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Modified Hazardous Materials Corridor Study Mill City Pedestrian Bridge

Key #21457

**Linn County Road Department
Mill City, Oregon**

July 2019

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**Modified Hazardous Materials Corridor Study
Mill City Pedestrian Bridge
Linn County Road Department (Mill City, Oregon)
Key #21457**

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Report Date: July 15, 2019

Project Number: 2019230014

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EXECUTIVE SUMMARY

Cascade Earth Sciences (CES) conducted a Modified Hazardous Materials Corridor Study (HMCS) for the Mill City Pedestrian Bridge rehabilitation in Mill City, Oregon (Key #21457); referred to as the Project Corridor. The bridge structure was manufactured circa 1888 and requires restoration and structural rehabilitation. The Modified HMCS consisted of surface soil sampling, subsurface soil sampling, and a hazardous materials survey for asbestos-containing materials (ACM) and lead-based paint (LBP).

The HMCS identified the following potential environmental conditions that could impact the proposed construction:

- The lead paint survey identified LBP on the steel superstructure of the bridge.
- Low-levels of polycyclic aromatic hydrocarbons (PAHs) were identified in groundwater at an upgradient facility during investigations in 2004 and 2005.
- Sediments along the North Santiam River may contain lead.
- Two composite soil samples (SS-04 and SS-05) contained PAHs above the clean fill determination.
- Two composite samples (SS-04 and SS-05) contained arsenic at levels above the Department of Environmental Quality (DEQ) residential risk-based criteria (RBC) for ingestion, dermal contact, and inhalation. The laboratory-reporting limit was above the residential RBC in soil sample SS-03.
- The bridge was constructed with treated timber pilings.

Based on these findings, CES recommends the following:

- Lead-based paint should be removed by a licensed lead abatement contractor. Paint stripped from the bridge could be subject to hazardous waste regulations. According to Occupational Safety and Health Administration (OSHA) regulations, if a paint contains any concentration of lead and will be disturbed (i.e., via sanding, welding, scraping, grinding, etc.) in a way to create fine mists, fumes, or fine particulate aerosols which could be inhaled or ingested by site workers or other persons, the proposed construction plans should be reviewed by a qualified individual to evaluate compliance to OSHA Lead in Construction Standard: 29 CFR 1926.62 for Lead, state, and local regulations. As such, protective procedures should be implemented when removing the paint from the bridge.
- If groundwater is encountered during excavation activities on the west side of the Project Corridor, a sample should be collected and analyzed for PAHs to determine proper personal protective equipment and management options.
- If sediments along the North Santiam River are disturbed, samples should be collected and analyzed for Resource Conservation and Recovery Act (RCRA) metals to determine management options.
- Soils removed from the Project Corridor in the areas of SS-04 and SS-05 will need to be managed per Oregon Administrative Rule 340-093 *Solid Waste: General Provisions* and Oregon Department of Transportation (ODOT) Directive GE 14-01(D) *Management of Surface*

Soils Removed Within Operational Right of Way. If soil is removed from the right-of-way, it will need to be disposed of at a municipal solid waste landfill or a permitted construction and demolition debris landfill (e.g. Coffin Butte Landfill in Corvallis, Oregon), or in another DEQ approved method.

- Soils removed from the Project Corridor in the area of SS-03 can be managed as clean fill per ODOT Directive GE 14-01(D) *Management of Surface Soils Removed Within Operational Right of Way*. However, soils removed from the Project Corridor should not be used on residential properties due to the levels of arsenic detected.
- All treated and untreated timbers removed from the bridge when dismantled can be disposed of at a solid waste landfill permitted by the DEQ to receive this material. The Linn County Road Department has a permit to dispose of treated timbers at the Coffin Butte Landfill located north of Corvallis, Oregon; therefore sampling an analysis of these materials should not be required. The contract specification should allow the contractor to transport the timbers to and dispose of the material at this landfill.

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1.0 INTRODUCTION

Cascade Earth Sciences (CES) has conducted this Modified Hazardous Materials Corridor Study (HMCS) for the following (herein referred to as the Project Corridor):

**Mill City Pedestrian Bridge
Key #21457
Mill City, Oregon; Linn and Marion Counties**

The HMCS is intended primarily as an approach to identifying potential sources of contamination that could impact the project. Such impacts could affect worker safety, property value, and construction costs. This report provides an overview of potential contamination issues.

Proposed construction activities associated with the Project Corridor include the following:

- Cleaning and painting the steel components.
- Reconstruction of timber deck and railing.
- Reinforcement and repair of structural components.
- Replacement of existing timber structure.
- Equipment may be staged in areas on both ends of the bridge. Staging areas are expected to be located in the existing right of way.

2.0 CORRIDOR DESCRIPTION

The Project Corridor lies on the border of Sections 29 and 30 in Range 3 East, Township 9 South of the Willamette Meridian (Figure 1). This area is primarily residential and public roadways or paths in Mill City, Linn County, Oregon. The Pedestrian Bridge was originally erected at its present location in 1919. The structure was built to carry a rail line over the North Santiam River from Linn to Marion Counties, and was converted to a pedestrian-only bridge in 1967.

2.1 Physical Setting

According to the United States Geological Service (USGS), 7.5' Mill City North Quadrangle Map, the Project Corridor is at an elevation of approximately 810 feet above mean sea level (Appendix A). The nearest surface water body is the North Santiam River, which flows in a westerly direction under the Pedestrian Bridge. In general, the roads within the Project Corridor are flat, but the land under the bridge slopes steeply to the North Santiam River. Stormwater at the Project Corridor generally flows toward the North Santiam River. The Project Corridor is covered mostly by vegetation, a paved pedestrian path, and the timber bridge decking. The roadbeds along the pavement are vegetated. Portions of the Project Corridor along the North Santiam River are located in the 100-year flood zone (Appendix A).

Based on the local topography, proximity of surface water bodies and environmental reports (Appendix B), local and regional groundwater flow is to the west along the North Santiam River. However, local subsurface geologic and manmade features can affect groundwater flow; therefore, this groundwater

flow interpretation is only an estimate based on surface observations. Review of water well records filed with the Oregon Water Resources Department (OWRD) indicate that the depth to groundwater in the Project Corridor is expected to range between 1 and 6 feet below ground surface.

3.0 OBSERVATIONS

CES conducted site reconnaissance visits on May 29 and June 5, 2019. The reconnaissance consisted of systematically traversing the Project Corridor and visually observing adjacent properties from public roadways. Photographs documenting reconnaissance observations are included in Appendix C and the site reconnaissance checklist is provided in Appendix D.

Land use in the Project Corridor is primarily a bridge, a public path, and public spaces (Photographs 1 through 5). The following table summarizes sources of potential environmental concern identified during the site reconnaissance within the Project Corridor.

Potential Sources of Hazardous Substances	Observed?
Heating oil tanks	No
Aboveground Storage Tanks (ASTs)	No
Underground Storage Tanks (USTs), fill and vent pipes, fuel dispensers	No
Other hazardous substance containers	No
Hazardous waste generation	No
Oil water separators, dry wells or floor/storm drains	No
Septic systems	No
Stains or odors	No
Stressed vegetation	No
Solid waste	Yes
Suspect asbestos-containing materials	Yes
Suspect lead-based paint	Yes
Potential polychlorinated biphenyls (PCBs)-containing equipment	No
Florescent or mercury vapor light bulbs	No
Treated timbers	Yes
Water wells or monitoring wells	No

Specific details regarding potential hazardous material sources are provided below. The locations of these sites are shown on Figures 2 and 3.

3.1 Solid Waste

Some solid waste was observed in the Project Corridor. The waste consisted of general refuse, such as food wrappers and bits of paper or plastic. The observed material is not considered hazardous and as such not an environmental concern for the proposed construction activities.

3.2 Suspect Asbestos- Containing Materials

Asbestos fibers are known or suspected to cause a number of diseases when inhaled or ingested. However, the mere presence of asbestos containing material (ACM) does not mean there is a significant exposure risk. In order for a significant exposure risk to exist, the ACM must be accessible

and capable of releasing fibers or disturbed in such a way as to cause the release of fibers (i.e., friable) (e.g., repair or demolition activities). Current regulations do not require the removal of ACM unless an exposure risk is present.

3.2.1 Plan Review

Jessica Penetar, a Certified Asbestos Hazard Emergency Response Act (AHERA) Accredited Inspector (Cert. #IR-18-5549B), requested copies of available plans, elevations and details of the Pedestrian Bridge. Available materials that were reviewed included bridge and bike/pedestrian trail improvements from 1995. The review of available drawings for the bridge did not identify materials that could contain asbestos. Copies of the drawings are included in Appendix E.

3.2.2 Asbestos Survey

Ms. Penetar completed the asbestos survey of the bridge on June 5, 2019. The survey included:

- Inspection of possible ACM,
- Completion of the asbestos survey form (Appendix D), and
- Collection of two bulk samples from accessible locations on the bridge for asbestos content analysis. These included tar/mastic on timber supports.

Samples collected during the survey were placed into plastic bags, sealed and labeled. Sampling tools were cleaned between uses to reduce the potential for cross-contamination. All samples were shipped under chain-of-custody protocol to Eurofins TestAmerica, Inc. in Seattle, Washington for asbestos analysis by polarized light microscopy by Environmental Protection Agency (EPA) Method EPA/600/R-93/116.

The approximate sample locations are shown on Figure 3. The material sampled is shown in Photograph 6.

3.2.3 Results

Materials containing greater than 1 percent (%) asbestos are considered ACM by EPA standards. None of the samples collected during the survey were reported as ACM (Appendix F).

Note that additional ACM may be present on-site in inaccessible or concealed locations. If future renovation/demolition activities make these areas accessible, CES recommends a thorough assessment be conducted of these areas at that time to identify and confirm the presence or absence of additional ACM. Until then, all such material should be treated as presumed ACM in accordance with 29 CFR 1926.1101 and 1910.1001.

ACM associated with utilities was not surveyed and are the responsibility of the utility company. If ACM or other hazardous materials associated with utilities are encountered, the utility company is required to remove the material in accordance with applicable regulations prior to or at commencement of bridge removal and replacement.

3.3 Suspect Lead-Based Paint

Colorimetric lead swab kits were used to qualitatively assess the paint present on the bridge. The black paint on the metal railing located behind the bench on the north side of the bridge (Photograph 3) was not assessed as it appeared to be factory-painted, in good condition, and is expected to be assessed during repainting and/or disposed of in an approved solid waste landfill. The following table summarizes the surface areas where the colorimetric swab kits were used and the results.

Surface Area Swabbed	Lead Detected
Tan paint on bench (Photograph 7)	No
Faint red paint on some railing sections (Photograph 8)	No

Both the red and tan paints appeared to have been recently applied. Note that the colorimetric swabs only show the presence of lead in the top coat of paint. While efforts were made to test different coats of paint, some coats of paint may not have been accessible. No composite samples of paint and wood were collected based on the results of the colorimetric swabs.

Black paint covers the steel super structure and is in fair to poor condition. The vertical posts and end diagonals appeared to have a different paint or coating than the diagonals. Therefore, one composite sample of paint chips was collected from the vertical posts and end diagonals (Ped-01, Photograph 9) and one composite sample of paint chips was collected from the diagonals (Ped-02, Photograph 10). Ms. Penetar, a certified Oregon Health Authority Lead-Based Paint (LBP) Inspector (#2594), oversaw the sampling effort. The paint chips were transferred to laboratory supplied 8-ounce jars, labeled, and placed in a cooler with ice. The sample was transported under chain-of-custody protocol to Eurofins TestAmerica, Inc. in Seattle, Washington.

The samples were analyzed for total cadmium, chromium, and lead using EPA method 6010B. Results are shown in Table 1 and the laboratory report is included in Appendix F. Lead was detected at 51,000 milligrams per kilogram (mg/kg), which corresponds to 5.1% by weight, on the vertical posts and end diagonals (Ped-01). Lead was detected at 13,000 mg/kg, which corresponds to 1.3% by weight, on the diagonals (Ped-02). The concentration of lead in the paint samples was compared to the U.S. Department of Housing and Urban Development (HUD) Title X Regulations (Residential Lead Paint Hazard Reduction Act, 1992) LBP regulatory level of 5,000 mg/kg or 0.5% lead. Although the bridge is not a residential structure, the black paints meet the definition of lead-based paint and therefore needs to be managed in accordance with local, state, and federal regulations. Paint stripped from the bridge could be subject to hazardous waste regulations.

According to Occupational Safety and Health Administration (OSHA) regulations, if a paint contains any concentration of lead and will be disturbed (i.e., via sanding, welding, scraping, grinding, etc.) in a way to create fine mists, fumes, or fine particulate aerosols which could be inhaled or ingested by site workers or other persons, the proposed construction plans should be reviewed by a qualified individual to evaluate compliance to OSHA Lead in Construction Standard: 29 CFR 1926.62 for Lead, state, and local regulations. As such, protective procedures should be implemented when removing the paint from the bridge.

Cadmium was detected at 12 mg/kg in Ped-01 and was not detected in Ped-02. Chromium was detected at 110 mg/kg in Ped-01 and 120 mg/kg in Ped-02. There are no HUD standards for cadmium and chromium.

3.4 Treated Timbers

The bridge was constructed with treated timber pilings, decking, railing, and supports. Treated timbers can generally be disposed of at Coffin Butte Landfill north of Corvallis, Oregon. The Linn County Road Department has a permit to dispose of treated timbers at the landfill and thus, sampling and analysis of these materials on the bridge is not required. The contract specifications should allow the contractor to transport treated timbers from the bridge and dispose of the material at this landfill.

4.0 HISTORICAL RECORDS

Historical use information was obtained by CES for the Project Corridor by reviewing historical sources such as city directories, aerial photographs, and historical maps.

4.1 Aerial Photographs

CES reviewed aerial photographs dated 1936 to 2016 obtained from Environmental Data Resources (EDR) to clarify past land uses, as described below. Copies of the aerial photographs are included in Appendix A.

Date	Description
1936	The Project Corridor is a roadway with a bridge over the North Santiam River. Buildings are visible surrounding the bridge. The buildings on the north and east sides of the bridge appear to be commercial or industrial and buildings to the south and west are presumed residences. Some undeveloped land is located to the west and southeast of the bridge.
1950	The photograph is slightly blurry; it is difficult to make out individual structures. The Project Corridor and surrounding areas appear relatively unchanged from the 1936 photograph. Railcars are visible to the southwest of the Project Corridor on what appears to be the same line that would continue to the Project Corridor.
1953	The Project Corridor appears relatively unchanged from the 1950 photograph. Railcars are visible to the east of the Project Corridor on what appears to be the same line that would continue to the Project Corridor. There are fewer buildings, presumed industrial or commercial, to the east of the Project Corridor.
1976	The photograph is blurry; it is difficult to make out individual structures. The Project Corridor appears to be relatively unchanged from the 1953 photograph. Some of the structures to the east do not appear to be present.
1982	The Project Corridor is relatively unchanged from the 1976 photograph. The area to the east of the Project Corridor has fewer buildings than in 1953 and some of the area previously occupied by buildings is now vegetated. More structures, presumed residences or commercial buildings, are visible to the west and south of Project Corridor. SW Linn Place and SW Broadway Avenue are visible southwest of the Project Corridor where railcars were visible in the 1950 photograph.
1994	The Project Corridor and surrounding areas are relatively unchanged from the 1982 photograph.

Date	Description
2006	The Project Corridor and surrounding areas are relatively unchanged from the 1994 photograph.
2009	The Project Corridor and surrounding areas are relatively unchanged from the 2006 photograph.
2012	The Project Corridor and surrounding areas are relatively unchanged from the 2009 photograph.
2016	The Project Corridor and surrounding areas are relatively unchanged from the 2012 photograph.

4.2 Sanborn Fire Insurance Maps

CES requested Sanborn Fire Insurance Maps from EDR to identify past land uses. According to EDR, Sanborn maps are available for the eastern portion of the Project Corridor as well as areas to the east and southwest of the Project Corridor from 1921 and 1931 (Appendix A). The maps show the eastern portion of the Project Corridor as a “steel bridge” with S.P.R.R. lines crossing the Bridge. S.P.R.R. is assumed to stand for Southern Pacific Rail Road. The maps show tax lots, structures, and the S.P.R.R. right of way to the southwest of the Project Corridor. The Hammond Lumber Company is shown on the north bank of the Santiam River to the east of the Project Corridor. Buildings associated with the lumber company located just north of the Project Corridor in a proposed construction staging area or bioslope have labels such as “Canfy & Billiards” and “Lunches & Canfy”.

Historical contamination is sometimes associated with railroads and wood mills. Railroad contaminants could include herbicides, petroleum products, metals, and creosote (EPA, 2005) and wood mill contaminants could include wood-treating chemicals, petroleum products, volatile organic compounds (VOCs), and lead (EPA, 2006). Soil samples were collected in the Project Corridor and are discussed in Section 7.

4.3 Historic Topographic Maps

Historic topographic maps of the Project Corridor and surrounding properties were reviewed from the United States Geological Survey (USGS) Topo and Historical Topographic Map Collection for the years dating from 1929 to 2014. Historic Topographic Maps are used to identify past land uses, as described below and are included in Appendix A.

Date	Description
1929	The 30-minute Mill City Quadrangle map depicts the Project Corridor with a bridge and structures in the surrounding area. A railroad is shown in the Project Corridor.
1955 / 1956	The 15-minute Mill City and Quartzville Quadrangle maps depict the Project Corridor as relatively unchanged from the 1929 map. More structures are shown surrounding the Project Corridor.
1985	The 7.5-minute Mill City North and Mill City South Quadrangle maps depict the Project Corridor and surrounding areas as relatively unchanged from the 1955/1956 map, other than the railroad is no longer shown passing through the Project Corridor.
2014	The 7.5-minute Mill City North and Mill City South Quadrangle maps depict the Project Corridor as relatively unchanged from the 1985 map. Structures are no longer shown on the maps.

4.4 City Directories

City directories, which list business and resident addresses, can provide additional information regarding historical land use and development of a project corridor and its surrounding area. CES requested city directories from EDR (Appendix A) for Third Avenue and Linn Place. Directories dating from 1992, 1995, 2000, 2005, 2010, and 2014 were reviewed to identify past land uses. A summary of the review is provided below.

In the directories from 2010, the Silverton Fire Department is listed at 100 SW Third Avenue, which is adjacent to the Project Corridor to the south. A fire department has a potential to include truck maintenance, which could indicate the potential for hazardous chemicals. This site is not listed on any of the database searches and based on narrow streets observed during Project Corridor reconnaissance; it is unlikely that fire trucks were stored in this location. Therefore, it is unlikely to have a potential environmental impact.

No additional properties were identified in the city directory review that appear to have the likely potential for environmental contamination.

5.0 ENVIRONMENTAL RECORDS REVIEW

CES obtained primary records from EDR for federal, state, and EDR proprietary historical databases and has summarized pertinent information in the following sections.

5.1 Federal Database Records

CES reviewed available federal records for identified hazardous waste sites using “The EDR Radius Map™ with GeoCheck®” (Appendix A). The following table shows the database search radii set forth along with the total number of sites found for each database searched in accordance with the minimum search distances outlined in the American Society for Testing and Materials (ASTM) Standard E1527-13 (ASTM, 2013).

Federal Database Record	Search Radius	Total Sites Found	On or Adjoining API
National Priority List (NPL)	1 mile	0	NA
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	0.5 mile	0	NA
CERCLIS No Further Remedial Action Planned (NFRAP)	0.5 mile	0	NA
Corrective Action Report (CORRACTS)	1 mile	0	NA
Resource Conservation and Recovery Act Information – Treatment, Storage, Disposal Facilities (RCRA-TSD)	0.5 mile	0	NA
RCRA – Large Quantity Generator	0.25 mile	0	NA
RCRA – Small Quantity Generator	0.25 mile	0	NA
RCRA – Conditionally Exempt Small Quantity Generator	0.25 mile	0	NA
Emergency Response Notification System (ERNS)	Target Property	0	NA
27 Supplemental Federal Databases	Varies	7	Yes

As shown, several of the federal databases identified suspect properties in or within a half mile of the Project Corridor and many are entries on multiple databases.

Mill City Bridge Restoration and Santiam Canyon School District were identified on the Resource Conservation and Recovery Act Non-Generator/No Longer Regulated. Facilities on this list no longer generate hazardous materials. Mill City Bridge Restoration, located at 128 NE Wall Street just north of the Project Corridor appears to have been storage of construction debris in the 1990s, and was placed on this list in 1998. During construction, several non-compliance violations related to container use and management were recorded. Santiam Canyon School District was placed on this list in 2002 and 2008 and is located south of the Project Corridor. Due to the age, locations, and nature of these facilities, they are unlikely to have an impact on the Project Corridor.

Six facilities, Mill City Shell Station, Whitten Addition, Forester Equipment, Santiam Canyon School, Mill City Bridge Restoration, and Mill City Railroad Bridge, were listed on the Facility Index System (FINDS), which is a database of facilities monitored or regulated by the EPA. Santiam Canyon School and Mill City Bridge restoration are addressed above. The other four were also identified on state databases and are discussed in Section 5.2 below.

The Enforcement and Compliance History Online (ECHO) is maintained by the EPA. The Mill City Bridge Restoration and Santiam Canyon School are listed on the ECHO database. These facilities are discussed above.

The Manifest database is a list of facilities that have generated hazardous waste in the past. The Santiam Canyon School is listed on this database for a manifest in 2007. As discussed above, this facility is unlikely to have an impact on the Project Corridor.

The Hazardous Substance Information Survey (HSIS) lists Frontier Communications. This facility is included on a state database and is discussed in Section 5.2 below.

5.2 State and Tribal Databases

CES reviewed available state and tribal records for identified hazardous waste sites using “EDR DataMap™ Corridor Study” (Appendix A). The following table shows the database search radii set forth along with the total number of sites found for each database searched in accordance with the minimum search distances outlined in the ASTM Standard E1527-13 (ASTM, 2013).

State and Tribal Database Record	ASTM Search Radius (Miles)	Total Sites Found	On or Adjoining API
State – Environmental Cleanup Site Information System (ECSI)	1 mile	8	Yes
Oregon Confirmed Release List and Inventory (OR CRL)	1 mile	0	NA
Solid Waste Facilities List (SWF/LF)	0.5 mile	0	NA
Leaking Underground Storage Tanks Site List (LUST)	0.5 mile	13	Yes
Underground Storage Tank Database (UST)	0.25 mile	5	Yes
Aboveground Storage Tank Database (AST)	0.25 mile	1	Yes
Oregon Voluntary Cleanup Program Sites (VCP)	0.5 mile	2	Yes
Engineering Controls	0.5 mile	0	NA

State and Tribal Database Record	ASTM Search Radius (Miles)	Total Sites Found	On or Adjoining API
Institutional Controls	0.5 mile	0	NA
EDR MGP	1 mile	0	NA
EDR Historic Auto	0.125 mile	1	Yes
EDR Historic Dry Cleaner	0.125 mile	0	NA
18 Supplemental State/Tribal Databases	Varies	3	Yes

As shown, several of the state databases listed facilities within the specified search radii in the EDR Report and many appear on multiple databases. These facilities are discussed below.

The Mill City Railroad Bridge (Project Corridor). According to EDR (Appendix A), “lead contaminated blasting grit escaped from the shrouding on the bridge and entered the Santiam River” in 1996. Sampling is recommended to determine the extent of possible lead contamination in sediments. Sediments are not expected to be disturbed the construction activities. However, if sediments are excavated, samples should be collected and analyzed for metals to determine proper management options.

The Mill City Shell Station is located at 180 SW Broadway, approximately one-tenth of a mile to the south of the Project Corridor, is listed on the LUST and UST databases. Four USTs were decommissioned in 1989 (Appendix B). Of these four USTs, one contained waste oil and evidence of a release was observed at the fill port and below the south tank wall. Soil sampling confirmed a release from the waste oil UST and also indicated a release from a diesel UST. Approximately 20 cubic yards of contaminated soil were removed and disposed of at a permitted landfill. Additional excavation was recommended but could not be completed at the time due to structural concerns. No groundwater was encountered in the excavation. Although contaminated soil was left in place, this location will not be disturbed during construction activities in the Project Corridor. Also, it is located side gradient and is unlikely to have an impact on the Project Corridor.

The Whitten Addition, located at 208 First Ave and less than one-tenth of a mile to the south of the Project Corridor, is listed on the ECSI, VCP, and recovered government archive hazardous waste sites. According to the DEQ’s decision summary (Appendix B), this location was a log truck parking area and uses included oiling roads for dust suppression, fueling operations, and truck washing between the 1950s and 1990s. Phase I and Phase II investigations were completed at this facility and approximately 120 tons of “noticeably contaminated” soils were removed. The DEQ determined that no additional excavation or investigations were required at this location. However, petroleum hydrocarbons at levels below the applicable risk-based criteria (RBC) may still be present in some soils. The facility has been regraded and covered by roadways and buildings. This facility is located outside of the Project Corridor and therefore contact with potentially contaminated soils from the Whitten Addition is not considered an issue. Low levels of polycyclic aromatic hydrocarbons (PAHs) were detected in one groundwater sample. This facility is upgradient of some of the Project Corridor and therefore, if groundwater is encountered during excavation activities, a sample should be collected and analyzed for PAHs to determine proper management options.

Ohr Vern & Carol, located at 108 SW Broadway, approximately one-tenth of a mile to the south of the Project Corridor, is listed on the EDR Historic Auto database and indicates a service station was

present at this location from 1969 to 1987. Based on the location, this listing is assumed to be refer to the same facility as the Mill City Shell Station, which is discussed above.

Hoover's Shop, located at SW 5th Ave and Linn Place, approximately 0.15 miles west of the Project Corridor, is listed on the ECSI database. The listing (Appendix B) states that in 1989, dying trees downslope of the facility and that it "may be due to improper disposal of hazardous waste." Dying trees were not observed during Project Corridor reconnaissance in this area (Photograph 11). Therefore, this listing is unlikely to have an impact on the Project Corridor.

Frontier Communications, located at 261 S First Street, approximately one-tenth of a mile south of the Project Corridor, is on the AST and HSIS databases. EDR reports there is a diesel AST as of 2017, but no size is listed. Listings under the HSIS database include lead acid batteries and 11 gallons of diesel fuel in an AST. During Project Corridor reconnaissance, an AST was observed at the facility mounted on a concrete pad and surrounded by concrete paving. The AST was labeled as 500 gallons of diesel and a "leak detector tube" was visible, which indicates the tank is likely double-walled. A vent pipe was also observed near the AST, which is sometimes indicative of a UST. The building at this facility appeared vacant. This facility did not appear on any other databases and given that this location will not be disturbed during construction activities, it is unlikely to have an impact on the Project Corridor.

Mill City Central Office, located at 261 SW First St approximately one-half mile to the south of the Project Corridor, is listed on the UST database. The EDR report shows this facility at the same location as Frontier Communications. This listing does not appear on other databases and is located side gradient of the Project Corridor. Therefore, this facility is unlikely to have an impact on the Project Corridor.

Mill City Fairview Ave, located at 444 S First Ave approximately 0.15 miles south of the Project Corridor, is on the ECSI and VCP databases. According to EDR, petroleum hydrocarbon impacted soils were encountered in 2011 during construction of City Hall. Soil samples indicated that it was heavy fuel oil. Soils were excavated from several locations and disposed of at an off-site landfill. Post-excavation samples indicated low levels of petroleum hydrocarbons remain on-site, but are either below the applicable RBC or cannot be excavated due to structural concerns. Groundwater was not encountered and a groundwater investigation was not required by the DEQ because of the shallow extent of contamination. This site has been capped with clean fill and asphalt, and received a no further action determination from the DEQ in 2012. Therefore, this facility is unlikely to have an impact on the Project Corridor.

Forester Equipment, located at 161 4th Ave S, is shown on the map at less than one-tenth of a mile west of the Project Corridor, but is actually located approximately one-third of a mile to the east on the north side of the North Santiam River (Appendix B). This facility listed on the LUST and UST databases. Soil contamination with a cleanup complete data of 2001 was reported. Therefore, it is unlikely to have an impact on the Project Corridor.

The other facilities listed on the databases are either side gradient or downgradient and are not expected to have an impact on the Project Corridor.

5.3 Unmappable Facilities

Unmappable facilities are environmental risk facilities that EDR cannot map due to inadequate address information but can locate by zip code or city name. The EDR report identified four unmappable facilities for the project area.

- Arey Podrabsky is listed on the LUST database at 48200 Kingwood Avenue. This facility is 0.7 miles to the southwest, which is downgradient. Therefore, this facility is unlikely to have an impact on the Project Corridor.
- COE Civil Detroit Dam is listed on the Superfund Enterprise Management System (SEMS). The Detroit Dam is located over 10 miles upstream on the North Santiam River. According to the EPA (EPA, 2019a), this facility is listed as a Conditionally Exempt Small Quantity Generator and is not on the Superfund site list (EPA, 2019b). This facility also appears on the LUST database (Appendix B) and shows a cleanup date of October 31, 1990. This facility is unlikely to have an impact on the Project Corridor.
- A LUST is listed at 250 NW Santiam Highway. This facility is located northwest of the Project Corridor in the downgradient direction. It is unlikely to have an impact on the Project Corridor.
- The Mill City Water Department is listed at NE Wall Street just north of the Project Corridor and on the FINDS and ECHO databases. According to the ECHO database detailed facility report (EPA, 2019c), no violations have occurred. Therefore, this facility is unlikely to have an impact on the Project Corridor.

6.0 ADDITIONAL RESEARCH

As part of the Hazardous Material Corridor Study, CES conducted additional research typical of an ASTM Phase I Environmental Site Assessment (ESA). The following sections summarize the results of this research.

6.1 Oregon State Fire Marshal's Office

CES reviewed records from the Oregon State Fire Marshal's (OSFM) database for hazardous materials incidents at the Project Corridor and surrounding properties (OSFM, 2019). Based on a search of these records, gasoline or flammable liquid was spilled at 654 N Santiam Highway in 2014, which is located approximately 0.4 miles to the northeast of the Project Corridor. No details are given about the nature of the spill or cleanup activities. Natural gas leaks in Mill City were reported in 2014, 2015, and 2017. The incidents are unlikely to have an impact on the Project Corridor.

7.0 SOIL SAMPLING AND ANALYSIS

As part of the modified HMCS, CES completed surface and subsurface sampling activities in the Project Corridor. CES follows the industry standard field practices for soil sampling. Samples were analyzed by Eurofins TestAmerica, Inc., Seattle, Washington. CES personnel collecting samples are certified Occupational Safety and Health (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER)-trained (29 Code of Federal Regulations 1910.120(e)). The approximate locations of the soil samples are shown on Figure 2.

The following analytical methods were used:

- Polycyclic aromatic hydrocarbons (PAHs) by EPA method 8270-SIM;
- Resource Conservation and Recovery Act (RCRA) metals by EPA method 6010B;
- Pesticides by EPA method 8081;
- Herbicides by EPA method 8151A;
- Volatile Organic Compounds (VOCs) by EPA method 8260B;
- Polychlorinated Biphenyls (PCBs) by EPA method 8082; and
- Northwest Total Petroleum Hydrocarbons Diesel Range by method NWTPHDx.

The analyses for each sample were selected based on historical use (agriculture) and information provided by Linn County that oil may have been used on the road before it was paved.

7.1 Surface Soil Sampling

Composite surface soil samples were collected on May 29, 2019 in the proposed construction staging and/or bioslope areas. Samples from the upper 1.5 feet were collected with a decontaminated stainless steel shovel in accordance with the Oregon Department of Transportation (ODOT) Directive GE 14-01(D). Soil from two locations were composited and placed into laboratory-supplied jars and Terra Core[®] kits. Samples were obtained from the following locations:

- Sample SS-03 was collected from soils on the west side of the Project Corridor to the north of the Bridge. The sample was analyzed for PAHs, RCRA metals, pesticides, herbicides, VOCs, PCBs and NWTPHDx.
- Sample SS-04 was collected from soils on the west side of the Project Corridor to the south of the Bridge. The sample was analyzed for PAHs, RCRA metals, pesticides, herbicides, VOCs, PCBs and NWTPHDx.
- Sample SS-05 was collected from soils near the northeast side of the Project Corridor, which is near the former lumber mill. The sample was analyzed for PAHs, RCRA metals, pesticides, herbicides, VOCs, PCBs and NWTPHDx.

Note that soil samples SS-01, SS-02, and SS-06 through SS-08 are discussed in separate HMCS reports for the Mill City project.

7.2 Soil Sampling Results and Discussion

Results of the soil analyses are presented in Table 2. Copies of the laboratory analytical data are provided in Appendix F.

The samples generally contained low levels of metals, heavy oil range petroleum hydrocarbons, PAHs, and a pesticide. No VOCs, PCBs, diesel range hydrocarbons, or herbicides were detected in the samples.

Naphthalene was detected in SS-04 above the DEQ residential RBC for leaching to groundwater and above the clean fill determination.

Benzo(a)pyrene was detected in SS-05 at a concentration above the RBC for ingestion, dermal contact, and inhalation and above the clean fill determination.

Arsenic was detected at concentrations above the residential RBC for ingestion, dermal contact, and inhalation in SS-04 and SS-05. However, the arsenic concentrations detected were below DEQ background levels and clean fill determinations. While arsenic was not detected in SS-03, the laboratory-reporting limit was above the residential RBC.

Soils removed from the Project Corridor in the areas of SS-04 and SS-05 will need to be managed per Oregon Administrative Rule 340-093 *Solid Waste: General Provisions* and ODOT Directive GE 14-01(D) *Management of Surface Soils Removed Within Operational Right of Way*. If soil is removed from the right-of-way, it will need to be disposed of at a municipal solid waste landfill or a permitted construction and demolition debris landfill (e.g. Coffin Butte Landfill in Corvallis, Oregon), or in another DEQ approved method.

Soils removed from the Project Corridor in the area of SS-03 can be managed as clean fill per ODOT Directive GE 14-01(D) *Management of Surface Soils Removed Within Operational Right of Way*. However, soils removed from the SS-03 area should not be used on residential properties due to the levels of arsenic detected.

8.0 CONCLUSIONS

CES conducted this HMCS for the Mill City Pedestrian Bridge Key #21457 in Linn County, Oregon. The HMCS identified the following potential environmental conditions that could impact the proposed construction:

- The lead paint survey identified LBP on the steel superstructure of the bridge.
- Low-levels of PAHs were identified in groundwater at an upgradient facility during investigations in 2004 and 2005.
- Sediments along the North Santiam River may contain lead.
- Two composite soil samples (SS-04 and SS-05) contained PAHs above the clean fill determination.
- Two composite samples (SS-04 and SS-05) contained arsenic at levels above the DEQ residential RBC for ingestion, dermal contact, and inhalation. The laboratory-reporting limit was above the residential RBC in soil sample SS-03.
- The bridge was constructed with treated timber pilings.

Based on these findings, CES recommends the following:

- Lead-based paint should be removed by a licensed lead abatement contractor. Paint stripped from the bridge could be subject to hazardous waste regulations. According to OSHA regulations, if a paint contains any concentration of lead and will be disturbed (i.e., via sanding, welding, scraping, grinding, etc.) in a way to create fine mists, fumes, or fine particulate aerosols which could be inhaled or ingested by site workers or other persons, the proposed construction plans should be reviewed by a qualified individual to evaluate compliance to OSHA Lead in Construction Standard: 29 CFR 1926.62 for Lead, state, and local regulations. As such, protective procedures should be implemented when removing the paint from the bridge.
- If groundwater is encountered during excavation activities on the west side of the Project Corridor, a sample should be collected and analyzed for PAHs to determine proper personal protective equipment and management options.
- If sediments along the North Santiam River are disturbed, samples should be collected and analyzed for RCRA metals to determine management options.
- Soils removed from the Project Corridor in the areas of SS-04 and SS-05 will need to be managed per Oregon Administrative Rule 340-093 *Solid Waste: General Provisions* and ODOT Directive GE 14-01(D) *Management of Surface Soils Removed Within Operational Right of Way*. If soil is removed from the right-of-way, it will need to be disposed of at a municipal solid waste landfill or a permitted construction and demolition debris landfill (e.g. Coffin Butte Landfill in Corvallis, Oregon), or in another DEQ approved method.
- Soils removed from the Project Corridor in the area of SS-03 can be managed as clean fill per ODOT Directive GE 14-01(D) *Management of Surface Soils Removed Within Operational Right of Way*. However, soils removed from the Project Corridor should not be used on residential properties due to the levels of arsenic detected.
- All treated and untreated timbers removed from the bridge when dismantled can be disposed of at a solid waste landfill permitted by the DEQ to receive this material. The Linn County Road Department has a permit to dispose of treated timbers at the Coffin Butte Landfill located north of Corvallis, Oregon; therefore sampling an analysis of these materials should not be required. The contract specification should allow the contractor to transport the timbers to and dispose of the material at this landfill.

9.0 LIMITATIONS

This assessment was conducted according to American Association of State Highway and Transportation Officials (AASHTO) criteria for a Corridor Study and does not represent an ASTM Phase I ESA. It is for Linn County's use only and may not be relied upon by any other entity without written permission from an authorized Linn County representative. This report is presented as current at the time of publication; it does not warrant against changes in land use or environmental conditions subsequent to its publication. The conclusions presented in this report are professional opinions based on data described in this report. They are intended only for the purpose, location, and project indicated. This report is not a definitive study of contamination in the Project Corridor and should not be interpreted as such.

Performance of a Corridor Study is intended to reduce but not eliminate uncertainty regarding the existence of environmental conditions. The AASHTO practice is intended primarily as an approach to identifying potential sources of contamination that could impact a project. Based on the AASHTO guide, this Corridor Study constitutes appropriate inquiry into current and past uses of properties within the Project Corridor and is consistent with good commercial or customary practice. However, no environmental assessment can wholly eliminate uncertainty regarding the potential for environmental conditions in connection with a project. This report is based in part on unverified information supplied to CES by third-party sources. While CES has made efforts to substantiate this third-party information, we cannot guarantee its completeness or accuracy.

CES staff participating in this Corridor Study are scientists, not attorneys. Therefore, it must be clear to all parties that this report does not offer any legal opinion, representation, or interpretation of environmental laws, rules, regulations, or policies of federal, state, or local government agencies.

10.0 SIGNATURES

Report preparation conducted by Jessica Penetar, PE

Signature

Date

Corporate review conducted by Abe Izen, Principal Engineer

Signature

Date

REFERENCES

- ASTM, 2013. Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process. Standard E1527-13. American Society for Testing and Materials. West Conshohocken, Pennsylvania.
- EPA. 2005. Environmental Protection Agency, Office of Solid Waste and Emergency Response. Successful Rail Property Cleanup and Redevelopment.
- EPA, 2006. Revitalizing America's Mills, A Report on Brownfields Mill Projects. EPA-560-R-06-001. United State Environmental Protection Agency Office of Solid Waste and Emergency Response. November 2006.
- OSFM, 2019. Community Right to Know (CR2K) Hazardous Substances Incident Search. <https://www.oregon.gov/osp/programs/sfm/Pages/Hazardous-Incident-Database.aspx> Oregon State Fire Marshal's website. Accessed July 3, 2019. Oregon State Fire Marshal, Salem, Oregon.

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TABLES

Table 1. Paint Chip Analytical Results
Table 2. Soil Analytical Results

Table 1. Paint Chip Analytical Results
Mill City Rehabilitation of the Pedestrian Bridge - Linn County

Sample ID	Date Collected	Location	Color	Total Metals		
				Cadmium	Chromium (total)	Lead
				mg/kg		
Ped-01	6/5/2019	Vertical posts and end diagonals	Black	12	110	51,000
Ped-02	6/5/2019	Diagonals	Black	ND	120	13,000
HUD Title X LBP Regulatory Level				NS	NS	5,000

NOTES:

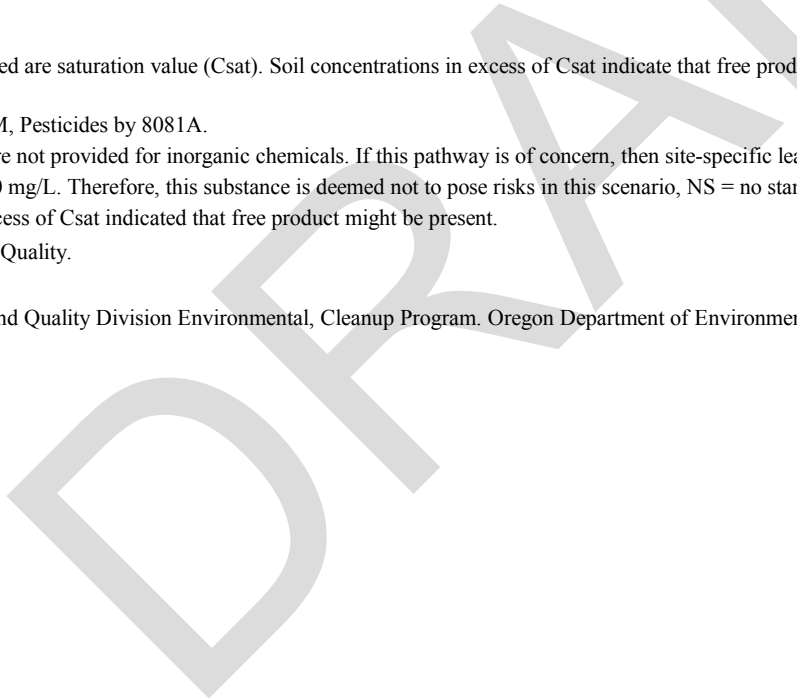
Values in **Bold** indicate the material was detected at a concentration exceeding comparison criteria.

Abbreviations: HUD = United State Department of Housing and Urban Development, LBP = Lead-based paint, mg/kg = milligrams per kilogram, ND = not detected, NS = no standard.

Table 2. Soil Analytical Results
Mill City Rehabilitation of the Pedestrian Bridge - Linn County

Sample ID	Date Collected	Composite Depths (ft)	Total Metals					Pesticides	Polynuclear Aromatic Hydrocarbons (PAHs)																		
			Arsenic	Barium	Chromium (total)	Lead	Mercury	4,4'-DDT	Residual Range Organics	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene			
milligrams per kilogram (mg/kg)																											
SS-03	5/29/2019	0-1.5	<2.7	54	22	8.7	<0.033	<0.0061	320	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	0.032	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029
SS-04	5/29/2019	0-1.5	4.5	97	25	160	0.081	<0.0025	1800	<0.029	0.044	0.037	0.14	0.039	0.043	0.058	0.14	<0.029	0.17	<0.029	0.059	0.088	0.12	0.088			
SS-05	5/29/2019	0-1.5	2.7	69	15	110	0.091	0.0059	290	0.029	<0.027	0.097	0.18	0.069	0.15	0.23	0.14	0.03	0.18	<0.027	0.24	0.037	0.068	0.22			
Soil Ingestion, Dermal Contact and Inhalation - Residential ¹			0.43	15,000	120,000	400	23	1.9	NS	NS	23,000	1.1	1.1	11	0.11	NS	110	0.11	2,400	3,100	1.1	5.3	NS	1,800			
Soil Ingestion, Dermal Contact and Inhalation - Construction Worker ¹			15	69,000	530,000	800	110	66	NS	NS	110,000	170	170	1700	17	NS	17,000	17	10,000	14,000	170	580	NS	7,500			
Leaching to Groundwater - Residential ¹			*	*	*	*	*	12	NS	NS	>Csat	1.6	>Csat	>Csat	4.4	NS	>Csat	>Csat	>Csat	>Csat	>Csat	0.077	NS	>Csat			
Clean Fill Screening Levels ²			19	630	200	34	0.24	0.01	NS	NS	6.8	0.73	1.1	11	0.11	NS	3.1	0.11	10	3.7	1.1	0.077	NS	10			
Background Levels of Metals ³			19	630	200	34	0.24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		

NOTES:
Bold indicate an exceedance to Risk Based Concentrations (RBC).
 Shaded cell mean the soil RBC exceeds the limit of three-phase equilibrium partitioning. Concentrations listed are saturation value (C_{sat}). Soil concentrations in excess of C_{sat} indicate that free product might be present.
 Only compounds with at least one detection are shown.
 Analytical methods: Metals by 6010B, VOCs by 8260B, Hydrocarbons by NWTPHDX, PAHs by 8270-SIM, Pesticides by 8081A.
 Abbreviations: < = below method detection limits, -- = not analyzed, * = Leaching-to-Groundwater RBCs are not provided for inorganic chemicals. If this pathway is of concern, then site-specific leaching tests must be performed,
 >Max = The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario, NS = no standard, PCB = polychlorinated biphenyl.
 >C_{sat} = The soil RBC exceeds the limit of three-phase equilibrium partitioning. Soil concentrations in excess of C_{sat} indicated that free product might be present.
 1 DEQ, 2018. Risk-Based Concentrations for Individual Chemicals. Oregon Department of Environmental Quality.
 2 DEQ, 2019. Clean Fill Determinations. Oregon Department of Environmental Quality.
 3 DEQ, 2013. Development of Oregon Background Metals Concentrations in Soil, Cascade Mountains. Land Quality Division Environmental, Cleanup Program. Oregon Department of Environmental Quality, Portland, Oregon.



FIGURES

- Figure 1. Project Location**
- Figure 2. Project Corridor Details and Soil Sample Locations**
- Figure 3. Asbestos Sampling and Paint Swab Locations**

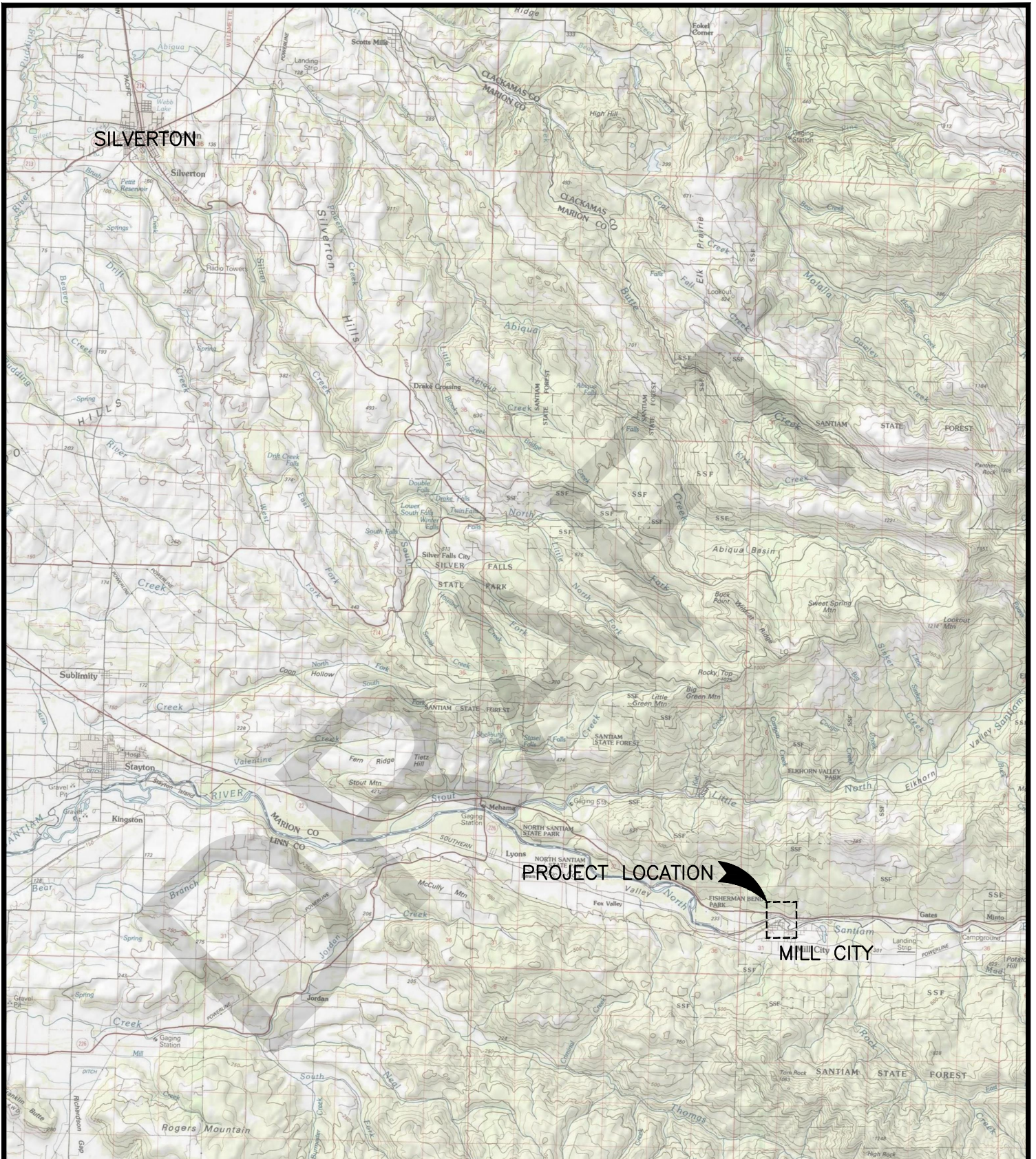
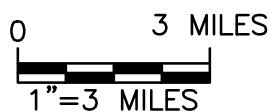


Figure 1. Project Location



PROJECT NUMBER: 2019230014	
DATE: 6/26/2019	
DWG NO: 2019230014 FIGURE 1.DWG	
DWG BY: ZBB	PROJECT MANAGER: JAP
REVISED:	

Hazardous Materials Corridor Study
Mill City Restoration and Revitalization
Pedestrian Bridge

Linn County Road Department
3010 Ferry Street SW
Albany, Oregon



CASCADE EARTH SCIENCES

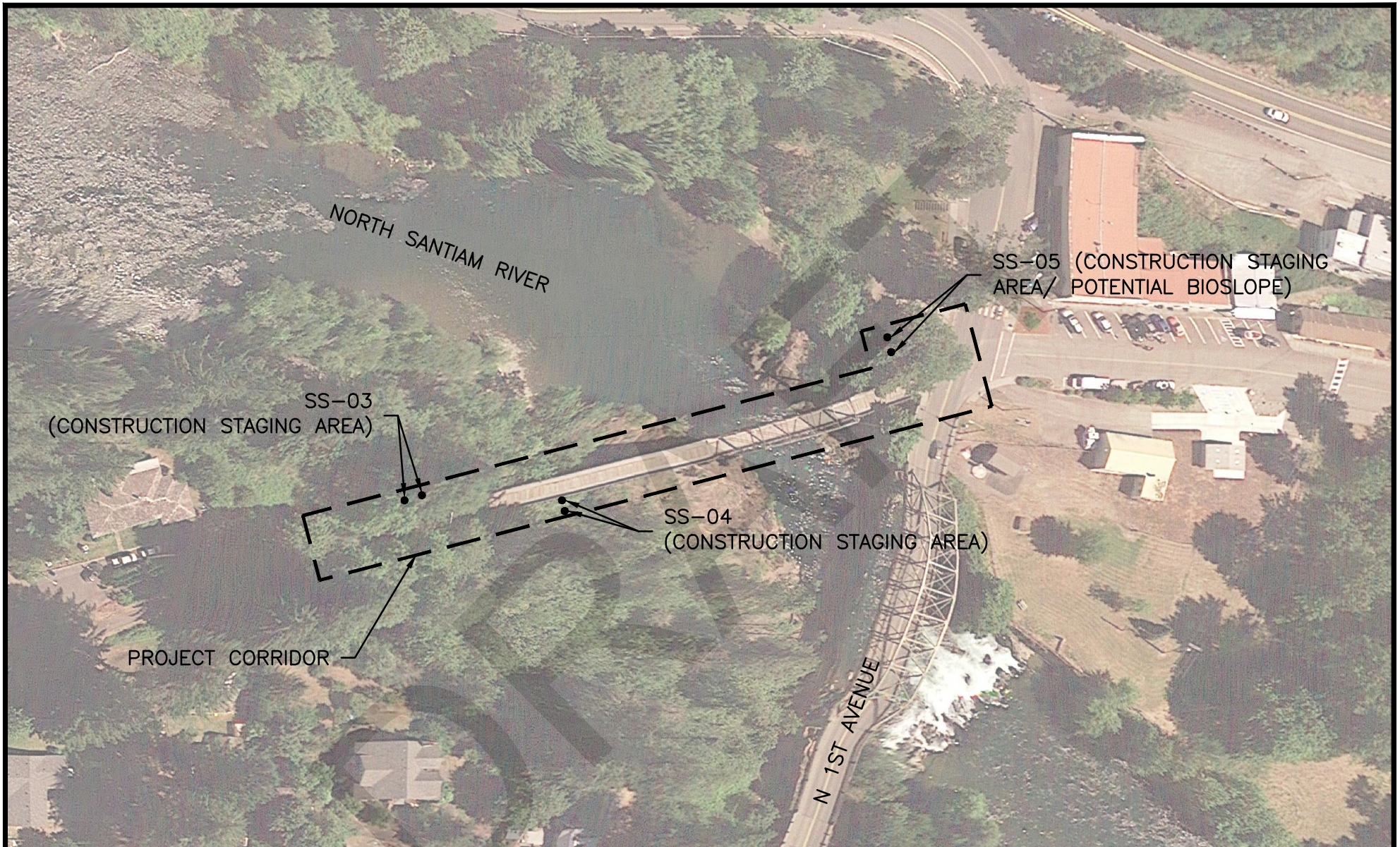
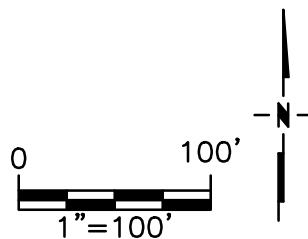



Figure 2. Project Corridor Details and Soil Sample Locations

EXPLANATION:

- SOIL SAMPLE LOCATIONS

NOTE: SAMPLING LOCATIONS ARE APPROXIMATE



PROJECT NUMBER: 2019230014	Hazardous Materials Corridor Study Mill City Restoration and Revitalization Pedestrian Bridge
DATE: 6/26/2019	
DWG NO: 2019230014 FIGURE 2.DWG	Linn County Road Department 3010 Ferry Street SW Albany, Oregon
DWG BY: ZBB	
PROJECT MANAGER: JAP	
REVISED:	 CASCADE EARTH SCIENCES

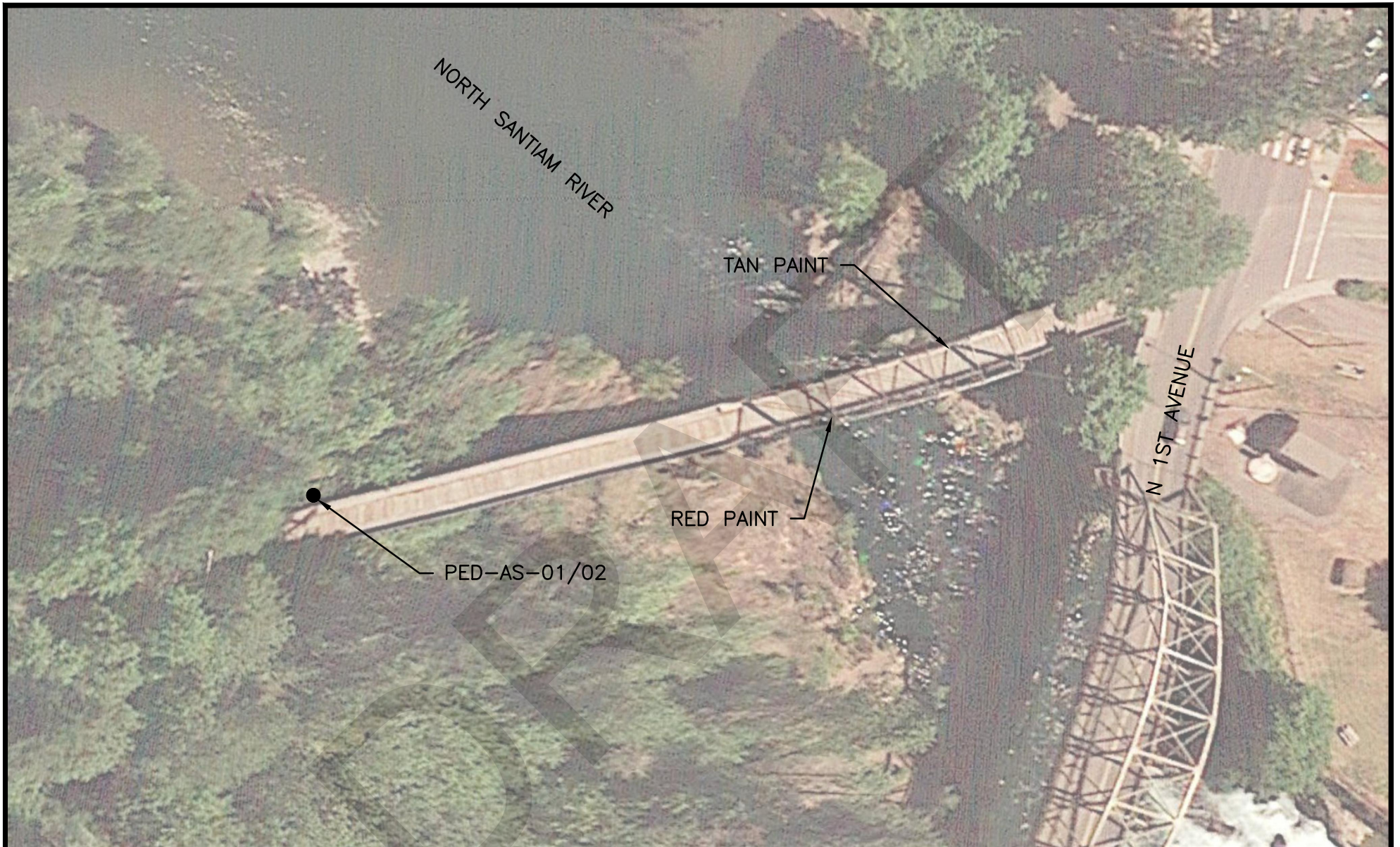
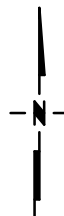
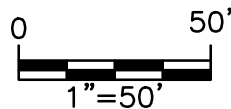



Figure 3. Asbestos Sampling and Paint Swab Locations

EXPLANATION:

- ASBESTOS SAMPLE LOCATIONS

NOTE: SAMPLING LOCATIONS ARE APPROXIMATE



PROJECT NUMBER: 2019230014	Hazardous Materials Corridor Study Mill City Restoration and Revitalization Pedestrian Bridge
DATE: 6/26/2019	Linn County Road Department 3010 Ferry Street SW Albany, Oregon
DWG NO: 2019230014 FIGURE 3.DWG	
DWG BY: ZBB	PROJECT MANAGER: JAP
REVISED:	
 CASCADE EARTH SCIENCES	

APPENDICES

- Appendix A. Historical Data**
- Appendix B. Regulatory Records**
- Appendix C. Site Photographs**
- Appendix D. Site Reconnaissance Checklist and Field Forms**
- Appendix E. Bridge Drawings**
- Appendix F. Laboratory Analytical Data**

DRAFT

Appendix A.
Historical Data

Mill City
233 SW Broadway St
Mill City, OR 97360

Inquiry Number: 5654942.4

May 16, 2019

EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

05/16/19

Site Name:

Mill City
233 SW Broadway St
Mill City, OR 97360
EDR Inquiry # 5654942.4

Client Name:

Cascade Earth Sciences
3511 Pacific Boulevard SW
Albany, OR 97321
Contact: Jessica Penetar



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Cascade Earth Sciences were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

Coordinates:

P.O.#	2019230014	Latitude:	44.754165 44° 45' 15" North
Project:	Linn County - Mill City	Longitude:	-122.479072 -122° 28' 45" West
		UTM Zone:	Zone 10 North
		UTM X Meters:	541232.29
		UTM Y Meters:	4955773.81
		Elevation:	808.98' above sea level

Maps Provided:

