-120 %	4	01/24/23 11:05	EPA 8270E		Q-41
2-Fluorobiphenyl (Surr)		92 %	44-120 %	4	01/24/23 11:05	EPA 8270E		
Phenol-d6 (Surr)		25 %	10-133 %	4	01/24/23 11:05	EPA 8270E		
p-Terphenyl-d14 (Surr)		79 %	50-134 %	4	01/24/23 11:05	EPA 8270E		
2-Fluorophenol (Surr)		47 %	19-120 %	4	01/24/23 11:05	EPA 8270E		
2,4,6-Tribromophenol (Surr)		111 %	43-140 %	4	01/24/23 11:05	EPA 8270E		
SOUTH POND-0123 (A3A0551-05RE1)		Matrix: Water			Batch: 23A0774		R-04	
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.377	0.755	ug/L	4	01/24/23 11:39	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.189	0.377	ug/L	4	01/24/23 11:39	EPA 8270E	
Pentachlorophenol (PCP)	0.398	0.377	0.755	ug/L	4	01/24/23 11:39	EPA 8270E	J
2,3,5,6-Tetrachlorophenol	ND	0.189	0.377	ug/L	4	01/24/23 11:39	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.189	0.377	ug/L	4	01/24/23 11:39	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.189	0.377	ug/L	4	01/24/23 11:39	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 122 %	Limits: 44-120 %	4	01/24/23 11:39	EPA 8270E		Q-41, S-06
2-Fluorobiphenyl (Surr)		91 %	44-120 %	4	01/24/23 11:39	EPA 8270E		
Phenol-d6 (Surr)		28 %	10-133 %	4	01/24/23 11:39	EPA 8270E		
p-Terphenyl-d14 (Surr)		81 %	50-134 %	4	01/24/23 11:39	EPA 8270E		
2-Fluorophenol (Surr)		49 %	19-120 %	4	01/24/23 11:39	EPA 8270E		
2,4,6-Tribromophenol (Surr)		109 %	43-140 %	4	01/24/23 11:39	EPA 8270E		
DUP-0123 (A3A0551-06RE1)		Matrix: Water			Batch: 23A0774			

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-EugeneProject Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3A0551 - 01 31 23 1549**

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
DUP-0123 (A3A0551-06RE1)			Matrix: Water			Batch: 23A0774			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.103	0.206	ug/L	1	01/24/23 10:31	EPA 8270E	A-01	
2,4-Dichlorophenol	ND	0.0515	0.103	ug/L	1	01/24/23 10:31	EPA 8270E		
Pentachlorophenol (PCP)	0.125	0.103	0.206	ug/L	1	01/24/23 10:31	EPA 8270E	J	
2,3,5,6-Tetrachlorophenol	ND	0.0515	0.103	ug/L	1	01/24/23 10:31	EPA 8270E		
2,4,5-Trichlorophenol	ND	0.0515	0.103	ug/L	1	01/24/23 10:31	EPA 8270E		
2,4,6-Trichlorophenol	ND	0.0515	0.103	ug/L	1	01/24/23 10:31	EPA 8270E		
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	108 %	Limits:	44-120 %	1	01/24/23 10:31	EPA 8270E	Q-41
2-Fluorobiphenyl (Surr)			73 %		44-120 %	1	01/24/23 10:31	EPA 8270E	
Phenol-d6 (Surr)			30 %		10-133 %	1	01/24/23 10:31	EPA 8270E	
p-Terphenyl-d14 (Surr)			55 %		50-134 %	1	01/24/23 10:31	EPA 8270E	
2-Fluorophenol (Surr)			61 %		19-120 %	1	01/24/23 10:31	EPA 8270E	
2,4,6-Tribromophenol (Surr)			114 %		43-140 %	1	01/24/23 10:31	EPA 8270E	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3A0551 - 01 31 23 1549**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A0774 - EPA 3510C (Acid Extraction)						Water						
Blank (23A0774-BLK1)			Prepared: 01/23/23 06:51		Analyzed: 01/23/23 12:04							
EPA 8270E												
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	A-01
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 95 %		Limits: 44-120 %		Dilution: 1x						
2-Fluorobiphenyl (Surr)		69 %		44-120 %		"						
Phenol-d6 (Surr)		25 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		83 %		50-134 %		"						
2-Fluorophenol (Surr)		47 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		101 %		43-140 %		"						
LCS (23A0774-BS1)			Prepared: 01/23/23 06:51		Analyzed: 01/23/23 12:38							
EPA 8270E												
2,4-Dichlorophenol	3.93	0.200	0.400	ug/L	4	4.00	---	98	47-121%	---	---	
Pentachlorophenol (PCP)	4.49	0.400	0.800	ug/L	4	4.00	---	112	35-138%	---	---	
2,3,4,6-Tetrachlorophenol	4.22	0.200	0.400	ug/L	4	4.00	---	105	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	4.31	0.200	0.400	ug/L	4	4.00	---	108	50-121%	---	---	
2,4,5-Trichlorophenol	4.26	0.200	0.400	ug/L	4	4.00	---	106	53-123%	---	---	
2,4,6-Trichlorophenol	4.37	0.200	0.400	ug/L	4	4.00	---	109	50-125%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 109 %		Limits: 44-120 %		Dilution: 4x						
2-Fluorobiphenyl (Surr)		92 %		44-120 %		"						
Phenol-d6 (Surr)		28 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		105 %		50-134 %		"						
2-Fluorophenol (Surr)		49 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		100 %		43-140 %		"						
LCS Dup (23A0774-BSD1)			Prepared: 01/23/23 06:51		Analyzed: 01/23/23 13:12							Q-19
EPA 8270E												
2,4-Dichlorophenol	3.94	0.200	0.400	ug/L	4	4.00	---	98	47-121%	0.06	30%	
Pentachlorophenol (PCP)	4.65	0.400	0.800	ug/L	4	4.00	---	116	35-138%	3	30%	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3A0551 - 01 31 23 1549

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A0774 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (23A0774-BSD1)					Prepared: 01/23/23 06:51 Analyzed: 01/23/23 13:12							Q-19
2,3,4,6-Tetrachlorophenol	4.19	0.200	0.400	ug/L	4	4.00	---	105	50-128%	0.6	30%	
2,3,5,6-Tetrachlorophenol	4.30	0.200	0.400	ug/L	4	4.00	---	107	50-121%	0.3	30%	
2,4,5-Trichlorophenol	4.27	0.200	0.400	ug/L	4	4.00	---	107	53-123%	0.3	30%	
2,4,6-Trichlorophenol	4.20	0.200	0.400	ug/L	4	4.00	---	105	50-125%	4	30%	
Surr: Nitrobenzene-d5 (Surr)		Recovery:	112 %	Limits:	44-120 %	Dilution:	4x					
2-Fluorobiphenyl (Surr)			87 %		44-120 %		"					
Phenol-d6 (Surr)			27 %		10-133 %		"					
p-Terphenyl-d14 (Surr)			106 %		50-134 %		"					
2-Fluorophenol (Surr)			47 %		19-120 %		"					
2,4,6-Tribromophenol (Surr)			97 %		43-140 %		"					

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Kelly Titkemeier**

Report ID:

A3A0551 - 01 31 23 1549

SAMPLE PREPARATION INFORMATION

Selected Semivolatile Organic Compounds by EPA 8270E

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23A0774							
A3A0551-01	Water	EPA 8270E	01/17/23 11:25	01/23/23 06:51	1050mL/1mL	1000mL/1mL	0.95
A3A0551-02	Water	EPA 8270E	01/17/23 09:50	01/23/23 06:51	1000mL/1mL	1000mL/1mL	1.00
A3A0551-03	Water	EPA 8270E	01/17/23 10:20	01/23/23 06:51	1010mL/1mL	1000mL/1mL	0.99
A3A0551-04RE1	Water	EPA 8270E	01/17/23 07:40	01/23/23 06:51	1060mL/1mL	1000mL/1mL	0.94
A3A0551-05RE1	Water	EPA 8270E	01/17/23 08:00	01/23/23 06:51	1060mL/1mL	1000mL/1mL	0.94
A3A0551-06RE1	Water	EPA 8270E	01/17/23 07:00	01/23/23 06:51	970mL/1mL	1000mL/1mL	1.03

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Kelly Titkemeier**

Report ID:

A3A0551 - 01 31 23 1549

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- A-01** Due to coelution of isomers, 2,3,4,6- and 2,3,4,5-Tetrachlorophenol (TCP) are reported as a sum and are Estimated Values. Results are calculated using the response factor of 2,3,4,6-TCP. Batch results accepted based on spike recovery of 2,3,4,6-TCP.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- R-04** Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
- S-06** Surrogate recovery is outside of established control limits.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Kelly Titkemeier**

Report ID:

A3A0551 - 01 31 23 1549

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Kelly Titkemeier**

Report ID:

A3A0551 - 01 31 23 1549

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Kelly Titkemeier**

Report ID:

A3A0551 - 01 31 23 1549

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
Water	EPA 8270E		2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)		
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3A0551 - 01 31 23 1549

APEX LABS COOLER RECEIPT FORM

Client: PRS Engineering & Environmental Element WO#: A3A0551Project/Project #: McFarland Cascade, Eugene / 22588.000

Delivery Info:

Date/time received: 11/7/23 @ 1345 By: RHPDelivered by: Apex ☒ Client ☐ ESS ☒ FedEx ☐ UPS ☐ Radio ☐ Morgan ☐ SDS ☐ Evergreen ☐ Other ☐Cooler Inspection Date/time inspected: 11/7/23 @ 1345 By: RHPChain of Custody included? Yes ☒ No ☐Signed/dated by client? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>4.2</u>	<u>4.4</u>					
Custody seals? (Y/N)	<u>N</u>	<u>N</u>					
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>					
Temp. blanks? (Y/N)	<u>N</u>	<u>N</u>					
Ice type: (Gel/Real/Other)	<u>Real</u>	<u>Real</u>					
Condition (In/Out):	<u>IN</u>	<u>In</u>					

Cooler out of temp? (Y/N) ☒ Possible reason why:Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 11/7/23 @ 1435 By: DJSAll samples intact? Yes ☒ No ☐ Comments:Bottle labels/COCs agree? Yes ☒ No ☐ Comments:COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments:Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments:

Water samples: pH checked: Yes ☐ No ☐ NA ☒ pH appropriate? Yes ☐ No ☐ NA ☒

Comments:

Additional information:

Labeled by:

DJS

Witness:

RHP

Cooler Inspected by:

DJS

Form Y-003 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

DATA QUALITY ASSURANCE/QUALITY CONTROL REVIEW

PROJECT NO. M9081.03.016 | FEBRUARY 27, 2023 | MCFARLAND
CASCADE HOLDINGS, INC.

Maul Foster & Alongi, Inc. (MFA), conducted an independent Stage 2A review of the quality of analytical results for groundwater, surface water, and associated quality control samples collected on January 17, 2023, at the property located at 90049 Highway 99 North in Eugene, Oregon.

Analytical Resources, LLC (ARL), and Apex Laboratories, LLC (Apex), performed the analyses. ARL report number 23A0367 and Apex report number A3A0551 were reviewed. Samples North Pond-0123 and South Pond-0123 were sent to both laboratories as a split sample to meet project reporting limit needs for pentachlorophenol. The analyses performed and the samples analyzed are listed below.

Analysis	Reference
Pentachlorophenol	EPA 8041A
Phenols	EPA 8270E
Note EPA = U.S. Environmental Protection Agency.	

Samples Analyzed	
Report 23A0367	
North Pond-0123	
South Pond-0123	
Report A3A0551	
92-9-0123	NORTH POND-0123
93-1A-0123	SOUTH POND-0123
R-4-0123	DUP-0123

DATA QUALIFICATION

Analytical results were evaluated according to applicable sections of U.S. Environmental Protection Agency (EPA) guidelines for data review (EPA 2020) and appropriate laboratory- and method-specific guidelines (Apex 2022, ARL 2021, EPA 1986).

Based on the results of the data quality review procedures described below, and with the appropriate final data qualifiers assigned, the data are considered acceptable for their intended use. Final data qualifiers represent qualifiers originating from the laboratory and accepted by the reviewer, as well as data qualifiers assigned by the reviewer during validation.

Final data qualifiers:

- J = result is estimated.
- U = result is non-detect at the laboratory detection limit (LDL).
- UJ = result is non-detect with an estimated LDL.

Samples North Pond-0123 and South Pond-0123 were analyzed for pentachlorophenol by both laboratories; Apex analyzed via EPA Method 8270E in report A3A0551 and ARL analyzed via EPA Method 8041A in report 23A0367. The result of record is based on the lower-limit EPA Method 8041A analysis and is shown in the table below. The remaining result has been flagged by the reviewer as not reportable.

Report	Sample	Component	Laboratory Result (ug/L)	Result of Record (ug/L)
23A0367	North Pond-0123	Pentachlorophenol	0.104	0.104
A3A0551			0.402 J (NR)	--
23A0367	South Pond-0123	Pentachlorophenol	0.092	0.092
A3A0551			0.398 J (NR)	--
Notes -- = not applicable. J = result is estimated. NR = not reportable. ug/L = micrograms per liter.				

In report A3A0551, Apex reported the EPA Method 8270E 2,3,4,5-tetrachlorophenol and 2,3,4,6-tetrachlorophenol results as single coeluted results. Apex stated that the coeluted results had been calculated using the response factor of 2,3,4,6-tetrachlorophenol and that results were estimated values. Apex also noted that the coeluted results are not included on the Apex Oregon Environmental Laboratory Accreditation Program scope of certification. The reviewer qualified the results as shown in the following table.

Report	Sample	Component	Original Result (ug/L)	Qualified Result (ug/L)
A3A0551	92-9-0123	2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	0.381 U	0.381 UJ
	93-1A-0123		0.100 U	0.100 UJ
	R-4-0123		0.0990 U	0.0990 UJ
	NORTH POND-0123		0.377 U	0.377 UJ
	SOUTH POND-0123		0.377 U	0.377 UJ
	DUP-0123		0.103 U	0.103 UJ
Notes U = result is non-detect at the laboratory detection limit. ug/L = micrograms per liter. UJ = result is non-detect with an estimated laboratory detection limit.				

SAMPLE CONDITIONS

Sample Custody

Sample custody was appropriately documented on the chain-of-custody (COC) form accompanying the reports.

The reviewer confirmed that the gap in custody associated with the COC form in report 23A0367 was due to third-party shipment. No action was required by the reviewer.

According to the cooler receipt form accompanying report 23A0367, ARL noted that one of the two 500-milliliter amber bottles was received broken for sample North Pond-0123. The reviewer confirmed with ARL that the intact amber bottle had sufficient sample volume for analysis.

On the COC form accompanying report A3A0551, the reviewer confirmed with the laboratory that the secondary relinquishment and receipt area was filled out erroneously.

Holding Times

Extractions and analyses were performed within the recommended holding times.

Preservation and Sample Storage

The samples were preserved and stored appropriately.

REPORTING LIMITS

Apex and ARL evaluated results to detection limits. Samples requiring dilutions because of high analyte concentrations and/or matrix interference were reported with raised detection limits and method reporting limits (MRLs) and required no action by the reviewer.

In report A3A0551, results between the LDL and the MRL were qualified by Apex with J, as estimated.

In report A3A0551, Apex noted that some LDLs and MRLs for EPA Method 8270E had been raised to account for interference from coeluting organic compounds present in the samples.

BLANKS

Method Blanks

Laboratory method blanks are used to assess whether laboratory contamination was introduced during sample preparation and analysis. Laboratory method blank analyses were performed at the required frequencies. For purposes of data qualification, the laboratory method blanks were associated with all samples prepared in the analytical batch.

All laboratory method blank results were non-detect.

Equipment Rinse Blanks

Equipment rinse blanks are used to evaluate field equipment decontamination. These blanks were not required for this sampling event, as all samples were collected using dedicated, single-use equipment.

Trip Blanks

Trip blanks are used to evaluate whether volatile organic compound contamination was introduced during sample storage or during shipment between the sampling location and the laboratory.

Trip blank samples were not required for this sampling event because samples were not analyzed for volatile organic compounds.

LABORATORY CONTROL SAMPLE AND LABORATORY CONTROL SAMPLE DUPLICATE RESULTS

A laboratory control sample (LCS) and a laboratory control sample duplicate (LCSD) are spiked with target analytes to provide information about laboratory precision and accuracy. The LCS and the LCSD were prepared and analyzed at the required frequency.

All LCS and LCSD results were within acceptance limits for percent recovery and relative percent difference (RPD).

LABORATORY DUPLICATE RESULTS

Laboratory duplicate results are used to evaluate laboratory precision. Laboratory duplicate results were not reported; laboratory precision was evaluated using LCS and LCSD results.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE RESULTS

Matrix spike and matrix spike duplicate results are used to evaluate laboratory precision and accuracy as well as the effect of the sample matrix on sample preparation and analysis. Matrix spike and matrix spike duplicate samples were not reported; laboratory precision and accuracy were evaluated using LCS and LCSD results.

SURROGATE RECOVERY RESULTS

The samples were spiked with surrogate compounds to evaluate laboratory performance for individual samples.

According to report A3A0551, the EPA Method 8270E nitrobenzene-d5 surrogate result for sample SOUTH POND-0123 was above the upper percent recovery acceptance limit of 120

percent, at 122 percent. The remaining five surrogate results were within percent recovery acceptance limits, and the exceedance was considered minor; thus, qualification was not necessary.

All remaining surrogate results were within percent recovery acceptance limits.

CONTINUING CALIBRATION VERIFICATION RESULTS

Continuing calibration verification (CCV) results are used to demonstrate instrument precision and accuracy through the end of the sample batch. Apex and ARL did not report CCV results, but Apex appropriately flagged batch quality control results associated with CCV exceedances in report A3A0551.

Batch quality control results flagged by the laboratory based on CCV exceedances, but meeting percent recovery and/or RPD acceptance criteria, required no action from the reviewer.

FIELD DUPLICATE RESULTS

Field duplicate samples measure both field and laboratory precision. The following field duplicate and parent sample pair was submitted for analysis:

Report	Parent Sample	Field Duplicate Sample
A3A0551	93-1A-0123	DUP-0123

MFA uses acceptance criteria of 100 percent RPD for results that are less than five times the MRL, or 50 percent RPD for results that are greater than five times the MRL. RPD was not evaluated when both parent sample and associated field duplicate results were non-detect. Where either the parent or the field duplicate result was detected and the other associated result was non-detect, RPD was evaluated using the LDL of the non-detect result.

All field duplicate results met the RPD acceptance criteria.

DATA PACKAGE

The data packages were reviewed for transcription errors, omissions, and anomalies.

No issues were found.

REFERENCES

- Apex. 2022. *Quality Systems Manual*. Rev. 10. Apex Laboratories, LLC: Tigard, OR. June 20.
- ARL. 2021. *Quality Assurance Plan*. Rev. 19.0. Analytical Resources, LLC: Tukwila, WA. December 29.
- EPA. 1986. *Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods*. EPA publication SW-846. 3rd ed. U.S. Environmental Protection Agency. Final updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), V (2015), VI phase I (2017), VI phase II (2018), VI phase III (2019), VII phase I (2019), and VII phase II (2020).
- EPA. 2020. *National Functional Guidelines for Organic Superfund Methods Data Review*. EPA 540-R-20-005. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation: Washington, DC. November.



Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

04 May 2023

Kelly Titkemeier
Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland, WA 97209

RE: McFarland Cascade Pole and Lumber Company - Eugene (22588.000)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
23D0109

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Kelly Bottem, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ARI Assigned Number: 2300109	Turn-around Requested: Standard
ARI Client Company: MFA	Phone: 503.507.5215
Client Contact: Kelly Titkemeier	
Client Project Name: McFarland	
Client Project #: 22588.000	Samplers: Jessica Sandberg

No. of Coolers:	Cooler Temps:
-----------------	---------------



Notes/Comments

X

[illegible]

Comments/Special Instructions

Printed Name:

Printed Name:

Company:

Date & Time:

4/5/23

Printed Name

Printed Name

Company:

Date & Time:

04/0

Printed Name _____

Printed Name:

Company:

Date & Time:

Date & Time:

Printed Name: _____

Printed Name:

Company:

Date & Time:

Date & Time:

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
04-May-2023 12:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
R-3-0423	23D0109-01	Water	05-Apr-2023 11:40	06-Apr-2023 10:23



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
04-May-2023 12:07

Work Order Case Narrative

Pentachlorophenol - EPA Method SW8041A

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.



Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: M.F.A. PBS Engineering NA

COC No(s): _____

Assigned ARI Job No: 2300109

Project Name: McFarland

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Tracking No: 7717 4448 8179 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1003

1.0

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: JA09708

Cooler Accepted by: JA Date: 04/06/23 Time: 1003

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

How were bottles sealed in plastic bags? Individually Grouped Not

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI: NA

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: PIA Date: 4/6/23 Time: 12:01 Labels checked by: PIA

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
04-May-2023 12:07

R-3-0423
23D0109-01 (Water)

Phenols

Method: EPA 8041A

Sampled: 04/05/2023 11:40

Instrument: ECD8 Analyst: RJL

Analyzed: 04/28/2023 15:32

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3510C SepF Sample Size: 500 mL Extract ID: 23D0109-01 A 01
Preparation Batch: BLD0217
Prepared: 04/12/2023 Final Volume: 5 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Pentachlorophenol	87-86-5	1	0.014	0.025	0.140	ug/L	
Surrogate: 2,4,6-Tribromophenol				10-181 %	37.6	%	
Surrogate: 2,4,6-Tribromophenol [2C]				10-181 %	37.7	%	



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
04-May-2023 12:07

Analysis by: Analytical Resources, LLC

Phenols - Quality Control

Batch BLD0217 - EPA 8041A

Instrument: ECD8 Analyst: RJL

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BLD0217-BLK1) Prepared: 12-Apr-2023 Analyzed: 28-Apr-2023 14:37											
Pentachlorophenol	0.016	0.014	0.025	ug/L							J
Surrogate: 2,4,6-Tribromophenol	0.103			ug/L	0.250		41.2	10-181			
Surrogate: 2,4,6-Tribromophenol [2C]	0.107			ug/L	0.250		42.9	10-181			
LCS (BLD0217-BS1) Prepared: 12-Apr-2023 Analyzed: 28-Apr-2023 14:56											
Pentachlorophenol	0.102	0.014	0.025	ug/L	0.250		41.0	36-159			
Surrogate: 2,4,6-Tribromophenol	0.0981			ug/L	0.250		39.3	10-181			
Surrogate: 2,4,6-Tribromophenol [2C]	0.104			ug/L	0.250		41.6	10-181			
LCS Dup (BLD0217-BSD1) Prepared: 12-Apr-2023 Analyzed: 28-Apr-2023 15:14											
Pentachlorophenol	0.095	0.014	0.025	ug/L	0.250		38.2	36-159	7.04	30	
Surrogate: 2,4,6-Tribromophenol	0.0974			ug/L	0.250		39.0	10-181			
Surrogate: 2,4,6-Tribromophenol [2C]	0.103			ug/L	0.250		41.1	10-181			



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
04-May-2023 12:07

Certified Analyses included in this Report

Analyte

Certifications

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2025
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	02/28/2025
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2023
WADOE	WA Dept of Ecology	C558	06/30/2023
WA-DW	Ecology - Drinking Water	C558	06/30/2023



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: 22588.000
Project Manager: Kelly Titkemeier

Reported:
04-May-2023 12:07

Notes and Definitions

J	Estimated concentration value detected below the reporting limit.
P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Wednesday, April 26, 2023

Kelly Titkemeier
Maul Foster & Alongi, INC.
3140 NE Broadway Street
Portland, OR 97232

RE: A3D0912 - McFarland Cascade-Eugene - 22588.000

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A3D0912, which was received by the laboratory on 4/6/2023 at 11:57:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	3.1 degC	Cooler #2	1.2 degC
Cooler #3	2.7 degC	Cooler #4	3.4 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Maul Foster & Alongi, INC.**3140 NE Broadway Street
Portland, OR 97232Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335****ANALYTICAL REPORT FOR SAMPLES****SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
90-1D-0423	A3D0912-01	Water	04/05/23 10:00	04/06/23 11:57
90-5-0423	A3D0912-02	Water	04/06/23 08:05	04/06/23 11:57
92-9-0423	A3D0912-03	Water	04/05/23 14:15	04/06/23 11:57
93-4-0423	A3D0912-04	Water	04/05/23 13:20	04/06/23 11:57
93-8-0423	A3D0912-05	Water	04/05/23 11:20	04/06/23 11:57
P-2D-0423	A3D0912-06	Water	04/06/23 09:25	04/06/23 11:57
R-1-0423	A3D0912-07	Water	04/05/23 10:10	04/06/23 11:57
R-2-0423	A3D0912-08	Water	04/05/23 10:20	04/06/23 11:57
R-3-0423	A3D0912-09	Water	04/05/23 11:40	04/06/23 11:57
R-4-0423	A3D0912-10	Water	04/05/23 12:00	04/06/23 11:57
DUP-0423	A3D0912-11	Water	04/05/23 08:00	04/06/23 11:57
FIELD-0423	A3D0912-12	Water	04/05/23 11:45	04/06/23 11:57

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3D0912 - 04 26 23 1335

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
90-1D-0423 (A3D0912-01)		Matrix: Water			Batch: 23D0435			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.400	0.800	ug/L	4	04/13/23 12:16	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.200	0.400	ug/L	4	04/13/23 12:16	EPA 8270E	
Pentachlorophenol (PCP)	2.94	0.400	0.800	ug/L	4	04/13/23 12:16	EPA 8270E	
2,3,5,6-Tetrachlorophenol	0.241	0.200	0.400	ug/L	4	04/13/23 12:16	EPA 8270E	J
2,4,5-Trichlorophenol	ND	0.200	0.400	ug/L	4	04/13/23 12:16	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.200	0.400	ug/L	4	04/13/23 12:16	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 75 %	Limits: 44-120 %	4	04/13/23 12:16	EPA 8270E		Q-41
2-Fluorobiphenyl (Surr)		67 %	44-120 %	4	04/13/23 12:16	EPA 8270E		
Phenol-d6 (Surr)		22 %	10-133 %	4	04/13/23 12:16	EPA 8270E		Q-41
p-Terphenyl-d14 (Surr)		73 %	50-134 %	4	04/13/23 12:16	EPA 8270E		
2-Fluorophenol (Surr)		31 %	19-120 %	4	04/13/23 12:16	EPA 8270E		
2,4,6-Tribromophenol (Surr)		83 %	43-140 %	4	04/13/23 12:16	EPA 8270E		
90-5-0423 (A3D0912-02)		Matrix: Water			Batch: 23D0435			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.385	0.769	ug/L	4	04/14/23 15:24	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.192	0.385	ug/L	4	04/14/23 15:24	EPA 8270E	
Pentachlorophenol (PCP)	2.06	0.385	0.769	ug/L	4	04/14/23 15:24	EPA 8270E	
2,3,5,6-Tetrachlorophenol	0.414	0.192	0.385	ug/L	4	04/14/23 15:24	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.192	0.385	ug/L	4	04/14/23 15:24	EPA 8270E	
2,4,6-Trichlorophenol	0.195	0.192	0.385	ug/L	4	04/14/23 15:24	EPA 8270E	J
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 87 %	Limits: 44-120 %	4	04/14/23 15:24	EPA 8270E		Q-41
2-Fluorobiphenyl (Surr)		74 %	44-120 %	4	04/14/23 15:24	EPA 8270E		
Phenol-d6 (Surr)		24 %	10-133 %	4	04/14/23 15:24	EPA 8270E		Q-41
p-Terphenyl-d14 (Surr)		63 %	50-134 %	4	04/14/23 15:24	EPA 8270E		
2-Fluorophenol (Surr)		36 %	19-120 %	4	04/14/23 15:24	EPA 8270E		
2,4,6-Tribromophenol (Surr)		102 %	43-140 %	4	04/14/23 15:24	EPA 8270E		
92-9-0423 (A3D0912-03)		Matrix: Water			Batch: 23D0435			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.392	0.784	ug/L	4	04/14/23 15:58	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.196	0.392	ug/L	4	04/14/23 15:58	EPA 8270E	
Pentachlorophenol (PCP)	5.42	0.392	0.784	ug/L	4	04/14/23 15:58	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.196	0.392	ug/L	4	04/14/23 15:58	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.196	0.392	ug/L	4	04/14/23 15:58	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.196	0.392	ug/L	4	04/14/23 15:58	EPA 8270E	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3D0912 - 04 26 23 1335

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
92-9-0423 (A3D0912-03)								
				Matrix: Water		Batch: 23D0435		
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	72 %	Limits:	44-120 %	4	04/14/23 15:58	EPA 8270E Q-41
2-Fluorobiphenyl (Surr)			61 %		44-120 %	4	04/14/23 15:58	EPA 8270E
Phenol-d6 (Surr)			19 %		10-133 %	4	04/14/23 15:58	EPA 8270E Q-41
p-Terphenyl-d14 (Surr)			56 %		50-134 %	4	04/14/23 15:58	EPA 8270E
2-Fluorophenol (Surr)			27 %		19-120 %	4	04/14/23 15:58	EPA 8270E
2,4,6-Tribromophenol (Surr)			79 %		43-140 %	4	04/14/23 15:58	EPA 8270E
93-4-0423 (A3D0912-04)								
				Matrix: Water		Batch: 23D0435		
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.392	0.784	ug/L	4	04/14/23 16:34	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.196	0.392	ug/L	4	04/14/23 16:34	EPA 8270E	
Pentachlorophenol (PCP)	3.32	0.392	0.784	ug/L	4	04/14/23 16:34	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.196	0.392	ug/L	4	04/14/23 16:34	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.196	0.392	ug/L	4	04/14/23 16:34	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.196	0.392	ug/L	4	04/14/23 16:34	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	68 %	Limits:	44-120 %	4	04/14/23 16:34	EPA 8270E Q-41
2-Fluorobiphenyl (Surr)			60 %		44-120 %	4	04/14/23 16:34	EPA 8270E
Phenol-d6 (Surr)			18 %		10-133 %	4	04/14/23 16:34	EPA 8270E Q-41
p-Terphenyl-d14 (Surr)			63 %		50-134 %	4	04/14/23 16:34	EPA 8270E
2-Fluorophenol (Surr)			29 %		19-120 %	4	04/14/23 16:34	EPA 8270E
2,4,6-Tribromophenol (Surr)			77 %		43-140 %	4	04/14/23 16:34	EPA 8270E
93-8-0423 (A3D0912-05)								
				Matrix: Water		Batch: 23D0435		
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.0971	0.194	ug/L	1	04/14/23 18:43	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.0485	0.0971	ug/L	1	04/14/23 18:43	EPA 8270E	
Pentachlorophenol (PCP)	0.107	0.0971	0.194	ug/L	1	04/14/23 18:43	EPA 8270E	J
2,3,5,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	04/14/23 18:43	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	04/14/23 18:43	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	04/14/23 18:43	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	74 %	Limits:	44-120 %	1	04/14/23 18:43	EPA 8270E Q-41
2-Fluorobiphenyl (Surr)			60 %		44-120 %	1	04/14/23 18:43	EPA 8270E
Phenol-d6 (Surr)			19 %		10-133 %	1	04/14/23 18:43	EPA 8270E Q-41
p-Terphenyl-d14 (Surr)			61 %		50-134 %	1	04/14/23 18:43	EPA 8270E
2-Fluorophenol (Surr)			33 %		19-120 %	1	04/14/23 18:43	EPA 8270E
2,4,6-Tribromophenol (Surr)			86 %		43-140 %	1	04/14/23 18:43	EPA 8270E
P-2D-0423 (A3D0912-06)								
				Matrix: Water		Batch: 23D0435		

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-EugeneProject Number: **22588.000**

Project Manager: Kelly Titkemeier

Report ID:**A3D0912 - 04 26 23 1335**

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
P-2D-0423 (A3D0912-06)			Matrix: Water			Batch: 23D0435			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.385	0.769	ug/L	4	04/14/23 19:13	EPA 8270E	A-01	
2,4-Dichlorophenol	ND	0.192	0.385	ug/L	4	04/14/23 19:13	EPA 8270E		
Pentachlorophenol (PCP)	3.26	0.385	0.769	ug/L	4	04/14/23 19:13	EPA 8270E		
2,3,5,6-Tetrachlorophenol	0.284	0.192	0.385	ug/L	4	04/14/23 19:13	EPA 8270E	J	
2,4,5-Trichlorophenol	ND	0.192	0.385	ug/L	4	04/14/23 19:13	EPA 8270E		
2,4,6-Trichlorophenol	ND	0.192	0.385	ug/L	4	04/14/23 19:13	EPA 8270E		
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	85 %	<i>Limits:</i>	44-120 %	4	04/14/23 19:13	EPA 8270E	<i>Q-41</i>
<i>2-Fluorobiphenyl (Surr)</i>			67 %		44-120 %	4	04/14/23 19:13	EPA 8270E	
<i>Phenol-d6 (Surr)</i>			24 %		10-133 %	4	04/14/23 19:13	EPA 8270E	<i>Q-41</i>
<i>p-Terphenyl-d14 (Surr)</i>			55 %		50-134 %	4	04/14/23 19:13	EPA 8270E	
<i>2-Fluorophenol (Surr)</i>			32 %		19-120 %	4	04/14/23 19:13	EPA 8270E	
<i>2,4,6-Tribromophenol (Surr)</i>			106 %		43-140 %	4	04/14/23 19:13	EPA 8270E	
R-4-0423 (A3D0912-10)			Matrix: Water			Batch: 23D0435			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.0971	0.194	ug/L	1	04/14/23 19:43	EPA 8270E	A-01	
2,4-Dichlorophenol	ND	0.0485	0.0971	ug/L	1	04/14/23 19:43	EPA 8270E		
Pentachlorophenol (PCP)	0.848	0.0971	0.194	ug/L	1	04/14/23 19:43	EPA 8270E		
2,3,5,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	04/14/23 19:43	EPA 8270E		
2,4,5-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	04/14/23 19:43	EPA 8270E		
2,4,6-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	04/14/23 19:43	EPA 8270E		
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	76 %	<i>Limits:</i>	44-120 %	1	04/14/23 19:43	EPA 8270E	<i>Q-41</i>
<i>2-Fluorobiphenyl (Surr)</i>			54 %		44-120 %	1	04/14/23 19:43	EPA 8270E	
<i>Phenol-d6 (Surr)</i>			20 %		10-133 %	1	04/14/23 19:43	EPA 8270E	<i>Q-41</i>
<i>p-Terphenyl-d14 (Surr)</i>			64 %		50-134 %	1	04/14/23 19:43	EPA 8270E	
<i>2-Fluorophenol (Surr)</i>			34 %		19-120 %	1	04/14/23 19:43	EPA 8270E	
<i>2,4,6-Tribromophenol (Surr)</i>			75 %		43-140 %	1	04/14/23 19:43	EPA 8270E	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-EugeneProject Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-1-0423 (A3D0912-07)				Matrix: Water		Batch: 23D0367		
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.971	1.94	ug/L	10	04/12/23 10:44	EPA 8270E	A-01
Acenaphthene	1.47	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
Acenaphthylene	ND	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
Anthracene	0.172	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	J
Benz(a)anthracene	ND	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
Benzo(a)pyrene	ND	0.146	0.291	ug/L	10	04/12/23 10:44	EPA 8270E	
Benzo(b)fluoranthene	ND	0.146	0.291	ug/L	10	04/12/23 10:44	EPA 8270E	
Benzo(k)fluoranthene	ND	0.146	0.291	ug/L	10	04/12/23 10:44	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
Chrysene	ND	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
Fluoranthene	0.291	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
Fluorene	1.45	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
1-Methylnaphthalene	0.567	0.194	0.388	ug/L	10	04/12/23 10:44	EPA 8270E	
2-Methylnaphthalene	0.303	0.194	0.388	ug/L	10	04/12/23 10:44	EPA 8270E	J
Naphthalene	0.533	0.194	0.388	ug/L	10	04/12/23 10:44	EPA 8270E	
Phenanthrene	0.299	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
Pyrene	0.341	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
Carbazole	0.149	0.146	0.291	ug/L	10	04/12/23 10:44	EPA 8270E	J
Dibenzofuran	0.294	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
2-Chlorophenol	ND	0.485	0.971	ug/L	10	04/12/23 10:44	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.971	1.94	ug/L	10	04/12/23 10:44	EPA 8270E	
2,4-Dichlorophenol	ND	0.485	0.971	ug/L	10	04/12/23 10:44	EPA 8270E	
2,4-Dimethylphenol	ND	0.485	0.971	ug/L	10	04/12/23 10:44	EPA 8270E	
2,4-Dinitrophenol	ND	2.43	4.85	ug/L	10	04/12/23 10:44	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	2.43	4.85	ug/L	10	04/12/23 10:44	EPA 8270E	
2-Methylphenol	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
3+4-Methylphenol(s)	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
2-Nitrophenol	ND	0.971	1.94	ug/L	10	04/12/23 10:44	EPA 8270E	
4-Nitrophenol	ND	0.971	1.94	ug/L	10	04/12/23 10:44	EPA 8270E	
Pentachlorophenol (PCP)	4.49	0.971	1.94	ug/L	10	04/12/23 10:44	EPA 8270E	
Phenol	ND	1.94	3.88	ug/L	10	04/12/23 10:44	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3D0912 - 04 26 23 1335