2014
1985
1951, 1955, 1956
1929

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2014 Source Sheets



Snow Peak
2014
7.5-minute, 24000



Lyons
2014
7.5-minute, 24000



Mill City North
2014
7.5-minute, 24000



Mill City South
2014
7.5-minute, 24000

1985 Source Sheets



Mill City North
1985
7.5-minute, 24000
Aerial Photo Revised 1981



Mill City South
1985
7.5-minute, 24000
Aerial Photo Revised 1981



Snow Peak
1985
7.5-minute, 24000
Aerial Photo Revised 1981



Lyons
1985
7.5-minute, 24000
Aerial Photo Revised 1981

1951, 1955, 1956 Source Sheets



Snow Peak
1951
15-minute, 62500
Aerial Photo Revised 1949



Lyons
1951
15-minute, 62500
Aerial Photo Revised 1949



Mill City
1955
15-minute, 62500
Aerial Photo Revised 1953

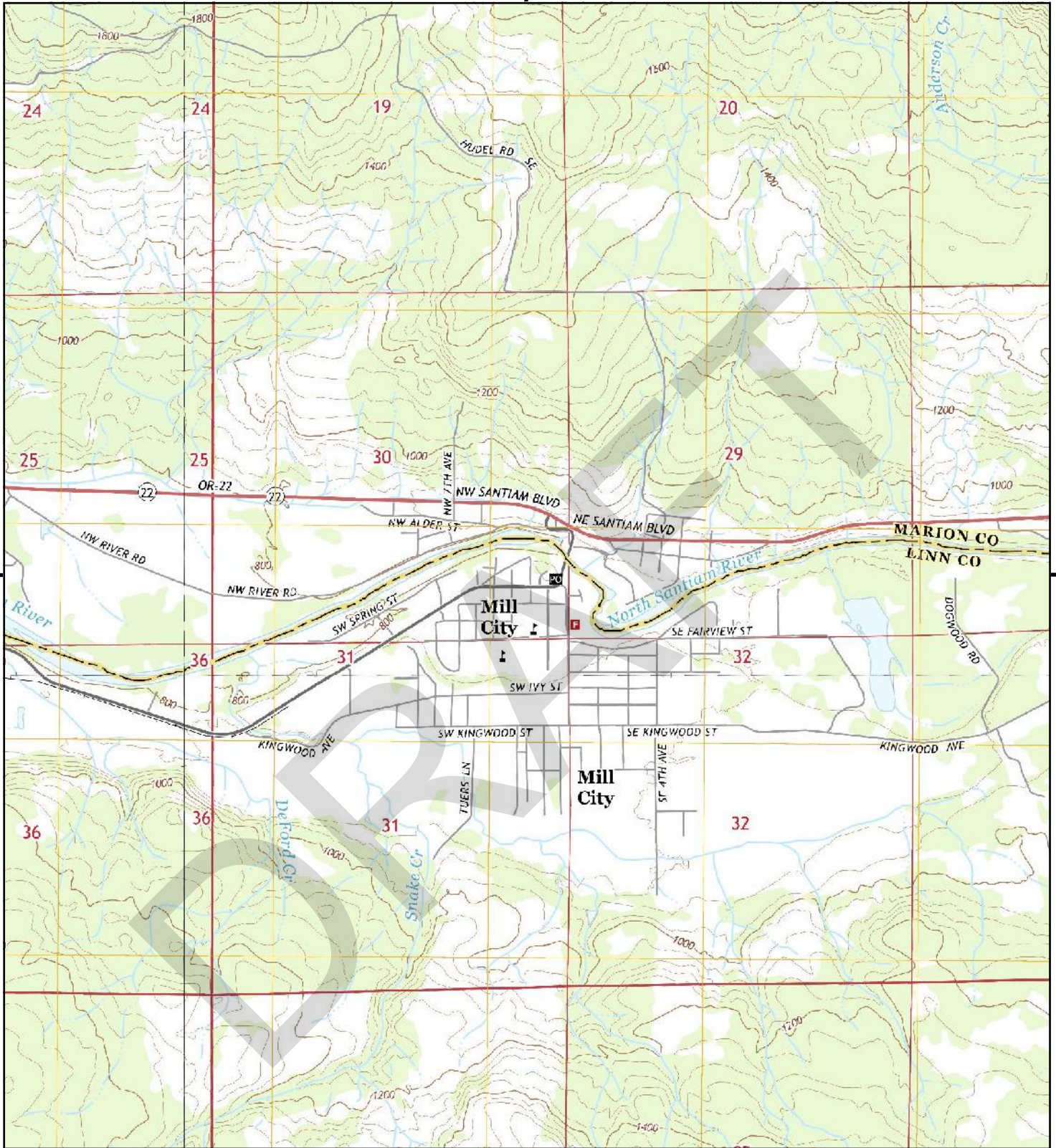


Quartzville
1956
15-minute, 62500
Aerial Photo Revised 1953

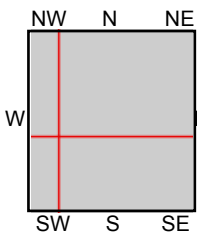
1929 Source Sheets



Mill City
1929
30-minute, 125000



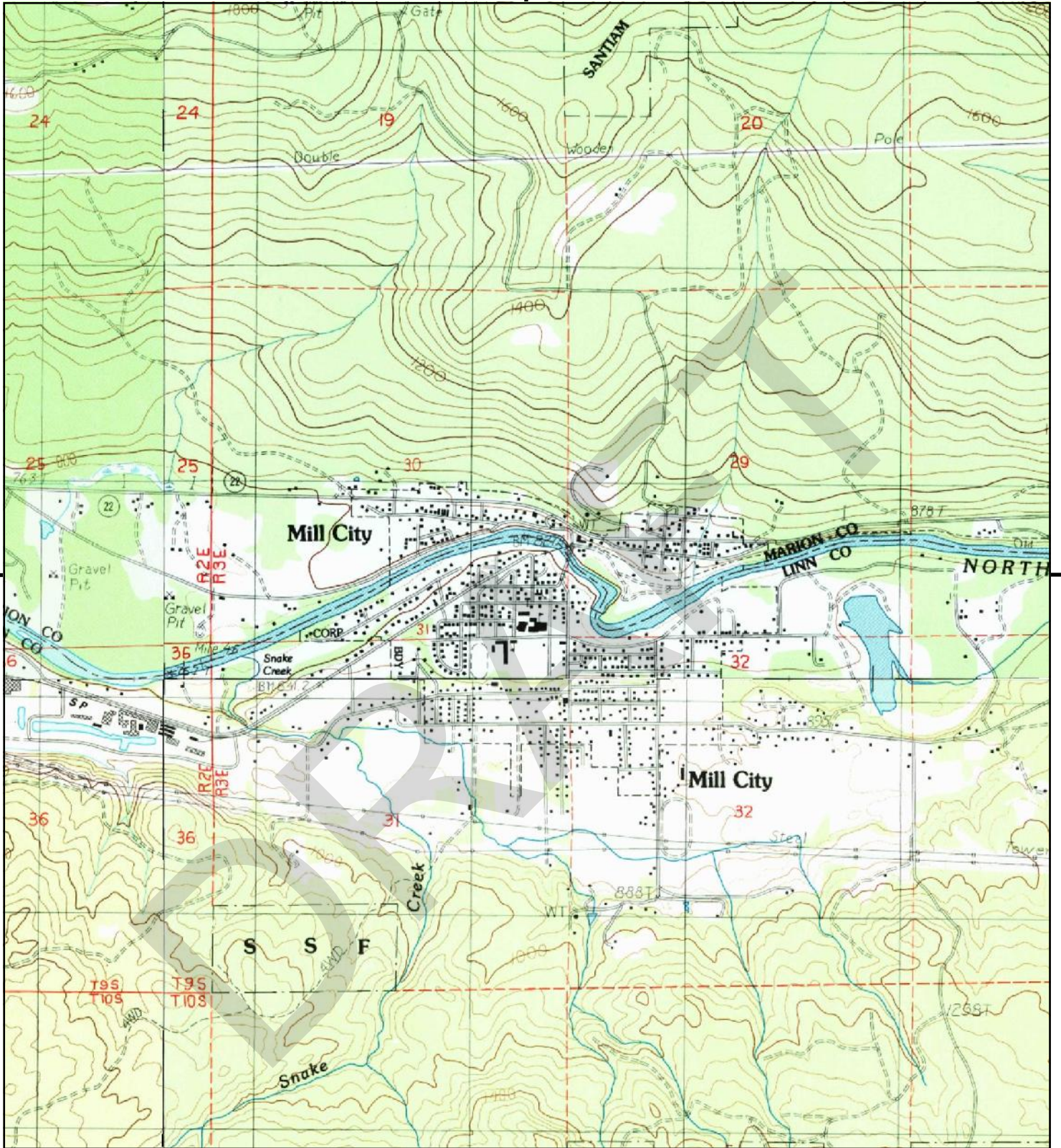
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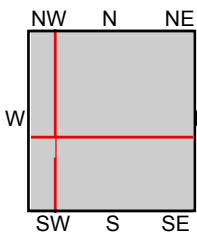
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 SE, Mill City South, 2014, 7.5-minute
 SW, Snow Peak, 2014, 7.5-minute
 NW, Lyons, 2014, 7.5-minute

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ADDRESS: 233 SW Broadway St
 Mill City, OR 97360
CLIENT: Cascade Earth Sciences





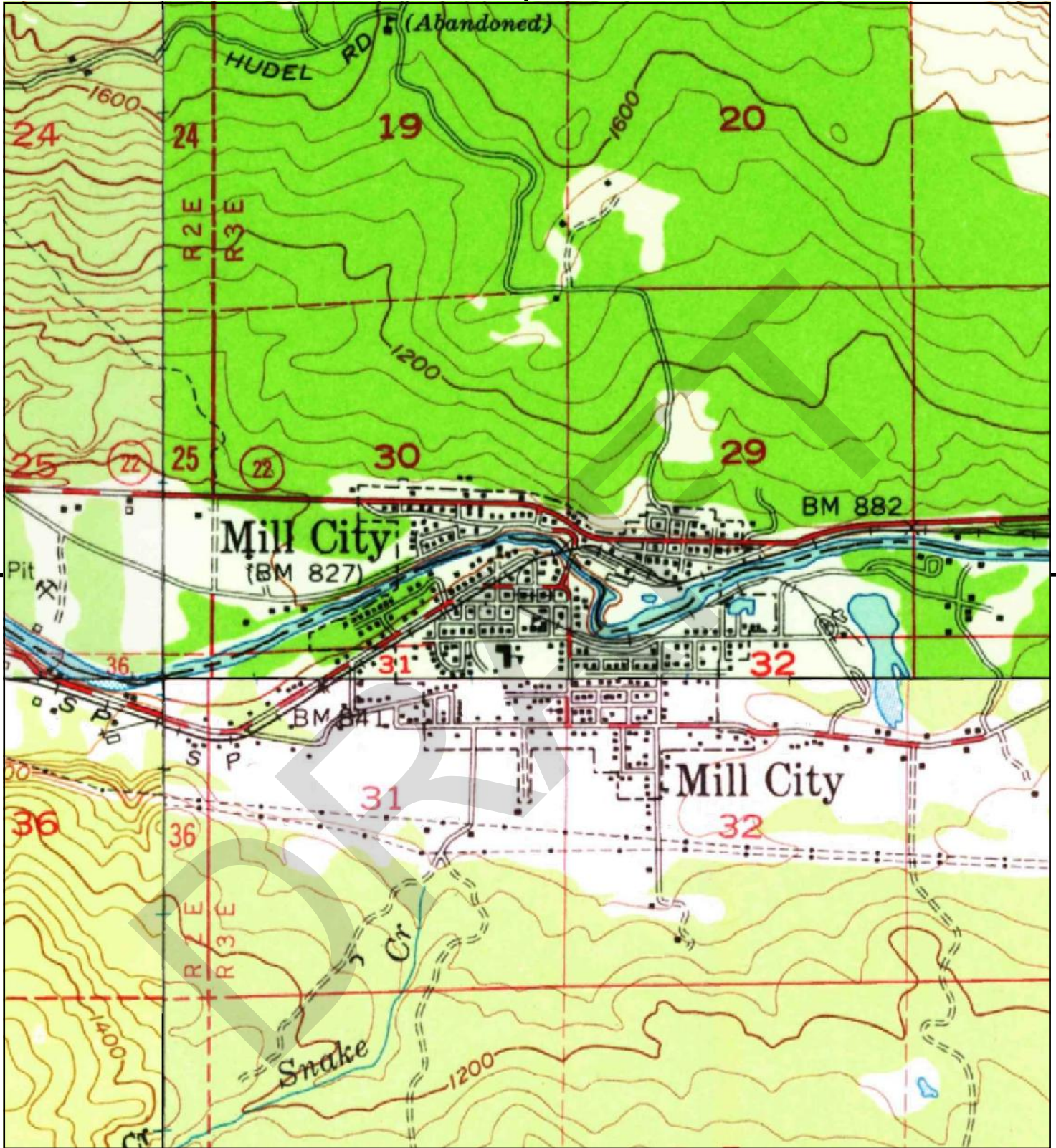
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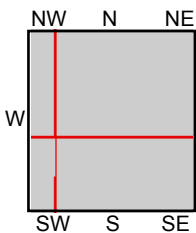
TP, Mill City North, 1985, 7.5-minute
 SE, Mill City South, 1985, 7.5-minute
 SW, Snow Peak, 1985, 7.5-minute
 NW, Lyons, 1985, 7.5-minute

SITE NAME: Mill City
ADDRESS: 233 SW Broadway St
 Mill City, OR 97360
CLIENT: Cascade Earth Sciences





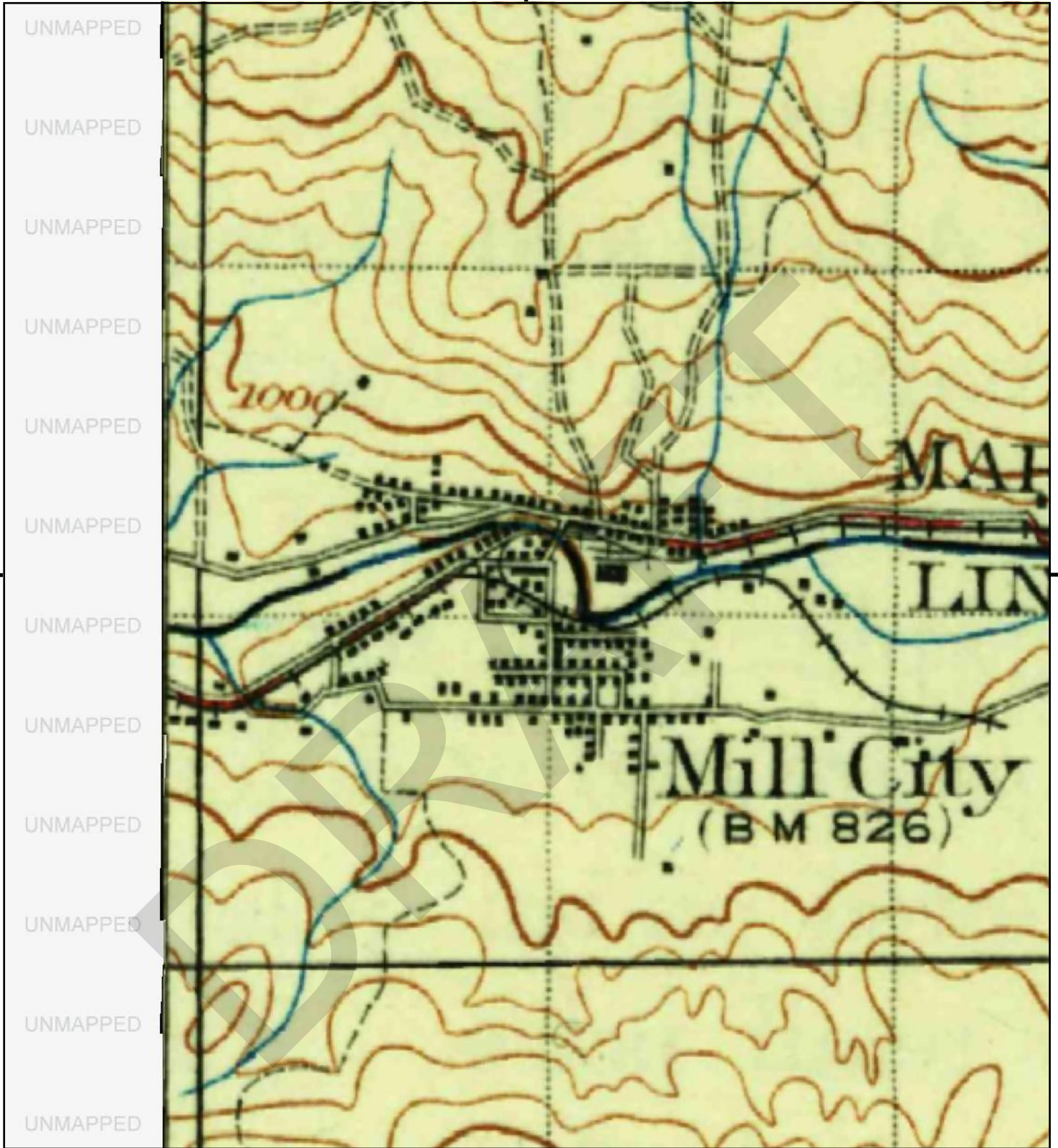
This report includes information from the following map sheet(s).



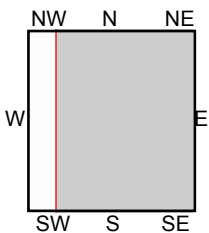
TP, Mill City, 1955, 15-minute
 SE, Quartzville, 1956, 15-minute
 SW, Snow Peak, 1951, 15-minute
 NW, Lyons, 1951, 15-minute

SITE NAME: Mill City
 ADDRESS: 233 SW Broadway St
 Mill City, OR 97360
 CLIENT: Cascade Earth Sciences





This report includes information from the following map sheet(s).



TP, Mill City, 1929, 30-minute

SITE NAME: Mill City
 ADDRESS: 233 SW Broadway St
 Mill City, OR 97360
 CLIENT: Cascade Earth Sciences



Mill City

233 SW Broadway St
Mill City, OR 97360

Inquiry Number: 5654942.2s
May 16, 2019

The EDR Radius Map™ Report with GeoCheck®



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Shelton, CT 06484
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Thank you for your business.
 Please contact EDR at 1-800-352-0050
 with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

233 SW BROADWAY ST
MILL CITY, OR 97360

COORDINATES

Latitude (North): 44.7541650 - 44° 45' 14.99"
Longitude (West): 122.4790720 - 122° 28' 44.65"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 541233.5
UTM Y (Meters): 4955557.0
Elevation: 808 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 6067402 MILL CITY NORTH, OR
Version Date: 2014

Southeast Map: 6067404 MILL CITY SOUTH, OR
Version Date: 2014

Southwest Map: 6067410 SNOW PEAK, OR
Version Date: 2014

Northwest Map: 6068608 LYONS, OR
Version Date: 2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140706
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
233 SW BROADWAY ST
MILL CITY, OR 97360

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	MILL CITY SHELL STAT	180 SW BROADWAY	RGA LUST	Higher	1 ft.
B2	WHITTEN ADDITION	208 1ST AVE.	ECSI, VCP	Lower	1 ft.
B3	WHITTEN ADDITION	208 1ST STREET	FINDS	Lower	1 ft.
A4	MILL CITY SHELL STAT	180 SW BROADWAY	LUST, UST	Higher	1 ft.
5	MILL CITY RAILROAD B	AT HWY 22, N. SANTIA	ECSI, FINDS	Lower	1 ft.
6	FORESTER EQUIPMENT I	161 4TH AVE S	LUST, UST	Higher	1 ft.
A7	MILL CITY SHELL STAT	180 SW BROADWAY	FINDS	Higher	1 ft.
A8	OHRT VERN & CAROL	108 SW BROADWAY	EDR Hist Auto	Higher	1 ft.
B9	MILL CITY CENTRAL OF	261 SW 1ST ST	UST	Higher	1 ft.
B10	WHITTEN ADDITION	208 1ST AVE.	RGA HWS	Lower	1 ft.
B11	WHITTEN ADDITION	208 1ST STREET	RGA HWS	Lower	1 ft.
A12	FRONTIER COMMUNICATI	261 S 1ST ST	AST, HSIS	Higher	3, 0.001,
13	HOOVER'S SHOP	SW 5TH AVE. & LINN P	ECSI	Lower	106, 0.020, West
14	MILL CITY BRDG RESTO	128 NORTHEAST WALL S	RCRA NonGen / NLR, FINDS, ECHO	Higher	115, 0.022, NE
15	FORESTER EQUIPMENT I	SW 5TH	ECSI, FINDS	Higher	193, 0.037, WSW
16	MILL CITY, CITY OF	252 CEDAR ST SW	UST	Higher	202, 0.038, South
17	MILL CITY FAIRVIEW A	444 S FIRST AVE.	ECSI, VCP	Higher	244, 0.046, SSE
18	SANTIAM CANYON SCHOO	150 EVERGREEN ST	RCRA NonGen / NLR, FINDS, ECHO, MANIFEST	Higher	533, 0.101, South
C19	HEATING OIL TANK	675 PARKSIDE DR	LUST	Higher	637, 0.121, SW
C20	HEATING OIL TANK	672 SW PARKSIDE DR	LUST	Higher	654, 0.124, SW
21	HEATING OIL TANK	545 PARKSIDE DR	LUST	Higher	695, 0.132, SW
C22	HEATING OIL TANK	610 PARKSIDE DR	LUST	Higher	737, 0.140, SW
23	MILL CITY MOBIL	654 NW SANTIAM BLVD	LUST, UST	Higher	1110, 0.210, NW
24	DETROIT FOREST SERVI	HWY. 22 E	LUST	Higher	1133, 0.215, WNW
D25	HEATING OIL TANK	552 IVY STREET	LUST	Higher	1449, 0.274, SSW
D26	HEATING OIL TANK	900 SW HALL AVE	LUST	Higher	1522, 0.288, SSW
27	HEATING OIL TANK	1225 SW SPRING ST	LUST	Lower	1539, 0.291, WSW
28	JONES FAMILY REVOCAB	509 NE SANTIAM BLVD	LUST, UST, UIC	Higher	1597, 0.302, ENE
29	HEATING OIL TANK	633 NE ALDER ST	LUST	Higher	1724, 0.327, East
30	MILL CITY DISPOSAL S	22835 RIVER RD SE	ECSI	Lower	3772, 0.714, West
31	FRED A MOORE INC	27860 N SANTIAM HWY	ECSI, FINDS	Lower	4400, 0.833, WNW
32	NORTH SANTIAM PLYWOO	47983 LYONS MILL CIT	ECSI	Higher	5203, 0.985, WSW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List

EXECUTIVE SUMMARY

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

CRL..... Confirmed Release List and Inventory

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Facilities List

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

ENG CONTROLS..... Engineering Controls Recorded at ESCI Sites

INST CONTROL..... Institutional Controls Recorded at ESCI Sites

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Projects

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF..... Old Closed SW Disposal Sites

SWRCY..... Recycling Facility Location Listing

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

ODI..... Open Dump Inventory

IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

AOCONCERN..... Columbia Slough

EXECUTIVE SUMMARY

US HIST CDL..... Delisted National Clandestine Laboratory Register
CDL..... Uninhabitable Drug Lab Properties
US CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
SPILLS..... Spill Database
OR HAZMAT..... Hazmat/Incidents
SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
ICIS..... Integrated Compliance Information System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS..... Material Licensing Tracking System
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
RADINFO..... Radiation Information Database
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS..... Incident and Accident Data
CONSENT..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV..... Indian Reservations
FUSRAP..... Formerly Utilized Sites Remedial Action Program
UMTRA..... Uranium Mill Tailings Sites
LEAD SMELTERS..... Lead Smelter Sites
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
US MINES..... Mines Master Index File
ABANDONED MINES..... Abandoned Mines
ECHO..... Enforcement & Compliance History Information
DOCKET HWC..... Hazardous Waste Compliance Docket Listing
UXO..... Unexploded Ordnance Sites
FUELS PROGRAM..... EPA Fuels Program Registered Listing
AIRS..... Oregon Title V Facility Listing
COAL ASH..... Coal Ash Disposal Sites Listing

EXECUTIVE SUMMARY

DRYCLEANERS..... Drycleaning Facilities
 Enforcement..... Enforcement Action Listing
 Financial Assurance..... Financial Assurance Information Listing
 NPDES..... Wastewater Permits Database
 UIC..... Underground Injection Control Program Database

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants
 EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ECSI: The Environmental Cleanup Site Information System records information about sites in Oregon that may be of environmental interest. The data come from the Department of Environmental Quality.

A review of the ECSI list, as provided by EDR, and dated 01/01/2019 has revealed that there are 8 ECSI sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>FORESTER EQUIPMENT I</i> Investigation: Suspect State ID Number: 1061	<i>SW 5TH</i>	<i>WSW 0 - 1/8 (0.037 mi.)</i>	<i>15</i>	<i>27</i>
<i>MILL CITY FAIRVIEW A</i> Investigation: No Further Action State ID Number: 5682	<i>444 S FIRST AVE.</i>	<i>SSE 0 - 1/8 (0.046 mi.)</i>	<i>17</i>	<i>31</i>
NORTH SANTIAM PLYWOO	47983 LYONS MILL CIT	WSW 1/2 - 1 (0.985 mi.)	32	43

EXECUTIVE SUMMARY

Investigation: Suspect
State ID Number: 345

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WHITTEN ADDITION Investigation: No Further Action State ID Number: 4199	208 1ST AVE.	0 - 1/8 (0.000 mi.)	B2	8
MILL CITY RAILROAD B Investigation: Suspect State ID Number: 1844	AT HWY 22, N. SANTIA	0 - 1/8 (0.000 mi.)	5	14
HOOVER'S SHOP Investigation: Suspect State ID Number: 1128	SW 5TH AVE. & LINN P	W 0 - 1/8 (0.020 mi.)	13	22
MILL CITY DISPOSAL S Investigation: Suspect State ID Number: 6075	22835 RIVER RD SE	W 1/2 - 1 (0.714 mi.)	30	40
FRED A MOORE INC Investigation: Suspect State ID Number: 2107	27860 N SANTIAM HWY	WNW 1/2 - 1 (0.833 mi.)	31	41

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's LUST Database List.

A review of the LUST list, as provided by EDR, and dated 10/03/2018 has revealed that there are 13 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MILL CITY SHELL STAT Facility ID: 22-89-4166	180 SW BROADWAY	0 - 1/8 (0.000 mi.)	A4	14
FORESTER EQUIPMENT I Facility ID: 24-00-4114 Cleanup Complete: 08/17/2001	161 4TH AVE S	0 - 1/8 (0.000 mi.)	6	16
HEATING OIL TANK Facility ID: 22-03-1834 Cleanup Complete: 11/04/2003	675 PARKSIDE DR	SW 0 - 1/8 (0.121 mi.)	C19	36
HEATING OIL TANK Facility ID: 22-09-1037 Cleanup Complete: 11/16/2009	672 SW PARKSIDE DR	SW 0 - 1/8 (0.124 mi.)	C20	37
HEATING OIL TANK Facility ID: 22-03-1833 Cleanup Complete: 10/17/2003	545 PARKSIDE DR	SW 1/8 - 1/4 (0.132 mi.)	21	37
HEATING OIL TANK Facility ID: 22-03-1835 Cleanup Complete: 11/13/2003	610 PARKSIDE DR	SW 1/8 - 1/4 (0.140 mi.)	C22	37
MILL CITY MOBIL	654 NW SANTIAM BLVD	NW 1/8 - 1/4 (0.210 mi.)	23	37

EXECUTIVE SUMMARY

Facility ID: 24-01-4003 Cleanup Complete: 05/14/2001				
DETROIT FOREST SERVI	HWY. 22 E	WNW 1/8 - 1/4 (0.215 mi.)	24	38
Facility ID: 24-91-4201 Cleanup Complete: 07/12/1991				
HEATING OIL TANK	552 IVY STREET	SSW 1/4 - 1/2 (0.274 mi.)	D25	38
Facility ID: 22-04-0176 Cleanup Complete: 03/18/2004				
HEATING OIL TANK	900 SW HALL AVE	SSW 1/4 - 1/2 (0.288 mi.)	D26	38
Facility ID: 22-13-0655 Cleanup Complete: 02/03/2016				
JONES FAMILY REVOCAB	509 NE SANTIAM BLVD	ENE 1/4 - 1/2 (0.302 mi.)	28	39
Facility ID: 24-13-0433 Cleanup Complete: 05/22/2015				
HEATING OIL TANK	633 NE ALDER ST	E 1/4 - 1/2 (0.327 mi.)	29	39
Facility ID: 24-11-1015 Cleanup Complete: 04/02/2012				
Lower Elevation	Address	Direction / Distance	Map ID	Page
HEATING OIL TANK	1225 SW SPRING ST	WSW 1/4 - 1/2 (0.291 mi.)	27	39
Facility ID: 22-01-5971 Cleanup Complete: 08/23/2001				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's UST List on Disk.

A review of the UST list, as provided by EDR, and dated 10/03/2018 has revealed that there are 5 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MILL CITY SHELL STAT Facility ID: 10113	180 SW BROADWAY	0 - 1/8 (0.000 mi.)	A4	14
FORESTER EQUIPMENT I Facility ID: 1707	161 4TH AVE S	0 - 1/8 (0.000 mi.)	6	16
MILL CITY CENTRAL OF Facility ID: 2078	261 SW 1ST ST	0 - 1/8 (0.000 mi.)	B9	17
MILL CITY, CITY OF Facility ID: 8157	252 CEDAR ST SW	S 0 - 1/8 (0.038 mi.)	16	30
MILL CITY MOBIL Facility ID: 158	654 NW SANTIAM BLVD	NW 1/8 - 1/4 (0.210 mi.)	23	37

EXECUTIVE SUMMARY

AST: The Aboveground Storage Tank database contains registered ASTs. The data comes from the list of ASTs reported to the Office of State Fire Marshal.

A review of the AST list, as provided by EDR, and dated 01/17/2019 has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FRONTIER COMMUNICATI Facility Id: 023296	261 S 1ST ST	0 - 1/8 (0.001 mi.)	A12	18

State and tribal voluntary cleanup sites

VCP: Responsible parties have entered into an agreement with DEQ to voluntarily address contamination associated with their property.

A review of the VCP list, as provided by EDR, and dated 12/31/2018 has revealed that there are 2 VCP sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MILL CITY FAIRVIEW A ECS Site ID: 5682	444 S FIRST AVE.	SSE 0 - 1/8 (0.046 mi.)	17	31

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WHITTEN ADDITION ECS Site ID: 4199	208 1ST AVE.	0 - 1/8 (0.000 mi.)	B2	8

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/25/2019 has revealed that there are 2 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MILL CITY BRDG RESTO EPA ID:: ORQ000002352	128 NORTHEAST WALL S	NE 0 - 1/8 (0.022 mi.)	14	24
SANTIAM CANYON SCHOO EPA ID:: ORQ000020495	150 EVERGREEN ST	S 0 - 1/8 (0.101 mi.)	18	34

EXECUTIVE SUMMARY

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 02/15/2019 has revealed that there are 3 FINDS sites within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MILL CITY SHELL STAT Registry ID:: 110014138655	180 SW BROADWAY	0 - 1/8 (0.000 mi.)	A7	17
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WHITTEN ADDITION Registry ID:: 110037821818	208 1ST STREET	0 - 1/8 (0.000 mi.)	B3	13
MILL CITY RAILROAD B Registry ID:: 110014162556	AT HWY 22, N. SANTIA	0 - 1/8 (0.000 mi.)	5	14

HSIS: Hazardous Substance Information Survey

A review of the HSIS list, as provided by EDR, and dated 01/29/2019 has revealed that there is 1 HSIS site within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FRONTIER COMMUNICATI Facility Id: 023296	261 S 1ST ST	0 - 1/8 (0.001 mi.)	A12	18

MANIFEST: Hazardous waste manifest information.

A review of the MANIFEST list, as provided by EDR, and dated 12/31/2017 has revealed that there is 1 MANIFEST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SANTIAM CANYON SCHOO Status: CEG EPA Id: ORQ000020495	150 EVERGREEN ST	S 0 - 1/8 (0.101 mi.)	18	34

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EXECUTIVE SUMMARY

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
OHRT VERN & CAROL	108 SW BROADWAY	0 - 1/8 (0.000 mi.)	A8	17

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

A review of the RGA HWS list, as provided by EDR, has revealed that there are 2 RGA HWS sites within approximately 0.001 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WHITTEN ADDITION	208 1ST AVE.	0 - 1/8 (0.000 mi.)	B10	18
WHITTEN ADDITION	208 1ST STREET	0 - 1/8 (0.000 mi.)	B11	18

RGA LUST: The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

A review of the RGA LUST list, as provided by EDR, has revealed that there is 1 RGA LUST site within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MILL CITY SHELL STAT Facility ID: 22-89-4166	180 SW BROADWAY	0 - 1/8 (0.000 mi.)	A1	8

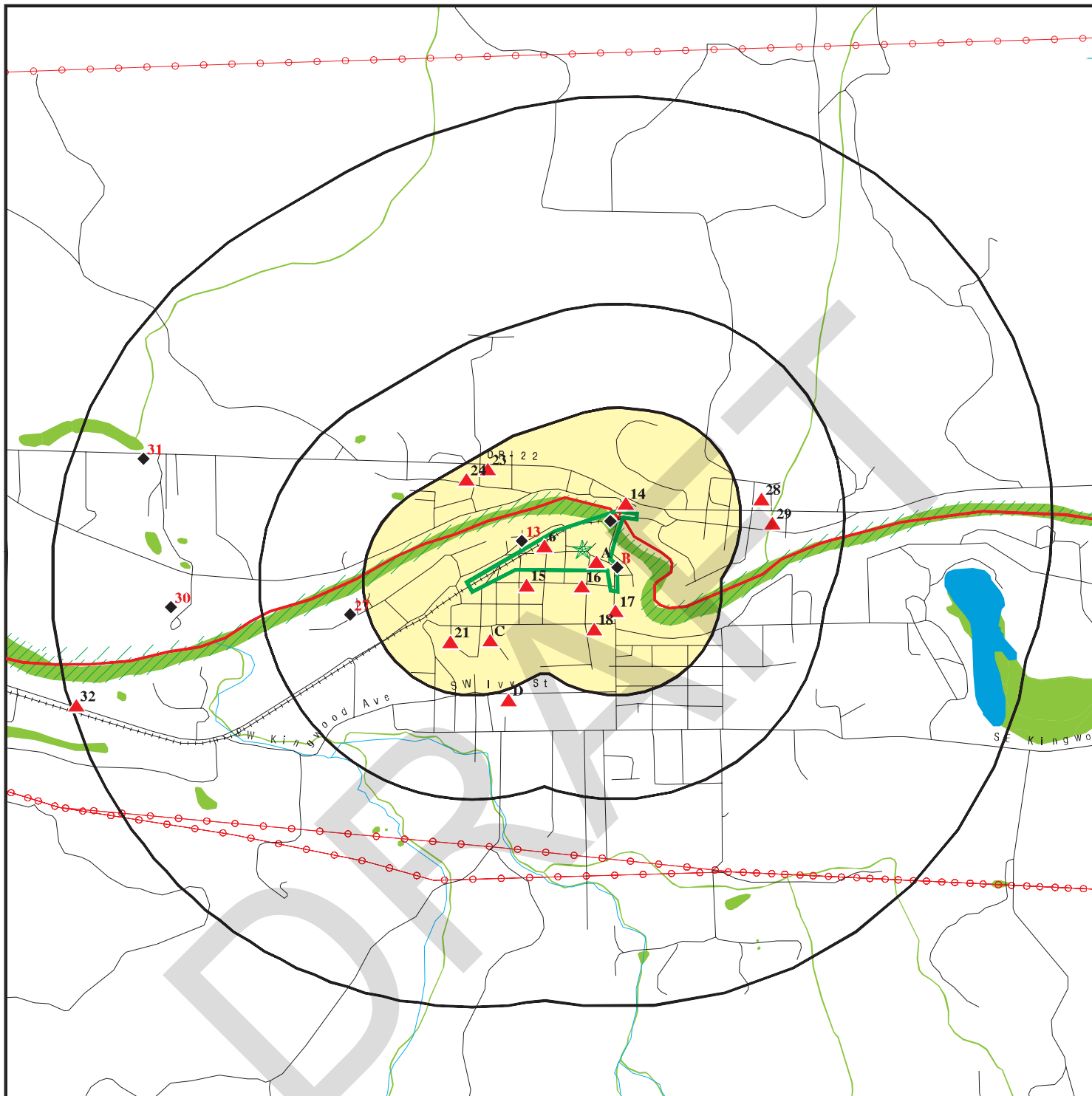
EXECUTIVE SUMMARY







Due to poor or inadequate address information, the following sites were not mapped. Count: 4 records.









<u>Site Name</u>	<u>Database(s)</u>
COE CIVIL DETROIT DAM	SEMS
AREY PODRABSKY	LUST
HEATING OIL TANK	LUST
MILL CITY WATER DEPARTMENT	FINDS, ECHO

DRAFT

OVERVIEW MAP - 5654942.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  National Priority List Sites
-  Dept. Defense Sites

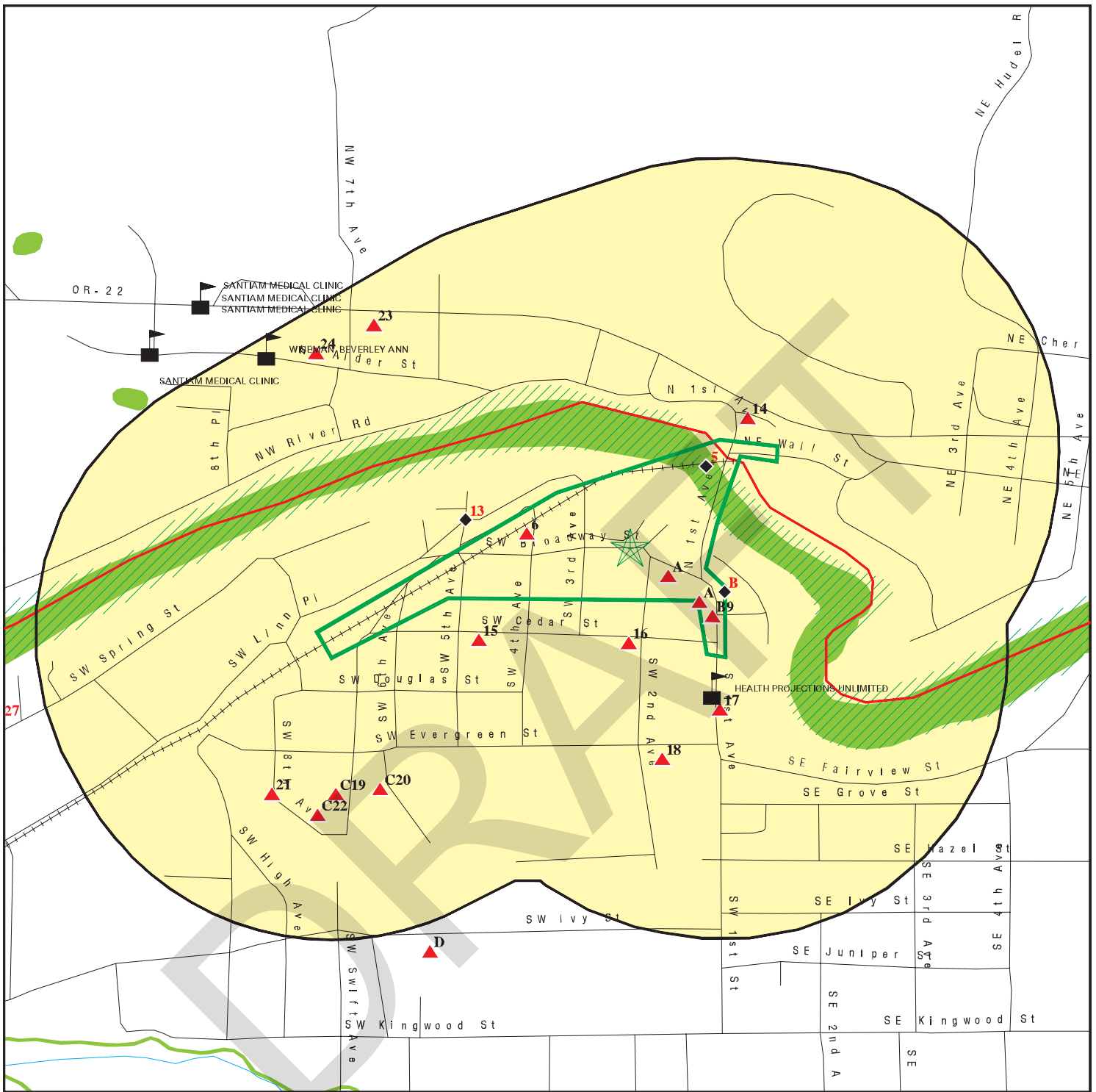
-  Indian Reservations BIA
-  County Boundary
-  Power transmission lines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands
-  Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Mill City
 ADDRESS: 233 SW Broadway St
 Mill City OR 97360
 LAT/LONG: 44.754165 / 122.479072

CLIENT: Cascade Earth Sciences
 CONTACT: Jessica Penetar
 INQUIRY #: 5654942.2s
 DATE: May 16, 2019 2:20 pm

DETAIL MAP - 5654942.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

County Boundary

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

0 1/16 1/8 1/4 Miles



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Mill City
 ADDRESS: 233 SW Broadway St
 Mill City OR 97360
 LAT/LONG: 44.754165 / 122.479072

CLIENT: Cascade Earth Sciences
 CONTACT: Jessica Penetar
 INQUIRY #: 5654942.2s
 DATE: May 16, 2019 2:22 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	0.001		0	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
ECSI	1.000		5	0	0	3	NR	8
CRL	1.000		0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		4	4	5	NR	NR	13
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		4	1	NR	NR	NR	5
AST	0.250		1	0	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		2	0	0	NR	NR	2
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
HIST LF	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
AOCONCERN	1.000		0	0	0	0	NR	0
US HIST CDL	0.001		0	NR	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
OR HAZMAT	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		2	0	NR	NR	NR	2
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		3	NR	NR	NR	NR	3
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Enforcement	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HSIS	0.001		1	NR	NR	NR	NR	1
MANIFEST	0.250		1	0	NR	NR	NR	1
NPDES	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		1	NR	NR	NR	NR	1
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>EDR RECOVERED GOVERNMENT ARCHIVES</u>								
<i>Exclusive Recovered Govt. Archives</i>								
RGA HWS	0.001		2	NR	NR	NR	NR	2
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		1	NR	NR	NR	NR	1
- Totals --		0	27	5	5	3	0	40

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

DRAFT

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

A1 **MILL CITY SHELL STATION**
180 SW BROADWAY
MILL CITY, OR

RGA LUST **S115409983**
N/A

< 1/8
 1 ft.

Site 1 of 5 in cluster A

Relative:
Higher

RGA LUST:

Actual:
809 ft.

2012	MILL CITY SHELL STATION	180 SW BROADWAY
2011	MILL CITY SHELL STATION	180 SW BROADWAY
2010	MILL CITY SHELL STATION	180 SW BROADWAY
2009	MILL CITY SHELL STATION	180 SW BROADWAY
2008	MILL CITY SHELL STATION	180 SW BROADWAY
2007	MILL CITY SHELL STATION	180 SW BROADWAY
2006	MILL CITY SHELL STATION	180 SW BROADWAY
2005	MILL CITY SHELL STATION	180 SW BROADWAY
2004	MILL CITY SHELL STATION	180 SW BROADWAY
2003	MILL CITY SHELL STATION	180 SW BROADWAY
2002	MILL CITY SHELL STATION	180 SW BROADWAY

B2 **WHITTEN ADDITION**
208 1ST AVE.
MILL CITY, OR 97360

ECSI **S106655879**
VCP **N/A**

< 1/8
 1 ft.

Site 1 of 5 in cluster B

Relative:
Lower

ECSI:

Actual:
807 ft.

State ID Number:	4199
Brown ID:	0
Study Area:	False
Region ID:	3
Legislative ID:	0
Investigation:	No Further Action
FACA ID:	85828
Further Action:	0
Lat/Long (dms):	44 45 11.50 / -122 28 37.90
County Code:	22.00
Score Value:	Not reported
Cerclis ID:	Not reported
Township Coord.:	9.00
Township Zone:	S
Range Coord:	3.00
Range Zone:	E
Section Coord:	29
Qtr Section:	Not reported
Tax Lots:	200
Size:	2.75 acres
NPL:	False
Orphan:	False
Updated By:	GWISTAR
Update Date:	01/05/2006

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WHITTEN ADDITION (Continued)

S106655879

Created Date: 08/26/2004
Decode For RegionID: Western Region
Decode For BrownID: Not reported
Decode For Furtheract: Not reported
Decode For Investstat: No Further Action
Decode For Legislative: Not reported

Narrative:

NARR ID: 5746007
NARR Code: Site Contacts
Created By: NGRAMLI
Created Date: 12/07/2004
Updated By: NGRAMLI
Updated Date: 12/07/2004
Decode for NarcdID: Site Contacts
NARR Comments: Scott Baughman Scott Baughman Construction PO Box 943 Mill City, OR
97360 503-897-2550

NARR ID: 5745363
NARR Code: Contamination
Created By: MENGLIS
Created Date: 08/26/2004
Updated By: NGRAMLI
Updated Date: 02/10/2005
Decode for NarcdID: Contamination
NARR Comments: Potential petroleum contamination from previous log trucking and
washing operation.

NARR ID: 5746004
NARR Code: Data Sources
Created By: NGRAMLI
Created Date: 12/07/2004
Updated By: NGRAMLI
Updated Date: 12/06/2005
Decode for NarcdID: Data Sources
NARR Comments: Level One Environmental Assessment Report, Whitten Addition, prepared
by Capitol Environmental Consulting, March 4, 2004; Preliminary Site
Investigation Report, Whitten Addition, prepared by Capitol
Environmental Consulting, March 14, 2004; Site Geology Report and
Ground Water Investigation, prepared by Tim O Gara, March 23, 2004;
Independent Cleanup Pathway Final Report for Whitten Addition, ECSI
4199, prepared by Tim O Gara, November 17, 2004. Fax addressing
discrepancies in the November 2004 ICP Report, prepared by Tim O Gara
and dated December 10, 2004; Fax from Riverbend Landfill, waste
management profile sheets for soil disposal, December 14, 2004;
Recent Property Work Summary, Baughman Whitten Addition Independent
Cleanup, Mill City, ECSI 4199, prepared by Capitol Environmental
Consulting and dated August 25, 2005; Whitten Addition Property VOCs
and Metals Sampling, prepared by Capitol Environmental Consulting and
dated October 11, 2005; Whitten Addition Property Soil Matrix
Calculation, prepared by Capitol Environmental Consulting and dated
October 12, 2005.

NARR ID: 5746008
NARR Code: General Site Description
Created By: NGRAMLI
Created Date: 12/07/2004
Updated By: NGRAMLI

MAP FINDINGS

WHITTEN ADDITION (Continued)

S106655879

Updated Date: 12/07/2004
Decode for NarcdID: General Site Description
NARR Comments: The site is located in Linn County in the city of Mill City on the corner of 1st and Cedar and designated as tax lot 200. There is no specific address for the site. The site encompasses approximately 2.75 acres and is divided into 6 separate lots.

NARR ID: 5746005
NARR Code: Land Use (Current/Reasonably Likely)
Created By: NGRAMLI
Created Date: 12/07/2004
Updated By: NGRAMLI
Updated Date: 12/07/2004
Decode for NarcdID: Land Use (Current/Reasonably Likely)
NARR Comments: Mixed commercial residential

NARR ID: 5746285
NARR Code: Remedial Action
Created By: NGRAMLI
Created Date: 02/10/2005
Updated By: GWISTAR
Updated Date: 01/05/2006
Decode for NarcdID: Remedial Action
NARR Comments: (11/19/04) DEQ reviewed the November 17, 2004 ICP final pathway report. The site owner is requesting a no further action for the independent cleanup. DEQ visited the site on November 23, 2004 to discuss the ICP report and assess the site and site surroundings. At this time, DEQ also requested copies of environmental investigative reports referenced in the ICP final report. According to the reports, soil sampling, soil removals, and confirmatory sampling occurred from March through September 2004 in the following areas: Areas where the oiling of gravel roads with waste oil took place; Surface spills from two above ground fueling tanks; and Oil and grease impacted soil from truck washing and cleaning. (12/22/04 NHG) DEQ reviewed the full set of reports for the site cleanup and determined that assessment of the site for a no further action was not appropriate. DEQ formally requested clarification on some of the data collected and supplemental data pertaining to confirmatory sampling, cleanup levels, and soil backfill and disposal. (01/19/05 NHG) Site owner notified DEQ that steps were being implemented to initiate the confirmatory sampling. (4/28/05 NHG) DEQ awaiting confirmatory sampling data. (8/1/05 NHG) Cleanup on-hold by property owner. Supplemental data pending. (8/26/05 NHG) DEQ received and reviewed the supplemental information between August and October 2005. Environmental studies completed from December 2003 through March 2004 found contamination from previous petroleum product use and spillage in the former operation areas on the upper portion of the site. Although log trucking operations never occurred on the terraces, soil and groundwater on the terrace below the upper portion of the site was assessed to confirm that the petroleum contamination was confined to the soil on the upper portion of the site. Remedial activities consisting of soil excavation in the former operation areas and off-site disposal was implemented. A total of approximately 160 tons of impacted soil was removed, and 14 confirmation soil samples that were collected from the excavated areas indicated petroleum hydrocarbons below 500 mg/kg or not detected. Since March 2004, the site has been extensively graded and reconfigured for redevelopment

WHITTEN ADDITION (Continued)

S106655879

purposes, which includes building demolition, roadways, and a storm water drainage system. No complete exposure pathway and no current or future reasonably likely exposure to human or ecological receptors is suspected in the former operation areas. (1/5/06 NHG) DEQ concluded that no additional investigation or removals were required in the operation areas. The notification for DEQ's recommendation and comment period was published in the Secretary of State's Bulletin on November 1, 2005. Legal notices were also published in the area newspapers. A DEQ news release was also issued the week of November 1, 2005. The comment period was held from November 1 - 30, 2005. No comments were received. No further action required.

NARR ID: 5746006
 NARR Code: Water Use (Current/Reasonably Likely)
 Created By: NGRAMLI
 Created Date: 12/07/2004
 Updated By: NGRAMLI
 Updated Date: 12/07/2004
 Decode for NarcdID: Water Use (Current/Reasonably Likely)
 NARR Comments: Water for drinking and irrigation provided by city services.

NARR ID: 5746009
 NARR Code: Site History
 Created By: NGRAMLI
 Created Date: 12/07/2004
 Updated By: NGRAMLI
 Updated Date: 12/06/2005
 Decode for NarcdID: Site History
 NARR Comments: The site was originally used for residential, farming and agricultural. Between the mid-1950s and late 1990s, a commercial log truck parking and washing business operated at the site. The operations included: Oiling gravel roads for dust suppression; Above ground fueling tanks; Untreated log storage; and Truck washing and cleaning. The site encompasses approximately 2.75 acres. The main upper portion of the site, which constitutes 1.1 acres, is where the log truck operations were formerly located. The lower portion of the site is broken into two terraces. The log trucking operations were confined to the upper portion of the site. Buildings on the upper portion have been demolished and paved roadways have been installed to prepare the upper portion of the site for commercial use and the lower terrace for residential use.

Administrative Action:
 Action ID: 9424
 Region: Not reported
 Complete Date: 08/26/2004
 Rank Value: Not reported
 Cleanup Flag: False
 Created Date: 08/26/2004
 Decode for AgencyID: Department of Environmental Quality
 Decode for RegionID: Not reported
 Category: Administrative Action
 Action Code Flag: False
 Action: Site added to database
 Further Action: Not reported
 Comments: Not reported

Action ID: 9519

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WHITTEN ADDITION (Continued)

S106655879

Region: Western Region
Complete Date: 11/18/2004
Rank Value: Not reported
Cleanup Flag: False
Created Date: 12/07/2004
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: VCS Waiting List
Further Action: 0
Comments: Not reported

Action ID: 9433
Region: Western Region
Complete Date: 10/13/2005
Rank Value: Not reported
Cleanup Flag: True
Created Date: 12/07/2004
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: INDEPENDENT CLEANUP
Further Action: Low
Comments: Not reported

Action ID: 9409
Region: Western Region
Complete Date: 12/20/2004
Rank Value: Not reported
Cleanup Flag: False
Created Date: 02/10/2005
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: Beneficial Water Use Assessment
Further Action: 0
Comments: Not reported

Action ID: 9436
Region: Western Region
Complete Date: 12/20/2004
Rank Value: Not reported
Cleanup Flag: False
Created Date: 02/10/2005
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: Land-Use Assessment
Further Action: 0
Comments: Not reported

Action ID: 9492
Region: Western Region

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WHITTEN ADDITION (Continued)

S106655879

Complete Date: 10/13/2005
Rank Value: Not reported
Cleanup Flag: False
Created Date: 02/10/2005
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: REMOVAL ASSESSMENT
Further Action: 0
Comments: Not reported

Action ID: 9443
Region: Western Region
Complete Date: 01/04/2006
Rank Value: Not reported
Cleanup Flag: False
Created Date: 01/05/2006
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: NO FURTHER STATE ACTION REQUIRED
Further Action: 0
Comments: Not reported

VCS:

ECS Site ID: 4199
Facility Size: 2.75 acres
Action: NO FURTHER STATE ACTION REQUIRED
Start Date: 01/04/2006
End Date: 01/04/2006
Facility Status: Completed
Program: VCP
Latitude: 44.7532
Longitude: -122.4772

B3

**WHITTEN ADDITION
208 1ST STREET
MILL CITY, OR 97360**

**FINDS 1011957882
N/A**

**< 1/8
1 ft.**

Site 2 of 5 in cluster B

**Relative:
Lower**

FINDS:

**Actual:
807 ft.**

Registry ID: 110037821818

Environmental Interest/Information System

OR-DEQ (Oregon - Department Of Environmental Quality) is a regulatory agency whose job is to protect the quality of Oregon's Environment. DEQ uses a combination of technical assistance, inspections and permitting to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WHITTEN ADDITION (Continued)

1011957882

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A4

MILL CITY SHELL STATION
180 SW BROADWAY
MILL CITY, OR 97360

LUST U000434650
UST N/A

< 1/8
1 ft.

Site 2 of 5 in cluster A

Relative:
Higher

LUST:

Region: Western Region
Facility ID: 22-89-4166
Cleanup Received Date: 12/11/1989
Cleanup Start Date: 12/08/1989
Cleanup Complete Date: Not reported
Decode for Region: West Region

Actual:
809 ft.

UST:

Facility ID: 10113
Facility Telephone: (503)967-4034
Permittee Name: DOUG SWEETLAND
Number of Permitted Tanks: Not reported
Active Tanks: Not reported
Decommissioned Tanks: 3
Number of Tanks: 3

5

MILL CITY RAILROAD BRIDGE
AT HWY 22, N. SANTIAM RIVER, R.M. 47.2
MILL CITY, OR 97360

ECSI 1006854056
FINDS N/A

< 1/8
1 ft.

Relative:
Lower

ECSI:

State ID Number: 1844
Brown ID: 0
Study Area: False
Region ID: 3
Legislative ID: 0
Investigation: Suspect
FACA ID: 40388
Further Action: 258
Lat/Long (dms): 44 45 18.70 / -122 28 39.70
County Code: 22.00
Score Value: Not reported
Cercis ID: Not reported
Township Coord.: 9.00
Township Zone: S
Range Coord: 3.00
Range Zone: E
Section Coord: 30
Qtr Section: SE
Tax Lots: Not reported
Size: Not reported
NPL: False
Orphan: False
Updated By: GWISTAR

Actual:
802 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MILL CITY RAILROAD BRIDGE (Continued)

1006854056

Update Date: 12/24/2013
Created Date: 04/01/1996
Decode For RegionID: Western Region
Decode For BrownID: Not reported
Decode For Furtheract: Medium
Decode For Investstat: Suspect
Decode For Legislative: Not reported

Narrative:

NARR ID: 5735793
NARR Code: Contamination
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Contamination
NARR Comments: (9/30/96 CPJ/SAS) Lead-contaminated blasting grit escaped from the shrouding on bridge and entered the Santiam River. The current status of impacted sediments is unknown due to severe flooding during the winter of 1995-96. Additional sampling needed.

Administrative Action:

Action ID: 9424
Region: Western Region
Complete Date: Not reported
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9425
Region: Western Region
Complete Date: 09/30/1996
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: SITE EVALUATION
Further Action: Not reported
Comments: Not reported

Action ID: 9459
Region: Western Region
Complete Date: 09/30/1996
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MILL CITY RAILROAD BRIDGE (Continued)

1006854056

Category: Remedial Action
Action Code Flag: False
Action: PRELIMINARY ASSESSMENT EQUIVALENT
Further Action: Not reported
Comments: Not reported

Action ID: 9510
Region: Western Region
Complete Date: 09/30/1996
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: State Expanded Preliminary Assessment recommended (XPA)
Further Action: Medium
Comments: Not reported

FINDS:

Registry ID: 110014162556

Environmental Interest/Information System

OR-DEQ (Oregon - Department Of Environmental Quality) is a regulatory agency whose job is to protect the quality of Oregon's Environment. DEQ uses a combination of technical assistance, inspections and permitting to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

6
< 1/8
1 ft.

FORESTER EQUIPMENT INC
161 4TH AVE S
MILL CITY, OR 97360

LUST U000434643
UST N/A

Relative:
Higher
Actual:
809 ft.

LUST:
Region: Western Region
Facility ID: 24-00-4114
Cleanup Received Date: 07/19/2000
Cleanup Start Date: 07/14/2000
Cleanup Complete Date: 08/17/2001
Decode for Region: West Region

UST:
Facility ID: 1707
Facility Telephone: (503)897-2099
Permittee Name: JIM HOOVER, VP
Number of Permitted Tanks: Not reported
Active Tanks: Not reported
Decommissioned Tanks: 1
Number of Tanks: 1

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
--	------	-------------	--------------------------------

A7	MILL CITY SHELL STATION 180 SW BROADWAY MILL CITY, OR 97360	FINDS	1006851907 N/A
< 1/8 1 ft.			

Site 3 of 5 in cluster A

Relative:
Higher

FINDS:

Actual:
809 ft.

Registry ID: 110014138655

Environmental Interest/Information System

OR-DEQ (Oregon - Department Of Environmental Quality) is a regulatory agency whose job is to protect the quality of Oregon's Environment. DEQ uses a combination of technical assistance, inspections and permitting to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A8	OHRT VERN & CAROL 108 SW BROADWAY MILL CITY, OR 97360	EDR Hist Auto	1022224203 N/A
< 1/8 1 ft.			

Site 4 of 5 in cluster A

Relative:
Higher

EDR Hist Auto

Actual:
809 ft.

Year:	Name:	Type:
1969	OHRT VERN & CAROL	Gasoline Service Stations
1970	OHRT VERN & CAROL	Gasoline Service Stations
1971	OHRT VERN & CAROL	Gasoline Service Stations
1972	OHRT VERN & CAROL	Gasoline Service Stations
1973	OHRT VERN & CAROL	Gasoline Service Stations
1974	OHRT VERN & CAROL	Gasoline Service Stations
1976	OHRT VERN & CAROL	Gasoline Service Stations
1977	OHRT VERN & CAROL	Gasoline Service Stations
1982	VERNS SHELL SERVICE	Gasoline Service Stations
1983	VERNS SHELL SERVICE	Gasoline Service Stations
1985	VERNS SHELL SERVICE	Gasoline Service Stations
1986	VERNS SHELL SERVICE	Gasoline Service Stations
1987	VERNS SHELL SERVICE	Gasoline Service Stations

B9	MILL CITY CENTRAL OFFICE 261 SW 1ST ST MILL CITY, OR 97360	UST	U000434648 N/A
< 1/8 1 ft.			

Site 3 of 5 in cluster B

Relative:
Higher

UST:

Actual:
810 ft.

Facility ID: 2078
 Facility Telephone: (503)462-4800
 Permittee Name: R D MCLAUGHLIN, SR ENGINEER - BLDGS
 Number of Permitted Tanks: Not reported
 Active Tanks: Not reported
 Decommissioned Tanks: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MILL CITY CENTRAL OFFICE (Continued)

U000434648

Number of Tanks: 1

B10
< 1/8
1 ft.

WHITTEN ADDITION
208 1ST AVE.
MILL CITY, OR
Site 4 of 5 in cluster B

RGA HWS **S115339678**
N/A

Relative:
Lower
Actual:
807 ft.

RGA HWS:
2012 WHITTEN ADDITION 208 1ST AVE.
2011 WHITTEN ADDITION 208 1ST AVE.
2010 WHITTEN ADDITION 208 1ST AVE.
2009 WHITTEN ADDITION 208 1ST AVE.
2008 WHITTEN ADDITION 208 1ST AVE.
2007 WHITTEN ADDITION 208 1ST AVE.
2006 WHITTEN ADDITION 208 1ST AVE.

B11
< 1/8
1 ft.

WHITTEN ADDITION
208 1ST STREET
MILL CITY, OR
Site 5 of 5 in cluster B

RGA HWS **S115339679**
N/A

Relative:
Lower
Actual:
807 ft.

RGA HWS:
2005 WHITTEN ADDITION 208 1ST STREET

A12
< 1/8
0.001 mi.
3 ft.

FRONTIER COMMUNICATIONS
261 S 1ST ST
MILL CITY, OR 97360
Site 5 of 5 in cluster A

AST **S111249797**
HSIS **N/A**

Relative:
Higher
Actual:
810 ft.

AST:
Facility Id: 023296
Hazardous Substance: DIESEL FUEL
Reporting Quantities: Not reported
Quantity Units: Not reported
Physical State: Not reported
Storage 1: Above ground tank
County: LINN
Owner-Operator Name: Walden
Direct Site Phone: 9096205962
Report Class: Annual
Report Year: 2017
Is Poisonous Gas: No
Is Poisonous Material: No
Is Biological Hazard: No
Is Radioactive Material: No
Is Explosive: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRONTIER COMMUNICATIONS (Continued)

S111249797

Status: Not reported

HSIS:

Facility ID: 023296
Department Or Division Of Company: 963-51333-82988
Extremely Hazardous Substance: Y
Facility Has Written Emergency Plan: Y
Contains 112R: N
NAICS Code 1: 517110
NAICS Desc 1: WIRED TELECOMMUNICATIONS CARRIERS
NAICS Code 2: 000000
NAICS Desc 2: Not reported
Manager Name: WALDEN RIGGS
Business Phone: 9096205962
Mailing Address: 280 S LOCUST ST
Mailing City: POMONA
Mailing State: CA
Mailing Zip: 91766
No. of Employees: 1
Day Phone: 4252616115
Placard: Y
Fire Dept Code: 0228
FD: MILL CITY RFPD
Sprinkler System: Y
Emergency Contact: DEAN CHRISTIANSON
Emergency Procedure: POSTED BY DOOR ENTRY
Business Type: TELEPHONE SERVICE
Facility Type: Not reported
Division/Department: Not reported
Facility Status: Not reported
Status TRI: Not reported
Status RMP: Not reported
Status PSM: Not reported
Status CR2K: Not reported
Status 302: Not reported
Owner Name: Not reported
Latest Report ID: Not reported
Case Number: Not reported
Chemical Name: Not reported
EHS Name: Not reported
Is Pure: Not reported
Is Mix: Not reported
Is EHS: Not reported
Mixture Component: Not reported
Maximum DailyAmount Code: Not reported
Maximum DailyAmount Unit: Not reported
Chemical Added Date: Not reported
Is ChemPSM: Not reported
Is Chem112r: Not reported
Is Chem302: Not reported
Is Pesticide: Not reported
Is Fertilizer: Not reported
Physical State: Not reported
UNNA Number: Not reported
NFPA Health: Not reported
NFPA Flammability: Not reported
NFPA Reactivity: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRONTIER COMMUNICATIONS (Continued)

S111249797

NFPA Special Notice:	Not reported
Hazards:	Not reported
No# of Days Onsite:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Facility:	
Chemical Name:	LEAD ACID BATTERIES
Physical Description:	SOLID
Case Number:	Not reported
Facility Id:	023296
Physical State Of The Substance:	1
Avag Amt Possessed During Year CD:	30
Max Amt Possessed During Year CD:	30
Applicable Unit Of Measure Code:	1
Description Of The Unit Of Measure:	POUNDS
Type Code:	R
Description:	OTHER
Type Code:	Not reported
Temperature Description:	Not reported
Pressure of Code:	1
Pressure Description:	NORMAL PRESSURE
Pressure of Code:	Not reported
Pressure Description:	Not reported
Temperature Description:	NORMAL TEMPERATURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	Not reported
Temperature of The Hazardous Substance Code:	Not reported
Days Hazardous Substance On Site During Year:	365
Is The Substance Protected A Trade Secret:	False
Description Of The Max Qnty Code:	10,000-49,999
Description Of The Avg Qnty Code:	10,000-49,999
Most Hazardous Ingredient:	SULFURIC ACID
United Nations/north America 4 Digit Class Number:	2794
Hazard Rank:	4
EHS Ingredient:	SULFURIC ACID
Substance Pure:	False
Substance Mix:	True
First Hazardous Class Code For Chemical:	Acute Health Hazard
Second Hazardous Class Code For Chemical:	Corrosive Material
Third Hazardous Class Code For Chemical:	Chronic Health Hazard
Hazard Class 1 Of The Chemical:	6.3
Hazard Class 2 Of The Chemical:	8.0
Hazard Class 3 Of The Chemical:	6.4
Chemical:	
Chemical Name:	LEAD ACID BATTERIES
United Nations/north America 4 Digit Class Number:	2794
Chemical Abstract Service Identifier Number:	Not reported
Chemical Is Extremely Hazardous Substance (EHS):	N
First Hazardous Class Code For Chemical:	Acute Health Hazard
Second Hazardous Class Code For Chemical:	Corrosive Material
Third Hazardous Class Code For Chemical:	Chronic Health Hazard
Hazard Class 1 Of The Chemical:	6.3
Hazard Class 2 Of The Chemical:	8.0
Hazard Class 3 Of The Chemical:	6.4
Chemical Is A Toxic 313 Chemical:	N
EPA Pesticide Registration Number:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRONTIER COMMUNICATIONS (Continued)

S111249797

Contains 112R:	N
Contains EHS:	Y
Fertilizer:	N
Pesticide:	N
Contains 313:	Y
Chemical Name:	DIESEL FUEL
Physical Description:	LIQUID
Case Number:	0068334305
Facility Id:	023296
Physical State Of The Substance:	2
Avag Amt Possessed During Year CD:	11
Max Amt Possessed During Year CD:	11
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Type Code:	A
Description:	ABOVEGROUND TANK
Type Code:	Not reported
Temperature Description:	Not reported
Pressure of Code:	1
Pressure Description:	NORMAL PRESSURE
Pressure of Code:	Not reported
Pressure Description:	Not reported
Temperature Description:	NORMAL TEMPERATURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	Not reported
Temperature of The Hazardous Substance Code:	Not reported
Days Hazardous Substance On Site During Year:	365
Is The Substance Protected A Trade Secret:	False
Description Of The Max Qnty Code:	500-999
Description Of The Avg Qnty Code:	500-999
Most Hazardous Ingridient:	petroleum products, diesel oil
United Nations/north America 4 Digit Class Number:	1993
Hazard Rank:	2
EHS Ingredient:	Not reported
Substance Pure:	True
Substance Mix:	False
First Hazardous Class Code For Chemical:	Flammable and Combustible Liquid
Second Hazardous Class Code For Chemical:	Acute Health Hazard
Third Hazardous Class Code For Chemical:	Not reported
Hazard Class 1 Of The Chemical:	3.0
Hazard Class 2 Of The Chemical:	6.3
Hazard Class 3 Of The Chemical:	Not reported
Chemical:	
Chemical Name:	DIESEL FUEL
United Nations/north America 4 Digit Class Number:	1993
Chemical Abstract Service Identifier Number:	0068334305
Chemical Is Extremely Hazardous Substance (EHS):	N
First Hazardous Class Code For Chemical:	Flammable and Combustible Liquid
Second Hazardous Class Code For Chemical:	Acute Health Hazard
Third Hazardous Class Code For Chemical:	Not reported
Hazard Class 1 Of The Chemical:	3.0
Hazard Class 2 Of The Chemical:	6.3
Hazard Class 3 Of The Chemical:	Not reported
Chemical Is A Toxic 313 Chemical:	N
EPA Pesticide Registration Number:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRONTIER COMMUNICATIONS (Continued)

S111249797

Contains 112R: N
Contains EHS: N
Fertilizer: N
Pesticide: N
Contains 313: N

13
West
< 1/8
0.020 mi.
106 ft.

HOOVER'S SHOP
SW 5TH AVE. & LINN PLACE
MILL CITY, OR 97360

ECSI S105613843
N/A

Relative:
Lower
Actual:
807 ft.

ECSI:
State ID Number: 1128
Brown ID: 0
Study Area: False
Region ID: 3
Legislative ID: 0
Investigation: Suspect
FACA ID: 40109
Further Action: 260
Lat/Long (dms): 44 45 16.20 / -122 28 54.50
County Code: 22.00
Score Value: Not reported
Cercelis ID: Not reported
Township Coord.: 9.00
Township Zone: S
Range Coord: 3.00
Range Zone: E
Section Coord: 30
Qtr Section: Not reported
Tax Lots: Not reported
Size: Not reported
NPL: False
Orphan: False
Updated By: GWISTAR
Update Date: 06/12/2014
Created Date: 10/14/1991
Decode For RegionID: Western Region
Decode For BrownID: Not reported
Decode For Furtheract: Low
Decode For Investstat: Suspect
Decode For Legislative: Not reported

Narrative:
NARR ID: 5731647
NARR Code: Contamination
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Contamination
NARR Comments: (9/8/89 MJZ) Trees are dying downslope from this facility. It may be due to improper disposal of hazardous waste in the area.

NARR ID: 5731648

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOOVER'S SHOP (Continued)

S105613843

NARR Code: Data Sources
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Data Sources
NARR Comments: Interoffice DEQ memo

Administrative Action:

Action ID: 9424
Region: Headquarters
Complete Date: Not reported
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Headquarters
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9508
Region: Headquarters
Complete Date: 02/11/1994
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Headquarters
Category: Remedial Action
Action Code Flag: False
Action: Site Screening recommended (EV)
Further Action: Low
Comments: Not reported

Operations:

Operation Id: 132435
Operation Status: Active
Common Name: Hoover's Shop
Yrs of Operation: unknown
Comments: truck repair
Updated Date: 09/13/1994
Updated By: CONV
Decode for OpstatID: Active
Operations SIC Id: 194866
SIC Code: 7538
Created By: Not reported
Created Date: 12/17/2002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

14
NE
< 1/8
0.022 mi.
115 ft.

MILL CITY BRDG RESTORATION WASTE COLL PT
128 NORTHEAST WALL STREET
MILL CITY, OR 97360

RCRA NonGen / NLR
FINDS
ECHO

1001090956
ORQ000002352

Relative:
Higher
Actual:
845 ft.

RCRA NonGen / NLR:
Date form received by agency: 05/06/1998
Facility name: MILL CITY BRDG RESTORATION WASTE COLL PT
Facility address: 128 NE WALL ST
MILL CITY, OR 97360
EPA ID: ORQ000002352
Mailing address: PO BOX 256
MILL CITY, OR 97360
Contact: ROEL LUNDQUIST
Contact address: Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 10
Land type: Municipal
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: MILL CITY, CITY OF
Owner/operator address: PO BOX 256
MILL CITY, OR 97360
Owner/operator country: US
Owner/operator telephone: 503-897-2302
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: 05/06/1998
Owner/Op end date: Not reported

Owner/operator name: MILL CITY, CITY OF
Owner/operator address: PO BOX 256
MILL CITY, OR 97360
Owner/operator country: US
Owner/operator telephone: 503-897-2302
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: 05/06/1998
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MILL CITY BRDG RESTORATION WASTE COLL PT (Continued)

1001090956

Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 03/25/1997
Site name: MILL CITY BRDG RESTORATION WASTE COLL PT
Classification: Not a generator, verified

Date form received by agency: 02/28/1996
Site name: MILL CITY BRDG RESTORATION WASTE COLL PT
Classification: Not a generator, verified

. Waste code: D008
. Waste name: LEAD

Facility Has Received Notices of Violations:

Regulation violated: Not reported
Area of violation: TSD - Container Use and Management
Date violation determined: 07/20/1995
Date achieved compliance: 08/20/1995
Violation lead agency: State
Enforcement action: NOTICE OF NONCOMPLIANCE
Enforcement action date: 09/21/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Container Use and Management
Date violation determined: 07/20/1995
Date achieved compliance: 08/20/1995
Violation lead agency: State
Enforcement action: INITIAL 3008(A) CP/CO ORDER
Enforcement action date: 03/01/1996
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 5400
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 07/20/1995
Date achieved compliance: 08/20/1995

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MILL CITY BRDG RESTORATION WASTE COLL PT (Continued)

1001090956

Violation lead agency: State
Enforcement action: NOTICE OF NONCOMPLIANCE
Enforcement action date: 09/21/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 07/20/1995
Date achieved compliance: 08/20/1995
Violation lead agency: State
Enforcement action: INITIAL 3008(A) CP/CO ORDER
Enforcement action date: 03/01/1996
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 5400
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 07/20/1995
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: TSD - Container Use and Management
Date achieved compliance: 08/20/1995
Evaluation lead agency: State

Evaluation date: 07/20/1995
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Generators - General
Date achieved compliance: 08/20/1995
Evaluation lead agency: State

FINDS:

Registry ID: 110004810367

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1001090956
Registry ID: 110004810367
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110004810367>

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

15
WSW
< 1/8
0.037 mi.
193 ft.

FORESTER EQUIPMENT INC.
SW 5TH
MILL CITY, OR 97360

ECSI 1006857193
FINDS N/A

Relative:
Higher
Actual:
817 ft.

ECSI:
State ID Number: 1061
Brown ID: 0
Study Area: False
Region ID: 3
Legislative ID: 0
Investigation: Suspect
FACA ID: 9074
Further Action: 260
Lat/Long (dms): 44 45 7.00 / -122 28 56.00
County Code: 22.00
Score Value: Not reported
Cercis ID: Not reported
Township Coord.: 9.00
Township Zone: S
Range Coord: 3.00
Range Zone: E
Section Coord: 30
Qtr Section: Not reported
Tax Lots: Not reported
Size: Not reported
NPL: False
Orphan: False
Updated By: GWISTAR
Update Date: 02/26/2009
Created Date: 11/13/1990
Decode For RegionID: Western Region
Decode For BrownID: Not reported
Decode For Furtheract: Low
Decode For Investstat: Suspect
Decode For Legislative: Not reported

Hazardous Release:
Substance ID.: 121989
Haz Release ID: 385521
Qty Released: unknown
Date Released: on-going for an extended period
Update Date: 11/13/1990
Update By: Not reported
Substance Code: ECD200
Substance Name: OIL OR FUEL RELATED COMPOUNDS
Substance Abbrev.: Not reported
Substance Category ID: 8532
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Substance Category ID: 8532
Substance Category: Petroleum Related Releases for OSPIRG Report
Category Level: Not reported
Created By: Not reported
Created Date: 12/17/2002
Comment ID: 302642
Release Code: Data Sources

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORESTER EQUIPMENT INC. (Continued)

1006857193

Release Comments: Haz. Sub. Release Report
Decode for Relcomcd: Data Sources
Sampling Result ID: 346703
Feature Id: Not reported
Hazard Release Id: 385521
Medium: 703
Substance Abbrev.: Not reported
Unit Code: Not reported
Observation: False
Owner Operator: False
Lab Data: False
Sample Depth: Not reported
Start Date: Not reported
End Date: Not reported
Min Concentration: Not reported
Max Concentration: Not reported
Sample Comment: unknown
Last Update By: CONV
Update Date: 09/13/1994
Decode for MediumID: Soil

Narrative:

NARR ID: 5731248
NARR Code: Site Contacts
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Site Contacts
NARR Comments: Jim Hoover, (503) 897-2099

NARR ID: 5731249
NARR Code: Contamination
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Contamination
NARR Comments: Site was the location of a former truck repair shop where oil and transmission and gear fluids were routinely disposed of on the ground, and now has a business involved in machining parts for heavy equipment. The present owner said disposal of oil or anything else to the ground has not occurred since he has been there.

NARR ID: 5731250
NARR Code: Data Sources
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Data Sources
NARR Comments: WVR Hazardous Substance Release Report; Interoffice Memorandum, John Taylor, WVR

NARR ID: 5731251
NARR Code: Hazardous Substance/Waste Types
Created By: Not reported
Created Date: 12/17/2002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORESTER EQUIPMENT INC. (Continued)

1006857193

Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcID: Hazardous Substance/Waste Types
NARR Comments: oil

NARR ID: 5731252
NARR Code: Manner of Release
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcID: Manner of Release
NARR Comments: Operating practices.

NARR ID: 5731253
NARR Code: Pathways Other Hazards
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcID: Pathways & Other Hazards
NARR Comments: Unknown depth to groundwater.

NARR ID: 5731254
NARR Code: Remedial Action
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcID: Remedial Action
NARR Comments: Removal of contamination may be achieved through administrative closure.

Administrative Action:

Action ID: 9424
Region: Headquarters
Complete Date: Not reported
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Headquarters
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9508
Region: Headquarters
Complete Date: 02/11/1994
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Headquarters
Category: Remedial Action
Action Code Flag: False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORESTER EQUIPMENT INC. (Continued)

1006857193

Action: Site Screening recommended (EV)
Further Action: Low
Comments: Not reported

Operations:

Operation Id: 132372
Operation Status: Unknown
Common Name: Forester Equipment Inc.
Yrs of Operation: Not reported
Comments: former truck repair shop
Updated Date: 03/20/1995
Updated By: jxh
Decode for OpstatID: Unknown
Operations SIC Id: 194831
SIC Code: 7538
Created By: Not reported
Created Date: 12/17/2002

FINDS:

Registry ID: 110014196155

Environmental Interest/Information System

OR-DEQ (Oregon - Department Of Environmental Quality) is a regulatory agency whose job is to protect the quality of Oregon's Environment. DEQ uses a combination of technical assistance, inspections and permitting to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

16
South
< 1/8
0.038 mi.
202 ft.

**MILL CITY, CITY OF
252 CEDAR ST SW
MILL CITY, OR 97360**

**UST U000434651
N/A**

Relative:
Higher
Actual:
816 ft.

UST:
Facility ID: 8157
Facility Telephone: (503)897-2302
Permittee Name: JOHN DICKINSON, WT SUPERINTENDENT
Number of Permitted Tanks: Not reported
Active Tanks: Not reported
Decommissioned Tanks: 1
Number of Tanks: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

17
SSE
< 1/8
0.046 mi.
244 ft.

MILL CITY FAIRVIEW AND 1ST
444 S FIRST AVE.
MILL CITY, OR 97360

ECSI S111429249
VCP N/A

Relative:
Higher
Actual:
819 ft.

ECSI:
State ID Number: 5682
Brown ID: 0
Study Area: False
Region ID: 3
Legislative ID: 831
Investigation: No Further Action
FACA ID: 122456
Further Action: 0
Lat/Long (dms): 44 45 5.80 / -122 28 40.10
County Code: 22.00
Score Value: Not reported
Cerclis ID: Not reported
Township Coord.: 9.00
Township Zone: S
Range Coord: 3.00
Range Zone: E
Section Coord: 29
Qtr Section: CC
Tax Lots: 800
Size: 0.51 acre
NPL: False
Orphan: False
Updated By: GWISTAR
Update Date: 10/04/2012
Created Date: 01/04/2012
Decode For RegionID: Western Region
Decode For BrownID: Not reported
Decode For Furtheract: Not reported
Decode For Investstat: No Further Action
Decode For Legislative: Owner, operator or other party under agreement, order or consent decree under ORS 465.200 or 465.420

Narrative:
NARR ID: 5753774
NARR Code: Contamination
Created By: EKELLEY
Created Date: 01/04/2012
Updated By: KROBERT
Updated Date: 10/02/2012
Decode for NarcdID: Contamination

NARR Comments: A black tarry substance was discovered in the course of excavation of the NE quadrant of the intersection of Fairview Street and 1st Avenue in Mill City. (10/2/12 KJR/VCP) During the construction of the city's new city hall in December 2011, localized areas of petroleum contaminated soil and oil product (later determined to be Bunker C) were encountered. Petroleum contaminated soil (PCS) was excavated and stockpiled on-site to allow construction to continue. Two samples (S-1, S-3) were collected to characterize the contamination. The samples were analyzed for diesel, heavy oil, polychlorinated biphenyls (PCBs), pentachlorophenol (PCP), and total metals. Concentrations of diesel, heavy oil, arsenic, barium, chromium, and lead were detected. Test Pits were excavated and additional areas of soil contamination were visually identified by the City's consultant.

MAP FINDINGS

MILL CITY FAIRVIEW AND 1ST (Continued)

S111429249

NARR ID: 5754224
NARR Code: Remedial Action
Created By: KROBERT
Created Date: 10/02/2012
Updated By: KROBERT
Updated Date: 10/02/2012
Decode for NarcdID: Remedial Action
NARR Comments: (10/2/12 KJR/VCP) Several localized areas of contamination exceeded one or more occupational risk-based concentrations (RBCs). The generic RBCs for diesel were used to evaluate heavy oil concentrations. Groundwater was not encountered in any of the test pits excavated on the property. Based on the shallow extent of soil contamination and the type of contamination (Bunker C), DEQ determined impacts to shallow groundwater were unlikely and sampling of groundwater was not required. Approximately 75 cubic yards of PCS was excavated from the vicinity of test pit TP-8 to an estimated depth of 10 feet bgs in July 2012. Four sidewall and one bottom samples were collected from the final extent of the excavation and analyzed for diesel and heavy oil (with silica-gel cleanup). Concentrations of diesel were not detected. Concentrations of heavy oil were detected at levels ranging from 97.2 mg/kg to 468 mg/kg. Another approximate 75 cubic yards of PCS was removed from the upper 3 feet of the site in areas where PCS was previously identified or was identified by field screening during construction activities. A total of 430 tons of PCS, including the material stockpile in December 2011 and generated in July 2012, was transported to Riverbend Landfill for disposal between June and July 2012. Between 5 cubic yards and 15 cubic yards of shallow soil with field evidence of contamination was left in place. The majority of the soil left in place was due to the soil's proximity to the building or other site structures. The contamination remaining on the site is present in thin, 1-inch to 3-inch thick, layers between 1 foot and 3 feet bgs. This soil is currently capped with a foot or more of soil and has been or will be further capped by landscaping or asphalt as a result of the site's development limiting the potential for exposure. The site was recommended for a No Further Action determination following a 30 day public comment period. No comments were received. NFA issued on 10/2/12. Select site documents may be viewed in the Site Document section of this database.

NARR ID: 5754225
NARR Code: Site History
Created By: KROBERT
Created Date: 10/02/2012
Updated By: KROBERT
Updated Date: 10/02/2012
Decode for NarcdID: Site History
NARR Comments: The site was a railroad maintenance facility owned by the Hammond Lumber Company in 1921. Facilities at the property included a railroad spur, a machine shop within a locomotive and engine repair house, an oil house, an oil above ground tank (AST), water tank, and other storage buildings. Early locomotives in the area were steam fired. In the 1920s to early 1930s, locomotives began transitioning to Bunker C as their fuel source. The Hammond Lumber Company was closed and sold in 1935 following the death of the mill owner, A.B. Hammond in 1934. The machine shop and engine repair building was removed from the property by 1939. The oil AST was removed by 1964.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MILL CITY FAIRVIEW AND 1ST (Continued)

S111429249

All remaining structures and the railroad spur were removed by 1976.
The property remained vacant until 2011 and the city's construction.

Administrative Action:

Action ID: 9424
Region: Not reported
Complete Date: 01/04/2012
Rank Value: Not reported
Cleanup Flag: False
Created Date: 01/04/2012
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Not reported
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9508
Region: Western Region
Complete Date: 05/21/2012
Rank Value: Not reported
Cleanup Flag: False
Created Date: 01/04/2012
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: Site Screening recommended (EV)
Further Action: Medium
Comments: Not reported

Action ID: 9440
Region: Eastern Region
Complete Date: 05/21/2012
Rank Value: Not reported
Cleanup Flag: False
Created Date: 05/21/2012
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Eastern Region
Category: Remedial Action
Action Code Flag: False
Action: Letter Agreement
Further Action: 0
Comments: Not reported

Action ID: 9511
Region: Eastern Region
Complete Date: 10/02/2012
Rank Value: Not reported
Cleanup Flag: False
Created Date: 05/21/2012
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Eastern Region
Category: Remedial Action
Action Code Flag: False
Action: SITE INVESTIGATION
Further Action: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MILL CITY FAIRVIEW AND 1ST (Continued)

S111429249

Comments: Not reported

Action ID: 9443
Region: Eastern Region
Complete Date: 10/02/2012
Rank Value: Not reported
Cleanup Flag: False
Created Date: 10/02/2012
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Eastern Region
Category: Remedial Action
Action Code Flag: False
Action: NO FURTHER STATE ACTION REQUIRED
Further Action: 0
Comments: Not reported

VCS:

ECS Site ID: 5682
Facility Size: 0.51 acre
Action: NO FURTHER STATE ACTION REQUIRED
Start Date: 10/02/2012
End Date: 10/02/2012
Facility Status: Completed
Program: VCP
Latitude: 44.7516
Longitude: -122.4778

18
South
< 1/8
0.101 mi.
533 ft.

SANTIAM CANYON SCHOOL DISTRICT
150 EVERGREEN ST
MILL CITY, OR 97360

RCRA NonGen / NLR 1005444601
FINDS ORQ000020495
ECHO
MANIFEST

Relative:
Higher
Actual:
827 ft.

RCRA NonGen / NLR:
Date form received by agency: 12/31/2008
Facility name: SANTIAM CANYON SCHOOL DISTRICT
Facility address: 150 EVERGREEN ST
MILL CITY, OR 97360
EPA ID: ORQ000020495
Mailing address: PO BOX 197
MILL CITY, OR 97360
Contact: BRAD YATES
Contact address: PO BOX 197
MILL CITY, OR 97360
Contact country: US
Contact telephone: 503-897-2321
Contact email: Not reported
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: SANTIAM CANYON SCHOOL DISTRICT
Owner/operator address: PO BOX 197
MILL CITY, OR 97360
Owner/operator country: US
Owner/operator telephone: 503-897-2321

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SANTIAM CANYON SCHOOL DISTRICT (Continued)

1005444601

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: District
Owner/Operator Type: Operator
Owner/Op start date: 12/31/2008
Owner/Op end date: Not reported

Owner/operator name: SANTIAM CANYON SCHOOL DISTRICT
Owner/operator address: PO BOX 197
MILL CITY, OR 97360

Owner/operator country: US
Owner/operator telephone: 503-897-2321
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: 05/10/2002
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: NA
. Waste name: NA

Historical Generators:

Date form received by agency: 12/31/2004
Site name: SANTIAM CANYON SCHOOL DISTRICT
Classification: Not a generator, verified

Date form received by agency: 01/07/2003
Site name: SANTIAM CANYON SCHOOL DISTRICT
Classification: Not a generator, verified

Date form received by agency: 05/10/2002
Site name: SANTIAM CANYON SCHOOL DISTRICT
Classification: Not a generator, verified

Violation Status: No violations found

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SANTIAM CANYON SCHOOL DISTRICT (Continued)

1005444601

FINDS:

Registry ID: 110012566669

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1005444601
Registry ID: 110012566669
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110012566669>

OR MANIFEST:

Manifest Year: Manifest Year - 2007
EPA Id: ORQ000020495
Inactive Status: 2007-12-31 00:00:00
Organization Name: Not reported
Contact Name: Brad Yates
Contact Telephone Number: 503 897-2321
Mailing Address: PO Box 197
Mailing City/State/Zip: Mill City, OR 97360

**C19
SW
< 1/8
0.121 mi.
637 ft.**

**HEATING OIL TANK
675 PARKSIDE DR
MILL CITY, OR 97360**

Site 1 of 3 in cluster C

**LUST S105981121
N/A**

**Relative:
Higher**

LUST:

**Actual:
833 ft.**

Region: Western Region
Facility ID: 22-03-1834
Cleanup Received Date: 08/30/2003
Cleanup Start Date: 08/30/2003
Cleanup Complete Date: 11/04/2003
Decode for Region: **West Region**

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

C20
SW
< 1/8
0.124 mi.
654 ft.

HEATING OIL TANK
672 SW PARKSIDE DR
MILL CITY, OR 97360

Site 2 of 3 in cluster C

LUST **S110141345**
N/A

Relative:
Higher

Actual:
831 ft.

LUST:
Region: Western Region
Facility ID: 22-09-1037
Cleanup Received Date: 10/14/2009
Cleanup Start Date: Not reported
Cleanup Complete Date: 11/16/2009
Decode for Region: **West Region**

21
SW
1/8-1/4
0.132 mi.
695 ft.

HEATING OIL TANK
545 PARKSIDE DR
MILL CITY, OR 97360

LUST **S105981120**
N/A

Relative:
Higher

Actual:
836 ft.

LUST:
Region: Western Region
Facility ID: 22-03-1833
Cleanup Received Date: 08/30/2003
Cleanup Start Date: 08/30/2003
Cleanup Complete Date: 10/17/2003
Decode for Region: **West Region**

C22
SW
1/8-1/4
0.140 mi.
737 ft.

HEATING OIL TANK
610 PARKSIDE DR
MILL CITY, OR 97360

Site 3 of 3 in cluster C

LUST **S105981122**
N/A

Relative:
Higher

Actual:
836 ft.

LUST:
Region: Western Region
Facility ID: 22-03-1835
Cleanup Received Date: 08/30/2003
Cleanup Start Date: 08/30/2003
Cleanup Complete Date: 11/13/2003
Decode for Region: **West Region**

23
NW
1/8-1/4
0.210 mi.
1110 ft.

MILL CITY MOBIL
654 NW SANTIAM BLVD
MILL CITY, OR 97360

LUST **U004015577**
UST **N/A**

Relative:
Higher

Actual:
842 ft.

LUST:
Region: Western Region
Facility ID: 24-01-4003
Cleanup Received Date: 02/21/2001
Cleanup Start Date: 02/13/2001
Cleanup Complete Date: 05/14/2001
Decode for Region: **West Region**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MILL CITY MOBIL (Continued)

U004015577

UST:

Facility ID: 158
Facility Telephone: (541) 226-6435
Permittee Name: Robert Eastridge III
Number of Permitted Tanks: 3
Active Tanks: 3
Decommissioned Tanks: 4
Number of Tanks: 7

24
WNW
1/8-1/4
0.215 mi.
1133 ft.

DETROIT FOREST SERVICE
HWY. 22 E
MILL CITY, OR 97360

LUST S100500479
N/A

Relative:
Higher
Actual:
828 ft.

LUST:

Region: Western Region
Facility ID: 24-91-4201
Cleanup Received Date: 07/12/1991
Cleanup Start Date: 01/30/1991
Cleanup Complete Date: 07/12/1991
Decode for Region: West Region

D25
SSW
1/4-1/2
0.274 mi.
1449 ft.

HEATING OIL TANK
552 IVY STREET
MILL CITY, OR 97360

LUST S106475132
N/A

Relative:
Higher
Actual:
848 ft.

Site 1 of 2 in cluster D

LUST:

Region: Western Region
Facility ID: 22-04-0176
Cleanup Received Date: 02/12/2004
Cleanup Start Date: 02/12/2004
Cleanup Complete Date: 03/18/2004
Decode for Region: West Region

D26
SSW
1/4-1/2
0.288 mi.
1522 ft.

HEATING OIL TANK
900 SW HALL AVE
MILL CITY, OR 97360

LUST S113906907
N/A

Relative:
Higher
Actual:
850 ft.

Site 2 of 2 in cluster D

LUST:

Region: Western Region
Facility ID: 22-13-0655
Cleanup Received Date: 05/28/2013
Cleanup Start Date: Not reported
Cleanup Complete Date: 02/03/2016
Decode for Region: West Region

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

27
WSW
1/4-1/2
0.291 mi.
1539 ft.

HEATING OIL TANK
1225 SW SPRING ST
MILL CITY, OR 97360

LUST **S104974173**
N/A

Relative:
Lower
Actual:
795 ft.

LUST:
Region: Western Region
Facility ID: 22-01-5971
Cleanup Received Date: 05/21/2001
Cleanup Start Date: 05/18/2001
Cleanup Complete Date: 08/23/2001
Decode for Region: **West Region**

28
ENE
1/4-1/2
0.302 mi.
1597 ft.

JONES FAMILY REVOCABLE TRUST
509 NE SANTIAM BLVD
MILL CITY, OR 97360

LUST **U004175468**
UST **N/A**
UIC

Relative:
Higher
Actual:
874 ft.

LUST:
Region: Western Region
Facility ID: 24-13-0433
Cleanup Received Date: 04/09/2013
Cleanup Start Date: 06/03/2014
Cleanup Complete Date: 05/22/2015
Decode for Region: **West Region**

UST:
Facility ID: 5179
Facility Telephone: 503-390-5675
Permittee Name: Courtney Jones
Number of Permitted Tanks: Not reported
Active Tanks: Not reported
Decommissioned Tanks: 7
Number of Tanks: 7

OR UIC:
UIC Well #: 1
Type: 5X28
Type Description: Motor Vehicle Waste Disposal Wells
Status: Formal Closure
UIC Number: 14973
Facility Status: Formal Closure
Lat/Long: 44.755901 / -122.4703

29
East
1/4-1/2
0.327 mi.
1724 ft.

HEATING OIL TANK
633 NE ALDER ST
MILL CITY, OR 97360

LUST **S111332481**
N/A

Relative:
Higher
Actual:
856 ft.

LUST:
Region: Western Region
Facility ID: 24-11-1015
Cleanup Received Date: 09/26/2011
Cleanup Start Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HEATING OIL TANK (Continued)

S111332481

Cleanup Complete Date: 04/02/2012
Decode for Region: West Region

30
West
1/2-1
0.714 mi.
3772 ft.

MILL CITY DISPOSAL SITE
22835 RIVER RD SE
MILL CITY, OR 97360

ECSI S118489315
N/A

Relative:
Lower

ECSI:

Actual:
788 ft.

State ID Number: 6075
Brown ID: 0
Study Area: False
Region ID: 3
Legislative ID: 0
Investigation: Suspect
FACA ID: 139135
Further Action: 260
Lat/Long (dms): 44 45 7.90 / -122 29 57.10
County Code: 24.00
Score Value: Not reported
Cercis ID: Not reported
Township Coord.: 9.00
Township Zone: S
Range Coord: 2.00
Range Zone: E
Section Coord: 25
Qtr Section: D
Tax Lots: 1700
Size: 3 acres
NPL: False
Orphan: False
Updated By: GWISTAR
Update Date: 05/18/2016
Created Date: 02/23/2016
Decode For RegionID: Western Region
Decode For BrownID: Not reported
Decode For Furtheract: Low
Decode For Investstat: Suspect
Decode For Legislative: Not reported

Administrative Action:

Action ID: 9424
Region: Not reported
Complete Date: 02/23/2016
Rank Value: Not reported
Cleanup Flag: False
Created Date: 02/23/2016
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Not reported
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9476
Region: Western Region

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MILL CITY DISPOSAL SITE (Continued)

S118489315

Complete Date: Not reported
Rank Value: Not reported
Cleanup Flag: False
Created Date: 02/23/2016
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: Refer to Program
Further Action: Low
Comments: Not reported

**31
WNW
1/2-1
0.833 mi.
4400 ft.**

**FRED A MOORE INC
27860 N SANTIAM HWY
MILL CITY, OR 97360**

**ECSI 1006853674
FINDS N/A**

**Relative:
Lower**

ECSI:

**Actual:
782 ft.**

State ID Number: 2107
Brown ID: 0
Study Area: False
Region ID: 3
Legislative ID: 0
Investigation: Suspect
FACA ID: 23175
Further Action: 258
Lat/Long (dms): 44 45 25.60 / -122 30 8.60
County Code: 22.00
Score Value: Not reported
Cerclis ID: Not reported
Township Coord.: 9.00
Township Zone: S
Range Coord: 2.00
Range Zone: E
Section Coord: 25
Qtr Section: Not reported
Tax Lots: Not reported
Size: Not reported
NPL: False
Orphan: False
Updated By: GWISTAR
Update Date: 08/12/2013
Created Date: 10/02/1997
Decode For RegionID: Western Region
Decode For BrownID: Not reported
Decode For Furtheract: Medium
Decode For Investstat: Suspect
Decode For Legislative: Not reported

Narrative:

NARR ID: 5737212
NARR Code: Contamination
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Contamination

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRED A MOORE INC (Continued)

1006853674

NARR Comments: (10/10/97 JMC/SAS) Site referred to Cleanup by both Hazardous Waste and Spills sections. The Spills section asked the RP to conduct a removal, and did some follow-up work related to a leaking above-ground tank. According to the Hazardous Waste section, there may also be other contamination issues at the site.

NARR ID: 5737213
NARR Code: Remedial Action
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Remedial Action
NARR Comments: (10/10/97 JMC/SAS) Site investigation needed.

Administrative Action:

Action ID: 9424
Region: Western Region
Complete Date: Not reported
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9508
Region: Western Region
Complete Date: 10/10/1997
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Western Region
Category: Remedial Action
Action Code Flag: False
Action: Site Screening recommended (EV)
Further Action: Medium
Comments: Not reported

FINDS:

Registry ID: 110014158464

Environmental Interest/Information System

OR-DEQ (Oregon - Department Of Environmental Quality) is a regulatory agency whose job is to protect the quality of Oregon's Environment. DEQ uses a combination of technical assistance, inspections and permitting to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRED A MOORE INC (Continued)

1006853674

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

32
WSW
1/2-1
0.985 mi.
5203 ft.

NORTH SANTIAM PLYWOOD
47983 LYONS MILL CITY DR.
MILL CITY, OR 97360

ECSI S106114858
N/A

Relative:
Higher

Actual:
811 ft.

ECSI:
State ID Number: 345
Brown ID: 0
Study Area: False
Region ID: 3
Legislative ID: 0
Investigation: Suspect
FACA ID: 9075
Further Action: 258
Lat/Long (dms): 44 44 55.00 / -122 30 14.00
County Code: 22.00
Score Value: Not reported
Cerclis ID: Not reported
Township Coord.: 9.00
Township Zone: S
Range Coord: 2.00
Range Zone: E
Section Coord: 36
Qtr Section: Not reported
Tax Lots: 1302, 1303
Size: 70.5 acres
NPL: False
Orphan: False
Updated By: GWISTAR
Update Date: 02/25/2009
Created Date: 09/08/1988
Decode For RegionID: Western Region
Decode For BrownID: Not reported
Decode For Furtheract: Medium
Decode For Investstat: Suspect
Decode For Legislative: Not reported
Alias Name: Frank Lumber Co.
Alias Name: Freres Lumber

Narrative:

NARR ID: 5728632
NARR Code: Contamination
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcID: Contamination

NARR Comments: The release of phenolic resins (glue waste) occurred through unauthorized discharges from the waste pond when it overflowed. Of greater concern is the possible contamination of groundwater by the resins that seep through the <quot>very permeable<quot> soils to the static water level at less than 70 feet.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH SANTIAM PLYWOOD (Continued)

S106114858

NARR ID: 5728633
NARR Code: Data Sources
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Data Sources
NARR Comments: DEQ WQ, Region: WV; inspection reports; correspondence from owner and/or operator.

NARR ID: 5728634
NARR Code: Hazardous Substance/Waste Types
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Hazardous Substance/Waste Types
NARR Comments: formaldehyde, phenolic resin

NARR ID: 5728635
NARR Code: Site Location
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Site Location
NARR Comments: About 1.5 miles west of Mill City on the south side of the Santiam River.

NARR ID: 5728636
NARR Code: Manner of Release
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Manner of Release
NARR Comments: Spill

NARR ID: 5728637
NARR Code: Pathways Other Hazards
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Pathways & Other Hazards
NARR Comments: Soil, surface and groundwater.

NARR ID: 5728638
NARR Code: Remedial Action
Created By: Not reported
Created Date: 12/17/2002
Updated By: Not reported
Updated Date: 12/17/2002
Decode for NarcdID: Remedial Action
NARR Comments: Sufficient data not available; site screening recommended.

Administrative Action:
Action ID: 9424

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH SANTIAM PLYWOOD (Continued)

S106114858

Region: Headquarters
Complete Date: Not reported
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Headquarters
Category: Administrative Action
Action Code Flag: False
Action: Site added to database
Further Action: Not reported
Comments: Not reported

Action ID: 9508
Region: Headquarters
Complete Date: 02/11/1994
Rank Value: 0
Cleanup Flag: False
Created Date: 12/17/2002
Decode for AgencyID: Department of Environmental Quality
Decode for RegionID: Headquarters
Category: Remedial Action
Action Code Flag: False
Action: Site Screening recommended (EV)
Further Action: Medium
Comments: Not reported

Operations:
Operation Id: 131769
Operation Status: Active
Common Name: North Santiam Plywood
Yrs of Operation: Not reported
Comments: Manufacturer of plywood
Updated Date: 03/20/1995
Updated By: jxh
Decode for OpstatID: Active
Operations SIC Id: 195302
SIC Code: 2436
Created By: Not reported
Created Date: 12/17/2002
Operations SIC Id: 195303
SIC Code: 2435
Created By: Not reported
Created Date: 12/17/2002

Count: 4 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MILL CITY	S118140471	AREY PODRABSKY	48200 KINGWOOD AVENUE	97360	LUST
MILL CITY	1014915277	COE CIVIL DETROIT DAM	NF RD 2212 & N SANTIAM HWY 22	97360	SEMS
MILL CITY	S120851183	HEATING OIL TANK	250 NW SANTIAM HWY	97360	LUST
MILL CITY	1008051699	MILL CITY WATER DEPARTMENT	NE WALL ST	97360	FINDS, ECHO

DRAFT

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/11/2019	Source: EPA
Date Data Arrived at EDR: 04/18/2019	Telephone: N/A
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 04/18/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/11/2019	Source: EPA
Date Data Arrived at EDR: 04/18/2019	Telephone: N/A
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 04/18/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 34

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 34

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: (206) 553-1200
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: (206) 553-1200
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/22/2019	Source: Department of the Navy
Date Data Arrived at EDR: 03/07/2019	Telephone: 843-820-7326
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 05/10/2019
Number of Days to Update: 41	Next Scheduled EDR Contact: 08/26/2019
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/31/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/04/2019	Telephone: 703-603-0695
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 02/04/2019
Number of Days to Update: 32	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/31/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/04/2019	Telephone: 703-603-0695
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 02/04/2019
Number of Days to Update: 32	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ECSI: Environmental Cleanup Site Information System

Sites that are or may be contaminated and may require cleanup.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/03/2019
Date Made Active in Reports: 02/20/2019
Number of Days to Update: 48

Source: Department of Environmental Quality
Telephone: 503-229-6629
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

CRL: Confirmed Release List and Inventory

All facilities with a confirmed release.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 11/15/2018
Date Made Active in Reports: 12/10/2018
Number of Days to Update: 25

Source: Department of Environmental Quality
Telephone: 503-229-6170
Last EDR Contact: 05/15/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities List

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/14/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 02/20/2019
Number of Days to Update: 36

Source: Department of Environmental Quality
Telephone: 503-229-6299
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 10/03/2018
Date Data Arrived at EDR: 11/15/2018
Date Made Active in Reports: 12/11/2018
Number of Days to Update: 26

Source: Department of Environmental Quality
Telephone: 503-229-5790
Last EDR Contact: 05/15/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/13/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/24/2018	Source: EPA Region 4
Date Data Arrived at EDR: 03/12/2019	Telephone: 404-562-8677
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 50	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017	Source: FEMA
Date Data Arrived at EDR: 05/30/2017	Telephone: 202-646-5797
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 04/25/2019
Number of Days to Update: 136	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Varies

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 10/03/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 11/15/2018	Telephone: 503-229-5815
Date Made Active in Reports: 12/10/2018	Last EDR Contact: 05/15/2019
Number of Days to Update: 25	Next Scheduled EDR Contact: 08/26/2019
	Data Release Frequency: Quarterly

AST: Aboveground Storage Tanks
Aboveground storage tank locations reported to the Office of State Fire Marshal.

Date of Government Version: 01/17/2019	Source: Office of State Fire Marshal
Date Data Arrived at EDR: 01/23/2019	Telephone: 503-378-3473
Date Made Active in Reports: 03/18/2019	Last EDR Contact: 04/29/2019
Number of Days to Update: 54	Next Scheduled EDR Contact: 08/12/2019
	Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/17/2018	Source: EPA Region 10
Date Data Arrived at EDR: 03/07/2019	Telephone: 206-553-2857
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/10/2018	Source: EPA Region 9
Date Data Arrived at EDR: 03/08/2019	Telephone: 415-972-3368
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 54	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018	Source: EPA Region 8
Date Data Arrived at EDR: 03/07/2019	Telephone: 303-312-6137
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/03/2018	Source: EPA, Region 1
Date Data Arrived at EDR: 03/07/2019	Telephone: 617-918-1313
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/24/2018	Source: EPA Region 4
Date Data Arrived at EDR: 03/12/2019	Telephone: 404-562-9424
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/12/2018	Source: EPA Region 5
Date Data Arrived at EDR: 03/07/2019	Telephone: 312-886-6136
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 03/07/2019	Telephone: 214-665-7591
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/07/2018	Source: EPA Region 7
Date Data Arrived at EDR: 03/07/2019	Telephone: 913-551-7003
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Recorded at ESCI Sites

Engineering controls are physical measures selected or approved by the Director for the purpose of preventing or minimizing exposure to hazardous substances. Engineering controls may include, but are not limited to, fencing, capping, horizontal or vertical barriers, hydraulic controls, and alternative water supplies.

Date of Government Version: 01/01/2019	Source: Department of Environmental Quality
Date Data Arrived at EDR: 01/03/2019	Telephone: 503-229-5193
Date Made Active in Reports: 02/20/2019	Last EDR Contact: 04/02/2019
Number of Days to Update: 48	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

INST CONTROL: Institutional Controls Recorded at ESCI Sites

An institutional control is a legal or administrative tool or action taken to reduce the potential for exposure to hazardous substances. Institutional controls may include, but are not limited to, use restrictions, environmental monitoring requirements, and site access and security measures.

Date of Government Version: 01/01/2019	Source: Department of Environmental Quality
Date Data Arrived at EDR: 01/03/2019	Telephone: 503-229-5193
Date Made Active in Reports: 02/20/2019	Last EDR Contact: 04/02/2019
Number of Days to Update: 48	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 03/25/2019
Number of Days to Update: 142	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Varies

VCS: Voluntary Cleanup Program Sites

Responsible parties have entered into an agreement with DEQ to voluntarily address contamination associated with their property.

Date of Government Version: 12/31/2018	Source: DEQ
Date Data Arrived at EDR: 01/15/2019	Telephone: 503-229-5256
Date Made Active in Reports: 02/20/2019	Last EDR Contact: 04/15/2019
Number of Days to Update: 36	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Projects

Brownfields investigations and/or cleanups that have been conducted in Oregon.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 11/15/2018
Date Made Active in Reports: 12/10/2018
Number of Days to Update: 25

Source: Department of Environmental Quality
Telephone: 503-229-6801
Last EDR Contact: 05/15/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Annually

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/19/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facility Location Listing A listing of recycling facility locations.

Date of Government Version: 11/27/2018
Date Data Arrived at EDR: 11/29/2018
Date Made Active in Reports: 02/20/2019
Number of Days to Update: 83

Source: Department of Environmental Quality
Telephone: 503-229-5353
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Quarterly

HIST LF: Old Closed SW Disposal Sites

A list of solid waste disposal sites that have been closed for a long while.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 07/08/2003
Date Made Active in Reports: 07/18/2003
Number of Days to Update: 10

Source: Department of Environmental Quality
Telephone: 503-229-5409
Last EDR Contact: 07/08/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/23/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

AOC COL: Columbia Slough

Columbia Slough waterway boundaries.

Date of Government Version: 08/10/2005
Date Data Arrived at EDR: 05/17/2006
Date Made Active in Reports: 06/16/2006
Number of Days to Update: 30

Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 03/13/2007
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

AOC MU: East Multnomah County Area

Approximate extent of TSA VOC plume February , 2002

Date of Government Version: N/A
Date Data Arrived at EDR: 10/07/2002
Date Made Active in Reports: 10/22/2002
Number of Days to Update: 15

Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 03/13/2007
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

CDL 2: Clandestine Drug Lab Site Listing

A listing of clandestine drug lab site locations included in the Incident database.

Date of Government Version: 10/29/2018
Date Data Arrived at EDR: 10/31/2018
Date Made Active in Reports: 12/10/2018
Number of Days to Update: 40

Source: Oregon State Police
Telephone: 503-373-1540
Last EDR Contact: 04/29/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

CDL: Uninhabitable Drug Lab Properties

The properties listed on these county pages have been declared by a law enforcement agency to be unfit for use due to meth lab and/or storage activities. The properties are considered uninhabitable until cleaned up by a state certified decontamination contractor and a certificate of fitness is issued by the Oregon Health Division.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 01/30/2019
Date Made Active in Reports: 02/20/2019
Number of Days to Update: 21

Source: Department of Consumer & Business Services
Telephone: 503-378-4133
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 49

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

SPILLS: Spill Data

Oil and hazardous material spills reported to the Environmental Response Program.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 01/04/2019
Date Made Active in Reports: 02/20/2019
Number of Days to Update: 47

Source: Department of Environmental Quality
Telephone: 503-229-5815
Last EDR Contact: 04/01/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Semi-Annually

HAZMAT: Hazmat/Incidents

Hazardous material incidents reported to the State Fire Marshal by emergency responders. The hazardous material may or may not have been released.

Date of Government Version: 09/05/2018
Date Data Arrived at EDR: 10/31/2018
Date Made Active in Reports: 12/10/2018
Number of Days to Update: 40

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 05/01/2006	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: (206) 553-1200
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 07/08/2015	Telephone: 202-528-4285
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 04/03/2019
Number of Days to Update: 97	Next Scheduled EDR Contact: 06/03/2019
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/12/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/12/2019
Number of Days to Update: 339	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/07/2019
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/22/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/24/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2019
Date Data Arrived at EDR: 02/14/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 03/11/2019	Source: EPA
Date Data Arrived at EDR: 03/14/2019	Telephone: 202-564-6023
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 05/10/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/19/2019
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019	Source: EPA
Date Data Arrived at EDR: 04/10/2019	Telephone: 202-566-0500
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 04/10/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 04/08/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 09/08/2016	Telephone: 301-415-7169
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 04/22/2019
Number of Days to Update: 43	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 03/07/2019
Number of Days to Update: 76	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 03/05/2019
Number of Days to Update: 40	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/30/2017	Telephone: 202-566-0517
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 04/26/2019
Number of Days to Update: 15	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/02/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/02/2019	Telephone: 202-343-9775
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 04/02/2019
Number of Days to Update: 42	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 51

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/11/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 38

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/11/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/22/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/27/2018
Date Data Arrived at EDR: 02/27/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/01/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/27/2019
Date Data Arrived at EDR: 03/28/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 34

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/21/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/15/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 03/15/2019
Number of Days to Update: 10

Source: EPA
Telephone: (206) 553-1200
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 03/03/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/09/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 03/01/2019
Number of Days to Update: 71	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/19/2019	Source: EPA
Date Data Arrived at EDR: 02/21/2019	Telephone: 800-385-6164
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 02/21/2019
Number of Days to Update: 39	Next Scheduled EDR Contact: 06/03/2019
	Data Release Frequency: Quarterly

AIRS: Oregon Title V Facility Listing

A listing of Title V facility source and emissions information.

Date of Government Version: 12/28/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 01/03/2019	Telephone: 503-229-6459
Date Made Active in Reports: 02/19/2019	Last EDR Contact: 04/01/2019
Number of Days to Update: 47	Next Scheduled EDR Contact: 04/17/2047
	Data Release Frequency: Annually

COAL ASH: Coal Ash Disposal Sites Listing

A listing of coal ash disposal sites.

Date of Government Version: 12/31/2017	Source: Department of Environmental Quality
Date Data Arrived at EDR: 03/16/2018	Telephone: 541-298-7255
Date Made Active in Reports: 05/15/2018	Last EDR Contact: 03/04/2019
Number of Days to Update: 60	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Facilities

A listing of registered drycleaning facilities in Oregon.

Date of Government Version: 11/05/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 11/07/2018	Telephone: 503-229-6783
Date Made Active in Reports: 12/10/2018	Last EDR Contact: 04/29/2019
Number of Days to Update: 33	Next Scheduled EDR Contact: 08/12/2019
	Data Release Frequency: Annually

ENF: Enforcement Action Listing

Enforcement actions

Date of Government Version: 12/17/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 12/19/2018	Telephone: 503-229-5696
Date Made Active in Reports: 02/20/2019	Last EDR Contact: 03/20/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 07/01/2019
	Data Release Frequency: Quarterly

Financial Assurance 1: Financial Assurance Information Listing

Financial assurance information for hazardous waste facilities.

Date of Government Version: 08/20/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 12/18/2018	Telephone: 541-633-2011
Date Made Active in Reports: 02/20/2019	Last EDR Contact: 03/04/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Financial Assurance 2: Financial Assurance Information Listing

Financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/15/2018
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 12/10/2018
Number of Days to Update: 24

Source: Department of Environmental Quality
Telephone: 503-229-5521
Last EDR Contact: 02/19/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Semi-Annually

HSIS: Hazardous Substance Information Survey

Companies in Oregon submitting the Hazardous Substance Information Survey and either reporting or not reporting hazardous substances.

Date of Government Version: 01/29/2019
Date Data Arrived at EDR: 01/30/2019
Date Made Active in Reports: 02/20/2019
Number of Days to Update: 21

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Semi-Annually

OR MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 08/06/2018
Date Made Active in Reports: 08/15/2018
Number of Days to Update: 9

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Annually

NPDES: Wastewater Permits Database

A listing of permitted wastewater facilities.

Date of Government Version: 01/29/2019
Date Data Arrived at EDR: 01/30/2019
Date Made Active in Reports: 02/20/2019
Number of Days to Update: 21

Source: Department of Environmental Quality
Telephone: 503-229-5657
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

UIC: Underground Injection Control Program Database

DEQ's Underground Injection Control Program is authorized by the Environmental Protection Agency (EPA) to regulate all underground injection in Oregon to protect groundwater resources.

Date of Government Version: 12/21/2018
Date Data Arrived at EDR: 12/27/2018
Date Made Active in Reports: 02/20/2019
Number of Days to Update: 55

Source: Department of Environmental Quality
Telephone: 503-229-5945
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists.

Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A

Date Data Arrived at EDR: 07/01/2013

Date Made Active in Reports: 12/27/2013

Number of Days to Update: 179

Source: Department of Environmental Quality

Telephone: N/A

Last EDR Contact: 06/01/2012

Next Scheduled EDR Contact: N/A

Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019

Date Data Arrived at EDR: 01/30/2019

Date Made Active in Reports: 02/14/2019

Number of Days to Update: 15

Source: Department of Environmental Conservation

Telephone: 518-402-8651

Last EDR Contact: 05/01/2019

Next Scheduled EDR Contact: 08/12/2019

Data Release Frequency: Quarterly

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017

Date Data Arrived at EDR: 06/15/2018

Date Made Active in Reports: 07/09/2018

Number of Days to Update: 24

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 03/11/2019

Next Scheduled EDR Contact: 06/24/2019

Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Listings

Source: Employment Department

Telephone: 503-947-1420

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data

Source: Oregon Geospatial Enterprise Office

Telephone: 503-378-2166

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

MILL CITY
233 SW BROADWAY ST
MILL CITY, OR 97360

TARGET PROPERTY COORDINATES

Latitude (North): 44.754165 - 44° 45' 14.99"
Longitude (West): 122.479072 - 122° 28' 44.66"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 541233.5
UTM Y (Meters): 4955557.0
Elevation: 808 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: 6067402 MILL CITY NORTH, OR
Version Date: 2014

Southeast Map: 6067404 MILL CITY SOUTH, OR
Version Date: 2014

Southwest Map: 6067410 SNOW PEAK, OR
Version Date: 2014

Northwest Map: 6068608 LYONS, OR
Version Date: 2014

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

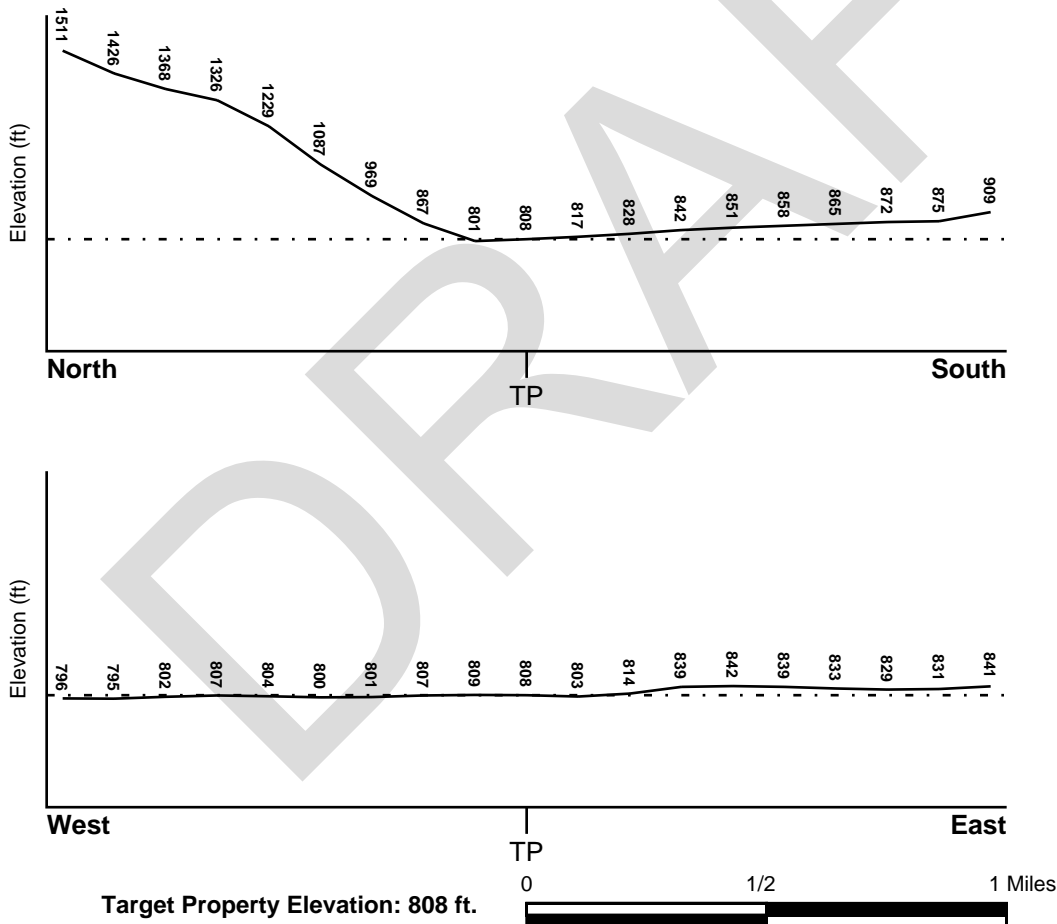
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property

41047C0800G

FEMA Source Type

FEMA FIRM Flood data

Additional Panels in search area:

41043C0326G

41043C0327G

FEMA Source Type

FEMA FIRM Flood data

FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property

MILL CITY NORTH

NWI Electronic

Data Coverage

YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

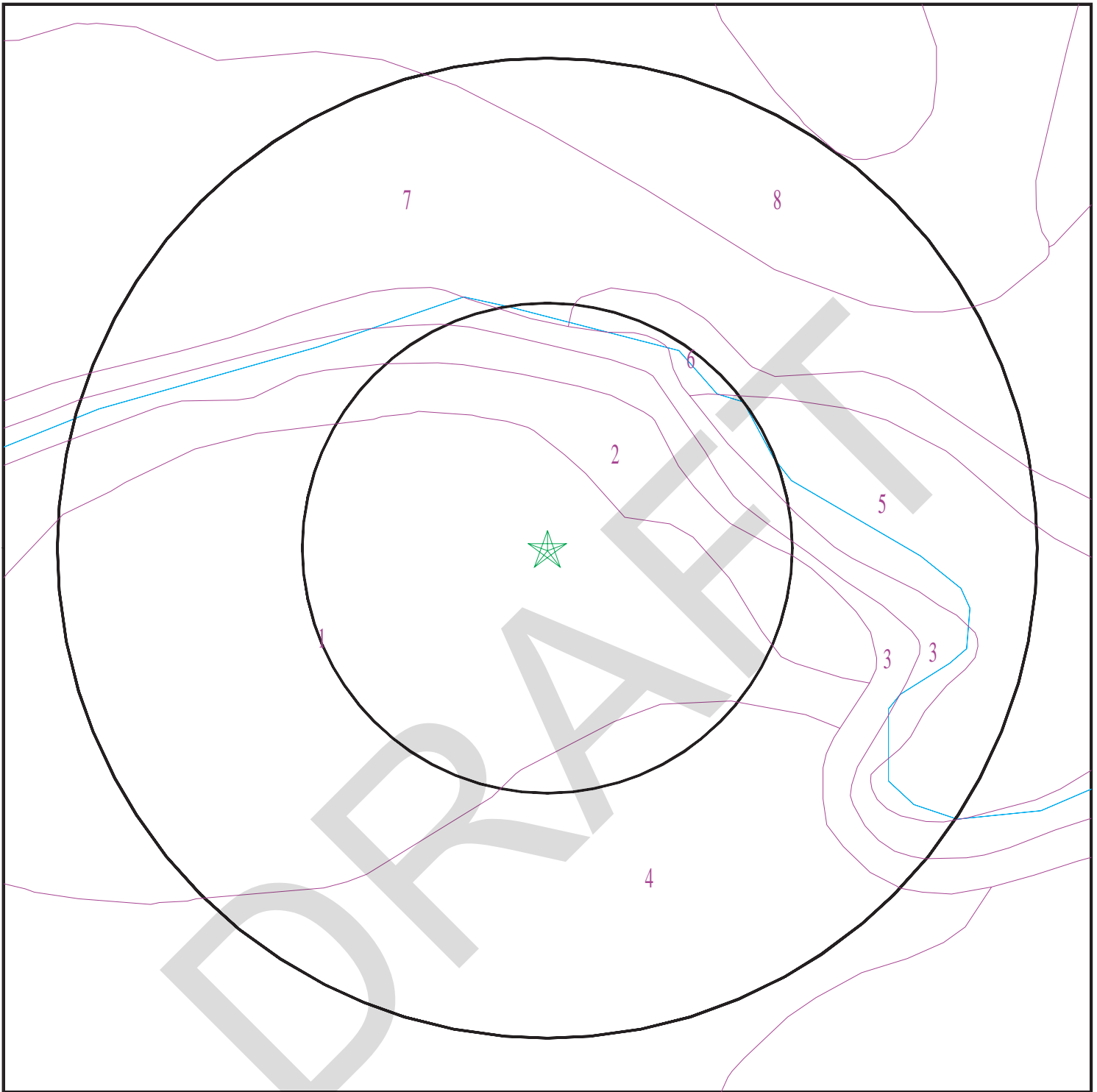
Era:	Cenozoic
System:	Tertiary
Series:	Miocene volcanic rocks
Code:	Tmv (<i>decoded above as Era, System & Series</i>)

GEOLOGIC AGE IDENTIFICATION

Category: Volcanic Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5654942.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Mill City
ADDRESS: 233 SW Broadway St
Mill City OR 97360
LAT/LONG: 44.754165 / 122.479072

CLIENT: Cascade Earth Sciences
CONTACT: Jessica Penetar
INQUIRY #: 5654942.2s
DATE: May 16, 2019 2:23 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Malabon variant

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	14 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 705 Min: 141	Max: 5.5 Min: 5.1
2	14 inches	55 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 705 Min: 141	Max: 5.5 Min: 5.1
3	55 inches	59 inches	very gravelly sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 705 Min: 141	Max: 5.5 Min: 5.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: Camas

Soil Surface Texture: gravelly sandy loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	12 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 705 Min: 141	Max: 7.3 Min: 5.6
2	12 inches	59 inches	extremely gravelly coarse sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 705 Min: 141	Max: 7.3 Min: 5.6

Soil Map ID: 3

Soil Component Name: Water

Soil Surface Texture: gravelly sandy loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: Sifton variant

Soil Surface Texture: gravelly loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 705 Min: 141	Max: 6.5 Min: 5.6
2	9 inches	14 inches	very gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 705 Min: 141	Max: 6.5 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
3	14 inches	59 inches	extremely gravelly coarse sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 705 Min: 141	Max: 6.5 Min: 5.6

Soil Map ID: 5

Soil Component Name: Alluvial land

Soil Surface Texture: stratified coarse sand to extremely cobbly coarse sand

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	stratified coarse sand to extremely cobbly coarse sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel.	Max: 705 Min: 141	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	5 inches	59 inches	stratified extremely cobbly coarse sand to extremely gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel.	Max: 705 Min: 141	Max: Min:

Soil Map ID: 6

Soil Component Name: Horeb

Soil Surface Texture: gravelly silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	40 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 141 Min: 42	Max: 5 Min: 4.5

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	40 inches	59 inches	very gravelly sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 141 Min: 42	Max: 5 Min: 4.5

Soil Map ID: 7

Soil Component Name: Horeb

Soil Surface Texture: gravelly silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	40 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 141 Min: 42	Max: 5 Min: 4.5

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	40 inches	59 inches	very gravelly sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 141 Min: 42	Max: 5 Min: 4.5

Soil Map ID: 8

Soil Component Name: McCully

Soil Surface Texture: very stony clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	very stony clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	9 inches	57 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
3	57 inches	66 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A2	USGS40000990837	1/8 - 1/4 Mile NW
B4	USGS40000990833	1/4 - 1/2 Mile WNW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

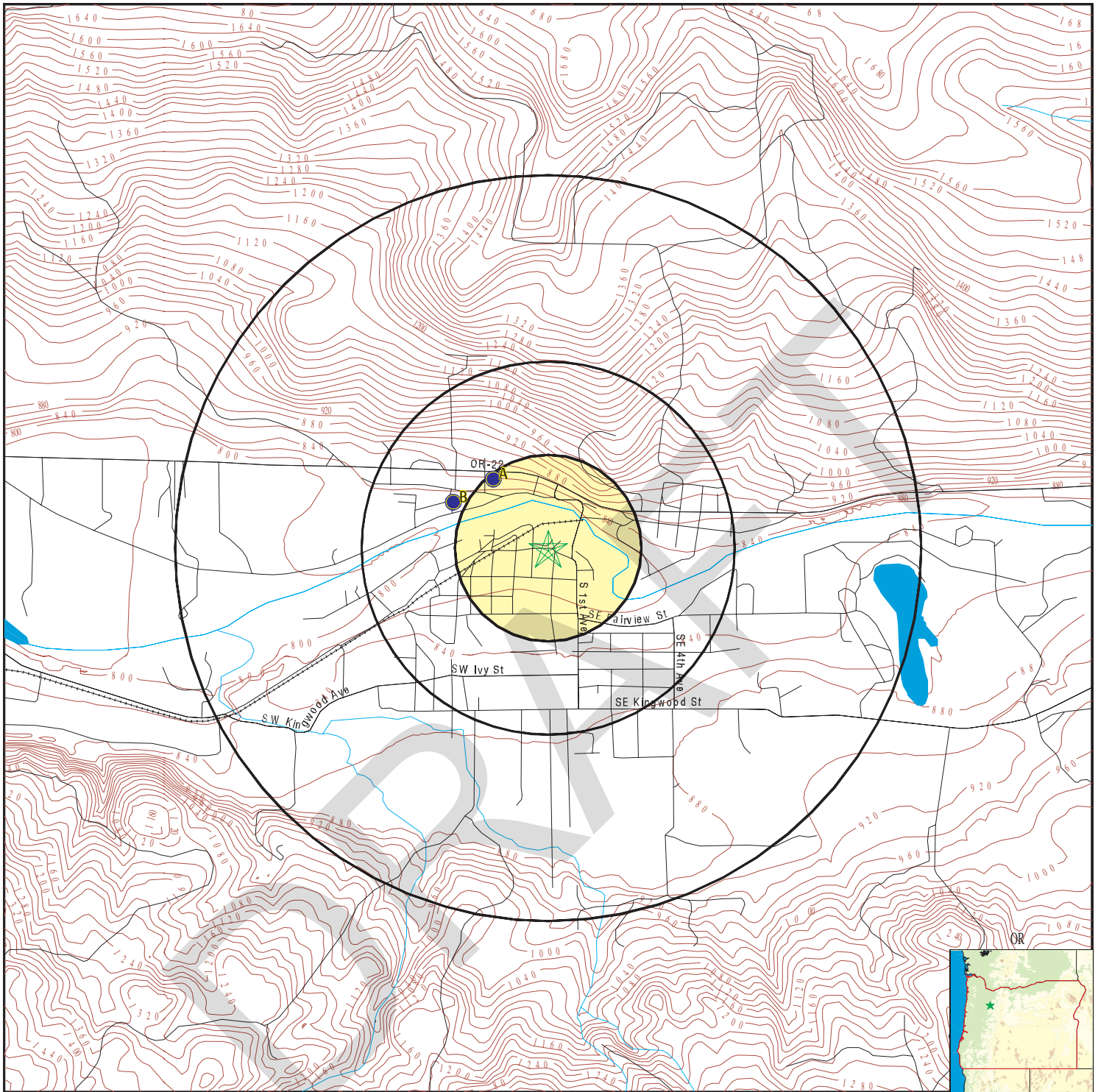
GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY








STATE DATABASE WELL INFORMATION





<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	ORW600000003961	1/8 - 1/4 Mile NW
B3	ORW600000004138	1/4 - 1/2 Mile WNW

DRAFT

PHYSICAL SETTING SOURCE MAP - 5654942.2s



-  County Boundary
-  Major Roads
-  Contour Lines
-  Earthquake epicenter, Richter 5 or greater
-  Water Wells
-  Public Water Supply Wells
-  Cluster of Multiple Icons

-  Groundwater Flow Direction
-  Indeterminate Groundwater Flow at Location
-  Groundwater Flow Varies at Location
-  Oil, gas or related wells



SITE NAME: Mill City
 ADDRESS: 233 SW Broadway St
 Mill City OR 97360
 LAT/LONG: 44.754165 / 122.479072

CLIENT: Cascade Earth Sciences
 CONTACT: Jessica Penetar
 INQUIRY #: 5654942.2s
 DATE: May 16, 2019 2:23 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A1
NW
1/8 - 1/4 Mile
Higher

OR WELLS ORW60000003961

Well Log ID:	MARI 15977	Last Update:	01/01/1990
Well Tag:	0	State Obs Well #:	695
Observation Well:	Noncurrent	Recorder Well:	Not Reported
Obs Well Flag:	State Obs Well, Noncurrent	Surface Elevation:	835

A2
NW
1/8 - 1/4 Mile
Higher

FED USGS USGS40000990837

Organization ID:	USGS-OR	Organization Name:	USGS Oregon Water Science Center
Monitor Location:	09S/03E-30DAB	Type:	Well
Description:	Not Reported	HUC:	17090005
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19610824
Well Depth:	194	Well Depth Units:	ft
Well Hole Depth:	194	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	46	Level reading date:	1981-10-14
Feet below surface:	4.36	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1978-10-04	Feet below surface:	4.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-01-20	Feet below surface:	2.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-10-05	Feet below surface:	3.95
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-07-06	Feet below surface:	4.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-04-15	Feet below surface:	3.16
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-01-13	Feet below surface:	3.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-04-15	Feet below surface:	3.07
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-01-14	Feet below surface:	1.56
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-10-01	Feet below surface:	5.43
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-07-10	Feet below surface:	4.42

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-04-09	Feet below surface:	3.27
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1974-10-09	Feet below surface:	5.96
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1974-07-03	Feet below surface:	4.77
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1971-07-15	Feet below surface:	4.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1971-04-14	Feet below surface:	2.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1971-04-10	Feet below surface:	2.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1971-01-22	Feet below surface:	1.47
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-10-16	Feet below surface:	5.46
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-07-17	Feet below surface:	5.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-04-23	Feet below surface:	3.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-01-23	Feet below surface:	1.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-10-13	Feet below surface:	4.23
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-07-18	Feet below surface:	4.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-04-11	Feet below surface:	3.47
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-02-24	Feet below surface:	2.73
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1968-12-16	Feet below surface:	1.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1968-08-26	Feet below surface:	3.46
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1968-05-24	Feet below surface:	3.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1968-03-04	Feet below surface:	2.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1967-12-04	Feet below surface:	2.22
Feet to sea level:	Not Reported	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1967-08-28	Feet below surface:	48.53
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1967-05-19	Feet below surface:	3.84
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1967-03-06	Feet below surface:	3.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-11-21	Feet below surface:	2.46
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-05-26	Feet below surface:	5.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-05-20	Feet below surface:	3.79
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-03-10	Feet below surface:	1.95
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-12-03	Feet below surface:	2.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-08-27	Feet below surface:	5.61
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-05-21	Feet below surface:	3.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-03-05	Feet below surface:	2.94
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-12-04	Feet below surface:	2.06
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-08-28	Feet below surface:	5.14
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-05-25	Feet below surface:	3.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-02-17	Feet below surface:	2.92
Feet to sea level:	Not Reported	Note:	Not Reported

B3
WNW
1/4 - 1/2 Mile
Higher

OR WELLS ORW60000004138

Well Log ID:	MARI 15956	Last Update:	01/01/1990
Well Tag:	0	State Obs Well #:	0
Observation Well:	Not Reported	Recorder Well:	Not Reported
Obs Well Flag:	Not Reported	Surface Elevation:	800

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

B4
WNW
1/4 - 1/2 Mile
Higher

FED USGS USGS40000990833

Organization ID:	USGS-OR	Organization Name:	USGS Oregon Water Science Center
Monitor Location:	09S/03E-30DBD	Type:	Well
Description:	Not Reported	HUC:	17090005
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Other aquifers	Formation Type:	Valley Fill
Aquifer Type:	Not Reported	Construction Date:	19820408
Well Depth:	52	Well Depth Units:	ft
Well Hole Depth:	52	Well Hole Depth Units:	ft

DRAFT

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON**

AREA RADON INFORMATION

Federal EPA Radon Zone for LINN County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.
- : Zone 2 indoor average level ≥ 2 pCi/L and ≤ 4 pCi/L.
- : Zone 3 indoor average level < 2 pCi/L.