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-1-0423 (A3D0912-07)		Matrix: Water			Batch: 23D0367			
2,3,5,6-Tetrachlorophenol	ND	0.485	0.971	ug/L	10	04/12/23 10:44	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.485	0.971	ug/L	10	04/12/23 10:44	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.485	0.971	ug/L	10	04/12/23 10:44	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	1.94	3.88	ug/L	10	04/12/23 10:44	EPA 8270E	
Butyl benzyl phthalate	ND	1.94	3.88	ug/L	10	04/12/23 10:44	EPA 8270E	
Diethylphthalate	ND	1.94	3.88	ug/L	10	04/12/23 10:44	EPA 8270E	
Dimethylphthalate	ND	1.94	3.88	ug/L	10	04/12/23 10:44	EPA 8270E	
Di-n-butylphthalate	ND	1.94	3.88	ug/L	10	04/12/23 10:44	EPA 8270E	
Di-n-octyl phthalate	ND	1.94	3.88	ug/L	10	04/12/23 10:44	EPA 8270E	
N-Nitrosodimethylamine	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
Hexachlorobenzene	ND	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
Hexachlorobutadiene	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.485	0.971	ug/L	10	04/12/23 10:44	EPA 8270E	
Hexachloroethane	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
2-Chloronaphthalene	ND	0.0971	0.194	ug/L	10	04/12/23 10:44	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
Aniline	ND	0.485	0.971	ug/L	10	04/12/23 10:44	EPA 8270E	
4-Chloroaniline	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
2-Nitroaniline	ND	1.94	3.88	ug/L	10	04/12/23 10:44	EPA 8270E	
3-Nitroaniline	ND	1.94	3.88	ug/L	10	04/12/23 10:44	EPA 8270E	
4-Nitroaniline	ND	1.94	3.88	ug/L	10	04/12/23 10:44	EPA 8270E	
Nitrobenzene	ND	0.971	1.94	ug/L	10	04/12/23 10:44	EPA 8270E	
2,4-Dinitrotoluene	ND	0.971	1.94	ug/L	10	04/12/23 10:44	EPA 8270E	
2,6-Dinitrotoluene	ND	0.971	1.94	ug/L	10	04/12/23 10:44	EPA 8270E	
Benzoic acid	ND	12.1	24.3	ug/L	10	04/12/23 10:44	EPA 8270E	
Benzyl alcohol	ND	0.971	1.94	ug/L	10	04/12/23 10:44	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-EugeneProject Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-1-0423 (A3D0912-07)		Matrix: Water			Batch: 23D0367			
Isophorone	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	2.43	4.85	ug/L	10	04/12/23 10:44	EPA 8270E	
3,3'-Dichlorobenzidine	ND	4.85	9.71	ug/L	10	04/12/23 10:44	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	2.43	4.85	ug/L	10	04/12/23 10:44	EPA 8270E	
1,3-Dinitrobenzene	ND	2.43	4.85	ug/L	10	04/12/23 10:44	EPA 8270E	
1,4-Dinitrobenzene	ND	2.43	4.85	ug/L	10	04/12/23 10:44	EPA 8270E	
Pyridine	ND	0.971	1.94	ug/L	10	04/12/23 10:44	EPA 8270E	
1,2-Dichlorobenzene	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
1,3-Dichlorobenzene	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
1,4-Dichlorobenzene	ND	0.243	0.485	ug/L	10	04/12/23 10:44	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	68 %	<i>Limits:</i>	44-120 %	10	04/12/23 10:44	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			77 %		44-120 %	10	04/12/23 10:44	EPA 8270E
<i>Phenol-d6 (Surr)</i>			20 %		10-133 %	10	04/12/23 10:44	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			96 %		50-134 %	10	04/12/23 10:44	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			24 %		19-120 %	10	04/12/23 10:44	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			95 %		43-140 %	10	04/12/23 10:44	EPA 8270E
R-2-0423 (A3D0912-08)		Matrix: Water			Batch: 23D0367			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	2.05	1.94	3.88	ug/L	20	04/11/23 15:27	EPA 8270E	A-01
Acenaphthene	93.2	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E	
Acenaphthylene	ND	2.52	2.52	ug/L	20	04/11/23 15:27	EPA 8270E	R-02
Anthracene	10.0	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E	
Benz(a)anthracene	3.83	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E	
Benzo(a)pyrene	1.45	0.291	0.583	ug/L	20	04/11/23 15:27	EPA 8270E	
Benzo(b)fluoranthene	1.75	0.291	0.583	ug/L	20	04/11/23 15:27	EPA 8270E	
Benzo(k)fluoranthene	0.878	0.291	0.583	ug/L	20	04/11/23 15:27	EPA 8270E	M-05
Benzo(g,h,i)perylene	0.276	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E	J
Chrysene	3.80	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E	
Fluoranthene	29.7	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E	
Fluorene	44.5	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E	
Indeno(1,2,3-cd)pyrene	0.390	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E	
1-Methylnaphthalene	38.3	0.388	0.777	ug/L	20	04/11/23 15:27	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-EugeneProject Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-2-0423 (A3D0912-08)		Matrix: Water			Batch: 23D0367			
2-Methylnaphthalene	0.907	0.388	0.777	ug/L	20	04/11/23 15:27	EPA 8270E	
Naphthalene	ND	0.777	0.777	ug/L	20	04/11/23 15:27	EPA 8270E	
Phenanthrene	40.3	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E	
Pyrene	25.0	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E	
Carbazole	ND	0.583	0.583	ug/L	20	04/11/23 15:27	EPA 8270E	
Dibenzofuran	31.4	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E	
2-Chlorophenol	ND	0.971	1.94	ug/L	20	04/11/23 15:27	EPA 8270E	
4-Chloro-3-methylphenol	ND	1.94	3.88	ug/L	20	04/11/23 15:27	EPA 8270E	
2,4-Dichlorophenol	ND	1.94	1.94	ug/L	20	04/11/23 15:27	EPA 8270E	
2,4-Dimethylphenol	ND	3.50	3.50	ug/L	20	04/11/23 15:27	EPA 8270E	R-02
2,4-Dinitrophenol	ND	4.85	9.71	ug/L	20	04/11/23 15:27	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	4.85	9.71	ug/L	20	04/11/23 15:27	EPA 8270E	
2-Methylphenol	ND	0.971	0.971	ug/L	20	04/11/23 15:27	EPA 8270E	
3+4-Methylphenol(s)	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E	
2-Nitrophenol	ND	1.94	3.88	ug/L	20	04/11/23 15:27	EPA 8270E	
4-Nitrophenol	ND	7.57	7.57	ug/L	20	04/11/23 15:27	EPA 8270E	R-02
Pentachlorophenol (PCP)	39.6	1.94	3.88	ug/L	20	04/11/23 15:27	EPA 8270E	
Phenol	ND	3.88	7.77	ug/L	20	04/11/23 15:27	EPA 8270E	
2,3,5,6-Tetrachlorophenol	1.27	0.971	1.94	ug/L	20	04/11/23 15:27	EPA 8270E	J
2,4,5-Trichlorophenol	1.18	0.971	1.94	ug/L	20	04/11/23 15:27	EPA 8270E	J
2,4,6-Trichlorophenol	ND	0.971	1.94	ug/L	20	04/11/23 15:27	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	3.88	7.77	ug/L	20	04/11/23 15:27	EPA 8270E	
Butyl benzyl phthalate	ND	3.88	7.77	ug/L	20	04/11/23 15:27	EPA 8270E	
Diethylphthalate	ND	3.88	7.77	ug/L	20	04/11/23 15:27	EPA 8270E	
Dimethylphthalate	ND	3.88	7.77	ug/L	20	04/11/23 15:27	EPA 8270E	
Di-n-butylphthalate	ND	3.88	7.77	ug/L	20	04/11/23 15:27	EPA 8270E	
Di-n-octyl phthalate	ND	3.88	7.77	ug/L	20	04/11/23 15:27	EPA 8270E	
N-Nitrosodimethylamine	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.971	0.971	ug/L	20	04/11/23 15:27	EPA 8270E	
N-Nitrosodiphenylamine	ND	6.41	6.41	ug/L	20	04/11/23 15:27	EPA 8270E	R-02
Bis(2-Chloroethoxy) methane	ND	0.971	0.971	ug/L	20	04/11/23 15:27	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-EugeneProject Number: **22588.000**

Project Manager: Kelly Titkemeier

Report ID:**A3D0912 - 04 26 23 1335**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
R-2-0423 (A3D0912-08)		Matrix: Water			Batch: 23D0367				
Hexachlorobenzene	ND	0.194	0.388	ug/L	20	04/11/23 15:27	EPA 8270E		
Hexachlorobutadiene	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E		
Hexachlorocyclopentadiene	ND	0.971	1.94	ug/L	20	04/11/23 15:27	EPA 8270E		
Hexachloroethane	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E		
2-Chloronaphthalene	ND	0.388	0.388	ug/L	20	04/11/23 15:27	EPA 8270E		
1,2,4-Trichlorobenzene	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E		
4-Bromophenyl phenyl ether	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E		
4-Chlorophenyl phenyl ether	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E		
Aniline	ND	0.971	1.94	ug/L	20	04/11/23 15:27	EPA 8270E		
4-Chloroaniline	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E		
2-Nitroaniline	ND	3.88	7.77	ug/L	20	04/11/23 15:27	EPA 8270E		
3-Nitroaniline	ND	3.88	7.77	ug/L	20	04/11/23 15:27	EPA 8270E		
4-Nitroaniline	ND	3.88	7.77	ug/L	20	04/11/23 15:27	EPA 8270E		
Nitrobenzene	ND	1.94	3.88	ug/L	20	04/11/23 15:27	EPA 8270E		
2,4-Dinitrotoluene	ND	3.88	3.88	ug/L	20	04/11/23 15:27	EPA 8270E		
2,6-Dinitrotoluene	ND	1.94	3.88	ug/L	20	04/11/23 15:27	EPA 8270E		
Benzoic acid	ND	48.5	48.5	ug/L	20	04/11/23 15:27	EPA 8270E		
Benzyl alcohol	ND	1.94	3.88	ug/L	20	04/11/23 15:27	EPA 8270E		
Isophorone	ND	0.971	0.971	ug/L	20	04/11/23 15:27	EPA 8270E		
Azobenzene (1,2-DPH)	ND	0.971	0.971	ug/L	20	04/11/23 15:27	EPA 8270E		
Bis(2-Ethylhexyl) adipate	ND	4.85	9.71	ug/L	20	04/11/23 15:27	EPA 8270E		
3,3'-Dichlorobenzidine	ND	9.71	19.4	ug/L	20	04/11/23 15:27	EPA 8270E	Q-52	
1,2-Dinitrobenzene	ND	4.85	9.71	ug/L	20	04/11/23 15:27	EPA 8270E		
1,3-Dinitrobenzene	ND	4.85	9.71	ug/L	20	04/11/23 15:27	EPA 8270E		
1,4-Dinitrobenzene	ND	4.85	9.71	ug/L	20	04/11/23 15:27	EPA 8270E		
Pyridine	ND	1.94	3.88	ug/L	20	04/11/23 15:27	EPA 8270E		
1,2-Dichlorobenzene	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E		
1,3-Dichlorobenzene	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E		
1,4-Dichlorobenzene	ND	0.485	0.971	ug/L	20	04/11/23 15:27	EPA 8270E		
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	70 %	Limits:	44-120 %	20	04/11/23 15:27	EPA 8270E	Q-41
2-Fluorobiphenyl (Surr)			82 %		44-120 %	20	04/11/23 15:27	EPA 8270E	
Phenol-d6 (Surr)			31 %		10-133 %	20	04/11/23 15:27	EPA 8270E	Q-41
p-Terphenyl-d14 (Surr)			81 %		50-134 %	20	04/11/23 15:27	EPA 8270E	
2-Fluorophenol (Surr)			32 %		19-120 %	20	04/11/23 15:27	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-2-0423 (A3D0912-08)		Matrix: Water			Batch: 23D0367			
<i>Surrogate: 2,4,6-Tribromophenol (Surr)</i>		<i>Recovery: 108 %</i>		<i>Limits: 43-140 %</i>	<i>20</i>	<i>04/11/23 15:27</i>	<i>EPA 8270E</i>	
R-3-0423 (A3D0912-09)		Matrix: Water			Batch: 23D0367			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	4.81	9.62	ug/L	50	04/13/23 14:59	EPA 8270E	A-01
Acenaphthene	83.0	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
Acenaphthylene	ND	0.962	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
Anthracene	5.29	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
Benz(a)anthracene	0.863	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	J
Benzo(a)pyrene	ND	0.721	1.44	ug/L	50	04/13/23 14:59	EPA 8270E	
Benzo(b)fluoranthene	0.744	0.721	1.44	ug/L	50	04/13/23 14:59	EPA 8270E	J
Benzo(k)fluoranthene	ND	0.721	1.44	ug/L	50	04/13/23 14:59	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
Chrysene	0.722	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	J
Dibenz(a,h)anthracene	ND	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
Fluoranthene	10.1	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
Fluorene	32.3	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
1-Methylnaphthalene	60.3	0.962	1.92	ug/L	50	04/13/23 14:59	EPA 8270E	
2-Methylnaphthalene	26.9	0.962	1.92	ug/L	50	04/13/23 14:59	EPA 8270E	
Naphthalene	12.8	0.962	1.92	ug/L	50	04/13/23 14:59	EPA 8270E	
Phenanthrene	34.5	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
Pyrene	8.00	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
Carbazole	4.25	0.721	1.44	ug/L	50	04/13/23 14:59	EPA 8270E	
Dibenzofuran	26.9	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
2-Chlorophenol	ND	2.40	4.81	ug/L	50	04/13/23 14:59	EPA 8270E	
4-Chloro-3-methylphenol	ND	4.81	9.62	ug/L	50	04/13/23 14:59	EPA 8270E	
2,4-Dichlorophenol	ND	2.40	4.81	ug/L	50	04/13/23 14:59	EPA 8270E	
2,4-Dimethylphenol	ND	2.40	4.81	ug/L	50	04/13/23 14:59	EPA 8270E	
2,4-Dinitrophenol	ND	12.0	24.0	ug/L	50	04/13/23 14:59	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	12.0	24.0	ug/L	50	04/13/23 14:59	EPA 8270E	
2-Methylphenol	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
3+4-Methylphenol(s)	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
2-Nitrophenol	ND	4.81	9.62	ug/L	50	04/13/23 14:59	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 11 of 44



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3D0912 - 04 26 23 1335

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-3-0423 (A3D0912-09)		Matrix: Water			Batch: 23D0367			
4-Nitrophenol	ND	4.81	9.62	ug/L	50	04/13/23 14:59	EPA 8270E	
Pentachlorophenol (PCP)	ND	4.81	9.62	ug/L	50	04/13/23 14:59	EPA 8270E	
Phenol	ND	9.62	19.2	ug/L	50	04/13/23 14:59	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	2.40	4.81	ug/L	50	04/13/23 14:59	EPA 8270E	
2,4,5-Trichlorophenol	ND	2.40	4.81	ug/L	50	04/13/23 14:59	EPA 8270E	
2,4,6-Trichlorophenol	ND	2.40	4.81	ug/L	50	04/13/23 14:59	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	9.62	19.2	ug/L	50	04/13/23 14:59	EPA 8270E	
Butyl benzyl phthalate	ND	9.62	19.2	ug/L	50	04/13/23 14:59	EPA 8270E	
Diethylphthalate	ND	9.62	19.2	ug/L	50	04/13/23 14:59	EPA 8270E	
Dimethylphthalate	ND	9.62	19.2	ug/L	50	04/13/23 14:59	EPA 8270E	
Di-n-butylphthalate	ND	9.62	19.2	ug/L	50	04/13/23 14:59	EPA 8270E	
Di-n-octyl phthalate	ND	9.62	19.2	ug/L	50	04/13/23 14:59	EPA 8270E	
N-Nitrosodimethylamine	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
N-Nitrosodiphenylamine	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
Hexachlorobenzene	ND	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
Hexachlorobutadiene	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
Hexachlorocyclopentadiene	ND	2.40	4.81	ug/L	50	04/13/23 14:59	EPA 8270E	
Hexachloroethane	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
2-Chloronaphthalene	ND	0.481	0.962	ug/L	50	04/13/23 14:59	EPA 8270E	
1,2,4-Trichlorobenzene	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
4-Bromophenyl phenyl ether	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
Aniline	ND	2.40	4.81	ug/L	50	04/13/23 14:59	EPA 8270E	
4-Chloroaniline	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
2-Nitroaniline	ND	9.62	19.2	ug/L	50	04/13/23 14:59	EPA 8270E	
3-Nitroaniline	ND	9.62	19.2	ug/L	50	04/13/23 14:59	EPA 8270E	
4-Nitroaniline	ND	9.62	19.2	ug/L	50	04/13/23 14:59	EPA 8270E	
Nitrobenzene	ND	4.81	9.62	ug/L	50	04/13/23 14:59	EPA 8270E	
2,4-Dinitrotoluene	ND	4.81	9.62	ug/L	50	04/13/23 14:59	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3D0912 - 04 26 23 1335

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-3-0423 (A3D0912-09)		Matrix: Water			Batch: 23D0367			
2,6-Dinitrotoluene	ND	4.81	9.62	ug/L	50	04/13/23 14:59	EPA 8270E	
Benzoic acid	ND	60.1	120	ug/L	50	04/13/23 14:59	EPA 8270E	
Benzyl alcohol	ND	4.81	9.62	ug/L	50	04/13/23 14:59	EPA 8270E	
Isophorone	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
Azobenzene (1,2-DPH)	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	12.0	24.0	ug/L	50	04/13/23 14:59	EPA 8270E	
3,3'-Dichlorobenzidine	ND	24.0	48.1	ug/L	50	04/13/23 14:59	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	12.0	24.0	ug/L	50	04/13/23 14:59	EPA 8270E	
1,3-Dinitrobenzene	ND	12.0	24.0	ug/L	50	04/13/23 14:59	EPA 8270E	
1,4-Dinitrobenzene	ND	12.0	24.0	ug/L	50	04/13/23 14:59	EPA 8270E	
Pyridine	ND	4.81	9.62	ug/L	50	04/13/23 14:59	EPA 8270E	
1,2-Dichlorobenzene	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
1,3-Dichlorobenzene	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
1,4-Dichlorobenzene	ND	1.20	2.40	ug/L	50	04/13/23 14:59	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	78 %	<i>Limits:</i>	44-120 %	50	04/13/23 14:59	EPA 8270E S-05
<i>2-Fluorobiphenyl (Surr)</i>			81 %		44-120 %	50	04/13/23 14:59	EPA 8270E S-05
<i>Phenol-d6 (Surr)</i>			44 %		10-133 %	50	04/13/23 14:59	EPA 8270E S-05
<i>p-Terphenyl-d14 (Surr)</i>			93 %		50-134 %	50	04/13/23 14:59	EPA 8270E S-05
<i>2-Fluorophenol (Surr)</i>			29 %		19-120 %	50	04/13/23 14:59	EPA 8270E S-05
<i>2,4,6-Tribromophenol (Surr)</i>			103 %		43-140 %	50	04/13/23 14:59	EPA 8270E S-05
DUP-0423 (A3D0912-11RE1)		Matrix: Water			Batch: 23D0367			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.962	1.92	ug/L	10	04/13/23 16:39	EPA 8270E	A-01
Acenaphthene	1.42	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
Acenaphthylene	ND	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
Anthracene	0.145	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	J
Benz(a)anthracene	ND	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
Benzo(a)pyrene	ND	0.144	0.288	ug/L	10	04/13/23 16:39	EPA 8270E	
Benzo(b)fluoranthene	ND	0.144	0.288	ug/L	10	04/13/23 16:39	EPA 8270E	
Benzo(k)fluoranthene	ND	0.144	0.288	ug/L	10	04/13/23 16:39	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
Chrysene	ND	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
Fluoranthene	0.266	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP-0423 (A3D0912-11RE1)				Matrix: Water		Batch: 23D0367		
Fluorene	1.43	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
1-Methylnaphthalene	0.564	0.192	0.385	ug/L	10	04/13/23 16:39	EPA 8270E	
2-Methylnaphthalene	0.312	0.192	0.385	ug/L	10	04/13/23 16:39	EPA 8270E	J
Naphthalene	0.472	0.192	0.385	ug/L	10	04/13/23 16:39	EPA 8270E	
Phenanthrene	0.289	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
Pyrene	0.323	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
Carbazole	0.170	0.144	0.288	ug/L	10	04/13/23 16:39	EPA 8270E	J
Dibenzofuran	0.282	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
2-Chlorophenol	ND	0.481	0.962	ug/L	10	04/13/23 16:39	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.962	1.92	ug/L	10	04/13/23 16:39	EPA 8270E	
2,4-Dichlorophenol	ND	0.481	0.962	ug/L	10	04/13/23 16:39	EPA 8270E	
2,4-Dimethylphenol	ND	0.481	0.962	ug/L	10	04/13/23 16:39	EPA 8270E	
2,4-Dinitrophenol	ND	2.40	4.81	ug/L	10	04/13/23 16:39	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	2.40	4.81	ug/L	10	04/13/23 16:39	EPA 8270E	
2-Methylphenol	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
3+4-Methylphenol(s)	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
2-Nitrophenol	ND	0.962	1.92	ug/L	10	04/13/23 16:39	EPA 8270E	
4-Nitrophenol	ND	0.962	1.92	ug/L	10	04/13/23 16:39	EPA 8270E	
Pentachlorophenol (PCP)	4.93	0.962	1.92	ug/L	10	04/13/23 16:39	EPA 8270E	
Phenol	ND	1.92	3.85	ug/L	10	04/13/23 16:39	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.481	0.962	ug/L	10	04/13/23 16:39	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.481	0.962	ug/L	10	04/13/23 16:39	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.481	0.962	ug/L	10	04/13/23 16:39	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	1.92	3.85	ug/L	10	04/13/23 16:39	EPA 8270E	
Butyl benzyl phthalate	ND	1.92	3.85	ug/L	10	04/13/23 16:39	EPA 8270E	
Diethylphthalate	ND	1.92	3.85	ug/L	10	04/13/23 16:39	EPA 8270E	
Dimethylphthalate	ND	1.92	3.85	ug/L	10	04/13/23 16:39	EPA 8270E	
Di-n-butylphthalate	ND	1.92	3.85	ug/L	10	04/13/23 16:39	EPA 8270E	
Di-n-octyl phthalate	ND	1.92	3.85	ug/L	10	04/13/23 16:39	EPA 8270E	
N-Nitrosodimethylamine	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3D0912 - 04 26 23 1335

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP-0423 (A3D0912-11RE1)		Matrix: Water			Batch: 23D0367			
Bis(2-Chloroethoxy) methane	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
Hexachlorobenzene	ND	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
Hexachlorobutadiene	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.481	0.962	ug/L	10	04/13/23 16:39	EPA 8270E	
Hexachloroethane	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
2-Chloronaphthalene	ND	0.0962	0.192	ug/L	10	04/13/23 16:39	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
Aniline	ND	0.481	0.962	ug/L	10	04/13/23 16:39	EPA 8270E	
4-Chloroaniline	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
2-Nitroaniline	ND	1.92	3.85	ug/L	10	04/13/23 16:39	EPA 8270E	
3-Nitroaniline	ND	1.92	3.85	ug/L	10	04/13/23 16:39	EPA 8270E	
4-Nitroaniline	ND	1.92	3.85	ug/L	10	04/13/23 16:39	EPA 8270E	
Nitrobenzene	ND	0.962	1.92	ug/L	10	04/13/23 16:39	EPA 8270E	
2,4-Dinitrotoluene	ND	0.962	1.92	ug/L	10	04/13/23 16:39	EPA 8270E	
2,6-Dinitrotoluene	ND	0.962	1.92	ug/L	10	04/13/23 16:39	EPA 8270E	
Benzoic acid	ND	12.0	24.0	ug/L	10	04/13/23 16:39	EPA 8270E	
Benzyl alcohol	ND	0.962	1.92	ug/L	10	04/13/23 16:39	EPA 8270E	
Isophorone	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	2.40	4.81	ug/L	10	04/13/23 16:39	EPA 8270E	
3,3'-Dichlorobenzidine	ND	4.81	9.62	ug/L	10	04/13/23 16:39	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	2.40	4.81	ug/L	10	04/13/23 16:39	EPA 8270E	
1,3-Dinitrobenzene	ND	2.40	4.81	ug/L	10	04/13/23 16:39	EPA 8270E	
1,4-Dinitrobenzene	ND	2.40	4.81	ug/L	10	04/13/23 16:39	EPA 8270E	
Pyridine	ND	0.962	1.92	ug/L	10	04/13/23 16:39	EPA 8270E	
1,2-Dichlorobenzene	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
1,3-Dichlorobenzene	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
1,4-Dichlorobenzene	ND	0.240	0.481	ug/L	10	04/13/23 16:39	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 78 %		Limits: 44-120 %	10	04/13/23 16:39	EPA 8270E	Q-41

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3D0912 - 04 26 23 1335

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP-0423 (A3D0912-11RE1)		Matrix: Water			Batch: 23D0367			
Surrogate: 2-Fluorobiphenyl (Surr)		Recovery: 76 %	Limits: 44-120 %	10	04/13/23 16:39	EPA 8270E		
Phenol-d6 (Surr)		24 %	10-133 %	10	04/13/23 16:39	EPA 8270E		Q-41
p-Terphenyl-d14 (Surr)		93 %	50-134 %	10	04/13/23 16:39	EPA 8270E		
2-Fluorophenol (Surr)		33 %	19-120 %	10	04/13/23 16:39	EPA 8270E		
2,4,6-Tribromophenol (Surr)		100 %	43-140 %	10	04/13/23 16:39	EPA 8270E		
FIELD-0423 (A3D0912-12)		Matrix: Water			Batch: 23D0367			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.102	0.204	ug/L	1	04/13/23 16:05	EPA 8270E	A-01
Acenaphthene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
Acenaphthylene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
Anthracene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
Benz(a)anthracene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
Benzo(a)pyrene	ND	0.0153	0.0306	ug/L	1	04/13/23 16:05	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0153	0.0306	ug/L	1	04/13/23 16:05	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0153	0.0306	ug/L	1	04/13/23 16:05	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
Chrysene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
Fluoranthene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
Fluorene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
1-Methylnaphthalene	ND	0.0204	0.0408	ug/L	1	04/13/23 16:05	EPA 8270E	
2-Methylnaphthalene	ND	0.0204	0.0408	ug/L	1	04/13/23 16:05	EPA 8270E	
Naphthalene	ND	0.0204	0.0408	ug/L	1	04/13/23 16:05	EPA 8270E	
Phenanthrene	0.0121	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	J
Pyrene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
Carbazole	ND	0.0153	0.0306	ug/L	1	04/13/23 16:05	EPA 8270E	
Dibenzofuran	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
2-Chlorophenol	ND	0.0510	0.102	ug/L	1	04/13/23 16:05	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.102	0.204	ug/L	1	04/13/23 16:05	EPA 8270E	
2,4-Dichlorophenol	ND	0.0510	0.102	ug/L	1	04/13/23 16:05	EPA 8270E	
2,4-Dimethylphenol	ND	0.0510	0.102	ug/L	1	04/13/23 16:05	EPA 8270E	
2,4-Dinitrophenol	ND	0.255	0.510	ug/L	1	04/13/23 16:05	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.255	0.510	ug/L	1	04/13/23 16:05	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-EugeneProject Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FIELD-0423 (A3D0912-12)				Matrix: Water		Batch: 23D0367		
2-Methylphenol	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
2-Nitrophenol	ND	0.102	0.204	ug/L	1	04/13/23 16:05	EPA 8270E	
4-Nitrophenol	ND	0.102	0.204	ug/L	1	04/13/23 16:05	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.102	0.204	ug/L	1	04/13/23 16:05	EPA 8270E	
Phenol	ND	0.204	0.408	ug/L	1	04/13/23 16:05	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0510	0.102	ug/L	1	04/13/23 16:05	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0510	0.102	ug/L	1	04/13/23 16:05	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0510	0.102	ug/L	1	04/13/23 16:05	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.204	0.408	ug/L	1	04/13/23 16:05	EPA 8270E	
Butyl benzyl phthalate	ND	0.204	0.408	ug/L	1	04/13/23 16:05	EPA 8270E	
Diethylphthalate	ND	0.204	0.408	ug/L	1	04/13/23 16:05	EPA 8270E	
Dimethylphthalate	ND	0.204	0.408	ug/L	1	04/13/23 16:05	EPA 8270E	
Di-n-butylphthalate	ND	0.204	0.408	ug/L	1	04/13/23 16:05	EPA 8270E	
Di-n-octyl phthalate	ND	0.204	0.408	ug/L	1	04/13/23 16:05	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
Hexachlorobenzene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
Hexachlorobutadiene	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0510	0.102	ug/L	1	04/13/23 16:05	EPA 8270E	
Hexachloroethane	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
2-Chloronaphthalene	ND	0.0102	0.0204	ug/L	1	04/13/23 16:05	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
Aniline	ND	0.0510	0.102	ug/L	1	04/13/23 16:05	EPA 8270E	
4-Chloroaniline	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
2-Nitroaniline	ND	0.204	0.408	ug/L	1	04/13/23 16:05	EPA 8270E	
3-Nitroaniline	ND	0.204	0.408	ug/L	1	04/13/23 16:05	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3D0912 - 04 26 23 1335

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FIELD-0423 (A3D0912-12)		Matrix: Water			Batch: 23D0367			
4-Nitroaniline	ND	0.204	0.408	ug/L	1	04/13/23 16:05	EPA 8270E	
Nitrobenzene	ND	0.102	0.204	ug/L	1	04/13/23 16:05	EPA 8270E	
2,4-Dinitrotoluene	ND	0.102	0.204	ug/L	1	04/13/23 16:05	EPA 8270E	
2,6-Dinitrotoluene	ND	0.102	0.204	ug/L	1	04/13/23 16:05	EPA 8270E	
Benzoic acid	ND	1.28	2.55	ug/L	1	04/13/23 16:05	EPA 8270E	
Benzyl alcohol	ND	0.102	0.204	ug/L	1	04/13/23 16:05	EPA 8270E	
Isophorone	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.255	0.510	ug/L	1	04/13/23 16:05	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.510	1.02	ug/L	1	04/13/23 16:05	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.255	0.510	ug/L	1	04/13/23 16:05	EPA 8270E	
1,3-Dinitrobenzene	ND	0.255	0.510	ug/L	1	04/13/23 16:05	EPA 8270E	
1,4-Dinitrobenzene	ND	0.255	0.510	ug/L	1	04/13/23 16:05	EPA 8270E	
Pyridine	ND	0.102	0.204	ug/L	1	04/13/23 16:05	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0255	0.0510	ug/L	1	04/13/23 16:05	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	58 %	Limits:	44-120 %	1	04/13/23 16:05	EPA 8270E Q-41
2-Fluorobiphenyl (Surr)			45 %		44-120 %	1	04/13/23 16:05	EPA 8270E
Phenol-d6 (Surr)			16 %		10-133 %	1	04/13/23 16:05	EPA 8270E Q-41
p-Terphenyl-d14 (Surr)			77 %		50-134 %	1	04/13/23 16:05	EPA 8270E
2-Fluorophenol (Surr)			26 %		19-120 %	1	04/13/23 16:05	EPA 8270E
2,4,6-Tribromophenol (Surr)			70 %		43-140 %	1	04/13/23 16:05	EPA 8270E

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 18 of 44



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0435 - EPA 3510C (Acid Extraction)						Water						
Blank (23D0435-BLK1)			Prepared: 04/12/23 07:19		Analyzed: 04/13/23 10:35							
EPA 8270E												
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	A-01
Acenaphthene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0435 - EPA 3510C (Acid Extraction)						Water						
Blank (23D0435-BLK1)			Prepared: 04/12/23 07:19 Analyzed: 04/13/23 10:35									
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)												Q-41
			Recovery: 69 %	Limits: 44-120 %	Dilution: 1x							
2-Fluorobiphenyl (Surr)			52 %	44-120 %	"						Q-41	
Phenol-d6 (Surr)			18 %	10-133 %	"							
p-Terphenyl-d14 (Surr)			74 %	50-134 %	"							
2-Fluorophenol (Surr)			30 %	19-120 %	"							
2,4,6-Tribromophenol (Surr)			75 %	43-140 %	"							
LCS (23D0435-BS1)			Prepared: 04/12/23 07:19 Analyzed: 04/13/23 11:09									
EPA 8270E												
Acenaphthene	3.06	0.0400	0.0800	ug/L	4	4.00	---	76	47-122%	---	---	
Acenaphthylene	2.90	0.0400	0.0800	ug/L	4	4.00	---	72	41-130%	---	---	
Anthracene	3.44	0.0400	0.0800	ug/L	4	4.00	---	86	57-123%	---	---	
Benz(a)anthracene	3.59	0.0400	0.0800	ug/L	4	4.00	---	90	58-125%	---	---	
Benzo(a)pyrene	3.34	0.0600	0.120	ug/L	4	4.00	---	83	54-128%	---	---	
Benzo(b)fluoranthene	3.33	0.0600	0.120	ug/L	4	4.00	---	83	53-131%	---	---	
Benzo(k)fluoranthene	3.38	0.0600	0.120	ug/L	4	4.00	---	85	57-129%	---	---	
Benzo(g,h,i)perylene	3.83	0.0400	0.0800	ug/L	4	4.00	---	96	50-134%	---	---	
Chrysene	3.61	0.0400	0.0800	ug/L	4	4.00	---	90	59-123%	---	---	
Dibenz(a,h)anthracene	3.67	0.0400	0.0800	ug/L	4	4.00	---	92	51-134%	---	---	
Fluoranthene	3.65	0.0400	0.0800	ug/L	4	4.00	---	91	57-128%	---	---	
Fluorene	3.09	0.0400	0.0800	ug/L	4	4.00	---	77	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.44	0.0400	0.0800	ug/L	4	4.00	---	86	52-134%	---	---	
1-Methylnaphthalene	2.70	0.0800	0.160	ug/L	4	4.00	---	67	41-120%	---	---	
2-Methylnaphthalene	2.92	0.0800	0.160	ug/L	4	4.00	---	73	40-121%	---	---	
Naphthalene	2.60	0.0800	0.160	ug/L	4	4.00	---	65	40-121%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23D0435 - EPA 3510C (Acid Extraction)						Water							
LCS (23D0435-BS1)			Prepared: 04/12/23 07:19 Analyzed: 04/13/23 11:09										
Phenanthrene	3.25	0.0400	0.0800	ug/L	4	4.00	---	81	59-120%	---	---		
Pyrene	3.56	0.0400	0.0800	ug/L	4	4.00	---	89	57-126%	---	---		
Carbazole	3.89	0.0600	0.120	ug/L	4	4.00	---	97	60-122%	---	---		
Dibenzofuran	3.13	0.0400	0.0800	ug/L	4	4.00	---	78	53-120%	---	---		
2-Chlorophenol	2.95	0.200	0.400	ug/L	4	4.00	---	74	38-120%	---	---		
4-Chloro-3-methylphenol	3.29	0.400	0.800	ug/L	4	4.00	---	82	52-120%	---	---		
2,4-Dichlorophenol	3.49	0.200	0.400	ug/L	4	4.00	---	87	47-121%	---	---		
2,4-Dimethylphenol	2.80	0.200	0.400	ug/L	4	4.00	---	70	31-124%	---	---		
2,4-Dinitrophenol	4.31	1.00	2.00	ug/L	4	4.00	---	108	23-143%	---	---	Q-41	
4,6-Dinitro-2-methylphenol	3.78	1.00	2.00	ug/L	4	4.00	---	95	44-137%	---	---		
2-Methylphenol	2.84	0.100	0.200	ug/L	4	4.00	---	71	30-120%	---	---	Q-41	
3+4-Methylphenol(s)	2.78	0.100	0.200	ug/L	4	4.00	---	70	29-120%	---	---		
2-Nitrophenol	3.57	0.400	0.800	ug/L	4	4.00	---	89	47-123%	---	---	Q-41	
4-Nitrophenol	1.36	0.400	0.800	ug/L	4	4.00	---	34	10-120%	---	---		
Pentachlorophenol (PCP)	3.45	0.400	0.800	ug/L	4	4.00	---	86	35-138%	---	---		
Phenol	1.22	0.800	0.800	ug/L	4	4.00	---	30	10-120%	---	---		
2,3,4,6-Tetrachlorophenol	3.37	0.200	0.400	ug/L	4	4.00	---	84	50-128%	---	---		
2,3,5,6-Tetrachlorophenol	3.51	0.200	0.400	ug/L	4	4.00	---	88	50-121%	---	---		
2,4,5-Trichlorophenol	3.53	0.200	0.400	ug/L	4	4.00	---	88	53-123%	---	---		
2,4,6-Trichlorophenol	3.31	0.200	0.400	ug/L	4	4.00	---	83	50-125%	---	---		
Bis(2-ethylhexyl)phthalate	3.89	0.800	1.60	ug/L	4	4.00	---	97	55-135%	---	---		
Butyl benzyl phthalate	4.22	0.800	1.60	ug/L	4	4.00	---	106	53-134%	---	---		
Diethylphthalate	3.36	0.800	1.60	ug/L	4	4.00	---	84	56-125%	---	---		
Dimethylphthalate	3.39	0.800	1.60	ug/L	4	4.00	---	85	45-127%	---	---		
Di-n-butylphthalate	4.13	0.800	1.60	ug/L	4	4.00	---	103	59-127%	---	---		
Di-n-octyl phthalate	3.65	0.800	1.60	ug/L	4	4.00	---	91	51-140%	---	---		
Surr: Nitrobenzene-d5 (Surr)		Recovery: 82 %		Limits: 44-120 %		Dilution: 4x							Q-41
2-Fluorobiphenyl (Surr)		72 %		44-120 %		"							
Phenol-d6 (Surr)		26 %		10-133 %		"							Q-41
p-Terphenyl-d14 (Surr)		86 %		50-134 %		"							
2-Fluorophenol (Surr)		38 %		19-120 %		"							
2,4,6-Tribromophenol (Surr)		84 %		43-140 %		"							

LCS Dup (23D0435-BSD1)