Not Reported

DRAFT

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data

Source: Oregon Geospatial Enterprise Office

Telephone: 503-378-2166

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data

Source: Department of Water Resources

Telephone: 503-986-0843

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Locations

Source: Department of Geology and Mineral Industries

Telephone: 971-673-1540

A listing of oil and gas well locations in the state.

RADON

State Database: OR Radon

Source: Oregon Health Services

Telephone: 503-731-4272

Radon Levels in Oregon

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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DRAFT



INQUIRY #: 5654942.8

YEAR: 1936

 = 500'





Mill City

233 SW Broadway St

Mill City, OR 97360

Inquiry Number: 5654942.8

May 17, 2019



The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

05/17/19

Site Name:

Mill City
233 SW Broadway St
Mill City, OR 97360
EDR Inquiry # 5654942.8

Client Name:

Cascade Earth Sciences
3511 Pacific Boulevard SW
Albany, OR 97321
Contact: Jessica Penetar



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Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1994	1"=500'	Acquisition Date: July 07, 1994	USGS/DOQQ
1982	1"=500'	Flight Date: July 23, 1982	USDA
1976	1"=500'	Flight Date: July 26, 1976	USGS
1953	1"=500'	Flight Date: September 04, 1953	USGS
1950	1"=500'	Flight Date: June 29, 1950	USGS
1936	1"=500'	Flight Date: January 01, 1936	USDA

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INQUIRY #: 5654942.8

YEAR: 2016

 = 500'





INQUIRY #: 5654942.8

YEAR: 2012

 = 500'





INQUIRY #: 5654942.8

YEAR: 2009

 = 500'





INQUIRY #: 5654942.8

YEAR: 2006

 = 500'





INQUIRY #: 5654942.8

YEAR: 1994

 = 500'





INQUIRY #: 5654942.8

YEAR: 1982

 = 500'





INQUIRY #: 5654942.8

YEAR: 1976

 = 500'





INQUIRY #: 5654942.8

YEAR: 1953

 = 500'






INQUIRY #: 5654942.8

YEAR: 1950

 = 500'





Mill City
233 SW Broadway St
Mill City, OR 97360

Inquiry Number: 5654942.3

May 22, 2019



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Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

05/22/19

Site Name:

Mill City
233 SW Broadway St
Mill City, OR 97360
EDR Inquiry # 5654942.3

Client Name:

Cascade Earth Sciences
3511 Pacific Boulevard SW
Albany, OR 97321
Contact: Jessica Penetar



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Certification # 8E55-4899-A034
PO # 2019230014
Project Linn County - Mill City
Maps Provided:
1931
1921



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Sanborn Sheet Key

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1931 Source Sheets



Volume 1, Sheet Keymap/Sheet
1931



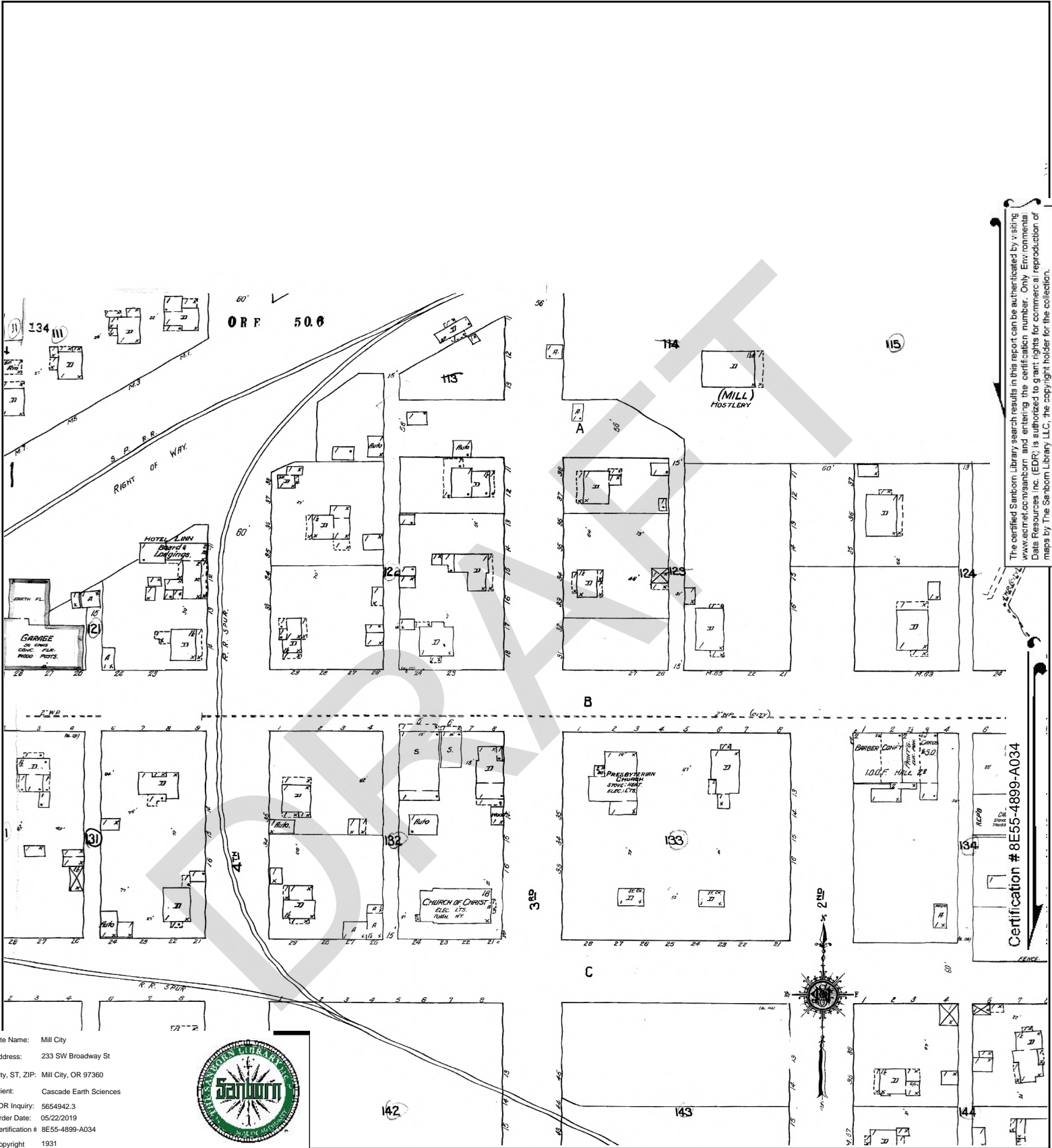
Volume 1, Sheet 6
1931

1921 Source Sheets

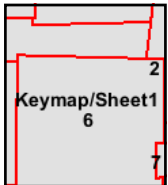
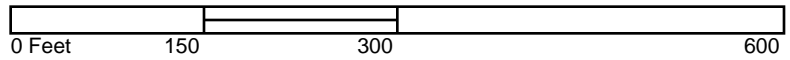


Volume 1, Sheet 6
1921

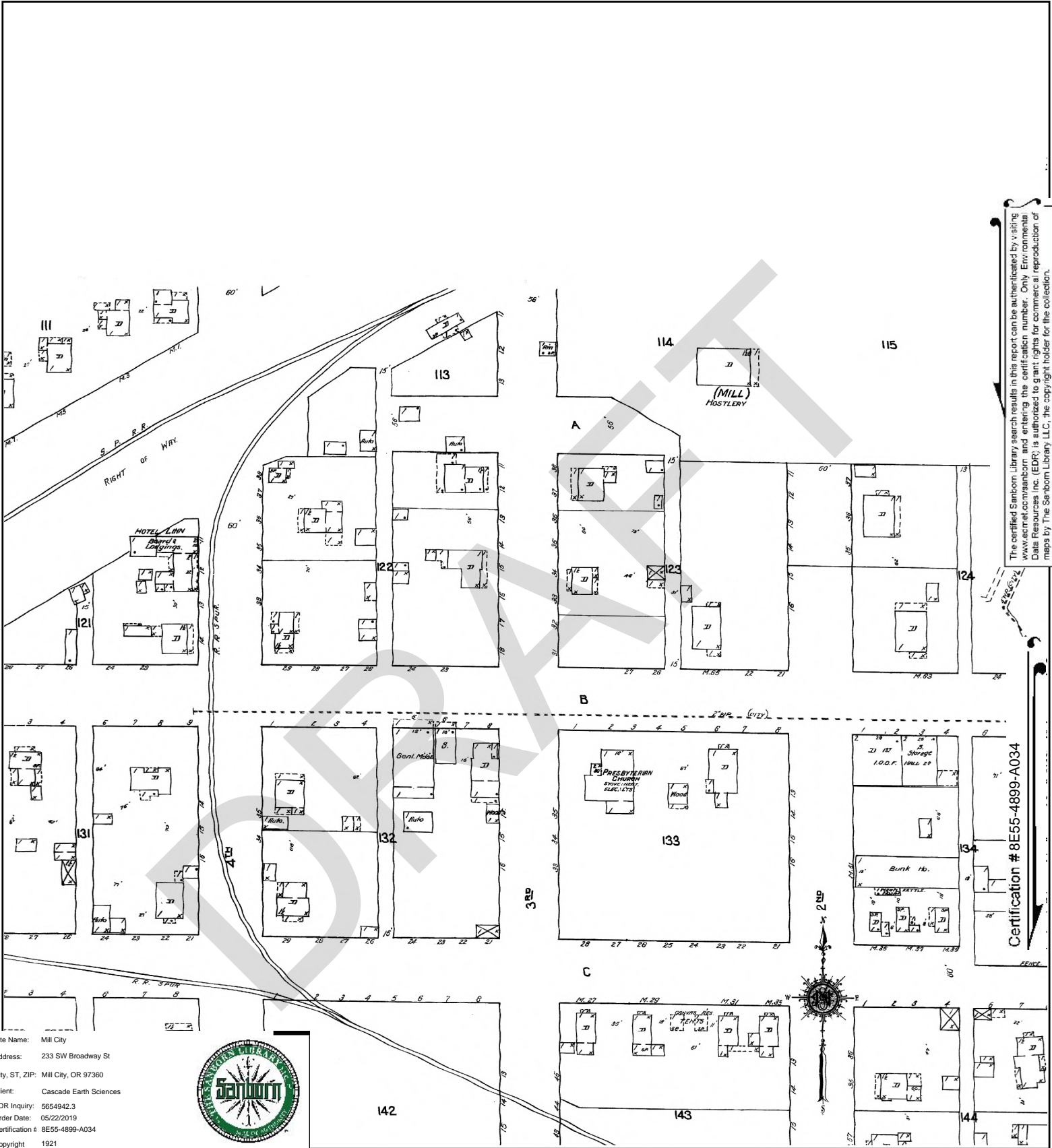
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 Outlined areas indicate map sheets within the collection.



Volume 1, Sheet 6
 Volume 1, Sheet Keymap/Sheet1



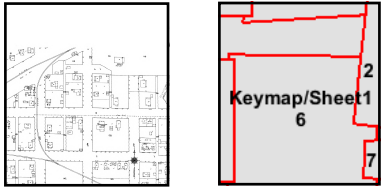
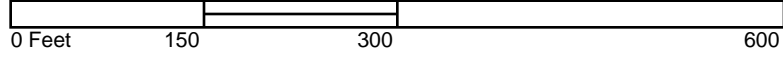
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Certification # 8E55-4899-A034


Site Name: Mill City
 Address: 233 SW Broadway St
 City, ST, ZIP: Mill City, OR 97360
 Client: Cascade Earth Sciences
 EDR Inquiry: 5654942.3
 Order Date: 05/22/2019
 Certification # 8E55-4899-A034
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Volume 1, Sheet 6



Mill City
233 SW Broadway St
Mill City, OR 97360

Inquiry Number: 5654942.3

May 22, 2019



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05/22/19

Site Name:

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EDR Inquiry # 5654942.3

Client Name:

Cascade Earth Sciences
3511 Pacific Boulevard SW
Albany, OR 97321
Contact: Jessica Penetar



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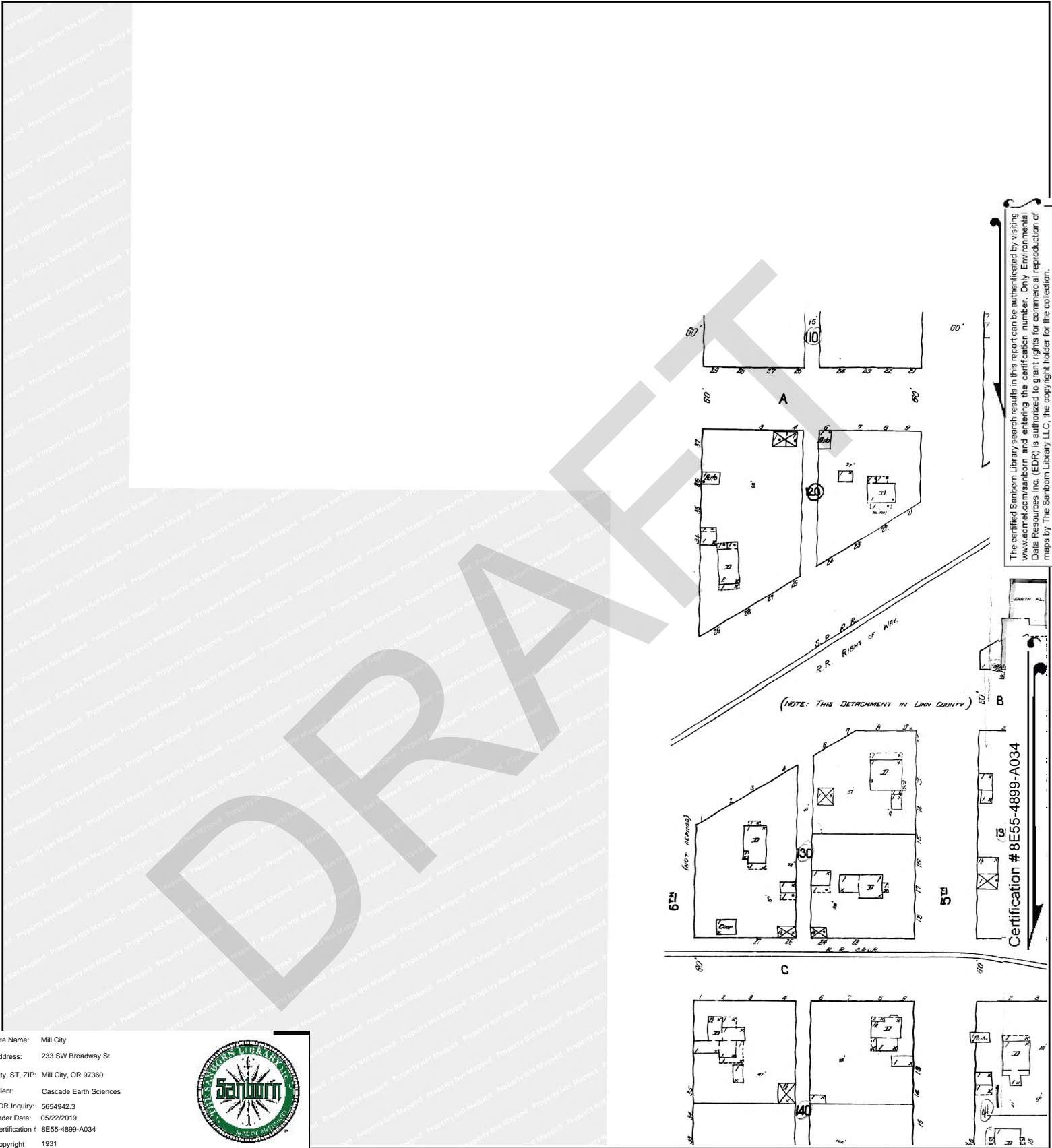
Volume 1, Sheet Keymap/Sheet1
1931

1921 Source Sheets



Volume 1, Sheet Keymap/Sheet1
1921

DRAFT



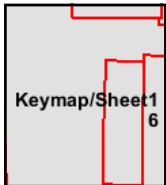
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Certification # 8E55-4899-A034

Site Name: Mill City
 Address: 233 SW Broadway St
 City, ST, ZIP: Mill City, OR 97360
 Client: Cascade Earth Sciences
 EDR Inquiry: 5654942.3
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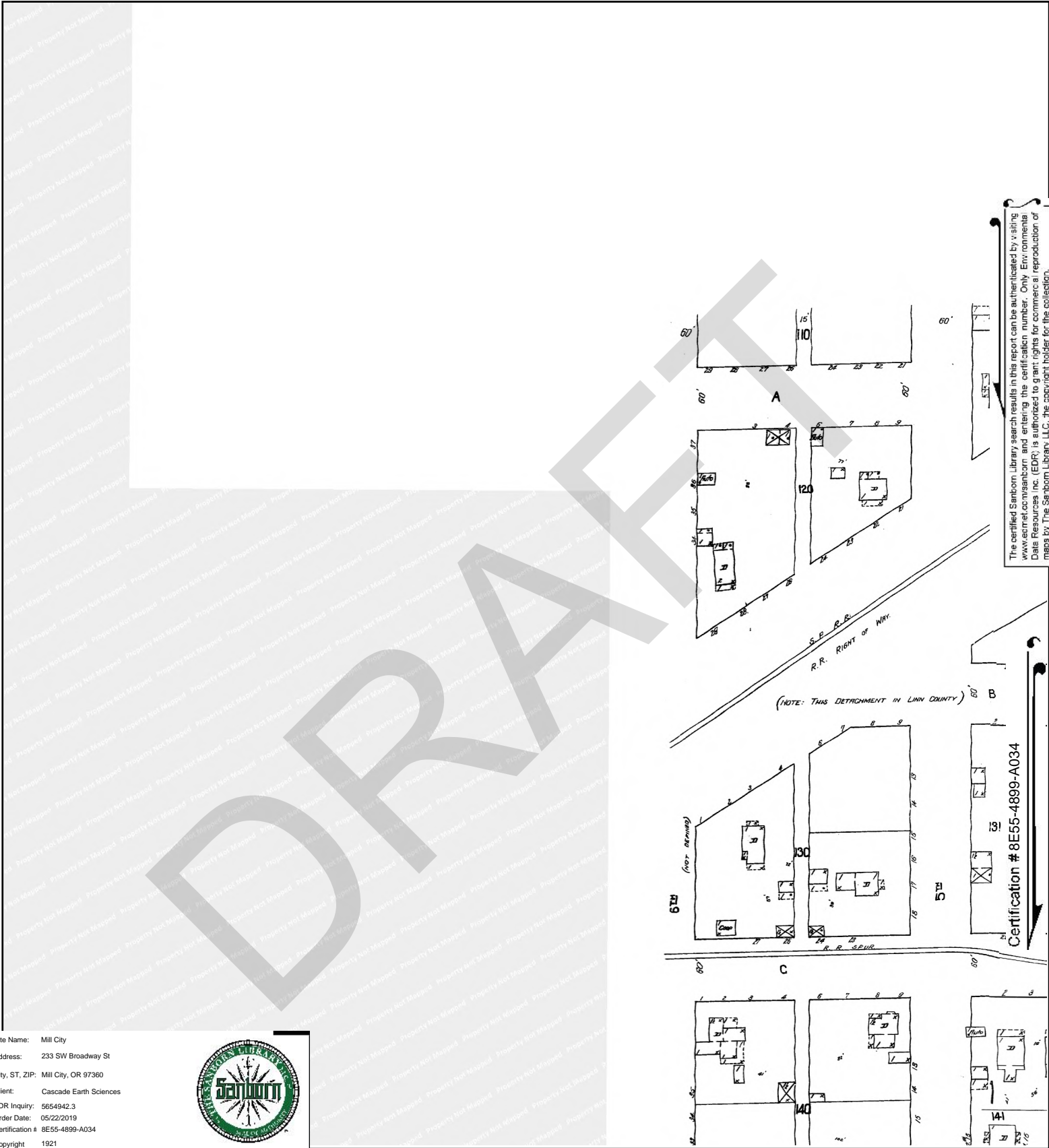


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Volume 1, Sheet Keymap/Sheet1

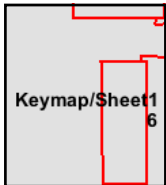
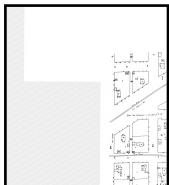
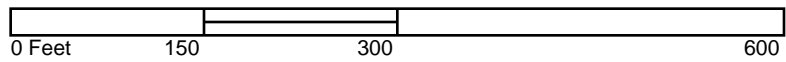




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 Address: 233 SW Broadway St
 City, ST, ZIP: Mill City, OR 97360
 Client: Cascade Earth Sciences
 EDR Inquiry: 5654942.3
 Order Date: 05/22/2019
 Certification #: 8E55-4899-A034
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Volume 1, Sheet Keymap/Sheet1





Mill City
233 SW Broadway St
Mill City, OR 97360

Inquiry Number: 5654942.3

May 22, 2019



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05/22/19

Site Name:

Mill City
233 SW Broadway St
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EDR Inquiry # 5654942.3

Client Name:

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3511 Pacific Boulevard SW
Albany, OR 97321
Contact: Jessica Penetar



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PO # 2019230014
Project Linn County - Mill City
Maps Provided:
1931
1921



Sanborn® Library search results

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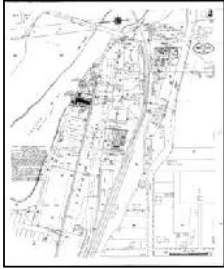
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1931 Source Sheets



Volume 1, Sheet 2
1931



Volume 1, Sheet 3
1931



Volume 1, Sheet 6
1931



Volume 1, Sheet 7
1931

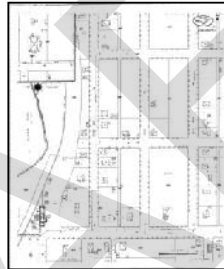
1921 Source Sheets



Volume 1, Sheet 2
1921



Volume 1, Sheet 6
1921

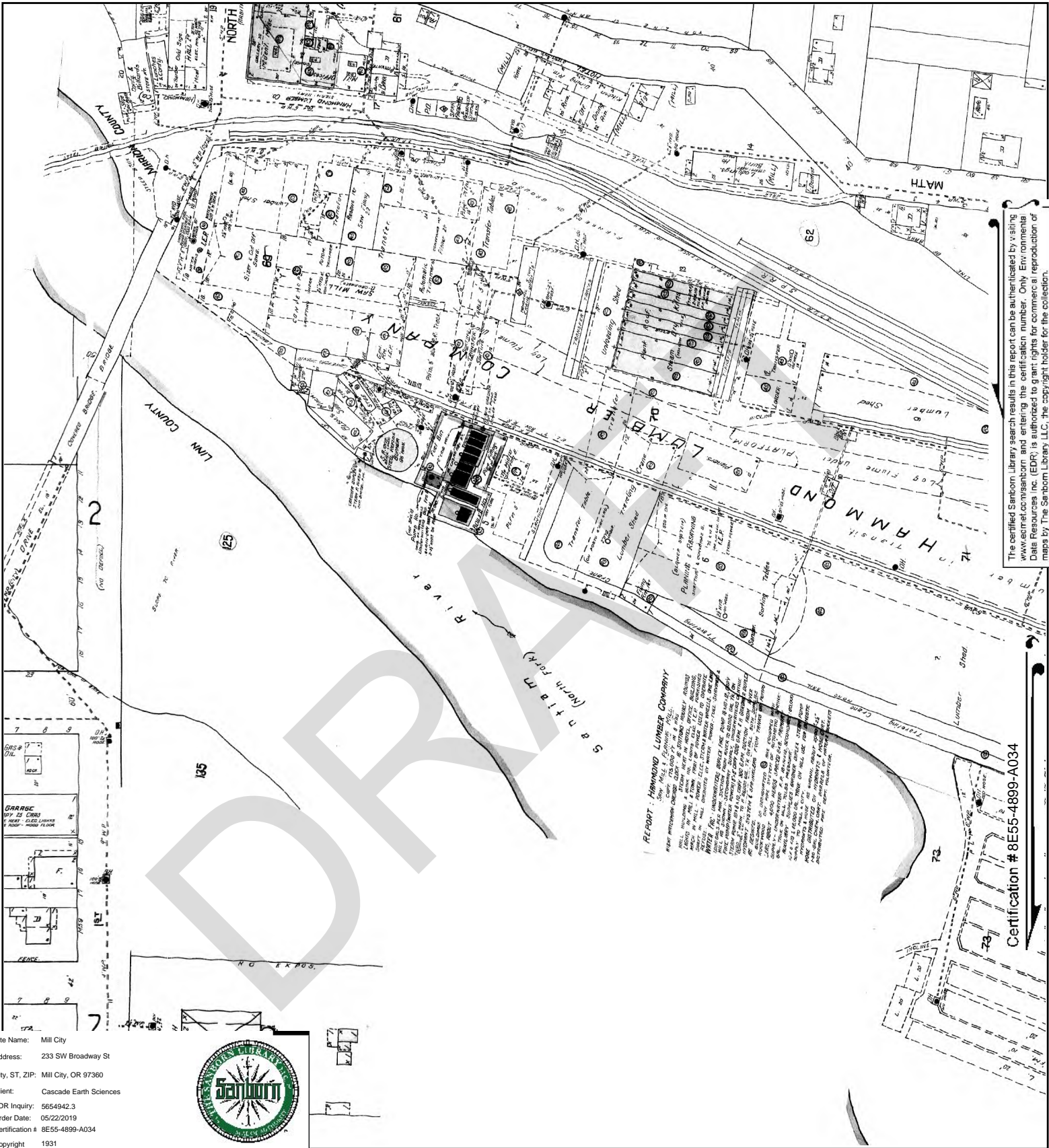


Volume 1, Sheet 7
1921



Volume 1, Sheet 3
1921

DRAFT



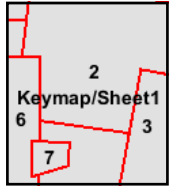
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Site Name: Mill City
 Address: 233 SW Broadway St
 City, ST, ZIP: Mill City, OR 97360
 Client: Cascade Earth Sciences
 EDR Inquiry: 5654942.3
 Order Date: 05/22/2019
 Certification # 8E55-4899-A034
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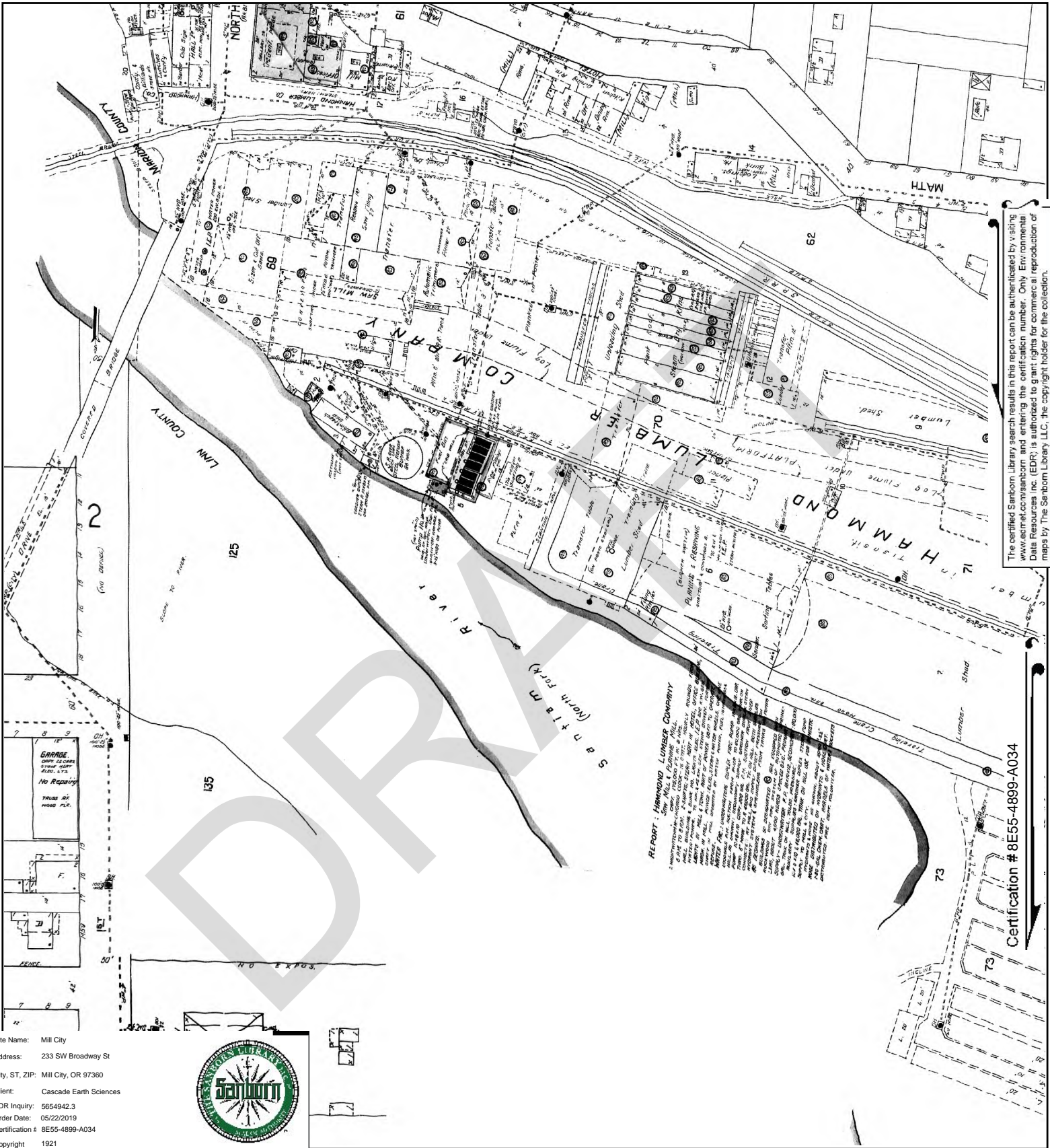


This Certified Sanborn Map combines the following sheets.
 Outlined areas indicate map sheets within the collection.



- Volume 1, Sheet 7
- Volume 1, Sheet 6
- Volume 1, Sheet 3
- Volume 1, Sheet 2





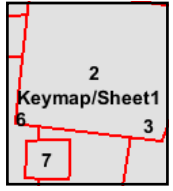
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- Volume 1, Sheet 2



Mill City

233 SW Broadway St
Mill City, OR 97360

Inquiry Number: 5654942.5
May 16, 2019

The EDR-City Directory Image Report

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with any questions or comments.

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RESEARCH SUMMARY

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<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2014	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2010	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2005	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
1995	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
1992	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive

FINDINGS

TARGET PROPERTY STREET

233 SW Broadway St
Mill City, OR 97360

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
<u>SW BROADWAY</u>		
2010	pg A10	EDR Digital Archive
2005	pg A16	EDR Digital Archive
1995	pg A29	EDR Digital Archive

SW BROADWAY ST

2014	pg A5	EDR Digital Archive
2010	pg A11	EDR Digital Archive
2005	pg A17	EDR Digital Archive
2000	pg A23	EDR Digital Archive
1995	pg A30	EDR Digital Archive
1992	pg A45	EDR Digital Archive

FINDINGS

CROSS STREETS

<u>Year</u>	<u>CD Image</u>	<u>Source</u>	
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2014	pg. A1	EDR Digital Archive	
2010	-	EDR Digital Archive	Street not listed in Source
2005	-	EDR Digital Archive	Street not listed in Source
2000	-	EDR Digital Archive	Street not listed in Source
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source

S 1ST

1995	pg. A25	EDR Digital Archive	
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S 1ST AV

2000	pg. A19	EDR Digital Archive	
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S 1ST AVE

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1995	pg. A26	EDR Digital Archive	
1992	pg. A33	EDR Digital Archive	

S 1ST AVE BOX 651

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S 1ST AVE BOX 716

1992	pg. A35	EDR Digital Archive	
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FINDINGS

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
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S 1ST AVE BOX 717

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SW 1ST AVE

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2000	pg. A21	EDR Digital Archive
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1992	pg. A38	EDR Digital Archive

SW 3RD AVE BOX 116

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SW 3RD AVE BOX 143

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SW 3RD AVE BOX 583

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SW 3RD AVE BOX 584

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FINDINGS

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SW LINN PL BOX 122

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SW LINN PL ST

1995	pg. A32	EDR Digital Archive
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City Directory Images

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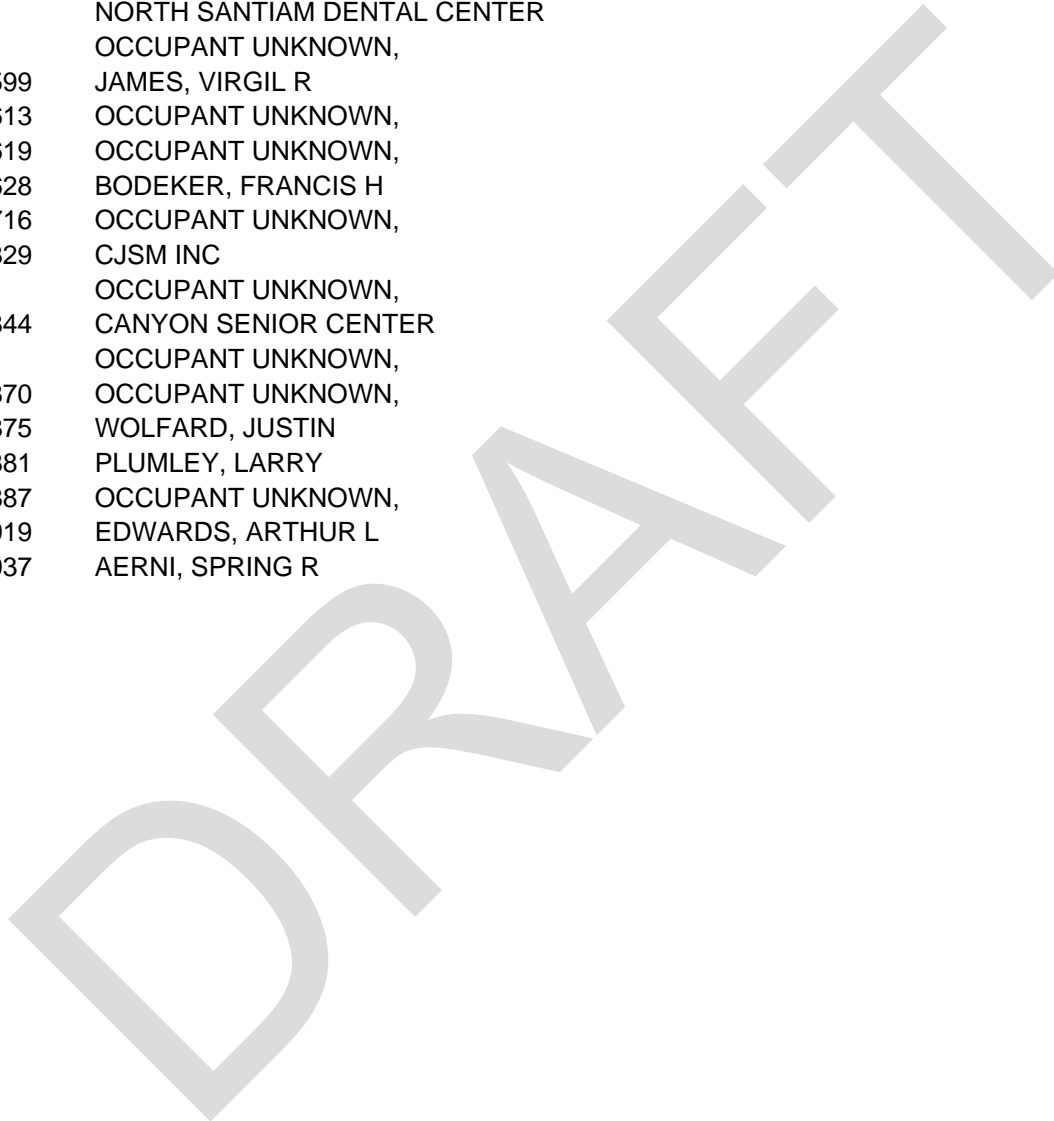
2014

140 COLE, RICHARD
160 WER INFORMATION CONNECTION

DRAFT

S 1ST AVE 2014

176 COATS, LARRY
316 OREGON REP PAYEE PROGRAM
325 STEWART, COLE B
400 MILL CY RUR FIRE PRTECTION DST
 OCCUPANT UNKNOWN,
403 KLEIN, MARK A
533 OCCUPANT UNKNOWN,
548 NEW CITY DENTAL
 NORTH SANTIAM DENTAL CENTER
 OCCUPANT UNKNOWN,
599 JAMES, VIRGIL R
613 OCCUPANT UNKNOWN,
619 OCCUPANT UNKNOWN,
628 BODEKER, FRANCIS H
716 OCCUPANT UNKNOWN,
829 CJSM INC
 OCCUPANT UNKNOWN,
844 CANYON SENIOR CENTER
 OCCUPANT UNKNOWN,
870 OCCUPANT UNKNOWN,
875 WOLFARD, JUSTIN
881 PLUMLEY, LARRY
887 OCCUPANT UNKNOWN,
919 EDWARDS, ARTHUR L
937 AERNI, SPRING R



SW 1ST AVE 2014

1019 OCCUPANT UNKNOWN,
1030 OCCUPANT UNKNOWN,
1046 CAREY, PHIL W
1055 OCCUPANT UNKNOWN,
1075 MUMEY, ADAM K
1095 CHARLES, MARGARET
1130 OCCUPANT UNKNOWN,
1135 OCCUPANT UNKNOWN,
1150 OCCUPANT UNKNOWN,
1170 HENRY, JOHN R
1175 SMITH, KIMBERLEY
1210 BENDER, LARRY K
1211 ARK ANIMAL CARE LLC
SANDERS, DANIEL W
1250 SHADRICK, SUZANNE
1270 SAPPINGTON, STEPHEN D
1271 SNIDER, BOBBY
1280 OCCUPANT UNKNOWN,
1281 COOPER, RUSSELL L
1285 PAVONI, DANIELA C
1290 OCCUPANT UNKNOWN,



SW 3RD AVE 2014

100 MILL CITY FIRE HALL
122 THOMPSON, THOMAS J
123 COREY, ARDEN W
150 GALLARZA, WILLIAM M
151 TURPIN, RANDY J
168 ENGLET, TIMOTHY C
169 MILLER, CORINNA J
251 FIRST CHRISTIAN CHURCH MILL CY
OCCUPANT UNKNOWN,
319 OCCUPANT UNKNOWN,
335 KADIN, MICHAEL J
365 BERRY, WADE
1090 OCCUPANT UNKNOWN,
1096 OCCUPANT UNKNOWN,
1100 KAPKA, EMERIC W
1130 LINN, JAMES H
1143 OCCUPANT UNKNOWN,
1188 LUTZ, JERRET N
1199 OCCUPANT UNKNOWN,
1205 OCCUPANT UNKNOWN,
1217 CHILDRESS, TYSON J
1220 MAGEE, DAVID W
1231 SCHLUETER, ALBERT H
1232 OCCUPANT UNKNOWN,
1245 ARMENTA, JESUS D
1248 OCCUPANT UNKNOWN,
1259 DILLE, RICHARD A
1260 OBERST, BRUCE
1274 SAARI, JASON D
1277 OCCUPANT UNKNOWN,

SW BROADWAY ST 2014

108 OCCUPANT UNKNOWN,
158 CANYON GLEANERS
OCCUPANT UNKNOWN,
187 DYKSTRA, JIMMY
201 OCCUPANT UNKNOWN,
211 POND, LINDA
218 OCCUPANT UNKNOWN,
228 MILL CITY CITY OF
OCCUPANT UNKNOWN,
233 OCCUPANT UNKNOWN,
236 OCCUPANT UNKNOWN,
PRESBYTERIAN CHURCH MILL CITY
239 PURE INDULGENCE SOAPS
313 ADAMS, LINDA
360 OCCUPANT UNKNOWN,
380 ROBINSON, NICKI D
410 CRENSHAW, NANCY L
504 BELL, ANTHONY G
530 NORTH, SANTIAM A

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SW LINN PL 2014

- 333 PLOTTS, DAVID A
- 345 NORTH SANTIAM CANYON ECONOMIC
OCCUPANT UNKNOWN,
SANTIAM HEARTS TO ARTS
- 405 HALEMEIER DAVID CAROLYN F
HALEMEIER, DAVE E
- 445 DEGERMAN, JOSEPHINE
- 525 ENOS, DENIEL L
- 565 PIETROBONO, CONAN
- 801 OLSON, JOHN
- 815 SMITH, JACK C
- 859 EMERSON, MARVIN L
- 899 MCMULLEN, DUANE F
- 925 OCCUPANT UNKNOWN,
- 955 OCCUPANT UNKNOWN,
- 965 BUCHHOLZ, AIMEE D
- 975 KEYS, MARIANNE L
- 985 OCCUPANT UNKNOWN,

DRAFT

S 1ST AVE 2010

176 BETH COATS AND LARRY DIX
 COLEMAN, SANDRA K
261 HOPKINS, RONALD R
280 BARNES, LAWRENCE
403 STANGE, PAT C
829 CJSM INC
844 CANYON SENIOR CENTER
919 WHITNEY, TROY

DRAFT

SW 1ST AVE 2010

354 CUTTING EDGE TECHNOLOGIES
1019 BILYEU, VELMA M
1046 CAREY, PHIL W
1095 CHARLES, MARTHA J
1210 BENDER, LARRY K
1211 ARK ANIMAL CARE LLC
SANDERS, DANIEL W
1250 TUSCHER, PEGGY J
1271 BLAKELY BRAD
BLAKELY, BRAD S
1281 COOPER, RUSSELL
1285 PAVONI, DANIELA
1291 COREY, ARDEN W

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SW 3RD AVE 2010

- 100 SILVERTON FIRE DEPARTMENT
- 122 THOMPSON, THOMAS J
- 123 AERNI, TRAVIS S
- 150 ANDERSON, JUANITA L
- 151 TURPIN, RANDY J
- 168 THOMPSON, RUSTY
- 169 JJTS VENDING
MILLER, CORINNA J
- 251 FIRST CHRISTIAN CHURCH MILL CY
- 1100 KAPKA, EDITH
- 1188 LUTZ, JERRET N
- 1205 JURY, KENNETH G
- 1217 CHILDRESS, MEGAN
- 1231 SCHLUETER, ALBERT H
- 1259 DILLE, ERIC
- 1274 SAARI, JASON D
- 1277 OCCUPANT UNKNOWN,

DRAFT

SW BROADWAY 2010

228 MILL CITY CITY OF

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SW BROADWAY ST 2010

158	CANYON CLEANERS INC
187	SHIBLES, CHRISTINA
236	PRESBYTERIAN CHURCH MILL CITY
313	SULLIVAN, LARRY
380	MEOLA, JASON
410	CRENSHAW, NANCY L
504	BELL, ANTHONY G
530	NORTH, SANTIAM A

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SW LINN PL 2010

233 ALLISON, KRISTA
245 OCCUPANT UNKNOWN,
345 LINN COUNTY CULTURAL COALITION
OCCUPANT UNKNOWN,
405 HALEMEIER, DAVE E
445 DEGERMAN, JOSEPHINE
565 PYLE, LEESA
801 OLSON, JOHN
815 SMITH J INC
859 EMERSON, ERIC
899 MCMULLEN, DUANE F
955 GINSBACH, BEVERLY J
965 BUCHHOLZ, AIMEE D
975 KEYES, M L
985 FULLER, IRA J

DRAFT

S 1ST AVE

2005

403 STANGE, PAT C
829 G H S M INC
MILL CITY MARKET PLACE
844 CANYON SENIOR CENTER
870 COX, F A

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SW 1ST AVE 2005

354 MCKINLEY, ELIZABETH
1019 BILYEU, VELMA M
1030 THOMAS, D
1046 CAREY, PHIL W
1055 PETERS, KAREN A
1075 MUMEY, DAVID B
1095 CHARLES, ALFRED J
1155 SPEARS, BENNY R
1210 BENDER, LARRY K
1211 OCCUPANT UNKNOWN,
1250 TUSCHER, CLAYTON L
1270 MARTINEZ, LAMBERTO
1271 BLAKELY BRAD
BLAKELY, BRAD S
1281 COOPER, RUSSELL
1291 CANYON MEADOWS
COREY, ARDEN W

DRAFT

SW 3RD AVE 2005

106	HILLYER, VERNON
123	FINNELL, KUN S
150	ANDERSON, VIOLET B
151	BURNS, THOMAS L
168	IRVING, MICHAEL N
169	JJTS VENDING OCCUPANT UNKNOWN,
251	FIRST CHRISTIAN CHURCH

DRAFT

SW BROADWAY 2005

640 FRATERNAL ORDER OF EAGLES

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SW BROADWAY ST 2005

158	CANYON CLEANERS INC
236	PRESBYTERIAN CHURCH MILL CITY
504	HENNESS, JEDEDIAH G
530	NORTH, SANTIAM A

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SW LINN PL

2005

- 233 ALLISON, KRISTA
- 245 SCOTT, LOIS S
- 345 HUTMACHER, NICHOLAS G
- 405 HALEMEIER, DAVE E
- 445 DEGERMAN, J
- 565 MCKINLEY, VICTORIA
- 623 WATSON, WILLIAM C
- 655 BRESHEARS, WILLIAM E
- 701 LUNDQUIST, ROEL C
- 735 LUNDQUIST, ERIK S
- 755 MARTIN, MELISSA L

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S 1ST AV 2000

329	TOHL, A R
403	STANGE, WILLIAM
628	BODEKER, FRANCIS
870	COX, F A
881	GALLUP, JOHN
	PLOWMAN, LARRY
917	MEYER, V M
943	KINDRED, SYLVIA M

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S 1ST AVE

2000

829

G H S M INC

844

CANYON SENIOR CENTER

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SW 1ST AVE 2000

- 1046 CAREY, PHIL W
- 1055 PETERS, KAREN
- 1095 CHARLES, ALFRED J
- 1210 BENDER, LARRY
- 1250 TUSCHER, CLAYTON L
- 1271 BLAKELY BRAD
- BLAKELY, BRAD

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SW 3RD AVE 2000

106 HILLYER, VERNON
151 OSTROM, C C
233 FIRST CHRISTIAN CHURCH

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SW BROADWAY ST 2000

236 PRESBYTERIAN CHURCH MILL CITY

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SW LINN PL 2000

245 SCOTT, JOHN W
345 MOZINGO, MICHEAL
405 HALEMEIER, DAVE
445 SANDS, C D
623 DAVIS, ELLEN M
735 LUNDQUIST, ROEL

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S 1ST 1995

628 BODEKER, FRANCIS
870 COX, CLOYD A

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S 1ST AVE

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- 204 HOOVERS SUPPLY COMPANY INC
- 316 P B S I USED CARS SALES
- 328 MUMEY, DENNIS L
- 329 TOHL, A R
- 403 STANGE, WILLIAM
- 548 JOHNSON, BRAD
- NORTH SANTIAM DENTAL CENTER
- 605 PENNINGTON, JODI
- 829 G H S M INC
- 844 CANYON CRISIS CENTER
- 917 MEYER, PAUL
- 943 KINDRED, EUGENE D

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SW 1ST AVE 1995

1075 HILLESLAND, SPENCER J
1130 WHITE, HARRY E
1150 SCHWARZ, WILLIAM H
1170 HENRY, JOHN
1175 KRECKLOW, PATRICK E
1210 BENDER, LARRY
1211 FREEMAN, FLOYD C
1250 TUSCHER, CLAYTON L
1281 KUHLMAN, RON L

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SW 3RD AVE 1995

123 STEVENS, LEORA Z
151 BURNS, THOMAS
233 FIRST CHRISTIAN CHURCH

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SW BROADWAY 1995

209	BERRY, RICKY
239	CUNNINGHAM, S J
410	FLATMAN, MAUDIE

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SW BROADWAY ST 1995

108 STEWART RENEE M
138 GENES BARBER SHOP
151 PATS VARIETY STORE
158 STEWARTS GROCERY
211 JENKINS, DON
218 KRASAR INC
236 PRESBYTERIAN CHURCH MILL CITY
SMOKEYS CUBS CHILD CARE
240 GUYS AND GALS CUT AND STYLE
313 KINDRED, MATTHEW
360 S&S TRADING POST
504 SWAN, B

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SW LINN PL

1995

245 SCOTT, JOHN W
333 KELLY, CHARLES
345 MOZINGO, MICHEAL
445 SANDS, C D
565 OLSON, RICHARD L

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SW LINN PL ST

1995

405 HALEMEIER, DAVE

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S 1ST AVE

1992

- 204 HOOVERS SUPPLY COMPANY INC
WEEK-ENDERS SHOP
- 316 P B S I USED CARS SALES
- 325 DITTER, GEORGE
- 329 TOHL, A R
- 375 WARD VICKI
- 548 NORTH SANTIAM DENTAL CENTER
- 627 WALL, JOHNIE
- 829 G H S M INC
- 844 CANYON CRISIS CENTER
HIRTES MARKET
- 847 CUNNINGHAM, S J
- 870 COX, C A
- 548260 JOHNSON, BRAD

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1992

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1992

403 STANGE, WILLIAM

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1992

917 MEYER, PAUL

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SW 1ST AVE 1992

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1130 WHITE, HARRY E
1210 BENDER, LARRY
1211 FREEMAN, FLOYD C
1250 TUSCHER, CLAYTON L
1281 KUHLMAN, RON L

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SW 3RD AVE 1992

122 RICHARDS, GARY
169 QUACKENBUSH, PAUL
710 MCCLELLAN, PAT
1041 SHEPHERD, KERRY
1107 CURTIS, BOB C
1149 MADRID, CHARLES S

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123 STEVENS, LEORA Z

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151 LAKE, CECIL

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138 GENES BARBER SHOP
158 STEWART GROCERY
218 KRASAR INC

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SW LINN PL 1992

333 KELLY, CHARLES
405 HALEMEIER, DAVE

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SW LINN PL BOX 122

1992

245 SCOTT, JOHN W

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Appendix B.

Regulatory Records

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**Decision Summary
Whitten Addition
Mill City, Oregon**

ECSI NO. 4199

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**Prepared By
Oregon Department of Environmental Quality
Western Region Cleanup Program**

**Decision Summary
Whitten Addition
Mill City, Oregon**

Contents

- I. Introduction and Purpose**
- II. Site Background**
- III. Site Investigation and Remediation**
- IV. Conclusions and Recommendations**
- V. Documentation Used as Basis for NFA**

Attachments

- Figure 1 Site Location
- Figure 3 Initial Sampling
- Figure 4 Groundwater and Soil Sampling Points
- Figure 5 Confirmation Sampling

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**Decision Summary
Whitten Addition
Mill City, Oregon**

Project Name: Whitten Addition
Project Address: Corner of 1st and Cedar Streets, no address, TS 9 S, 3 E
Sec. 29 SW ¼
Tax Lot: 200
Size: 2.75 Acres
ECSI #: 4199
Letter Agreement Date: November 18, 2004 VCP Agreement (No DEQ Oversight)
DEQ Project Manager: Nancy Gramlich

I. Introduction and Purpose

This document presents a summary of the investigation and cleanup activities that occurred between March 2004 and October 2005 at the Whitten Addition site located at the corner of 1st and Cedar Streets in Mill City, Oregon and depicted on Figure 1 attached. The site investigation and subsequent cleanup involved the following: Level I Environmental Assessment; Soil sampling; Subsurface soil and groundwater assessment; Soil removal, transport, and disposal; and Confirmatory sampling. The purpose of the Decision Summary is to document the Oregon Department of Environmental Quality's (DEQ's) rationale for no further action (NFA) at the site. Details regarding this decision are based on reports prepared by Capital Environmental and Tim O'Gara for Scott Baughman Construction, and current owner of the site. The fieldwork and cleanup was conducted with minimal oversight by DEQ. In November 2004, DEQ evaluated the work completed and visited the site to assess where the environmental cleanup activities were conducted and identify the locations of the investigative data collected. In December 2004, DEQ requested clarification on the data inconsistencies amongst the reports and supplemental data pertaining to sampling, cleanup levels, and soil backfill and disposal. Between August and October 2005, the requested information was submitted to DEQ. Between August and November 2005, DEQ reviewed the supplemental information and revisited the site in order to document the progression of site development activities.

II. Site Background

Site History

Between the mid-1950's and late 1990s, a commercial log truck parking and washing business operated at the site. The operations included: Oiling gravel roads for dust suppression; Above ground fueling tanks; and Truck washing and cleaning. The site has been vacant for many years. The site was sold to Scott Baughman in 2003. The current owner plans to build a medical center and houses on the site. During DEQ's site visit on November 23, 2004, buildings were being demolished and roads were being installed to accommodate this future development. Scott Baughman joined DEQ's Voluntary Cleanup Program (VCP) in November 2004 to obtain a NFA letter for the site investigations and cleanup that occurred on the site. Although the agreement was VCP, the site investigations and cleanup were done with no oversight by DEQ. The investigations and cleanup were implemented prior to joining the cleanup program.

Size and Location

The site is located in Linn County in the City of Mill City on the corner of 1st and Cedar and designated as tax lot 200. The site encompasses approximately 2.75 acres and has recently been divided into 6 separate lots for the ongoing commercial and residential development activities. The log trucking support buildings have been removed. A paved roadway, along with a storm water collection system, has been installed to support access to and development on the 6 lots. Currently, approximately 30-40% of the site is covered by new roadways and buildings, and a storage building for the owners' construction equipment. In the future, 80-90% of the site will be covered by roadways and structures.

III Site Investigation and Remediation

Beneficial Use of Groundwater

A water well search was conducted and no wells were identified in Section 29 or 30 on the Linn County side of the North Santiam River where the site is located. There are water well logs on the Marion County side of the river, but there are no suspected impacts to these wells from the site. Figure 1 illustrates the Linn and Marion County divide. Drinking water is supplied by the City in this area of Mill City. New developments will connect to city water and sewer.

Land Use

The site is zoned commercial. In the town of Mill City, lots zoned as industrial can be utilized for commercial and residential. Lots zoned for commercial can be utilized for residential. Residential lots are exclusively residential. The reasonably likely future uses for this site are: Commercial upper bluff, approximately 1.1 acre; Residential on the upper terrace, approximately .75 acres; and lower terrace no development (buffer zone), approximately .9 acres.

Environmental Setting

The site is located on a bluff overlooking the North Santiam River. The site is actually bounded on the west and north by the North Santiam River. The main upper portion of the site, which constitutes 1.1 acres, is where the log truck operations were located (Figure 4). The lower portion of the site is broken into two terraces. The upper terrace is where the homes will be built. The lower terrace drops off to the river bank and will not be developed. According to the information in the Level I, log operations were confined to the upper portion of the site. In addition, due to the lack of roads and the bluff, access to the lower terraces was most likely limited.

Excavation test pits on site have shown that the subsurface is cobblestones, sand, and boulders in a silty clay matrix.

Well logs west of the site indicate that the local subsurface is comprised of sand, gravel, and boulders, with areas where the matrix within the soil is a silty clay.

Regionally groundwater flows down the river valley to the west. At the site, it appears the geology forces the shallow groundwater to the eastern edge of the upper terrace, near test pits 3-B and 6-B (Figure 4).

Surface storm water from the upper portion of the site formerly flowed northeast onto the upper terrace. In preparation for future development, a city approved storm water system, along with grading and paved roadways, were installed to direct storm water into a collection basin and provide access to the 6 lots, respectively.

Investigation and Remediation

The March 2004 Level I document identified the areas for the former operations that could have resulted in petroleum releases. The former operations identified include: Periodic oiling of gravel roads with waste oil; Surface spills from two above ground fueling tanks; and Oil and grease impacted soil from truck washing and cleaning. The March 2004 Preliminary Site Investigation document, summarizes the subsurface assessment that was conducted in December 2003 to determine the nature and extent of petroleum contamination at the site. Environmental investigations and cleanup occurred where these operations were most likely located from December 2003 through August 2004 with no DEQ oversight. The environmental investigation and remediation data was presented in the 2004 reports listed in Section V of this document. A summary of the investigative findings follows:

Cleanup Levels Applied to the Site

- The Soil Matrix value calculated for the site is 500 mg/kg. The petroleum contamination was confined to soil on the upper portion of the site. Therefore, the soil matrix value of 500 mg/kg was applied as safe level for occupational, construction and excavation worker contact with soil.

- For the soil and groundwater assessment down gradient of the upper portion of the site, Risk Based Concentrations (RBCs) for residential, and excavation worker from *DEQ's Risk Based Decision Making for the Remediation of Petroleum Contaminated Sites* were applied.
- Region IX PRGs; Oregon DEQ default background values; 20:1 TCLP 20 X rule were applied for lead, chromium, and cadmium.