Prepared: 04/12/23 07:19 Analyzed: 04/13/23 11:42

Q-19

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3D0912 - 04 26 23 1335

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0435 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (23D0435-BSD1)			Prepared: 04/12/23 07:19		Analyzed: 04/13/23 11:42		Q-19					
EPA 8270E												
Acenaphthene	3.04	0.0400	0.0800	ug/L	4	4.00	---	76	47-122%	0.6	30%	
Acenaphthylene	2.90	0.0400	0.0800	ug/L	4	4.00	---	72	41-130%	0.02	30%	
Anthracene	3.39	0.0400	0.0800	ug/L	4	4.00	---	85	57-123%	1	30%	
Benz(a)anthracene	3.58	0.0400	0.0800	ug/L	4	4.00	---	90	58-125%	0.3	30%	
Benzo(a)pyrene	3.40	0.0600	0.120	ug/L	4	4.00	---	85	54-128%	2	30%	
Benzo(b)fluoranthene	3.35	0.0600	0.120	ug/L	4	4.00	---	84	53-131%	0.5	30%	
Benzo(k)fluoranthene	3.46	0.0600	0.120	ug/L	4	4.00	---	87	57-129%	2	30%	
Benzo(g,h,i)perylene	3.85	0.0400	0.0800	ug/L	4	4.00	---	96	50-134%	0.5	30%	
Chrysene	3.64	0.0400	0.0800	ug/L	4	4.00	---	91	59-123%	0.8	30%	
Dibenz(a,h)anthracene	3.71	0.0400	0.0800	ug/L	4	4.00	---	93	51-134%	1	30%	
Fluoranthene	3.52	0.0400	0.0800	ug/L	4	4.00	---	88	57-128%	4	30%	
Fluorene	3.02	0.0400	0.0800	ug/L	4	4.00	---	75	52-124%	2	30%	
Indeno(1,2,3-cd)pyrene	3.48	0.0400	0.0800	ug/L	4	4.00	---	87	52-134%	1	30%	
1-Methylnaphthalene	2.76	0.0800	0.160	ug/L	4	4.00	---	69	41-120%	2	30%	
2-Methylnaphthalene	2.96	0.0800	0.160	ug/L	4	4.00	---	74	40-121%	1	30%	
Naphthalene	2.67	0.0800	0.160	ug/L	4	4.00	---	67	40-121%	3	30%	
Phenanthrene	3.22	0.0400	0.0800	ug/L	4	4.00	---	80	59-120%	1	30%	
Pyrene	3.49	0.0400	0.0800	ug/L	4	4.00	---	87	57-126%	2	30%	
Carbazole	3.72	0.0600	0.120	ug/L	4	4.00	---	93	60-122%	4	30%	
Dibenzofuran	3.13	0.0400	0.0800	ug/L	4	4.00	---	78	53-120%	0.2	30%	
2-Chlorophenol	3.11	0.200	0.400	ug/L	4	4.00	---	78	38-120%	5	30%	
4-Chloro-3-methylphenol	3.35	0.400	0.800	ug/L	4	4.00	---	84	52-120%	2	30%	
2,4-Dichlorophenol	3.50	0.200	0.400	ug/L	4	4.00	---	87	47-121%	0.3	30%	
2,4-Dimethylphenol	2.94	0.200	0.400	ug/L	4	4.00	---	73	31-124%	5	30%	
2,4-Dinitrophenol	4.06	1.00	2.00	ug/L	4	4.00	---	102	23-143%	6	30%	Q-41
4,6-Dinitro-2-methylphenol	3.53	1.00	2.00	ug/L	4	4.00	---	88	44-137%	7	30%	
2-Methylphenol	3.07	0.100	0.200	ug/L	4	4.00	---	77	30-120%	8	30%	Q-41
3+4-Methylphenol(s)	2.97	0.100	0.200	ug/L	4	4.00	---	74	29-120%	7	30%	
2-Nitrophenol	3.55	0.400	0.800	ug/L	4	4.00	---	89	47-123%	0.3	30%	Q-41
4-Nitrophenol	1.32	0.400	0.800	ug/L	4	4.00	---	33	10-120%	3	30%	
Pentachlorophenol (PCP)	3.32	0.400	0.800	ug/L	4	4.00	---	83	35-138%	4	30%	
Phenol	1.32	0.800	0.800	ug/L	4	4.00	---	33	10-120%	8	30%	
2,3,4,6-Tetrachlorophenol	3.22	0.200	0.400	ug/L	4	4.00	---	81	50-128%	5	30%	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 22 of 44



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0435 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (23D0435-BSD1)					Prepared: 04/12/23 07:19 Analyzed: 04/13/23 11:42						Q-19	
2,3,5,6-Tetrachlorophenol	3.45	0.200	0.400	ug/L	4	4.00	---	86	50-121%	2	30%	
2,4,5-Trichlorophenol	3.50	0.200	0.400	ug/L	4	4.00	---	88	53-123%	0.8	30%	
2,4,6-Trichlorophenol	3.35	0.200	0.400	ug/L	4	4.00	---	84	50-125%	1	30%	
Bis(2-ethylhexyl)phthalate	3.84	0.800	1.60	ug/L	4	4.00	---	96	55-135%	1	30%	
Butyl benzyl phthalate	4.01	0.800	1.60	ug/L	4	4.00	---	100	53-134%	5	30%	
Diethylphthalate	3.29	0.800	1.60	ug/L	4	4.00	---	82	56-125%	2	30%	
Dimethylphthalate	3.44	0.800	1.60	ug/L	4	4.00	---	86	45-127%	1	30%	
Di-n-butylphthalate	4.03	0.800	1.60	ug/L	4	4.00	---	101	59-127%	2	30%	
Di-n-octyl phthalate	3.64	0.800	1.60	ug/L	4	4.00	---	91	51-140%	0.4	30%	
<i>Surr: Nitrobenzene-d5 (Surr)</i>												
		Recovery: 86 %		Limits: 44-120 %		Dilution: 4x						
		75 %		44-120 %		"						
		29 %		10-133 %		"						
		87 %		50-134 %		"						
		41 %		19-120 %		"						
		82 %		43-140 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (23D0367-BLK1)			Prepared: 04/11/23 07:10		Analyzed: 04/11/23 13:47							
EPA 8270E												
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	A-01
Acenaphthene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (23D0367-BLK1)			Prepared: 04/11/23 07:10		Analyzed: 04/11/23 13:47							
2,3,4,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Aniline	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
4-Chloroaniline	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2-Nitroaniline	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
3-Nitroaniline	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
4-Nitroaniline	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Benzoic acid	ND	1.25	2.50	ug/L	1	---	---	---	---	---	---	
Benzyl alcohol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (23D0367-BLK1)			Prepared: 04/11/23 07:10		Analyzed: 04/11/23 13:47							
Isophorone	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	Q-52
Azobenzene (1,2-DPH)	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Pyridine	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)			Recovery: 51 %		Limits: 44-120 %		Dilution: 1x		Q-41			
2-Fluorobiphenyl (Surr)			42 %		44-120 %		"		S-06			
Phenol-d6 (Surr)			13 %		10-133 %		"		Q-41			
p-Terphenyl-d14 (Surr)			78 %		50-134 %		"					
2-Fluorophenol (Surr)			22 %		19-120 %		"					
2,4,6-Tribromophenol (Surr)			58 %		43-140 %		"					
LCS (23D0367-BS1)			Prepared: 04/11/23 07:10		Analyzed: 04/11/23 14:21							
EPA 8270E												
Acenaphthene	2.88	0.0400	0.0800	ug/L	4	4.00	---	72	47-122%	---	---	
Acenaphthylene	2.68	0.0400	0.0800	ug/L	4	4.00	---	67	41-130%	---	---	
Anthracene	3.73	0.0400	0.0800	ug/L	4	4.00	---	93	57-123%	---	---	
Benz(a)anthracene	4.03	0.0400	0.0800	ug/L	4	4.00	---	101	58-125%	---	---	
Benzo(a)pyrene	3.73	0.0600	0.120	ug/L	4	4.00	---	93	54-128%	---	---	
Benzo(b)fluoranthene	3.76	0.0600	0.120	ug/L	4	4.00	---	94	53-131%	---	---	
Benzo(k)fluoranthene	3.80	0.0600	0.120	ug/L	4	4.00	---	95	57-129%	---	---	
Benzo(g,h,i)perylene	4.25	0.0400	0.0800	ug/L	4	4.00	---	106	50-134%	---	---	
Chrysene	4.04	0.0400	0.0800	ug/L	4	4.00	---	101	59-123%	---	---	
Dibenz(a,h)anthracene	4.12	0.0400	0.0800	ug/L	4	4.00	---	103	51-134%	---	---	
Fluoranthene	4.02	0.0400	0.0800	ug/L	4	4.00	---	100	57-128%	---	---	
Fluorene	3.10	0.0400	0.0800	ug/L	4	4.00	---	78	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.87	0.0400	0.0800	ug/L	4	4.00	---	97	52-134%	---	---	
1-Methylnaphthalene	2.43	0.0800	0.160	ug/L	4	4.00	---	61	41-120%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (23D0367-BS1)			Prepared: 04/11/23 07:10		Analyzed: 04/11/23 14:21							
2-Methylnaphthalene	2.57	0.0800	0.160	ug/L	4	4.00	---	64	40-121%	---	---	
Naphthalene	2.28	0.0800	0.160	ug/L	4	4.00	---	57	40-121%	---	---	
Phenanthrene	3.53	0.0400	0.0800	ug/L	4	4.00	---	88	59-120%	---	---	
Pyrene	4.00	0.0400	0.0800	ug/L	4	4.00	---	100	57-126%	---	---	
Carbazole	4.29	0.0600	0.120	ug/L	4	4.00	---	107	60-122%	---	---	
Dibenzofuran	3.02	0.0400	0.0800	ug/L	4	4.00	---	76	53-120%	---	---	
2-Chlorophenol	2.30	0.200	0.400	ug/L	4	4.00	---	57	38-120%	---	---	
4-Chloro-3-methylphenol	3.11	0.400	0.800	ug/L	4	4.00	---	78	52-120%	---	---	
2,4-Dichlorophenol	2.90	0.200	0.400	ug/L	4	4.00	---	72	47-121%	---	---	Q-41
2,4-Dimethylphenol	2.60	0.200	0.400	ug/L	4	4.00	---	65	31-124%	---	---	
2,4-Dinitrophenol	3.92	1.00	2.00	ug/L	4	4.00	---	98	23-143%	---	---	Q-41
4,6-Dinitro-2-methylphenol	3.74	1.00	2.00	ug/L	4	4.00	---	94	44-137%	---	---	
2-Methylphenol	2.48	0.100	0.200	ug/L	4	4.00	---	62	30-120%	---	---	Q-41
3+4-Methylphenol(s)	2.46	0.100	0.200	ug/L	4	4.00	---	62	29-120%	---	---	
2-Nitrophenol	3.29	0.400	0.800	ug/L	4	4.00	---	82	47-123%	---	---	Q-41
4-Nitrophenol	1.48	0.400	0.800	ug/L	4	4.00	---	37	10-120%	---	---	
Pentachlorophenol (PCP)	3.77	0.400	0.800	ug/L	4	4.00	---	94	35-138%	---	---	
Phenol	1.09	0.800	0.800	ug/L	4	4.00	---	27	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	3.44	0.200	0.400	ug/L	4	4.00	---	86	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	3.69	0.200	0.400	ug/L	4	4.00	---	92	50-121%	---	---	
2,4,5-Trichlorophenol	3.35	0.200	0.400	ug/L	4	4.00	---	84	53-123%	---	---	
2,4,6-Trichlorophenol	3.05	0.200	0.400	ug/L	4	4.00	---	76	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	4.41	0.800	1.60	ug/L	4	4.00	---	110	55-135%	---	---	
Butyl benzyl phthalate	4.62	0.800	1.60	ug/L	4	4.00	---	116	53-134%	---	---	
Diethylphthalate	3.67	0.800	1.60	ug/L	4	4.00	---	92	56-125%	---	---	
Dimethylphthalate	3.57	0.800	1.60	ug/L	4	4.00	---	89	45-127%	---	---	
Di-n-butylphthalate	4.59	0.800	1.60	ug/L	4	4.00	---	115	59-127%	---	---	
Di-n-octyl phthalate	4.13	0.800	1.60	ug/L	4	4.00	---	103	51-140%	---	---	
N-Nitrosodimethylamine	1.55	0.100	0.200	ug/L	4	4.00	---	39	19-120%	---	---	
N-Nitroso-di-n-propylamine	2.77	0.100	0.200	ug/L	4	4.00	---	69	49-120%	---	---	
N-Nitrosodiphenylamine	3.66	0.100	0.200	ug/L	4	4.00	---	91	51-123%	---	---	
Bis(2-Chloroethoxy) methane	2.98	0.100	0.200	ug/L	4	4.00	---	74	48-120%	---	---	Q-41
Bis(2-Chloroethyl) ether	2.11	0.100	0.200	ug/L	4	4.00	---	53	43-120%	---	---	Q-41
2,2'-Oxybis(1-Chloropropane)	2.19	0.100	0.200	ug/L	4	4.00	---	55	41-120%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (23D0367-BS1)			Prepared: 04/11/23 07:10		Analyzed: 04/11/23 14:21							
Hexachlorobenzene	3.36	0.0400	0.0800	ug/L	4	4.00	---	84	53-125%	---	---	Q-41
Hexachlorobutadiene	1.79	0.100	0.200	ug/L	4	4.00	---	45	22-124%	---	---	
Hexachlorocyclopentadiene	2.28	0.200	0.400	ug/L	4	4.00	---	57	10-127%	---	---	
Hexachloroethane	1.77	0.100	0.200	ug/L	4	4.00	---	44	21-120%	---	---	
2-Chloronaphthalene	2.81	0.0400	0.0800	ug/L	4	4.00	---	70	40-120%	---	---	
1,2,4-Trichlorobenzene	2.05	0.100	0.200	ug/L	4	4.00	---	51	29-120%	---	---	Q-31
4-Bromophenyl phenyl ether	3.61	0.100	0.200	ug/L	4	4.00	---	90	55-124%	---	---	
4-Chlorophenyl phenyl ether	3.28	0.100	0.200	ug/L	4	4.00	---	82	53-121%	---	---	
Aniline	1.31	0.200	0.400	ug/L	4	4.00	---	33	10-120%	---	---	
4-Chloroaniline	2.09	0.100	0.200	ug/L	4	4.00	---	52	33-120%	---	---	
2-Nitroaniline	3.46	0.800	1.60	ug/L	4	4.00	---	87	55-127%	---	---	Q-41
3-Nitroaniline	3.19	0.800	1.60	ug/L	4	4.00	---	80	41-128%	---	---	
4-Nitroaniline	4.04	0.800	1.60	ug/L	4	4.00	---	101	25-120%	---	---	
Nitrobenzene	2.82	0.400	0.800	ug/L	4	4.00	---	71	45-121%	---	---	
2,4-Dinitrotoluene	3.71	0.400	0.800	ug/L	4	4.00	---	93	57-128%	---	---	
2,6-Dinitrotoluene	3.61	0.400	0.800	ug/L	4	4.00	---	90	57-124%	---	---	Q-29, Q-31, Q-52
Benzoic acid	4.26	4.00	4.00	ug/L	4	8.00	---	53	10-120%	---	---	
Benzyl alcohol	2.31	0.400	0.800	ug/L	4	4.00	---	58	31-120%	---	---	
Isophorone	2.65	0.100	0.200	ug/L	4	4.00	---	66	42-124%	---	---	
Azobenzene (1,2-DPH)	3.55	0.100	0.200	ug/L	4	4.00	---	89	61-120%	---	---	
Bis(2-Ethylhexyl) adipate	4.54	1.00	2.00	ug/L	4	4.00	---	114	63-121%	---	---	
3,3'-Dichlorobenzidine	14.0	2.00	4.00	ug/L	4	8.00	---	175	27-129%	---	---	
1,2-Dinitrobenzene	3.54	1.00	2.00	ug/L	4	4.00	---	89	59-120%	---	---	
1,3-Dinitrobenzene	3.69	1.00	2.00	ug/L	4	4.00	---	92	49-128%	---	---	
1,4-Dinitrobenzene	3.76	1.00	2.00	ug/L	4	4.00	---	94	54-120%	---	---	
Pyridine	1.13	0.400	0.800	ug/L	4	4.00	---	28	10-120%	---	---	
1,2-Dichlorobenzene	1.88	0.100	0.200	ug/L	4	4.00	---	47	32-120%	---	---	
1,3-Dichlorobenzene	1.77	0.100	0.200	ug/L	4	4.00	---	44	28-120%	---	---	
1,4-Dichlorobenzene	1.82	0.100	0.200	ug/L	4	4.00	---	46	29-120%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 70 %		Limits: 44-120 %		Dilution: 4x		Q-41				
2-Fluorobiphenyl (Surr)		69 %		44-120 %		"						
Phenol-d6 (Surr)		22 %		10-133 %		"		Q-41				
p-Terphenyl-d14 (Surr)		108 %		50-134 %		"						
2-Fluorophenol (Surr)		31 %		19-120 %		"						

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)						Water							
LCS (23D0367-BS1)			Prepared: 04/11/23 07:10			Analyzed: 04/11/23 14:21							
Surr: 2,4,6-Tribromophenol (Surr)		Recovery: 94 %		Limits: 43-140 %		Dilution: 4x							
LCS Dup (23D0367-BSD1)			Prepared: 04/11/23 07:10			Analyzed: 04/11/23 14:55							Q-19
EPA 8270E													
Acenaphthene	3.20	0.0400	0.0800	ug/L	4	4.00	---	80	47-122%	10	30%		
Acenaphthylene	2.99	0.0400	0.0800	ug/L	4	4.00	---	75	41-130%	11	30%		
Anthracene	3.67	0.0400	0.0800	ug/L	4	4.00	---	92	57-123%	2	30%		
Benz(a)anthracene	3.90	0.0400	0.0800	ug/L	4	4.00	---	97	58-125%	3	30%		
Benzo(a)pyrene	3.63	0.0600	0.120	ug/L	4	4.00	---	91	54-128%	3	30%		
Benzo(b)fluoranthene	3.64	0.0600	0.120	ug/L	4	4.00	---	91	53-131%	3	30%		
Benzo(k)fluoranthene	3.73	0.0600	0.120	ug/L	4	4.00	---	93	57-129%	2	30%		
Benzo(g,h,i)perylene	4.09	0.0400	0.0800	ug/L	4	4.00	---	102	50-134%	4	30%		
Chrysene	3.90	0.0400	0.0800	ug/L	4	4.00	---	98	59-123%	4	30%		
Dibenz(a,h)anthracene	3.97	0.0400	0.0800	ug/L	4	4.00	---	99	51-134%	4	30%		
Fluoranthene	3.93	0.0400	0.0800	ug/L	4	4.00	---	98	57-128%	2	30%		
Fluorene	3.26	0.0400	0.0800	ug/L	4	4.00	---	81	52-124%	5	30%		
Indeno(1,2,3-cd)pyrene	3.74	0.0400	0.0800	ug/L	4	4.00	---	94	52-134%	3	30%		
1-Methylnaphthalene	2.89	0.0800	0.160	ug/L	4	4.00	---	72	41-120%	17	30%		
2-Methylnaphthalene	3.15	0.0800	0.160	ug/L	4	4.00	---	79	40-121%	20	30%		
Naphthalene	2.76	0.0800	0.160	ug/L	4	4.00	---	69	40-121%	19	30%		
Phenanthrene	3.49	0.0400	0.0800	ug/L	4	4.00	---	87	59-120%	1	30%		
Pyrene	3.86	0.0400	0.0800	ug/L	4	4.00	---	97	57-126%	3	30%		
Carbazole	4.12	0.0600	0.120	ug/L	4	4.00	---	103	60-122%	4	30%		
Dibenzofuran	3.33	0.0400	0.0800	ug/L	4	4.00	---	83	53-120%	10	30%		
2-Chlorophenol	2.86	0.200	0.400	ug/L	4	4.00	---	72	38-120%	22	30%		
4-Chloro-3-methylphenol	3.43	0.400	0.800	ug/L	4	4.00	---	86	52-120%	10	30%		
2,4-Dichlorophenol	3.48	0.200	0.400	ug/L	4	4.00	---	87	47-121%	18	30%	Q-41	
2,4-Dimethylphenol	3.06	0.200	0.400	ug/L	4	4.00	---	77	31-124%	16	30%		
2,4-Dinitrophenol	3.95	1.00	2.00	ug/L	4	4.00	---	99	23-143%	0.8	30%	Q-41	
4,6-Dinitro-2-methylphenol	3.65	1.00	2.00	ug/L	4	4.00	---	91	44-137%	2	30%		
2-Methylphenol	3.00	0.100	0.200	ug/L	4	4.00	---	75	30-120%	19	30%	Q-41	
3+4-Methylphenol(s)	2.90	0.100	0.200	ug/L	4	4.00	---	72	29-120%	16	30%		
2-Nitrophenol	4.21	0.400	0.800	ug/L	4	4.00	---	105	47-123%	25	30%	Q-41	
4-Nitrophenol	1.46	0.400	0.800	ug/L	4	4.00	---	36	10-120%	2	30%		

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3D0912 - 04 26 23 1335

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (23D0367-BSD1)					Prepared: 04/11/23 07:10 Analyzed: 04/11/23 14:55						Q-19	
Pentachlorophenol (PCP)	3.73	0.400	0.800	ug/L	4	4.00	---	93	35-138%	1	30%	
Phenol	1.35	0.800	0.800	ug/L	4	4.00	---	34	10-120%	22	30%	
2,3,4,6-Tetrachlorophenol	3.54	0.200	0.400	ug/L	4	4.00	---	88	50-128%	3	30%	
2,3,5,6-Tetrachlorophenol	3.75	0.200	0.400	ug/L	4	4.00	---	94	50-121%	2	30%	
2,4,5-Trichlorophenol	3.62	0.200	0.400	ug/L	4	4.00	---	91	53-123%	8	30%	
2,4,6-Trichlorophenol	3.39	0.200	0.400	ug/L	4	4.00	---	85	50-125%	11	30%	
Bis(2-ethylhexyl)phthalate	4.22	0.800	1.60	ug/L	4	4.00	---	106	55-135%	4	30%	
Butyl benzyl phthalate	4.49	0.800	1.60	ug/L	4	4.00	---	112	53-134%	3	30%	
Diethylphthalate	3.63	0.800	1.60	ug/L	4	4.00	---	91	56-125%	1	30%	
Dimethylphthalate	3.63	0.800	1.60	ug/L	4	4.00	---	91	45-127%	2	30%	
Di-n-butylphthalate	4.50	0.800	1.60	ug/L	4	4.00	---	112	59-127%	2	30%	
Di-n-octyl phthalate	3.98	0.800	1.60	ug/L	4	4.00	---	100	51-140%	4	30%	
N-Nitrosodimethylamine	1.92	0.100	0.200	ug/L	4	4.00	---	48	19-120%	22	30%	
N-Nitroso-di-n-propylamine	3.45	0.100	0.200	ug/L	4	4.00	---	86	49-120%	22	30%	
N-Nitrosodiphenylamine	3.65	0.100	0.200	ug/L	4	4.00	---	91	51-123%	0.4	30%	
Bis(2-Chloroethoxy) methane	3.63	0.100	0.200	ug/L	4	4.00	---	91	48-120%	20	30%	Q-41
Bis(2-Chloroethyl) ether	2.74	0.100	0.200	ug/L	4	4.00	---	69	43-120%	26	30%	Q-41
2,2'-Oxybis(1-Chloropropane)	2.74	0.100	0.200	ug/L	4	4.00	---	69	41-120%	22	30%	
Hexachlorobenzene	3.33	0.0400	0.0800	ug/L	4	4.00	---	83	53-125%	1	30%	
Hexachlorobutadiene	2.23	0.100	0.200	ug/L	4	4.00	---	56	22-124%	22	30%	
Hexachlorocyclopentadiene	2.68	0.200	0.400	ug/L	4	4.00	---	67	10-127%	16	30%	Q-41
Hexachloroethane	2.19	0.100	0.200	ug/L	4	4.00	---	55	21-120%	21	30%	
2-Chloronaphthalene	3.27	0.0400	0.0800	ug/L	4	4.00	---	82	40-120%	15	30%	
1,2,4-Trichlorobenzene	2.54	0.100	0.200	ug/L	4	4.00	---	64	29-120%	22	30%	
4-Bromophenyl phenyl ether	3.67	0.100	0.200	ug/L	4	4.00	---	92	55-124%	1	30%	
4-Chlorophenyl phenyl ether	3.43	0.100	0.200	ug/L	4	4.00	---	86	53-121%	4	30%	
Aniline	1.28	0.200	0.400	ug/L	4	4.00	---	32	10-120%	2	30%	Q-31
4-Chloroaniline	2.87	0.100	0.200	ug/L	4	4.00	---	72	33-120%	31	30%	Q-24
2-Nitroaniline	3.65	0.800	1.60	ug/L	4	4.00	---	91	55-127%	5	30%	
3-Nitroaniline	2.94	0.800	1.60	ug/L	4	4.00	---	73	41-128%	8	30%	
4-Nitroaniline	3.86	0.800	1.60	ug/L	4	4.00	---	96	25-120%	5	30%	
Nitrobenzene	3.51	0.400	0.800	ug/L	4	4.00	---	88	45-121%	22	30%	Q-41
2,4-Dinitrotoluene	3.61	0.400	0.800	ug/L	4	4.00	---	90	57-128%	3	30%	
2,6-Dinitrotoluene	3.74	0.400	0.800	ug/L	4	4.00	---	93	57-124%	4	30%	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (23D0367-BSD1)					Prepared: 04/11/23 07:10 Analyzed: 04/11/23 14:55						Q-19	
Benzoic acid	4.39	4.00	4.00	ug/L	4	8.00	---	55	10-120%	3	30%	
Benzyl alcohol	2.83	0.400	0.800	ug/L	4	4.00	---	71	31-120%	20	30%	
Isophorone	3.13	0.100	0.200	ug/L	4	4.00	---	78	42-124%	16	30%	
Azobenzene (1,2-DPH)	3.58	0.100	0.200	ug/L	4	4.00	---	90	61-120%	0.9	30%	
Bis(2-Ethylhexyl) adipate	4.38	1.00	2.00	ug/L	4	4.00	---	109	63-121%	4	30%	
3,3'-Dichlorobenzidine	12.1	2.00	4.00	ug/L	4	8.00	---	152	27-129%	14	30%	Q-29, Q-31, Q-52
1,2-Dinitrobenzene	3.63	1.00	2.00	ug/L	4	4.00	---	91	59-120%	2	30%	
1,3-Dinitrobenzene	3.81	1.00	2.00	ug/L	4	4.00	---	95	49-128%	3	30%	
1,4-Dinitrobenzene	3.81	1.00	2.00	ug/L	4	4.00	---	95	54-120%	2	30%	
Pyridine	1.44	0.400	0.800	ug/L	4	4.00	---	36	10-120%	24	30%	
1,2-Dichlorobenzene	2.34	0.100	0.200	ug/L	4	4.00	---	59	32-120%	22	30%	
1,3-Dichlorobenzene	2.18	0.100	0.200	ug/L	4	4.00	---	54	28-120%	20	30%	
1,4-Dichlorobenzene	2.24	0.100	0.200	ug/L	4	4.00	---	56	29-120%	21	30%	
<i>Surr: Nitrobenzene-d5 (Surr) Recovery: 85 % Limits: 44-120 % Dilution: 4x Q-41</i>												
<i>2-Fluorobiphenyl (Surr) 79 % 44-120 % " Q-41</i>												
<i>Phenol-d6 (Surr) 26 % 10-133 % " Q-41</i>												
<i>p-Terphenyl-d14 (Surr) 101 % 50-134 % " Q-41</i>												
<i>2-Fluorophenol (Surr) 38 % 19-120 % " Q-41</i>												
<i>2,4,6-Tribromophenol (Surr) 90 % 43-140 % " Q-41</i>												

Matrix Spike (23D0367-MS1)

Prepared: 04/11/23 07:10 Analyzed: 04/11/23 15:57

QC Source Sample: R-2-0423 (A3D0912-08)

EPA 8270E

Acenaphthene	97.4	0.196	0.392	ug/L	20	3.92	93.2	107	47-122%	---	---	
Acenaphthylene	4.54	2.55	2.55	ug/L	20	3.92	ND	116	41-130%	---	---	
Anthracene	12.2	0.196	0.392	ug/L	20	3.92	10.0	56	57-123%	---	---	Q-03
Benz(a)anthracene	6.01	0.196	0.392	ug/L	20	3.92	3.83	56	58-125%	---	---	Q-03
Benzo(a)pyrene	4.29	0.294	0.588	ug/L	20	3.92	1.45	72	54-128%	---	---	
Benzo(b)fluoranthene	4.37	0.294	0.588	ug/L	20	3.92	1.75	67	53-131%	---	---	
Benzo(k)fluoranthene	3.96	0.294	0.588	ug/L	20	3.92	0.878	79	57-129%	---	---	
Benzo(g,h,i)perylene	4.00	0.196	0.392	ug/L	20	3.92	0.276	95	50-134%	---	---	
Chrysene	6.03	0.196	0.392	ug/L	20	3.92	3.80	57	59-123%	---	---	Q-03
Dibenz(a,h)anthracene	3.83	0.196	0.392	ug/L	20	3.92	ND	98	51-134%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)							Water					
Matrix Spike (23D0367-MS1)			Prepared: 04/11/23 07:10 Analyzed: 04/11/23 15:57									
QC Source Sample: R-2-0423 (A3D0912-08)												
Fluoranthene	23.7	0.196	0.392	ug/L	20	3.92	29.7	-152	57-128%	---	---	Q-03
Fluorene	46.0	0.196	0.392	ug/L	20	3.92	44.5	38	52-124%	---	---	Q-03
Indeno(1,2,3-cd)pyrene	3.64	0.196	0.392	ug/L	20	3.92	0.390	83	52-134%	---	---	
1-Methylnaphthalene	53.4	0.392	0.784	ug/L	20	3.92	38.3	386	41-120%	---	---	Q-03
2-Methylnaphthalene	6.78	0.392	0.784	ug/L	20	3.92	0.907	150	40-121%	---	---	Q-03
Naphthalene	3.40	0.784	0.784	ug/L	20	3.92	ND	87	40-121%	---	---	
Phenanthrene	38.3	0.196	0.392	ug/L	20	3.92	40.3	-49	59-120%	---	---	Q-03
Pyrene	20.5	0.196	0.392	ug/L	20	3.92	25.0	-116	57-126%	---	---	Q-03
Carbazole	4.41	0.588	0.588	ug/L	20	3.92	ND	112	60-122%	---	---	
Dibenzofuran	36.2	0.196	0.392	ug/L	20	3.92	31.4	123	53-120%	---	---	Q-03
2-Chlorophenol	2.89	0.980	1.96	ug/L	20	3.92	ND	74	38-120%	---	---	
4-Chloro-3-methylphenol	4.77	1.96	3.92	ug/L	20	3.92	ND	122	52-120%	---	---	Q-11
2,4-Dichlorophenol	4.58	0.980	1.96	ug/L	20	3.92	ND	88	47-121%	---	---	Q-41
2,4-Dimethylphenol	6.01	3.53	3.53	ug/L	20	3.92	ND	153	31-124%	---	---	Q-02
2,4-Dinitrophenol	7.11	4.90	9.80	ug/L	20	3.92	ND	181	23-143%	---	---	Q-11, Q-41, J
4,6-Dinitro-2-methylphenol	6.84	4.90	9.80	ug/L	20	3.92	ND	174	44-137%	---	---	Q-11, J
2-Methylphenol	3.43	0.980	0.980	ug/L	20	3.92	ND	87	30-120%	---	---	Q-41
3+4-Methylphenol(s)	3.71	0.490	0.980	ug/L	20	3.92	ND	95	29-120%	---	---	
2-Nitrophenol	5.09	1.96	3.92	ug/L	20	3.92	ND	130	47-123%	---	---	Q-11, Q-41
4-Nitrophenol	ND	7.65	7.65	ug/L	20	3.92	ND		10-120%	---	---	Q-02
Pentachlorophenol (PCP)	43.2	1.96	3.92	ug/L	20	3.92	39.6	92	35-138%	---	---	
Phenol	ND	3.92	7.84	ug/L	20	3.92	ND		10-120%	---	---	Q-11
2,3,4,6-Tetrachlorophenol	5.63	0.980	1.96	ug/L	20	3.92	2.05	91	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	5.09	0.980	1.96	ug/L	20	3.92	1.27	97	50-121%	---	---	
2,4,5-Trichlorophenol	4.64	0.980	1.96	ug/L	20	3.92	1.18	88	53-123%	---	---	
2,4,6-Trichlorophenol	4.05	0.980	1.96	ug/L	20	3.92	ND	103	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	5.63	3.92	7.84	ug/L	20	3.92	ND	143	55-135%	---	---	Q-11, J
Butyl benzyl phthalate	4.73	3.92	7.84	ug/L	20	3.92	ND	121	53-134%	---	---	J
Diethylphthalate	ND	3.92	7.84	ug/L	20	3.92	ND		56-125%	---	---	Q-11
Dimethylphthalate	ND	3.92	7.84	ug/L	20	3.92	ND		45-127%	---	---	Q-11
Di-n-butylphthalate	4.64	3.92	7.84	ug/L	20	3.92	ND	118	59-127%	---	---	J
Di-n-octyl phthalate	5.07	3.92	7.84	ug/L	20	3.92	ND	129	51-140%	---	---	J
N-Nitrosodimethylamine	1.65	0.490	0.980	ug/L	20	3.92	ND	42	19-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)							Water					
Matrix Spike (23D0367-MS1)			Prepared: 04/11/23 07:10		Analyzed: 04/11/23 15:57							
QC Source Sample: R-2-0423 (A3D0912-08)												
N-Nitroso-di-n-propylamine	3.66	0.980	0.980	ug/L	20	3.92	ND	93	49-120%	---	---	
N-Nitrosodiphenylamine	9.48	6.47	6.47	ug/L	20	3.92	ND	242	51-123%	---	---	Q-02
Bis(2-Chloroethoxy) methane	4.55	0.980	0.980	ug/L	20	3.92	ND	116	48-120%	---	---	Q-41
Bis(2-Chloroethyl) ether	2.60	0.490	0.980	ug/L	20	3.92	ND	66	43-120%	---	---	Q-41
2,2'-Oxybis(1-Chloropropane)	2.50	0.490	0.980	ug/L	20	3.92	ND	64	41-120%	---	---	
Hexachlorobenzene	3.52	0.196	0.392	ug/L	20	3.92	ND	90	53-125%	---	---	
Hexachlorobutadiene	2.29	0.490	0.980	ug/L	20	3.92	ND	58	22-124%	---	---	
Hexachlorocyclopentadiene	3.15	0.980	1.96	ug/L	20	3.92	ND	80	10-127%	---	---	Q-41
Hexachloroethane	1.80	0.490	0.980	ug/L	20	3.92	ND	46	21-120%	---	---	
2-Chloronaphthalene	3.57	0.392	0.392	ug/L	20	3.92	ND	91	40-120%	---	---	
1,2,4-Trichlorobenzene	2.55	0.490	0.980	ug/L	20	3.92	ND	65	29-120%	---	---	
4-Bromophenyl phenyl ether	3.82	0.490	0.980	ug/L	20	3.92	ND	97	55-124%	---	---	
4-Chlorophenyl phenyl ether	3.64	0.490	0.980	ug/L	20	3.92	ND	93	53-121%	---	---	
Aniline	1.94	0.980	1.96	ug/L	20	3.92	ND	50	10-120%	---	---	Q-31, J
4-Chloroaniline	4.10	0.490	0.980	ug/L	20	3.92	ND	105	33-120%	---	---	
2-Nitroaniline	4.43	3.92	7.84	ug/L	20	3.92	ND	113	55-127%	---	---	J
3-Nitroaniline	ND	3.92	7.84	ug/L	20	3.92	ND		41-128%	---	---	Q-11
4-Nitroaniline	5.54	3.92	7.84	ug/L	20	3.92	ND	141	25-120%	---	---	Q-11, J
Nitrobenzene	4.45	1.96	3.92	ug/L	20	3.92	ND	114	45-121%	---	---	Q-41
2,4-Dinitrotoluene	4.14	1.96	3.92	ug/L	20	3.92	ND	53	57-128%	---	---	Q-11
2,6-Dinitrotoluene	4.81	1.96	3.92	ug/L	20	3.92	ND	123	57-124%	---	---	
Benzoic acid	ND	49.0	49.0	ug/L	20	7.84	ND		10-120%	---	---	Q-02
Benzyl alcohol	3.27	1.96	3.92	ug/L	20	3.92	ND	83	31-120%	---	---	J
Isophorone	3.85	0.980	0.980	ug/L	20	3.92	ND	98	42-124%	---	---	
Azobenzene (1,2-DPH)	4.05	0.980	0.980	ug/L	20	3.92	ND	103	61-120%	---	---	
Bis(2-Ethylhexyl) adipate	5.08	4.90	9.80	ug/L	20	3.92	ND	129	63-121%	---	---	Q-11, J
3,3'-Dichlorobenzidine	ND	9.80	19.6	ug/L	20	7.84	ND		27-129%	---	---	Q-11, Q-31, Q-52
1,2-Dinitrobenzene	ND	4.90	9.80	ug/L	20	3.92	ND		59-120%	---	---	Q-11
1,3-Dinitrobenzene	ND	4.90	9.80	ug/L	20	3.92	ND		49-128%	---	---	Q-11
1,4-Dinitrobenzene	ND	4.90	9.80	ug/L	20	3.92	ND		54-120%	---	---	Q-11
Pyridine	ND	1.96	3.92	ug/L	20	3.92	ND		10-120%	---	---	Q-11
1,2-Dichlorobenzene	2.14	0.490	0.980	ug/L	20	3.92	ND	54	32-120%	---	---	
1,3-Dichlorobenzene	2.14	0.490	0.980	ug/L	20	3.92	ND	55	28-120%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 33 of 44