Subsurface Assessment for Petroleum Contamination

In December 2003, 17 test pits were constructed throughout the upper portion of the site to assess the shallow subsurface in the former operation areas that were identified in the Phase I. Test pits were dug instead of using a drilling rig or geoprobe due to the presence of large stones and for cost savings. The average depth for the test pits was 2.5 feet. Soil samples were initially tested for petroleum according to NWTPH-HCID. Results indicated the presence of diesel and heavy oil. Samples with detections were further sampled for Diesel and Heavy Oil. The highest detection was at 2 feet below grade in test pit 18A (1590 mg/kg). Most results were below the calculated soil matrix value of 500 mg/kg (15 out of 17 samples). Only 2 samples exceeded 500 mg/kg. If a more conservative soil matrix value of 100 mg/kg is applied to the site, almost ½ of the samples (8 out of 17 samples) fall below 100. No water was encountered in the pits. Figure 3 illustrates the sampling locations. Table 1 below summarizes the soil results:

Table 1 – Whitten Addition Initial Soil Sampling Test Pit Results

Sample ID	Diesel mg/kg	Heavy Oil mg/kg
TP1A 4 feet	66	Not Detected @ 100
TP2A 1 foot	62	Not Detected @ 100
TP3A 1 foot	Not Detected @ 50	Not Detected @ 100
TP5A 1 foot	77	Not Detected @ 100
TP6A 9 feet	37	311
TP6A 4 feet	103	463
TP7A composite	47	450
TP7A 7 feet	Not Detected @ 50	Not Detected @ 100
TP8A 1 foot	Not Detected @ 50	182
TP15A 2 feet	Not Detected @ 50	Not Detected @ 100
TP16A 2 feet	Not Detected @ 50	Not Detected @ 100
TP17A 2 feet	Not Detected @ 50	187
TP18A 2 feet	95	1590
TP19A 2 feet	446	Not Detected @ 100
TP20A 2 feet	Not Detected @ 50	Not Detected @ 100
Bldg 1 foot	258	692
Bldg 1 foot	Not Detected @ 50	430

Based on the analytical results, the near surface and depth soil samples contained diesel and heavy oil at low levels in 12 locations. The majority of the contamination was found in the truck washing and former dispatch building areas 1 & 2 (Figure 3), with some contamination from the oiling of roads.

Groundwater and Soil Water Interface Assessment

Although petroleum contamination was considered to be limited to soil, in March 2004, six test pits (TP-1B through TP-6B) 4 to 5 feet below grade were dug on the terraces to assess down gradient soil and shallow groundwater for petroleum constituent data (Figure 4). No groundwater was encountered in TP-1B. Groundwater samples were collected from TP-2B through TP-6B. Soil samples were collected at the soil-water interface in pits 3, 5, and 6. All soil and water samples collected were analyzed for petroleum volatile organic compounds (VOCs) per EPA Test Method 8260B and poly aromatic hydrocarbons (PAHs) per EPA Test Method 8270sim. Figure 4 illustrates the sampling locations. The results are summarized in Table 2 below:

Table 2: Soil and Groundwater Test Pit Results, Whitten Addition Terraces

Sample ID	Media	VOCs	PAHs
TP1B	No water	NS	NS
TP2B	Water ug/l	ND	ND
TP3B	Soil mg/kg	ND	ND
TP3B	Water ug/l	ND	ND
TP4B	Water ug/l	ND	ND
TP5B	Soil mg/kg	ND	ND
TP5B	Water ug/l	ND	ND
TP6B	Soil mg/kg	ND	ND
TP6B	Water ug/l	ND	Pyrene .0253; Indeno(1,2,3-cd) pyrene .0207; Benzo(g,h,i)perylene .0316

NS = Not sampled; ND – Not Detected

Detection Limit for PAHs, water .02 ug/l

Detection Limit for VOCs, water 1 ug/l or .4 ug/l benzene, 2 ug/l xylene

Detection Limit for PAHs, soil .0067 mg/kg

Detection Limit for VOCs, soil .01 mg/kg or .02 mg/kg xylene

Based on the review of this analytical data, the detection limits and detected concentrations are lower than the applicable RBCs in Appendix A: Table of RBCs of DEQ's September 2003, Risk-Based Decision Making document. Table 3 below utilizes the most conservative RBC

(residential) for the water and soil-water interface data. The data indicates that groundwater and soil on the terraces has been minimally impacted from the petroleum contamination on the upper portion of the site. PAHs were detected above the reporting limit at TP6B (Figure 4) on the terraces, but below the most conservative residential RBCs.

Table 3: Soil and GW Applicable Exposure Scenarios, Whitten Addition

RBC Category	Medium	Reporting Limit	Concentration	Units	Most Conservative Screening Value
RBC Soil Contact Residential	Soil	VOCs<=.01, .02	Not Detected(ND)	mg/kg	6.9
RBC Soil Contact Residential	Soil	PAHs<=.006 7	ND	mg/kg	0.62
Soil Vapor Intrusion Residential	Soil	VOCs<=.01, .02	ND	mg/kg	0.068
Soil Vapor Intrusion Residential	Soil	PAHs<=.006 7	ND	mg/kg	0.022
Soil Volatilization Outdoor Air Residential	Soil	VOCs<=.01, .02	ND	mg/kg	8.5
Soil Volatilization Outdoor Air Residential	Soil	PAHs<=.006 7	ND	mg/kg	2.5
RBC GW Contact Excavations	Water	VOCs<=.4, 1, 2	ND	ug/l	1700
RBC GW Contact Excavations	Water	PAHs<=.02	Pyrene .0253; Indeno(1,2,3- cd) pyrene .0207; Benzo(g,h,i)per ylene .0316	ug/l	0.21
GW Vapor Intrusion Residential	Water	VOCs<=.4, 1, 2	ND	ug/l	160
GW Vapor Intrusion Residential	Water	PAHs<=.02	Pyrene .0253; Indeno(1,2,3- cd) pyrene .0207; Benzo(g,h,i)per ylene .0316	ug/l	110
RBC GW Volatilization Outdoor Air	Water	VOCs<=.4, 1, 2	ND	ug/l	8.5
RBC GW Volatilization Outdoor Air	Water	PAHs<=.02	Pyrene .0253; Indeno(1,2,3- cd) pyrene .0207; Benzo(g,h,i)per ylene .0316	ug/l	2.5

Soil Excavation and Confirmatory Sampling

In August 2004, soil that was noticeably contaminated (120 tons) was excavated, loaded into trucks and taken directly to the Riverbend Landfill. Forty tons of excavated soil was stockpiled on site for future placement or removal. On August 31, 2004, the stockpiled soil was sampled.

Analytical results indicated low levels of diesel (<40 mg/kg) and Weathered Heavy Oil (400-740 mg/kg). On August 31, 2004, 7 post excavation confirmation samples were taken on the upper portion of the site and 4 post excavation samples were taken on the upper terrace. The samples were collected from the upper 6 inches of soil. Figure 5 illustrates the locations of the excavations and confirmatory samples. The confirmatory samples were taken in the excavated areas. Table 4 below summarizes the results of the confirmatory samples:

Table 4: Post Excavation Confirmatory Sampling, Whitten Addition

Sample ID	Diesel mg/kg	Heavy Oil Mg/kg
MC-R1	ND	ND
MC-R2	ND	ND
MC-R3	ND	ND
MC-R4	ND	ND
MC-R5	ND	ND
MC-M1	ND	ND
MC-M2	ND	ND
MC-S1	ND	ND
MC-S2	25	167
MC-S3	ND	ND
MC-S4	ND	443

ND = Not Detected at Reporting Limit: 25 mg/kg diesel, 100 mg/kg heavy oil

In November 2004, the stockpiled soil was moved from the Whitten Addition site to a vacant lot owned by Mr. Baughman several miles down the road. In December 2004, DEQ informed Mr. Baughman he needed to apply for a solid waste permit for the transfer of the soil to the vacant lot. In January 2005, the soil on the vacant lot was tested for diesel and heavy oil. Diesel concentrations ranged from 38 to 58 mg/kg. Heavy Oil concentrations ranged from 190 to 240 mg/kg. In August 2005, Mr. Baughman opted to screen the 40 tons of soil for large rocks and transported 25 tons of soil to the Riverbend Landfill, despite the low concentrations detected. DEQ received a report summarizing the above information on August 26, 2005.

In December 2004, DEQ requested an explanation for why non-petroleum VOCs, such as chlorinated solvents, and metals (chromium; lead; cadmium) were not assessed when used oil was potentially present. As per OAR 340-122-0320 Soil Matrix Cleanup Options, in order to apply the Soil Matrix Option for used oil contaminated soil, soil must be sampled for the full suite of VOCs and leachable metals. In October 2005, DEQ requested confirmatory sampling for the full suite of VOCs and metals in the worst case areas on the upper portion of the site, and soil and groundwater sampling on the upper terrace worst case location. DEQ received a report

summarizing the above information on October 12, 2005. A summary of this sampling event follows:

Two soil samples and one water sample were collected and sampled for VOCs and metals in the worst case areas that were previously excavated. Figure 3 illustrates the sampling locations for the used oil assessment. Test pits were dug to collect the soil and water samples below the clean backfill. The water was collected at 8 feet. The soil samples were collected at a depth below the clean fill and / or roadway. No VOCs were detected in soil or water. Low levels of total lead (15 and 16 mg/kg) were detected in soil. The lead levels detected are below the Oregon DEQ Default Background value of 17 mg/kg and the residential Region IX PRG of 400. Chromium levels were not detected above the detection limit of 1 mg/kg. The 1 mg/kg level is less than the PRG of 210 mg/kg and Oregon DEQ Default Background value of 42 mg/kg. Cadmium levels were not detected above the detection limit of 1 mg/kg. The 1 mg/kg level is less than the PRG of 37 mg/kg and at the Oregon DEQ Default Background value of 1 mg/kg for cadmium. Utilizing the 20:1 ratio for total metals, concentrations fall below the TCLP values.

Based on the confirmatory sampling results, the soil excavations were successful and there is no suspected threat to human health. Confirmation soil samples that were collected from the excavated areas on the upper portion and down gradient areas primarily indicated Diesel at or below 25 mg/kg and Heavy Oil at or below 100 mg/kg. The site calculated Soil Matrix is 500 mg/kg. Only 2 samples on the slope indicated heavy oil at 167 and 443 mg/kg, which is still below the calculated site Soil Matrix value of 500 mg/kg. Additionally, for these 2 samples, the lab report indicates that the heavy oil may be part or all due to plant matter. During the excavations groundwater was not encountered, which demonstrates the applicability of utilizing the Soil Matrix approach for the upper portion of the site. As a precaution, soil and groundwater was assessed on the terrace to confirm that petroleum contamination was primarily confined to the upper portion of the site and residual contamination was below the residential RBCs. Post excavation and confirmatory sampling, the upper portion of the site and the upper terrace were subsequently graded and backfilled with clean soil and is now covered by clean fill or paved roadway. These actions further mitigated any suspected exposure pathway to human receptors.

Ecological Assessment

A detailed ecological risk assessment was not performed because exposure pathways to off-site and on-site ecological receptors are either incomplete or insignificant. The upper portion of the site is on a bluff and 200 feet away from the North Santiam River. The soil and groundwater data on the eastern edge of the terrace, which is the preferential pathway for shallow groundwater, indicates that except for Benzo[a]pyrene (.014 ug/l) and Benzo[a] anthracene (.027 ug/l) screening levels, VOC and PAH concentrations are below the *DEQ Guidance for Ecological Risk Assessment Level II* Table 1 screening level values for plants, invertebrates, and wildlife exposed to soil and surface water. For all samples (Table 3 above data), lab results indicate non-

detect at .02 ug/l for both constituents. If ½ the reporting limit is used to represent the concentrations, than these 2 constituents could potentially be present at .005 ug/l. This value is below the screening value. Additionally, these data results represent groundwater, not surface water or surface water runoff being discharged to the river. Post excavation and confirmatory sampling, the upper portion of the site and the upper terrace were subsequently graded and roadways were installed. These actions further mitigated any suspected exposure pathway to ecological receptors in the future.

Public Notice

The notification for DEQ's recommendation and comment period was published in the Secretary of State's Bulletin on November 1, 2005. A legal notice was also published in the Mill City Independent Press and The Stayton Mail, which are the common news circulations for this area. A DEQ news release was also issued the week of November 1, 2005. The comment period was held from November 1 to November 30, 2005. No comments were received.

IV. Conclusions and Recommendations

A Phase I Environmental Assessment completed at the site identified the operations and the operation areas at the former log trucking business. The former operation areas were further evaluated and addressed prior to joining DEQ's Voluntary Cleanup Program. DEQ evaluated the initial work completed and requested supplemental information in December 2004. DEQ received and reviewed the supplemental information between August and October 2005.

Remedial activities consisting of soil excavation in the former operation areas and off-site disposal was implemented. A total of approximately 160 tons of impacted soil was removed, and the 14 confirmation soil samples that were collected from the excavated areas indicated petroleum hydrocarbons below 500 mg/kg or not detected. Since March 2004, the site has been extensively graded and reconfigured for redevelopment purposes, which includes building demolition, roadways, and a storm water drainage system. No complete exposure pathway and no current or future reasonably likely exposure to human or ecological receptors is suspected at the site.

Based on this information, DEQ concludes that no additional investigation or removals are required in the operation areas. The soil excavation, grading, and filling has adequately mitigated any potential threat to human health or the environment posed by petroleum hydrocarbons. In the future, 80-90 percent of the upper 1.1 acres will be covered by roadways and commercial buildings. Based on the soil and groundwater data from the upper terrace area, petroleum contamination appears to have been confined to the upper portion of the site. The soil excavation and confirmatory sampling conducted on the terrace further confirms this confinement.

The DEQ Voluntary Cleanup Program considers the investigation and cleanup at the site to be complete and recommends that, unless new or previously undisclosed information becomes available which warrants further investigation, DEQ require no further action for environmental impacts to soil from petroleum contamination in the former operation areas at the site under ORS 465.200, *et. seq.*

V. Documentation Used as Basis for No Further Action

Level One Environmental Assessment Report, Whitten Addition, prepared by Capitol Environmental Consulting and dated March 4, 2004.

Preliminary Site Investigation Report, Whitten Addition, prepared by Capitol Environmental Consulting and dated March 14, 2004.

Site Geology Report and Ground Water Investigation, prepared by Tim O’Gara and dated March 23, 2004.

Independent Cleanup Pathway(ICP) Final Report for Whitten Addition, ECSI 4199, prepared by Tim O’Gara and dated November 17, 2004.

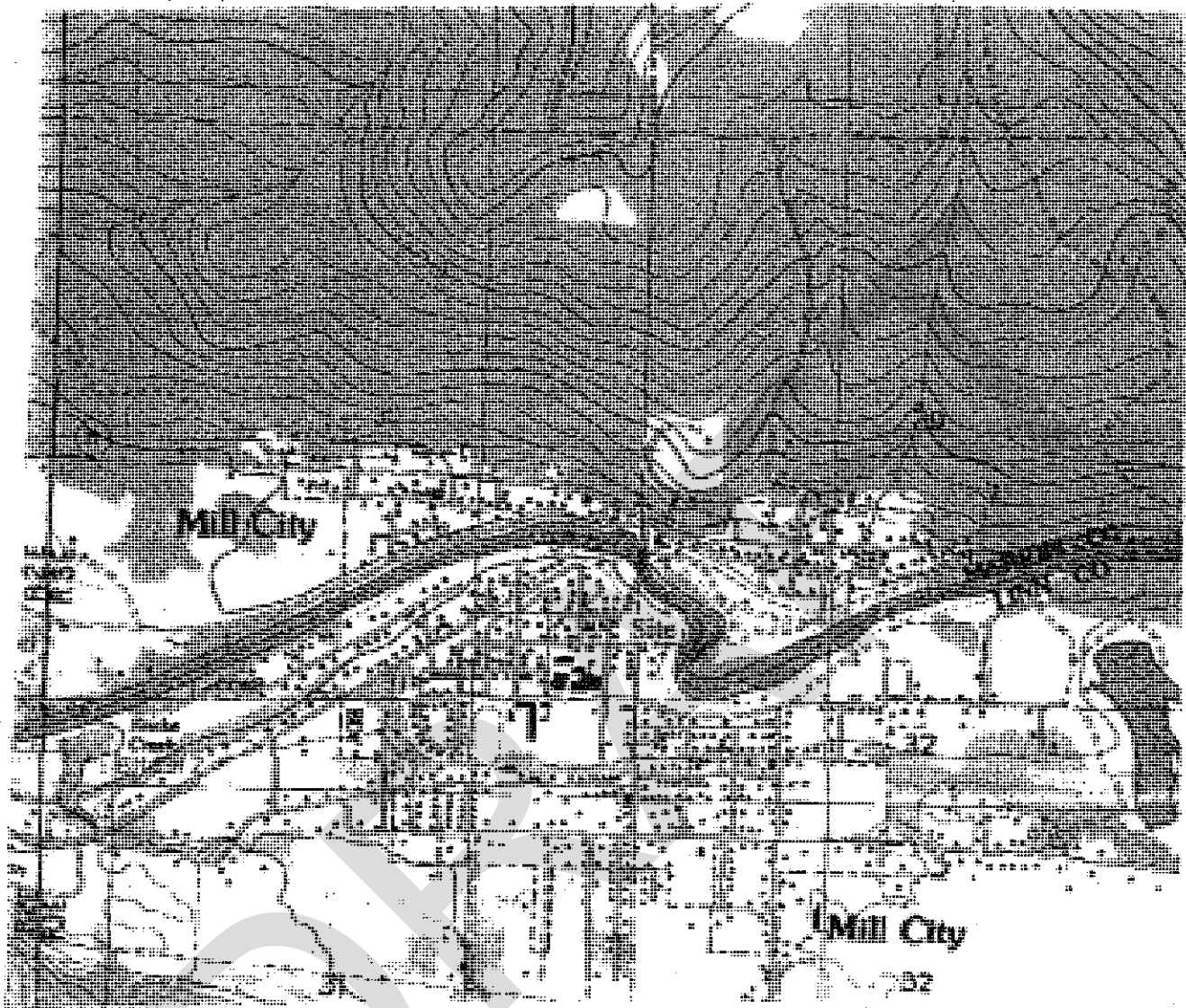
Fax addressing discrepancies in the November 2004 ICP Report, prepared by Tim O’Gara and dated December 10, 2004.

Fax from Riverbend Landfill, waste management profile sheets for soil disposal, December 14, 2004.

Recent Property Work Summary, Baughman Whitten Addition Independent Cleanup, Mill City, ECSI 4199, prepared by Capitol Environmental Consulting and dated August 25, 2005.

Whitten Addition Property Chlorinated VOCs and Metals Sampling, prepared by Capitol Environmental Consulting and dated October 11, 2005.

Whitten Addition Property Soil Matrix Calculation, prepared by Capitol Environmental Consulting and dated October 12, 2005.



North

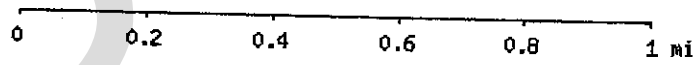


Figure 1
Site Location

The DEQ Voluntary Cleanup Program considers the investigation and cleanup at the site to be complete and recommends that, unless new or previously undisclosed information becomes available which warrants further investigation, DEQ require no further action for environmental impacts to soil from petroleum contamination in the former operation areas at the site under ORS 465.200, *et. seq.*

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Do not use

STREET AND UTILITIES

TENTATIVE SUBDIVISION

WHITTEN ADDITION TO MILL CITY

SW 1/4 SECTION 29, T. 9 S., R. 3 E., W.M.
MILL CITY, LINN COUNTY, OREGON

SCALE AS SHOWN

DEC. 11, 2003



SCALE

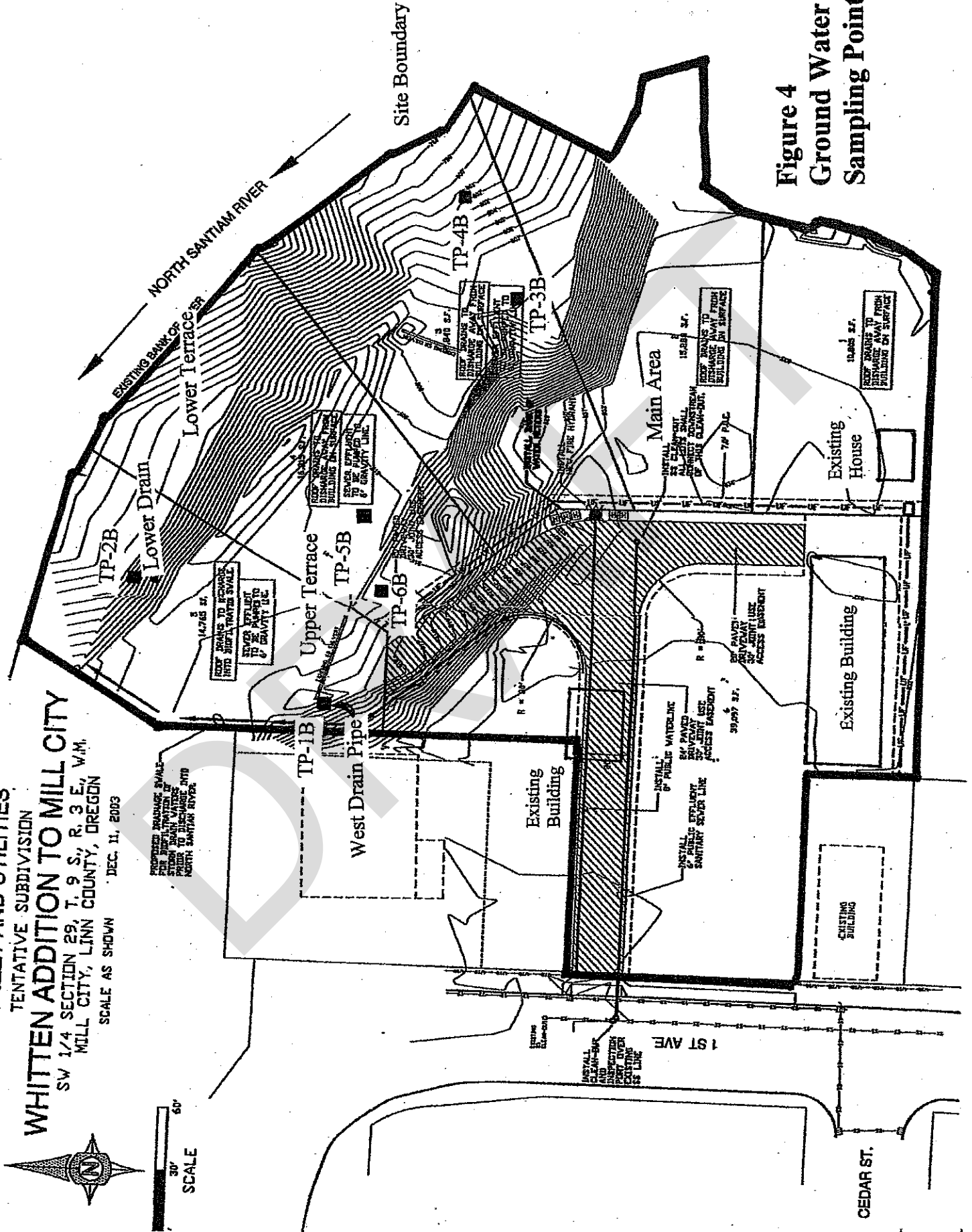


Figure 4
Ground Water
Sampling Points

STREET AND UTILITIES
 TENTATIVE SUBDIVISION
WHITTEN ADDITION TO MILL CITY
 SW 1/4 SECTION 29, T. 9 S., R. 3 E., W.M.
 MILL CITY, LINN COUNTY, OREGON
 SCALE AS SHOWN DEC. 11, 2003



30'
60'
SCALE

PROPOSED DRAINAGE SWALE:
 THE DIRECTION OF
 FLOW IS INDICATED BY
 ARROWS AND IS INTO
 NORTH SANTIAM RIVER.

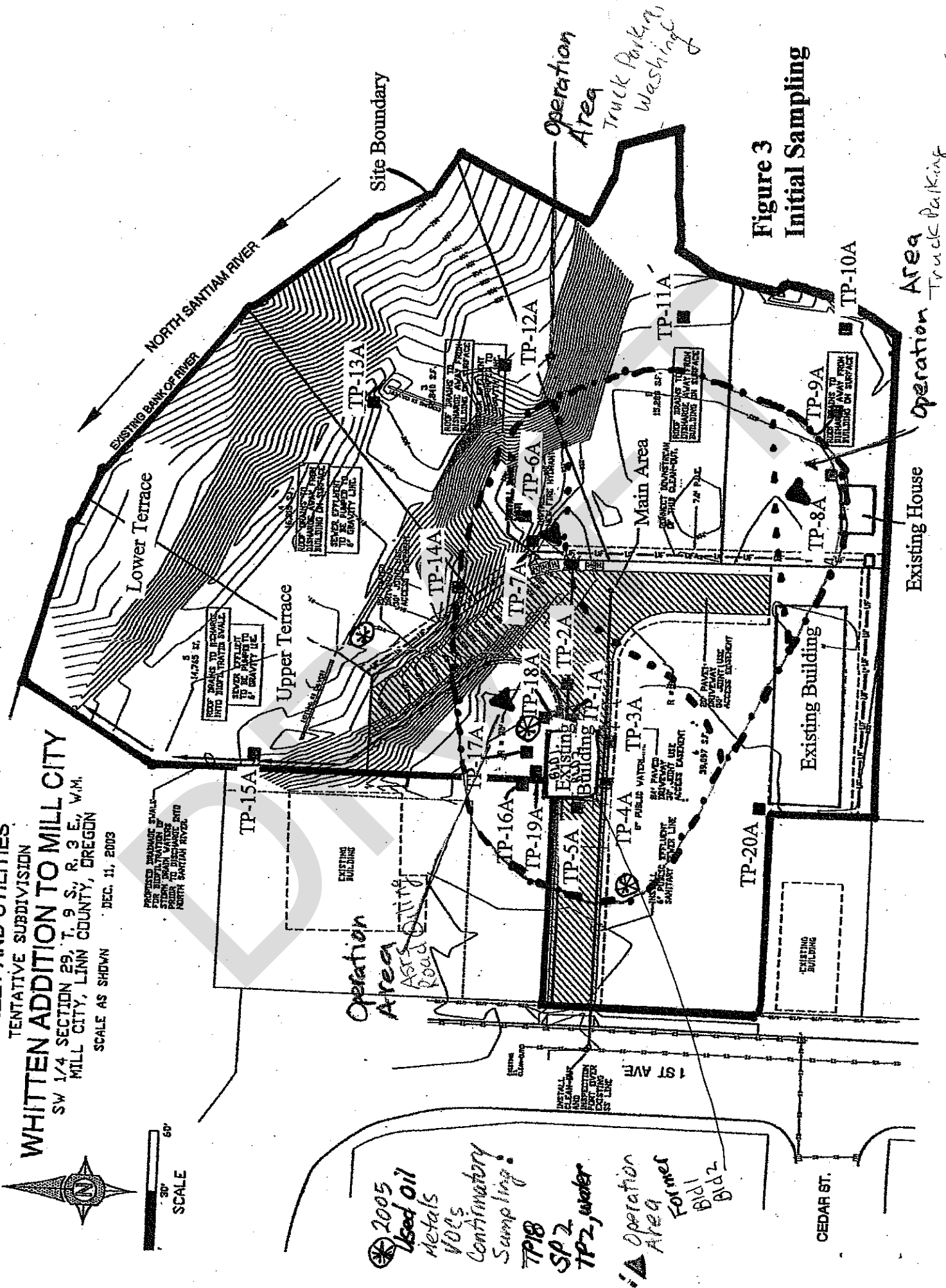


Figure 3
Initial Sampling

Operation Area
ASTS Conting Road

Operation Area
Truck Parking
Washing

Operation Area
Truck Parking

2005 Used oil
 Metals
 VOCs
 Contaminatory
 Sampling:
 TP18
 SP 2
 TP2, water

Operation Area
 Former
 Bldg 2
 Bldg 1

CEDAR ST.

1ST AVE

STREET AND UTILITIES

TENTATIVE SUBDIVISION

WHITTEN ADDITION TO MILL CITY

SW 1/4 SECTION 29, T. 9 S., R. 3 E., V.M.
MILL CITY, LINN COUNTY, OREGON

SCALE AS SHOWN

DEC. 11, 2003



SCALE

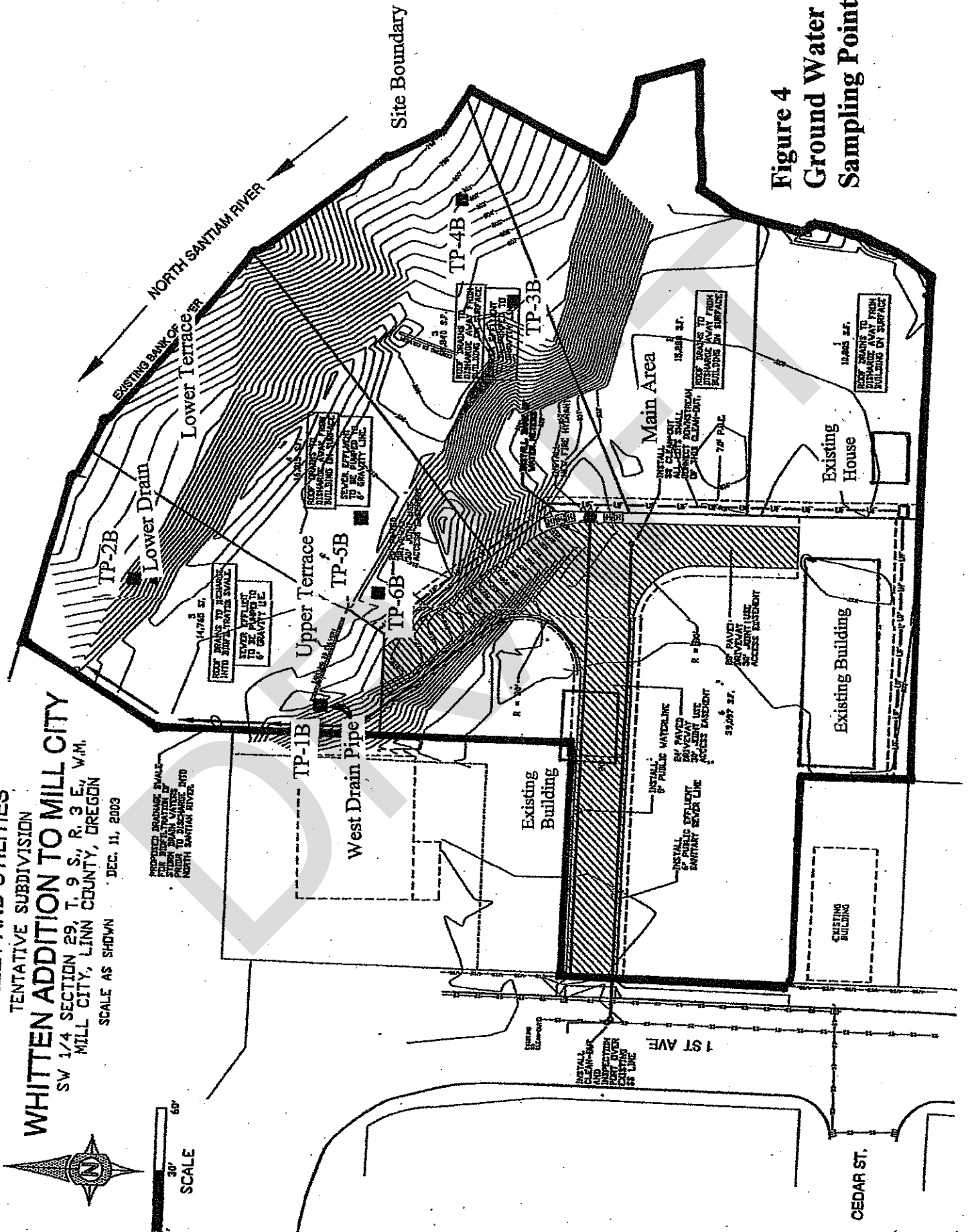


Figure 4
Ground Water
Sampling Points

STREET AND UTILITIES

TENTATIVE SUBDIVISION

WHITTEN ADDITION TO MILL CITY

SW 1/4 SECTION 29, T. 9 S., R. 3 E., W.M.
MILL CITY, LINN COUNTY, OREGON

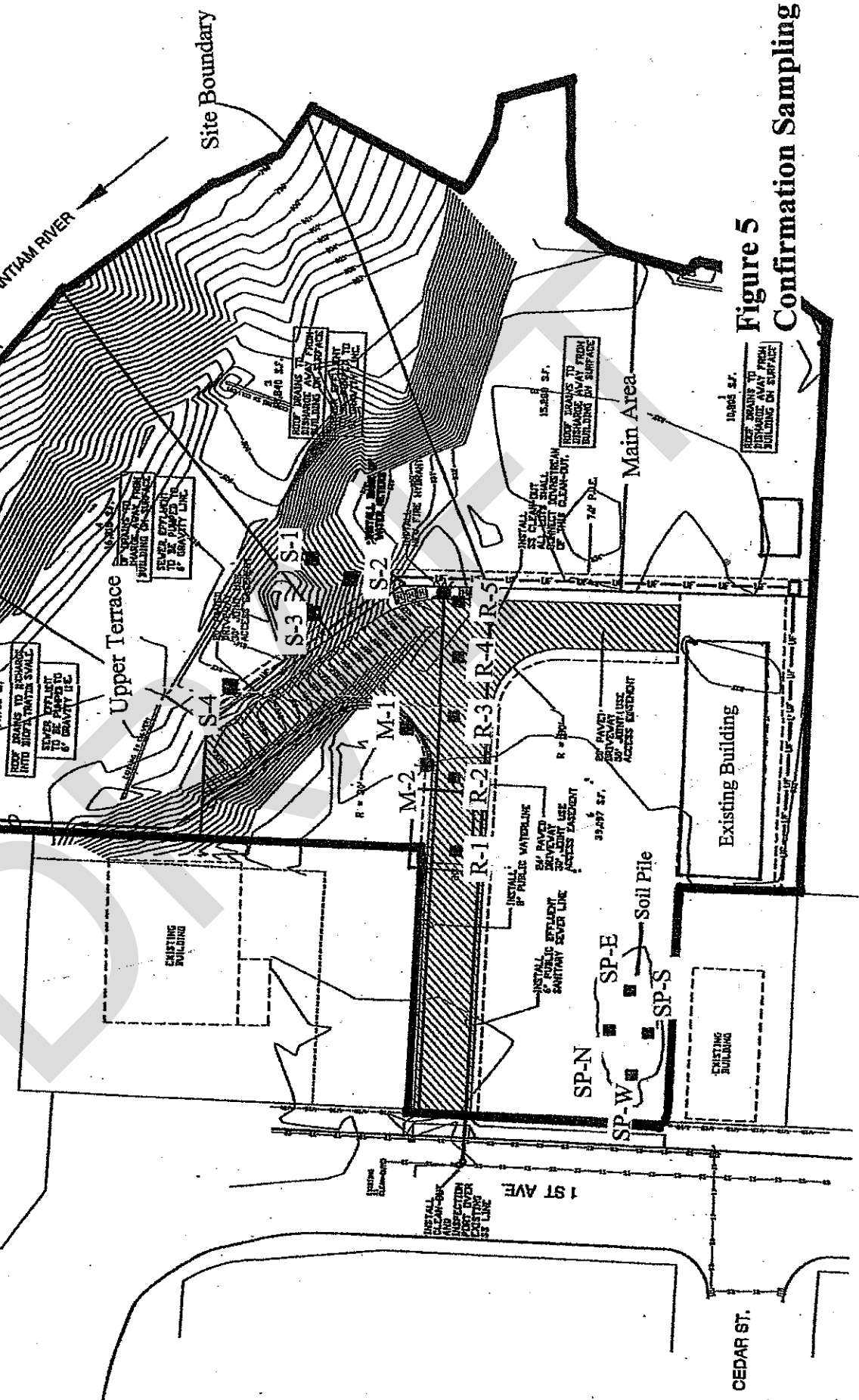
SCALE AS SHOWN

DEC. 11, 2003



SCALE

PROPOSED TRAMPING SWALE FOR USE AS A FILTER STRIP TO BE PLACED UPSTREAM FROM THE EXISTING SWALE TO DISCHARGE INTO NORTH SANTIAM RIVER.



CEDAR ST.

1ST AVE

Existing Building

Main Area

Site Boundary

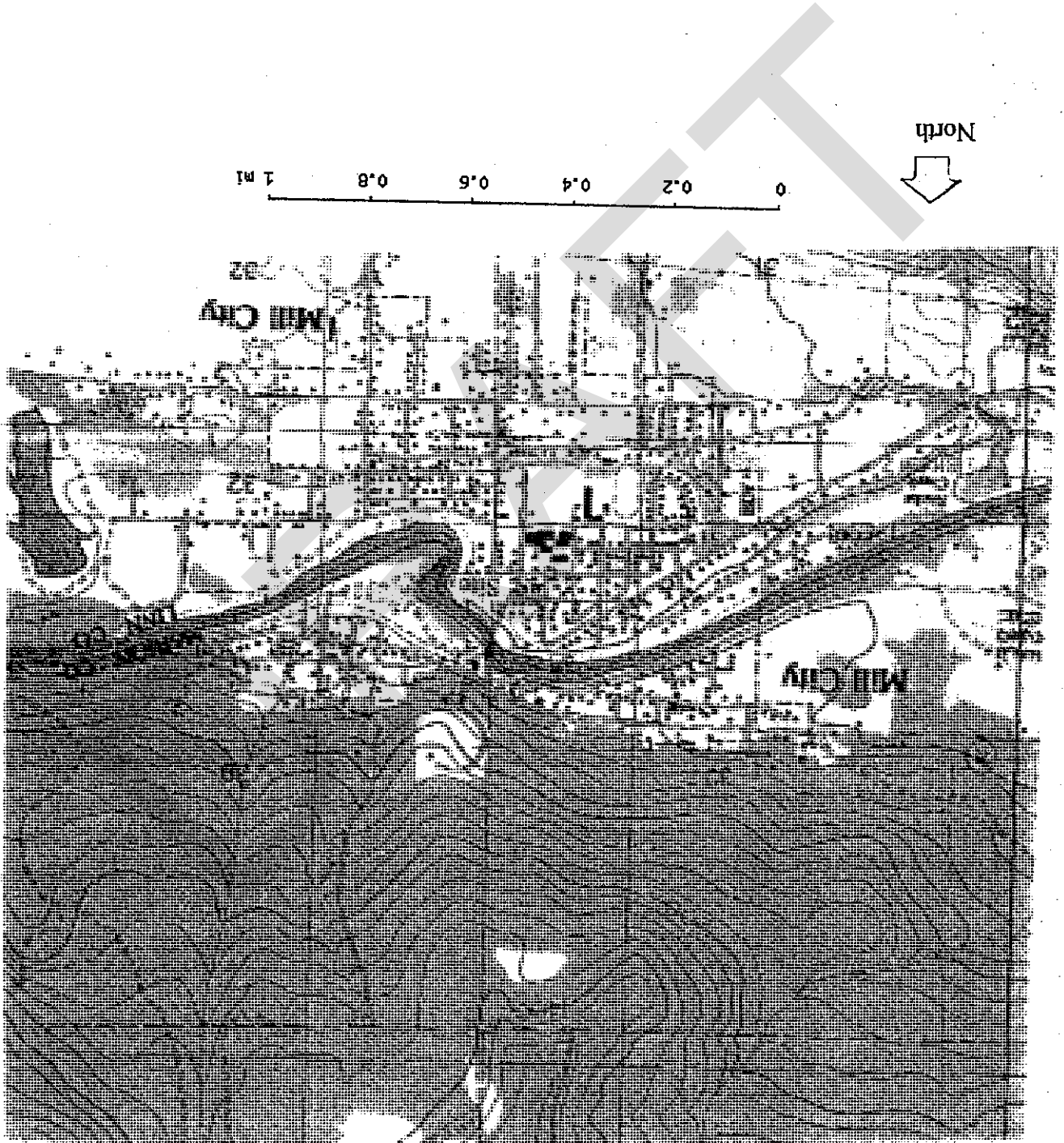
Lower Terrace

Upper Terrace

EXISTING BANK OF RIVER
NORTH SANTIAM RIVER

Figure 5
Confirmation Sampling

Figure 1
Site Location



DRAFT



DEPARTMENT OF ENVIRONMENTAL QUALITY
WESTERN REGION -- SALEM OFFICE

750 FRONT STREET NE, SUITE 120

SALEM OR 97301-1039

PHONE: (503) 378-8240

259

FAX: (503) 373-7944

State of Oregon
Department of
Environmental
Quality

DATE: 12/14/05

NUMBER OF PAGES: 1

FROM: N Gramlich

TO: MAX

COMPANY: DEQ

PHONE: _____ FAX: _____

COMMENTS:

Figure 2 - If needed
written

1 ST AVE.

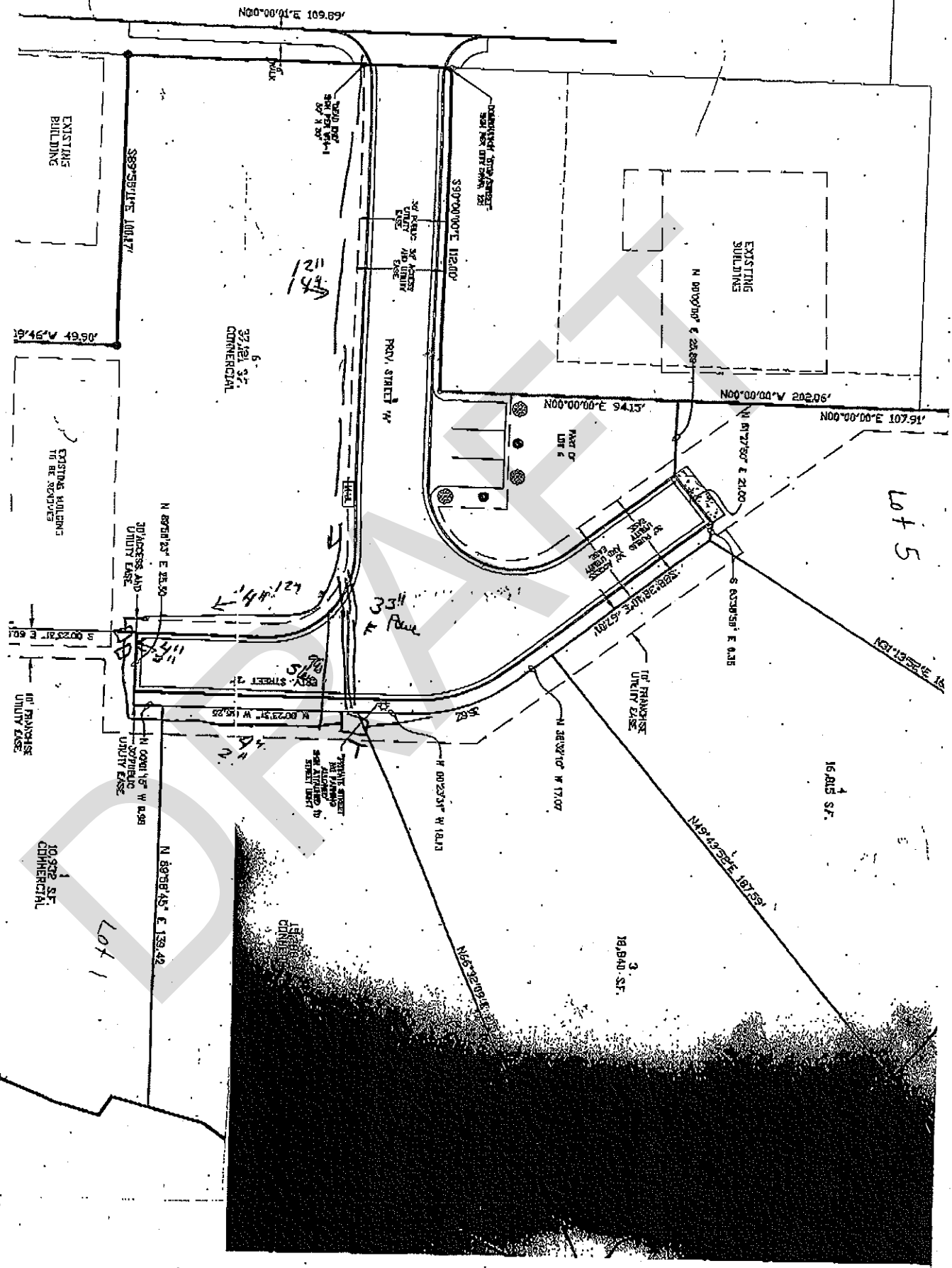
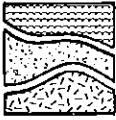


Figure 2
Site Development
White Addition

4255 oak ridge road
p.o. box 1317lake oswego, oregon 97035
tel. (503) 635-4419Mr. Doug Sweetland
153 Peachtree Lane, N.E.
Albany, Oregon 97321Re: Underground Storage Tank Removal And
Soil Testing, Mill City Shell Station

Dear Mr. Sweetland:

This letter presents the results of our observations of December 7 and 8, 1989, during the permanent decommissioning of four underground storage tanks located at the Mill City Shell Station site. The site is located at 108 S.W. First Avenue in Mill City, Oregon (refer, Figure 1).

1. Personnel from OnLine Construction were present at the site during our site visits.
2. OnLine Construction provided for the tank removals and pumped out the liquid remaining in a waste oil tank, which appeared to consist of used motor oil.
3. A total of four underground storage tanks were removed from the site using a rubber-tired backhoe provided by OnLine Construction, and a log loader, provided by a local logging company (refer, Figure 2).
4. The tanks removed included one approximate 6400-gallon tank, two approximate 2,000-gallon tanks and one approximate 1000-gallon tank. The tanks were empty except for the 1000-gallon tank, which contained about 300 gallons of waste oil.
5. Following removal, the tanks were transported to property owned by OnLine Construction for final disassembly prior to transport to Schnitzer Steel Products Company for disposal.
6. Upon removal, we visually examined the tanks for signs of failure. The tanks were slightly pitted and corroded, but perforations and evidence of leakage was not observed.
7. The backfill material surrounding the approximate 6400-gallon tank, tank 1 (refer, Figure 2), consisted of medium sand, which appeared to completely surround the tank, isolating it from the native soils. The backfill surrounding the two approximate 2000-gallon tanks and the one approximate 1000-gallon waste oil tank ap-

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SALEM, OFFICE

peared to be native sandy gravel soil, placed back into the excavation following tank installation.

8. Ground water was not observed in the excavation after removal of the four tanks.
9. Discolored, native sandy gravel soil was observed surrounding the fill pipe of tank 4, the waste oil tank, and extended to the bottom of the excavation at about depth 10 feet. The degree of contamination appeared to decrease below about depth 7 feet. Discolored native soils were not observed in the excavation following removal of tanks 1, 2, and 3.
10. Petroleum hydrocarbon odors were not observed in the soil samples obtained from below tanks 1, 2, and 3. Petroleum hydrocarbon odors were observed, however, in the soil samples obtained from below tank 4.
11. A HNU model HW-101 photoionization detector was used onsite to screen the soils uncovered during the excavations for the presence of certain volatile organic compounds (VOC).

Upon removal of the underground storage tanks (UST), soil samples were obtained in accordance with Oregon Administrative Rules 340-122-340 to 345, and following methods outlined in the Sampling Plan (refer, Appendix A). The samples were retrieved using the backhoe to excavate approximately 6 inches to 1 foot into the undisturbed, native materials underlying each end of the four tanks. Current Oregon Department of Environmental Quality (DEQ) rules require soil samples to be collected from under each end of individual tanks in separate excavations, or one sample every 250 square feet if multiple tanks are removed from the same excavation.

A Site Safety Plan was developed and posted at the site during all construction activities relating to the UST removals (refer, Appendix B). Photographs were taken to document the tank system removals and other pertinent activities on the site (refer, Appendix C).

Analytical Test Results

The soil samples collected were delivered to Pacific Environmental Laboratory in Beaverton for chemical analysis. The results of the chemical analysis are presented in Tables 1 and 2, below.

The soil samples obtained were chemically analyzed for total petroleum hydrocarbons (TPH test) by EPA method 418.1 (refer, Appendix D). Three hydrocarbon identification scans (HCID) were conducted on soil samples collected from beneath tanks 1, 2, and 3, to determine the type of contaminant present. In addition, since visual evidence of contamination was observed in the soils adjacent to the approximate 1000-gallon waste oil tank, tank 4, DEQ now requires additional testing. Currently, soils contaminated with waste oils must be tested for PCBs, solvents, and leachable metals.

Table 1

<u>Sample Identification</u>	<u>Depth</u>	<u>Location</u>	<u>TPH Concentration (ppm)</u>	<u>HCID (ppm)</u>
T-1 S-1	11 ft.	S. end tank 1	140	ND
T-1 S-2	11 ft.	N. end tank 1	93	
T-1 S-3	1.5 ft.	near surface soils	8	
T-2 S-1	8.5 ft.	W. end tank 2	110	ND
T-2 S-2	8.5 ft.	E. end tank 2	91	
T-3 S-1	8.5 ft.	W. end tank 3	31	
T-3 S-2	8.5 ft.	E. end tank 3	63	ND
T-4 S-3	2 ft.	fill pipe area	17,000	
T-4 S-4	10 ft.	W. end tank 4	570	
T-4 S-5	10 ft.	E. end tank 4	400	
T-4 S-6	7 ft.	S. wall of excavation	25,000	

ND = none detected

Table 2

<u>Sample Identification</u>	<u>Location</u>	<u>PCB (ppm) (EPA 8080)</u>	<u>Cr,Cd,Pb (pm) (EPA 1310)</u>	<u>Solvents(ppb) EPA 8010</u>
T-4 S-6	depth 7 ft., S. wall of excavation	ND	ND	50 (tetrachloroethene)

Summary of Findings

In July, 1989, DEQ enacted Oregon Administrative Rules 340-122-301 to 360, which established numeric soil cleanup levels for motor fuel and heating oil. Matrix cleanup levels were established by assigning a numerical score to each of five site-specific parameters. The total of the parameter scores is used to define the matrix score which is then used to select the appropriate numeric soil cleanup standard. Application of this procedure for the Mill City Shell Station is as follows:

1. Depth to Ground Water. Water well records within a one mile radius of the subject property were obtained from the United States Geologic Survey (USGS), Portland District. The water well records indicate that shallow ground water in the vicinity of the subject property is commonly found at about depths 25 to 30 feet. Seven points are assigned to sites where the depth to ground water is 25 to 50 feet. Selected water well records of wells within a one mile radius of the subject property are included in Appendix E.
2. Mean Annual Precipitation. The mean annual precipitation in the Mill City area is greater than 40 inches, according to the National Oceanic and Atmospheric Administration (NOAA). Ten points are assigned to a site with greater than 40 inches of precipitation annually.
3. Native Soil Type. The soil underlying the site in the area of the tank excavations was observed to be a sandy gravel with some silt. This type of material is considered to be highly permeable. Ten points are assigned to sites with these soil characteristics.
4. Sensitivity of the Uppermost Aquifer. This factor is included in the matrix evaluation to add an extra margin of safety in situations where critical aquifers have the potential to be affected. Water well records indicate the nearest well to the subject property is approximately 500 feet south at Gates School. The well was drilled to a total depth of 74 feet. The summertime static water level was reported at 26 feet. The well is used for irrigation purposes. According to Mr. Roel Lundquist, the Mill City Recorder, other water wells do exist within the City limits, but are not exactly located. The Mill City domestic water supply is collected from the N. Santiam River about 1000 feet northeast of the subject property. Alternate, unthreatened sources of drinking water are available. Seven points are assigned to sites with this characteristic.
5. Potential Receptors. The matrix score for potential receptors is based on both the distance to the nearest well and also the number of people at risk. Gates School is approximately 500 feet from the subject property. This is in the near

range of the matrix score. The number of people at risk within a three-mile radius of the subject property is in the medium range (101-300). Ten points are assigned to sites in the near/medium category for potential receptors.

The total points assigned to the subject property are 44. Sites with greater than 40 points are placed in the Level I cleanup category. In this regard, the allowable gasoline TPH concentrations in soils at Level I sites is 40 ppm. The allowable diesel TPH concentrations at Level I sites is 100 ppm.

On January 2, 1990, Ms. Cheryl Woods, Environmental Analyst, and Mr. Larry Jack, both with the DEQ, Willamette Valley Region, were contacted concerning the soil matrix cleanup levels at the Mill City Shell Station site. A hydrocarbon identification scan, HCID, was performed on soil samples T-1 S-1, T-2 S-1, and T-3 S-2, which previously detected TPH concentrations in excess of the matrix cleanup levels for gasoline TPH. The HCID analyses did not detect the presence of gasoline or diesel products. Subsequently, we were informed by DEQ that the diesel cleanup levels should be used at the subject property.

DEQ rule 340-122-355 states that "...if a soil sample has a concentration exceeding the required matrix level by more than 10 percent, the area represented by that sample has not met the requirements of these rules. Further remediation, sampling, and testing is necessary until the required level is attained." In other words, the area and depth of soil contaminated above the matrix level must be determined. In this regard, the soil sample collected from beneath the south end of tank 1 exceeds the cleanup levels by 30 parts per million. In addition, the soils left in place under the service station building associated with the waste oil tank (tank 4) are well above matrix cleanup levels for motor fuel and heating oil. These soils were not removed due to the possibility of endangering the structural stability of the service station building. The contaminated soils still in place under the service station were tested for the presence of chlorinated solvents, PCBs, and the Ep-Toxic heavy metals chromium, cadmium, and lead. The results of these additional required tests indicate that low levels of tetrachloroethene is present in the soil adjoining the waste oil tank at about depth 7 feet. Spent solvents are considered hazardous waste by the U.S. Environmental

Protection Agency (EPA) as well as the DEQ. Prior to disposal, these soils may require additional chemical testing to determine if these soils are to be considered as a hazardous waste.

In May, 1989, the U.S. Environmental Protection Agency issued the Interim Final RCRA Facility Investigation (RFI) guidance document. This guidance establishes standards for a number of chemical compounds in drinking water and soils (refer, Table 3 below and Appendix F).

Table 3

<u>Chemical</u>	<u>Drinking Water Maximum Contaminant Level</u>	<u>Health Based Criteria for Systemic Toxicants</u>	<u>Health Based Criteria for Carcinogen</u>
tetrachloroethene	0.005 ppm	800 ppm (soils)	140 ppm (soils)

Recommendations

Based on the foregoing, we recommend that the approximate 6 cubic yards of contaminated soil currently stockpiled under plastic sheeting on the site be placed in a lined 10 yard drop box, covered, and secured. Additional sampling and chemical analysis of the contaminated soil stockpile is needed to determine if the soils can be disposed of at the Hillsboro solid waste landfill, or if the soils must be taken to the hazardous waste landfill at Arlington.

In addition, we recommend that the contaminated soils remaining under the service station be removed after the station is demolished and confirmation sampling and chemical analysis accomplished. In conjunction with this, we recommend that the soils at the location of the south end of tank 1, which were above matrix cleanup levels for diesel, be removed and a sample be collected and analyzed to confirm that the soils remaining at this location are below matrix cleanup levels for diesel contaminated soils.

Limitation

The soil sampling and testing completed to date was for the purpose of checking for the possible release of petroleum products from the underground storage tanks, which

have been decommissioned and removed, or from the associated piping. Additional testing will be required to define the limits of the contaminated soil, or to determine if the ground water has been contaminated. Our conclusions and recommendations presented above are based upon the underground storage tank rules and regulations, and their interpretation by regulatory personnel at the time of the preparation of this report. The regulations and rules, and their interpretation, do change from time to time. These changes are often applied retroactively.

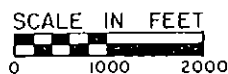
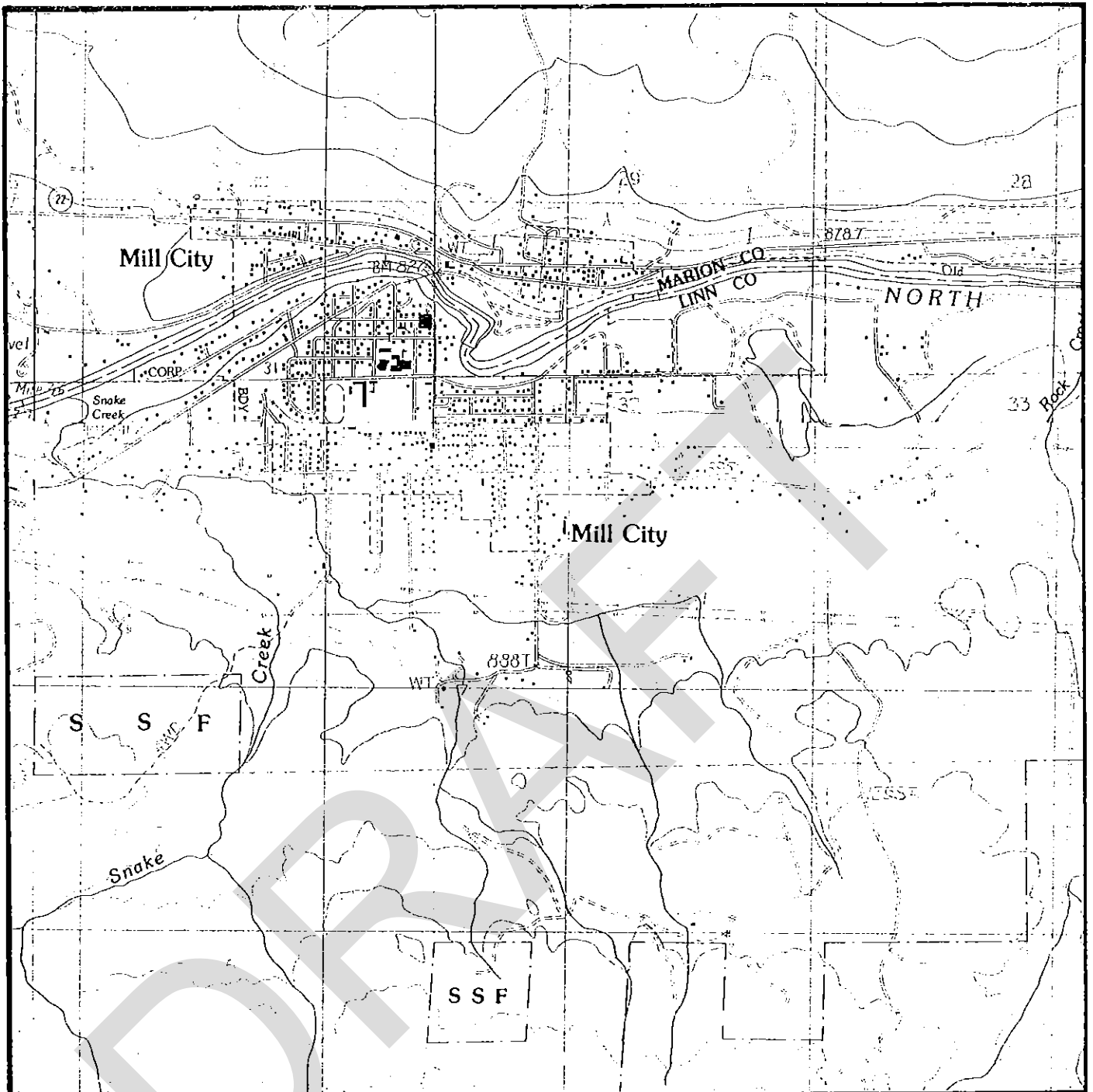
We are available to work with you to further define the limits of the site contamination and to evaluate methods of contaminated soil disposal. If you have questions concerning the foregoing, please do not hesitate to call.

Very truly yours,
L.R. Squier Associates, Inc.

by Robert E. Belding
Robert E. Belding, R.P.G.
Project Manager

by Arlan H. Rippe
Arlan H. Rippe, P.E.
Vice President

REB/AHR/es
Encl: Figures 1 and 2
Appendices A through F

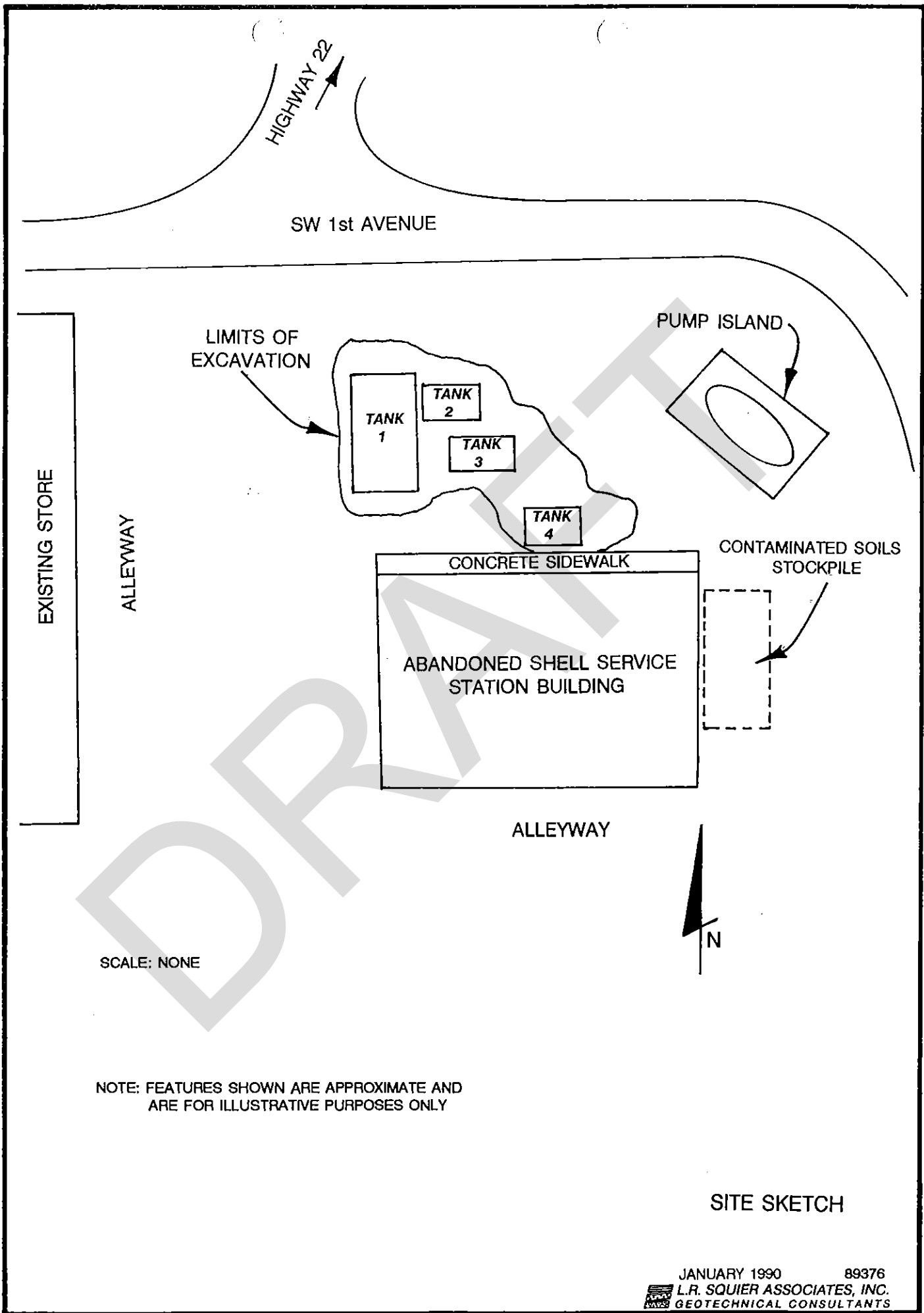


VICINITY MAP

JANUARY 1990 89376

L.R. SQUIER ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

FIGURE 1



SCALE: NONE

NOTE: FEATURES SHOWN ARE APPROXIMATE AND ARE FOR ILLUSTRATIVE PURPOSES ONLY

SITE SKETCH

DRAFT

APPENDIX A
SAMPLING PLAN

**SAMPLING PLAN
FOR A
UNDERGROUND STORAGE TANK INVESTIGATION
AT THE MILL CITY SHELL STATION
LOCATED IN MILL CITY, OREGON**

The initial and perhaps most critical element in a program designed to evaluate the physical and chemical properties at a site is the Sampling Plan. The intent of this Sampling Plan is to assure appropriate sampling methodologies and procedures with respect to pertinent regulatory, scientific and engineering objectives. This Sampling Plan was designed by L.R. Squier Associates, Inc. (LRS), geotechnical consultants retained by Mr. Doug Sweetland. A copy of this Sampling Plan should be maintained by Mr. Sweetland as part of the permanent record concerning the site.

Site Identification/Location

Property Owner	Mrs. Katie Fae Ashby
Property Address	108 S.W. 1st Avenue, Mill City, Oregon

Sampling Plan Goals

The purpose of a Sampling Plan is to document methodologies and procedures utilized in obtaining potentially contaminated representative samples at the site; to assist in maintaining quality assurance/quality control (QA/QC) for the sampling program; and to provide for personnel safety. The sampling protocol outlined in this Sampling Plan will provide for collection of representative chemical/physical samples at the site. This plan was written also to comply with regulations of the Oregon Department of Environmental Quality (DEQ) and the United States Environmental Protection Agency (EPA).

Sampling Objectives

The objective of this Sampling Plan is to document and detail the sampling protocol, quality assurance, and quality control for collecting representative samples at the project site.

The specific objectives are to:

1. determine by authoritarian sampling whether certain chemicals are present in the soils in the area of the UST excavation at the subject property;
2. establish quality assurance and quality control for obtaining representative samples; and
3. determine the level of personnel safety required for the project.

Sampling Design and Protocol

Selection of chemical/physical parameters to be measured are based on a review of past and current practices at the site, prior studies conducted at the site, and infor-

mation from regulatory agency files and/or other sources. Additional parameters may be required to document specific characteristics of the site.

Chemical Parameters Tested

Selection of the chemical parameters to be measured were based on known past and present practices utilized by companies that have conducted operations at the site. The parameters were chosen to provide a measure of the hazardous contaminants present at the sample locations. The parameters include specific and general indicator parameters. Additional chemical parameters may be added, or existing parameters deleted, where chemical data or other information indicates a change is advised. Based on the foregoing, samples will be analyzed for the following specific and general parameters:

<u>Parameter</u>	<u>EPA Test Method</u>	<u>Detection Level Soil</u>
Total Petroleum Hydrocarbon (TPH)	418.1	5 ppm
Hydrocarbon ID (HCID)	GC/FID	20 ppm
Ep-Toxicity (Cr,Cd,Pb)	1310, 700 series	(0.02 ppm Cd) (0.1 ppm Cr,Pb)
PCB	8080	0.1 ppm
Chlorinated Solvents	8010	0.001-0.05 ppm

Sampling Locations

Sampling locations are determined based on a review of selected available data. In selecting sampling locations, consideration is given to site conditions (i.e., utilities, buildings, and traffic flow patterns). The final locations will be determined in the field prior to and at the time of sampling. At present, we have identified the following sampling locations.

Soil samples will be collected from the soil under both ends of each tank for the all tanks removed from the UST excavation. If ground water is observed in the excavation, samples will be collected.

Modification of Sampling Plan

Actual conditions encountered during sampling may require modification of the methodology used to obtain representative samples at the site. If modifications are made in the methodology, field records will be completed outlining the changes and detailing the reason(s) for modifying the methodology.

Methodology

Soil Authoritarian Samples. Soil grab samples collected from the UST excavation will be collected in the following manner:

- a) The site soil sampling methodology will be as described in the EPA publication SW-846, Third Edition. Authoritarian sample locations will be determined using information based on past practices at the site. Each sampling location will be physically identified by placing a numbered/dated sampling stake or marker adjacent to the center of the sampling location. The measured distance from an easily identified point will be recorded in field notes to further document each sampling location.

physically identified by placing a numbered/dated sampling stake or marker adjacent to the center of the sampling location. The measured distance from an easily identified point will be recorded in field notes to further document each sampling location.

- b) The stainless steel trowel and other sampling equipment will be decontaminated immediately prior to collecting the sample. Equipment decontamination will be accomplished by washing in a non-phosphate detergent solution and rinsing with distilled water. The equipment will then be air dried.

After decontamination, the sampling equipment will be isolated in a clean location. The sampling personnel will wear clean disposable surgical gloves and overgloves (if necessary) when handling decontaminated sampling equipment. New gloves will be used at each sampling location.

- c) A grab sample will be taken at each sample location and depth.
- d) Subsurface conditions will be examined continuously, especially changes in soil classification and permeability. Observations will be noted with sample records.
- e) Decontaminated sample containers will be supplied by the analytical laboratory retained. The container types and lid liners will be determined in accordance with the SW-846, Third Edition, analytical method used. Each sample will be transferred directly to the sample container(s). The samples will be packed into the container to minimize headspace.
- f) The containers will be labeled, sealed, and stored under refrigerated conditions (4°C).

Chain-Of-Custody

The consultant will maintain proper chain-of-custody records for the samples and will transport secured or sealed samples back to the laboratory in ice chests. If the integrity of the samples is questioned, it will be noted on the Chain-of-Custody form. Transfer of possession of the samples will be acknowledged on the chain-of-custody record by custodial signature, dates of possession, time of transferral, and signature of the person receiving custody of the samples. The original chain-of-custody record will be kept with samples at all times.

Quality Assurance and Quality Control

The primary objective of this Sampling Plan is to provide for collection of representative samples from the Mill City Shell Station site. Analysis of these samples will provide quantitative and qualitative information on whether selected contaminants are present at the property.

Quality Assurance and Quality Control (QA/QC) is a necessary part of this Sampling Plan to assure the meeting of this objective. Specific QA/QC objectives are to assure precision, accuracy, representativeness, comparability, and completeness for the

samples collected and the analytical laboratory analyses performed on these samples. These quality control parameters are described below.

A. Precision

Precision is a measure of the scatter of the data when more than one measurement is made on the sample. Scatter is commonly attributed to sampling activities and/or chemical analyses. For duplicate measurements, precision can be expressed as the relative percent difference. Split laboratory analyses are performed to confirm reportable concentrations detected in the sample. Field duplicates or split samples will be provided for 5 percent of the samples collected to measure precision. Volatile organic compound samples, however, will be collected in duplicate.

B. Accuracy

Accuracy is a measure of the probable difference between reported test results and the true sample concentration. Inasmuch as true sample concentrations are not known, a priori, accuracy for chemical compound analysis is usually inferred from recovery data as determined by sample blanks, sample spiking, and surrogate samples.

The preferred method for sample spiking is to add a known amount of the constituent of interest to a split sample in the field. Because of the inherent difficulties associated with field spiking, this method will not be employed. Rather, the laboratory will analyze surrogate samples, sample blanks, and spike additions according to accepted laboratory procedures. Perfect accuracy would be defined by 100 percent recovery.

C. Representativeness

Representativeness is a measure of how closely the measured results reflect the actual concentration of the chemical parameters in the materials sampled.

Sampling procedures are designed so that results are representative of the materials being measured. Sample handling protocols for storage, preservation and transportation have been developed to preserve the representativeness of the collected samples with particular emphasis on the minimization of volatilization of organic compounds. Proper documentation will establish that protocols have been followed, and sample identification and integrity assured. Transfer, transport, and equipment blanks and field duplicates or split samples at a frequency of 5 percent per set of samples, will be used to assess field and transport contamination, and method variation. Laboratory method blanks will be run as per laboratory QA/QC. Maximum storage times, as stated in SW-846, Third Edition, will not be exceeded to assure representativeness.

D. Comparability

The objective of this parameter is to assure that data developed during the investigation are either directly comparable, or comparable with defined limitations, to literature data or other applicable criteria.

Comparability of the data will be maintained by using EPA defined procedures. The parameters and analytical methods, along with target quantification limits, are presented in the chemical parameters section. Actual detection limits may vary during analysis depending on the nature of the particular sample material, especially soil and sludge samples. Actual detection limits obtained will be reported by the analytical laboratory.

Analytical methods for this investigation will be performed using only approved methods contained in 40 CFR Part 136, "Guidelines Establishing Test Procedures For The Analysis of Pollutants", or EPA Methods SW-846, "Test Methods For Evaluating Solid Waste Physical Chemical Methods", Third Edition, unless an approved method does not exist for the proposed analyses.

E. Completeness

Completeness is a measure of the amount of valid data obtained from the analytical measurement system compared to the amount that was expected to be obtained. It is defined as the total number of samples taken for which valid analytical data are obtained divided by the total number of samples collected and multiplied by 100.

Planning For Quality Control

Field sampling personnel will make arrangements with the laboratory for sample containers compatible with chemicals to be analyzed. Chain-of-custody forms, sample forms, and other documentation forms will be assembled in advance of field sampling activities. Preparation and assembly of the required equipment and supplies should proceed as follows:

1. Equipment, equipment manuals, and supplies will be assembled based on the type of samples to be collected using the field equipment/supply check list.
2. Equipment will be checked for proper calibration, assembly and operation prior to mobilization. Field calibration supplies and equipment will also be checked.
3. Sampling equipment that will potentially contact sample materials will be decontaminated prior to mobilization in accordance with procedures outlined in this Sampling Plan.
4. Sampling equipment, such as trowels and bailers, will be wrapped in clean aluminum foil or plastic bag/liners during transport and storage.
5. Sampling equipment will be decontaminated in the field prior to leaving the sampling site. The field equipment/supply check list will be used to verify re-loading of sampling equipment and supplies.
6. Upon arrival at LRSA, decontaminated equipment will be returned to storage along with excess supplies.

7. Equipment and supply use forms will be filled out to document equipment and materials used. Equipment that needs to be serviced will be listed along with needed supplies to maintain project Quality Control.

Project Managers will be responsible for QA/QC to assure that these steps are followed.

Chain-of-Custody

Chain-of-custody for a sample is defined by the following criteria:

- o Sample is in your possession or your view after being in your possession.
- o Sample was in your possession and was locked up, or transferred to a designated secure area by you.

Each time the sample bottles or samples change hands, both the sender and receiver will sign and date the Chain-of-Custody form and specify what has changed hands. After transfer of sample custody from the sampling team to the laboratory sample custodian, one copy of the chain-of-custody record will be given to the sampling team for placement into the project files; the second copy remains with the sample while in the laboratory and the original is placed in the laboratory's legal file. A chain-of-custody record will be completed for each shipment of containers.

The chain-of-custody record will include:

- sample code number
- signature of the collector
- date and time of collection
- waste type
- signatures of persons involved in the chain of possession
- dates of possession by the above persons
- total number of samples received

The chain-of-custody record will allow reconstruction of the sample transportation chain from the initial sampler to the laboratory analyst.

Labels

All samples will be labelled on the container (not on the lid) with the sample number, name of collector, date and time of collection, media collected, requested analysis, sample preservation requirements, and place or location. Labels will be filled out at the time of collection to prevent errors.

Seals

Sample seals are generally not necessary when samples are delivered directly to the lab by the sampler. However, when samples arrive at the laboratory after working hours, or when samples are shipped to the laboratory, the seals will be affixed such that they must be broken in order to open the sample cooler. The seals should be marked, at a minimum, with the project number, date and the sampler's signature.

Field Log

A field log must be kept during sample collection. Any and all relevant information should be entered into this log. This log should include the following information:

- purpose of sampling
- location of sample
- name and address of field contact
- type of sample
- suspected contaminants
- number and volume of samples taken
- sample code number
- description of sample point
- description of sampling methodology
- date and time of collection
- sample distribution (i.e., name of laboratory, etc.)
- means of transportation of sample
- means of sample preservation
- references to drawings, grid points, maps, etc.
- sketches of site
- field observations (color, odor, soil characteristics, etc.)
- field measurements taken (pH, flammability, etc.)
- signature(s) of person taking data

The field data will be recorded so that the sampling process can be reconstructed from this record without reference to memory or other notes. The field log will be protected and kept in a safe place, and will be kept as a permanent record.

Corrections to Documentation

All original recorded data, chain-of-custody records, and other forms will be written in waterproof ink. None of these documents will be destroyed or thrown away, even if they are illegible or contain inaccuracies that require a replacement document.

If an error is made on a document, make corrections by crossing a single line through the error, entering the correct information, and initialing the correction.

Duplicates

One duplicate or split sample will be obtained for every twenty field samples taken (5%). A duplicate or split sample will be obtained if less than twenty samples are collected. Split samples will be analyzed to evaluate laboratory reproducibility. Duplicate samples will provide Quality Control for sampling, transportation and analytical errors. Split samples will be obtained by splitting homogenized composite samples between two different sample containers, which will be treated separately throughout the remainder of the analytical process, except that samples for volatile organic compounds will not be field homogenized. Duplicate samples will be obtained by collecting an adjacent second sample.

Equipment Calibration and Maintenance

All instruments and equipment used during this project will be operated, calibrated, and maintained according to the manufacturers guidelines and recommendations. Operation, calibration and maintenance will be performed by personnel who have been properly trained in these procedures.

Instruments which fail to fall within established performance limits will be removed from use until proper maintenance/repair have been performed and have been demonstrated to be accurate. In addition, field instruments are checked prior to use, and then periodically checked in the field to verify meter calibrations. All calibration and field measurements will be recorded.

All samples will be collected and analyzed in accordance with methodology described in EPA publication SW-846, "Test Methods For Evaluating Solid Waste Physical Chemical Methods" (Third Edition). In addition, accepted procedures concerning sample labels, sample seals or security, sample storage, of custody records, analytical requests, and shipping parameters will be followed. Complete field records will also be established for each sample. Copies of the various data record sheets are presented in Appendix A.

Quality Control and Quality Assurance (QA/QC) in regard to sampling procedures, selection of containers, analysis parameters, sample preservation, decontamination of sampling equipment, sample labels and security, and chain-of-custody are also discussed in detail in other sections of this Sampling Plan.

Personnel Safety

Review of available records will determine the level of personnel protection and safety required at the site. If records are non-existent or incomplete and a risk decision cannot be made, a worst case scenario will be assumed and the site will require level "A" protection. For all sampling locations presently being accessed at the Mill City Shell Station site, level "D" protection is indicated. This decision is based on the information supplied by the client and from review of available records and information. Level "D" requires the following list of equipment.

Level of Protection

Level D. A work uniform affording minimal protection; used for nuisance contamination only. Level D equipment; used as appropriate.

1. Coveralls.
 2. Gloves.*
 3. Boots/shoes, chemical-resistant steel toe and shank.
 4. Boots, outer, chemical-resistant (disposable).*
 5. Safety glasses or chemical splash goggles.*
 6. Hard hat.
 7. Escape mask.*
 8. Face shield.*
- *Optional, as applicable.

Project Number _____

SAMPLE RECORD

Project Name _____

Date _____

Sample Label _____

Inspector(s) _____ / _____

Outside Personnel _____

Conditions _____

Location _____

Sample Equipment (Specify Material):

Bailer _____ Pestle _____ Barrel Auger _____

Trowel _____ Oakfield _____ Split Spoon _____

Equipment Decontamination Procedure (Number in Order):

Detergent (non-phosphate) _____

Distilled Water Rinse _____

Nanograde Acetone Rinse _____

Nanograde Hexane Rinse _____ Air Dry _____

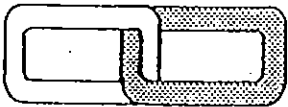
Sample Containers (List by Size):

<u>Size</u>	<u>Number</u>	<u>Material</u>	<u>Seal</u>	<u>Filter</u>	<u>Preservative</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Sample Type:

Soil _____ Water _____ Other _____

Grab _____ Composite _____ (No. individual samples _____)



CHAIN OF CUSTODY RECORD

Job Number			#	Parameters to be Tested																		
Job Name				C																		
Location																						o
Sample I.D.	Sample Type	Sample Date	Time	n																		
1)																						
2)																						
3)																						
4)																						
5)																						
6)																						
7)																						
8)																						
9)																						
10)																						
Total Number Containers				Sampler Signatures																		
Sample Allocation (Name/Firm)																						
Sample Relinquished by (Signature)	Inclusive Dates		Time	Samples Secured		Sample Received by (Signature)	Storage at 4°C															
	from	to		Y	N		Y	N														

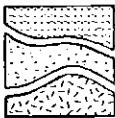
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APPENDIX B
SITE SAFETY PLAN



L. R. SQUIER ASSOCIATES INC.

geotechnical consultants



4255 oak ridge road
p.o. box 1317

lake oswego, oregon 97035
tel. (503) 635-4419

SITE SAFETY PLAN FIELD INVESTIGATION

Page 1 of 4

A. GENERAL INFORMATION:

PROJECT: Mill City Shell Station UST JOB NO. 89376

ADDRESS: Mill City, Oregon

LOCATION: _____

AREA MAP: See attached.

TOPOGRAPHY: Relatively flat, overall decrease in elevation to south.

PLAN PREPARED BY: Robert E. Belding DATE: December 6, 1989

PLAN REVIEWED BY: [Signature] DATE: December 6, 1989

OBJECTIVE(S): Properly decommission and remove three or four under-ground storage tanks at the Mill City Shell Station in Mill City, Oregon.

B. HAZARDS ANTICIPATED: (If unknown, mark UNK)

WASTE TYPE(S): Liquid Solid _____ Semi-Solids _____
Soils Gas _____

CHARACTERISTIC(S): Corrosive _____ Volatile Ignitable
Toxic Reactive _____ Radioactive _____

If toxic, specify waste materials and TLV's, if known.

<u>Waste Material</u>	<u>TLV</u>
1. <u>gasoline</u>	<u>300 ppm (air)</u>
2. <u>benzene</u>	<u>10 ppm (air)</u>
3. <u>xylene</u>	<u>100 ppm (air)</u>
4. <u>toluene</u>	<u>100 ppm (air)</u>
5. <u>ethyl benzene</u>	<u>100 ppm (air)</u>
6. <u>tetra ethyl lead (as lead)</u>	<u>0.15 mg/m³ (skin)</u>

OTHER HAZARD INFORMATION: Oxygen depletion (y/n) _____ N _____ (%)

Buried Utilities (y/n) Y If yes, specify (map?): _____

Other: Utility locates have been provided by OnLine Construction.

C. DESCRIPTION/HISTORY: _____

STATUS OF SITE: UST ACTIVE NO INACTIVE _____

PREVAILING WIND DIRECTION: Variable

LEVEL OF PERSONNEL PROTECTION RECOMMENDED:

Based on evaluation of potential hazards, the following levels of personal protection have been designated for the applicable work area.

LOCATION	JOB FUNCTION	LEVEL OF PROTECTION				
		A	B	C	D	Other
Exclusion Zone	<u>Underground</u>				(D)	Other
	<u>Storage Tank</u>				(D)	Other
	_____				D	Other
	_____				D	Other
Contamination Reduction Zone	<u>N/A</u>				D	Other
	_____				D	Other
	_____				D	Other
	_____				D	Other

An attached list identifies level A, B, C, and D protection. The air purification cartridge, if needed, is an organic mist cartridge.

Work party has been briefed on the contents of this plan.
December 7, 1989.

Type: cartridge, supplied air, or SCBA: Cartridge

D. TEAM PARTICIPANTS:

TEAM MEMBER	HEALTH AND SAFETY TRAINED (40+8 HRS.) (Y/N)	RESPIRATOR QUALIFIED
1. <u>Robert E. Belding</u>	<u>Y</u>	<u>Y</u>
2. <u>Reid Kenner</u>	<u>Y</u>	<u>Y</u>
3. _____	_____	_____
4. _____	_____	_____

E. ONSITE ORGANIZATION AND COORDINATION:

The following personnel are designated to carry out the stated job functions onsite. (Note: one person may carry out more than one job function.)

PROJECT MANAGER: Robert E. Belding / LRSA staff only
 ONSITE SAFETY OFFICER: Reid Kenner
 ONSITE SECURITY OFFICER: Reid Kenner
 ONSITE PROJECT TEAM LEADER: Reid Kenner

The Onsite Project Team Leader has been designated to coordinate access control and security onsite. A safe perimeter has been established from around the test pit excavations. No unauthorized person will be allowed within this area.

The command post/staging area has been established at LRSA pick-up at the Sisters Exxon Station, refer, Site Plan. This location shall, if possible, be upwind from the exclusion zone.

I. ENVIRONMENTAL MONITORING:

The following environmental monitoring instruments shall be used on-site at specified intervals to be determined.

HNU Photoionization Detector
Edmont Combustible Gas Monitor/O₂ Detector

The following standard emergency procedures will be used by onsite personnel. The Site Safety Officer shall be notified of any onsite emergencies and be responsible to see that the appropriate procedures are followed.

Personnel Injury in the Support Zone. Upon notification of an injury in the Support Zone, the Project Team Leader and Site Safety Officer will assess the nature of the injury. If the cause of the injury or loss of the injured person does not affect the performance of site personnel, operations may continue, with appropriate onsite first-aid and necessary follow-up as stated above. If the injury increases the risk to others, the designated emergency horn blasts or hand held siren signal shall be sounded and site personnel shall move to the decontamination line for further instruction. Activities onsite will stop until the added risk is removed or minimized.

1. The conditions resulting in the emergency have been corrected.
2. The hazards have been reassessed.
3. The Site Safety Plan has been reviewed.
4. Site personnel have been briefed on any changes in the Site Safety Plan.

J. PERSONNEL MONITORING:

The following monitoring will be in effect onsite:

Exposure sampling: Volatile organic detector.

All site personnel have read the above plan and are familiar with its provisions.

Site Safety Officer
Project Team Leader
Other Site Personnel

Robert E. Beldy
Robert E. Beldy
OnLine Construction

A copy of the Site Safety Plan will be posted, or made available at the Command Post to onsite personnel and regulatory officers.

DRAFT

APPENDIX C

PHOTO DOCUMENTATION



Photo 891208-02 Site Location: South side of S.W. 1st Avenue
Direction Faced: South Showing: Tank #1

Photo 891208-07 Site Location: North side of service station building
Direction Faced: Northeast Showing: Tank #1 after removal



PHOTOGRAPHS

JANUARY 1990 89376
L.R. SQUIER ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

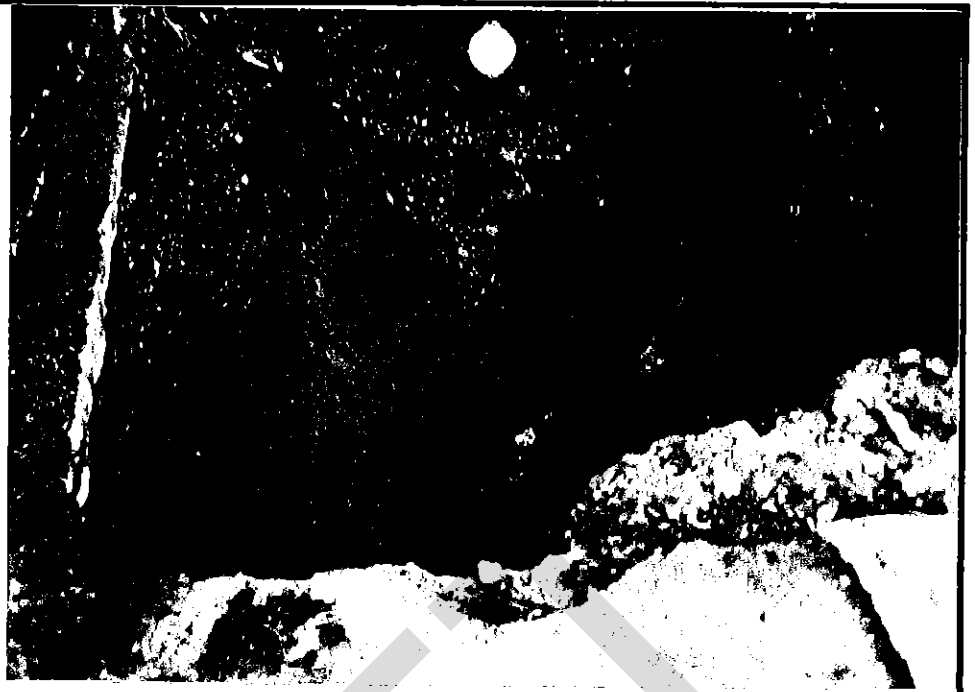


Photo 891208-05 Site Location: Northwest corner of service station building
Direction Faced: North Showing: Excavation after Tank #1 removal

Photo 891208-11 Site Location: North (in front) of service station
Direction Faced: Northeast Showing: Tank #2 after removal



PHOTOGRAPHS



Photo 891208-12 Site Location: South side of S.W. 1st Avenue
Direction Faced: South Showing: Excavation and Tank #3

Photo 891208-0A Site Location: Northwest corner of property
Direction Faced: Southeast Showing: Tank #3 after removal



PHOTOGRAPHS

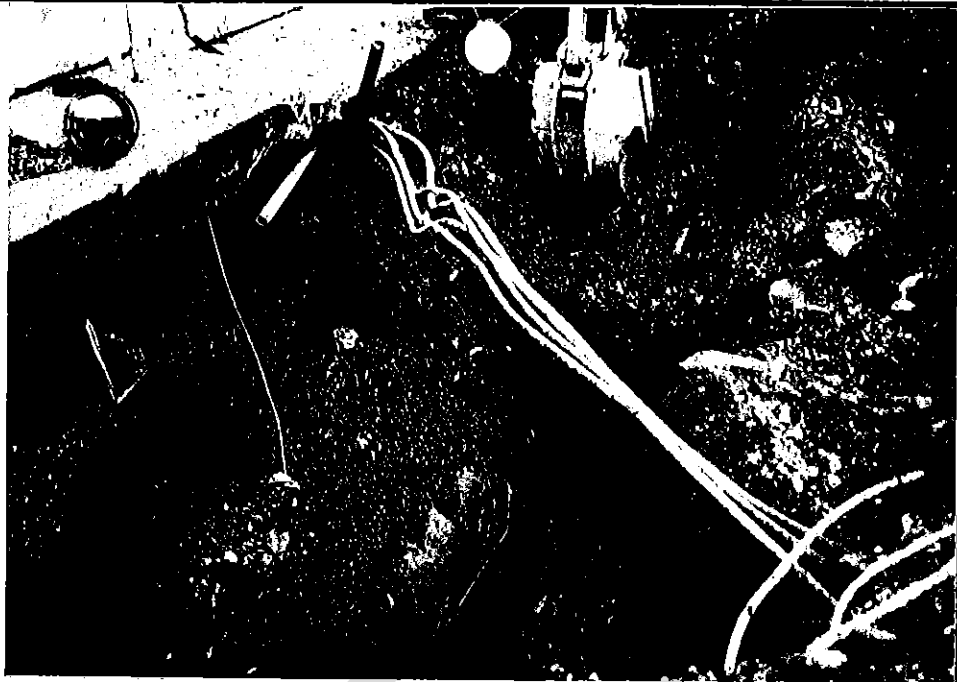


Photo 891208-3A Site Location: North side of service station building
Direction Faced: Southwest Showing: Tank #4 (waste oil tank), and overfill contamination

Photo 891208-5A Site Location: North side of service station building
Direction Faced: Southeast Showing: Tank #4 after removal



PHOTOGRAPHS

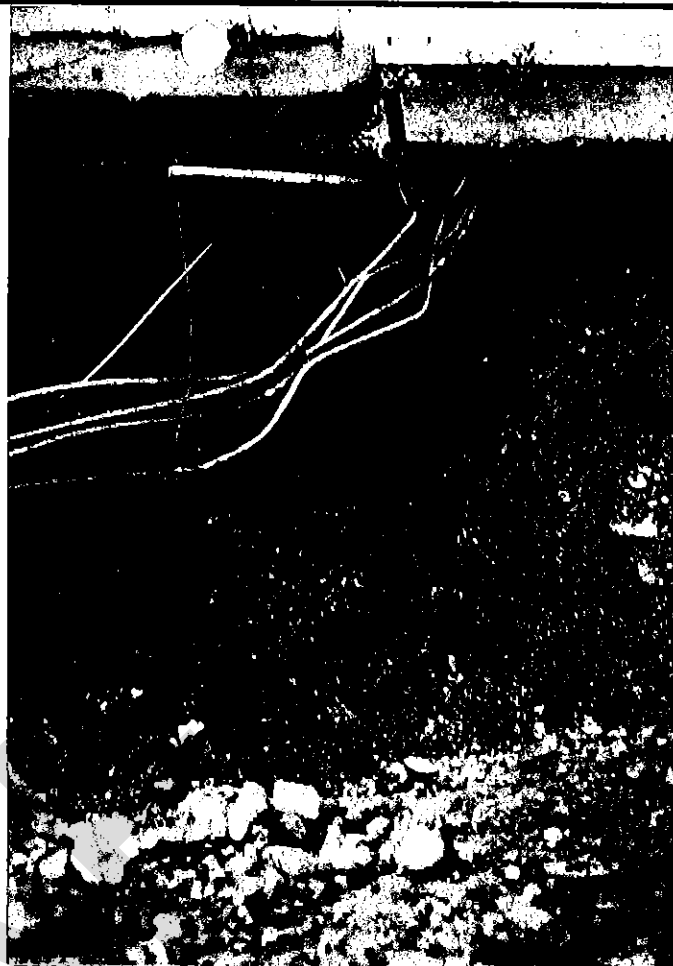


Photo 891208-12A Site Location: North side of service station building
Direction Faced: South Showing: Contaminated soils left
in place under service station building

Photo 891209-13A Site Location: East side of site
Direction Faced: West Showing: Contaminated soils covered
with visqueen



PHOTOGRAPHS

DRAFT

APPENDIX D

ANALYTICAL TEST RESULTS



**PACIFIC
environmental
laboratory inc.**

RECEIVED

DEC 26 1989

L. R. SQUIER, INC.

9405 S.W. Nimbus Ave. Beaverton, OR 97005 (503) 644-0660
FAX # (503) 644-2202

December 22, 1989

L.R. Squier
P.O. Box 1317
Lake Oswego, OR 97035

Attn: Bob Belding

Re: PEL #89-1742

Enclosed is the lab report for your job #89376.1 which was received in our lab on December 11, 1989.

I. Sample Description

Eleven Soil Samples

The samples were received under a chain of custody.

The samples were received in containers consistent with EPA protocol.

II. Quality Control

No project specific QC was requested. In-house QC data is available upon request.

III. Analytical Results

Test methods may include minor modifications of published methods such as detection limits or parameter lists. Solid and waste samples are reported on an "as received" basis, i.e., no correction is made for moisture content unless otherwise noted.

Compounds not detected are listed under results as ND.

Sincerely,

Philip Nerenberg
Philip Nerenberg
President

Howard Holmes
Howard Holmes
Lab Manager



PEL REPORT NUMBER: 89-1742
 CLIENT: L.R. Squier
 JOB REFERENCE: 89376.1
 DATE: December 22, 1989
 ITEMS: Eleven Soil Samples

METHOD: TPH per EPA 418.1
 Results in mg/kg (ppm)

<u>Sample I.D.</u>	<u>TPH</u>
T-1, S-1	140
T-1, S-2	93
T-1, S-3	8
T-2, S-1	110
T-2, S-2	91
T-3, S-1	31
T-3, S-2	63
T-4, S-3	17,000
T-4, S-4	570
T-4, S-5	400
T-4, S-6	25,000

METHOD: PCB per EPA 8080
 Results in mg/kg (ppm) - dry weight basis

<u>Sample I.D.</u>	<u>PCB</u>	<u>Detection Limit</u>
T-4, S-6	ND	0.10



PEL REPORT NUMBER: 89-1742
 CLIENT: L.R. Squier
 JOB REFERENCE: 89376.1
 DATE: December 22, 1989
 ITEMS: Eleven Soil Samples

METHOD: Hydrocarbon I.D. by GC/FID
 Results in mg/kg (ppm)
 Carbon Range: C₆-C₂₄

<u>Sample I.D.</u>	<u>Hydrocarbon</u>	<u>Detection Limit</u>
T-1, S-1	ND	20
T-2, S-1	ND	20
T-3, S-2	ND	20

METHOD: E.P. Toxicity per EPA 1310, 7000 series
 Results in mg/L (ppm)

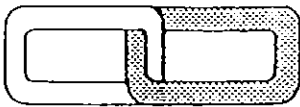
<u>Compound</u>	<u>T-4, S-6</u>	<u>Lab Blank</u>	<u>Detection Limit</u>
Cadmium	ND	ND	0.02
Chromium	ND	ND	0.1
Lead	ND	ND	0.1



PEL REPORT NUMBER: 89-1742
 CLIENT: L.R. Squier
 JOB REFERENCE: 89376.1
 DATE: December 22, 1989
 ITEMS: Eleven Soil Samples

METHOD: Chlorinated Solvents per EPA 8010
 Results in ug/kg (ppb)

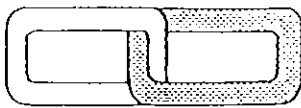
<u>Compound</u>	<u>T-4, S-6</u>	<u>Lab Blank</u>	<u>Detection Limit</u>
Bromodichloromethane	ND	ND	10
Bromoform	ND	ND	10
Bromomethane	ND	ND	50
Carbon tetrachloride	ND	ND	10
Chlorobenzene	ND	ND	10
Chloroethane	ND	ND	10
2-Chloroethylvinyl ether	ND	ND	10
Chloroform	ND	ND	10
Chloromethane	ND	ND	10
Dibromochloromethane	ND	ND	10
1,2-Dichlorobenzene	ND	ND	10
1,3-Dichlorobenzene	ND	ND	10
1,4-Dichlorobenzene	ND	ND	10
Dichlorodifluoromethane	ND	ND	50
1,1-Dichloroethane	ND	ND	10
1,2-Dichloroethane	ND	ND	10
1,1-Dichloroethene	ND	ND	10
trans-1,2,-Dichloroethene	ND	ND	10
1,2-Dichloropropane	ND	ND	10
cis-1,3-Dichloropropene	ND	ND	10
trans-1,3-Dichloropropene	ND	ND	10
Methylene chloride	ND	ND	10
1,1,2,2-Tetrachlorethane	ND	ND	10
Tetrachloroethene	50	ND	10
1,1,1-Trichloroethane	ND	ND	10
1,1,2-Trichloroethane	ND	ND	10
Trichloroethene	ND	ND	1
0			
Trichlorofluoromethane	ND	ND	10
Vinyl chloride	ND	ND	10



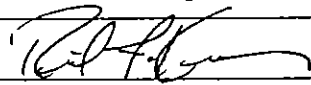
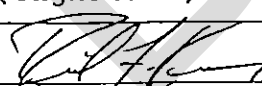
CHAIN OF CUSTODY RECORD

Job Number 89376				# Containers	Parameters to be Tested								
Job Name MILL CITY SHELL UST					TPH	HCID	Solvent Scan						
Location MILL CITY, OREGON													
Sample I.D.	Sample Type	Date	Time										
1) T-1, S-1	SOIL	12/7/89	9:20	X									
2) T-1, S-2	"	"	9:30	X									
3) T-2, S-1	"	"	10:45	X									
4) T-2, S-2	"	"	10:50	X									
5) T-1, S-3	"	"	9:25	X									
6) T-3, S-1	"	"	1:45	X	ALL SAMPLES WILL BE DISPOSED OF 30 DAYS AFTER RECEIPT								
7) T-3, S-2	"	"	1:45	X									
8) T-4, S-4	"	12/8/89	9:10	X									
9) T-4, S-5	"	"	9:15	X									
10) T-4, S-3	"	12/9/89	3:10	X									
Total Number Containers				10	Sampler Signatures								
Sample Allocation (Name/Firm)				R.H. Kern									
None													
Sample Relinquished by (Signature)	Inclusive Dates from to		Time	Sample Received by (Signature)	Container Sealed 4°C								
	Y	N	Y	N									
R.H. Kern	12/7/89	12/11/89	4:40	Marnetta Lundquist			X						

CHAIN OF CUSTODY RECORD



CHAIN OF CUSTODY RECORD

Job Number 89326.)				# Containers	Parameters to be Tested									
Job Name MILL CITY SHELL UST					TPH	HCID ^{omit}	Solvent Screen	EPTOX	PESTICIDES ^{omit}	PCB	AS per label w/	PHILIP 12/15/89 4:28		
Location MILL CITY, OREGON														
Sample I.D.	Sample Type	Sample Date	Sample Time											
1) T-4, S-6	Soil	12/8/89	9:20	1	X	X	X	X	X	X				
2)														
3)														
4)														
5)														
6)														
7)					ALL SAMPLES WILL BE DISPOSED OF 30 DAYS AFTER RECEIPT									
8)														
9)														
10)														
Total Number Containers				1	Sampler Signatures									
Sample Allocation (Name/Firm)														
NONE														
Sample Relinquished by (Signature)	Inclusive Dates		Time	Sample Received by (Signature)	Container									
	from	to			Sealed	4°C								
	12/7/89	12/11/89	4:40	Marnitta Lindland	X		Y	N	X					

CHAIN OF CUSTODY RECORD

DRAFT

APPENDIX E

SELECTED WATER WELL RECORDS

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the

WATER WELL REPORT

STATE OF OREGON
(Please type or print)

State Well No. _____
State Permit No. 13/SE 3506

STATE ENGINEER, SALEM, OREGON 97310
within 30 days from the date of well completion.

(Do not write above this line)

(1) OWNER:
Name DIANE JEFFERSON
Address Box 575
MILL CITY, OREGON

(2) TYPE OF WORK (check):
New Well Deepening Reconditioning Abandon
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL: Rotary Driven
Cable Jetted
Dug Bored
(4) PROPOSED USE (check): Domestic Industrial Municipal
Irrigation Test Well Other

(5) CASING INSTALLED: Threaded Welded
" Diam. from 0 ft. to 35 ft. Gage 250
" Diam. from _____ ft. to _____ ft. Gage _____
" Diam. from _____ ft. to _____ ft. Gage _____

(6) PERFORATIONS: Perforated? Yes No
Type of perforator used _____
Size of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

(7) SCREENS: Well screen installed? Yes No
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ Set from _____ ft. to _____ ft.
Diam. _____ Slot size _____ Set from _____ ft. to _____ ft.

(8) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes No If yes, by whom?
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " " " "
" " " " " "
Ball test 24 gal./min. with 5 ft. drawdown after 1 hrs.
Artesian flow _____ g.p.m.
Temperature of water _____ Depth artesian flow encountered _____ ft.

(9) CONSTRUCTION:
Well seal—Material used _____
Well sealed from land surface to _____ ft.
Diameter of well bore to bottom of seal _____ in.
Diameter of well bore below seal _____ in.
Number of sacks of cement used in well seal _____ sacks
Number of sacks of bentonite used in well seal _____ sacks
Brand name of bentonite _____
Number of pounds of bentonite per 100 gallons _____
_____ lbs./100 gals.
Was a drive shoe used? Yes No Plugs _____ Size: location _____ ft.
Did any strata contain unusable water? Yes No
Type of water? _____ depth of strata _____
Method of sealing strata off _____
Was well gravel packed? Yes No Size of gravel: _____
Gravel placed from _____ ft. to _____ ft.

(10) LOCATION OF WELL:
County CLATSOP Driller's well number _____
NE 1/4 SW 1/4 Section 30 T. 9S R. 3E W.M.
Bearing and distance from section or subdivision corner _____

(11) WATER LEVEL: Completed well.
Depth at which water was first found 24 ft.
Static level 13 ft. below land surface. Date 6/10/76
Artesian pressure _____ lbs. per square inch. Date _____

(12) WELL LOG: Diameter of well below casing _____
Depth drilled 35 ft. Depth of completed well 35 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
SANDY TOPSOIL	0'	2'	
LG. GRVEL & BROWN CLAY	2'	14'	
SMALL-MEDIUM GRAVEL	14'	28'	
9 BROWN SANDY CLAY	28'	35'	18'
SMALL GRAVEL & FINE SAND			
COARSE BROWN SAND			
(WHIP)			

Work started June 7 1976 Completed June 11 1976
Date well drilling machine moved off of well _____ 19____

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] _____ Date _____, 19____
(Drilling Machine Operator)
Drilling Machine Operator's License No. _____

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Name _____ (Person, firm or corporation) (Type or print)
Address _____
[Signed] _____ (Water Well Contractor)
Contractor's License No. _____ Date _____, 19____

WATER WELL REPORT

The original and first copy of this report are to be filed with the

STATE OF OREGON

State Well No.

STATE ENGINEER, SALEM, OREGON 97310 within 30 days from the date of well completion.

(Please type or print)

(Do not write above this line)

State Permit No.

(1) OWNER:

Name: [Handwritten] Address: [Handwritten]

(2) TYPE OF WORK (check):

New Well [] Deepening [] Reconditioning [] Abandon []

(3) TYPE OF WELL:

Drilled [] Driven [] Jetted [] Bored []

(4) PROPOSED USE (check):

Domestic [] Industrial [] Municipal [] Irrigation [] Test Well [] Other []

CASING INSTALLED:

Threaded [] Welded [] Diam. from [] ft. to [] ft. Gage []

PERFORATIONS:

Perforated? [] Yes [] No. Type of perforator used []

(7) SCREENS:

Well screen installed? [] Yes [] No Manufacturer's Name []

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level Was a pump test made? [] Yes [] No

(9) CONSTRUCTION:

Well seal—Material used [] Well sealed from land surface to [] ft.

(10) LOCATION OF WELL:

County [] Driller's well number [] NW 1/4 NW 1/4 Section T. R. W.M.

Bearing and distance from section or subdivision corner

(11) WATER LEVEL: Completed well.

Depth at which water was first found [] ft. Static level [] 40 ft. below land surface. Date []

(12) WELL LOG:

Diameter of well below casing [] Depth drilled [] ft. Depth of completed well [] ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated.

Table with columns: MATERIAL, From, To, SWL. Contains handwritten entries for well log.

Work started [] 19 [] Completed [] 19 [] Date well drilling machine moved off of well [] 19 []

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

[Signed] [] Date [] 19 [] (Drilling Machine Operator)

Drilling Machine Operator's License No. []

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name [] (Person, firm or corporation) (Type or print)

Address []

[Signed] [] (Water Well Contractor)

Contractor's License No. [] Date [] 19 []

STATE OF OREGON
WATER WELL REPORT
 (as required by ORS 537.765)

PLEASE TYPE or PRINT IN INK

(for official use only)

(1) OWNER:

Name Lowell Green
 Address Rt. 1 Box 125
 City Trons State Oregon

(2) TYPE OF WORK (check):

New Well Deepening Reconditioning Abandon
 If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary Air Driven
 Rotary Mud Dug
 Cable Bored

(4) PROPOSED USE (check):

Domestic Industrial Municipal
 Thermal:
 Irrigation Withdrawal ReInjection
 Other:
 Piezometric Grounding Test

(5) CASING INSTALLED:

Steel Plastic
 Threaded Welded
 4" Diam. from 4.1 ft. to 59 ft. Gauge 250
 " Diam. from ft. to ft. Gauge

LINER INSTALLED:

Steel Plastic
 Threaded Welded
 " Diam. from ft. to ft. Gauge

(6) PERFORATIONS:

Perforated? Yes No
 Size of perforations in. by in.
 perforations from ft. to ft.
 perforations from ft. to ft.
 perforations from ft. to ft.

(7) SCREENS:

Well screen installed? Yes No
 Manufacturer's Name
 Type Model No.
 Diam. Slot Size Set from ft. to ft.
 Diam. Slot Size Set from ft. to ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level
 Was a pump test made? Yes No If yes, by whom?
 Field: gal./min. with ft. drawdown after hrs.
 Air test gal./min. with drill stem at ft. hrs.
 Bailor test 60 gal./min. with 2 ft. drawdown after hrs.
 Artesian flow g.p.m.
 Temperature of water Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Special standards: Yes No
 Well seal—Material used
 Well sealed from land surface to 20 ft.
 Diameter of well bore to bottom of seal 10 in.
 Diameter of well bore below seal 4 in.
 Amount of sealing material 25 sacks pounds
 How was cement grout placed?

Was pump installed? Type HP Depth ft.
 Was a drive shoe used? Yes No Plugs Size: location ft.
 Did any strata contain unusable water? Yes No
 Type of Water? depth of strata
 Method of sealing strata off
 Was well gravel packed? Yes No Size of gravel:
 Gravel placed from ft. to ft.

(10) LOCATION OF WELL by legal description:

County Lin of Section 33 of
 Township 9N Range 2 WM.
 (Township is North or South) (Range is East or West)
 Tax Lot Lot Block Subdivision
 MAILING ADDRESS OF WELL (or nearest address)
Head. Dept. of Frank Lumber Co.

(11) WATER LEVEL of COMPLETED WELL:

Depth at which water was first found 51 ft.
 Static level 75 ft. below land surface. Date 7/22/01
 Artesian pressure lbs. per square inch. Date

(12) WELL LOG:

Diameter of well below casing 0
 Depth drilled 60 ft. Depth of completed well 70 ft.
 Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
clay brown cobbles	0	18	
granule clay brown	18	24	
granule clay gray	24	32	
granule clay brown	32	46	
cobbles light	46	51	
cobbles to small gravel			
brown sand		57	201

RECEIVED
 APR 23 1905
 WATER RESOURCES DEPT.
 SALEM, OREGON

Date work started 30/00/04 /completed 11/02/01
 Date well drilling machine moved off of well 11/02/01 19

(unbonded) Water Well Constructor Certification (if applicable):
 This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

(Signed) [Signature] Date 11/02/01, 19

(bonded) Water Well Constructor Certification:
 Bond (number) Issued by: (Surety Company Name)
 On behalf of (type or print name of Water Well Constructor)

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief:

(Signed) (Water Well Constructor)
 (Dated)

WATER WELL REPORT

State Well No.

File Original and First Copy with the STATE ENGINEER, SALEM, OREGON

STATE OF OREGON

State Permit No.

(1) OWNER:

Name
Address

(2) LOCATION OF WELL:

County Multnomah Owner's number, if any
NW 1/4 NW 1/4 Section 31 T. R. W.M.
Bearing and distance from section or subdivision corner

(3) TYPE OF WORK (check):

New Well [] Deepening [] Reconditioning [] Abandon []
If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic [] Industrial [] Municipal []
Irrigation [] Test Well [] Other []

(5) TYPE OF WELL:

Rotary [] Driven []
Cable [] Jetted []
Dug [] Bored []

(6) CASING INSTALLED:

Threaded [] Welded []

" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:

Perforated? [] Yes [] No

Type of perforator used

SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:

Well screen installed [] Yes [] No

Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:

Was well gravel packed? [] Yes [] No Size of gravel:
Gravel placed from ft. to ft.
Was a surface seal provided? [] Yes [] No To what depth? ft.
Material used in seal-
Did any strata contain unusable water? [] Yes [] No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:

Static level 6 ft. below land surface Date
Artesian pressure lbs. per square inch Date

Log Accepted by:

[Signed] Date, 19
(Owner)

(11) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? [] Yes [] No If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "
Baller test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? [] Yes [] No

(12) WELL LOG:

Diameter of well inches.

Depth drilled ft. Depth of completed well ft.

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

Table with columns MATERIAL, FROM, TO. Contains handwritten entry 'S1' in the TO column.

Work started 19 Completed 19

(13) PUMP:

Manufacturer's Name
Type: H.P.

Well Driller's Statement:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME (Person, firm, or corporation) (Type or print)

Address

Driller's well number

[Signed] (Well Driller)

License No. Date, 19

APPENDIX F
RCRA FACILITY INVESTIGATION (RFI) GUIDANCE EXCERPTS

INTERIM FINAL
RCRA FACILITY INVESTIGATION (RFI) GUIDANCE

VOLUME I OF IV

**DEVELOPMENT OF AN RFI WORK PLAN
AND GENERAL
CONSIDERATIONS FOR RCRA FACILITY
INVESTIGATIONS**

EPA 530/SW-89-031

MAY 1989

**WASTE MANAGEMENT DIVISION
OFFICE OF SOLID WASTE
U.S. ENVIRONMENTAL PROTECTION AGENCY**

Chemicals	Standards				Health Advisories							Cancer Group	
	Status Reg.	MCLG (ug/l)	MCL (ug/l)	Status HA	10-kg Child			70-kg Adult					
					One-day ug/l	Ten-day ug/l	Longer-term ug/l	Longer-term ug/l	RfD ug/kg/day	DWEL ug/l	Lifetime ug/l		ug/l at 10-4 Cancer Risk
Propam	-	-	-	F	5000	5000	5000	20000	20	600	100	-	D
Propylbenzene n-	-	-	-	D	-	-	-	-	-	-	-	-	-
Pyrene (PAH)	T	zero	-	-	-	-	-	-	-	-	-	-	D
Simazine	T	4	-	F	500	500	50	200	5	200	4	-	C
Styrene	P	zero/100	5/100	F	20000	2000	2000	7000	200	7000	0/100	1	B2/C
2,4,5-T	L	-	-	F	800	800	800	1000	10	350	70	-	D
2,3,7,8-TCDD (Dioxin)	T	zero	-	F	0.001	1E-04	1E-05	4E-05	1E-06	4E-05	-	2E-05	B2
Tebuthiuron	-	-	-	F	3000	3000	700	2000	70	2000	500	-	D
Terbacil	-	-	-	F	300	300	300	900	13	400	90	-	E
Teibulos	-	-	-	F	5	5	1	5	0.13	5	0.9	-	D
Tetrachloroethane (1,1,1,2-)	L	-	-	D	-	-	-	-	30	-	-	-	-
Tetrachloroethane (1,1,2,2-)	L	-	-	D	-	-	-	-	-	-	-	-	-
Tetrachloroethylene	P	zero	5	F	2000	2000	1000	5000	10	500	-	70	B2
Toluene	P	2000	2000	F	20000	3000	3000	10000	300	10000	2000	-	-
Toxaphene	P	5	5	F	500	40	-	-	100	-	-	3	B2
2,4,5-TP	P	10	50	F	200	200	70	300	7.5	300	50	-	-
Trichloroacetaldehyde	L	-	-	D	-	-	-	-	-	-	-	-	-
Trichloroacetic acid	L	-	-	D	-	-	-	-	600	-	-	-	-
Trichloroacetonitrile	L	-	-	D	-	-	-	-	-	-	-	-	-
Trichlorobenzene (1,2,4-)	T	-	9	D	-	-	-	-	-	-	-	-	-
Trichlorobenzene (1,3,5-)	T	-	-	D	-	-	-	-	-	-	-	-	-
Trichloroethane (1,1,1-)	F	200	200	F	100000	40000	40000	100000	90	1000	200	-	D
Trichloroethane (1,1,2-)	T	3	-	D	-	-	-	-	30	-	-	-	C
Trichloroethanol (2,2,2-)	L	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethylene	F	zero	5	F	-	-	-	-	7	300	-	300	B2
Trichloropropane (1,1,1-)	-	-	-	D	-	-	-	-	-	-	-	-	-
Trichloropropane (1,2,3-)	-	-	-	D	-	-	-	-	6	-	-	-	-
Trifluralin	L	-	-	F	30	30	30	30	3	100	2	-	C
Trimethylbenzene (1,2,4-)	-	-	-	D	-	-	-	-	-	-	-	-	-
Trimethylbenzene (1,3,5-)	-	-	-	D	-	-	-	-	-	-	-	-	-
Vinyl chloride	F	zero	2	F	3000	3000	10	50	-	-	-	1.5	A
Xylenes	P	10000	10000	F	40000	40000	40000	10000	2000	60000	10000	-	D

Health Based Criteria for Systemic Toxicants

Table 8-7. (continued)¹

Constituent	CAS No.	RfD ² (mg/kg/day)	Soil (mg/kg)	Water ($\mu\text{g/l}$)	Air ($\mu\text{g/m}^3$)
Methyl mercury	22967-92-6	3E-04	2E + 01	1E + 01	--
Methyl parathion	298-00-0	3E-04	2E + 01	1E + 01	1E + 00
Nickel	7440-02-0	2E-02	2E + 03	7E + 02	--
Nitric oxide	10102-43-9	1E-01	8E + 03	4E + 03	--
Nitrobenzene	98-95-3	5E-04	4E + 01	2E + 01	--
Nitrogen dioxide	10102-44-0	1E + 00	8E + 04	4E + 04	--
Octamethylpyro-phosphoramidate	152-16-9	2E-03	2E + 02	7E + 01	--
Parathion	56-38-2	3E-04	2E + 01	1E + 01	--
Pentachlorobenzene	608-93-5	8E-04	6E + 01	3E + 01	3E - 00
Pentachloronitrobenzene	82-68-8	3E-03	2E + 02	1E + 02	--
Pentachloroonenol	87-86-5	3E-02	2E + 03	1E + 03	1E + 02
⇒ Perchloroethylene (Tetrachloroethylene)	127-18-4	1E-02	8E + 02 800 ppm	4E + 02	--
Phenol	108-95-2	4E-02	3E + 03	1E + 03	--
Phenyl mercuric acetate	62-38-4	8E-05	6E + 00	3E + 00	--
Phosphine	7803-51-2	3E-04	2E + 01	1E + 01	--
Potassium cyanide	151-50-8	5E-02	4E + 03	2E + 03	--
Potassium silver cyanide	506-61-6	2E-01	2E + 04	7E + 03	--
Pronamide (Kerb)	23950-58-5	8E-02	6E + 03	3E + 03	--
Pyridine	110-86-1	1E-03	8E + 01	4E + 01	--
Selenious Acid	7782-49-2	3E-03	2E + 02	See MCL	--
Selenourea	630-10-4	5E-03	4E + 02	2E + 02	--
Silver	7440-22-4	3E-03	2E + 02	See MCL	--
Silver cyanide	506-64-9	1E-01	8E + 03	4E + 03	--
Silvex (2,4,5-TP)	93-72-1	8E-03	6E + 02	3E + 02	--
Sodium cyanide	143-33-9	4E-02	3E + 03	1E + 03	--
Strychnine	57-24-9	3E-04	2E + 01	1E + 01	--
Styrene	100-42-5	2E-01	2E + 04	7E + 03	--
1,2,4,5-Tetrachlorobenzene	95-94-3	3E-04	2E + 01	1E + 01	1E + 00

Note: These criteria are subject to change and will be confirmed by the regulatory agency prior to use.

Health Based Criteria for Carcinogens

Table 8-6. (continued)¹

Constituent	CAS No.	Class (A, B, C) ²	Oral Exposure Route RSD ³			Inhalation Exposure Route RSD ³	
			CSF (mg/kg/day) ⁻¹	Soil (mg/kg)	Water (µg/l)	CSF (mg/kg/day) ⁻¹	Air (µg/m ³)
Nickel subsulfide	12035-72-2	A	--	--	--	1.7E+00	2.1E-03
2-Nitropropane ⁴	79-46-9	B	9.45E+00	7.41E-02	3.70E-03	9.45E+00	3.70E-04
N-Nitrosodiethanolamine	1116-54-7	B	2.8E+00	2.5E-01	1.3E-02	--	--
N-Nitrosodimethylamine (Dimethylnitrosamine)	62-75-9	B	5.1E+01	1.4E-02	6.9E-04	5.1E+01	6.9E-05
N-Nitrosodi-N-propylamine	621-64-7	B	7.0E+00	1.0E-01	5.0E-03	--	--
N-Nitroso-N-methylethylamine	10595-95-6	B	2.2E+01	3.2E-02	1.6E-03	--	--
N-Nitroso-N-methylurea ⁴	684-93-5	B	3.01E+02	2.33E-03	1.16E-04	3.01E+02	1.16E-05
N-Nitrosopyrrolidine	930-55-2	B	2.1E+00	3.3E-01	1.7E-02	2.1E+00	1.7E-03
PCB's	1336-36-2	B	7.7E+00	9.1E-02	4.5E-03	--	--
Pentachloronitrobenzene ⁴	82-68-8	C	2.56E-01	2.73E+01	1.37E+00	2.56E-01	1.37E-01
⇒ Perchloroethylene (Tetrachloroethylene)	127-18-4	C	5.1E-02	1.4E+02 140 ppm	6.9E+00	2.5E-01	1.4E-01
Pronamide (Kerb) ⁴	23950-58-5	C	--	--	--	--	2E+00
Reserpine ⁴	50-55-5	B	1.05E+01	6.67E-02	3.33E-03	1.05E+01	3.33E-04
Styrene	100-42-5	B	3.0E-02	2.3E+01	1.2E+00	2.0E-03	1.8E+00
1,1,2,2-Tetrachloroethane	79-34-5	C	2.00E-01	3.50E+01	1.75E+00	2.00E-01	1.75E-01
Thiourea ⁴	62-56-6	B	1.93E+00	3.63E-01	5.18E-02	1.93E+00	5.18E-03
Toxaphene	8001-35-2	B	1.1E+00	6.4E-01	See MCL	1.1E+00	3.2E-03
1,1,2-Trichloroethane	79-00-5	C	5.7E-02	1.2E+02	6.1E+00	5.7E-02	6.1E-01
Trichloroethylene	79-01-6	B	1.1E-02	6.4E+01	See MCL	1.3E-02	2.7E-01
2,4,6-Trichlorophenol	88-06-2	B	2.0E-02	3.5E+01	1.8E+00	2.0E-02	1.8E-01

- 1 These criteria are subject to change and will be confirmed by the regulatory agency prior to use.
- 2 The EPA Carcinogen Classification system is discussed in 51 FR 33992-34003 (Guidelines for Carcinogen Risk Assessment)
- 3 See Table 8-2 for the appropriate intake assumptions used to derive these criteria.
- 4 Indicates criteria undergoing EPA review.



Oregon Department of Environmental Quality
Forester Equipment Inc

Summary Information

General Site Information

24-00-4114

Site Name: Forester Equipment Inc
Address: 161 4TH AVE S
 MILL CITY, 97360
County: MARION
Site Type: Soil Matrix Cleanup
Project Manager N/A - Project Completed.

Basic Incident Information

Received Date: 07/19/2000
Status: CLOSED
Tank Type: Regulated Tank
File Status: No Further Action
UST Facility Id: 1707

Assessment Information

Cause of Release:	UNKNOWN	Source of Release:	NOT REPORTED	Discovery Method:	DECOMMISSIONING
Media Effected	>Soil	Contaminants Released	>Diesel		
Management Information					
Release Stopped Date:	07/19/1999	Cleanup Start Date:	07/14/2000	Cleanup End Date:	10/12/2001

Site Documents

Click the link to view the document.

<u>File Name</u>	<u>Category</u>	<u>File Size MB</u>	<u>Upload Date</u>
24004114NFA12OCT2001.pdf	No Further Action Letter	0.1245	3/3/2015
24004114NFAandEntireFile.pdf	No Further Action Letter	1.4380	4/14/2016
24004114decomreportsitediagram25JUL2000.pdf	Site Diagrams	0.3368	3/3/2015

[Department of Environmental Quality](#)

700 NE Multnomah Street, Suite 600 Portland, OR 97232

Hours: Mon-Fri, 8 a.m.-5 p.m

Email: DEQInfo@deq.state.or.us | Phone: 503-229-5696 | Fax: 503-229-6124

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Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 1128, Hoover's Shop

<u>General Site Information</u>							
Site ID: 1128	Site Name: Hoover's Shop		CERCLIS No:				
Address:	SW 5th Ave. & Linn Place Mill City 97360						
	County: Linn	Region: Western					
Other location information:							
Investigation Status:	Suspect site requiring further investigation						
	Brownfield Site: No	NPL Site: No	Orphan Site: No Study Area: No				
Property:	Township/Range/Sect: 9S , 3E , 30		Tax Lots:				
	Latitude: 44.7545 deg.	Longitude: -122.4818 deg.	Site Size:				
Other Site Names:	<table border="1" style="width: 100%; height: 40px;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td></td> <td></td> </tr> </table>						
<u>Site Characteristics</u>							
General Site Description:							
Site History:							
Contamination Information:	(9/8/89 MJZ) Trees are dying downslope from this facility. It may be due to improper disposal of hazardous waste in the area.						

Manner and Time of Release:				
Hazardous Substances/Waste Types:				
Pathways:				
Environmental/Health Threats:				
Status of Investigative or Remedial Action:				
Data Sources:	Interoffice DEQ memo			
<u>Substance Contamination Information</u>				
Substance	Media Contaminated	Concentration Level	Date Recorded	
No information is available				
<u>Investigative, Remedial and Administrative Actions</u>				
Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	02/11/1994	02/11/1994	Daniel Crouse	SAS
View Full Report Showing Action History (ecsidetailfull.asp?seqnbr=1128#actions)				
Key to Certain Acronyms and Terms in this Report:				

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
- **Region:** DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.

- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

For more information on this site contact the Western regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

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Oregon Department of Environmental Quality
Detroit Dam Project

Print

Summary Information

General Site Information

22-89-4197

Site Name: Detroit Dam Project
Address: STAR ROUTE BOX 317
 MILL CITY, 97360
County: LINN

Basic Incident Information

Received Date: 12/12/1989
Status: CLOSED
Tank Type: Regulated Tank
File Status: No Further Action
UST Facility Id: 9506

Project Manager N/A - Project Completed.

Assessment Information

Cause of Release:	UNKNOWN	Source of Release:	NOT REPORTED	Discovery Method:	DECOMMISSIONING
Media Effected	>Soil	Contaminants Released	>MiscGas		

Management Information

Release Stopped Date:	Cleanup Start Date: 12/08/1989	Cleanup End Date: 10/31/1990
------------------------------	---------------------------------------	-------------------------------------

Site Documents

Click the link to view the document.

<u>File Name</u>	<u>Category</u>	<u>File Size MB</u>	<u>Upload Date</u>
22894197NFAandEntireFile.pdf	No Further Action Letter	0.5550	8/20/2015

Department of Environmental Quality

700 NE Multnomah Street, Suite 600 Portland, OR 97232

Hours: Mon-Fri, 8 a.m.-5 p.m

Email: DEQInfo@deq.state.or.us | Phone: 503-229-5696 | Fax: 503-229-6124

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Appendix C.