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-EugeneProject Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)						Water							
Matrix Spike (23D0367-MS1)			Prepared: 04/11/23 07:10 Analyzed: 04/11/23 15:57										
QC Source Sample: R-2-0423 (A3D0912-08)													
1,4-Dichlorobenzene	2.13	0.490	0.980	ug/L	20	3.92	ND	54	29-120%	---	---		
Surr: Nitrobenzene-d5 (Surr)		Recovery: 76 %		Limits: 44-120 %		Dilution: 20x							Q-41
2-Fluorobiphenyl (Surr)		89 %		44-120 %		"							
Phenol-d6 (Surr)		31 %		10-133 %		"							Q-41
p-Terphenyl-d14 (Surr)		89 %		50-134 %		"							
2-Fluorophenol (Surr)		33 %		19-120 %		"							
2,4,6-Tribromophenol (Surr)		109 %		43-140 %		"							
Matrix Spike Dup (23D0367-MSD1)			Prepared: 04/11/23 07:10 Analyzed: 04/11/23 16:30										
QC Source Sample: R-2-0423 (A3D0912-08)													
EPA 8270E													
Acenaphthene	93.2	0.194	0.388	ug/L	20	3.88	93.2	0.9	47-122%	4	30%	Q-03	
Acenaphthylene	4.51	2.52	2.52	ug/L	20	3.88	ND	116	41-130%	0.8	30%		
Anthracene	11.8	0.194	0.388	ug/L	20	3.88	10.0	44	57-123%	4	30%	Q-03	
Benz(a)anthracene	5.98	0.194	0.388	ug/L	20	3.88	3.83	55	58-125%	0.5	30%	Q-03	
Benzo(a)pyrene	4.27	0.291	0.583	ug/L	20	3.88	1.45	72	54-128%	0.6	30%		
Benzo(b)fluoranthene	4.23	0.291	0.583	ug/L	20	3.88	1.75	64	53-131%	3	30%		
Benzo(k)fluoranthene	3.93	0.291	0.583	ug/L	20	3.88	0.878	79	57-129%	0.7	30%		
Benzo(g,h,i)perylene	3.87	0.194	0.388	ug/L	20	3.88	0.276	93	50-134%	3	30%		
Chrysene	6.01	0.194	0.388	ug/L	20	3.88	3.80	57	59-123%	0.3	30%	Q-03	
Dibenz(a,h)anthracene	3.77	0.194	0.388	ug/L	20	3.88	ND	97	51-134%	2	30%		
Fluoranthene	23.7	0.194	0.388	ug/L	20	3.88	29.7	-154	57-128%	0.2	30%	Q-03	
Fluorene	44.9	0.194	0.388	ug/L	20	3.88	44.5	10	52-124%	2	30%	Q-03	
Indeno(1,2,3-cd)pyrene	3.68	0.194	0.388	ug/L	20	3.88	0.390	85	52-134%	1	30%		
1-Methylnaphthalene	45.2	0.388	0.777	ug/L	20	3.88	38.3	179	41-120%	17	30%	Q-03	
2-Methylnaphthalene	4.63	0.388	0.777	ug/L	20	3.88	0.907	96	40-121%	38	30%	Q-03	
Naphthalene	3.33	0.777	0.777	ug/L	20	3.88	ND	86	40-121%	2	30%		
Phenanthrene	35.6	0.194	0.388	ug/L	20	3.88	40.3	-121	59-120%	7	30%	Q-03	
Pyrene	20.4	0.194	0.388	ug/L	20	3.88	25.0	-118	57-126%	0.2	30%	Q-03	
Carbazole	4.43	0.583	0.583	ug/L	20	3.88	ND	114	60-122%	0.4	30%		
Dibenzofuran	34.8	0.194	0.388	ug/L	20	3.88	31.4	89	53-120%	4	30%		
2-Chlorophenol	2.78	0.971	1.94	ug/L	20	3.88	ND	72	38-120%	4	30%		
4-Chloro-3-methylphenol	4.85	1.94	3.88	ug/L	20	3.88	ND	125	52-120%	2	30%	Q-11	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)						Water						
Matrix Spike Dup (23D0367-MSD1)			Prepared: 04/11/23 07:10		Analyzed: 04/11/23 16:30							
QC Source Sample: R-2-0423 (A3D0912-08)												
2,4-Dichlorophenol	4.55	0.971	1.94	ug/L	20	3.88	ND	88	47-121%	0.7	30%	Q-41
2,4-Dimethylphenol	5.69	3.50	3.50	ug/L	20	3.88	ND	147	31-124%	5	30%	Q-02
2,4-Dinitrophenol	7.28	4.85	9.71	ug/L	20	3.88	ND	187	23-143%	2	30%	Q-11, Q-41, J
4,6-Dinitro-2-methylphenol	6.73	4.85	9.71	ug/L	20	3.88	ND	173	44-137%	2	30%	Q-11, J
2-Methylphenol	3.47	0.971	0.971	ug/L	20	3.88	ND	89	30-120%	1	30%	Q-41
3+4-Methylphenol(s)	3.66	0.485	0.971	ug/L	20	3.88	ND	94	29-120%	1	30%	
2-Nitrophenol	5.08	1.94	3.88	ug/L	20	3.88	ND	131	47-123%	0.2	30%	Q-11, Q-41
4-Nitrophenol	ND	7.57	7.57	ug/L	20	3.88	ND		10-120%		30%	Q-02
Pentachlorophenol (PCP)	44.8	1.94	3.88	ug/L	20	3.88	39.6	133	35-138%	4	30%	
Phenol	ND	3.88	7.77	ug/L	20	3.88	ND		10-120%		30%	Q-11
2,3,4,6-Tetrachlorophenol	5.67	0.971	1.94	ug/L	20	3.88	2.05	93	50-128%	0.7	30%	
2,3,5,6-Tetrachlorophenol	5.41	0.971	1.94	ug/L	20	3.88	1.27	106	50-121%	6	30%	
2,4,5-Trichlorophenol	4.58	0.971	1.94	ug/L	20	3.88	1.18	88	53-123%	1	30%	
2,4,6-Trichlorophenol	3.98	0.971	1.94	ug/L	20	3.88	ND	102	50-125%	2	30%	
Bis(2-ethylhexyl)phthalate	5.71	3.88	7.77	ug/L	20	3.88	ND	147	55-135%	2	30%	Q-11, J
Butyl benzyl phthalate	4.70	3.88	7.77	ug/L	20	3.88	ND	121	53-134%	0.8	30%	J
Diethylphthalate	ND	3.88	7.77	ug/L	20	3.88	ND		56-125%		30%	Q-11
Dimethylphthalate	ND	3.88	7.77	ug/L	20	3.88	ND		45-127%		30%	Q-11
Di-n-butylphthalate	4.72	3.88	7.77	ug/L	20	3.88	ND	122	59-127%	2	30%	J
Di-n-octyl phthalate	4.88	3.88	7.77	ug/L	20	3.88	ND	126	51-140%	4	30%	J
N-Nitrosodimethylamine	1.69	0.485	0.971	ug/L	20	3.88	ND	44	19-120%	3	30%	
N-Nitroso-di-n-propylamine	3.52	0.971	0.971	ug/L	20	3.88	ND	91	49-120%	4	30%	
N-Nitrosodiphenylamine	9.16	6.41	6.41	ug/L	20	3.88	ND	236	51-123%	3	30%	Q-02
Bis(2-Chloroethoxy) methane	4.69	0.971	0.971	ug/L	20	3.88	ND	121	48-120%	3	30%	Q-02, Q-41
Bis(2-Chloroethyl) ether	2.67	0.485	0.971	ug/L	20	3.88	ND	69	43-120%	3	30%	Q-41
2,2'-Oxybis(1-Chloropropane)	2.54	0.485	0.971	ug/L	20	3.88	ND	66	41-120%	2	30%	
Hexachlorobenzene	3.45	0.194	0.388	ug/L	20	3.88	ND	89	53-125%	2	30%	
Hexachlorobutadiene	2.25	0.485	0.971	ug/L	20	3.88	ND	58	22-124%	2	30%	
Hexachlorocyclopentadiene	2.88	0.971	1.94	ug/L	20	3.88	ND	74	10-127%	9	30%	Q-41
Hexachloroethane	1.82	0.485	0.971	ug/L	20	3.88	ND	47	21-120%	0.9	30%	
2-Chloronaphthalene	3.49	0.388	0.388	ug/L	20	3.88	ND	90	40-120%	2	30%	
1,2,4-Trichlorobenzene	2.59	0.485	0.971	ug/L	20	3.88	ND	67	29-120%	2	30%	
4-Bromophenyl phenyl ether	3.95	0.485	0.971	ug/L	20	3.88	ND	102	55-124%	3	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0367 - EPA 3510C (Acid/Base Neutral)						Water						
Matrix Spike Dup (23D0367-MSD1)			Prepared: 04/11/23 07:10 Analyzed: 04/11/23 16:30									
QC Source Sample: R-2-0423 (A3D0912-08)												
4-Chlorophenyl phenyl ether	3.54	0.485	0.971	ug/L	20	3.88	ND	91	53-121%	3	30%	
Aniline	1.64	0.971	1.94	ug/L	20	3.88	ND	42	10-120%	17	30%	Q-31, J
4-Chloroaniline	3.05	0.485	0.971	ug/L	20	3.88	ND	78	33-120%	29	30%	
2-Nitroaniline	4.23	3.88	7.77	ug/L	20	3.88	ND	109	55-127%	5	30%	J
3-Nitroaniline	ND	3.88	7.77	ug/L	20	3.88	ND		41-128%		30%	Q-11
4-Nitroaniline	5.10	3.88	7.77	ug/L	20	3.88	ND	131	25-120%	8	30%	Q-11, J
Nitrobenzene	4.47	1.94	3.88	ug/L	20	3.88	ND	115	45-121%	0.3	30%	Q-41
2,4-Dinitrotoluene	4.13	1.94	3.88	ug/L	20	3.88	ND	53	57-128%	0.03	30%	Q-11
2,6-Dinitrotoluene	4.37	1.94	3.88	ug/L	20	3.88	ND	112	57-124%	10	30%	
Benzoic acid	ND	48.5	48.5	ug/L	20	7.77	ND		10-120%		30%	Q-02
Benzyl alcohol	3.18	1.94	3.88	ug/L	20	3.88	ND	82	31-120%	3	30%	J
Isophorone	3.71	0.971	0.971	ug/L	20	3.88	ND	96	42-124%	4	30%	
Azobenzene (1,2-DPH)	4.01	0.971	0.971	ug/L	20	3.88	ND	103	61-120%	1	30%	
Bis(2-Ethylhexyl) adipate	4.96	4.85	9.71	ug/L	20	3.88	ND	128	63-121%	2	30%	Q-11, J
3,3'-Dichlorobenzidine	ND	9.71	19.4	ug/L	20	7.77	ND		27-129%		30%	Q-11, Q-31, Q-52
1,2-Dinitrobenzene	ND	4.85	9.71	ug/L	20	3.88	ND		59-120%		30%	Q-11
1,3-Dinitrobenzene	ND	4.85	9.71	ug/L	20	3.88	ND		49-128%		30%	Q-11
1,4-Dinitrobenzene	ND	4.85	9.71	ug/L	20	3.88	ND		54-120%		30%	Q-11
Pyridine	ND	1.94	3.88	ug/L	20	3.88	ND		10-120%		30%	Q-11
1,2-Dichlorobenzene	2.09	0.485	0.971	ug/L	20	3.88	ND	54	32-120%	2	30%	
1,3-Dichlorobenzene	2.04	0.485	0.971	ug/L	20	3.88	ND	53	28-120%	5	30%	
1,4-Dichlorobenzene	2.13	0.485	0.971	ug/L	20	3.88	ND	55	29-120%	0.03	30%	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 75 %		Limits: 44-120 %		Dilution: 20x		Q-41				
2-Fluorobiphenyl (Surr)		88 %		44-120 %		"						
Phenol-d6 (Surr)		33 %		10-133 %		"		Q-41				
p-Terphenyl-d14 (Surr)		86 %		50-134 %		"						
2-Fluorophenol (Surr)		35 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		109 %		43-140 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335****SAMPLE PREPARATION INFORMATION****Selected Semivolatile Organic Compounds by EPA 8270E****Prep: EPA 3510C (Acid Extraction)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 23D0435</u>							
A3D0912-01	Water	EPA 8270E	04/05/23 10:00	04/12/23 06:36	1000mL/1mL	1000mL/1mL	1.00
A3D0912-02	Water	EPA 8270E	04/06/23 08:05	04/12/23 01:40	1040mL/1mL	1000mL/1mL	0.96
A3D0912-03	Water	EPA 8270E	04/05/23 14:15	04/12/23 06:36	1020mL/1mL	1000mL/1mL	0.98
A3D0912-04	Water	EPA 8270E	04/05/23 13:20	04/12/23 06:36	1020mL/1mL	1000mL/1mL	0.98
A3D0912-05	Water	EPA 8270E	04/05/23 11:20	04/12/23 06:36	1030mL/1mL	1000mL/1mL	0.97
A3D0912-06	Water	EPA 8270E	04/06/23 09:25	04/12/23 01:40	1040mL/1mL	1000mL/1mL	0.96
A3D0912-10	Water	EPA 8270E	04/05/23 12:00	04/12/23 06:36	1030mL/1mL	1000mL/1mL	0.97

Semivolatile Organic Compounds by EPA 8270E**Prep: EPA 3510C (Acid/Base Neutral)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 23D0367</u>							
A3D0912-07	Water	EPA 8270E	04/05/23 10:10	04/11/23 07:10	1030mL/1mL	1000mL/1mL	0.97
A3D0912-08	Water	EPA 8270E	04/05/23 10:20	04/11/23 07:10	1030mL/1mL	1000mL/1mL	0.97
A3D0912-09	Water	EPA 8270E	04/05/23 11:40	04/11/23 07:10	1040mL/1mL	1000mL/1mL	0.96
A3D0912-11RE1	Water	EPA 8270E	04/05/23 08:00	04/11/23 07:10	1040mL/1mL	1000mL/1mL	0.96
A3D0912-12	Water	EPA 8270E	04/05/23 11:45	04/11/23 07:10	980mL/1mL	1000mL/1mL	1.02

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Kelly Titkemeier**

Report ID:

A3D0912 - 04 26 23 1335

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- A-01** Due to coelution of isomers, 2,3,4,6- and 2,3,4,5-Tetrachlorophenol (TCP) are reported as a sum and are Estimated Values. Results are calculated using the response factor of 2,3,4,6-TCP. Batch results accepted based on spike recovery of 2,3,4,6-TCP.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- M-05** Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- Q-02** Spike recovery is outside of established control limits due to matrix interference.
- Q-03** Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
- Q-11** Spike recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-24** The RPD for this spike and spike duplicate is above established control limits. Recoveries for both the spike and spike duplicate are within control limits.
- Q-29** Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-31** Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- Q-52** Due to known erratic recoveries, the result and reporting levels for this analyte are reported as Estimated Values. This analyte may not have passed all QC requirements for this method.
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- S-06** Surrogate recovery is outside of established control limits.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Kelly Titkemeier**

Report ID:

A3D0912 - 04 26 23 1335

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Kelly Titkemeier**

Report ID:

A3D0912 - 04 26 23 1335

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Kelly Titkemeier**

Report ID:

A3D0912 - 04 26 23 1335

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
Water	EPA 8270E		2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)		
Water	EPA 8270E		2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)		

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Kelly Titkemeier

Report ID:

A3D0912 - 04 26 23 1335

CHAIN OF CUSTODY

APEX LABS

COC 1 of 2

Lab # A3D0912

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: PBS Engineering + Environmental	Project Mgr: Cary Midwood (PBS) Kelly Titkemeier (MFC)	Project Name: McFarland Cascade, Eugene	Project # 22588.000
Address: 3500 Chad Drive Suite 100 - Eugene OR 97408	Phone: (541) 686-6884	Fax:	Email: cary.midwood@pbsusa.com; ktitkemeier@maulfoster.com
Sampled by: Cary Midwood			
ANALYSIS REQUEST			
SAMPLE ID	LAB ID #	DATE	TIME
90-1D-0413		4/5/23	0000
90-5-0413		4/6/23	0805
92-9-0413		4/5/23	1415
93-4-0413		4/5/23	1320
93-8-0413		4/6/23	1120
P-2D-0413		4/6/23	0925
R-1-0413		4/5/23	1010
R-2-0413		4/5/23	1020
R-3-0413		4/6/23	1140
R-4-0413		4/5/23	1200
SPECIAL INSTRUCTIONS:			
DIRECT BILL: McFarland Cascade Pole and Lumber Company (MCLC) Attention: Roland Mueller			
*Extra volume/bottles collected to run MS/MSD			
TAT Requested (circle)			
1 DAY 2 DAY 3 DAY 4 DAY 5 DAY Other: _____			
SAMPLES ARE HELD FOR 30 DAYS			
RELINQUISHED BY:	Signature:	Date:	Time:
Signature:	Signature:	Date:	Time:
Printed Name:	Printed Name:	Printed Name:	Printed Name:
Company:	Company:	Company:	Company:

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Kelly Titkemeier****Report ID:****A3D0912 - 04 26 23 1335****APEX LABS COOLER RECEIPT FORM**Client: PBS Engineering + Environmental (Element WO#: A3 D0912)Project/Project #: McFarland Cascade, Eugene 22588.00**Delivery Info:**Date/time received: 4/6/23 @ 1157 By: PKDelivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Radio ☐ Morgan ☐ SDS ☐ Evergreen ☐ Other ☐**Cooler Inspection** Date/time inspected: 4/6/23 @ 1157 By: JS 4/10/23 JSChain of Custody included? Yes ☒ No ☐ 1300Signed/dated by client? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.1</u>	<u>1.2</u>	<u>2.7</u>	<u>3.4</u>			
Custody seals? (Y/N)	<u>y</u>	<u>y</u>	<u>y</u>	<u>y</u>			
Received on ice? (Y/N)	<u>y</u>						
Temp. blanks? (Y/N)	<u>y</u>						
Ice type: (Gel/Real/Other)	<u>real</u>						
Condition (In/Out):	<u>In</u>						

Cooler out of temp? (Y/N) Possible reason why:Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐**Sample Inspection:** Date/time inspected: 4/6/23 @ 16:57 By: AMWAll samples intact? Yes ☒ No ☐ Comments: _____Bottle labels/COCs agree? Yes ☒ No ☐ Comments: _____COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments: _____

Water samples: pH checked: Yes ☐ No ☐ NA ☒ pH appropriate? Yes ☐ No ☐ NA ☒

Comments: _____

Additional information:Labeled by: RMPWitness: JAMCooler Inspected by: AMW

Form Y-003 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

DATA QUALITY ASSURANCE/QUALITY CONTROL REVIEW

PROJECT NO. M9081.03.016 | MAY 11, 2023 | MCFARLAND CASCADE HOLDINGS, INC.

Maul Foster & Alongi, Inc. (MFA), conducted an independent Stage 2A review of the quality of analytical results for groundwater and associated quality control samples collected on April 5 and 6, 2023, at the property located at 90049 Highway 99 North in Eugene, Oregon.

Analytical Resources, LLC (ARL), and Apex Laboratories, LLC (Apex), performed the analyses. ARL report number 23D0109 and Apex report number A3D0912 were reviewed. Sample R-3-0423 was sent to both laboratories as a split sample to meet project reporting limit needs for pentachlorophenol. The analyses performed and the samples analyzed are listed below.

Analysis	Reference
Pentachlorophenol	EPA 8041A
Semivolatile organic compounds	EPA 8270E
Note EPA = U.S. Environmental Protection Agency.	

Samples Analyzed	
Report A3D0912	
90-1D-0423	R-1-0423
90-5-0423	R-2-0423
92-9-0423	R-3-0423
93-4-0423	R-4-0423
93-8-0423	DUP-0423
P-2D-0423	FIELD-0423
Report 23D0109	
R-3-0423	

DATA QUALIFICATION

Analytical results were evaluated according to applicable sections of U.S. Environmental Protection Agency (EPA) guidelines for data review (EPA 2020) and appropriate laboratory- and method-specific guidelines (Apex 2022, ARL 2021, EPA 1986).

Based on the results of the data quality review procedures described below, the data, with the appropriate final data qualifiers assigned, are considered acceptable for their intended use.

Final data qualifiers represent qualifiers originating from the laboratory and accepted by the reviewer, and data qualifiers assigned by the reviewer during validation.

Final data qualifiers:

- J = result is estimated.
- U = result is non-detect at the laboratory detection limit (LDL).
- UJ = result is non-detect with an estimated LDL.

Sample R-3-0423 was analyzed for pentachlorophenol by both laboratories; Apex included EPA Method 8270E results in report A3D0912, and ARL discussed EPA Method 8041A results in report 23D0109. The result of record is based on the lower-limit EPA Method 8041A analysis and is shown in the table below. The remaining result has been flagged by the reviewer as not reportable.

Report	Sample	Component	Laboratory Result (ug/L)	Result of Record (ug/L)
23D0109	R-3-0423	Pentachlorophenol	0.140	0.140
A3D0912			4.81 U (NR)	--
Notes -- = not applicable. NR = not reportable. U = result is non-detect at the laboratory detection limit. ug/L = micrograms per liter.				

In report A3D0912, Apex reported the EPA Method 8270E 2,3,4,5-tetrachlorophenol and 2,3,4,6-tetrachlorophenol results as single coeluted results for each. Apex stated that the coeluted results had been calculated using the response factor of 2,3,4,6-tetrachlorophenol and that results were estimated values. Apex also noted that the coeluted results are not included on the Apex Oregon Environmental Laboratory Accreditation Program scope of certification. The reviewer qualified the results, as shown in the following table.

Report	Sample	Component	Original Result (ug/L)	Qualified Result (ug/L)
A3D0912	90-1D-0423	2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	0.400 U	0.400 UJ
	90-5-0423		0.385 U	0.385 UJ
	92-9-0423		0.392 U	0.392 UJ
	93-4-0423		0.392 U	0.392 UJ
	93-8-0423		0.0971 U	0.0971 UJ
	P-2D-0423		0.385 U	0.385 UJ
	R-4-0423		0.0971 U	0.0971 UJ
	R-1-0423		0.971 U	0.971 UJ
	R-2-0423		2.05 J	2.05 J

Report	Sample	Component	Original Result (ug/L)	Qualified Result (ug/L)
	R-3-0423		4.81 U	4.81 UJ
	DUP-0423		0.962 U	0.962 UJ
	FIELD-0423		0.102 U	0.102 UJ
Notes J = result is estimated. U = result is non-detect at the laboratory detection limit. ug/L = micrograms per liter. UJ = result is non-detect with an estimated laboratory detection limit.				

According to report A3D0912, Apex flagged the benzo(k)fluoranthene EPA Method 8270E result for sample R-2-0423 as estimated because of insufficient peak separation of structural isomers. The associated sample result has been qualified by the reviewer with J, as shown in the following table.

Report	Sample	Component	Original Result (ug/L)	Qualified Result (ug/L)
A3D0912	R-2-0423	Benzo(k)fluoranthene	0.878	0.878 J
Notes J = result is estimated. ug/L = micrograms per liter.				

SAMPLE CONDITIONS

Sample Custody

Because the sampler was from a different firm, the reviewer could not confirm the gap in custody.

Holding Times

Extractions and analyses were performed within the recommended holding times.

Preservation and Sample Storage

The samples were preserved and stored appropriately.

REPORTING LIMITS

Apex and ARL evaluated results to detection limits. Samples requiring dilutions because of high analyte concentrations and/or matrix interference were reported with raised detection limits and method reporting limits (MRLs) and required no action by the reviewer.

In report A3D0912, results between the LDL and the MRL were qualified by Apex with J, as estimated.

In report A3D0912, Apex noted that some LDLs and MRLs for EPA Method 8270E had been raised to account for interference from coeluting organic compounds present in the samples.

In report A3D0912, Apex flagged the 3,3'-dichlorobenzidine reporting levels as estimated, based on known erratic recoveries. The reviewer qualified the non-detect 3,3'-dichlorobenzidine results with UJ, as shown in the following table.

Report	Sample	Component	Original Result (ug/L)	Qualified Result (ug/L)
A3D0912	R-1-0423	3,3'-Dichlorobenzidine	4.85 U	4.85 UJ
	R-2-0423		9.71 U	9.71 UJ
	R-3-0423		24.0 U	24.0 UJ
	DUP-0423		4.81 U	4.81 UJ
	FIELD-0423		0.510 U	0.510 UJ
Notes U = result is non-detect at the laboratory detection limit. ug/L = micrograms per liter. UJ = result is non-detect with an estimated laboratory detection limit.				

BLANKS

Method Blanks

Laboratory method blanks are used to assess whether laboratory contamination was introduced during sample preparation and analysis. Laboratory method blank analyses were performed at the required frequencies. For purposes of data qualification, the laboratory method blanks were associated with all samples prepared in the analytical batch.

According to report 23D0109, the EPA Method 8041A batch BLD0217 laboratory method blank had a pentachlorophenol detection between the MDL and the MRL, at a concentration of 0.016 micrograms per liter (ug/L). The associated sample pentachlorophenol result was greater than five times the concentration detected in the blank; thus, no qualifications were necessary.

All remaining laboratory method blank results were non-detect to LDLs.

Field Blanks

According to report A3D0912, one field blank (FIELD-0423) was submitted for analysis. The field blank had a phenanthrene detection between the LDL and the MRL, at a concentration

of 0.0121 ug/L. The associated sample results were greater than five times the concentration detected in the blank; thus, no qualifications were necessary.

All remaining field blank results were non-detect to LDLs.

Trip Blanks

Trip blanks are used to evaluate whether volatile organic compound contamination was introduced during sample storage and during shipment between the sampling location and the laboratory.

Trip blank samples were not required for this sampling event because samples were not analyzed for volatile organic compounds.

LABORATORY CONTROL SAMPLE AND LABORATORY CONTROL SAMPLE DUPLICATE RESULTS

A laboratory control sample (LCS) and a laboratory control sample duplicate (LCSD) are spiked with target analytes to provide information about laboratory precision and accuracy. The LCS and the LCSD were prepared and analyzed at the required frequency.

According to report A3D0912, the EPA Method 8270E batch 23D0367 LCS and LCSD results for 3,3'-dichlorobenzidine were above the upper percent recovery acceptance limit of 129 percent, at 175 percent and 152 percent, respectively. Additionally, the relative percent difference (RPD) between the LCS and LCSD results for 4-chloroaniline was greater than the 30 percent acceptance limit, at 31 percent. The associated 3,3'-dichlorobenzidine and 4-chloroaniline results were non-detect; thus, no qualifications based on LCS or LCSD exceedances were necessary. 3,3'-dichlorobenzidine sample results have been qualified in the Reporting Limits section above.

All remaining LCS and LCSD results were within acceptance limits for percent recovery and RPD.

LABORATORY DUPLICATE RESULTS

Laboratory duplicate results are used to evaluate laboratory precision. ARL and Apex did not report laboratory duplicate results. Laboratory precision was evaluated using LCS and LCSD results or matrix spike (MS) and matrix spike duplicate (MSD) results.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE RESULTS

MS and MSD results are used to evaluate laboratory precision, accuracy, and the effect of the sample matrix on sample preparation and analysis.

ARL did not report MS and MSD results, and Apex did not report MS and MSD results for EPA Method 8270E batch 23D0435. Laboratory precision and accuracy were evaluated using

LCS and LCSD results. Apex reported MS and MSD results for EPA Method 8270E batch 23D0367 analysis with the source sample R-2-0423, as requested on the chain of custody.

When MS and MSD were prepared from samples with high concentrations of target analytes, associated MS and/or MSD percent recovery and/or RPD control limit exceedances did not require qualification because spike concentrations could not be accurately quantified. High concentrations of target analytes are defined as four times the spike amount for all analyses.

All remaining MS and MSD results were within acceptance limits for percent recovery and RPD.

SURROGATE RECOVERY RESULTS

The samples were spiked with surrogate compounds to evaluate laboratory performance for individual samples for organic analyses.

The laboratory appropriately documented and qualified surrogate outliers. When surrogate percent recoveries were outside acceptance limits because of dilutions necessary to quantify high concentrations of target analytes, qualification by the reviewer was not required. The reviewer confirmed that batch quality control results for samples with surrogate outliers were within acceptance limits.

All remaining surrogate results were within percent recovery acceptance limits.

CONTINUING CALIBRATION VERIFICATION RESULTS

Continuing calibration verification (CCV) results are used to demonstrate instrument precision and accuracy through the end of the sample batch. The laboratory did not report CCV results, but appropriately flagged results associated with CCV exceedances. Surrogate or batch quality control results flagged by the laboratory based on CCV exceedances but meeting percent recovery and/or RPD acceptance criteria required no action from the reviewer.

FIELD DUPLICATE RESULTS

Field duplicate samples measure both field and laboratory precision. The following field duplicate and parent sample pair was submitted for analysis:

Report	Parent Sample	Field Duplicate Sample
A3D0912	R-1-0423	DUP-0423

MFA uses acceptance criteria of 100 percent RPD for results that are less than five times the MRL or 50 percent RPD for results that are greater than five times the MRL. RPD was not evaluated when both results in the sample pair were non-detect.

All field duplicate results met the RPD acceptance criteria.

DATA PACKAGE

The data packages were reviewed for transcription errors, omissions, and anomalies. None were found.

REFERENCES

- Apex. 2022. *Quality Systems Manual*. Rev. 10. Apex Laboratories, LLC: Tigard, OR. June 20.
- ARL. 2021. *Quality Assurance Plan*. Rev. 19.0. Analytical Resources, LLC: Tukwila, WA. December 29.
- EPA. 1986. *Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods*. EPA publication SW-846. 3rd ed. U.S. Environmental Protection Agency. Final updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), V (2015), VI phase I (2017), VI phase II (2018), VI phase III (2019), VII phase I (2019), and VII phase II (2020).
- EPA. 2020. *National Functional Guidelines for Organic Superfund Methods Data Review*. EPA 540-R-20-005. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation: Washington, DC. November.



Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

16 October 2023

Kelly Titkemeier
Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland, WA 97209

RE: McFarland Cascade Pole and Lumber Company - Eugene (M9081.03.016)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
23I0373

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.


Analytical Resources, LLC

Kelly Bottem, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: <u>2340373</u>		Turn-around Requested: <u>Standard</u>		Page: <u>1</u> of <u>1</u>		 Analytical Resources, LLC Analytical Chemists and Consultants 4611 South 134th Place, Suite 100 Tukwila, WA 98168 206-695-6200 206-695-6201 (fax)					
ARI Client Company: <u>MFA</u>		Phone: <u>503 277 9555</u>		Date: _____				Ice Present? <u>Yes</u>			
Client Contact: <u>Cody Schweitzer</u>				No. of Coolers: <u>1</u>				Cooler Temps: <u>0.6</u>			
Client Project Name: <u>McPLC - Eugene</u>				Analysis Requested						Notes/Comments	
Client Project #: <u>M9081.03.016</u>		Samplers: <u>Janessa Sandoval</u>									
Sample ID	Date	Time	Matrix	No. Containers	LL 8041 PCP						
<u>R-3-0923</u>	<u>9/13/23</u>	<u>0845</u>	<u>W</u>	<u>4</u>	<u>X</u>						
Comments/Special Instructions <u>Send report to:</u> <u>cschweitzer@maulfoster.com</u> <u>cjohnson@maulfoster.com</u> <u>mbenzinger@maulfoster.com</u>				Relinquished by: (Signature) <u>Janessa Sandoval</u> Printed Name: <u>Janessa Sandoval</u> Company: <u>PBS</u> Date & Time: <u>9/13/2023 0900</u>		Received by: (Signature) <u>Jacob Walte</u> Printed Name: <u>Jacob Walte</u> Company: <u>AR, LLC</u> Date & Time: <u>09/14/23 1000</u>		Relinquished by: (Signature) _____ Printed Name: _____ Company: _____ Date & Time: _____		Received by: (Signature) _____ Printed Name: _____ Company: _____ Date & Time: _____	

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: M9081.03.016
Project Manager: Kelly Titkemeier

Reported:
16-Oct-2023 08:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
R-3-0923	23I0373-01	Water	13-Sep-2023 08:45	14-Sep-2023 10:00



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: M9081.03.016
Project Manager: Kelly Titkemeier

Reported:
16-Oct-2023 08:30

Work Order Case Narrative

Pentachlorophenol - EPA Method SW8041A

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.



Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Maul, Foster, Alang

COC No(s): _____ (NA)

Assigned ARI Job No: 2370373

Project Name: MCPLC - Eugene

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Tracking No: 7733 5198 8642 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? _____

YES NO

Were custody papers included with the cooler? _____

YES NO

Were custody papers properly filled out (ink, signed, etc.) _____

YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1400

8.6

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 70009708

Cooler Accepted by: JS Date: 09/14/23 Time: 1000

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? _____

YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? _____

NA YES NO

How were bottles sealed in plastic bags? _____

Individually Grouped Not

Did all bottles arrive in good condition (unbroken)? _____

YES NO

Were all bottle labels complete and legible? _____

YES NO

Did the number of containers listed on COC match with the number of containers received? _____

YES NO

Did all bottle labels and tags agree with custody papers? _____

YES NO

Were all bottles used correct for the requested analyses? _____

YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...

NA YES NO

Were all VOC vials free of air bubbles? _____

NA YES NO

Was sufficient amount of sample sent in each bottle? _____

YES NO

Date VOC Trip Blank was made at ARI: _____

NA

Were the sample(s) split by ARI? NA

YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JS Date: 09/16/23 Time: 1051 Labels checked by: JS

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____

Date: _____



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: M9081.03.016
Project Manager: Kelly Titkemeier

Reported:
16-Oct-2023 08:30

R-3-0923
23I0373-01 (Water)

Phenols

Method: EPA 8041A

Sampled: 09/13/2023 08:45

Instrument: ECD8 Analyst: RJL

Analyzed: 10/11/2023 17:05

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 23I0373-01 A 01

Preparation Batch: BLI0546

Sample Size: 500 mL

Prepared: 09/20/2023

Final Volume: 5 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Pentachlorophenol	87-86-5	1	0.014	0.025	0.352	ug/L	
Surrogate: 2,4,6-Tribromophenol				10-181 %	76.1	%	
Surrogate: 2,4,6-Tribromophenol [2C]				10-181 %	87.7	%	



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: M9081.03.016
Project Manager: Kelly Titkemeier

Reported:
16-Oct-2023 08:30

Analysis by: Analytical Resources, LLC

Phenols - Quality Control

Batch BLI0546 - EPA 8041A

Instrument: ECD8 Analyst: RJL

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BLI0546-BLK1)						Prepared: 20-Sep-2023 Analyzed: 11-Oct-2023 16:11					
Pentachlorophenol	ND	0.014	0.025	ug/L							U
Surrogate: 2,4,6-Tribromophenol	0.177			ug/L	0.250		70.6	10-181			
Surrogate: 2,4,6-Tribromophenol [2C]	0.220			ug/L	0.250		87.9	10-181			



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: M9081.03.016
Project Manager: Kelly Titkemeier

Reported:
16-Oct-2023 08:30

Analysis by: Analytical Resources, LLC

Phenols - Quality Control

Batch BLI0546 - EPA 8041A

Instrument: ECD8 Analyst: RJL

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
LCS (BLI0546-BS1)					Prepared: 20-Sep-2023 Analyzed: 11-Oct-2023 16:29					
Pentachlorophenol [2C]	0.188	0.014	0.025	ug/L	0.250	75.4	36-159			
Surrogate: 2,4,6-Tribromophenol	0.194			ug/L	0.250	77.6	10-181			
Surrogate: 2,4,6-Tribromophenol [2C]	0.239			ug/L	0.250	95.7	10-181			



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: M9081.03.016
Project Manager: Kelly Titkemeier

Reported:
16-Oct-2023 08:30

Analysis by: Analytical Resources, LLC

Phenols - Quality Control

Batch BLI0546 - EPA 8041A

Instrument: ECD8 Analyst: RJL

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BLI0546-BSD1)						Prepared: 20-Sep-2023 Analyzed: 11-Oct-2023 16:47					
Pentachlorophenol [2C]	0.211	0.014	0.025	ug/L	0.250		84.3	36-159	11.20	30	
Surrogate: 2,4,6-Tribromophenol	0.197			ug/L	0.250		78.6	10-181			
Surrogate: 2,4,6-Tribromophenol [2C]	0.243			ug/L	0.250		97.0	10-181			



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: M9081.03.016
Project Manager: Kelly Titkemeier

Reported:
16-Oct-2023 08:30

Certified Analyses included in this Report

Analyte

Certifications

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2025
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	02/28/2025
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2024



Maul, Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200
Portland WA, 97209

Project: McFarland Cascade Pole and Lumber Company - Eugene
Project Number: M9081.03.016
Project Manager: Kelly Titkemeier

Reported:
16-Oct-2023 08:30

Notes and Definitions

P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Thursday, October 12, 2023

Cody Schweitzer

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

RE: A311084 - McFarland Cascade-Eugene - 22588.000

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A311084, which was received by the laboratory on 9/13/2023 at 12:05:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information			
<u>Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.</u>			
(See Cooler Receipt Form for details)			
Cooler #1	3.4	degC	
Cooler #2	2.9	degC	
Cooler #3	2.3	degC	
Cooler #4	1.7	degC	

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Cody Schweitzer**

Report ID:

A3I1084 - 10 12 23 1512

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
90-1D-0923	A3I1084-01	Water	09/13/23 08:15	09/13/23 12:05
92-9-0923	A3I1084-02	Water	09/12/23 11:50	09/13/23 12:05
93-1A-0923	A3I1084-03	Water	09/12/23 10:45	09/13/23 12:05
93-3-0923	A3I1084-04	Water	09/12/23 14:25	09/13/23 12:05
93-4-0923	A3I1084-05	Water	09/12/23 13:30	09/13/23 12:05
93-8-0923	A3I1084-06	Water	09/12/23 15:45	09/13/23 12:05
P-2D-0923	A3I1084-07	Water	09/13/23 09:55	09/13/23 12:05
R-1-0923	A3I1084-08	Water	09/12/23 16:15	09/13/23 12:05
R-2-0923	A3I1084-09	Water	09/12/23 16:28	09/13/23 12:05
R-3-0923	A3I1084-10	Water	09/13/23 08:45	09/13/23 12:05
DUP-0923	A3I1084-11	Water	09/12/23 07:30	09/13/23 12:05
FIELD-0923	A3I1084-12	Water	09/13/23 09:00	09/13/23 12:05

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Cody Schweitzer

Report ID:

A3I1084 - 10 12 23 1512

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
90-1D-0923 (A3I1084-01RE1)		Matrix: Water			Batch: 23I0638			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.385	0.769	ug/L	4	09/22/23 12:29	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.192	0.385	ug/L	4	09/22/23 12:29	EPA 8270E	
Pentachlorophenol (PCP)	1.35	0.385	0.769	ug/L	4	09/22/23 12:29	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.192	0.385	ug/L	4	09/22/23 12:29	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.192	0.385	ug/L	4	09/22/23 12:29	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.192	0.385	ug/L	4	09/22/23 12:29	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 40 %	Limits: 44-120 %	4	09/22/23 12:29	EPA 8270E		S-03
2-Fluorobiphenyl (Surr)		40 %	44-120 %	4	09/22/23 12:29	EPA 8270E		S-03
Phenol-d6 (Surr)		11 %	10-133 %	4	09/22/23 12:29	EPA 8270E		
p-Terphenyl-d14 (Surr)		74 %	50-134 %	4	09/22/23 12:29	EPA 8270E		
2-Fluorophenol (Surr)		18 %	19-120 %	4	09/22/23 12:29	EPA 8270E		S-03
2,4,6-Tribromophenol (Surr)		59 %	43-140 %	4	09/22/23 12:29	EPA 8270E		
92-9-0923 (A3I1084-02RE1)		Matrix: Water			Batch: 23I0559			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	0.126	0.0980	0.196	ug/L	1	09/19/23 17:19	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.0490	0.0980	ug/L	1	09/19/23 17:19	EPA 8270E	
Pentachlorophenol (PCP)	4.74	0.0980	0.196	ug/L	1	09/19/23 17:19	EPA 8270E	
2,3,5,6-Tetrachlorophenol	0.0643	0.0490	0.0980	ug/L	1	09/19/23 17:19	EPA 8270E	J
2,4,5-Trichlorophenol	ND	0.0490	0.0980	ug/L	1	09/19/23 17:19	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0490	0.0980	ug/L	1	09/19/23 17:19	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 43 %	Limits: 44-120 %	1	09/19/23 17:19	EPA 8270E		S-03
2-Fluorobiphenyl (Surr)		39 %	44-120 %	1	09/19/23 17:19	EPA 8270E		S-03
Phenol-d6 (Surr)		9 %	10-133 %	1	09/19/23 17:19	EPA 8270E		S-03
p-Terphenyl-d14 (Surr)		37 %	50-134 %	1	09/19/23 17:19	EPA 8270E		S-03
2-Fluorophenol (Surr)		16 %	19-120 %	1	09/19/23 17:19	EPA 8270E		S-03
2,4,6-Tribromophenol (Surr)		74 %	43-140 %	1	09/19/23 17:19	EPA 8270E		
93-1A-0923 (A3I1084-03RE2)		Matrix: Water			Batch: 23I0559			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.100	0.200	ug/L	1	09/20/23 21:35	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	09/20/23 21:35	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.100	0.200	ug/L	1	09/20/23 21:35	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	09/20/23 21:35	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	09/20/23 21:35	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	09/20/23 21:35	EPA 8270E	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
93-1A-0923 (A3I1084-03RE2)		Matrix: Water			Batch: 23I0559			
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 55 %	Limits: 44-120 %	1	09/20/23 21:35	EPA 8270E		
2-Fluorobiphenyl (Surr)		42 %	44-120 %	1	09/20/23 21:35	EPA 8270E		S-03
Phenol-d6 (Surr)		15 %	10-133 %	1	09/20/23 21:35	EPA 8270E		
p-Terphenyl-d14 (Surr)		39 %	50-134 %	1	09/20/23 21:35	EPA 8270E		S-03
2-Fluorophenol (Surr)		24 %	19-120 %	1	09/20/23 21:35	EPA 8270E		
2,4,6-Tribromophenol (Surr)		71 %	43-140 %	1	09/20/23 21:35	EPA 8270E		
93-3-0923 (A3I1084-04)		Matrix: Water			Batch: 23I0506			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.0971	0.194	ug/L	1	09/18/23 19:15	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.0485	0.0971	ug/L	1	09/18/23 19:15	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0971	0.194	ug/L	1	09/18/23 19:15	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	09/18/23 19:15	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	09/18/23 19:15	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	09/18/23 19:15	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 57 %	Limits: 44-120 %	1	09/18/23 19:15	EPA 8270E		
2-Fluorobiphenyl (Surr)		53 %	44-120 %	1	09/18/23 19:15	EPA 8270E		
Phenol-d6 (Surr)		17 %	10-133 %	1	09/18/23 19:15	EPA 8270E		
p-Terphenyl-d14 (Surr)		51 %	50-134 %	1	09/18/23 19:15	EPA 8270E		
2-Fluorophenol (Surr)		30 %	19-120 %	1	09/18/23 19:15	EPA 8270E		
2,4,6-Tribromophenol (Surr)		70 %	43-140 %	1	09/18/23 19:15	EPA 8270E		
93-4-0923 (A3I1084-05RE2)		Matrix: Water			Batch: 23I0559			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.100	0.200	ug/L	1	09/20/23 22:08	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	09/20/23 22:08	EPA 8270E	
Pentachlorophenol (PCP)	0.127	0.100	0.200	ug/L	1	09/20/23 22:08	EPA 8270E	J
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	09/20/23 22:08	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	09/20/23 22:08	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	09/20/23 22:08	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 53 %	Limits: 44-120 %	1	09/20/23 22:08	EPA 8270E		
2-Fluorobiphenyl (Surr)		44 %	44-120 %	1	09/20/23 22:08	EPA 8270E		
Phenol-d6 (Surr)		17 %	10-133 %	1	09/20/23 22:08	EPA 8270E		
p-Terphenyl-d14 (Surr)		52 %	50-134 %	1	09/20/23 22:08	EPA 8270E		
2-Fluorophenol (Surr)		25 %	19-120 %	1	09/20/23 22:08	EPA 8270E		
2,4,6-Tribromophenol (Surr)		69 %	43-140 %	1	09/20/23 22:08	EPA 8270E		

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-EugeneProject Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
93-8-0923 (A3I1084-06)		Matrix: Water			Batch: 23I0506			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.0990	0.198	ug/L	1	09/18/23 20:27	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.0495	0.0990	ug/L	1	09/18/23 20:27	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0990	0.198	ug/L	1	09/18/23 20:27	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0495	0.0990	ug/L	1	09/18/23 20:27	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0495	0.0990	ug/L	1	09/18/23 20:27	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0495	0.0990	ug/L	1	09/18/23 20:27	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 47 %	Limits: 44-120 %	1	09/18/23 20:27	EPA 8270E		
2-Fluorobiphenyl (Surr)		47 %	44-120 %	1	09/18/23 20:27	EPA 8270E		
Phenol-d6 (Surr)		16 %	10-133 %	1	09/18/23 20:27	EPA 8270E		
p-Terphenyl-d14 (Surr)		56 %	50-134 %	1	09/18/23 20:27	EPA 8270E		
2-Fluorophenol (Surr)		25 %	19-120 %	1	09/18/23 20:27	EPA 8270E		
2,4,6-Tribromophenol (Surr)		70 %	43-140 %	1	09/18/23 20:27	EPA 8270E		
P-2D-0923 (A3I1084-07RE1)		Matrix: Water			Batch: 23I0638			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.381	0.762	ug/L	4	09/22/23 13:03	EPA 8270E	A-01
2,4-Dichlorophenol	ND	0.190	0.381	ug/L	4	09/22/23 13:03	EPA 8270E	
Pentachlorophenol (PCP)	0.772	0.381	0.762	ug/L	4	09/22/23 13:03	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.190	0.381	ug/L	4	09/22/23 13:03	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.190	0.381	ug/L	4	09/22/23 13:03	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.190	0.381	ug/L	4	09/22/23 13:03	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 34 %	Limits: 44-120 %	4	09/22/23 13:03	EPA 8270E		S-03
2-Fluorobiphenyl (Surr)		33 %	44-120 %	4	09/22/23 13:03	EPA 8270E		S-03
Phenol-d6 (Surr)		10 %	10-133 %	4	09/22/23 13:03	EPA 8270E		
p-Terphenyl-d14 (Surr)		57 %	50-134 %	4	09/22/23 13:03	EPA 8270E		
2-Fluorophenol (Surr)		16 %	19-120 %	4	09/22/23 13:03	EPA 8270E		S-03
2,4,6-Tribromophenol (Surr)		54 %	43-140 %	4	09/22/23 13:03	EPA 8270E		

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 5 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-EugeneProject Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-1-0923 (A3I1084-08)		Matrix: Water			Batch: 23I0511			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	1.00	2.00	ug/L	10	09/18/23 16:34	EPA 8270E	A-01
Acenaphthene	1.00	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
Acenaphthylene	ND	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
Anthracene	ND	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
Benz(a)anthracene	ND	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
Benzo(a)pyrene	ND	0.150	0.300	ug/L	10	09/18/23 16:34	EPA 8270E	
Benzo(b)fluoranthene	ND	0.150	0.300	ug/L	10	09/18/23 16:34	EPA 8270E	
Benzo(k)fluoranthene	ND	0.150	0.300	ug/L	10	09/18/23 16:34	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
Chrysene	ND	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
Fluoranthene	0.146	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	J
Fluorene	0.942	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
1-Methylnaphthalene	0.495	0.200	0.400	ug/L	10	09/18/23 16:34	EPA 8270E	
2-Methylnaphthalene	0.279	0.200	0.400	ug/L	10	09/18/23 16:34	EPA 8270E	J
Naphthalene	0.405	0.200	0.400	ug/L	10	09/18/23 16:34	EPA 8270E	
Phenanthrene	0.139	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	J
Pyrene	0.221	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
Carbazole	ND	0.150	0.300	ug/L	10	09/18/23 16:34	EPA 8270E	
Dibenzofuran	0.205	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
2-Chlorophenol	ND	0.500	1.00	ug/L	10	09/18/23 16:34	EPA 8270E	
4-Chloro-3-methylphenol	ND	1.00	2.00	ug/L	10	09/18/23 16:34	EPA 8270E	
2,4-Dichlorophenol	ND	0.500	1.00	ug/L	10	09/18/23 16:34	EPA 8270E	
2,4-Dimethylphenol	ND	0.500	1.00	ug/L	10	09/18/23 16:34	EPA 8270E	
2,4-Dinitrophenol	ND	2.50	5.00	ug/L	10	09/18/23 16:34	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	2.50	5.00	ug/L	10	09/18/23 16:34	EPA 8270E	
2-Methylphenol	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
3+4-Methylphenol(s)	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
2-Nitrophenol	ND	1.00	2.00	ug/L	10	09/18/23 16:34	EPA 8270E	
4-Nitrophenol	ND	1.00	2.00	ug/L	10	09/18/23 16:34	EPA 8270E	
Pentachlorophenol (PCP)	4.11	1.00	2.00	ug/L	10	09/18/23 16:34	EPA 8270E	
Phenol	ND	2.00	4.00	ug/L	10	09/18/23 16:34	EPA 8270E	Q-42

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 6 of 59

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512****ANALYTICAL SAMPLE RESULTS****Semivolatile Organic Compounds by EPA 8270E**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-1-0923 (A311084-08)		Matrix: Water			Batch: 2310511			
2,3,5,6-Tetrachlorophenol	ND	0.500	1.00	ug/L	10	09/18/23 16:34	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.500	1.00	ug/L	10	09/18/23 16:34	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.500	1.00	ug/L	10	09/18/23 16:34	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	2.00	4.00	ug/L	10	09/18/23 16:34	EPA 8270E	
Butyl benzyl phthalate	ND	2.00	4.00	ug/L	10	09/18/23 16:34	EPA 8270E	
Diethylphthalate	ND	2.00	4.00	ug/L	10	09/18/23 16:34	EPA 8270E	
Dimethylphthalate	ND	2.00	4.00	ug/L	10	09/18/23 16:34	EPA 8270E	
Di-n-butylphthalate	ND	2.00	4.00	ug/L	10	09/18/23 16:34	EPA 8270E	
Di-n-octyl phthalate	ND	2.00	4.00	ug/L	10	09/18/23 16:34	EPA 8270E	
N-Nitrosodimethylamine	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
Hexachlorobenzene	ND	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
Hexachlorobutadiene	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.500	1.00	ug/L	10	09/18/23 16:34	EPA 8270E	
Hexachloroethane	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
2-Chloronaphthalene	ND	0.100	0.200	ug/L	10	09/18/23 16:34	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
Aniline	ND	0.500	1.00	ug/L	10	09/18/23 16:34	EPA 8270E	
4-Chloroaniline	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
2-Nitroaniline	ND	2.00	4.00	ug/L	10	09/18/23 16:34	EPA 8270E	
3-Nitroaniline	ND	2.00	4.00	ug/L	10	09/18/23 16:34	EPA 8270E	
4-Nitroaniline	ND	2.00	4.00	ug/L	10	09/18/23 16:34	EPA 8270E	
Nitrobenzene	ND	1.00	2.00	ug/L	10	09/18/23 16:34	EPA 8270E	
2,4-Dinitrotoluene	ND	1.00	2.00	ug/L	10	09/18/23 16:34	EPA 8270E	
2,6-Dinitrotoluene	ND	1.00	2.00	ug/L	10	09/18/23 16:34	EPA 8270E	
Benzoic acid	ND	12.5	25.0	ug/L	10	09/18/23 16:34	EPA 8270E	
Benzyl alcohol	ND	1.00	2.00	ug/L	10	09/18/23 16:34	EPA 8270E	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-EugeneProject Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-1-0923 (A3I1084-08)		Matrix: Water			Batch: 23I0511			
Isophorone	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	2.50	5.00	ug/L	10	09/18/23 16:34	EPA 8270E	
3,3'-Dichlorobenzidine	ND	5.00	10.0	ug/L	10	09/18/23 16:34	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	2.50	5.00	ug/L	10	09/18/23 16:34	EPA 8270E	
1,3-Dinitrobenzene	ND	2.50	5.00	ug/L	10	09/18/23 16:34	EPA 8270E	
1,4-Dinitrobenzene	ND	2.50	5.00	ug/L	10	09/18/23 16:34	EPA 8270E	
Pyridine	ND	1.00	2.00	ug/L	10	09/18/23 16:34	EPA 8270E	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	10	09/18/23 16:34	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>		<i>68 %</i>	<i>Limits: 44-120 %</i>	<i>10</i>	<i>09/18/23 16:34</i>	<i>EPA 8270E</i>
<i>2-Fluorobiphenyl (Surr)</i>				<i>60 %</i>	<i>44-120 %</i>	<i>10</i>	<i>09/18/23 16:34</i>	<i>EPA 8270E</i>
<i>Phenol-d6 (Surr)</i>				<i>22 %</i>	<i>10-133 %</i>	<i>10</i>	<i>09/18/23 16:34</i>	<i>EPA 8270E</i>
<i>p-Terphenyl-d14 (Surr)</i>				<i>79 %</i>	<i>50-134 %</i>	<i>10</i>	<i>09/18/23 16:34</i>	<i>EPA 8270E</i>
<i>2-Fluorophenol (Surr)</i>				<i>36 %</i>	<i>19-120 %</i>	<i>10</i>	<i>09/18/23 16:34</i>	<i>EPA 8270E</i>
<i>2,4,6-Tribromophenol (Surr)</i>				<i>76 %</i>	<i>43-140 %</i>	<i>10</i>	<i>09/18/23 16:34</i>	<i>EPA 8270E</i>
R-2-0923 (A3I1084-09RE1)		Matrix: Water			Batch: 23I0511			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	1.00	2.00	ug/L	10	09/19/23 13:12	EPA 8270E	A-01
Acenaphthene	8.09	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	
Acenaphthylene	1.62	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	
Anthracene	0.171	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	J
Benz(a)anthracene	ND	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	
Benzo(a)pyrene	ND	0.150	0.300	ug/L	10	09/19/23 13:12	EPA 8270E	
Benzo(b)fluoranthene	ND	0.150	0.300	ug/L	10	09/19/23 13:12	EPA 8270E	
Benzo(k)fluoranthene	ND	0.150	0.300	ug/L	10	09/19/23 13:12	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	
Chrysene	ND	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	
Fluoranthene	3.57	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	
Fluorene	ND	0.300	0.300	ug/L	10	09/19/23 13:12	EPA 8270E	R-02
Indeno(1,2,3-cd)pyrene	ND	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-2-0923 (A3I1084-09RE1)		Matrix: Water			Batch: 23I0511			
1-Methylnaphthalene	ND	0.200	0.400	ug/L	10	09/19/23 13:12	EPA 8270E	
2-Methylnaphthalene	ND	0.200	0.400	ug/L	10	09/19/23 13:12	EPA 8270E	
Naphthalene	ND	0.200	0.400	ug/L	10	09/19/23 13:12	EPA 8270E	
Phenanthrene	ND	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	
Pyrene	3.76	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	
Carbazole	ND	0.150	0.300	ug/L	10	09/19/23 13:12	EPA 8270E	
Dibenzofuran	ND	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	
2-Chlorophenol	ND	0.500	1.00	ug/L	10	09/19/23 13:12	EPA 8270E	
4-Chloro-3-methylphenol	ND	1.00	2.00	ug/L	10	09/19/23 13:12	EPA 8270E	
2,4-Dichlorophenol	ND	0.500	1.00	ug/L	10	09/19/23 13:12	EPA 8270E	
2,4-Dimethylphenol	ND	0.500	1.00	ug/L	10	09/19/23 13:12	EPA 8270E	
2,4-Dinitrophenol	ND	2.50	5.00	ug/L	10	09/19/23 13:12	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	2.50	5.00	ug/L	10	09/19/23 13:12	EPA 8270E	
2-Methylphenol	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
3+4-Methylphenol(s)	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
2-Nitrophenol	ND	1.00	2.00	ug/L	10	09/19/23 13:12	EPA 8270E	
4-Nitrophenol	ND	1.00	2.00	ug/L	10	09/19/23 13:12	EPA 8270E	
Pentachlorophenol (PCP)	1.08	1.00	2.00	ug/L	10	09/19/23 13:12	EPA 8270E	J
Phenol	ND	2.00	4.00	ug/L	10	09/19/23 13:12	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.500	1.00	ug/L	10	09/19/23 13:12	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.500	1.00	ug/L	10	09/19/23 13:12	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.500	1.00	ug/L	10	09/19/23 13:12	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	2.00	4.00	ug/L	10	09/19/23 13:12	EPA 8270E	
Butyl benzyl phthalate	ND	2.00	4.00	ug/L	10	09/19/23 13:12	EPA 8270E	
Diethylphthalate	ND	2.00	4.00	ug/L	10	09/19/23 13:12	EPA 8270E	
Dimethylphthalate	ND	2.00	4.00	ug/L	10	09/19/23 13:12	EPA 8270E	
Di-n-butylphthalate	ND	2.00	4.00	ug/L	10	09/19/23 13:12	EPA 8270E	
Di-n-octyl phthalate	ND	2.00	4.00	ug/L	10	09/19/23 13:12	EPA 8270E	
N-Nitrosodimethylamine	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Cody Schweitzer

Report ID:

A3I1084 - 10 12 23 1512

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-2-0923 (A3I1084-09RE1)		Matrix: Water			Batch: 23I0511			
2,2'-Oxybis(1-Chloropropane)	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
Hexachlorobenzene	ND	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	
Hexachlorobutadiene	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.500	1.00	ug/L	10	09/19/23 13:12	EPA 8270E	
Hexachloroethane	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
2-Chloronaphthalene	ND	0.100	0.200	ug/L	10	09/19/23 13:12	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
Aniline	ND	0.500	1.00	ug/L	10	09/19/23 13:12	EPA 8270E	
4-Chloroaniline	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
2-Nitroaniline	ND	2.00	4.00	ug/L	10	09/19/23 13:12	EPA 8270E	
3-Nitroaniline	ND	2.00	4.00	ug/L	10	09/19/23 13:12	EPA 8270E	
4-Nitroaniline	ND	2.00	4.00	ug/L	10	09/19/23 13:12	EPA 8270E	
Nitrobenzene	ND	1.00	2.00	ug/L	10	09/19/23 13:12	EPA 8270E	
2,4-Dinitrotoluene	ND	1.00	2.00	ug/L	10	09/19/23 13:12	EPA 8270E	
2,6-Dinitrotoluene	ND	1.00	2.00	ug/L	10	09/19/23 13:12	EPA 8270E	
Benzoic acid	ND	12.5	25.0	ug/L	10	09/19/23 13:12	EPA 8270E	
Benzyl alcohol	ND	1.00	2.00	ug/L	10	09/19/23 13:12	EPA 8270E	
Isophorone	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	2.50	5.00	ug/L	10	09/19/23 13:12	EPA 8270E	
3,3'-Dichlorobenzidine	ND	5.00	10.0	ug/L	10	09/19/23 13:12	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	2.50	5.00	ug/L	10	09/19/23 13:12	EPA 8270E	
1,3-Dinitrobenzene	ND	2.50	5.00	ug/L	10	09/19/23 13:12	EPA 8270E	
1,4-Dinitrobenzene	ND	2.50	5.00	ug/L	10	09/19/23 13:12	EPA 8270E	
Pyridine	ND	1.00	2.00	ug/L	10	09/19/23 13:12	EPA 8270E	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	10	09/19/23 13:12	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 74 %		Limits: 44-120 %	10	09/19/23 13:12	EPA 8270E	
2-Fluorobiphenyl (Surr)		68 %		44-120 %	10	09/19/23 13:12	EPA 8270E	
Phenol-d6 (Surr)		24 %		10-133 %	10	09/19/23 13:12	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 10 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Cody Schweitzer

Report ID:

A3I1084 - 10 12 23 1512

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-2-0923 (A3I1084-09RE1)		Matrix: Water			Batch: 23I0511			
Surrogate: p-Terphenyl-d14 (Surr)		Recovery: 78 %	Limits: 50-134 %	10	09/19/23 13:12	EPA 8270E		
2-Fluorophenol (Surr)		41 %	19-120 %	10	09/19/23 13:12	EPA 8270E		
2,4,6-Tribromophenol (Surr)		87 %	43-140 %	10	09/19/23 13:12	EPA 8270E		
R-3-0923 (A3I1084-10)		Matrix: Water			Batch: 23I0610			
Acenaphthene	119	0.194	0.388	ug/L	20	09/20/23 20:27	EPA 8270E	B-02
Fluorene	54.7	0.194	0.388	ug/L	20	09/20/23 20:27	EPA 8270E	
1-Methylnaphthalene	126	0.388	0.777	ug/L	20	09/20/23 20:27	EPA 8270E	B-02
2-Methylnaphthalene	131	0.388	0.777	ug/L	20	09/20/23 20:27	EPA 8270E	B-02
Phenanthrene	56.5	0.194	0.388	ug/L	20	09/20/23 20:27	EPA 8270E	
Carbazole	10.2	0.291	0.583	ug/L	20	09/20/23 20:27	EPA 8270E	
Dibenzofuran	54.6	0.194	0.388	ug/L	20	09/20/23 20:27	EPA 8270E	
R-3-0923 (A3I1084-10RE1)		Matrix: Water			Batch: 23I0610			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.485	0.971	ug/L	5	09/22/23 20:37	EPA 8270E	A-01
Acenaphthylene	ND	1.65	1.65	ug/L	5	09/22/23 20:37	EPA 8270E	R-02
Anthracene	9.25	0.0485	0.0971	ug/L	5	09/22/23 20:37	EPA 8270E	
Benz(a)anthracene	1.01	0.0485	0.0971	ug/L	5	09/22/23 20:37	EPA 8270E	
Benzo(a)pyrene	0.302	0.0728	0.146	ug/L	5	09/22/23 20:37	EPA 8270E	
Benzo(b)fluoranthene	0.419	0.0728	0.146	ug/L	5	09/22/23 20:37	EPA 8270E	M-05
Benzo(k)fluoranthene	0.207	0.0728	0.146	ug/L	5	09/22/23 20:37	EPA 8270E	M-05
Benzo(g,h,i)perylene	ND	0.0485	0.0971	ug/L	5	09/22/23 20:37	EPA 8270E	
Chrysene	1.01	0.0485	0.0971	ug/L	5	09/22/23 20:37	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0485	0.0971	ug/L	5	09/22/23 20:37	EPA 8270E	
Fluoranthene	15.3	0.0485	0.0971	ug/L	5	09/22/23 20:37	EPA 8270E	
Indeno(1,2,3-cd)pyrene	0.0567	0.0485	0.0971	ug/L	5	09/22/23 20:37	EPA 8270E	J
Pyrene	11.6	0.0485	0.0971	ug/L	5	09/22/23 20:37	EPA 8270E	
2-Chlorophenol	ND	0.243	0.485	ug/L	5	09/22/23 20:37	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.485	0.971	ug/L	5	09/22/23 20:37	EPA 8270E	
2,4-Dichlorophenol	ND	0.243	0.485	ug/L	5	09/22/23 20:37	EPA 8270E	
2,4-Dimethylphenol	ND	0.243	0.485	ug/L	5	09/22/23 20:37	EPA 8270E	
2,4-Dinitrophenol	ND	1.21	2.43	ug/L	5	09/22/23 20:37	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	1.21	2.43	ug/L	5	09/22/23 20:37	EPA 8270E	
2-Methylphenol	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Cody Schweitzer

Report ID:

A311084 - 10 12 23 1512

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-3-0923 (A311084-10RE1)		Matrix: Water			Batch: 2310610			
3+4-Methylphenol(s)	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
2-Nitrophenol	ND	0.485	0.971	ug/L	5	09/22/23 20:37	EPA 8270E	
4-Nitrophenol	ND	1.55	1.55	ug/L	5	09/22/23 20:37	EPA 8270E	R-02
Pentachlorophenol (PCP)	0.633	0.485	0.971	ug/L	5	09/22/23 20:37	EPA 8270E	J
Phenol	ND	0.971	1.94	ug/L	5	09/22/23 20:37	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.243	0.485	ug/L	5	09/22/23 20:37	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.243	0.485	ug/L	5	09/22/23 20:37	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.243	0.485	ug/L	5	09/22/23 20:37	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.971	1.94	ug/L	5	09/22/23 20:37	EPA 8270E	
Butyl benzyl phthalate	ND	0.971	1.94	ug/L	5	09/22/23 20:37	EPA 8270E	
Diethylphthalate	ND	0.971	1.94	ug/L	5	09/22/23 20:37	EPA 8270E	
Dimethylphthalate	ND	0.971	1.94	ug/L	5	09/22/23 20:37	EPA 8270E	
Di-n-butylphthalate	ND	0.971	1.94	ug/L	5	09/22/23 20:37	EPA 8270E	
Di-n-octyl phthalate	ND	0.971	1.94	ug/L	5	09/22/23 20:37	EPA 8270E	
N-Nitrosodimethylamine	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.777	0.777	ug/L	5	09/22/23 20:37	EPA 8270E	R-02
Bis(2-Chloroethoxy) methane	ND	0.243	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
Hexachlorobenzene	ND	0.0485	0.0971	ug/L	5	09/22/23 20:37	EPA 8270E	
Hexachlorobutadiene	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.243	0.485	ug/L	5	09/22/23 20:37	EPA 8270E	
Hexachloroethane	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
2-Chloronaphthalene	ND	0.146	0.146	ug/L	5	09/22/23 20:37	EPA 8270E	R-02
1,2,4-Trichlorobenzene	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
Aniline	ND	0.243	0.485	ug/L	5	09/22/23 20:37	EPA 8270E	
4-Chloroaniline	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
2-Nitroaniline	ND	0.971	1.94	ug/L	5	09/22/23 20:37	EPA 8270E	
3-Nitroaniline	ND	0.971	1.94	ug/L	5	09/22/23 20:37	EPA 8270E	
4-Nitroaniline	ND	2.33	2.33	ug/L	5	09/22/23 20:37	EPA 8270E	R-02

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 12 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Cody Schweitzer

Report ID:

A311084 - 10 12 23 1512

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R-3-0923 (A311084-10RE1)		Matrix: Water			Batch: 2310610			
Nitrobenzene	ND	1.26	1.26	ug/L	5	09/22/23 20:37	EPA 8270E	R-02
2,4-Dinitrotoluene	ND	2.91	2.91	ug/L	5	09/22/23 20:37	EPA 8270E	R-02
2,6-Dinitrotoluene	ND	0.485	0.971	ug/L	5	09/22/23 20:37	EPA 8270E	
Benzoic acid	ND	6.07	12.1	ug/L	5	09/22/23 20:37	EPA 8270E	
Benzyl alcohol	ND	0.485	0.971	ug/L	5	09/22/23 20:37	EPA 8270E	
Isophorone	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.291	0.291	ug/L	5	09/22/23 20:37	EPA 8270E	R-02
Bis(2-Ethylhexyl) adipate	ND	1.21	2.43	ug/L	5	09/22/23 20:37	EPA 8270E	
3,3'-Dichlorobenzidine	ND	2.43	4.85	ug/L	5	09/22/23 20:37	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	1.21	2.43	ug/L	5	09/22/23 20:37	EPA 8270E	
1,3-Dinitrobenzene	ND	1.21	2.43	ug/L	5	09/22/23 20:37	EPA 8270E	
1,4-Dinitrobenzene	ND	1.21	2.43	ug/L	5	09/22/23 20:37	EPA 8270E	
Pyridine	ND	0.485	0.971	ug/L	5	09/22/23 20:37	EPA 8270E	
1,2-Dichlorobenzene	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
1,3-Dichlorobenzene	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
1,4-Dichlorobenzene	ND	0.121	0.243	ug/L	5	09/22/23 20:37	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	77 %	Limits:	44-120 %	5	09/22/23 20:37	EPA 8270E
2-Fluorobiphenyl (Surr)			68 %		44-120 %	5	09/22/23 20:37	EPA 8270E
Phenol-d6 (Surr)			25 %		10-133 %	5	09/22/23 20:37	EPA 8270E
p-Terphenyl-d14 (Surr)			82 %		50-134 %	5	09/22/23 20:37	EPA 8270E
2-Fluorophenol (Surr)			36 %		19-120 %	5	09/22/23 20:37	EPA 8270E
2,4,6-Tribromophenol (Surr)			89 %		43-140 %	5	09/22/23 20:37	EPA 8270E
R-3-0923 (A311084-10RE2)		Matrix: Water			Batch: 2310610			
Naphthalene	483	3.88	7.77	ug/L	200	09/21/23 16:54	EPA 8270E	B
DUP-0923 (A311084-11RE1)		Matrix: Water			Batch: 2310511			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.952	1.90	ug/L	10	09/19/23 13:47	EPA 8270E	A-01
Acenaphthene	10.5	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	
Acenaphthylene	2.22	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	
Anthracene	0.181	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	J
Benz(a)anthracene	0.0966	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	J
Benzo(a)pyrene	ND	0.143	0.286	ug/L	10	09/19/23 13:47	EPA 8270E	
Benzo(b)fluoranthene	ND	0.143	0.286	ug/L	10	09/19/23 13:47	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-EugeneProject Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP-0923 (A311084-11RE1)		Matrix: Water			Batch: 2310511			
Benzo(k)fluoranthene	ND	0.143	0.286	ug/L	10	09/19/23 13:47	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	
Chrysene	ND	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	
Fluoranthene	4.05	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	
Fluorene	ND	0.286	0.286	ug/L	10	09/19/23 13:47	EPA 8270E	R-02
Indeno(1,2,3-cd)pyrene	ND	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	
1-Methylnaphthalene	ND	0.190	0.381	ug/L	10	09/19/23 13:47	EPA 8270E	
2-Methylnaphthalene	ND	0.190	0.381	ug/L	10	09/19/23 13:47	EPA 8270E	
Naphthalene	ND	0.190	0.381	ug/L	10	09/19/23 13:47	EPA 8270E	
Phenanthrene	ND	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	
Pyrene	3.90	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	
Carbazole	ND	0.143	0.286	ug/L	10	09/19/23 13:47	EPA 8270E	
Dibenzofuran	ND	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	
2-Chlorophenol	ND	0.476	0.952	ug/L	10	09/19/23 13:47	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.952	1.90	ug/L	10	09/19/23 13:47	EPA 8270E	
2,4-Dichlorophenol	ND	0.476	0.952	ug/L	10	09/19/23 13:47	EPA 8270E	
2,4-Dimethylphenol	ND	0.476	0.952	ug/L	10	09/19/23 13:47	EPA 8270E	
2,4-Dinitrophenol	ND	2.38	4.76	ug/L	10	09/19/23 13:47	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	2.38	4.76	ug/L	10	09/19/23 13:47	EPA 8270E	
2-Methylphenol	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
3+4-Methylphenol(s)	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
2-Nitrophenol	ND	0.952	1.90	ug/L	10	09/19/23 13:47	EPA 8270E	
4-Nitrophenol	ND	0.952	1.90	ug/L	10	09/19/23 13:47	EPA 8270E	
Pentachlorophenol (PCP)	1.08	0.952	1.90	ug/L	10	09/19/23 13:47	EPA 8270E	J
Phenol	ND	1.90	3.81	ug/L	10	09/19/23 13:47	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.476	0.952	ug/L	10	09/19/23 13:47	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.476	0.952	ug/L	10	09/19/23 13:47	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.476	0.952	ug/L	10	09/19/23 13:47	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	1.90	3.81	ug/L	10	09/19/23 13:47	EPA 8270E	
Butyl benzyl phthalate	ND	1.90	3.81	ug/L	10	09/19/23 13:47	EPA 8270E	
Diethylphthalate	ND	1.90	3.81	ug/L	10	09/19/23 13:47	EPA 8270E	
Dimethylphthalate	ND	1.90	3.81	ug/L	10	09/19/23 13:47	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 14 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-EugeneProject Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP-0923 (A311084-11RE1)		Matrix: Water			Batch: 2310511			
Di-n-butylphthalate	ND	1.90	3.81	ug/L	10	09/19/23 13:47	EPA 8270E	
Di-n-octyl phthalate	ND	1.90	3.81	ug/L	10	09/19/23 13:47	EPA 8270E	
N-Nitrosodimethylamine	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
Hexachlorobenzene	ND	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	
Hexachlorobutadiene	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.476	0.952	ug/L	10	09/19/23 13:47	EPA 8270E	
Hexachloroethane	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
2-Chloronaphthalene	ND	0.0952	0.190	ug/L	10	09/19/23 13:47	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
Aniline	ND	0.476	0.952	ug/L	10	09/19/23 13:47	EPA 8270E	
4-Chloroaniline	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
2-Nitroaniline	ND	1.90	3.81	ug/L	10	09/19/23 13:47	EPA 8270E	
3-Nitroaniline	ND	1.90	3.81	ug/L	10	09/19/23 13:47	EPA 8270E	
4-Nitroaniline	ND	1.90	3.81	ug/L	10	09/19/23 13:47	EPA 8270E	
Nitrobenzene	ND	0.952	1.90	ug/L	10	09/19/23 13:47	EPA 8270E	
2,4-Dinitrotoluene	ND	0.952	1.90	ug/L	10	09/19/23 13:47	EPA 8270E	
2,6-Dinitrotoluene	ND	0.952	1.90	ug/L	10	09/19/23 13:47	EPA 8270E	
Benzoic acid	ND	11.9	23.8	ug/L	10	09/19/23 13:47	EPA 8270E	
Benzyl alcohol	ND	0.952	1.90	ug/L	10	09/19/23 13:47	EPA 8270E	
Isophorone	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	2.38	4.76	ug/L	10	09/19/23 13:47	EPA 8270E	
3,3'-Dichlorobenzidine	ND	4.76	9.52	ug/L	10	09/19/23 13:47	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	2.38	4.76	ug/L	10	09/19/23 13:47	EPA 8270E	
1,3-Dinitrobenzene	ND	2.38	4.76	ug/L	10	09/19/23 13:47	EPA 8270E	
1,4-Dinitrobenzene	ND	2.38	4.76	ug/L	10	09/19/23 13:47	EPA 8270E	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Cody Schweitzer

Report ID:

A311084 - 10 12 23 1512

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP-0923 (A311084-11RE1)		Matrix: Water			Batch: 2310511			
Pyridine	ND	0.952	1.90	ug/L	10	09/19/23 13:47	EPA 8270E	
1,2-Dichlorobenzene	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
1,3-Dichlorobenzene	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
1,4-Dichlorobenzene	ND	0.238	0.476	ug/L	10	09/19/23 13:47	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 44-120 %</i>	<i>10</i>	<i>09/19/23 13:47</i>	<i>EPA 8270E</i>	
<i>2-Fluorobiphenyl (Surr)</i>		<i>76 %</i>		<i>44-120 %</i>	<i>10</i>	<i>09/19/23 13:47</i>	<i>EPA 8270E</i>	
<i>Phenol-d6 (Surr)</i>		<i>26 %</i>		<i>10-133 %</i>	<i>10</i>	<i>09/19/23 13:47</i>	<i>EPA 8270E</i>	
<i>p-Terphenyl-d14 (Surr)</i>		<i>82 %</i>		<i>50-134 %</i>	<i>10</i>	<i>09/19/23 13:47</i>	<i>EPA 8270E</i>	
<i>2-Fluorophenol (Surr)</i>		<i>43 %</i>		<i>19-120 %</i>	<i>10</i>	<i>09/19/23 13:47</i>	<i>EPA 8270E</i>	
<i>2,4,6-Tribromophenol (Surr)</i>		<i>98 %</i>		<i>43-140 %</i>	<i>10</i>	<i>09/19/23 13:47</i>	<i>EPA 8270E</i>	
FIELD-0923 (A311084-12)		Matrix: Water			Batch: 2310610			
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	ND	0.0990	0.198	ug/L	1	09/21/23 11:39	EPA 8270E	A-01
Acenaphthene	0.0198	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	B-02
Acenaphthylene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
Anthracene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
Benz(a)anthracene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
Benzo(a)pyrene	ND	0.0149	0.0297	ug/L	1	09/21/23 11:39	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0149	0.0297	ug/L	1	09/21/23 11:39	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0149	0.0297	ug/L	1	09/21/23 11:39	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
Chrysene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
Fluoranthene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
Fluorene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
1-Methylnaphthalene	ND	0.0396	0.0396	ug/L	1	09/21/23 11:39	EPA 8270E	
2-Methylnaphthalene	ND	0.0396	0.0396	ug/L	1	09/21/23 11:39	EPA 8270E	
Naphthalene	0.156	0.0198	0.0396	ug/L	1	09/21/23 11:39	EPA 8270E	B
Phenanthrene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
Pyrene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
Carbazole	ND	0.0149	0.0297	ug/L	1	09/21/23 11:39	EPA 8270E	
Dibenzofuran	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
2-Chlorophenol	ND	0.0495	0.0990	ug/L	1	09/21/23 11:39	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-EugeneProject Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FIELD-0923 (A311084-12)		Matrix: Water			Batch: 2310610			
4-Chloro-3-methylphenol	ND	0.0990	0.198	ug/L	1	09/21/23 11:39	EPA 8270E	
2,4-Dichlorophenol	ND	0.0495	0.0990	ug/L	1	09/21/23 11:39	EPA 8270E	
2,4-Dimethylphenol	ND	0.0495	0.0990	ug/L	1	09/21/23 11:39	EPA 8270E	
2,4-Dinitrophenol	ND	0.248	0.495	ug/L	1	09/21/23 11:39	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.248	0.495	ug/L	1	09/21/23 11:39	EPA 8270E	
2-Methylphenol	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
2-Nitrophenol	ND	0.0990	0.198	ug/L	1	09/21/23 11:39	EPA 8270E	
4-Nitrophenol	ND	0.0990	0.198	ug/L	1	09/21/23 11:39	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0990	0.198	ug/L	1	09/21/23 11:39	EPA 8270E	
Phenol	ND	0.198	0.396	ug/L	1	09/21/23 11:39	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0495	0.0990	ug/L	1	09/21/23 11:39	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0495	0.0990	ug/L	1	09/21/23 11:39	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0495	0.0990	ug/L	1	09/21/23 11:39	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.198	0.396	ug/L	1	09/21/23 11:39	EPA 8270E	
Butyl benzyl phthalate	ND	0.198	0.396	ug/L	1	09/21/23 11:39	EPA 8270E	
Diethylphthalate	ND	0.198	0.396	ug/L	1	09/21/23 11:39	EPA 8270E	
Dimethylphthalate	ND	0.198	0.396	ug/L	1	09/21/23 11:39	EPA 8270E	
Di-n-butylphthalate	ND	0.396	0.396	ug/L	1	09/21/23 11:39	EPA 8270E	
Di-n-octyl phthalate	ND	0.198	0.396	ug/L	1	09/21/23 11:39	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
Hexachlorobenzene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
Hexachlorobutadiene	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0495	0.0990	ug/L	1	09/21/23 11:39	EPA 8270E	
Hexachloroethane	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
2-Chloronaphthalene	ND	0.00990	0.0198	ug/L	1	09/21/23 11:39	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Cody Schweitzer

Report ID:

A311084 - 10 12 23 1512

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FIELD-0923 (A311084-12)		Matrix: Water			Batch: 2310610			
4-Chlorophenyl phenyl ether	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
Aniline	ND	0.0495	0.0990	ug/L	1	09/21/23 11:39	EPA 8270E	
4-Chloroaniline	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
2-Nitroaniline	ND	0.198	0.396	ug/L	1	09/21/23 11:39	EPA 8270E	
3-Nitroaniline	ND	0.198	0.396	ug/L	1	09/21/23 11:39	EPA 8270E	
4-Nitroaniline	ND	0.198	0.396	ug/L	1	09/21/23 11:39	EPA 8270E	
Nitrobenzene	ND	0.0990	0.198	ug/L	1	09/21/23 11:39	EPA 8270E	
2,4-Dinitrotoluene	ND	0.0990	0.198	ug/L	1	09/21/23 11:39	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0990	0.198	ug/L	1	09/21/23 11:39	EPA 8270E	
Benzoic acid	ND	1.24	2.48	ug/L	1	09/21/23 11:39	EPA 8270E	
Benzyl alcohol	ND	0.0990	0.198	ug/L	1	09/21/23 11:39	EPA 8270E	
Isophorone	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.248	0.495	ug/L	1	09/21/23 11:39	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.495	0.990	ug/L	1	09/21/23 11:39	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.248	0.495	ug/L	1	09/21/23 11:39	EPA 8270E	
1,3-Dinitrobenzene	ND	0.248	0.495	ug/L	1	09/21/23 11:39	EPA 8270E	
1,4-Dinitrobenzene	ND	0.248	0.495	ug/L	1	09/21/23 11:39	EPA 8270E	
Pyridine	ND	0.0990	0.198	ug/L	1	09/21/23 11:39	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0248	0.0495	ug/L	1	09/21/23 11:39	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	70 %	Limits:	44-120 %	1	09/21/23 11:39	EPA 8270E
2-Fluorobiphenyl (Surr)			60 %		44-120 %	1	09/21/23 11:39	EPA 8270E
Phenol-d6 (Surr)			23 %		10-133 %	1	09/21/23 11:39	EPA 8270E
p-Terphenyl-d14 (Surr)			69 %		50-134 %	1	09/21/23 11:39	EPA 8270E
2-Fluorophenol (Surr)			34 %		19-120 %	1	09/21/23 11:39	EPA 8270E
2,4,6-Tribromophenol (Surr)			64 %		43-140 %	1	09/21/23 11:39	EPA 8270E

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0506 - EPA 3510C (Acid Extraction)						Water						
Blank (23I0506-BLK2)			Prepared: 09/18/23 06:00		Analyzed: 09/18/23 12:01							
EPA 8270E												
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(S)D	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	A-01
Acenaphthene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0506 - EPA 3510C (Acid Extraction)						Water						
Blank (23I0506-BLK2)			Prepared: 09/18/23 06:00		Analyzed: 09/18/23 12:01							
2,3,4,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)												
			Recovery:	47 %	Limits:	44-120 %	Dilution:		1x			
2-Fluorobiphenyl (Surr)				43 %		44-120 %			"	S-06		
Phenol-d6 (Surr)				17 %		10-133 %			"			
p-Terphenyl-d14 (Surr)				65 %		50-134 %			"			
2-Fluorophenol (Surr)				26 %		19-120 %			"			
2,4,6-Tribromophenol (Surr)				59 %		43-140 %			"			
LCS (23I0506-BS2)			Prepared: 09/18/23 06:00		Analyzed: 09/18/23 12:38							
EPA 8270E												
Acenaphthene	2.65	0.0400	0.0800	ug/L	4	4.00	---	66	47-122%	---	---	
Acenaphthylene	2.69	0.0400	0.0800	ug/L	4	4.00	---	67	41-130%	---	---	
Anthracene	3.05	0.0400	0.0800	ug/L	4	4.00	---	76	57-123%	---	---	
Benz(a)anthracene	3.11	0.0400	0.0800	ug/L	4	4.00	---	78	58-125%	---	---	
Benzo(a)pyrene	3.55	0.0600	0.120	ug/L	4	4.00	---	89	54-128%	---	---	
Benzo(b)fluoranthene	3.28	0.0600	0.120	ug/L	4	4.00	---	82	53-131%	---	---	
Benzo(k)fluoranthene	3.49	0.0600	0.120	ug/L	4	4.00	---	87	57-129%	---	---	
Benzo(g,h,i)perylene	3.27	0.0400	0.0800	ug/L	4	4.00	---	82	50-134%	---	---	
Chrysene	3.27	0.0400	0.0800	ug/L	4	4.00	---	82	59-123%	---	---	
Dibenz(a,h)anthracene	3.23	0.0400	0.0800	ug/L	4	4.00	---	81	51-134%	---	---	
Fluoranthene	3.29	0.0400	0.0800	ug/L	4	4.00	---	82	57-128%	---	---	
Fluorene	2.86	0.0400	0.0800	ug/L	4	4.00	---	71	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.02	0.0400	0.0800	ug/L	4	4.00	---	76	52-134%	---	---	
1-Methylnaphthalene	2.51	0.0800	0.160	ug/L	4	4.00	---	63	41-120%	---	---	
2-Methylnaphthalene	2.62	0.0800	0.160	ug/L	4	4.00	---	66	40-121%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 20 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0506 - EPA 3510C (Acid Extraction)						Water						
LCS (23I0506-BS2)			Prepared: 09/18/23 06:00		Analyzed: 09/18/23 12:38							
Naphthalene	2.32	0.0800	0.160	ug/L	4	4.00	---	58	40-121%	---	---	Q-41
Phenanthrene	2.96	0.0400	0.0800	ug/L	4	4.00	---	74	59-120%	---	---	
Pyrene	3.27	0.0400	0.0800	ug/L	4	4.00	---	82	57-126%	---	---	
Carbazole	4.05	0.0600	0.120	ug/L	4	4.00	---	101	60-122%	---	---	
Dibenzofuran	2.66	0.0400	0.0800	ug/L	4	4.00	---	67	53-120%	---	---	
2-Chlorophenol	2.16	0.200	0.400	ug/L	4	4.00	---	54	38-120%	---	---	
4-Chloro-3-methylphenol	2.97	0.400	0.800	ug/L	4	4.00	---	74	52-120%	---	---	
2,4-Dichlorophenol	2.70	0.200	0.400	ug/L	4	4.00	---	67	47-121%	---	---	
2,4-Dimethylphenol	2.67	0.200	0.400	ug/L	4	4.00	---	67	31-124%	---	---	
2,4-Dinitrophenol	2.91	1.00	2.00	ug/L	4	4.00	---	73	23-143%	---	---	
4,6-Dinitro-2-methylphenol	3.44	1.00	2.00	ug/L	4	4.00	---	86	44-137%	---	---	
2-Methylphenol	2.07	0.100	0.200	ug/L	4	4.00	---	52	30-120%	---	---	
3+4-Methylphenol(s)	2.04	0.100	0.200	ug/L	4	4.00	---	51	29-120%	---	---	
2-Nitrophenol	2.36	0.400	0.800	ug/L	4	4.00	---	59	47-123%	---	---	
4-Nitrophenol	1.10	0.400	0.800	ug/L	4	4.00	---	28	10-120%	---	---	
Pentachlorophenol (PCP)	2.97	0.400	0.800	ug/L	4	4.00	---	74	35-138%	---	---	
Phenol	0.870	0.800	0.800	ug/L	4	4.00	---	22	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	3.03	0.200	0.400	ug/L	4	4.00	---	76	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	3.03	0.200	0.400	ug/L	4	4.00	---	76	50-121%	---	---	
2,4,5-Trichlorophenol	2.77	0.200	0.400	ug/L	4	4.00	---	69	53-123%	---	---	
2,4,6-Trichlorophenol	2.68	0.200	0.400	ug/L	4	4.00	---	67	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.39	0.800	1.60	ug/L	4	4.00	---	85	55-135%	---	---	
Butyl benzyl phthalate	3.35	0.800	1.60	ug/L	4	4.00	---	84	53-134%	---	---	
Diethylphthalate	3.19	0.800	1.60	ug/L	4	4.00	---	80	56-125%	---	---	
Dimethylphthalate	2.95	0.800	1.60	ug/L	4	4.00	---	74	45-127%	---	---	
Di-n-butylphthalate	3.44	0.800	1.60	ug/L	4	4.00	---	86	59-127%	---	---	
Di-n-octyl phthalate	3.33	0.800	1.60	ug/L	4	4.00	---	83	51-140%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 58 %		Limits: 44-120 %		Dilution: 4x						
2-Fluorobiphenyl (Surr)		55 %		44-120 %		"						
Phenol-d6 (Surr)		21 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		72 %		50-134 %		"						
2-Fluorophenol (Surr)		30 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		73 %		43-140 %		"						

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 21 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0506 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (23I0506-BSD2)			Prepared: 09/18/23 06:00		Analyzed: 09/18/23 13:14		Q-19					
EPA 8270E												
Acenaphthene	2.62	0.0400	0.0800	ug/L	4	4.00	---	66	47-122%	1	30%	Q-41
Acenaphthylene	2.64	0.0400	0.0800	ug/L	4	4.00	---	66	41-130%	2	30%	
Anthracene	2.85	0.0400	0.0800	ug/L	4	4.00	---	71	57-123%	7	30%	
Benz(a)anthracene	2.87	0.0400	0.0800	ug/L	4	4.00	---	72	58-125%	8	30%	
Benzo(a)pyrene	3.27	0.0600	0.120	ug/L	4	4.00	---	82	54-128%	8	30%	
Benzo(b)fluoranthene	2.96	0.0600	0.120	ug/L	4	4.00	---	74	53-131%	10	30%	
Benzo(k)fluoranthene	3.21	0.0600	0.120	ug/L	4	4.00	---	80	57-129%	9	30%	
Benzo(g,h,i)perylene	2.94	0.0400	0.0800	ug/L	4	4.00	---	73	50-134%	11	30%	
Chrysene	3.01	0.0400	0.0800	ug/L	4	4.00	---	75	59-123%	8	30%	
Dibenz(a,h)anthracene	2.92	0.0400	0.0800	ug/L	4	4.00	---	73	51-134%	10	30%	
Fluoranthene	3.05	0.0400	0.0800	ug/L	4	4.00	---	76	57-128%	8	30%	
Fluorene	2.74	0.0400	0.0800	ug/L	4	4.00	---	68	52-124%	4	30%	
Indeno(1,2,3-cd)pyrene	2.76	0.0400	0.0800	ug/L	4	4.00	---	69	52-134%	9	30%	
1-Methylnaphthalene	2.51	0.0800	0.160	ug/L	4	4.00	---	63	41-120%	0.2	30%	
2-Methylnaphthalene	2.57	0.0800	0.160	ug/L	4	4.00	---	64	40-121%	2	30%	
Naphthalene	2.36	0.0800	0.160	ug/L	4	4.00	---	59	40-121%	2	30%	
Phenanthrene	2.74	0.0400	0.0800	ug/L	4	4.00	---	69	59-120%	8	30%	
Pyrene	2.97	0.0400	0.0800	ug/L	4	4.00	---	74	57-126%	10	30%	
Carbazole	3.66	0.0600	0.120	ug/L	4	4.00	---	91	60-122%	10	30%	
Dibenzofuran	2.61	0.0400	0.0800	ug/L	4	4.00	---	65	53-120%	2	30%	
2-Chlorophenol	2.32	0.200	0.400	ug/L	4	4.00	---	58	38-120%	7	30%	
4-Chloro-3-methylphenol	2.98	0.400	0.800	ug/L	4	4.00	---	75	52-120%	0.6	30%	
2,4-Dichlorophenol	2.84	0.200	0.400	ug/L	4	4.00	---	71	47-121%	5	30%	
2,4-Dimethylphenol	2.80	0.200	0.400	ug/L	4	4.00	---	70	31-124%	5	30%	
2,4-Dinitrophenol	2.72	1.00	2.00	ug/L	4	4.00	---	68	23-143%	7	30%	
4,6-Dinitro-2-methylphenol	3.24	1.00	2.00	ug/L	4	4.00	---	81	44-137%	6	30%	
2-Methylphenol	2.18	0.100	0.200	ug/L	4	4.00	---	55	30-120%	6	30%	
3+4-Methylphenol(s)	2.09	0.100	0.200	ug/L	4	4.00	---	52	29-120%	3	30%	
2-Nitrophenol	2.43	0.400	0.800	ug/L	4	4.00	---	61	47-123%	3	30%	
4-Nitrophenol	0.980	0.400	0.800	ug/L	4	4.00	---	24	10-120%	12	30%	
Pentachlorophenol (PCP)	2.71	0.400	0.800	ug/L	4	4.00	---	68	35-138%	9	30%	
Phenol	0.869	0.800	0.800	ug/L	4	4.00	---	22	10-120%	0.07	30%	
2,3,4,6-Tetrachlorophenol	2.89	0.200	0.400	ug/L	4	4.00	---	72	50-128%	5	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310506 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (2310506-BSD2)					Prepared: 09/18/23 06:00 Analyzed: 09/18/23 13:14						Q-19	
2,3,5,6-Tetrachlorophenol	2.89	0.200	0.400	ug/L	4	4.00	---	72	50-121%	5	30%	
2,4,5-Trichlorophenol	2.79	0.200	0.400	ug/L	4	4.00	---	70	53-123%	0.7	30%	
2,4,6-Trichlorophenol	2.67	0.200	0.400	ug/L	4	4.00	---	67	50-125%	0.5	30%	
Bis(2-ethylhexyl)phthalate	3.17	0.800	1.60	ug/L	4	4.00	---	79	55-135%	7	30%	
Butyl benzyl phthalate	3.15	0.800	1.60	ug/L	4	4.00	---	79	53-134%	6	30%	
Diethylphthalate	3.04	0.800	1.60	ug/L	4	4.00	---	76	56-125%	5	30%	
Dimethylphthalate	2.88	0.800	1.60	ug/L	4	4.00	---	72	45-127%	2	30%	
Di-n-butylphthalate	3.19	0.800	1.60	ug/L	4	4.00	---	80	59-127%	8	30%	
Di-n-octyl phthalate	3.10	0.800	1.60	ug/L	4	4.00	---	78	51-140%	7	30%	
<i>Surr: Nitrobenzene-d5 (Surr)</i>												
		Recovery: 65 %		Limits: 44-120 %		Dilution: 4x						
<i>2-Fluorobiphenyl (Surr)</i>		61 %		44-120 %		"						
<i>Phenol-d6 (Surr)</i>		22 %		10-133 %		"						
<i>p-Terphenyl-d14 (Surr)</i>		75 %		50-134 %		"						
<i>2-Fluorophenol (Surr)</i>		32 %		19-120 %		"						
<i>2,4,6-Tribromophenol (Surr)</i>		73 %		43-140 %		"						

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 23 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0559 - EPA 3510C (Acid Extraction)						Water						
Blank (23I0559-BLK1)			Prepared: 09/19/23 07:07		Analyzed: 09/19/23 13:17							
EPA 8270E												
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(SD	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	A-01
Acenaphthene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 24 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310559 - EPA 3510C (Acid Extraction)						Water						
Blank (2310559-BLK1)			Prepared: 09/19/23 07:07 Analyzed: 09/19/23 13:17									
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>												

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 25 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0559 - EPA 3510C (Acid Extraction)						Water						
LCS (23I0559-BS1)						Prepared: 09/19/23 07:07 Analyzed: 09/19/23 13:52						
Phenanthrene	3.42	0.0400	0.0800	ug/L	4	4.00	---	86	59-120%	---	---	
Pyrene	3.82	0.0400	0.0800	ug/L	4	4.00	---	95	57-126%	---	---	
Carbazole	3.91	0.0600	0.120	ug/L	4	4.00	---	98	60-122%	---	---	
Dibenzofuran	3.12	0.0400	0.0800	ug/L	4	4.00	---	78	53-120%	---	---	
2-Chlorophenol	2.49	0.200	0.400	ug/L	4	4.00	---	62	38-120%	---	---	
4-Chloro-3-methylphenol	2.92	0.400	0.800	ug/L	4	4.00	---	73	52-120%	---	---	
2,4-Dichlorophenol	2.83	0.200	0.400	ug/L	4	4.00	---	71	47-121%	---	---	
2,4-Dimethylphenol	2.52	0.200	0.400	ug/L	4	4.00	---	63	31-124%	---	---	
2,4-Dinitrophenol	3.32	1.00	2.00	ug/L	4	4.00	---	83	23-143%	---	---	
4,6-Dinitro-2-methylphenol	3.82	1.00	2.00	ug/L	4	4.00	---	95	44-137%	---	---	
2-Methylphenol	1.95	0.100	0.200	ug/L	4	4.00	---	49	30-120%	---	---	
3+4-Methylphenol(s)	1.81	0.100	0.200	ug/L	4	4.00	---	45	29-120%	---	---	
2-Nitrophenol	2.56	0.400	0.800	ug/L	4	4.00	---	64	47-123%	---	---	
4-Nitrophenol	1.11	0.400	0.800	ug/L	4	4.00	---	28	10-120%	---	---	
Pentachlorophenol (PCP)	3.45	0.400	0.800	ug/L	4	4.00	---	86	35-138%	---	---	
Phenol	0.789	0.400	0.400	ug/L	4	4.00	---	20	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	3.59	0.200	0.400	ug/L	4	4.00	---	90	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	3.37	0.200	0.400	ug/L	4	4.00	---	84	50-121%	---	---	
2,4,5-Trichlorophenol	3.21	0.200	0.400	ug/L	4	4.00	---	80	53-123%	---	---	
2,4,6-Trichlorophenol	3.13	0.200	0.400	ug/L	4	4.00	---	78	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.86	0.800	1.60	ug/L	4	4.00	---	96	55-135%	---	---	
Butyl benzyl phthalate	4.07	0.800	1.60	ug/L	4	4.00	---	102	53-134%	---	---	
Diethylphthalate	3.79	0.800	1.60	ug/L	4	4.00	---	95	56-125%	---	---	
Dimethylphthalate	3.53	0.800	1.60	ug/L	4	4.00	---	88	45-127%	---	---	
Di-n-butylphthalate	4.44	0.800	1.60	ug/L	4	4.00	---	111	59-127%	---	---	
Di-n-octyl phthalate	4.02	0.800	1.60	ug/L	4	4.00	---	101	51-140%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 60 %	Limits: 44-120 %			Dilution: 4x						
2-Fluorobiphenyl (Surr)		64 %	44-120 %			"						
Phenol-d6 (Surr)		20 %	10-133 %			"						
p-Terphenyl-d14 (Surr)		90 %	50-134 %			"						
2-Fluorophenol (Surr)		34 %	19-120 %			"						
2,4,6-Tribromophenol (Surr)		84 %	43-140 %			"						

LCS Dup (23I0559-BSD1)

Prepared: 09/19/23 07:07 Analyzed: 09/19/23 14:27

Q-19

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 26 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310559 - EPA 3510C (Acid Extraction)							Water					
LCS Dup (2310559-BSD1)				Prepared: 09/19/23 07:07				Analyzed: 09/19/23 14:27				Q-19
EPA 8270E												
Acenaphthene	2.90	0.0400	0.0800	ug/L	4	4.00	---	73	47-122%	8	30%	
Acenaphthylene	2.77	0.0400	0.0800	ug/L	4	4.00	---	69	41-130%	8	30%	
Anthracene	3.41	0.0400	0.0800	ug/L	4	4.00	---	85	57-123%	6	30%	
Benz(a)anthracene	3.70	0.0400	0.0800	ug/L	4	4.00	---	93	58-125%	1	30%	
Benzo(a)pyrene	4.02	0.0600	0.120	ug/L	4	4.00	---	100	54-128%	3	30%	
Benzo(b)fluoranthene	3.78	0.0600	0.120	ug/L	4	4.00	---	95	53-131%	2	30%	
Benzo(k)fluoranthene	3.97	0.0600	0.120	ug/L	4	4.00	---	99	57-129%	3	30%	
Benzo(g,h,i)perylene	3.84	0.0400	0.0800	ug/L	4	4.00	---	96	50-134%	1	30%	
Chrysene	3.71	0.0400	0.0800	ug/L	4	4.00	---	93	59-123%	2	30%	
Dibenz(a,h)anthracene	3.78	0.0400	0.0800	ug/L	4	4.00	---	94	51-134%	1	30%	
Fluoranthene	3.82	0.0400	0.0800	ug/L	4	4.00	---	95	57-128%	5	30%	
Fluorene	2.96	0.0400	0.0800	ug/L	4	4.00	---	74	52-124%	6	30%	
Indeno(1,2,3-cd)pyrene	3.53	0.0400	0.0800	ug/L	4	4.00	---	88	52-134%	2	30%	
1-Methylnaphthalene	2.30	0.0800	0.160	ug/L	4	4.00	---	57	41-120%	17	30%	
2-Methylnaphthalene	2.41	0.0800	0.160	ug/L	4	4.00	---	60	40-121%	18	30%	
Naphthalene	2.32	0.0800	0.160	ug/L	4	4.00	---	58	40-121%	16	30%	
Phenanthrene	3.25	0.0400	0.0800	ug/L	4	4.00	---	81	59-120%	5	30%	
Pyrene	3.66	0.0400	0.0800	ug/L	4	4.00	---	91	57-126%	4	30%	
Carbazole	3.65	0.0600	0.120	ug/L	4	4.00	---	91	60-122%	7	30%	
Dibenzofuran	2.83	0.0400	0.0800	ug/L	4	4.00	---	71	53-120%	10	30%	
2-Chlorophenol	2.23	0.200	0.400	ug/L	4	4.00	---	56	38-120%	11	30%	
4-Chloro-3-methylphenol	2.62	0.400	0.800	ug/L	4	4.00	---	66	52-120%	11	30%	
2,4-Dichlorophenol	2.54	0.200	0.400	ug/L	4	4.00	---	64	47-121%	11	30%	
2,4-Dimethylphenol	2.37	0.200	0.400	ug/L	4	4.00	---	59	31-124%	6	30%	
2,4-Dinitrophenol	2.94	1.00	2.00	ug/L	4	4.00	---	74	23-143%	12	30%	
4,6-Dinitro-2-methylphenol	3.47	1.00	2.00	ug/L	4	4.00	---	87	44-137%	9	30%	
2-Methylphenol	1.80	0.100	0.200	ug/L	4	4.00	---	45	30-120%	8	30%	
3+4-Methylphenol(s)	1.72	0.100	0.200	ug/L	4	4.00	---	43	29-120%	5	30%	
2-Nitrophenol	2.26	0.400	0.800	ug/L	4	4.00	---	57	47-123%	12	30%	
4-Nitrophenol	1.04	0.400	0.800	ug/L	4	4.00	---	26	10-120%	6	30%	
Pentachlorophenol (PCP)	3.26	0.400	0.800	ug/L	4	4.00	---	81	35-138%	6	30%	
Phenol	0.772	0.400	0.400	ug/L	4	4.00	---	19	10-120%	2	30%	
2,3,4,6-Tetrachlorophenol	3.27	0.200	0.400	ug/L	4	4.00	---	82	50-128%	9	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310559 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (2310559-BSD1)					Prepared: 09/19/23 07:07 Analyzed: 09/19/23 14:27							Q-19
2,3,5,6-Tetrachlorophenol	3.12	0.200	0.400	ug/L	4	4.00	---	78	50-121%	8	30%	
2,4,5-Trichlorophenol	2.99	0.200	0.400	ug/L	4	4.00	---	75	53-123%	7	30%	
2,4,6-Trichlorophenol	2.95	0.200	0.400	ug/L	4	4.00	---	74	50-125%	6	30%	
Bis(2-ethylhexyl)phthalate	3.77	0.800	1.60	ug/L	4	4.00	---	94	55-135%	2	30%	
Butyl benzyl phthalate	3.90	0.800	1.60	ug/L	4	4.00	---	98	53-134%	4	30%	
Diethylphthalate	3.66	0.800	1.60	ug/L	4	4.00	---	91	56-125%	4	30%	
Dimethylphthalate	3.41	0.800	1.60	ug/L	4	4.00	---	85	45-127%	3	30%	
Di-n-butylphthalate	4.22	0.800	1.60	ug/L	4	4.00	---	106	59-127%	5	30%	
Di-n-octyl phthalate	4.05	0.800	1.60	ug/L	4	4.00	---	101	51-140%	0.6	30%	
<i>Surr: Nitrobenzene-d5 (Surr)</i>												
		<i>Recovery:</i>		<i>Limits:</i>		<i>Dilution:</i>						
<i>2-Fluorobiphenyl (Surr)</i>		53 %		44-120 %		4x						
<i>Phenol-d6 (Surr)</i>		58 %		44-120 %		"						
<i>p-Terphenyl-d14 (Surr)</i>		19 %		10-133 %		"						
<i>2-Fluorophenol (Surr)</i>		91 %		50-134 %		"						
<i>2,4,6-Tribromophenol (Surr)</i>		33 %		19-120 %		"						
		81 %		43-140 %		"						

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 28 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23I0638 - EPA 3510C (Acid Extraction)						Water							
Blank (23I0638-BLK2)			Prepared: 09/20/23 14:28		Analyzed: 09/22/23 10:44								
EPA 8270E													
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(SD)	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	A-01	
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---		
Pentachlorophenol (PCP)	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---		
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---		
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---		
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---		
Surr: Nitrobenzene-d5 (Surr)		Recovery:		63 %	Limits: 44-120 %		Dilution: 1x						
2-Fluorobiphenyl (Surr)				53 %	44-120 %		"						
Phenol-d6 (Surr)				22 %	10-133 %		"						
p-Terphenyl-d14 (Surr)				71 %	50-134 %		"						
2-Fluorophenol (Surr)				34 %	19-120 %		"						
2,4,6-Tribromophenol (Surr)				48 %	43-140 %		"						
LCS (23I0638-BS2)			Prepared: 09/20/23 14:28		Analyzed: 09/22/23 11:19								
EPA 8270E													
2,4-Dichlorophenol	2.29	0.200	0.400	ug/L	4	4.00	---	57	47-121%	---	---		
Pentachlorophenol (PCP)	2.46	0.400	0.800	ug/L	4	4.00	---	62	35-138%	---	---		
2,3,4,6-Tetrachlorophenol	2.27	0.200	0.400	ug/L	4	4.00	---	57	50-128%	---	---		
2,3,5,6-Tetrachlorophenol	2.30	0.200	0.400	ug/L	4	4.00	---	57	50-121%	---	---		
2,4,5-Trichlorophenol	2.31	0.200	0.400	ug/L	4	4.00	---	58	53-123%	---	---		
2,4,6-Trichlorophenol	2.23	0.200	0.400	ug/L	4	4.00	---	56	50-125%	---	---		
Surr: Nitrobenzene-d5 (Surr)		Recovery:		63 %	Limits: 44-120 %		Dilution: 4x						
2-Fluorobiphenyl (Surr)				57 %	44-120 %		"						
Phenol-d6 (Surr)				22 %	10-133 %		"						
p-Terphenyl-d14 (Surr)				74 %	50-134 %		"						
2-Fluorophenol (Surr)				34 %	19-120 %		"						
2,4,6-Tribromophenol (Surr)				65 %	43-140 %		"						
LCS Dup (23I0638-BSD2)			Prepared: 09/20/23 14:28		Analyzed: 09/22/23 11:54								Q-19
EPA 8270E													
2,4-Dichlorophenol	2.36	0.200	0.400	ug/L	4	4.00	---	59	47-121%	3	30%		
Pentachlorophenol (PCP)	2.68	0.400	0.800	ug/L	4	4.00	---	67	35-138%	9	30%		
2,3,4,6-Tetrachlorophenol	2.52	0.200	0.400	ug/L	4	4.00	---	63	50-128%	10	30%		

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 29 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Cody Schweitzer

Report ID:

A3I1084 - 10 12 23 1512

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0638 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (23I0638-BSD2)			Prepared: 09/20/23 14:28 Analyzed: 09/22/23 11:54						Q-19			
2,3,5,6-Tetrachlorophenol	2.59	0.200	0.400	ug/L	4	4.00	---	65	50-121%	12	30%	
2,4,5-Trichlorophenol	2.50	0.200	0.400	ug/L	4	4.00	---	62	53-123%	8	30%	
2,4,6-Trichlorophenol	2.36	0.200	0.400	ug/L	4	4.00	---	59	50-125%	6	30%	
Surr: Nitrobenzene-d5 (Surr)			Recovery: 64 %	Limits: 44-120 %		Dilution: 4x						
2-Fluorobiphenyl (Surr)			58 %	44-120 %		"						
Phenol-d6 (Surr)			20 %	10-133 %		"						
p-Terphenyl-d14 (Surr)			77 %	50-134 %		"						
2-Fluorophenol (Surr)			33 %	19-120 %		"						
2,4,6-Tribromophenol (Surr)			69 %	43-140 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0511 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (23I0511-BLK1)			Prepared: 09/18/23 06:33		Analyzed: 09/18/23 14:52							
EPA 8270E												
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(SD	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	A-01
Acenaphthene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 31 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0511 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (23I0511-BLK1)						Prepared: 09/18/23 06:33 Analyzed: 09/18/23 14:52						
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Aniline	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
4-Chloroaniline	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2-Nitroaniline	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
3-Nitroaniline	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
4-Nitroaniline	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Benzoic acid	ND	1.25	2.50	ug/L	1	---	---	---	---	---	---	
Benzyl alcohol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Isophorone	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310511 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (2310511-BLK1)			Prepared: 09/18/23 06:33		Analyzed: 09/18/23 14:52							
Azobenzene (1,2-DPH)	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	Q-52
Bis(2-Ethylhexyl) adipate	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Pyridine	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)			Recovery: 63 %		Limits: 44-120 %		Dilution: 1x					
2-Fluorobiphenyl (Surr)			51 %		44-120 %		"					
Phenol-d6 (Surr)			24 %		10-133 %		"					
p-Terphenyl-d14 (Surr)			67 %		50-134 %		"					
2-Fluorophenol (Surr)			36 %		19-120 %		"					
2,4,6-Tribromophenol (Surr)			61 %		43-140 %		"					
LCS (2310511-BS1)						Prepared: 09/18/23 06:33		Analyzed: 09/18/23 15:27				
EPA 8270E												
Acenaphthene	2.58	0.0400	0.0800	ug/L	4	4.00	---	64	47-122%	---	---	
Acenaphthylene	2.77	0.0400	0.0800	ug/L	4	4.00	---	69	41-130%	---	---	
Anthracene	3.14	0.0400	0.0800	ug/L	4	4.00	---	78	57-123%	---	---	
Benz(a)anthracene	3.35	0.0400	0.0800	ug/L	4	4.00	---	84	58-125%	---	---	
Benzo(a)pyrene	3.62	0.0600	0.120	ug/L	4	4.00	---	90	54-128%	---	---	
Benzo(b)fluoranthene	3.43	0.0600	0.120	ug/L	4	4.00	---	86	53-131%	---	---	
Benzo(k)fluoranthene	3.52	0.0600	0.120	ug/L	4	4.00	---	88	57-129%	---	---	
Benzo(g,h,i)perylene	3.25	0.0400	0.0800	ug/L	4	4.00	---	81	50-134%	---	---	
Chrysene	3.39	0.0400	0.0800	ug/L	4	4.00	---	85	59-123%	---	---	
Dibenz(a,h)anthracene	3.25	0.0400	0.0800	ug/L	4	4.00	---	81	51-134%	---	---	
Fluoranthene	3.45	0.0400	0.0800	ug/L	4	4.00	---	86	57-128%	---	---	
Fluorene	3.04	0.0400	0.0800	ug/L	4	4.00	---	76	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.07	0.0400	0.0800	ug/L	4	4.00	---	77	52-134%	---	---	
1-Methylnaphthalene	2.20	0.0800	0.160	ug/L	4	4.00	---	55	41-120%	---	---	
2-Methylnaphthalene	2.26	0.0800	0.160	ug/L	4	4.00	---	56	40-121%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 33 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0511 - EPA 3510C (Acid/Base Neutral)							Water					
LCS (23I0511-BS1)			Prepared: 09/18/23 06:33		Analyzed: 09/18/23 15:27							
Naphthalene	2.15	0.0800	0.160	ug/L	4	4.00	---	54	40-121%	---	---	
Phenanthrene	2.95	0.0400	0.0800	ug/L	4	4.00	---	74	59-120%	---	---	
Pyrene	3.44	0.0400	0.0800	ug/L	4	4.00	---	86	57-126%	---	---	
Carbazole	3.69	0.0600	0.120	ug/L	4	4.00	---	92	60-122%	---	---	
Dibenzofuran	2.85	0.0400	0.0800	ug/L	4	4.00	---	71	53-120%	---	---	
2-Chlorophenol	2.76	0.200	0.400	ug/L	4	4.00	---	69	38-120%	---	---	
4-Chloro-3-methylphenol	3.13	0.400	0.800	ug/L	4	4.00	---	78	52-120%	---	---	
2,4-Dichlorophenol	2.93	0.200	0.400	ug/L	4	4.00	---	73	47-121%	---	---	
2,4-Dimethylphenol	2.58	0.200	0.400	ug/L	4	4.00	---	64	31-124%	---	---	
2,4-Dinitrophenol	3.19	1.00	2.00	ug/L	4	4.00	---	80	23-143%	---	---	
4,6-Dinitro-2-methylphenol	3.13	1.00	2.00	ug/L	4	4.00	---	78	44-137%	---	---	
2-Methylphenol	2.57	0.100	0.200	ug/L	4	4.00	---	64	30-120%	---	---	
3+4-Methylphenol(s)	2.41	0.100	0.200	ug/L	4	4.00	---	60	29-120%	---	---	
2-Nitrophenol	3.05	0.400	0.800	ug/L	4	4.00	---	76	47-123%	---	---	
4-Nitrophenol	1.15	0.400	0.800	ug/L	4	4.00	---	29	10-120%	---	---	
Pentachlorophenol (PCP)	3.09	0.400	0.800	ug/L	4	4.00	---	77	35-138%	---	---	
Phenol	1.35	0.800	0.800	ug/L	4	4.00	---	34	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	2.90	0.200	0.400	ug/L	4	4.00	---	72	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	2.93	0.200	0.400	ug/L	4	4.00	---	73	50-121%	---	---	
2,4,5-Trichlorophenol	2.87	0.200	0.400	ug/L	4	4.00	---	72	53-123%	---	---	
2,4,6-Trichlorophenol	2.70	0.200	0.400	ug/L	4	4.00	---	67	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.43	0.800	1.60	ug/L	4	4.00	---	86	55-135%	---	---	
Butyl benzyl phthalate	3.68	0.800	1.60	ug/L	4	4.00	---	92	53-134%	---	---	
Diethylphthalate	3.47	0.800	1.60	ug/L	4	4.00	---	87	56-125%	---	---	
Dimethylphthalate	3.28	0.800	1.60	ug/L	4	4.00	---	82	45-127%	---	---	
Di-n-butylphthalate	3.72	0.800	1.60	ug/L	4	4.00	---	93	59-127%	---	---	
Di-n-octyl phthalate	3.75	0.800	1.60	ug/L	4	4.00	---	94	51-140%	---	---	
N-Nitrosodimethylamine	1.85	0.100	0.200	ug/L	4	4.00	---	46	19-120%	---	---	
N-Nitroso-di-n-propylamine	3.34	0.100	0.200	ug/L	4	4.00	---	84	49-120%	---	---	
N-Nitrosodiphenylamine	3.32	0.100	0.200	ug/L	4	4.00	---	83	51-123%	---	---	
Bis(2-Chloroethoxy) methane	3.03	0.100	0.200	ug/L	4	4.00	---	76	48-120%	---	---	
Bis(2-Chloroethyl) ether	2.95	0.100	0.200	ug/L	4	4.00	---	74	43-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	3.10	0.100	0.200	ug/L	4	4.00	---	77	41-120%	---	---	
Hexachlorobenzene	2.74	0.0400	0.0800	ug/L	4	4.00	---	68	53-125%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 34 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310511 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (2310511-BS1)						Prepared: 09/18/23 06:33 Analyzed: 09/18/23 15:27						
Hexachlorobutadiene	1.22	0.100	0.200	ug/L	4	4.00	---	31	22-124%	---	---	
Hexachlorocyclopentadiene	0.674	0.200	0.400	ug/L	4	4.00	---	17	10-127%	---	---	
Hexachloroethane	1.25	0.100	0.200	ug/L	4	4.00	---	31	21-120%	---	---	
2-Chloronaphthalene	2.25	0.0400	0.0800	ug/L	4	4.00	---	56	40-120%	---	---	
1,2,4-Trichlorobenzene	1.60	0.100	0.200	ug/L	4	4.00	---	40	29-120%	---	---	
4-Bromophenyl phenyl ether	2.82	0.100	0.200	ug/L	4	4.00	---	70	55-124%	---	---	
4-Chlorophenyl phenyl ether	2.89	0.100	0.200	ug/L	4	4.00	---	72	53-121%	---	---	
Aniline	2.74	0.200	0.400	ug/L	4	4.00	---	68	10-120%	---	---	
4-Chloroaniline	3.22	0.100	0.200	ug/L	4	4.00	---	81	33-120%	---	---	
2-Nitroaniline	3.29	0.800	1.60	ug/L	4	4.00	---	82	55-127%	---	---	
3-Nitroaniline	4.69	0.800	1.60	ug/L	4	4.00	---	117	41-128%	---	---	Q-41
4-Nitroaniline	3.45	0.800	1.60	ug/L	4	4.00	---	86	25-120%	---	---	
Nitrobenzene	2.96	0.400	0.800	ug/L	4	4.00	---	74	45-121%	---	---	
2,4-Dinitrotoluene	3.09	0.400	0.800	ug/L	4	4.00	---	77	57-128%	---	---	
2,6-Dinitrotoluene	3.13	0.400	0.800	ug/L	4	4.00	---	78	57-124%	---	---	
Benzoic acid	3.55	2.00	2.00	ug/L	4	8.00	---	44	10-120%	---	---	
Benzyl alcohol	2.58	0.400	0.800	ug/L	4	4.00	---	65	31-120%	---	---	
Isophorone	3.13	0.100	0.200	ug/L	4	4.00	---	78	42-124%	---	---	
Azobenzene (1,2-DPH)	3.20	0.100	0.200	ug/L	4	4.00	---	80	61-120%	---	---	
Bis(2-Ethylhexyl) adipate	3.56	1.00	2.00	ug/L	4	4.00	---	89	63-121%	---	---	
3,3'-Dichlorobenzidine	23.0	2.00	4.00	ug/L	4	8.00	---	287	27-129%	---	---	Q-29, Q-52, Q-41
1,2-Dinitrobenzene	2.81	1.00	2.00	ug/L	4	4.00	---	70	59-120%	---	---	
1,3-Dinitrobenzene	3.05	1.00	2.00	ug/L	4	4.00	---	76	49-128%	---	---	
1,4-Dinitrobenzene	2.98	1.00	2.00	ug/L	4	4.00	---	75	54-120%	---	---	
Pyridine	1.67	0.400	0.800	ug/L	4	4.00	---	42	10-120%	---	---	
1,2-Dichlorobenzene	1.53	0.100	0.200	ug/L	4	4.00	---	38	32-120%	---	---	
1,3-Dichlorobenzene	1.38	0.100	0.200	ug/L	4	4.00	---	35	28-120%	---	---	
1,4-Dichlorobenzene	1.43	0.100	0.200	ug/L	4	4.00	---	36	29-120%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 71 %		Limits: 44-120 %		Dilution: 4x						
2-Fluorobiphenyl (Surr)		61 %		44-120 %		"						
Phenol-d6 (Surr)		26 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		78 %		50-134 %		"						
2-Fluorophenol (Surr)		39 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		73 %		43-140 %		"						

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 35 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310511 - EPA 3510C (Acid/Base Neutral)							Water					
LCS Dup (2310511-BSD1)				Prepared: 09/18/23 06:33				Analyzed: 09/18/23 16:02				Q-19
EPA 8270E												
Acenaphthene	2.50	0.0400	0.0800	ug/L	4	4.00	---	63	47-122%	3	30%	
Acenaphthylene	2.64	0.0400	0.0800	ug/L	4	4.00	---	66	41-130%	4	30%	
Anthracene	2.95	0.0400	0.0800	ug/L	4	4.00	---	74	57-123%	6	30%	
Benz(a)anthracene	2.98	0.0400	0.0800	ug/L	4	4.00	---	75	58-125%	12	30%	
Benzo(a)pyrene	3.24	0.0600	0.120	ug/L	4	4.00	---	81	54-128%	11	30%	
Benzo(b)fluoranthene	3.00	0.0600	0.120	ug/L	4	4.00	---	75	53-131%	13	30%	
Benzo(k)fluoranthene	3.20	0.0600	0.120	ug/L	4	4.00	---	80	57-129%	9	30%	
Benzo(g,h,i)perylene	2.88	0.0400	0.0800	ug/L	4	4.00	---	72	50-134%	12	30%	
Chrysene	3.06	0.0400	0.0800	ug/L	4	4.00	---	76	59-123%	10	30%	
Dibenz(a,h)anthracene	2.93	0.0400	0.0800	ug/L	4	4.00	---	73	51-134%	10	30%	
Fluoranthene	3.12	0.0400	0.0800	ug/L	4	4.00	---	78	57-128%	10	30%	
Fluorene	2.91	0.0400	0.0800	ug/L	4	4.00	---	73	52-124%	4	30%	
Indeno(1,2,3-cd)pyrene	2.74	0.0400	0.0800	ug/L	4	4.00	---	69	52-134%	11	30%	
1-Methylnaphthalene	2.20	0.0800	0.160	ug/L	4	4.00	---	55	41-120%	0.07	30%	
2-Methylnaphthalene	2.30	0.0800	0.160	ug/L	4	4.00	---	57	40-121%	2	30%	
Naphthalene	2.14	0.0800	0.160	ug/L	4	4.00	---	54	40-121%	0.4	30%	
Phenanthrene	2.76	0.0400	0.0800	ug/L	4	4.00	---	69	59-120%	7	30%	
Pyrene	3.10	0.0400	0.0800	ug/L	4	4.00	---	77	57-126%	10	30%	
Carbazole	3.30	0.0600	0.120	ug/L	4	4.00	---	82	60-122%	11	30%	
Dibenzofuran	2.70	0.0400	0.0800	ug/L	4	4.00	---	67	53-120%	6	30%	
2-Chlorophenol	2.27	0.200	0.400	ug/L	4	4.00	---	57	38-120%	19	30%	
4-Chloro-3-methylphenol	2.71	0.400	0.800	ug/L	4	4.00	---	68	52-120%	15	30%	
2,4-Dichlorophenol	2.53	0.200	0.400	ug/L	4	4.00	---	63	47-121%	15	30%	
2,4-Dimethylphenol	2.42	0.200	0.400	ug/L	4	4.00	---	60	31-124%	6	30%	
2,4-Dinitrophenol	2.77	1.00	2.00	ug/L	4	4.00	---	69	23-143%	14	30%	
4,6-Dinitro-2-methylphenol	2.79	1.00	2.00	ug/L	4	4.00	---	70	44-137%	12	30%	
2-Methylphenol	2.10	0.100	0.200	ug/L	4	4.00	---	52	30-120%	20	30%	
3+4-Methylphenol(s)	1.99	0.100	0.200	ug/L	4	4.00	---	50	29-120%	19	30%	
2-Nitrophenol	2.82	0.400	0.800	ug/L	4	4.00	---	71	47-123%	8	30%	
4-Nitrophenol	0.993	0.400	0.800	ug/L	4	4.00	---	25	10-120%	15	30%	
Pentachlorophenol (PCP)	2.79	0.400	0.800	ug/L	4	4.00	---	70	35-138%	10	30%	
Phenol	1.11	0.800	0.800	ug/L	4	4.00	---	28	10-120%	19	30%	
2,3,4,6-Tetrachlorophenol	2.68	0.200	0.400	ug/L	4	4.00	---	67	50-128%	8	30%	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 36 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310511 - EPA 3510C (Acid/Base Neutral)							Water					
LCS Dup (2310511-BSD1)					Prepared: 09/18/23 06:33 Analyzed: 09/18/23 16:02						Q-19	
2,3,5,6-Tetrachlorophenol	2.66	0.200	0.400	ug/L	4	4.00	---	66	50-121%	10	30%	
2,4,5-Trichlorophenol	2.57	0.200	0.400	ug/L	4	4.00	---	64	53-123%	11	30%	
2,4,6-Trichlorophenol	2.46	0.200	0.400	ug/L	4	4.00	---	62	50-125%	9	30%	
Bis(2-ethylhexyl)phthalate	3.11	0.800	1.60	ug/L	4	4.00	---	78	55-135%	10	30%	
Butyl benzyl phthalate	3.28	0.800	1.60	ug/L	4	4.00	---	82	53-134%	11	30%	
Diethylphthalate	3.20	0.800	1.60	ug/L	4	4.00	---	80	56-125%	8	30%	
Dimethylphthalate	3.00	0.800	1.60	ug/L	4	4.00	---	75	45-127%	9	30%	
Di-n-butylphthalate	3.36	0.800	1.60	ug/L	4	4.00	---	84	59-127%	10	30%	
Di-n-octyl phthalate	3.36	0.800	1.60	ug/L	4	4.00	---	84	51-140%	11	30%	
N-Nitrosodimethylamine	1.61	0.100	0.200	ug/L	4	4.00	---	40	19-120%	14	30%	
N-Nitroso-di-n-propylamine	3.06	0.100	0.200	ug/L	4	4.00	---	77	49-120%	9	30%	
N-Nitrosodiphenylamine	3.12	0.100	0.200	ug/L	4	4.00	---	78	51-123%	6	30%	
Bis(2-Chloroethoxy) methane	2.74	0.100	0.200	ug/L	4	4.00	---	69	48-120%	10	30%	
Bis(2-Chloroethyl) ether	2.63	0.100	0.200	ug/L	4	4.00	---	66	43-120%	11	30%	
2,2'-Oxybis(1-Chloropropane)	2.82	0.100	0.200	ug/L	4	4.00	---	71	41-120%	9	30%	
Hexachlorobenzene	2.61	0.0400	0.0800	ug/L	4	4.00	---	65	53-125%	5	30%	
Hexachlorobutadiene	1.40	0.100	0.200	ug/L	4	4.00	---	35	22-124%	13	30%	
Hexachlorocyclopentadiene	0.833	0.200	0.400	ug/L	4	4.00	---	21	10-127%	21	30%	
Hexachloroethane	1.42	0.100	0.200	ug/L	4	4.00	---	36	21-120%	13	30%	
2-Chloronaphthalene	2.24	0.0400	0.0800	ug/L	4	4.00	---	56	40-120%	0.3	30%	
1,2,4-Trichlorobenzene	1.68	0.100	0.200	ug/L	4	4.00	---	42	29-120%	5	30%	
4-Bromophenyl phenyl ether	2.66	0.100	0.200	ug/L	4	4.00	---	67	55-124%	6	30%	
4-Chlorophenyl phenyl ether	2.80	0.100	0.200	ug/L	4	4.00	---	70	53-121%	3	30%	
Aniline	2.58	0.200	0.400	ug/L	4	4.00	---	64	10-120%	6	30%	
4-Chloroaniline	3.12	0.100	0.200	ug/L	4	4.00	---	78	33-120%	3	30%	
2-Nitroaniline	2.95	0.800	1.60	ug/L	4	4.00	---	74	55-127%	11	30%	
3-Nitroaniline	4.19	0.800	1.60	ug/L	4	4.00	---	105	41-128%	11	30%	Q-41
4-Nitroaniline	2.98	0.800	1.60	ug/L	4	4.00	---	75	25-120%	15	30%	
Nitrobenzene	2.71	0.400	0.800	ug/L	4	4.00	---	68	45-121%	9	30%	
2,4-Dinitrotoluene	2.84	0.400	0.800	ug/L	4	4.00	---	71	57-128%	9	30%	
2,6-Dinitrotoluene	2.86	0.400	0.800	ug/L	4	4.00	---	72	57-124%	9	30%	
Benzoic acid	3.31	2.00	2.00	ug/L	4	8.00	---	41	10-120%	7	30%	
Benzyl alcohol	2.21	0.400	0.800	ug/L	4	4.00	---	55	31-120%	16	30%	
Isophorone	2.85	0.100	0.200	ug/L	4	4.00	---	71	42-124%	10	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310511 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (2310511-BSD1)						Prepared: 09/18/23 06:33 Analyzed: 09/18/23 16:02						Q-19
Azobenzene (1,2-DPH)	3.01	0.100	0.200	ug/L	4	4.00	---	75	61-120%	6	30%	Q-29, Q-52, Q-41
Bis(2-Ethylhexyl) adipate	3.21	1.00	2.00	ug/L	4	4.00	---	80	63-121%	10	30%	
3,3'-Dichlorobenzidine	20.2	2.00	4.00	ug/L	4	8.00	---	253	27-129%	13	30%	
1,2-Dinitrobenzene	2.62	1.00	2.00	ug/L	4	4.00	---	66	59-120%	7	30%	
1,3-Dinitrobenzene	2.88	1.00	2.00	ug/L	4	4.00	---	72	49-128%	6	30%	
1,4-Dinitrobenzene	2.79	1.00	2.00	ug/L	4	4.00	---	70	54-120%	7	30%	
Pyridine	1.52	0.400	0.800	ug/L	4	4.00	---	38	10-120%	9	30%	
1,2-Dichlorobenzene	1.62	0.100	0.200	ug/L	4	4.00	---	41	32-120%	6	30%	
1,3-Dichlorobenzene	1.51	0.100	0.200	ug/L	4	4.00	---	38	28-120%	9	30%	
1,4-Dichlorobenzene	1.54	0.100	0.200	ug/L	4	4.00	---	39	29-120%	7	30%	
Surr: Nitrobenzene-d5 (Surr)												
			Recovery: 70 %	Limits: 44-120 %		Dilution: 4x						
2-Fluorobiphenyl (Surr)			61 %	44-120 %		"						
Phenol-d6 (Surr)			22 %	10-133 %		"						
p-Terphenyl-d14 (Surr)			75 %	50-134 %		"						
2-Fluorophenol (Surr)			33 %	19-120 %		"						
2,4,6-Tribromophenol (Surr)			73 %	43-140 %		"						

Matrix Spike (2310511-MS1)

Prepared: 09/18/23 06:33 Analyzed: 09/18/23 17:09

QC Source Sample: R-1-0923 (A311084-08)

EPA 8270E

Acenaphthene	4.02	0.100	0.200	ug/L	10	4.00	1.00	75	47-122%	---	---
Acenaphthylene	2.99	0.100	0.200	ug/L	10	4.00	ND	75	41-130%	---	---
Anthracene	3.35	0.100	0.200	ug/L	10	4.00	ND	84	57-123%	---	---
Benz(a)anthracene	3.32	0.100	0.200	ug/L	10	4.00	ND	83	58-125%	---	---
Benzo(a)pyrene	3.60	0.150	0.300	ug/L	10	4.00	ND	90	54-128%	---	---
Benzo(b)fluoranthene	3.34	0.150	0.300	ug/L	10	4.00	ND	83	53-131%	---	---
Benzo(k)fluoranthene	3.53	0.150	0.300	ug/L	10	4.00	ND	88	57-129%	---	---
Benzo(g,h,i)perylene	3.14	0.100	0.200	ug/L	10	4.00	ND	79	50-134%	---	---
Chrysene	3.32	0.100	0.200	ug/L	10	4.00	ND	83	59-123%	---	---
Dibenz(a,h)anthracene	3.17	0.100	0.200	ug/L	10	4.00	ND	79	51-134%	---	---
Fluoranthene	3.69	0.100	0.200	ug/L	10	4.00	0.146	89	57-128%	---	---
Fluorene	4.29	0.100	0.200	ug/L	10	4.00	0.942	84	52-124%	---	---
Indeno(1,2,3-cd)pyrene	3.03	0.100	0.200	ug/L	10	4.00	ND	76	52-134%	---	---

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 38 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310511 - EPA 3510C (Acid/Base Neutral)						Water						
Matrix Spike (2310511-MS1)			Prepared: 09/18/23 06:33		Analyzed: 09/18/23 17:09							
QC Source Sample: R-1-0923 (A311084-08)												
1-Methylnaphthalene	3.16	0.200	0.400	ug/L	10	4.00	0.495	67	41-120%	---	---	
2-Methylnaphthalene	3.08	0.200	0.400	ug/L	10	4.00	0.279	70	40-121%	---	---	
Naphthalene	3.11	0.200	0.400	ug/L	10	4.00	0.405	68	40-121%	---	---	
Phenanthrene	3.27	0.100	0.200	ug/L	10	4.00	0.139	78	59-120%	---	---	
Pyrene	3.65	0.100	0.200	ug/L	10	4.00	0.221	86	57-126%	---	---	
Carbazole	3.77	0.150	0.300	ug/L	10	4.00	ND	94	60-122%	---	---	
Dibenzofuran	3.24	0.100	0.200	ug/L	10	4.00	0.205	76	53-120%	---	---	
2-Chlorophenol	2.74	0.500	1.00	ug/L	10	4.00	ND	68	38-120%	---	---	
4-Chloro-3-methylphenol	3.31	1.00	2.00	ug/L	10	4.00	ND	83	52-120%	---	---	
2,4-Dichlorophenol	2.83	0.500	1.00	ug/L	10	4.00	ND	71	47-121%	---	---	
2,4-Dimethylphenol	2.92	0.500	1.00	ug/L	10	4.00	ND	73	31-124%	---	---	
2,4-Dinitrophenol	3.80	2.50	5.00	ug/L	10	4.00	ND	95	23-143%	---	---	J
4,6-Dinitro-2-methylphenol	3.47	2.50	5.00	ug/L	10	4.00	ND	87	44-137%	---	---	J
2-Methylphenol	2.62	0.250	0.500	ug/L	10	4.00	ND	66	30-120%	---	---	
3+4-Methylphenol(s)	2.50	0.250	0.500	ug/L	10	4.00	ND	63	29-120%	---	---	
2-Nitrophenol	2.84	1.00	2.00	ug/L	10	4.00	ND	71	47-123%	---	---	
4-Nitrophenol	1.43	1.00	2.00	ug/L	10	4.00	ND	36	10-120%	---	---	J
Pentachlorophenol (PCP)	7.60	1.00	2.00	ug/L	10	4.00	4.11	87	35-138%	---	---	
Phenol	ND	2.00	4.00	ug/L	10	4.00	ND		10-120%	---	---	Q-01
2,3,4,6-Tetrachlorophenol	3.26	0.500	1.00	ug/L	10	4.00	ND	82	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	3.19	0.500	1.00	ug/L	10	4.00	ND	80	50-121%	---	---	
2,4,5-Trichlorophenol	3.03	0.500	1.00	ug/L	10	4.00	ND	76	53-123%	---	---	
2,4,6-Trichlorophenol	2.76	0.500	1.00	ug/L	10	4.00	ND	69	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.36	2.00	4.00	ug/L	10	4.00	ND	84	55-135%	---	---	J
Butyl benzyl phthalate	3.84	2.00	4.00	ug/L	10	4.00	ND	96	53-134%	---	---	J
Diethylphthalate	3.66	2.00	4.00	ug/L	10	4.00	ND	92	56-125%	---	---	J
Dimethylphthalate	3.44	2.00	4.00	ug/L	10	4.00	ND	86	45-127%	---	---	J
Di-n-butylphthalate	3.81	2.00	4.00	ug/L	10	4.00	ND	95	59-127%	---	---	J
Di-n-octyl phthalate	3.95	2.00	4.00	ug/L	10	4.00	ND	99	51-140%	---	---	J
N-Nitrosodimethylamine	1.81	0.250	0.500	ug/L	10	4.00	ND	45	19-120%	---	---	
N-Nitroso-di-n-propylamine	3.65	0.250	0.500	ug/L	10	4.00	ND	91	49-120%	---	---	
N-Nitrosodiphenylamine	3.59	0.250	0.500	ug/L	10	4.00	ND	90	51-123%	---	---	
Bis(2-Chloroethoxy) methane	3.18	0.250	0.500	ug/L	10	4.00	ND	80	48-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310511 - EPA 3510C (Acid/Base Neutral)						Water						
Matrix Spike (2310511-MS1)			Prepared: 09/18/23 06:33		Analyzed: 09/18/23 17:09							
QC Source Sample: R-1-0923 (A311084-08)												
Bis(2-Chloroethyl) ether	2.98	0.250	0.500	ug/L	10	4.00	ND	75	43-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	3.34	0.250	0.500	ug/L	10	4.00	ND	84	41-120%	---	---	
Hexachlorobenzene	2.99	0.100	0.200	ug/L	10	4.00	ND	75	53-125%	---	---	
Hexachlorobutadiene	1.66	0.250	0.500	ug/L	10	4.00	ND	41	22-124%	---	---	
Hexachlorocyclopentadiene	0.943	0.500	1.00	ug/L	10	4.00	ND	24	10-127%	---	---	J
Hexachloroethane	2.31	0.250	0.500	ug/L	10	4.00	ND	58	21-120%	---	---	
2-Chloronaphthalene	2.53	0.100	0.200	ug/L	10	4.00	ND	63	40-120%	---	---	
1,2,4-Trichlorobenzene	2.00	0.250	0.500	ug/L	10	4.00	ND	50	29-120%	---	---	
4-Bromophenyl phenyl ether	3.16	0.250	0.500	ug/L	10	4.00	ND	79	55-124%	---	---	
4-Chlorophenyl phenyl ether	3.23	0.250	0.500	ug/L	10	4.00	ND	81	53-121%	---	---	
Aniline	2.70	0.500	1.00	ug/L	10	4.00	ND	67	10-120%	---	---	
4-Chloroaniline	2.88	0.250	0.500	ug/L	10	4.00	ND	72	33-120%	---	---	
2-Nitroaniline	3.10	2.00	4.00	ug/L	10	4.00	ND	78	55-127%	---	---	J
3-Nitroaniline	3.40	2.00	4.00	ug/L	10	4.00	ND	85	41-128%	---	---	Q-41, J
4-Nitroaniline	3.22	2.00	4.00	ug/L	10	4.00	ND	81	25-120%	---	---	J
Nitrobenzene	3.07	1.00	2.00	ug/L	10	4.00	ND	77	45-121%	---	---	
2,4-Dinitrotoluene	3.10	1.00	2.00	ug/L	10	4.00	ND	78	57-128%	---	---	
2,6-Dinitrotoluene	3.15	1.00	2.00	ug/L	10	4.00	ND	79	57-124%	---	---	
Benzoic acid	ND	12.5	25.0	ug/L	10	8.00	ND		10-120%	---	---	Q-11
Benzyl alcohol	2.33	1.00	2.00	ug/L	10	4.00	ND	58	31-120%	---	---	
Isophorone	3.34	0.250	0.500	ug/L	10	4.00	ND	83	42-124%	---	---	
Azobenzene (1,2-DPH)	3.44	0.250	0.500	ug/L	10	4.00	ND	86	61-120%	---	---	
Bis(2-Ethylhexyl) adipate	3.39	2.50	5.00	ug/L	10	4.00	ND	85	63-121%	---	---	J
3,3'-Dichlorobenzidine	ND	5.00	10.0	ug/L	10	8.00	ND		27-129%	---	---	Q-11, Q-52
1,2-Dinitrobenzene	2.70	2.50	5.00	ug/L	10	4.00	ND	67	59-120%	---	---	J
1,3-Dinitrobenzene	2.79	2.50	5.00	ug/L	10	4.00	ND	70	49-128%	---	---	J
1,4-Dinitrobenzene	2.79	2.50	5.00	ug/L	10	4.00	ND	70	54-120%	---	---	J
Pyridine	1.87	1.00	2.00	ug/L	10	4.00	ND	47	10-120%	---	---	J
1,2-Dichlorobenzene	1.95	0.250	0.500	ug/L	10	4.00	ND	49	32-120%	---	---	
1,3-Dichlorobenzene	1.80	0.250	0.500	ug/L	10	4.00	ND	45	28-120%	---	---	
1,4-Dichlorobenzene	1.83	0.250	0.500	ug/L	10	4.00	ND	46	29-120%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 73 %		Limits: 44-120 %		Dilution: 10x						
2-Fluorobiphenyl (Surr)		63 %		44-120 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310511 - EPA 3510C (Acid/Base Neutral)						Water						
Matrix Spike (2310511-MS1)			Prepared: 09/18/23 06:33 Analyzed: 09/18/23 17:09									
QC Source Sample: R-1-0923 (A311084-08)												
Surr: Phenol-d6 (Surr)		Recovery: 24 %		Limits: 10-133 %		Dilution: 10x						
p-Terphenyl-d14 (Surr)		76 %		50-134 %		"						
2-Fluorophenol (Surr)		37 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		81 %		43-140 %		"						
Matrix Spike Dup (2310511-MSD1)			Prepared: 09/18/23 06:33 Analyzed: 09/18/23 17:43									
QC Source Sample: R-1-0923 (A311084-08)												
EPA 8270E												
Acenaphthene	4.02	0.100	0.200	ug/L	10	4.00	1.00	75	47-122%	0.1	30%	
Acenaphthylene	3.11	0.100	0.200	ug/L	10	4.00	ND	78	41-130%	4	30%	
Anthracene	3.40	0.100	0.200	ug/L	10	4.00	ND	85	57-123%	1	30%	
Benz(a)anthracene	3.32	0.100	0.200	ug/L	10	4.00	ND	83	58-125%	0.2	30%	
Benzo(a)pyrene	3.64	0.150	0.300	ug/L	10	4.00	ND	91	54-128%	0.9	30%	
Benzo(b)fluoranthene	3.41	0.150	0.300	ug/L	10	4.00	ND	85	53-131%	2	30%	
Benzo(k)fluoranthene	3.50	0.150	0.300	ug/L	10	4.00	ND	87	57-129%	0.9	30%	
Benzo(g,h,i)perylene	3.11	0.100	0.200	ug/L	10	4.00	ND	78	50-134%	0.9	30%	
Chrysene	3.38	0.100	0.200	ug/L	10	4.00	ND	85	59-123%	2	30%	
Dibenz(a,h)anthracene	3.20	0.100	0.200	ug/L	10	4.00	ND	80	51-134%	0.8	30%	
Fluoranthene	3.70	0.100	0.200	ug/L	10	4.00	0.146	89	57-128%	0.03	30%	
Fluorene	4.30	0.100	0.200	ug/L	10	4.00	0.942	84	52-124%	0.4	30%	
Indeno(1,2,3-cd)pyrene	3.04	0.100	0.200	ug/L	10	4.00	ND	76	52-134%	0.4	30%	
1-Methylnaphthalene	3.34	0.200	0.400	ug/L	10	4.00	0.495	71	41-120%	6	30%	
2-Methylnaphthalene	3.14	0.200	0.400	ug/L	10	4.00	0.279	72	40-121%	2	30%	
Naphthalene	2.95	0.200	0.400	ug/L	10	4.00	0.405	64	40-121%	5	30%	
Phenanthrene	3.28	0.100	0.200	ug/L	10	4.00	0.139	79	59-120%	0.2	30%	
Pyrene	3.61	0.100	0.200	ug/L	10	4.00	0.221	85	57-126%	1	30%	
Carbazole	3.76	0.150	0.300	ug/L	10	4.00	ND	94	60-122%	0.4	30%	
Dibenzofuran	3.33	0.100	0.200	ug/L	10	4.00	0.205	78	53-120%	3	30%	
2-Chlorophenol	2.96	0.500	1.00	ug/L	10	4.00	ND	74	38-120%	8	30%	
4-Chloro-3-methylphenol	3.41	1.00	2.00	ug/L	10	4.00	ND	85	52-120%	3	30%	
2,4-Dichlorophenol	3.03	0.500	1.00	ug/L	10	4.00	ND	76	47-121%	7	30%	
2,4-Dimethylphenol	3.15	0.500	1.00	ug/L	10	4.00	ND	79	31-124%	8	30%	
2,4-Dinitrophenol	3.69	2.50	5.00	ug/L	10	4.00	ND	92	23-143%	3	30%	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 41 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310511 - EPA 3510C (Acid/Base Neutral)						Water						
Matrix Spike Dup (2310511-MSD1)			Prepared: 09/18/23 06:33		Analyzed: 09/18/23 17:43							
QC Source Sample: R-1-0923 (A311084-08)												
4,6-Dinitro-2-methylphenol	3.48	2.50	5.00	ug/L	10	4.00	ND	87	44-137%	0.4	30%	J
2-Methylphenol	2.87	0.250	0.500	ug/L	10	4.00	ND	72	30-120%	9	30%	
3+4-Methylphenol(s)	2.67	0.250	0.500	ug/L	10	4.00	ND	67	29-120%	7	30%	
2-Nitrophenol	3.08	1.00	2.00	ug/L	10	4.00	ND	77	47-123%	8	30%	
4-Nitrophenol	1.45	1.00	2.00	ug/L	10	4.00	ND	36	10-120%	1	30%	J
Pentachlorophenol (PCP)	7.69	1.00	2.00	ug/L	10	4.00	4.11	89	35-138%	1	30%	
Phenol	ND	2.00	4.00	ug/L	10	4.00	ND		10-120%		30%	Q-01
2,3,4,6-Tetrachlorophenol	3.23	0.500	1.00	ug/L	10	4.00	ND	81	50-128%	0.8	30%	
2,3,5,6-Tetrachlorophenol	3.16	0.500	1.00	ug/L	10	4.00	ND	79	50-121%	1	30%	
2,4,5-Trichlorophenol	3.09	0.500	1.00	ug/L	10	4.00	ND	77	53-123%	2	30%	
2,4,6-Trichlorophenol	2.87	0.500	1.00	ug/L	10	4.00	ND	72	50-125%	4	30%	
Bis(2-ethylhexyl)phthalate	3.34	2.00	4.00	ug/L	10	4.00	ND	84	55-135%	0.6	30%	J
Butyl benzyl phthalate	3.83	2.00	4.00	ug/L	10	4.00	ND	96	53-134%	0.2	30%	J
Diethylphthalate	3.68	2.00	4.00	ug/L	10	4.00	ND	92	56-125%	0.4	30%	J
Dimethylphthalate	3.43	2.00	4.00	ug/L	10	4.00	ND	86	45-127%	0.5	30%	J
Di-n-butylphthalate	3.80	2.00	4.00	ug/L	10	4.00	ND	95	59-127%	0.3	30%	J
Di-n-octyl phthalate	3.94	2.00	4.00	ug/L	10	4.00	ND	99	51-140%	0.2	30%	J
N-Nitrosodimethylamine	1.75	0.250	0.500	ug/L	10	4.00	ND	44	19-120%	4	30%	
N-Nitroso-di-n-propylamine	4.08	0.250	0.500	ug/L	10	4.00	ND	102	49-120%	11	30%	
N-Nitrosodiphenylamine	3.65	0.250	0.500	ug/L	10	4.00	ND	91	51-123%	2	30%	
Bis(2-Chloroethoxy) methane	3.42	0.250	0.500	ug/L	10	4.00	ND	85	48-120%	7	30%	
Bis(2-Chloroethyl) ether	3.19	0.250	0.500	ug/L	10	4.00	ND	80	43-120%	7	30%	
2,2'-Oxybis(1-Chloropropane)	3.66	0.250	0.500	ug/L	10	4.00	ND	92	41-120%	9	30%	
Hexachlorobenzene	3.02	0.100	0.200	ug/L	10	4.00	ND	76	53-125%	1	30%	
Hexachlorobutadiene	1.63	0.250	0.500	ug/L	10	4.00	ND	41	22-124%	2	30%	
Hexachlorocyclopentadiene	0.957	0.500	1.00	ug/L	10	4.00	ND	24	10-127%	2	30%	J
Hexachloroethane	2.26	0.250	0.500	ug/L	10	4.00	ND	56	21-120%	2	30%	
2-Chloronaphthalene	2.62	0.100	0.200	ug/L	10	4.00	ND	66	40-120%	4	30%	
1,2,4-Trichlorobenzene	2.00	0.250	0.500	ug/L	10	4.00	ND	50	29-120%	0.2	30%	
4-Bromophenyl phenyl ether	3.16	0.250	0.500	ug/L	10	4.00	ND	79	55-124%	0.02	30%	
4-Chlorophenyl phenyl ether	3.30	0.250	0.500	ug/L	10	4.00	ND	83	53-121%	2	30%	
Aniline	2.27	0.500	1.00	ug/L	10	4.00	ND	57	10-120%	17	30%	
4-Chloroaniline	2.77	0.250	0.500	ug/L	10	4.00	ND	69	33-120%	4	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0511 - EPA 3510C (Acid/Base Neutral)						Water						
Matrix Spike Dup (23I0511-MSD1)			Prepared: 09/18/23 06:33		Analyzed: 09/18/23 17:43							
QC Source Sample: R-1-0923 (A3I1084-08)												
2-Nitroaniline	3.16	2.00	4.00	ug/L	10	4.00	ND	79	55-127%	2	30%	J
3-Nitroaniline	3.23	2.00	4.00	ug/L	10	4.00	ND	81	41-128%	5	30%	Q-41, J
4-Nitroaniline	3.14	2.00	4.00	ug/L	10	4.00	ND	78	25-120%	3	30%	J
Nitrobenzene	3.43	1.00	2.00	ug/L	10	4.00	ND	86	45-121%	11	30%	
2,4-Dinitrotoluene	3.19	1.00	2.00	ug/L	10	4.00	ND	80	57-128%	3	30%	
2,6-Dinitrotoluene	3.09	1.00	2.00	ug/L	10	4.00	ND	77	57-124%	2	30%	
Benzoic acid	ND	12.5	25.0	ug/L	10	8.00	ND		10-120%		30%	Q-11
Benzyl alcohol	2.45	1.00	2.00	ug/L	10	4.00	ND	61	31-120%	5	30%	
Isophorone	3.52	0.250	0.500	ug/L	10	4.00	ND	88	42-124%	5	30%	
Azobenzene (1,2-DPH)	3.49	0.250	0.500	ug/L	10	4.00	ND	87	61-120%	1	30%	
Bis(2-Ethylhexyl) adipate	3.49	2.50	5.00	ug/L	10	4.00	ND	87	63-121%	3	30%	J
3,3'-Dichlorobenzidine	ND	5.00	10.0	ug/L	10	8.00	ND		27-129%		30%	Q-11, Q-52
1,2-Dinitrobenzene	2.71	2.50	5.00	ug/L	10	4.00	ND	68	59-120%	0.2	30%	J
1,3-Dinitrobenzene	2.87	2.50	5.00	ug/L	10	4.00	ND	72	49-128%	3	30%	J
1,4-Dinitrobenzene	2.75	2.50	5.00	ug/L	10	4.00	ND	69	54-120%	2	30%	J
Pyridine	1.69	1.00	2.00	ug/L	10	4.00	ND	42	10-120%	10	30%	J
1,2-Dichlorobenzene	2.03	0.250	0.500	ug/L	10	4.00	ND	51	32-120%	4	30%	
1,3-Dichlorobenzene	1.86	0.250	0.500	ug/L	10	4.00	ND	47	28-120%	3	30%	
1,4-Dichlorobenzene	1.91	0.250	0.500	ug/L	10	4.00	ND	48	29-120%	4	30%	
Surr: Nitrobenzene-d5 (Surr)		Recovery:		84 %	Limits:		44-120 %		Dilution:		10x	
2-Fluorobiphenyl (Surr)				68 %			44-120 %				"	
Phenol-d6 (Surr)				26 %			10-133 %				"	
p-Terphenyl-d14 (Surr)				78 %			50-134 %				"	
2-Fluorophenol (Surr)				40 %			19-120 %				"	
2,4,6-Tribromophenol (Surr)				83 %			43-140 %				"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310610 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (2310610-BLK1)			Prepared: 09/20/23 06:36		Analyzed: 09/20/23 16:59							
EPA 8270E												
2,3,4,6- & 2,3,4,5-Tetrachlorophenol(S)D	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	A-01
Acenaphthene	0.0194	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	B-02, J
Acenaphthylene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	0.0291	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	B-02, J
2-Methylnaphthalene	0.0306	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	B-02, J
Naphthalene	0.112	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	B
Phenanthrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0150	0.0300	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Cody Schweitzer

Report ID:

A3I1084 - 10 12 23 1512

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0610 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (23I0610-BLK1)						Prepared: 09/20/23 06:36 Analyzed: 09/20/23 16:59						
2,3,4,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	0.381	0.200	0.400	ug/L	1	---	---	---	---	---	---	B-02, J
Di-n-octyl phthalate	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Aniline	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
4-Chloroaniline	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
2-Nitroaniline	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
3-Nitroaniline	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
4-Nitroaniline	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Benzoic acid	ND	1.25	2.50	ug/L	1	---	---	---	---	---	---	
Benzyl alcohol	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 45 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0610 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (23I0610-BLK1)			Prepared: 09/20/23 06:36		Analyzed: 09/20/23 16:59							
Isophorone	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	Q-52
Azobenzene (1,2-DPH)	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Pyridine	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)												
			Recovery: 63 %	Limits: 44-120 %	Dilution: 1x							
2-Fluorobiphenyl (Surr)			49 %	44-120 %	"							
Phenol-d6 (Surr)			21 %	10-133 %	"							
p-Terphenyl-d14 (Surr)			75 %	50-134 %	"							
2-Fluorophenol (Surr)			31 %	19-120 %	"							
2,4,6-Tribromophenol (Surr)			72 %	43-140 %	"							
LCS (23I0610-BS2)						Prepared: 09/20/23 06:36 Analyzed: 09/21/23 14:34					Q-16	
EPA 8270E												
Acenaphthene	2.65	0.0400	0.0800	ug/L	4	4.00	---	66	47-122%	---	---	B-02
Acenaphthylene	2.82	0.0400	0.0800	ug/L	4	4.00	---	70	41-130%	---	---	
Anthracene	3.43	0.0400	0.0800	ug/L	4	4.00	---	86	57-123%	---	---	
Benz(a)anthracene	3.50	0.0400	0.0800	ug/L	4	4.00	---	88	58-125%	---	---	
Benzo(a)pyrene	3.85	0.0600	0.120	ug/L	4	4.00	---	96	54-128%	---	---	
Benzo(b)fluoranthene	3.55	0.0600	0.120	ug/L	4	4.00	---	89	53-131%	---	---	
Benzo(k)fluoranthene	3.72	0.0600	0.120	ug/L	4	4.00	---	93	57-129%	---	---	
Benzo(g,h,i)perylene	3.39	0.0400	0.0800	ug/L	4	4.00	---	85	50-134%	---	---	
Chrysene	3.56	0.0400	0.0800	ug/L	4	4.00	---	89	59-123%	---	---	
Dibenz(a,h)anthracene	3.41	0.0400	0.0800	ug/L	4	4.00	---	85	51-134%	---	---	
Fluoranthene	3.77	0.0400	0.0800	ug/L	4	4.00	---	94	57-128%	---	---	
Fluorene	3.17	0.0400	0.0800	ug/L	4	4.00	---	79	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.18	0.0400	0.0800	ug/L	4	4.00	---	79	52-134%	---	---	
1-Methylnaphthalene	2.15	0.0800	0.160	ug/L	4	4.00	---	54	41-120%	---	---	B-02

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310610 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (2310610-BS2)						Prepared: 09/20/23 06:36 Analyzed: 09/21/23 14:34						Q-16
2-Methylnaphthalene	2.22	0.0800	0.160	ug/L	4	4.00	---	55	40-121%	---	---	B-02
Naphthalene	2.24	0.0800	0.160	ug/L	4	4.00	---	56	40-121%	---	---	B
Phenanthrene	3.26	0.0400	0.0800	ug/L	4	4.00	---	81	59-120%	---	---	
Pyrene	3.69	0.0400	0.0800	ug/L	4	4.00	---	92	57-126%	---	---	
Carbazole	3.94	0.0600	0.120	ug/L	4	4.00	---	98	60-122%	---	---	
Dibenzofuran	2.93	0.0400	0.0800	ug/L	4	4.00	---	73	53-120%	---	---	
2-Chlorophenol	2.67	0.200	0.400	ug/L	4	4.00	---	67	38-120%	---	---	
4-Chloro-3-methylphenol	3.26	0.400	0.800	ug/L	4	4.00	---	81	52-120%	---	---	
2,4-Dichlorophenol	2.96	0.200	0.400	ug/L	4	4.00	---	74	47-121%	---	---	
2,4-Dimethylphenol	2.36	0.200	0.400	ug/L	4	4.00	---	59	31-124%	---	---	
2,4-Dinitrophenol	3.72	1.00	2.00	ug/L	4	4.00	---	93	23-143%	---	---	
4,6-Dinitro-2-methylphenol	3.49	1.00	2.00	ug/L	4	4.00	---	87	44-137%	---	---	
2-Methylphenol	2.55	0.100	0.200	ug/L	4	4.00	---	64	30-120%	---	---	
3+4-Methylphenol(s)	2.38	0.100	0.200	ug/L	4	4.00	---	60	29-120%	---	---	
2-Nitrophenol	3.06	0.400	0.800	ug/L	4	4.00	---	77	47-123%	---	---	
4-Nitrophenol	1.24	0.400	0.800	ug/L	4	4.00	---	31	10-120%	---	---	Q-31
Pentachlorophenol (PCP)	3.26	0.400	0.800	ug/L	4	4.00	---	81	35-138%	---	---	
Phenol	1.34	0.800	0.800	ug/L	4	4.00	---	34	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	3.04	0.200	0.400	ug/L	4	4.00	---	76	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	3.06	0.200	0.400	ug/L	4	4.00	---	76	50-121%	---	---	
2,4,5-Trichlorophenol	3.00	0.200	0.400	ug/L	4	4.00	---	75	53-123%	---	---	
2,4,6-Trichlorophenol	2.93	0.200	0.400	ug/L	4	4.00	---	73	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.49	0.800	1.60	ug/L	4	4.00	---	87	55-135%	---	---	
Butyl benzyl phthalate	3.71	0.800	1.60	ug/L	4	4.00	---	93	53-134%	---	---	
Diethylphthalate	3.63	0.800	1.60	ug/L	4	4.00	---	91	56-125%	---	---	
Dimethylphthalate	3.41	0.800	1.60	ug/L	4	4.00	---	85	45-127%	---	---	
Di-n-butylphthalate	3.88	0.800	1.60	ug/L	4	4.00	---	97	59-127%	---	---	B-02
Di-n-octyl phthalate	3.70	0.800	1.60	ug/L	4	4.00	---	92	51-140%	---	---	
N-Nitrosodimethylamine	1.95	0.100	0.200	ug/L	4	4.00	---	49	19-120%	---	---	
N-Nitroso-di-n-propylamine	3.31	0.100	0.200	ug/L	4	4.00	---	83	49-120%	---	---	
N-Nitrosodiphenylamine	3.61	0.100	0.200	ug/L	4	4.00	---	90	51-123%	---	---	Q-41
Bis(2-Chloroethoxy) methane	3.07	0.100	0.200	ug/L	4	4.00	---	77	48-120%	---	---	
Bis(2-Chloroethyl) ether	2.97	0.100	0.200	ug/L	4	4.00	---	74	43-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	2.91	0.100	0.200	ug/L	4	4.00	---	73	41-120%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 47 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310610 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (2310610-BS2)						Prepared: 09/20/23 06:36 Analyzed: 09/21/23 14:34						Q-16
Hexachlorobenzene	3.08	0.0400	0.0800	ug/L	4	4.00	---	77	53-125%	---	---	
Hexachlorobutadiene	1.09	0.100	0.200	ug/L	4	4.00	---	27	22-124%	---	---	
Hexachlorocyclopentadiene	0.855	0.200	0.400	ug/L	4	4.00	---	21	10-127%	---	---	
Hexachloroethane	1.13	0.100	0.200	ug/L	4	4.00	---	28	21-120%	---	---	
2-Chloronaphthalene	2.28	0.0400	0.0800	ug/L	4	4.00	---	57	40-120%	---	---	
1,2,4-Trichlorobenzene	1.50	0.100	0.200	ug/L	4	4.00	---	37	29-120%	---	---	
4-Bromophenyl phenyl ether	3.08	0.100	0.200	ug/L	4	4.00	---	77	55-124%	---	---	
4-Chlorophenyl phenyl ether	3.00	0.100	0.200	ug/L	4	4.00	---	75	53-121%	---	---	
Aniline	2.60	0.200	0.400	ug/L	4	4.00	---	65	10-120%	---	---	
4-Chloroaniline	2.95	0.100	0.200	ug/L	4	4.00	---	74	33-120%	---	---	
2-Nitroaniline	3.48	0.800	1.60	ug/L	4	4.00	---	87	55-127%	---	---	
3-Nitroaniline	4.83	0.800	1.60	ug/L	4	4.00	---	121	41-128%	---	---	Q-41
4-Nitroaniline	3.40	0.800	1.60	ug/L	4	4.00	---	85	25-120%	---	---	
Nitrobenzene	2.92	0.400	0.800	ug/L	4	4.00	---	73	45-121%	---	---	
2,4-Dinitrotoluene	3.31	0.400	0.800	ug/L	4	4.00	---	83	57-128%	---	---	
2,6-Dinitrotoluene	3.34	0.400	0.800	ug/L	4	4.00	---	83	57-124%	---	---	
Benzoic acid	4.35	4.00	4.00	ug/L	4	8.00	---	54	10-120%	---	---	
Benzyl alcohol	2.54	0.400	0.800	ug/L	4	4.00	---	63	31-120%	---	---	
Isophorone	3.15	0.100	0.200	ug/L	4	4.00	---	79	42-124%	---	---	
Azobenzene (1,2-DPH)	3.55	0.100	0.200	ug/L	4	4.00	---	89	61-120%	---	---	
Bis(2-Ethylhexyl) adipate	3.60	1.00	2.00	ug/L	4	4.00	---	90	63-121%	---	---	
3,3'-Dichlorobenzidine	22.7	2.00	4.00	ug/L	4	8.00	---	284	27-129%	---	---	Q-29, Q-41, Q-52
1,2-Dinitrobenzene	3.05	1.00	2.00	ug/L	4	4.00	---	76	59-120%	---	---	
1,3-Dinitrobenzene	3.28	1.00	2.00	ug/L	4	4.00	---	82	49-128%	---	---	
1,4-Dinitrobenzene	3.25	1.00	2.00	ug/L	4	4.00	---	81	54-120%	---	---	
Pyridine	1.63	0.400	0.800	ug/L	4	4.00	---	41	10-120%	---	---	
1,2-Dichlorobenzene	1.40	0.100	0.200	ug/L	4	4.00	---	35	32-120%	---	---	
1,3-Dichlorobenzene	1.29	0.100	0.200	ug/L	4	4.00	---	32	28-120%	---	---	
1,4-Dichlorobenzene	1.32	0.100	0.200	ug/L	4	4.00	---	33	29-120%	---	---	
Surr: Nitrobenzene-d5 (Surr)												
			Recovery: 72 %	Limits: 44-120 %	Dilution: 4x							
2-Fluorobiphenyl (Surr)			61 %	44-120 %	"							
Phenol-d6 (Surr)			26 %	10-133 %	"							
p-Terphenyl-d14 (Surr)			80 %	50-134 %	"							
2-Fluorophenol (Surr)			38 %	19-120 %	"							

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 48 of 59



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310610 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (2310610-BS2)				Prepared: 09/20/23 06:36		Analyzed: 09/21/23 14:34					Q-16	
Surr: 2,4,6-Tribromophenol (Surr)		Recovery: 79 %		Limits: 43-140 %		Dilution: 4x						
LCS Dup (2310610-BSD2)				Prepared: 09/20/23 06:36		Analyzed: 09/21/23 15:09					Q-16, Q-19	
EPA 8270E												
Acenaphthene	2.87	0.0400	0.0800	ug/L	4	4.00	---	72	47-122%	8	30%	B-02
Acenaphthylene	3.09	0.0400	0.0800	ug/L	4	4.00	---	77	41-130%	9	30%	
Anthracene	3.55	0.0400	0.0800	ug/L	4	4.00	---	89	57-123%	3	30%	
Benz(a)anthracene	3.66	0.0400	0.0800	ug/L	4	4.00	---	91	58-125%	4	30%	B-02
Benzo(a)pyrene	3.97	0.0600	0.120	ug/L	4	4.00	---	99	54-128%	3	30%	
Benzo(b)fluoranthene	3.68	0.0600	0.120	ug/L	4	4.00	---	92	53-131%	4	30%	
Benzo(k)fluoranthene	4.00	0.0600	0.120	ug/L	4	4.00	---	100	57-129%	7	30%	B-02
Benzo(g,h,i)perylene	3.56	0.0400	0.0800	ug/L	4	4.00	---	89	50-134%	5	30%	
Chrysene	3.77	0.0400	0.0800	ug/L	4	4.00	---	94	59-123%	6	30%	
Dibenz(a,h)anthracene	3.82	0.0400	0.0800	ug/L	4	4.00	---	95	51-134%	11	30%	B-02
Fluoranthene	3.70	0.0400	0.0800	ug/L	4	4.00	---	92	57-128%	2	30%	
Fluorene	3.26	0.0400	0.0800	ug/L	4	4.00	---	81	52-124%	3	30%	
Indeno(1,2,3-cd)pyrene	3.38	0.0400	0.0800	ug/L	4	4.00	---	84	52-134%	6	30%	B-02
1-Methylnaphthalene	2.30	0.0800	0.160	ug/L	4	4.00	---	57	41-120%	7	30%	
2-Methylnaphthalene	2.36	0.0800	0.160	ug/L	4	4.00	---	59	40-121%	6	30%	
Naphthalene	2.50	0.0800	0.160	ug/L	4	4.00	---	62	40-121%	11	30%	B-02
Phenanthrene	3.40	0.0400	0.0800	ug/L	4	4.00	---	85	59-120%	4	30%	
Pyrene	3.67	0.0400	0.0800	ug/L	4	4.00	---	92	57-126%	0.4	30%	
Carbazole	3.90	0.0600	0.120	ug/L	4	4.00	---	98	60-122%	0.8	30%	B-02
Dibenzofuran	3.05	0.0400	0.0800	ug/L	4	4.00	---	76	53-120%	4	30%	
2-Chlorophenol	2.93	0.200	0.400	ug/L	4	4.00	---	73	38-120%	9	30%	
4-Chloro-3-methylphenol	3.25	0.400	0.800	ug/L	4	4.00	---	81	52-120%	0.3	30%	B-02
2,4-Dichlorophenol	3.10	0.200	0.400	ug/L	4	4.00	---	78	47-121%	5	30%	
2,4-Dimethylphenol	3.05	0.200	0.400	ug/L	4	4.00	---	76	31-124%	26	30%	
2,4-Dinitrophenol	3.44	1.00	2.00	ug/L	4	4.00	---	86	23-143%	8	30%	B-02
4,6-Dinitro-2-methylphenol	3.32	1.00	2.00	ug/L	4	4.00	---	83	44-137%	5	30%	
2-Methylphenol	2.77	0.100	0.200	ug/L	4	4.00	---	69	30-120%	8	30%	
3+4-Methylphenol(s)	2.56	0.100	0.200	ug/L	4	4.00	---	64	29-120%	7	30%	B-02
2-Nitrophenol	3.35	0.400	0.800	ug/L	4	4.00	---	84	47-123%	9	30%	
4-Nitrophenol	1.08	0.400	0.800	ug/L	4	4.00	---	27	10-120%	14	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A311084 - 10 12 23 1512**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310610 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (2310610-BSD2)						Prepared: 09/20/23 06:36 Analyzed: 09/21/23 15:09					Q-16, Q-19	
Pentachlorophenol (PCP)	3.26	0.400	0.800	ug/L	4	4.00	---	82	35-138%	0.05	30%	
Phenol	1.41	0.800	0.800	ug/L	4	4.00	---	35	10-120%	5	30%	
2,3,4,6-Tetrachlorophenol	3.07	0.200	0.400	ug/L	4	4.00	---	77	50-128%	1	30%	
2,3,5,6-Tetrachlorophenol	3.11	0.200	0.400	ug/L	4	4.00	---	78	50-121%	2	30%	
2,4,5-Trichlorophenol	3.19	0.200	0.400	ug/L	4	4.00	---	80	53-123%	6	30%	
2,4,6-Trichlorophenol	3.12	0.200	0.400	ug/L	4	4.00	---	78	50-125%	6	30%	
Bis(2-ethylhexyl)phthalate	3.72	0.800	1.60	ug/L	4	4.00	---	93	55-135%	7	30%	
Butyl benzyl phthalate	3.93	0.800	1.60	ug/L	4	4.00	---	98	53-134%	6	30%	
Diethylphthalate	3.75	0.800	1.60	ug/L	4	4.00	---	94	56-125%	3	30%	
Dimethylphthalate	3.70	0.800	1.60	ug/L	4	4.00	---	93	45-127%	8	30%	
Di-n-butylphthalate	3.98	0.800	1.60	ug/L	4	4.00	---	100	59-127%	3	30%	B-02
Di-n-octyl phthalate	3.84	0.800	1.60	ug/L	4	4.00	---	96	51-140%	4	30%	
N-Nitrosodimethylamine	2.07	0.100	0.200	ug/L	4	4.00	---	52	19-120%	6	30%	
N-Nitroso-di-n-propylamine	3.61	0.100	0.200	ug/L	4	4.00	---	90	49-120%	9	30%	
N-Nitrosodiphenylamine	3.93	0.100	0.200	ug/L	4	4.00	---	98	51-123%	8	30%	Q-41
Bis(2-Chloroethoxy) methane	3.35	0.100	0.200	ug/L	4	4.00	---	84	48-120%	9	30%	
Bis(2-Chloroethyl) ether	3.33	0.100	0.200	ug/L	4	4.00	---	83	43-120%	11	30%	
2,2'-Oxybis(1-Chloropropane)	3.22	0.100	0.200	ug/L	4	4.00	---	80	41-120%	10	30%	
Hexachlorobenzene	3.23	0.0400	0.0800	ug/L	4	4.00	---	81	53-125%	5	30%	
Hexachlorobutadiene	1.32	0.100	0.200	ug/L	4	4.00	---	33	22-124%	19	30%	
Hexachlorocyclopentadiene	0.891	0.200	0.400	ug/L	4	4.00	---	22	10-127%	4	30%	
Hexachloroethane	1.33	0.100	0.200	ug/L	4	4.00	---	33	21-120%	16	30%	
2-Chloronaphthalene	2.48	0.0400	0.0800	ug/L	4	4.00	---	62	40-120%	8	30%	
1,2,4-Trichlorobenzene	1.71	0.100	0.200	ug/L	4	4.00	---	43	29-120%	13	30%	
4-Bromophenyl phenyl ether	3.33	0.100	0.200	ug/L	4	4.00	---	83	55-124%	8	30%	
4-Chlorophenyl phenyl ether	3.09	0.100	0.200	ug/L	4	4.00	---	77	53-121%	3	30%	
Aniline	2.50	0.200	0.400	ug/L	4	4.00	---	63	10-120%	4	30%	
4-Chloroaniline	2.91	0.100	0.200	ug/L	4	4.00	---	73	33-120%	1	30%	
2-Nitroaniline	3.60	0.800	1.60	ug/L	4	4.00	---	90	55-127%	4	30%	
3-Nitroaniline	4.78	0.800	1.60	ug/L	4	4.00	---	119	41-128%	1	30%	Q-41
4-Nitroaniline	3.11	0.800	1.60	ug/L	4	4.00	---	78	25-120%	9	30%	
Nitrobenzene	3.15	0.400	0.800	ug/L	4	4.00	---	79	45-121%	7	30%	
2,4-Dinitrotoluene	3.26	0.400	0.800	ug/L	4	4.00	---	81	57-128%	2	30%	
2,6-Dinitrotoluene	3.49	0.400	0.800	ug/L	4	4.00	---	87	57-124%	5	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Maul Foster & Alongi, INC.3140 NE Broadway Street
Portland, OR 97232Project: McFarland Cascade-Eugene

Project Number: 22588.000

Project Manager: Cody Schweitzer

Report ID:

A3I1084 - 10 12 23 1512

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310610 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (2310610-BSD2)						Prepared: 09/20/23 06:36 Analyzed: 09/21/23 15:09						Q-16, Q-19
Benzoic acid	3.74	0.200	10.0	ug/L	4	8.00	---	47	10-120%	15	30%	J
Benzyl alcohol	2.72	0.400	0.800	ug/L	4	4.00	---	68	31-120%	7	30%	
Isophorone	3.41	0.100	0.200	ug/L	4	4.00	---	85	42-124%	8	30%	
Azobenzene (1,2-DPH)	3.81	0.100	0.200	ug/L	4	4.00	---	95	61-120%	7	30%	
Bis(2-Ethylhexyl) adipate	3.80	1.00	2.00	ug/L	4	4.00	---	95	63-121%	5	30%	
3,3'-Dichlorobenzidine	21.8	2.00	4.00	ug/L	4	8.00	---	272	27-129%	4	30%	Q-29, Q-41, Q-52
1,2-Dinitrobenzene	3.15	1.00	2.00	ug/L	4	4.00	---	79	59-120%	3	30%	
1,3-Dinitrobenzene	3.35	1.00	2.00	ug/L	4	4.00	---	84	49-128%	2	30%	
1,4-Dinitrobenzene	3.36	1.00	2.00	ug/L	4	4.00	---	84	54-120%	3	30%	
Pyridine	1.70	0.400	0.800	ug/L	4	4.00	---	43	10-120%	4	30%	
1,2-Dichlorobenzene	1.60	0.100	0.200	ug/L	4	4.00	---	40	32-120%	13	30%	
1,3-Dichlorobenzene	1.48	0.100	0.200	ug/L	4	4.00	---	37	28-120%	14	30%	
1,4-Dichlorobenzene	1.53	0.100	0.200	ug/L	4	4.00	---	38	29-120%	14	30%	
Surr: Nitrobenzene-d5 (Surr)												
			Recovery: 77 %	Limits: 44-120 %	Dilution: 4x							
2-Fluorobiphenyl (Surr)			69 %	44-120 %	"							
Phenol-d6 (Surr)			28 %	10-133 %	"							
p-Terphenyl-d14 (Surr)			86 %	50-134 %	"							
2-Fluorophenol (Surr)			42 %	19-120 %	"							
2,4,6-Tribromophenol (Surr)			86 %	43-140 %	"							

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 51 of 59

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512****SAMPLE PREPARATION INFORMATION****Selected Semivolatile Organic Compounds by EPA 8270E****Prep: EPA 3510C (Acid Extraction)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 23I0506</u>							
A3I1084-04	Water	EPA 8270E	09/12/23 14:25	09/18/23 06:00	1030mL/1mL	1000mL/1mL	0.97
A3I1084-06	Water	EPA 8270E	09/12/23 15:45	09/18/23 06:00	1010mL/1mL	1000mL/1mL	0.99
<u>Batch: 23I0559</u>							
A3I1084-02RE1	Water	EPA 8270E	09/12/23 11:50	09/19/23 11:54	1020mL/1mL	1000mL/1mL	0.98
A3I1084-03RE2	Water	EPA 8270E	09/12/23 10:45	09/19/23 11:54	1000mL/1mL	1000mL/1mL	1.00
A3I1084-05RE2	Water	EPA 8270E	09/12/23 13:30	09/19/23 11:54	1000mL/1mL	1000mL/1mL	1.00
<u>Batch: 23I0638</u>							
A3I1084-01RE1	Water	EPA 8270E	09/13/23 08:15	09/20/23 14:28	1040mL/1mL	1000mL/1mL	0.96
A3I1084-07RE1	Water	EPA 8270E	09/13/23 09:55	09/20/23 14:28	1050mL/1mL	1000mL/1mL	0.95

Semivolatile Organic Compounds by EPA 8270E**Prep: EPA 3510C (Acid/Base Neutral)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 23I0511</u>							
A3I1084-08	Water	EPA 8270E	09/12/23 16:15	09/18/23 06:33	1000mL/1mL	1000mL/1mL	1.00
A3I1084-09RE1	Water	EPA 8270E	09/12/23 16:28	09/18/23 06:33	1000mL/1mL	1000mL/1mL	1.00
A3I1084-11RE1	Water	EPA 8270E	09/12/23 07:30	09/18/23 06:33	1050mL/1mL	1000mL/1mL	0.95
<u>Batch: 23I0610</u>							
A3I1084-10	Water	EPA 8270E	09/13/23 08:45	09/20/23 06:36	1030mL/1mL	1000mL/1mL	0.97
A3I1084-10RE1	Water	EPA 8270E	09/13/23 08:45	09/20/23 06:36	1030mL/1mL	1000mL/1mL	0.97
A3I1084-10RE2	Water	EPA 8270E	09/13/23 08:45	09/20/23 06:36	1030mL/1mL	1000mL/1mL	0.97
A3I1084-12	Water	EPA 8270E	09/13/23 09:00	09/20/23 06:36	1010mL/1mL	1000mL/1mL	0.99

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Cody Schweitzer**

Report ID:

A3I1084 - 10 12 23 1512

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- A-01** Due to coelution of isomers, 2,3,4,6- and 2,3,4,5-Tetrachlorophenol (TCP) are reported as a sum and are Estimated Values. Results are calculated using the response factor of 2,3,4,6-TCP. Batch results accepted based on spike recovery of 2,3,4,6-TCP.
- B** Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
- B-02** Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- M-05** Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-11** Spike recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-29** Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-31** Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- Q-52** Due to known erratic recoveries, the result and reporting levels for this analyte are reported as Estimated Values. This analyte may not have passed all QC requirements for this method.
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- S-03** Sample re-extract, or the analysis of an associated Batch QC sample, confirms surrogate failure due to sample matrix effect.
- S-06** Surrogate recovery is outside of established control limits.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Cody Schweitzer**

Report ID:

A3I1084 - 10 12 23 1512

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ("-----"), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Cody Schweitzer**

Report ID:

A311084 - 10 12 23 1512

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**

Project Number: **22588.000**

Project Manager: **Cody Schweitzer**

Report ID:

A3I1084 - 10 12 23 1512

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
Water	EPA 8270E		2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)		
Water	EPA 8270E		2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)		

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Maul Foster & Alongi, INC.
3140 NE Broadway Street
Portland, OR 97232

Project: **McFarland Cascade-Eugene**
Project Number: **22588.000**
Project Manager: **Cody Schweitzer**

Report ID:
A3I1084 - 10 12 23 1512

APEX LABS
12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333
Company: PBS Engineering + Environmental
Address: 3500 Chad Drive, Suite 100, Eugene OR 97408
Sampled by: Janessa Sandoval

CHAIN OF CUSTODY
Lab # A3I1084 COC 2 of 2
Project Name: McFarland Cascade, Eugene
Project # 22588.000
Janessa Sandoval (PBS)
Project Mgr: Cody Schweitzer (MFA)
Phone: (541) 685-8884 Fax:
Email: cschweitzer@maulfooster.com
Email: jsandoval@pbsusa.com

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	PHENOLS	SVOCs
PA-0923				W	2	X	
DUP-0923		9/12/23	0738 W	W	2	X	X
FIELD-0923		9/12/23	0800 W	W	2	X	X

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) 6-10 Business Days

TAT Requested (circle) 1 DAY 2 DAY 3 DAY 4 DAY 5 DAY Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:
Signature: *Janessa Sandoval* Date: 9/15/23
Printed Name: Janessa Sandoval Time: 12:05
Company: PBS

RECEIVED BY:
Signature: *[Signature]* Date: 9/15/23
Printed Name: Janessa Sandoval Time: 12:05
Company: APEX

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **McFarland Cascade-Eugene**Project Number: **22588.000**Project Manager: **Cody Schweitzer****Report ID:****A3I1084 - 10 12 23 1512****APEX LABS COOLER RECEIPT FORM**Client: PBS Engineering + Environmental Element WO#: A3 I6084Project/Project #: McFarland Cascade, Eugene / 22588.000**Delivery Info:**Date/time received: 9/13/23 @ 1205 By: RhDelivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐**Cooler Inspection** Date/time inspected: 9/13/23 @ 1205 By: JS/RKChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☒ No ☐Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.4</u>	<u>2.9</u>	<u>2.3</u>	<u>1.7</u>			
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>			
Temp. blanks? (Y/N)	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>			
Ice type: (Gel/Real/Other)	<u>Real</u>	<u>Real</u>	<u>Real</u>	<u>Real</u>			
Condition (In/Out):	<u>IN</u>	<u>IN</u>	<u>IN</u>	<u>IN</u>			

Cooler out of temp? (Y/N) ☒ Possible reason why: _____Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐**Sample Inspection:** Date/time inspected: 9/14/23 @ 0404 By: JSAll samples intact? Yes ☒ No ☐ Comments: _____Bottle labels/COCs agree? Yes ☒ No ☐ Comments: _____COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments: _____

Water samples: pH checked: Yes ☐ No ☐ NA ☒ pH appropriate? Yes ☐ No ☐ NA ☒ Strip ID: A23A348 ☐

Comments: _____

Additional information: _____Labeled by: JSWitness: JSCooler Inspected by: JS

Form Y-003 R-01 -

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Data Quality Assurance/Quality Control Review

Project No. M9081.03.016 | January 22, 2024 | McFarland Cascade Holdings, Inc.

Maul Foster & Alongi, Inc. (MFA), conducted an independent Stage 2A review of the quality of analytical results for groundwater and associated quality control samples collected on September 12 and 13, 2023 at the property located at 90049 Highway 99 North in Eugene, Oregon.

Analytical Resources, LLC (ARL), and Apex Laboratories, LLC (Apex), performed the analyses. ARL report number 23I0373 and Apex report number A3I1084 were reviewed. Sample R-3-0923 was sent to both laboratories as a split sample to meet project reporting limit needs for pentachlorophenol. The analyses performed and the samples analyzed are listed below.

Analysis	Reference
Pentachlorophenol	EPA 8041A
Semivolatile organic compounds	EPA 8270E

Notes

EPA = U.S. Environmental Protection Agency.

Samples Analyzed	
Report A3I1084	
90-1D-0923	P-2D-0923
92-9-0923	R-1-0923
93-1A-0923	R-2-0923
93-3-0923	R-3-0923
93-4-0923	DUP-0923
93-8-0923	FIELD-0923
Report 23I0373	
R-3-0923	--

Data Qualification

Analytical results were evaluated according to applicable sections of U.S. Environmental Protection Agency (EPA) guidelines for data review (EPA 2020) and appropriate laboratory- and method-specific guidelines (Apex 2023, ARL 2023, EPA 1986).

Based on the results of the data quality review procedures described below, the data, with the appropriate final data qualifiers assigned, are considered acceptable for their intended use. Final data qualifiers represent qualifiers originating from the laboratory and accepted by the reviewer, and data qualifiers assigned by the reviewer during validation.

Final data qualifiers:

- J = result is estimated.
- J+ = result is estimated, but the result may be biased high.
- J- = result is estimated, but the result may be biased low.
- U = result is non-detect at the laboratory detection limit (LDL) or method reporting limit (MRL).

- UJ = result is non-detect with an estimated LDL.

Sample R-3-0923 was analyzed for pentachlorophenol by both laboratories; Apex included EPA Method 8270E results in report A3I1084, and ARL discussed EPA Method 8041A results in report 23I0373. The result of record is based on the lower-limit EPA Method 8041A analysis and is shown in the table below. The remaining result has been flagged by the reviewer as not reportable.

Report	Sample	Analyte	Laboratory Result (ug/L)	Result of Record (ug/L)
23I0373	R-3-0923	Pentachlorophenol	0.352	0.352
A3I1084			0.633 J (NR)	–
Notes -- = not applicable. J = result is estimated. NR = not reportable. U = result is non-detect at the laboratory detection limit. ug/L = micrograms per liter.				

In report A3I1084, Apex reported the EPA Method 8270E 2,3,4,5-tetrachlorophenol and 2,3,4,6-tetrachlorophenol results as single coeluted results. Apex stated that the coeluted results had been calculated using the response factor of 2,3,4,6-tetrachlorophenol and that results were estimated values. Apex also noted that the coeluted results are not included on the Apex Oregon Environmental Laboratory Accreditation Program scope of certification. The reviewer qualified the results, as shown in the following table.

Report	Sample	Analyte	Original Result (ug/L)	Qualified Result (ug/L)
A3I1084	90-1D-0923	2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	0.385 U	0.385 UJ
	92-9-0923		0.126	0.126 J ^(a)
	93-1A-0923		0.100 U	0.100 UJ
	93-3-0923		0.0971 U	0.0971 UJ
	93-4-0923		0.100 U	0.100 UJ
	93-8-0923		0.0990 U	0.0990 UJ
	P-2D-0923		0.381 U	0.381 UJ
	R-1-0923		1.00 U	1.00 UJ
	R-2-0923		1.00 U	1.00 UJ
	R-3-0923		0.485 U	0.485 UJ
	DUP-0923		0.952 U	0.952 UJ
	FIELD-0923		0.0990 U	0.0990 UJ
Notes J = result is estimated. U = result is non-detect at the laboratory detection limit. ug/L = micrograms per liter. UJ = result is non-detect with an estimated laboratory detection limit. ^(a) Result is also qualified based on surrogate recovery as discussed in the Surrogate Recovery Results section. Final qualification is shown				

According to report A3I1084, Apex flagged EPA Method 8270E benzo(b)fluoranthene and benzo(k)fluoranthene results for sample R-3-0923 as estimated because of insufficient peak separation of structural isomers. The associated sample results have been qualified by the reviewer with J, as shown in the following table.

Report	Sample	Analyte	Original Result (ug/L)	Qualified Result (ug/L)
A3I1084	R-3-0923	Benzo(b)fluoranthene	0.419	0.419 J
		Benzo(k)fluoranthene	0.207	0.207 J

Notes

J = result is estimated.

ug/L = micrograms per liter.

In report A3I1084, Apex flagged all EPA Method 8270E 3,3'-dichlorobenzidine results as estimated due to erratic recoveries. The reviewer qualified the results with UJ, as shown in the following table.

Report	Sample	Analyte	Original Result (ug/L)	Qualified Result (ug/L)
A3I1084	R-1-0923	3,3'-Dichlorobenzidine	5.00 U	5.00 UJ
	R-2-0923		5.00 U	5.00 UJ
	R-3-0923		2.43 U	2.43 UJ
	DUP-0923		4.76 U	4.76 UJ
	FIELD-0923		0.495 U	0.495 UJ

Notes

U = result is non-detect at the laboratory detection limit.

ug/L = micrograms per liter.

UJ = result is non-detect with an estimated laboratory detection limit.

Sample Conditions

Sample Custody

Sample custody was appropriately documented on the chain-of-custody form accompanying the report.

Holding Times

Extractions and analyses were performed within the recommended holding times.

Preservation and Sample Storage

The samples were preserved and stored appropriately. The reviewer confirmed that the sample submitted to ARL for report 23I0373 was received at 0.6 degrees Celsius.

Reporting Limits

The laboratory evaluated results to LDLs. Samples that required dilutions because of high analyte concentrations, coeluting compounds, matrix interferences, and/or dilutions necessary for preparation and/or analysis were reported with raised LDLs and MRLs.

The laboratory qualified results between the LDL and the MRL with J, as estimated.

Blanks

Method Blanks

Laboratory method blanks are used to assess whether laboratory contamination was introduced during sample preparation and analysis. Laboratory method blank analyses were performed at the

required frequencies. For purposes of data qualification, the laboratory method blanks were associated with all samples prepared in the analytical batch.

According to report A3I1084, the EPA Method 8270E batch 23I0610 laboratory method blank had acenaphthene, 1-methylnaphthalene, 2-methylnaphthalene, di-n-butylphthalate detections between the LDL and MRL, at concentrations of 0.0194 micrograms per liter (ug/L), 0.0291 ug/L, 0.0306 ug/L and 0.381 ug/L, respectively, and a naphthalene detection above the MRL, at a concentration of 0.112 ug/L. The associated sample results that were either non-detect or detected at concentrations greater than five times the concentrations detected in the laboratory method blank did not require qualification. The reviewer confirmed that the acenaphthene detection at the MRL without a J flag is due to rounding. The associated sample results less than five times the concentration detected in the laboratory method blank were qualified by the reviewer, as shown in the following table.

Report	Sample	Analyte	Method Blank Concentration (ug/L)	Original Result (ug/L)	Qualified Result (ug/L)
A3I1084	FIELD-0923	Acenaphthene	0.0194 J	0.0198	0.0198 U
		Naphthalene	0.112	0.156	0.156 J+

Notes

J = result is estimated.

J+ = result is estimated, but the result may be biased high.

U = result is non-detect at method reporting limit.

ug/L = micrograms per liter.

All remaining laboratory method blank results were non-detect to LDLs.

Field Blanks

According to report A3I1084, one field blank (FIELD-0923) was submitted for analysis. The field blank had an acenaphthene detection between the LDL and the MRL, at a concentration of 0.0198 ug/L and a naphthalene detection above the MRL, at a concentration of 0.156. The associated sample results above the MRL and greater than five times the concentration detected in the blank did not require qualification. The associated sample result above the MRL and less than five times the concentration detected in the blank was qualified, as shown in the following table.

Report	Sample	Analyte	Method Blank Concentration (ug/L)	Original Result (ug/L)	Qualified Result (ug/L)
A3I1084	R-1-0923	Naphthalene	0.156	0.405	0.405 J+

Notes

J+ = result is estimated, but the result may be biased high.

ug/L = micrograms per liter.

All remaining field blank results were non-detect to LDLs.

Trip Blanks

Trip blanks are used to evaluate whether volatile organic compound contamination was introduced during sample storage and during shipment between the sampling location and the laboratory.

Trip blank samples were not required for this sampling event because samples were not analyzed for volatile organic compounds.

Laboratory Control Sample and Laboratory Control Sample Duplicate Results

A laboratory control sample (LCS) and a laboratory control sample duplicate (LCSD) are spiked with target analytes to provide information about laboratory precision and accuracy. The LCS and the LCSD were prepared and analyzed at the required frequency.

According to report A3I1084, the EPA Method 8270E batch 23I0511 LCS and LCSD results for 3,3'-dichlorobenzidine were above the upper percent recovery acceptance limit of 129 percent, at 287 percent and 253 percent, respectively. The associated 3,3'-dichlorobenzidine results were non-detect; thus, qualifications were not necessary.

According to report A3I1084, the EPA Method 8270E batch 23I0610 LCS and LCSD results for 3,3'-dichlorobenzidine was above the upper percent recovery acceptance limit of 129 percent, at 284 percent and 272 percent, respectively. The associated 3,3'-dichlorobenzidine results were non-detect; thus, qualifications were not necessary.

All remaining LCS and LCSD results were within acceptance limits for percent recovery and relative percent difference (RPD).

Laboratory Duplicate Results

Laboratory duplicate results are used to evaluate laboratory precision. ARL and Apex did not report laboratory duplicate results. Laboratory precision was evaluated using LCS and LCSD results or matrix spike (MS) and matrix spike duplicate (MSD) results.

Matrix Spike and Matrix Spike Duplicate Results

MS and MSD results are used to evaluate laboratory precision, accuracy, and the effect of the sample matrix on sample preparation and analysis.

Apex only reported MS and MSD results with EPA Method 8270E batch 23I0511 and ARI did not report MS and MSD results. Batch precision was evaluated based on the LCS and LCSD results when MS and MSD results were not provided.

According to report A3I1084, the EPA Method 8270E batch 23I0511 MS and MSD phenol; benzoic acid; and 3,3'-dichlorobenzidine did not have any recovery. The MS and MSD analysis was performed using a dilution factor of ten and the expected MS and MSD concentrations were less than or around the MRL for phenol; benzoic acid; and 3,3'-dichlorobenzidine, so the reviewer determined that matrix spike recovery for these analytes could not be evaluated; qualification was not necessary.

All remaining MS and MSD results were within acceptance limits for percent recovery and RPD.

Surrogate Recovery Results

The samples were spiked with surrogate compounds to evaluate laboratory performance for individual samples for organic analyses.

The laboratory appropriately documented and qualified surrogate outliers. When surrogate percent recoveries were outside of acceptance limits because of dilutions necessary to quantify high concentrations of target analytes, qualification by the reviewer was not required. The reviewer

confirmed that batch quality control results for samples with surrogate outliers were within acceptance limits.

According to report A3I1084, the EPA Method 8270E surrogate compound nitrobenzene-d5, 2-fluorobiphenyl, and 2-fluorophenol results were below their respective lower percent recovery acceptance limits, ranging from 16 percent to 40 percent, for samples 90-1D-0923 and P-2D-0923. 2-Fluorobiphenyl and nitrobenzene-d5 are base/neutral surrogates and no base/neutral compounds were reported with 90-1D-0923 and P-2D-0923. The reviewer confirmed that the two acid-fraction surrogate compounds representing the reported analytes, phenol-d6 and 2,4,6-tribromophenol, were within acceptable recovery; thus, qualifications were not necessary.

According to report A3I1084, the EPA Method 8270E surrogate compound nitrobenzene-d5, 2-fluorobiphenyl, phenol-d6, p-terphenyl-d14, and 2-fluorophenol results were below their respective lower percent recovery acceptance limits, ranging from 9 percent to 43 percent for sample 92-9-0923. The reviewer qualified the associated sample results, as shown in the following table.

Report	Sample	Analyte	Original Result (ug/L)	Qualified Result (ug/L)
A3I1084	92-9-0923	2,3,4,6- & 2,3,4,5-Tetrachlorophenol(s)	0.126	0.126 J ^(a)
		2,4-Dichlorophenol	0.0490 U	0.0490 UJ
		Pentachlorophenol	4.74	4.74 J-
		2,3,5,6-Tetrachlorophenol	0.0643 J	0.0643 J-
		2,4,5-Trichlorophenol	0.0490 U	0.0490 UJ
		2,4,6-Trichlorophenol	0.0490 U	0.0490 UJ

Notes

J = result is estimated.

J- = result is estimated, but the result may be biased low.

U = result is non-detect at the laboratory detection limit.

ug/L = micrograms per liter.

UJ = result is non-detect with an estimated laboratory detection limit.

^(a)Result also qualified based on coeluting compounds, as described in the DQ section. Final qualification is shown.

According to report A3I1084, the EPA Method 8270E surrogate compound 2-fluorobiphenyl and p-terphenyl-d14 results were below their respective lower percent recovery acceptance limits, at 42 percent and 39 percent, respectively, for sample 93-1A-0923. 2-Fluorobiphenyl and p-terphenyl-d14 are base/neutral surrogates, and the reported results are all acidic compounds represented by acid-fraction surrogates with acceptable percent recoveries; thus, qualifications were not necessary.

According to report A3I1084, the EPA Method 8270E batch 23I0506 laboratory method blank had the surrogate compound 2-fluorobiphenyl result below lower percent recovery acceptance limit of 44 percent, at 43 percent. No qualifications were necessary as the exceedance was minimal and all results were non-detect.

All remaining surrogate results were within percent recovery acceptance limits.

Continuing Calibration Verification Results

The laboratory did not report CCV results, but appropriately flagged results associated with CCV exceedances. Surrogate or batch quality control results flagged by the laboratory based on CCV exceedances but meeting percent recovery and/or RPD acceptance criteria required no action from the reviewer.

Field Duplicate Results

Field duplicate samples measure both field and laboratory precision. The following field duplicate and parent sample pair was submitted for analysis:

Report	Parent Sample	Field Duplicate Sample
A3I1084	R-2-0923	DUP-0923

MFA uses acceptance criteria of 100 percent RPD for results that are less than five times the MRL or 50 percent RPD for results that are greater than five times the MRL. RPD was not evaluated when both results in the sample pair were non-detect. When one result in the sample pair was non-detect, RPD was evaluated using the LDL of the non-detect result.

All field duplicate results met the RPD acceptance criteria.

Data Package

The data packages were reviewed for transcription errors, omissions, and anomalies. None were found.

References

Apex. 2023. *Quality Systems Manual. Rev. 11*. Apex Laboratories, LLC: Tigard, OR. June 20.

ARL. 2023. Quality Assurance Plan. Rev. 21.0. Analytical Resources, LLC: Tukwila, WA. January 23. EPA. 1986. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*. EPA publication SW-846. 3rd ed. U.S. Environmental Protection Agency. Final updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), V (2015), VI phase I (2017), VI phase II (2018), VI phase III (2019), VII phase I (2019), and VII phase II (2020).

EPA. 2020. *National Functional Guidelines for Organic Superfund Methods Data Review*. EPA 540-R-20-005. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation: Washington, DC. November.