Site Photographs

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Photograph 1.

Pedestrian Bridge over the North Santiam River.



Photograph 2.

View of the Project Corridor to the southwest.



Photograph 3.

Pedestrian Bridge decking and structure.



Photograph 4.

View to the northeast of the access path to the Pedestrian Bridge.



Photograph 5.

View to the north of the construction staging area and potential bioslope area on the northeast side of the Project Corridor, and soil sample SS-05 location.



Photograph 6.

Asbestos sample Ped-AS-01/02: Mastic on timber supports.



Photograph 7.

Tan paint on bench on the north side of the Bridge.



Photograph 8.

Red paint on sections of the railing on the south side of the Bridge.



Photograph 9.

Lead-based paint sample
Ped-01: Vertical supports
and end diagonals.



Photograph 10.

Lead-based paint sample
Ped-02: Diagonal supports.



Photograph 11.

View to the northeast of
Linn Place and SW 5th Ave.

Appendix D.

Site Reconnaissance Checklist and Field Forms

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INITIAL SITE ASSESSMENT (ISA) CHECKLIST

Project Information

District:	County: <i>Linn</i>	Route: First Avenue	Milepost:
Description: <i>Pedestrian Bridge</i>			
Does the project have potential hazardous waste involvement? <i>Yes</i>			

Screening Criteria

1. Project Features: New R/W? <i>N</i>	Excavation? <i>Y</i>	Relocate Utilities? <i>N</i>
2. Land Use History and Development Setting (urban/rural; industrial, commercial, agricultural, housing other –list)		
Current land uses: <i>Bridge and public roadway/paths, residential</i>		
Previous land uses: <i>Bridge, railroad</i>		
Adjacent land uses: <i>roadway, residential, commercial</i>		
3. In-house record review <i>Yes</i>		
4. Any known hazardous waste sites in vicinity? <i>No</i> If yes, identify and explain.		

Optional Records

County Assessor	Fire Dept	Sanborn Maps <i>X</i>	Other
-----------------	-----------	-----------------------	-------

Take photos of sites or sketch

Visual Inspection

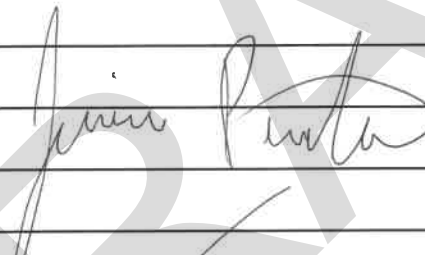
Storage Structures:	Contamination:	Potential asbestos containing materials: <i>Yes</i>
Underground tanks	Surface Staining	Buildings
Aboveground tanks	Oil sheen	Sprayed-on fireproofing
Sumps	Odors	Pipe wrap
Ponds	Stress vegetation	Floor tiles
Transformers <i>Yes</i>	Other	Siding
Other		Ceiling tiles
		Acoustical plaster
Sites: <i>Various in Project Corridor</i>	Sites	Sites: <i>mastic/adhesive</i>

Comments:

Conducted by: Jessica Penetar-CES

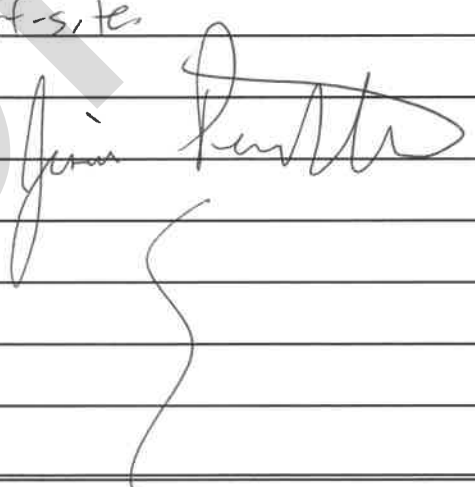
See laboratory report for results of asbestos survey, soil sampling, and lead paint sampling

PROJECT: Linn County - Mill City Revit.		PROJECT #: 2019230014	
LOCATION: Mill City, OR		TASK #:	
CONTRACTOR: —		BILLING GROUP #:	
CES PERSONNEL: J. Penetar		PAGE 1 OF 2	
WEATHER: Sunny 55°F		DATE: 5/29/19	
TIME	DESCRIPTION OF WORK		
852	J. Penetar of CES on-site for soil sampling and Phase I recon.		
	<p>Wooden timber railings on pedestrian bridge are not painted. No wood timbers on 1st Ave bridge. Both bridges are at ^{JP} high above river. Cannot safely access asbestos sampling.</p> <p>→ Small section of timber bench on Ped bridge is painted.</p> <p>Will sample under bridges on sides and from platform ←</p> <p>Step stool will do.</p>		
942	Collect SS-06. 2 point Composite from top 18" on north east side of 1st Ave bridge. Decon.		
1011	Collect SS-05. 2 point composite, top 18" from NE ^{NE} side of Ped bridge. Decon. Note: samples collected w/ Stainless Steel Shovel.		
1040	Collect SS-08 from SE side of 1st Ave bridge. 2 point composite, top 18"		
1102	Collect SS-07 from SW side of 1st Ave Bridge. 2pt Composite, top 18" decon		
1129	Collect SS-01 from inbetween Linn Pl + Broadway. 2 pt Composite, 18" deep Decon.		

PROJECT: Lim County - Mill City		PROJECT #: 2019230014
CES PERSONNEL: J. Penetar		PAGE 2 OF 2
		DATE: 5/29
TIME	DESCRIPTION OF WORK	
1200	Collect SS-02 from area SW of ped bridge. 2 point composite. top 18" decan	
1228	Collect SS-03 from area NW of ped bridge. 2 point composite. top 18" decan	
1253	Collect SS-04 from area south of ped bridge. 2 point composite. top 18" decan & cont clean up.	
1305	JP off-site.	
		

PROJECT: Linn County - Mill city	PROJECT #: 201923 0014
LOCATION: Mill City	TASK #: ^{Phase} 001 + 002
CONTRACTOR:	BILLING GROUP #:
CES PERSONNEL: J. Penetar, C. Coffor	PAGE 1 OF 2
WEATHER: cloudy, 65°F	DATE: 6/5/19

TIME	DESCRIPTION OF WORK
926	CES on-site for asbestos survey and lead paint sampling
930	Start w/ Pedestrian Bridge - No paint on most of wood. One section of benching railing has tan paint. Lead swab shows no lead paint.
935	Several beams on railing have some red paint. Timbers are not entirely coated. Swab did not turn red, no lead paint indicated. \rightarrow likely covering graffiti. Some graffiti noted on railings. Metal railing above bench across factory road, will not sample. Iron suspensions appear to have black paint, main beams appear to be coated. Will sample both.
1005	Collect Ped-02 From steel cross supports. on Pedestrian bridge
1007	Collect Ped-01 from Suspension main Support. Both Ped-01 - Ped-02 are multi-part composites where paint was chipping.
1012	Lead sampling on First Ave Bridge. No wooden rails. All of bridge metal supports appear to have some green paint. Approach railings not painted. Rails

PROJECT: Mill City - Linn County		PROJECT #:
CES PERSONNEL:		PAGE 2 OF 2
		DATE: 5/15/19
TIME	DESCRIPTION OF WORK	
	on bridge are concrete, Not painted.	
	Green paint chipping in poor condition in many spots.	
1020	Collect Ave-01 from First Avenue bridge paint.	
1025	Asbestos Survey of Pedestrian bridge. → see sample sheet.	
1030	Collect Ped-As-01 from As-01 ter-like substance on bridge → see sheet. Treated tubes	
	No other potential asbestos containing material observed	
1043	Start Asbestos Survey on First Ave bridge.	
	Under bridge, piling caps and rubber spacers all of similar construction.	
1135	Finish asbestos. Inspect Project Corridor + take photos for it.	
1200	CES off-site.	
		

Sampler Name: J. Penetar					
Date: 6/5/19					
Site: Mill City					
Sample ID	Time	Material Description	Location	Condition	Friable?
Red-AS-01	1030	tar-like, hard	Approach Support, Ped bridge	Fair	NO
Red-AS-02	1035	"	"	"	"
Ave-AS-01	1045	foam in expansion joint	expansion joint	good	No
Ave-AS-02	1046	"	"	"	"
Ave-AS-03	1049	"	"	"	"
Ave-AS-04	1051	Mastic to JO	Between concrete railing piles	Fair good	NO
Ave-AS-05	1052	Mastic	"	Fair	"
Ave-AS-06	1056	piling cap, fibrous	on top of wood pilings	Fair	NO
Ave-AS-07	1057	"	"	"	"
Ave-AS-08	1058	rubber-like	between steel I-beams	good	NO
Ave-AS-09	1059	"	"	"	"
Ave-AS-10	1104	Adhesive	(on concrete, below bridge)	good	yes
Ave-AS-11	1105	"	in between beams	good	yes
Ave-AS-12	1112	pipings insulation	~2" pipe, side of bridge	good	NO
Ave-AS-13	1113	"	"	"	"
Ave-AS-14	1114	"	"	"	"
Ave-AS-15	1117	paper	underside of concrete trusses	poor	No
Ave-AS-16	1118	"	"	"	NO
Ave-AS-17	1122	pipe wrap and adhesive	Stormwater pipe under bridge	poor	NO
Ave-AS-18	1123	"	"	poor	"
Ave-AS-19	1124	"	"	"	"
Ave-AS-20	1125	"	"	good	NO
Ave-AS-21	1126	"	"	"	"
CES Ave-AS-22	1127	"	"	"	"

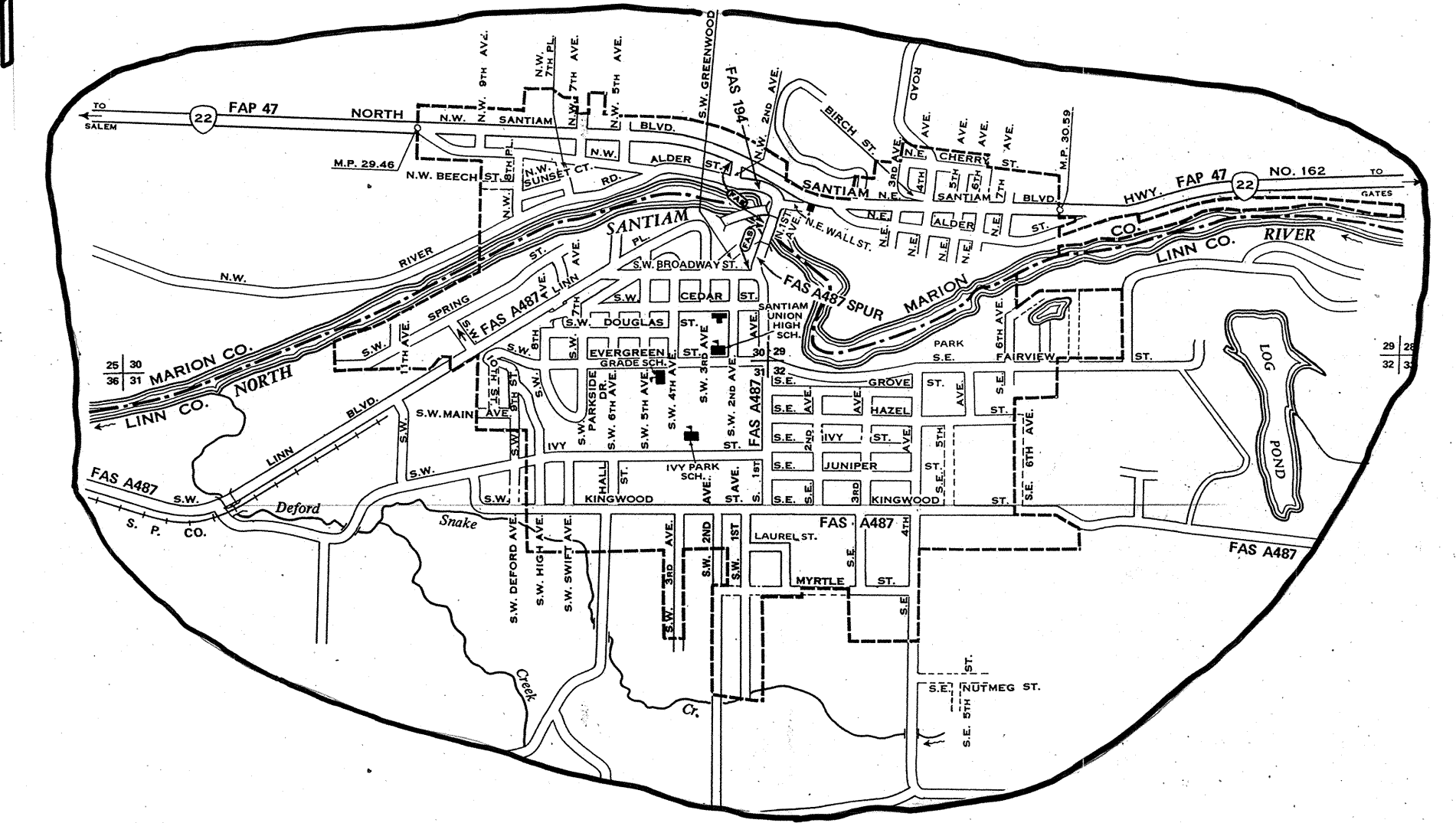
Appendix E.
Bridge Drawings

DRAFT

PLANS FOR:

CITY OF MILL CITY

BRIDGE AND BIKE/PEDESTRIAN TRAIL IMPROVEMENTS



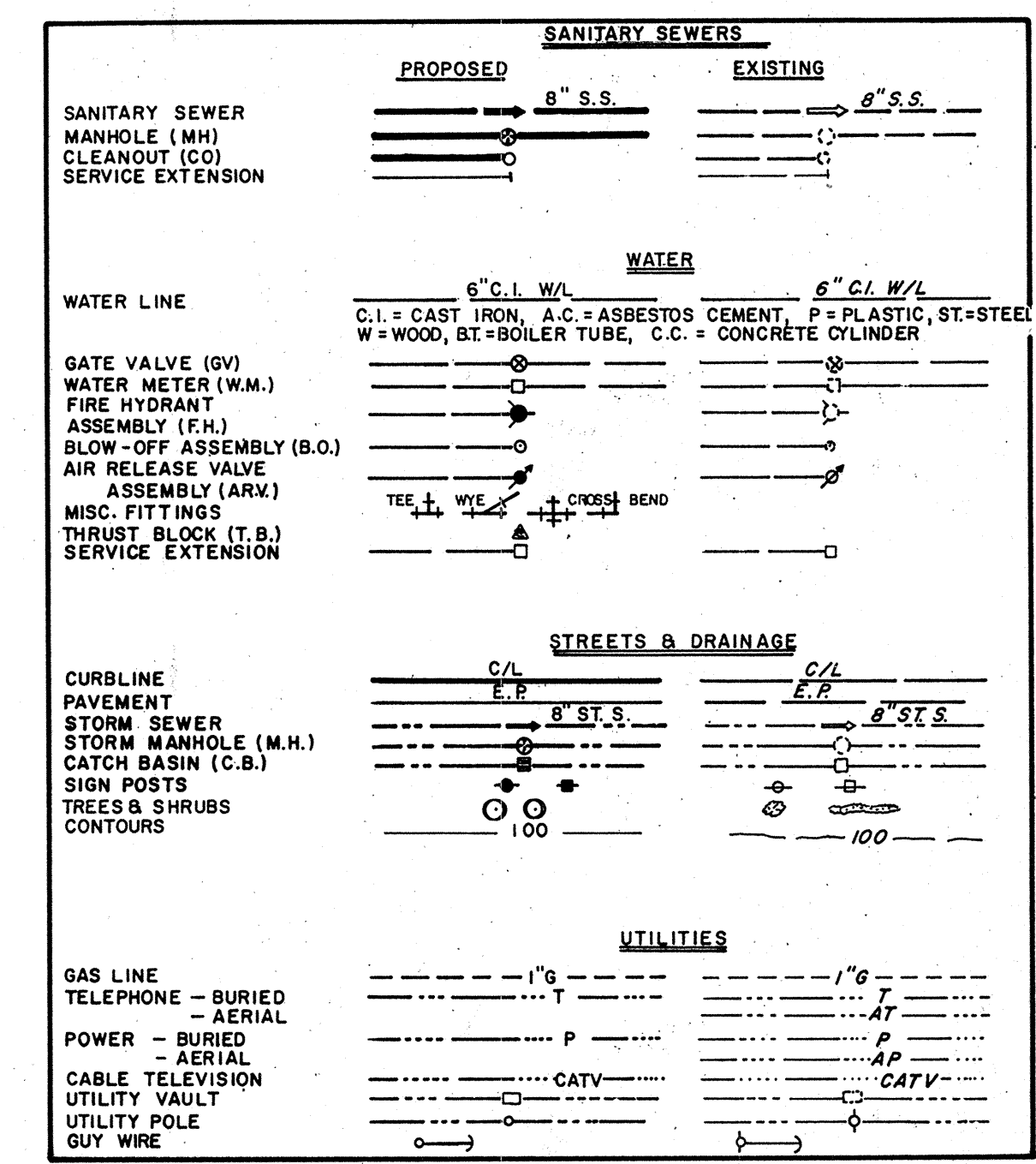
(STREET)
VICINITY MAP

NOTES:

- CONTRACTOR TO NOTIFY CITY AND ALL UTILITY COMPANIES A MINIMUM OF 48 BUSINESS HOURS (2 BUSINESS DAYS) PRIOR TO START OF CONSTRUCTION, AND COMPLY WITH ALL OTHER REQUIREMENTS OF ORS 757.541 TO 757.574.
- ALL MATERIALS AND WORKMANSHIP FOR PUBLIC FACILITIES SHALL CONFORM TO THE CITY STANDARD CONSTRUCTION SPECIFICATIONS, UNLESS OTHERWISE APPROVED BY THE ENGINEER. CONSTRUCTION OF ALL PUBLIC FACILITIES SHALL BE DONE BETWEEN 7:00 A.M. AND 6:00 P.M.
- CONTRACTOR SHALL ERECT AND MAINTAIN BARRICADES, WARNING SIGNS, TRAFFIC CONES PER CITY REQUIREMENTS IN ACCORDANCE WITH THE MUTCD (INCLUDING OREGON AMENDMENTS). ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES. ALL TRAFFIC CONTROL MEASURES SHALL BE APPROVED AND IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITY.
- THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF APPROVED DRAWINGS ON THE CONSTRUCTION SITE AT ALL TIMES WHEREON HE WILL RECORD ANY APPROVED DEVIATIONS IN CONSTRUCTION FROM THE APPROVED DRAWINGS, AS WELL AS THE STATION LOCATIONS AND DEPTHS OF ALL EXISTING UTILITIES ENCOUNTERED. THESE FIELD RECORD DRAWINGS SHALL BE KEPT UP TO DATE AT ALL TIMES AND SHALL BE AVAILABLE FOR INSPECTION BY THE ENGINEER UPON REQUEST.
- UPON COMPLETION OF CONSTRUCTION OF PUBLIC FACILITIES, CONTRACTOR SHALL SUBMIT A CLEAN SET OF FIELD RECORD DRAWINGS CONTAINING ALL AS-BUILT INFORMATION TO THE ENGINEER FOR SUBMITTAL TO THE CITY.
- THE LOCATION AND DESCRIPTIONS OF EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE COMPILED FROM AVAILABLE RECORDS AND/OR FIELD SURVEYS. THE ENGINEER, CITY OR UTILITY COMPANIES DO NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF SUCH RECORDS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WHERE NEW FACILITIES CROSS. CONTRACTOR SHALL BE RESPONSIBLE FOR EXPOSING POTENTIAL UTILITY CONFLICTS FAR ENOUGH AHEAD OF CONSTRUCTION TO MAKE NECESSARY GRADE MODIFICATIONS WITHOUT DELAYING THE WORK. IF GRADE MODIFICATION IS NECESSARY, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO CONSTRUCTION. ALL UTILITY CROSSINGS SHALL BE PHOTOGRAPHED AS NECESSARY PRIOR TO EXCAVATING OR BORING TO ALLOW THE CONTRACTOR TO PREVENT GRADE OR ALIGNMENT CONFLICTS.
- ALL EXISTING UTILITIES AND OTHER FACILITIES SHALL BE MAINTAINED IN-PLACE BY THE CONTRACTOR UNLESS OTHERWISE SHOWN OR DIRECTED. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO SUPPORT, MAINTAIN, OR OTHERWISE PROTECT EXISTING UTILITIES AND OTHER FACILITIES AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR TO LEAVE EXISTING UTILITIES AND OTHER FACILITIES IN AN EQUAL OR BETTER-THAN-ORIGINAL CONDITION AND TO THE SATISFACTION OF THE ENGINEER.
- UTILITIES, OR INTERFERING PORTIONS OF UTILITIES, THAT ARE ABANDONED IN PLACE SHALL BE REMOVED BY THE CONTRACTOR TO THE EXTENT NECESSARY TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL FLAG THE REMAINING EXPOSED ENDS OF ABANDONED UTILITIES.
- CONTRACTOR SHALL REMOVE ALL EXISTING SIGNS, MAILBOXES, FENCES, LANDSCAPING, ETC., AS REQUIRED TO AVOID DAMAGE DURING CONSTRUCTION AND REPLACE THEM TO EXISTING OR BETTER CONDITION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MANAGING CONSTRUCTION ACTIVITIES TO INSURE THAT PUBLIC STREETS AND RIGHT-OF-WAYS ARE KEPT CLEAN OF MUD, DUST OR DEBRIS.
- IMMEDIATELY FOLLOWING FINE GRADING OPERATIONS, COMPACT SUBGRADE TO 95% OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD. SUBGRADE MUST BE INSPECTED AND APPROVED BY ENGINEER PRIOR TO PLACING EMBANKMENTS OR BASE ROCK.
- FILLS SHALL BE CONSTRUCTED IN 6" LIFTS. EACH LIFT SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD.
- CRUSHED ROCK SHALL CONFORM TO THE REQUIREMENTS OF SECTION 02430 (BASE AGGREGATE) OSH STANDARD SPECIFICATIONS. CONTACT TO 95% OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD.
- A.C. PAVEMENT SHALL CONFORM TO SECTION 00745 (ASPHALT CONCRETE PAVEMENT) OSH STANDARD SPECIFICATIONS FOR STANDARD DUTY MIX. A.C. PAVEMENT SHALL BE COMPACTED TO A MINIMUM OF 91% OF MAXIMUM DENSITY AS DETERMINED BY THE RICE STANDARD METHOD.
- ALL EXISTING OR CONSTRUCTED MANHOLES, CLEANOUTS, MONUMENTS, GAS VALVES, WATER VALVES AND SIMILAR STRUCTURES SHALL BE ADJUSTED TO MATCH FINISH GRADE OF THE PAVEMENT, SIDEWALK, LANDSCAPED AREA OR MEDIAN STRIP WHEREIN THEY LIE.
- ALL PIPES SHALL BE BEDDED WITH MINIMUM 4-INCHES OF 3/4" MINUS CRUSHED ROCK BEDDING AND BACKFILLED WITH COMPACTED 3/4" MINUS CRUSHED ROCK IN THE PIPE ZONE (CRUSHED ROCK SHALL EXTEND A MINIMUM OF 12-INCHES OVER THE TOP OF THE PIPE IN ALL CASES). CRUSHED ROCK TRENCH BACKFILL SHALL BE USED UNDER ALL IMPROVED AREAS.
- ALL NON-METALLIC WATER, SANITARY AND STORM SEWER PIPING SHALL HAVE AN ELECTRICALLY CONDUCTIVE INSULATED 12 GA COPPER TRACER WIRE THE FULL LENGTH OF THE INSTALLED PIPE USING BLUE WIRE FOR WATER AND GREEN FOR STORM AND SANITARY PIPING. TRACER WIRE SHALL BE EXTENDED UP INTO ALL VALVE BOXES, AND MANHOLES AND CATCH BASINS. TRACER WIRE PENETRATIONS INTO MANHOLES SHALL BE WITHIN 18 INCHES OF THE RIM ELEVATION AND ADJACENT TO MANHOLE STEPS. THE TRACER WIRE SHALL BE TIED TO THE TOP MANHOLE STEP OR OTHERWISE SUPPORTED TO ALLOW RETRIEVAL FROM THE OUTSIDE OF THE MANHOLE.
- NO TRENCHES IN ROADS OR DRIVEWAYS SHALL BE LEFT IN AN OPEN CONDITION OVERNIGHT. ALL SUCH TRENCHES SHALL BE CLOSED BEFORE THE END OF EACH WORK DAY AND NORMAL TRAFFIC FLOWS RESTORED.
- UNLESS OTHERWISE NOTED OR SHOWN, STORM SEWER PIPE MATERIALS WITH MAXIMUM JOINTS TO CONFORM TO THE TABLE BELOW. CONTRACTOR SHALL USE UNIFORM PIPE MATERIAL ON EACH PIPE RUN BETWEEN STRUCTURES UNLESS OTHERWISE DIRECTED OR APPROVED.

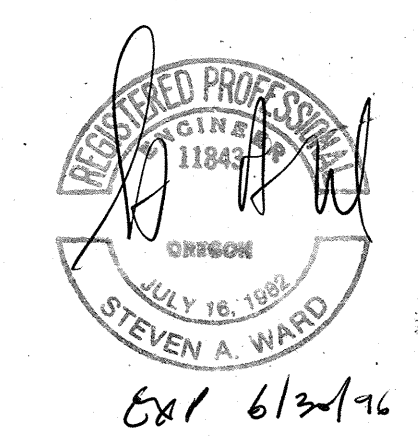
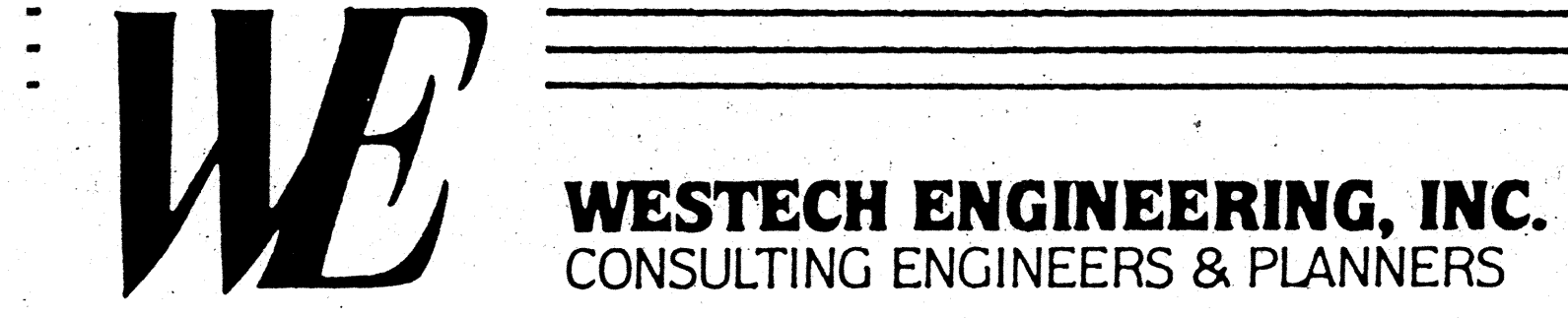
COVER DEPTH	4" - 18" DIAMETER
LESS THAN 1' COVER	CLASS 52 DUCTILE IRON PIPE WITH BELL AND SPIGOT JOINTS AND RUBBER GASKET, ASTM 152, 11' LENGTH
1' TO 24" COVER	PIPE SPECIFIED FOR LESSER COVER DEPTHS -OR- CLASS 3, ASTM C-14 NON-REINFORCED CONCRETE PIPE WITH BELL AND SPIGOT JOINTS AND RUBBER GASKET
24" TO 15' COVER	PIPE SPECIFIED FOR LESSER COVER DEPTHS -OR- PVC PIPE CONFORMING TO ASTM D-3034 SDR 35 (4'-15') OR ASTM F-478 (18") WITH BELL AND SPIGOT JOINTS AND RUBBER GASKET -OR- HDPE (HIGH DENSITY POLYETHYLENE) PIPE CONFORMING TO AASHTO M-282 (4'-10') OR AASHTO M-284 TYPE 1 (12'-18"). PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M-284 TYPE 8 WITH PRESSURE FITTINGS AND O-RING GASKETS CONFORMING TO ASTM F-1336 AND ASTM F-477 RESPECTIVELY.

- CONTRACTOR SHALL PROVIDE ENGINEER WITH PIPE MATERIAL INSTALLED FOR AS BUILT DRAWINGS.
- SWEEP STORM SEWER PIPE INTO CATCH BASINS AND MANHOLES AS REQUIRED.
- UNLESS OTHERWISE SHOWN OR DIRECTED, INSTALL STORM SEWER PIPE IN ACCORDANCE WITH MANUFACTURERS INSTALLATION GUIDELINES.
- CONTRACTOR SHALL CONDUCT DEFLECTION TEST OF FLEXIBLE STORM SEWER PIPES BY PULLING AN APPROVED MANDREL THROUGH THE COMPLETED PIPE LINE. THE DIAMETER OF THE MANDREL SHALL BE 95% OF THE PIPES INITIAL DIAMETER. TEST SHALL BE CONDUCTED NOT LESS THAN 30 DAYS AFTER THE TRENCH BACKFILLING AND COMPACTION HAS BEEN COMPLETED.
- CONTRACTOR SHALL COORDINATE WITH POWER, TELEPHONE, AND CABLE TV COMPANY FOR LOCATION OF VAULTS, PEDESTALS, ETC. ALL ABOVE-GRADE FACILITIES SHALL BE PLACED IN A LOCATION OUTSIDE THE PROPOSED SIDEWALK LOCATION.
- CONTRACTOR SHALL NOTIFY AND COORDINATE WITH PRIVATE UTILITIES FOR RELOCATION OF POWER POLES, VAULTS, ETC.



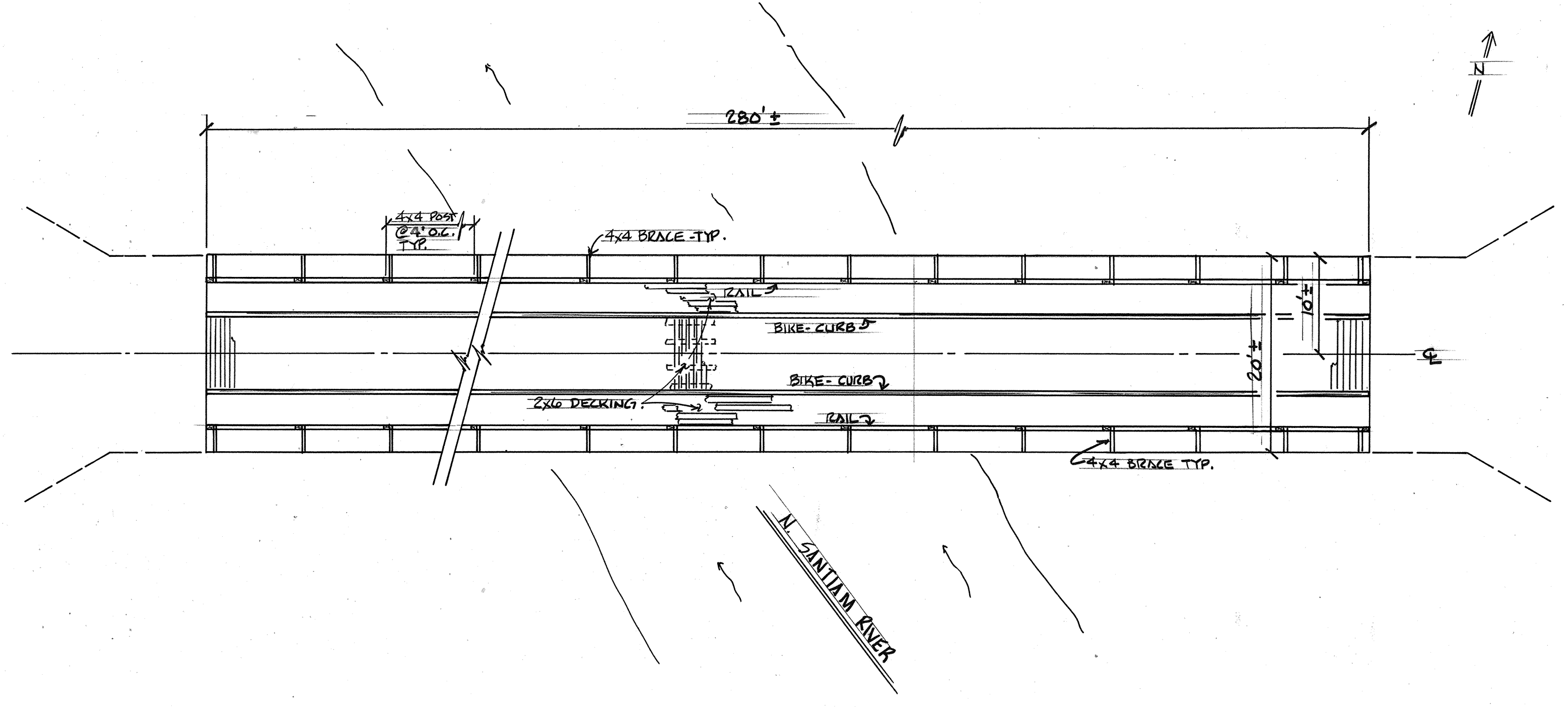
LEGEND

SHEET INDEX	
SHT. NO.	DESCRIPTION
1	COVER SHEET
2	ENLARGED VICINITY MAP
3	BRIDGE DETAILS
4	ADDITIVE ALTERNATE NO. 1 RAILROAD BERM LOWERING
5	ADDITIVE ALTERNATE NO. 1 & 2



6/1 6/2/96

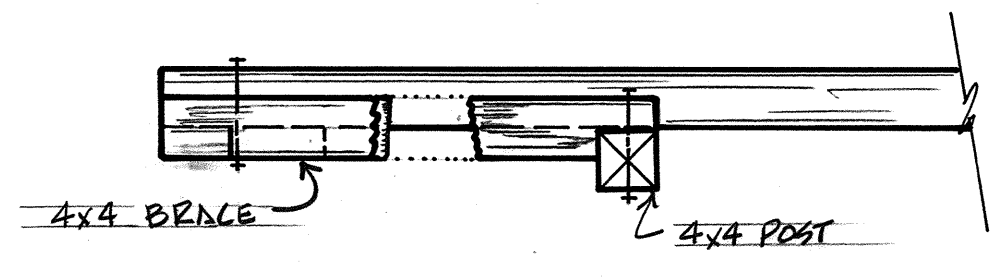
1780.102



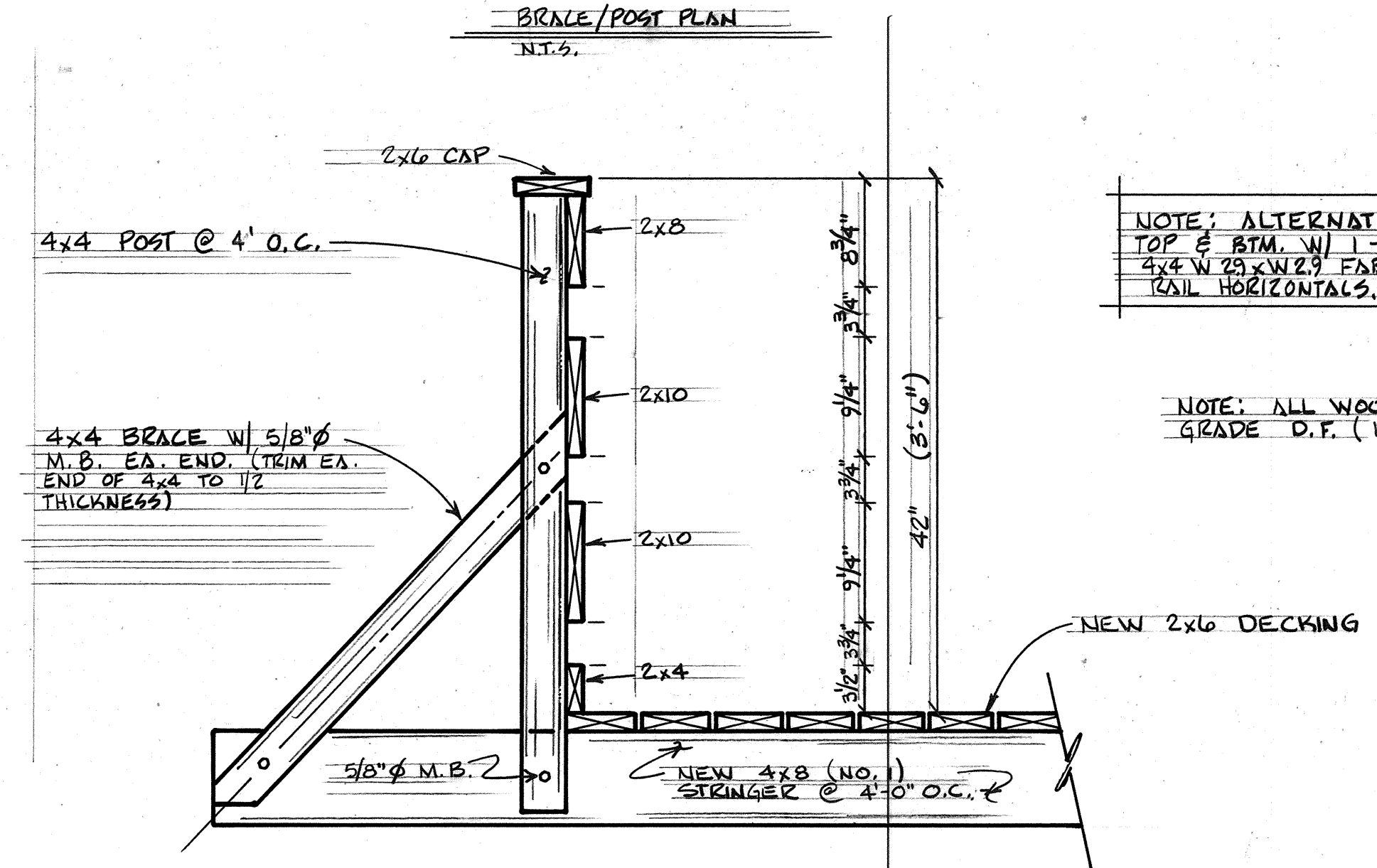
BRIDGE PLAN

1"=10'±

DRAFT



BRACE/POST PLAN
N.T.S.

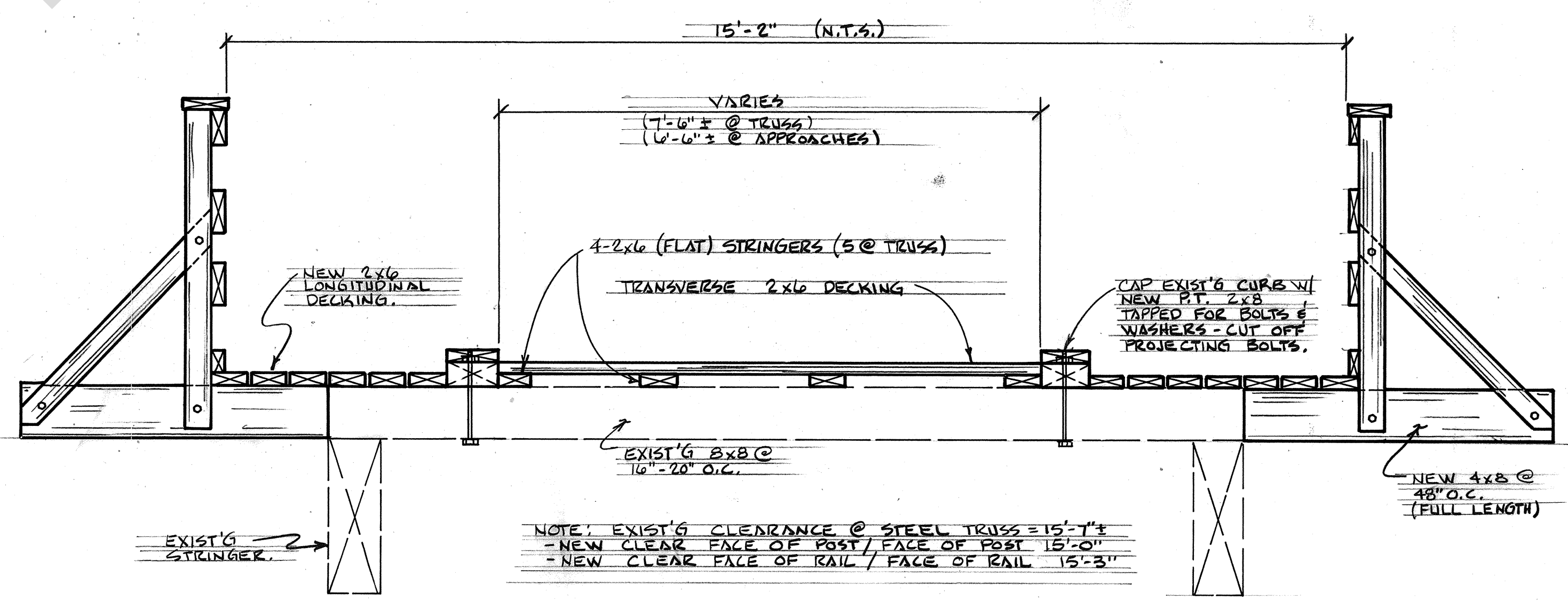


RAIL TYPICAL SECTION

N.T.S.

NOTE: ALTERNATE IS TO USE 2x6s HORIZ. TOP & BTM. W/ 1-2x8 @ MID. HT. (W.W.F. 4x4 W/ 2x2 FABRIC ON OUTSIDE OF RAIL HORIZONTALS.)

NOTE: ALL WOOD TO BE P.T. No. 2 GRADE D.F. (U.N.O.)

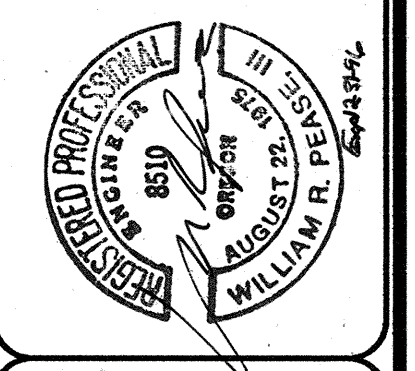


TYPICAL SECTION

N.T.S.

NO.	DATE	DESCRIPTION	BY

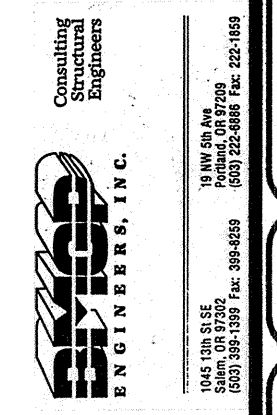
SCALE
HORIZ. 1/8"=1'-0"
VERT. 1/4"=1'-0"
DSN. W.J.P.
DRN. M.D.P.
CKD. [Signature]
DATE: JUNE, 1995

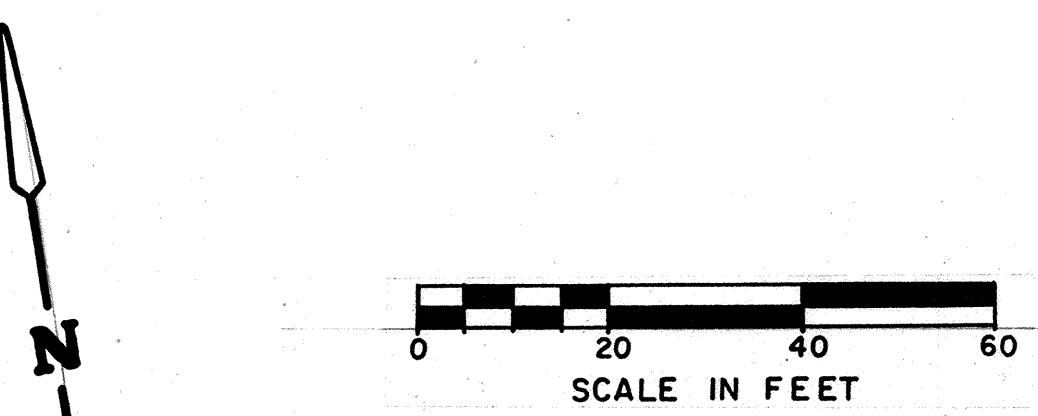


WESTTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS
3421 25th ST. SE., SALEM, OR. (503)885-2474
WJ.P.

CITY OF MILL CITY, ORE.
BRIDGE DETAILS

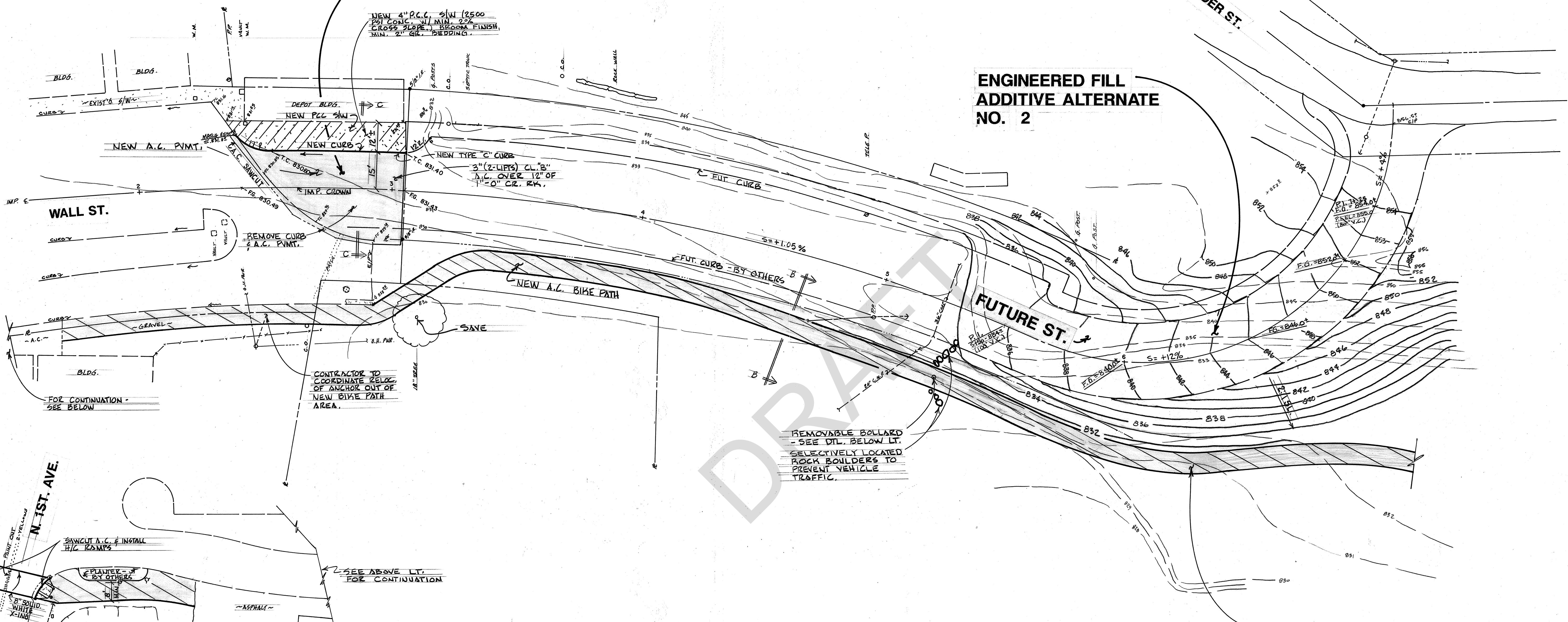
SHEET
3 OF 5
JOB NUMBER
1780.102





**STREET IMP.
ADDITIVE ALTERNATE NO. 1**

**ENGINEERED FILL
ADDITIVE ALTERNATE
NO. 2**

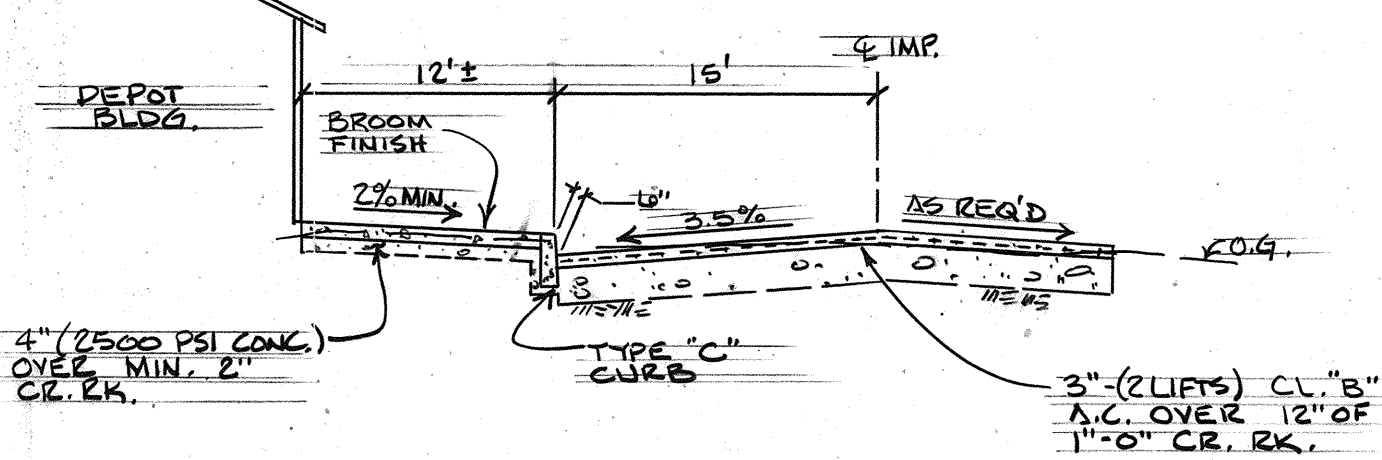


NEW 4" P.C.C. SLU (2500
PSI CONC. 11 MIN. 2 1/2"
CROSS SLOPE, BROOM FINISH,
MIN. 2" G.R. BEDDING.

NEW TYPE "C" CURB
3" (2-LIPS) CL. "B"
A.C. OVER 1 1/2" OF
1"-0" CR. RK.

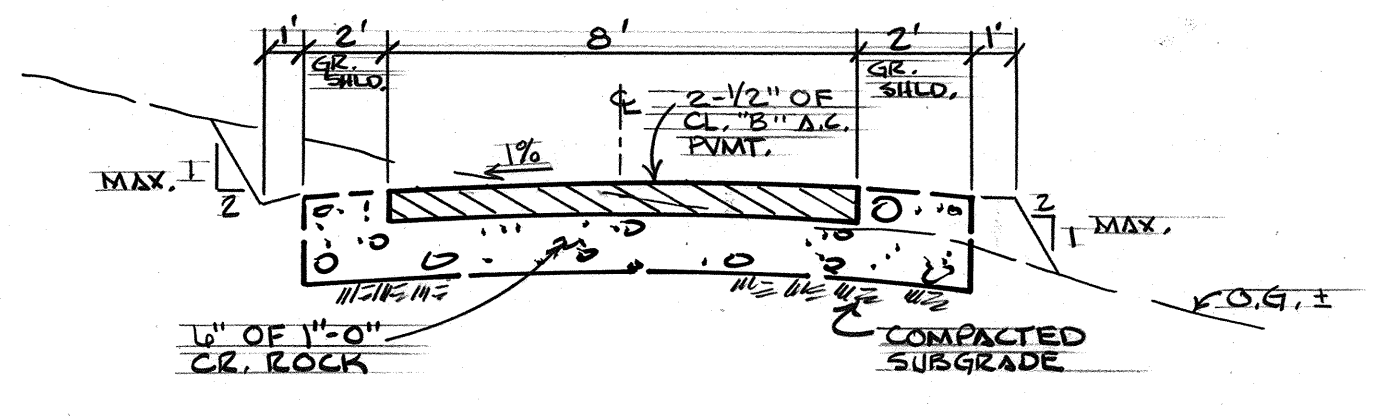
REMOVABLE BOLLARD
- SEE DET. BELOW LT.
SELECTIVELY LOCATED
ROCK BOLLARDS TO
PREVENT VEHICLE
TRAFFIC.

NEW BIKE PATH ALIGNMENT AS
DETERMINED BY ENGINEER (ALIGNMENT
WILL GENERALLY FOLLOW EXIST'G GRAVEL
ROADWAY).



IMPROVEMENT SECTION "C" - "C"

N.T.S.



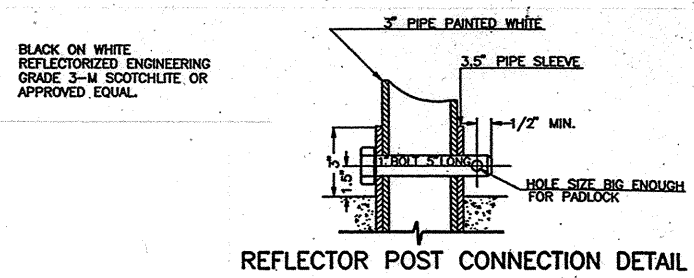
BIKE / PED. SECTION "B" - "B"

N.T.S.

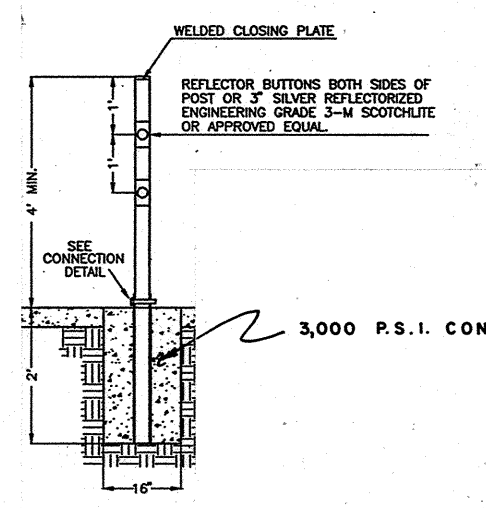
FOR CONTINUATION -
SEE BELOW

CONTRACTOR TO
COORDINATE RELAY
OF ANCHOR OUT OF
NEW BIKE PATH
AREA.

SEE ABOVE LT.
FOR CONTINUATION



REFLECTOR POST CONNECTION DETAIL

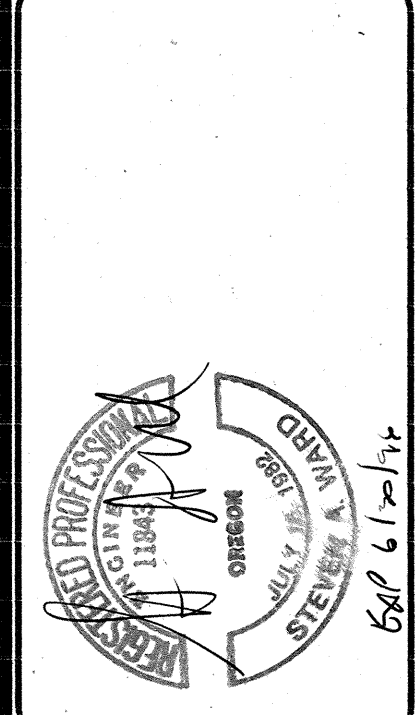


REMOVABLE BOLLARD DETAIL

NO.	DATE	DESCRIPTION	BY

SCALE
HORIZ: 1" = 20'
VERT: 1" = 4'

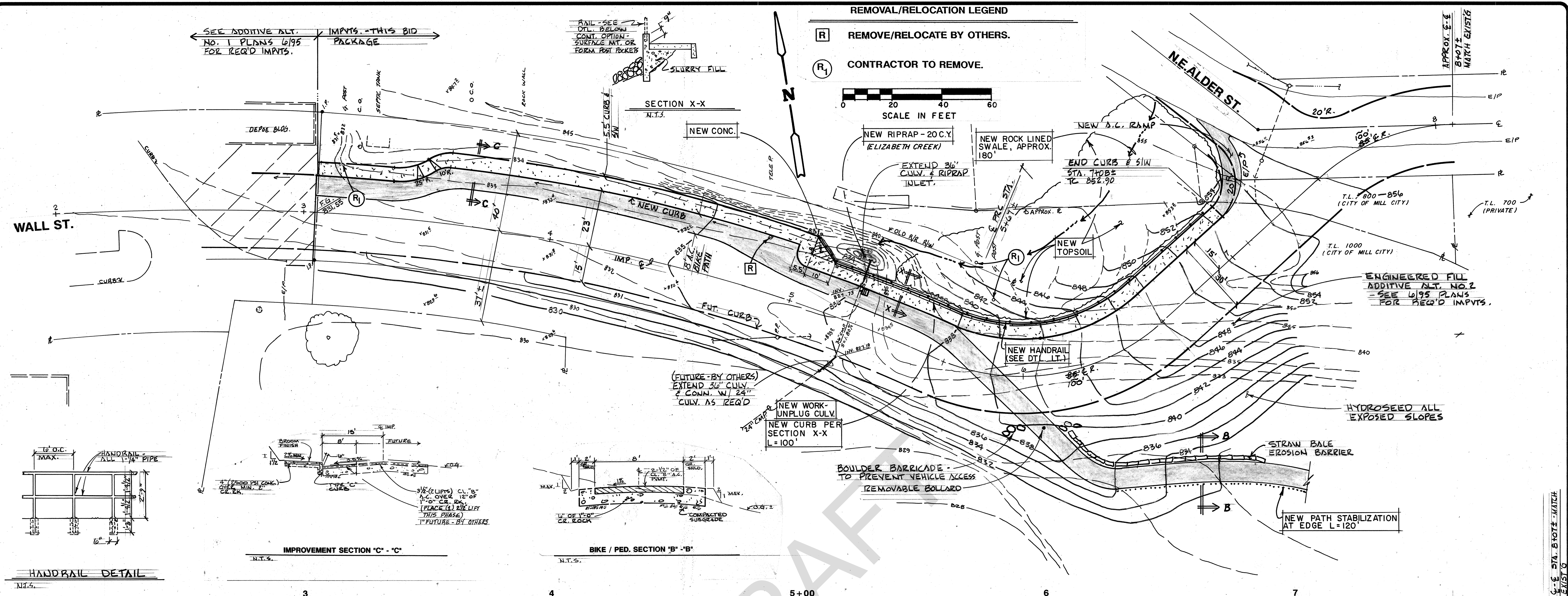
DSN. S.A.W.
DRN. M.D.P.
CHK. [Signature]
DATE: JUNE, 1995



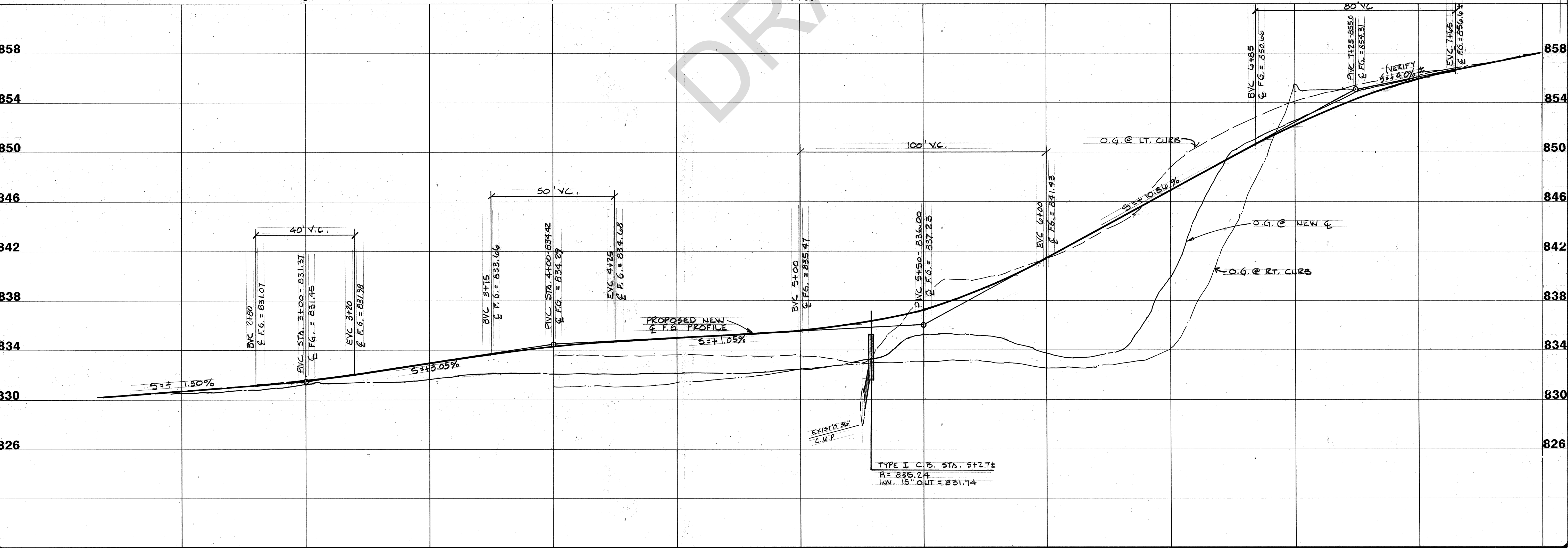
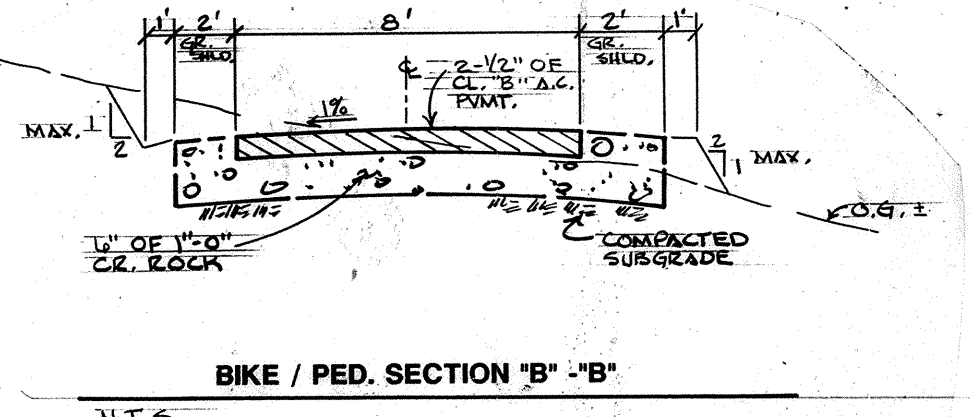
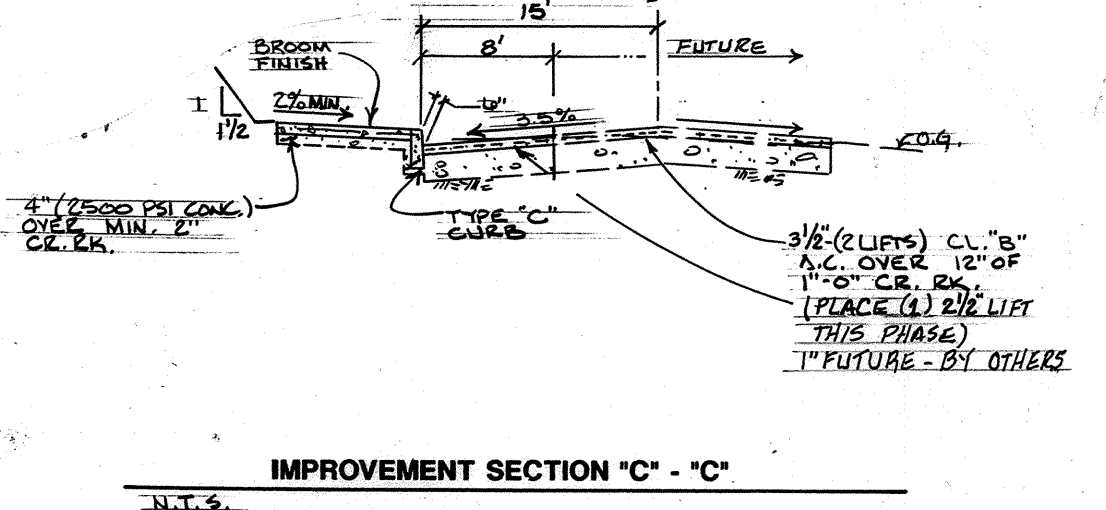
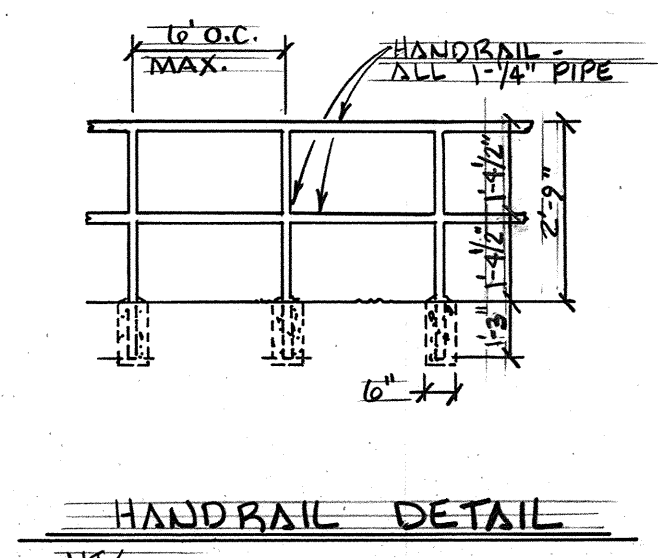
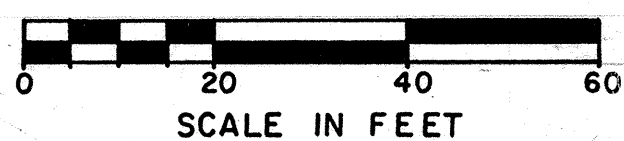
WE
WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS
3421 25th ST. S.E., SALEM, OR. (503) 965-4774

CITY OF MILL CITY, ORE.
**ADDITIVE ALTERNATE
NO. 1 & 2**

SHEET
5 OF 5
JOB NUMBER
1780.102



- (R) REMOVE/RELOCATE BY OTHERS.
- (R1) CONTRACTOR TO REMOVE.



NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

SCALE: HORIZ. 1" = 20', VERT. 1" = 4'

DATE: AUG. 95

WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

3421 25th ST. S.E., SALEM, OREGON 97302
PH (503) 585-2474 FAX (503) 585-3886

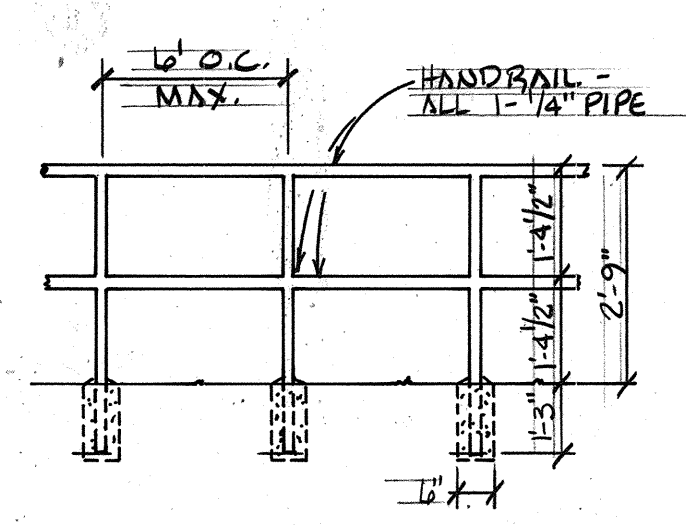
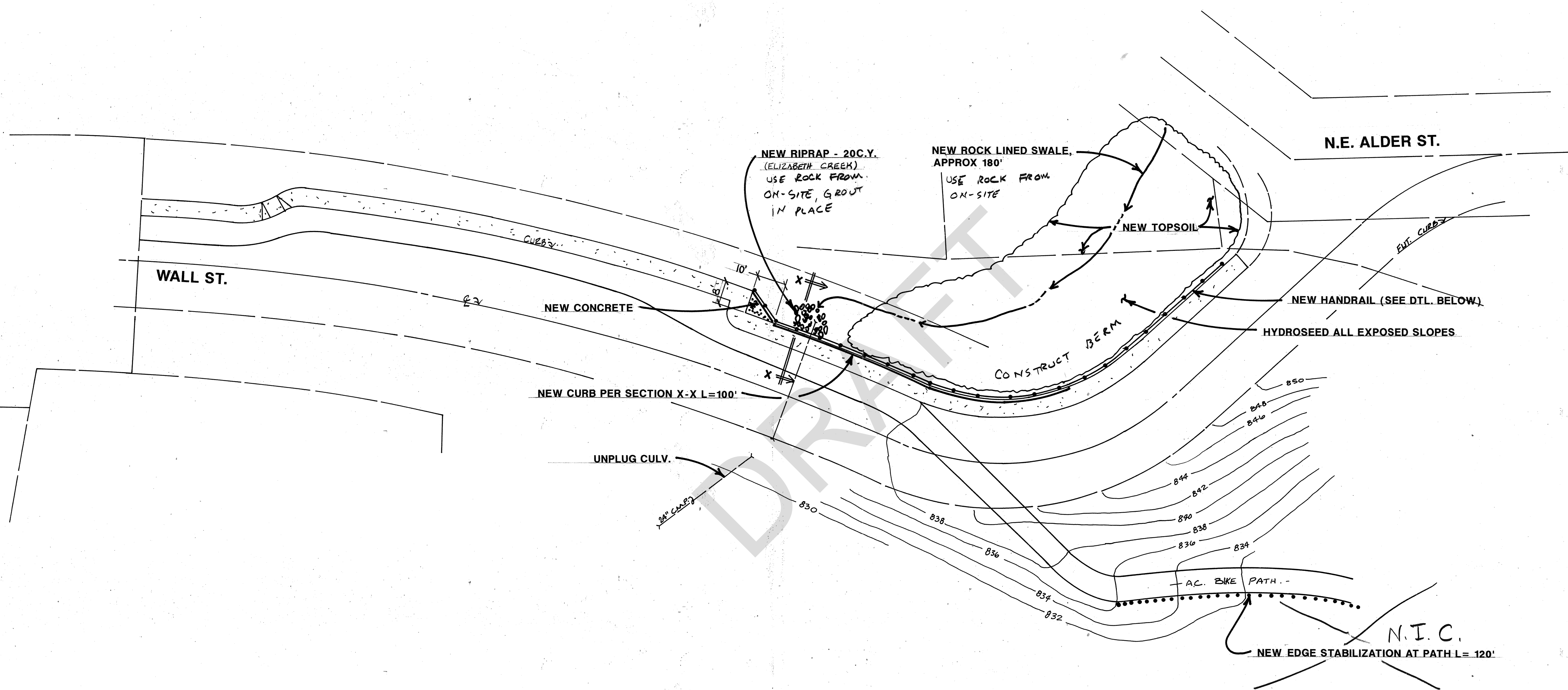
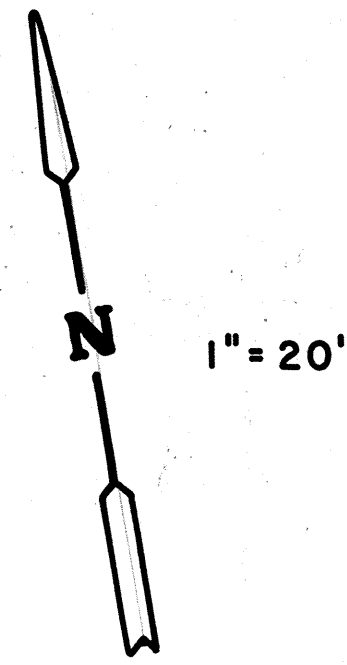
CITY OF MILL CITY

WALL ST. STREET & BIKE PATH IMPROVEMENTS

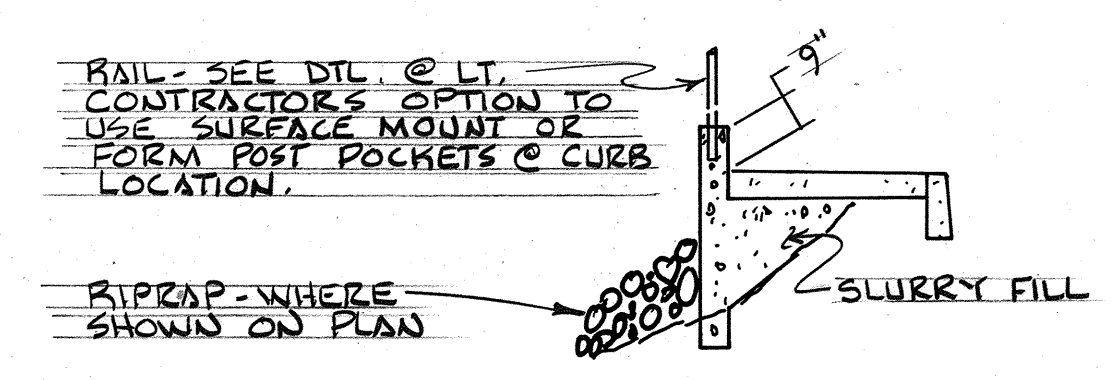
SHEET 1 OF 1

JOB NUMBER 1780.102

Wall St. Bike-ped imp., 1995



HANDRAIL DETAIL
N.T.S.



CURB SECTION X-X
N.T.S.

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
0
DO NOT USE INCH SCALES ACCORDING TO THIS SHEET UNLESS ADJUSTED TO THESE SCALES

NO.	DATE	DESCRIPTION	BY

DSN: S.W./J.M.P.
DRN: M.D.P.
CKD:
DATE: JULY 1996

WE
WESTRICH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS
3421 25th ST. S.E., SALEM, OREGON 97302
PH (503) 585-2474 FAX (503) 585-3986

CITY OF MILL CITY
**WALL ST.
STREET & BIKE PATH
IMPROVEMENTS / REPAIRS**

Appendix F.

Laboratory Analytical Data

DRAFT

ANALYTICAL REPORT

Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

Laboratory Job ID: 580-86646-1
Client Project/Site: Mill City

For:

Cascade Earth Sciences Inc.
3511 Pacific Blvd Sw
Albany, Oregon 97321

Attn: Jessica Penetar



Authorized for release by:
7/1/2019 1:11:43 PM

Nathan Lewis, Project Manager I
(253)922-2310
nathan.lewis@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Table of Contents

Cover Page	1
Table of Contents	2
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QC Sample Results	8
Chronicle	9
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Sample Summary	12
Subcontract Data	13
Chain of Custody	20
Receipt Checklists	26

DRAFT

Case Narrative

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86646-1

Job ID: 580-86646-1

Laboratory: Eurofins TestAmerica, Seattle

Narrative

Job Narrative
580-86646-1

Comments

No additional comments.

Receipt

The samples were received on 6/6/2019 11:47 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.6° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method(s) Moisture: Elevated reporting limits are provided for the following samples due to low sample density and insufficient volume: Ped-01 (580-86646-1), Ped-02 (580-86646-2) and Ave-01 (580-86646-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Subcontract non-Sister

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work

Method Asbestos by EPA PLM Method 600/R-93/116: This method was subcontracted to EMLab - Irvine. The subcontract laboratory certification is different from that of the facility issuing the final report.

Definitions/Glossary

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86646-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86646-1

Client Sample ID: Ped-01
Date Collected: 06/05/19 10:02
Date Received: 06/06/19 11:47

Lab Sample ID: 580-86646-1
Matrix: Solid
Percent Solids: 99.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	12		0.83		mg/Kg	☼	06/18/19 13:17	06/18/19 19:24	1
Chromium	110		1.1		mg/Kg	☼	06/18/19 13:17	06/18/19 19:24	1
Lead	51000		120		mg/Kg	☼	06/18/19 13:17	06/19/19 11:02	100

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	99.0		0.1		%			06/09/19 10:35	1
Percent Moisture	1		0.1		%			06/09/19 10:35	1

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Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86646-1

Client Sample ID: Ped-02

Lab Sample ID: 580-86646-2

Date Collected: 06/05/19 10:05

Matrix: Solid

Date Received: 06/06/19 11:47

Percent Solids: 97.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.99		mg/Kg	☼	06/18/19 13:17	06/18/19 19:29	1
Chromium	120		1.3		mg/Kg	☼	06/18/19 13:17	06/18/19 19:29	1
Lead	13000		15		mg/Kg	☼	06/18/19 13:17	06/19/19 11:05	10

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	97.1		0.1		%			06/09/19 10:35	1
Percent Moisture	2.9		0.1		%			06/09/19 10:35	1

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Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86646-1

Client Sample ID: Ave-01

Lab Sample ID: 580-86646-3

Date Collected: 06/05/19 10:20

Matrix: Solid

Date Received: 06/06/19 11:47

Percent Solids: 98.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	110		0.97		mg/Kg	☼	06/18/19 13:17	06/18/19 19:33	1
Chromium	520		1.3		mg/Kg	☼	06/18/19 13:17	06/18/19 19:33	1
Lead	56000		150		mg/Kg	☼	06/18/19 13:17	06/19/19 11:16	100

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	98.3		0.1		%			06/09/19 10:35	1
Percent Moisture	1.7		0.1		%			06/09/19 10:35	1

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QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86646-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 580-303397/22-A
Matrix: Solid
Analysis Batch: 303460

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 303397

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0		mg/Kg		06/18/19 13:17	06/18/19 18:36	1
Chromium	ND		1.3		mg/Kg		06/18/19 13:17	06/18/19 18:36	1
Lead	ND		1.5		mg/Kg		06/18/19 13:17	06/18/19 18:36	1

Lab Sample ID: LCS 580-303397/23-A
Matrix: Solid
Analysis Batch: 303460

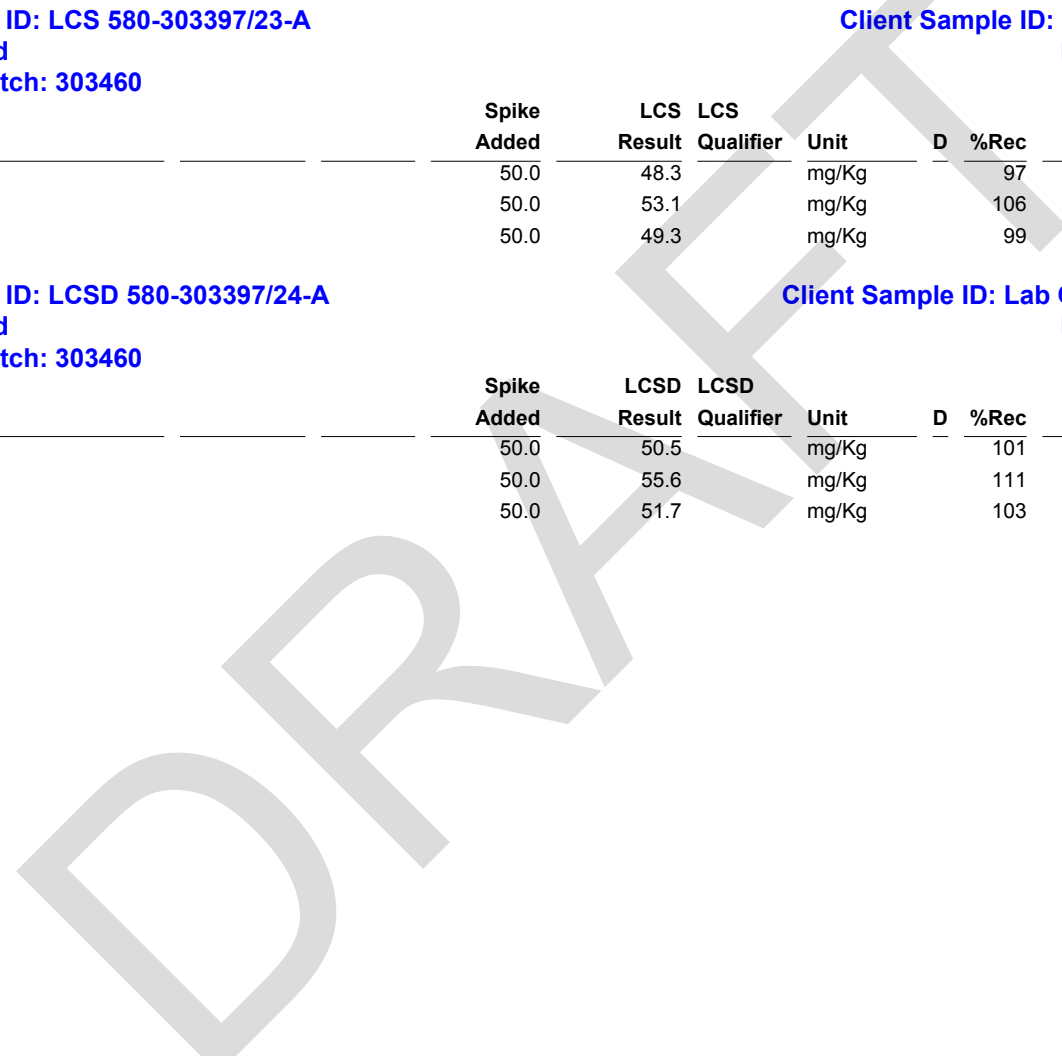
Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303397

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cadmium	50.0	48.3		mg/Kg		97	80 - 120
Chromium	50.0	53.1		mg/Kg		106	80 - 120
Lead	50.0	49.3		mg/Kg		99	80 - 120

Lab Sample ID: LCSD 580-303397/24-A
Matrix: Solid
Analysis Batch: 303460

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 303397

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Cadmium	50.0	50.5		mg/Kg		101	80 - 120	4	20
Chromium	50.0	55.6		mg/Kg		111	80 - 120	5	20
Lead	50.0	51.7		mg/Kg		103	80 - 120	5	20



Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86646-1

Client Sample ID: Ped-01
Date Collected: 06/05/19 10:02
Date Received: 06/06/19 11:47

Lab Sample ID: 580-86646-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	302712	06/09/19 10:35	JCM	TAL SEA

Client Sample ID: Ped-01
Date Collected: 06/05/19 10:02
Date Received: 06/06/19 11:47

Lab Sample ID: 580-86646-1
Matrix: Solid
Percent Solids: 99.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			303397	06/18/19 13:17	JCP	TAL SEA
Total/NA	Analysis	6010C		1	303460	06/18/19 19:24	SPP	TAL SEA
Total/NA	Prep	3050B			303397	06/18/19 13:17	JCP	TAL SEA
Total/NA	Analysis	6010C		100	303519	06/19/19 11:02	SPP	TAL SEA

Client Sample ID: Ped-02
Date Collected: 06/05/19 10:05
Date Received: 06/06/19 11:47

Lab Sample ID: 580-86646-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	302712	06/09/19 10:35	JCM	TAL SEA

Client Sample ID: Ped-02
Date Collected: 06/05/19 10:05
Date Received: 06/06/19 11:47

Lab Sample ID: 580-86646-2
Matrix: Solid
Percent Solids: 97.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			303397	06/18/19 13:17	JCP	TAL SEA
Total/NA	Analysis	6010C		1	303460	06/18/19 19:29	SPP	TAL SEA
Total/NA	Prep	3050B			303397	06/18/19 13:17	JCP	TAL SEA
Total/NA	Analysis	6010C		10	303519	06/19/19 11:05	SPP	TAL SEA

Client Sample ID: Ave-01
Date Collected: 06/05/19 10:20
Date Received: 06/06/19 11:47

Lab Sample ID: 580-86646-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	302712	06/09/19 10:35	JCM	TAL SEA

Client Sample ID: Ave-01
Date Collected: 06/05/19 10:20
Date Received: 06/06/19 11:47

Lab Sample ID: 580-86646-3
Matrix: Solid
Percent Solids: 98.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			303397	06/18/19 13:17	JCP	TAL SEA
Total/NA	Analysis	6010C		1	303460	06/18/19 19:33	SPP	TAL SEA
Total/NA	Prep	3050B			303397	06/18/19 13:17	JCP	TAL SEA
Total/NA	Analysis	6010C		100	303519	06/19/19 11:16	SPP	TAL SEA

Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86646-1

Laboratory References:

TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Accreditation/Certification Summary

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86646-1

Laboratory: Eurofins TestAmerica, Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-20
ANAB	Dept. of Defense ELAP		L2236	01-19-22
ANAB	DoD		L2236	01-19-22
ANAB	ISO/IEC 17025		L2236	01-19-22
ANAB	ISO/IEC 17025		L2236	01-19-22
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-19
Oregon	NELAP		WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-20

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Sample Summary

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86646-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
580-86646-1	Ped-01	Solid	06/05/19 10:02	06/06/19 11:47	
580-86646-2	Ped-02	Solid	06/05/19 10:05	06/06/19 11:47	
580-86646-3	Ave-01	Solid	06/05/19 10:20	06/06/19 11:47	
580-86646-4	Ped-As-01	Solid	06/05/19 10:30	06/06/19 11:47	
580-86646-5	Ped-As-02	Solid	06/05/19 10:35	06/06/19 11:47	
580-86646-6	Ave-As-01	Solid	06/05/19 10:45	06/06/19 11:47	
580-86646-7	Ave-As-02	Solid	06/05/19 10:46	06/06/19 11:47	
580-86646-8	Ave-As-03	Solid	06/05/19 10:49	06/06/19 11:47	
580-86646-9	Ave-As-04	Solid	06/05/19 10:51	06/06/19 11:47	
580-86646-10	Ave-As-05	Solid	06/05/19 10:52	06/06/19 11:47	
580-86646-11	Ave-As-06	Solid	06/05/19 10:56	06/06/19 11:47	
580-86646-12	Ave-As-07	Solid	06/05/19 10:57	06/06/19 11:47	
580-86646-13	Ave-As-08	Solid	06/05/19 10:58	06/06/19 11:47	
580-86646-14	Ave-As-09	Solid	06/05/19 10:59	06/06/19 11:47	
580-86646-15	Ave-As-10	Solid	06/05/19 11:04	06/06/19 11:47	
580-86646-16	Ave-As-11	Solid	06/05/19 11:05	06/06/19 11:47	
580-86646-17	Ave-As-12	Solid	06/05/19 11:12	06/06/19 11:47	
580-86646-18	Ave-As-13	Solid	06/05/19 11:13	06/06/19 11:47	
580-86646-19	Ave-As-14	Solid	06/05/19 11:14	06/06/19 11:47	
580-86646-20	Ave-As-15	Solid	06/05/19 11:17	06/06/19 11:47	
580-86646-21	Ave-As-16	Solid	06/05/19 11:18	06/06/19 11:47	
580-86646-22	Ave-As-17	Solid	06/05/19 11:22	06/06/19 11:47	
580-86646-23	Ave-As-18	Solid	06/05/19 11:23	06/06/19 11:47	
580-86646-24	Ave-As-19	Solid	06/05/19 11:24	06/06/19 11:47	
580-86646-25	Ave-As-20	Solid	06/05/19 11:25	06/06/19 11:47	
580-86646-26	Ave-As-21	Solid	06/05/19 11:26	06/06/19 11:47	
580-86646-27	Ave-As-22	Solid	06/05/19 11:27	06/06/19 11:47	

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Report for:

Nathan Lewis
TestAmerica-Seattle
5755 8th Street East
Tacoma, WA 98424

Regarding: Project: 580-86646-1
EML ID: 2194284

Approved by:



Approved Signatory
Danny Li

Dates of Analysis:
Asbestos PLM: 06-28-2019

Service SOPs: Asbestos PLM (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the samples as received. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: TestAmerica-Seattle
 C/O: Nathan Lewis
 Re: 580-86646-1

Date of Sampling: 06-05-2019
 Date of Receipt: 06-28-2019
 Date of Report: 06-28-2019

ASBESTOS PLM REPORT

Total Samples Submitted: 24
Total Samples Analyzed: 24
Total Samples with Layer Asbestos Content > 1%: 8

Location: Ped-As-01 (580-86646-4)

Lab ID-Version‡: 10424302-1

Sample Layers	Asbestos Content
Black Tar	ND
Sample Composite Homogeneity: Moderate	

Location: Ped-As-02 (580-86646-5)

Lab ID-Version‡: 10424303-1

Sample Layers	Asbestos Content
Black Tar	ND
Sample Composite Homogeneity: Moderate	

Location: Ave-As-01 (580-86646-6)

Lab ID-Version‡: 10424180-1

Sample Layers	Asbestos Content
Black/Yellow Foam	ND
Sample Composite Homogeneity: Moderate	

Location: Ave-As-02 (580-86646-7)

Lab ID-Version‡: 10424181-1

Sample Layers	Asbestos Content
Black/Yellow Foam	ND
Sample Composite Homogeneity: Moderate	

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: TestAmerica-Seattle
C/O: Nathan Lewis
Re: 580-86646-1Date of Sampling: 06-05-2019
Date of Receipt: 06-28-2019
Date of Report: 06-28-2019**ASBESTOS PLM REPORT****Location: Ave-As-03 (580-86646-8)**

Lab ID-Version‡: 10424182-1

Sample Layers	Asbestos Content
Black Foam	ND
Sample Composite Homogeneity:	Moderate

Location: Ave-As-04 (580-86646-9)

Lab ID-Version‡: 10424183-1

Sample Layers	Asbestos Content
Brown Fibrous Material	ND
Composite Non-Asbestos Content:	85% Cellulose
Sample Composite Homogeneity:	Moderate

Location: Ave-As-05 (580-86646-10)

Lab ID-Version‡: 10424184-1

Sample Layers	Asbestos Content
Brown Fibrous Material	ND
Composite Non-Asbestos Content:	85% Cellulose
Sample Composite Homogeneity:	Moderate

Location: Ave-As-06 (580-86646-11)

Lab ID-Version‡: 10424185-1

Sample Layers	Asbestos Content
Black Tar and Felt	10% Chrysotile
Sample Composite Homogeneity:	Moderate

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‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: TestAmerica-Seattle
C/O: Nathan Lewis
Re: 580-86646-1Date of Sampling: 06-05-2019
Date of Receipt: 06-28-2019
Date of Report: 06-28-2019**ASBESTOS PLM REPORT****Location: Ave-As-07 (580-86646-12)**

Lab ID-Version‡: 10424244-1

Sample Layers	Asbestos Content
Black Tar and Felt	10% Chrysotile
Sample Composite Homogeneity:	Moderate

Location: Ave-As-08 (580-86646-13)

Lab ID-Version‡: 10424245-1

Sample Layers	Asbestos Content
Black Non-Fibrous Material	ND
Sample Composite Homogeneity:	Moderate

Location: Ave-As-09 (580-86646-14)

Lab ID-Version‡: 10424246-1

Sample Layers	Asbestos Content
Black Non-Fibrous Material	ND
Sample Composite Homogeneity:	Moderate

Location: Ave-As-10 (580-86646-15)

Lab ID-Version‡: 10424247-1

Sample Layers	Asbestos Content
Gray/Black Non-Fibrous Material	ND
Sample Composite Homogeneity:	Moderate

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EMLab P&K

17461 Derian Ave, Suite 100, Irvine, CA 92614
(866) 888-6653 Fax (623) 780-7695 www.emlab.com

Client: TestAmerica-Seattle
C/O: Nathan Lewis
Re: 580-86646-1

Date of Sampling: 06-05-2019
Date of Receipt: 06-28-2019
Date of Report: 06-28-2019

ASBESTOS PLM REPORT

Location: Ave-As-11 (580-86646-16)

Lab ID-Version‡: 10424248-1

Sample Layers	Asbestos Content
Gray/Black Non-Fibrous Material	ND
Sample Composite Homogeneity:	Moderate

Location: Ave-As-12 (580-86646-17)

Lab ID-Version‡: 10424249-1

Sample Layers	Asbestos Content
Black Non-Fibrous Material with White/Gray Coating	ND
Sample Composite Homogeneity:	Poor

Location: Ave-As-13 (580-86646-18)

Lab ID-Version‡: 10424250-1

Sample Layers	Asbestos Content
Black Non-Fibrous Material with Gray Coating	ND
Sample Composite Homogeneity:	Poor

Location: Ave-As-14 (580-86646-19)

Lab ID-Version‡: 10424251-1

Sample Layers	Asbestos Content
Black Non-Fibrous Material with White/Gray Coating	ND
Sample Composite Homogeneity:	Poor

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Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: TestAmerica-Seattle
C/O: Nathan Lewis
Re: 580-86646-1Date of Sampling: 06-05-2019
Date of Receipt: 06-28-2019
Date of Report: 06-28-2019**ASBESTOS PLM REPORT****Location: Ave-As-15 (580-86646-20)**

Lab ID-Version‡: 10424252-1

Sample Layers	Asbestos Content
White Fibrous Material	ND
Composite Non-Asbestos Content:	85% Cellulose
Sample Composite Homogeneity:	Moderate

Location: Ave-As-16 (580-86646-21)

Lab ID-Version‡: 10424253-1

Sample Layers	Asbestos Content
White Fibrous Material	ND
Composite Non-Asbestos Content:	85% Cellulose
Sample Composite Homogeneity:	Moderate

Location: Ave-As-17 (580-86646-22)

Lab ID-Version‡: 10424254-1

Sample Layers	Asbestos Content
Black Tar and Felt	35% Chrysotile
Sample Composite Homogeneity:	Moderate

Location: Ave-As-18 (580-86646-23)

Lab ID-Version‡: 10424255-1

Sample Layers	Asbestos Content
Black Tar and Felt	35% Chrysotile
Sample Composite Homogeneity:	Moderate

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‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: TestAmerica-Seattle
C/O: Nathan Lewis
Re: 580-86646-1Date of Sampling: 06-05-2019
Date of Receipt: 06-28-2019
Date of Report: 06-28-2019**ASBESTOS PLM REPORT****Location: Ave-As-19 (580-86646-24)**

Lab ID-Version‡: 10424256-1

Sample Layers	Asbestos Content
Black Tar and Felt	35% Chrysotile
Sample Composite Homogeneity:	Moderate

Location: Ave-As-20 (580-86646-25)

Lab ID-Version‡: 10424257-1

Sample Layers	Asbestos Content
Black Tar and Felt	35% Chrysotile
Sample Composite Homogeneity:	Moderate

Location: Ave-As-21 (580-86646-26)

Lab ID-Version‡: 10424258-1

Sample Layers	Asbestos Content
Black Tar and Felt	35% Chrysotile
Sample Composite Homogeneity:	Moderate

Location: Ave-As-22 (580-86646-27)

Lab ID-Version‡: 10424259-1

Sample Layers	Asbestos Content
Black Tar and Felt	35% Chrysotile
Sample Composite Homogeneity:	Moderate

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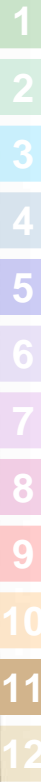
11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
 9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132
 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

(425) 420-9200 FAX 420-9210
 (509) 924-9200 FAX 924-9290
 (503) 906-9200 FAX 906-9210
 (541) 383-9310 FAX 382-7588

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: CES	INVOICE TO:	TURNAROUND REQUEST in Business Days* Organic & Inorganic Analyses
REPORT TO:	P.O. NUMBER:	STD. <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1
ADDRESS:	REQUESTED ANALYSES:	Petroleum Hydrocarbon Analyses
PHONE: 541-812-6621	FAX:	STD. <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1
PROJECT NAME: Mill City		OTHER: <input type="checkbox"/> Please Specify
PROJECT NUMBER:		*Turnaround Requests less than standard may incur Rush Charges.
SAMPLED BY: J. Penster / C. Cotton		MATRIX (W, S, O)
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	# OF CONT.
1. Ave-AS-07	6/5/19 1057	
2. Ave-AS-08	1058	
3. Ave-AS-09	1059	
4. Ave-AS-10	1104	
5. Ave-AS-11	1105	
6. Ave-AS-12	1112	
7. Ave-AS-13	1113	
8. Ave-AS-14	1114	
9. Ave-AS-15	1117	
10. Ave-AS-16	1118	
11. Ave-AS-17	1122	
12. Ave-AS-18	1123	
13. Ave-AS-19	1124	
14. Ave-AS-20	1125	
15. Ave-AS-21	1126	
RELIQUISHED BY: <i>Jessica Penster</i>	DATE: 6/5/19	RECEIVED BY: <i>[Signature]</i>
PRINT NAME: Jessica Penster	TIME: 1445	PRINT NAME:
RELIQUISHED BY:	DATE:	RECEIVED BY:
PRINT NAME:	TIME:	PRINT NAME:
ADDITIONAL REMARKS:	FIRM: CES	FIRM: TAPOL
	DATE:	DATE: 6/10/19
	TIME:	TIME: 1147
	FIRM:	DATE:
	FIRM:	TIME:
	TEMP:	PAGE 2 OF 3



5755 8th Street East
Tacoma, WA 98424
Phone: 253-922-2310 Fax: 253-922-5047

Chain of Custody Record

Client Information		Sampler: <i>J. Penlar / C. G. H.</i>	Lab File: Lewis, Nathan A	Corner Tracking No(s):	COC No: 580-3376-10992.1
Company: Cascade Earth Sciences Inc.		Phone: 541-812-6621	E-Mail: nathan.lewis@testamericainc.com		Page 1 of 3
Address: 3511 Pacific Blvd SW		Due Date Requested:		Job #:	
City: Albany		TAT Requested (days):		Preservation Codes:	
State/Zip: OR, 97321		Purchase Order not required		A - HCL B - NaOH C - Zr Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDTA Other:	
Phone: 541-812-6621 (Tel)		PO #:		M - Hexane N - None O - ASNAD2 P - Na2SO4 Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCA W - pH 4.5 Z - other (specify)	
Email: lessica.penlar@valmont.com		WO #:		Special Instructions/Note:	
Project Name: Mill City		Project #:		Total Number of containers	
Site: Mill City		SSOW#:		580-86646 Chain of Custody	
Site: <i>Mill City</i>					
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (M=Water, S=Soil, O=Other)
Ped-01		6/5/19	1003	C	Solid
Ped-02			1005	C	Solid
Ave-01			1020	C	Solid
Ped-AS-01			1030	G	Solid
Ped-AS-02			1035	G	Solid
Ave-AS-01			1045	G	Solid
Ave-AS-02			1046	G	Solid
Ave-AS-03			1049	G	Solid
Ave-AS-04			1051	G	Solid
Ave-AS-05			1052	G	Solid
Ave-AS-06			1056	G	Solid
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Empty Kit Requisitioned by:		Date:	Analysis Requested		
Requisitioned by: <i>[Signature]</i>		Date Time: 6/5/19 1445	6010C - Cd, Cr, Pb 6010C, 7471A, 8082A, 8151A_MS, 8270C_SIM, NWTPH_Dx 8081A - Pesticides, standard list 8260C - Volatiles, standard list AS 8205		
Requisitioned by: <i>[Signature]</i>		Date Time: 6/6/19 1200	Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>		
Requisitioned by: <i>[Signature]</i>		Date Time: 6/6/19 1200	Cooler Temperature(s) °C and Other Remarks:		
Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:	5.6		

Login Sample Receipt Checklist

Client: Cascade Earth Sciences Inc.

Job Number: 580-86646-1

Login Number: 86646

List Source: Eurofins TestAmerica, Seattle

List Number: 1

Creator: O'Connell, Jason I

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

Laboratory Job ID: 580-86496-1
Client Project/Site: Mill City

For:

Cascade Earth Sciences Inc.
3511 Pacific Blvd Sw
Albany, Oregon 97321

Attn: Jessica Penetar



Authorized for release by:
6/17/2019 3:28:44 PM

Nathan Lewis, Project Manager I
(253)922-2310
nathan.lewis@testamericainc.com

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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DRAFT

Case Narrative

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Job ID: 580-86496-1

Laboratory: Eurofins TestAmerica, Seattle

Narrative

Job Narrative 580-86496-1

Comments

No additional comments.

Receipt

The samples were received on 5/29/2019 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

GC/MS VOA

Method(s) 8260C: The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 580-302681 was outside criteria for the following analytes: Benzene, Dichlorobromomethane, Trichloroethene and Vinyl chloride. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered estimated.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 580-302681 recovered above the upper control limit for Dichlorodifluoromethane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: SS-01 (580-86496-1), SS-02 (580-86496-2), SS-03 (580-86496-3), SS-04 (580-86496-4), SS-05 (580-86496-5), SS-06 (580-86496-6), SS-07 (580-86496-7), SS-08 (580-86496-8) and (CCVIS 580-302681/3).

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 580-302647 and analytical batch 580-302681 recovered outside control limits for the following analyte: Vinyl chloride. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 580-302647 and analytical batch 580-302681 recovered outside control limits for the following analyte: Vinyl chloride. Data have been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270C SIM: The following samples were diluted due to the nature of the sample matrix: SS-01 (580-86496-1), SS-02 (580-86496-2), SS-03 (580-86496-3), SS-04 (580-86496-4), SS-05 (580-86496-5), SS-07 (580-86496-7) and SS-08 (580-86496-8). Elevated reporting limits (RLs) are provided.

Method(s) 8270C SIM, 8270D SIM: Continuing calibration verification (CCV) standard associated with batch 580-302419 recovered outside %Drift acceptance criteria for Terphenyl-d14 surrogate. The %Recovery is within acceptance criteria for the surrogate in the CCV and associated samples; therefore, the data are qualified and reported.

Method(s) 8270C SIM, 8270D SIM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 580-302344 and analytical batch 580-302419 was outside control limits. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method(s) 8081A: The following samples were diluted due to the nature of the sample matrix: SS-03 (580-86496-3) and SS-07 (580-86496-7). Elevated reporting limits (RLs) are provided.

Method(s) 8081A: Surrogate recovery for the following samples were outside control limits: SS-06 (580-86496-6), SS-08 (580-86496-8) and (580-86496-A-1-G MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8081A: The surrogate recovery for the continuing calibration blank (CCB) associated with analytical batch 580-302882 was outside the upper control limits. The analytes associated with this were non-detect, therefore the data have been reported.

Case Narrative

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Job ID: 580-86496-1 (Continued)

Laboratory: Eurofins TestAmerica, Seattle (Continued)

Method(s) 8081A: The surrogate recovery for the blank associated with analytical batch 580-302994 was outside the upper control limits. The analytes associated with this were non-detect, therefore the data have been reported.

Method(s) 8081A: The continuing calibration verification (CCV) standard associated with batch 580-302882 recovered outside %Drift acceptance criteria for DCB Decachlorobiphenyl surrogate. The %Recovery is within acceptance criteria for the surrogate in the CCV and associated samples; therefore, the data are qualified and reported.

Method(s) 8081A: The continuing calibration verification (CCV) associated with batch 580-302882 recovered above the upper control limit for Endrin. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: SS-01 (580-86496-1), SS-02 (580-86496-2), SS-03 (580-86496-3), SS-04 (580-86496-4), SS-05 (580-86496-5), SS-06 (580-86496-6), SS-07 (580-86496-7), SS-08 (580-86496-8) and (CCVIS 580-302882/7).

Method(s) 8081A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 580-302313 and analytical batch 580-302882 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) precision was within acceptance limits.

Method(s) 8082A: Surrogate recovery for the following samples were outside control limits: SS-06 (580-86496-6), SS-08 (580-86496-8) and (580-86496-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8082A: The following samples required a TBA sulfite clean-up to reduce matrix interferences caused by sulfur: SS-01 (580-86496-1), SS-02 (580-86496-2), SS-03 (580-86496-3), SS-04 (580-86496-4), SS-05 (580-86496-5), SS-06 (580-86496-6), SS-07 (580-86496-7), SS-08 (580-86496-8), (580-86496-A-1-G MS) and (580-86496-A-1-H MSD).

Method(s) 8082A: Internal standard (ISTD) response for the following sample exceeded the control limit on the confirmation column: (580-86496-A-1-H MSD). As such, the sample results associated with this ISTD were reported from the other column, which met ISTD acceptance criteria.

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: SS-01 (580-86496-1), SS-02 (580-86496-2), SS-03 (580-86496-3), SS-04 (580-86496-4), SS-05 (580-86496-5), SS-06 (580-86496-6), SS-07 (580-86496-7) and SS-08 (580-86496-8).

Method(s) NWTPH-Dx: The following samples were diluted due to the nature of the sample matrix: SS-04 (580-86496-4), SS-07 (580-86496-7) and SS-08 (580-86496-8). Elevated reporting limits (RLs) are provided.

Method(s) NWTPH-Dx: Surrogate recovery for the following samples were outside control limits: SS-03 (580-86496-3) and SS-04 (580-86496-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

Method(s) 5035: The following samples were provided to the laboratory with a significantly different initial weight than that required by the reference method: SS-01 (580-86496-1), SS-02 (580-86496-2), SS-03 (580-86496-3), SS-05 (580-86496-5), SS-07 (580-86496-7) and SS-08 (580-86496-8). Deviations in the weight by more than 20% may affect reporting limits and potentially method performance. The method specifies 10g. The amount provided was above this range.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-01

Lab Sample ID: 580-86496-1

Date Collected: 05/29/19 11:29

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 79.4

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		260		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Chloromethane	ND		130		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Vinyl chloride	ND	*	190		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Bromomethane	ND		260		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Chloroethane	ND		520		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Trichlorofluoromethane	ND		260		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,1-Dichloroethene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Methylene Chloride	ND		320		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
trans-1,2-Dichloroethene	ND		77		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,1-Dichloroethane	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
2,2-Dichloropropane	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
cis-1,2-Dichloroethene	ND		77		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Bromochloromethane	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Chloroform	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,1,1-Trichloroethane	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Carbon tetrachloride	ND		26		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,1-Dichloropropene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Benzene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,2-Dichloroethane	ND		26		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Trichloroethene	ND		77		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,2-Dichloropropane	ND		26		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Dibromomethane	ND		77		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Bromodichloromethane	ND		77		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
cis-1,3-Dichloropropene	ND		26		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Toluene	ND		190		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
trans-1,3-Dichloropropene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,1,2-Trichloroethane	ND		26		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Tetrachloroethene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,3-Dichloropropane	ND		77		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Dibromochloromethane	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,2-Dibromoethane	ND		26		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Chlorobenzene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Ethylbenzene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,1,1,2-Tetrachloroethane	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,1,2,2-Tetrachloroethane	ND		26		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
m-Xylene & p-Xylene	ND		260		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
o-Xylene	ND		77		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Styrene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Bromoform	ND		260		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Isopropylbenzene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Bromobenzene	ND		130		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
N-Propylbenzene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,2,3-Trichloropropane	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
2-Chlorotoluene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,3,5-Trimethylbenzene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
4-Chlorotoluene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
t-Butylbenzene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,2,4-Trimethylbenzene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
sec-Butylbenzene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-01

Lab Sample ID: 580-86496-1

Date Collected: 05/29/19 11:29

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 79.4

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		77		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
4-Isopropyltoluene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,4-Dichlorobenzene	ND		77		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
n-Butylbenzene	ND		190		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,2-Dichlorobenzene	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,2-Dibromo-3-Chloropropane	ND		320		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,2,4-Trichlorobenzene	ND		77		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
1,2,3-Trichlorobenzene	ND		190		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Hexachlorobutadiene	ND		190		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Naphthalene	ND		130		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Methyl tert-butyl ether	ND		52		ug/Kg	☼	06/07/19 08:00	06/07/19 14:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120				06/07/19 08:00	06/07/19 14:54	1
4-Bromofluorobenzene (Surr)	104		80 - 120				06/07/19 08:00	06/07/19 14:54	1
Dibromofluoromethane (Surr)	96		80 - 120				06/07/19 08:00	06/07/19 14:54	1
Trifluorotoluene (Surr)	105		80 - 120				06/07/19 08:00	06/07/19 14:54	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 121				06/07/19 08:00	06/07/19 14:54	1

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:35	1
2,4-D	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:35	1
2,4-DB	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:35	1
Dalapon	ND		200		ug/Kg	☼	06/01/19 10:39	06/04/19 23:35	1
Dicamba	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:35	1
Dichlorprop	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:35	1
Dinoseb	ND		200		ug/Kg	☼	06/01/19 10:39	06/04/19 23:35	1
MCPA	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:35	1
Mecoprop	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:35	1
Pentachlorophenol	ND		200		ug/Kg	☼	06/01/19 10:39	06/04/19 23:35	1
Silvex (2,4,5-TP)	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	53		39 - 150				06/01/19 10:39	06/04/19 23:35	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	73		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
2-Methylnaphthalene	31		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
1-Methylnaphthalene	ND		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Acenaphthylene	31		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Acenaphthene	ND		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Fluorene	ND		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Phenanthrene	86		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Anthracene	41		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Fluoranthene	150		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Pyrene	120		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Benzo[a]anthracene	73		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Chrysene	120		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-01

Lab Sample ID: 580-86496-1

Date Collected: 05/29/19 11:29

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 79.4

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	130		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Benzo[k]fluoranthene	44		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Benzo[a]pyrene	52		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Indeno[1,2,3-cd]pyrene	95		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Dibenz(a,h)anthracene	ND		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5
Benzo[g,h,i]perylene	71		31		ug/Kg	☼	06/04/19 10:45	06/05/19 12:12	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	70		57 - 120	06/04/19 10:45	06/05/19 12:12	5

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND	F1	2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
4,4'-DDE	ND	F1	2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
4,4'-DDT	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
Aldrin	ND	F1	3.4		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
alpha-BHC	ND	F1 *	2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
beta-BHC	ND		5.7		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
cis-Chlordane	ND	F1	2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
delta-BHC	ND	F1 *	3.4		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
Dieldrin	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
Endosulfan I	ND	F1	2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
Endosulfan II	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
Endosulfan sulfate	ND	F1	2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
Endrin	ND	F2	2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
Endrin aldehyde	ND	F1	23		ug/Kg	☼	06/04/19 09:13	06/13/19 02:53	1
Endrin ketone	ND	F1	2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
gamma-BHC (Lindane)	ND	F1	2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
Heptachlor	ND	F1	3.4		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
Heptachlor epoxide	ND	F2 F1	3.4		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
Methoxychlor	ND		11		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
Toxaphene	ND		110		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1
trans-Chlordane	ND	F1	3.4		ug/Kg	☼	06/04/19 09:13	06/11/19 21:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	72		36 - 136	06/04/19 09:13	06/11/19 21:16	1
DCB Decachlorobiphenyl	68		36 - 136	06/04/19 09:13	06/13/19 02:53	1
Tetrachloro-m-xylene	71		50 - 123	06/04/19 09:13	06/11/19 21:16	1
Tetrachloro-m-xylene	71		50 - 123	06/04/19 09:13	06/13/19 02:53	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 13:43	1
PCB-1221	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 13:43	1
PCB-1232	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 13:43	1
PCB-1242	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 13:43	1
PCB-1248	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 13:43	1
PCB-1254	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 13:43	1
PCB-1260	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 13:43	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-01
Date Collected: 05/29/19 11:29
Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-1
Matrix: Solid
Percent Solids: 79.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	75		39 - 142	06/04/19 09:13	06/11/19 13:43	1
Tetrachloro-m-xylene	78		35 - 129	06/04/19 09:13	06/11/19 13:43	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		61		mg/Kg	☼	06/04/19 09:14	06/05/19 23:06	1
Motor Oil (>C24-C36)	210		61		mg/Kg	☼	06/04/19 09:14	06/05/19 23:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	107		50 - 150	06/04/19 09:14	06/05/19 23:06	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0		3.1		mg/Kg	☼	06/07/19 12:12	06/07/19 20:11	1
Barium	120		0.52		mg/Kg	☼	06/07/19 12:12	06/07/19 20:11	1
Cadmium	ND		1.0		mg/Kg	☼	06/07/19 12:12	06/07/19 20:11	1
Chromium	25		1.3		mg/Kg	☼	06/07/19 12:12	06/07/19 20:11	1
Lead	31		1.6		mg/Kg	☼	06/07/19 12:12	06/07/19 20:11	1
Selenium	ND		5.2		mg/Kg	☼	06/07/19 12:12	06/07/19 20:11	1
Silver	ND		2.6		mg/Kg	☼	06/07/19 12:12	06/07/19 20:11	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.037		mg/Kg	☼	06/05/19 11:47	06/05/19 16:29	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79.4		0.1		%			06/03/19 16:11	1
Percent Moisture	20.6		0.1		%			06/03/19 16:11	1

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-02

Lab Sample ID: 580-86496-2

Date Collected: 05/29/19 12:00

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 78.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		270		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Chloromethane	ND		130		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Vinyl chloride	ND	*	200		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Bromomethane	ND		270		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Chloroethane	ND		530		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Trichlorofluoromethane	ND		270		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,1-Dichloroethene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Methylene Chloride	ND		330		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
trans-1,2-Dichloroethene	ND		80		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,1-Dichloroethane	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
2,2-Dichloropropane	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
cis-1,2-Dichloroethene	ND		80		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Bromochloromethane	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Chloroform	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,1,1-Trichloroethane	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Carbon tetrachloride	ND		27		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,1-Dichloropropene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Benzene	ND		40		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,2-Dichloroethane	ND		27		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Trichloroethene	ND		80		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,2-Dichloropropane	ND		27		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Dibromomethane	ND		80		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Bromodichloromethane	ND		80		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
cis-1,3-Dichloropropene	ND		27		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Toluene	ND		200		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
trans-1,3-Dichloropropene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,1,2-Trichloroethane	ND		27		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Tetrachloroethene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,3-Dichloropropane	ND		80		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Dibromochloromethane	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,2-Dibromoethane	ND		27		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Chlorobenzene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Ethylbenzene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,1,1,2-Tetrachloroethane	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,1,2,2-Tetrachloroethane	ND		27		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
m-Xylene & p-Xylene	ND		270		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
o-Xylene	ND		80		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Styrene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Bromoform	ND		270		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Isopropylbenzene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Bromobenzene	ND		130		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
N-Propylbenzene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,2,3-Trichloropropane	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
2-Chlorotoluene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,3,5-Trimethylbenzene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
4-Chlorotoluene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
t-Butylbenzene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,2,4-Trimethylbenzene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
sec-Butylbenzene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-02

Lab Sample ID: 580-86496-2

Date Collected: 05/29/19 12:00

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 78.8

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		80		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
4-Isopropyltoluene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,4-Dichlorobenzene	ND		80		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
n-Butylbenzene	ND		200		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,2-Dichlorobenzene	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,2-Dibromo-3-Chloropropane	ND		330		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,2,4-Trichlorobenzene	ND		80		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
1,2,3-Trichlorobenzene	ND		200		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Hexachlorobutadiene	ND		200		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Naphthalene	ND		130		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Methyl tert-butyl ether	ND		53		ug/Kg	☼	06/07/19 08:00	06/07/19 15:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120				06/07/19 08:00	06/07/19 15:19	1
4-Bromofluorobenzene (Surr)	106		80 - 120				06/07/19 08:00	06/07/19 15:19	1
Dibromofluoromethane (Surr)	99		80 - 120				06/07/19 08:00	06/07/19 15:19	1
Trifluorotoluene (Surr)	103		80 - 120				06/07/19 08:00	06/07/19 15:19	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 121				06/07/19 08:00	06/07/19 15:19	1

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:56	1
2,4-D	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:56	1
2,4-DB	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:56	1
Dalapon	ND		190		ug/Kg	☼	06/01/19 10:39	06/04/19 23:56	1
Dicamba	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:56	1
Dichlorprop	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:56	1
Dinoseb	ND		190		ug/Kg	☼	06/01/19 10:39	06/04/19 23:56	1
MCPA	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:56	1
Mecoprop	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:56	1
Pentachlorophenol	ND		190		ug/Kg	☼	06/01/19 10:39	06/04/19 23:56	1
Silvex (2,4,5-TP)	ND		110		ug/Kg	☼	06/01/19 10:39	06/04/19 23:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	49		39 - 150				06/01/19 10:39	06/04/19 23:56	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	95		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
2-Methylnaphthalene	ND		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
1-Methylnaphthalene	ND		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Acenaphthylene	ND		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Acenaphthene	ND		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Fluorene	ND		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Phenanthrene	110		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Anthracene	ND		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Fluoranthene	110		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Pyrene	44		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Benzo[a]anthracene	ND		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Chrysene	98		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-02

Lab Sample ID: 580-86496-2

Date Collected: 05/29/19 12:00

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 78.8

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	92		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Benzo[k]fluoranthene	ND		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Benzo[a]pyrene	ND		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Indeno[1,2,3-cd]pyrene	43		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Dibenz(a,h)anthracene	ND		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5
Benzo[g,h,i]perylene	34		32		ug/Kg	☼	06/04/19 10:45	06/05/19 12:39	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	68		57 - 120	06/04/19 10:45	06/05/19 12:39	5

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
4,4'-DDE	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
4,4'-DDT	2.9		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
Aldrin	ND		3.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
alpha-BHC	ND *		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
beta-BHC	ND		5.8		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
cis-Chlordane	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
delta-BHC	ND *		3.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
Dieldrin	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
Endosulfan I	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
Endosulfan II	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
Endosulfan sulfate	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
Endrin	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
Endrin aldehyde	ND		23		ug/Kg	☼	06/04/19 09:13	06/13/19 03:51	1
Endrin ketone	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
gamma-BHC (Lindane)	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
Heptachlor	ND		3.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
Heptachlor epoxide	ND		3.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
Methoxychlor	ND		12		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
Toxaphene	ND		120		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1
trans-Chlordane	ND		3.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		36 - 136	06/04/19 09:13	06/11/19 22:14	1
DCB Decachlorobiphenyl	90		36 - 136	06/04/19 09:13	06/13/19 03:51	1
Tetrachloro-m-xylene	84		50 - 123	06/04/19 09:13	06/11/19 22:14	1
Tetrachloro-m-xylene	84		50 - 123	06/04/19 09:13	06/13/19 03:51	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 14:34	1
PCB-1221	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 14:34	1
PCB-1232	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 14:34	1
PCB-1242	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 14:34	1
PCB-1248	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 14:34	1
PCB-1254	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 14:34	1
PCB-1260	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 14:34	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-02
Date Collected: 05/29/19 12:00
Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-2
Matrix: Solid
Percent Solids: 78.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	75		39 - 142	06/04/19 09:13	06/11/19 14:34	1
Tetrachloro-m-xylene	76		35 - 129	06/04/19 09:13	06/11/19 14:34	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		62		mg/Kg	☼	06/04/19 09:14	06/05/19 23:26	1
Motor Oil (>C24-C36)	280		62		mg/Kg	☼	06/04/19 09:14	06/05/19 23:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	102		50 - 150	06/04/19 09:14	06/05/19 23:26	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.5		3.1		mg/Kg	☼	06/07/19 12:12	06/07/19 20:14	1
Barium	130		0.52		mg/Kg	☼	06/07/19 12:12	06/07/19 20:14	1
Cadmium	ND		1.0		mg/Kg	☼	06/07/19 12:12	06/07/19 20:14	1
Chromium	19		1.4		mg/Kg	☼	06/07/19 12:12	06/07/19 20:14	1
Lead	33		1.6		mg/Kg	☼	06/07/19 12:12	06/07/19 20:14	1
Selenium	ND		5.2		mg/Kg	☼	06/07/19 12:12	06/07/19 20:14	1
Silver	ND		2.6		mg/Kg	☼	06/07/19 12:12	06/07/19 20:14	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.038		mg/Kg	☼	06/05/19 11:47	06/05/19 16:31	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	78.8		0.1		%			06/03/19 16:11	1
Percent Moisture	21.2		0.1		%			06/03/19 16:11	1

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-03

Lab Sample ID: 580-86496-3

Date Collected: 05/29/19 12:28

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 85.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		210		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Chloromethane	ND		110		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Vinyl chloride	ND	*	160		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Bromomethane	ND		210		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Chloroethane	ND		430		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Trichlorofluoromethane	ND		210		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,1-Dichloroethene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Methylene Chloride	ND		270		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
trans-1,2-Dichloroethene	ND		64		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,1-Dichloroethane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
2,2-Dichloropropane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
cis-1,2-Dichloroethene	ND		64		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Bromochloromethane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Chloroform	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,1,1-Trichloroethane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Carbon tetrachloride	ND		21		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,1-Dichloropropene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Benzene	ND		32		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,2-Dichloroethane	ND		21		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Trichloroethene	ND		64		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,2-Dichloropropane	ND		21		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Dibromomethane	ND		64		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Bromodichloromethane	ND		64		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
cis-1,3-Dichloropropene	ND		21		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Toluene	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
trans-1,3-Dichloropropene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,1,2-Trichloroethane	ND		21		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Tetrachloroethene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,3-Dichloropropane	ND		64		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Dibromochloromethane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,2-Dibromoethane	ND		21		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Chlorobenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Ethylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,1,1,2-Tetrachloroethane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,1,2,2-Tetrachloroethane	ND		21		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
m-Xylene & p-Xylene	ND		210		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
o-Xylene	ND		64		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Styrene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Bromoform	ND		210		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Isopropylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Bromobenzene	ND		110		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
N-Propylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,2,3-Trichloropropane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
2-Chlorotoluene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,3,5-Trimethylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
4-Chlorotoluene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
t-Butylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,2,4-Trimethylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
sec-Butylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-03

Lab Sample ID: 580-86496-3

Date Collected: 05/29/19 12:28

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 85.7

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		64		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
4-Isopropyltoluene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,4-Dichlorobenzene	ND		64		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
n-Butylbenzene	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,2-Dichlorobenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,2-Dibromo-3-Chloropropane	ND		270		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,2,4-Trichlorobenzene	ND		64		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
1,2,3-Trichlorobenzene	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Hexachlorobutadiene	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Naphthalene	ND		110		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Methyl tert-butyl ether	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 15:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120				06/07/19 08:00	06/07/19 15:45	1
4-Bromofluorobenzene (Surr)	107		80 - 120				06/07/19 08:00	06/07/19 15:45	1
Dibromofluoromethane (Surr)	100		80 - 120				06/07/19 08:00	06/07/19 15:45	1
Trifluorotoluene (Surr)	104		80 - 120				06/07/19 08:00	06/07/19 15:45	1
1,2-Dichloroethane-d4 (Surr)	103		80 - 121				06/07/19 08:00	06/07/19 15:45	1

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 00:17	1
2,4-D	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 00:17	1
2,4-DB	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 00:17	1
Dalapon	ND		180		ug/Kg	☼	06/01/19 10:39	06/05/19 00:17	1
Dicamba	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 00:17	1
Dichlorprop	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 00:17	1
Dinoseb	ND		180		ug/Kg	☼	06/01/19 10:39	06/05/19 00:17	1
MCPA	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 00:17	1
Mecoprop	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 00:17	1
Pentachlorophenol	ND		180		ug/Kg	☼	06/01/19 10:39	06/05/19 00:17	1
Silvex (2,4,5-TP)	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 00:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	64		39 - 150				06/01/19 10:39	06/05/19 00:17	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
2-Methylnaphthalene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
1-Methylnaphthalene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Acenaphthylene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Acenaphthene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Fluorene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Phenanthrene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Anthracene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Fluoranthene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Pyrene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Benzo[a]anthracene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Chrysene	32		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-03

Lab Sample ID: 580-86496-3

Date Collected: 05/29/19 12:28

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 85.7

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Benzo[k]fluoranthene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Benzo[a]pyrene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Indeno[1,2,3-cd]pyrene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Dibenz(a,h)anthracene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5
Benzo[g,h,i]perylene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 17:02	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	77		57 - 120	06/04/19 10:45	06/05/19 17:02	5

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
4,4'-DDE	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
4,4'-DDT	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
Aldrin	ND		9.2		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
alpha-BHC	ND	*	6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
beta-BHC	ND		15		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
cis-Chlordane	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
delta-BHC	ND	*	9.2		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
Dieldrin	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
Endosulfan I	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
Endosulfan II	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
Endosulfan sulfate	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
Endrin	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
Endrin aldehyde	ND		61		ug/Kg	☼	06/04/19 09:13	06/13/19 04:11	3
Endrin ketone	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
gamma-BHC (Lindane)	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
Heptachlor	ND		9.2		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
Heptachlor epoxide	ND		9.2		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
Methoxychlor	ND		31		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
Toxaphene	ND		310		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3
trans-Chlordane	ND		9.2		ug/Kg	☼	06/04/19 09:13	06/11/19 22:34	3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	63		36 - 136	06/04/19 09:13	06/11/19 22:34	3
DCB Decachlorobiphenyl	65		36 - 136	06/04/19 09:13	06/13/19 04:11	3
Tetrachloro-m-xylene	80		50 - 123	06/04/19 09:13	06/11/19 22:34	3
Tetrachloro-m-xylene	99		50 - 123	06/04/19 09:13	06/13/19 04:11	3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 14:51	1
PCB-1221	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 14:51	1
PCB-1232	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 14:51	1
PCB-1242	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 14:51	1
PCB-1248	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 14:51	1
PCB-1254	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 14:51	1
PCB-1260	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 14:51	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-03

Lab Sample ID: 580-86496-3

Date Collected: 05/29/19 12:28

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 85.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	63		39 - 142	06/04/19 09:13	06/11/19 14:51	1
Tetrachloro-m-xylene	75		35 - 129	06/04/19 09:13	06/11/19 14:51	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		55		mg/Kg	☼	06/04/19 09:14	06/05/19 23:46	1
Motor Oil (>C24-C36)	320		55		mg/Kg	☼	06/04/19 09:14	06/05/19 23:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	4	X	50 - 150	06/04/19 09:14	06/05/19 23:46	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.7		mg/Kg	☼	06/07/19 12:12	06/07/19 20:17	1
Barium	54		0.44		mg/Kg	☼	06/07/19 12:12	06/07/19 20:17	1
Cadmium	ND		0.88		mg/Kg	☼	06/07/19 12:12	06/07/19 20:17	1
Chromium	22		1.1		mg/Kg	☼	06/07/19 12:12	06/07/19 20:17	1
Lead	8.7		1.3		mg/Kg	☼	06/07/19 12:12	06/07/19 20:17	1
Selenium	ND		4.4		mg/Kg	☼	06/07/19 12:12	06/07/19 20:17	1
Silver	ND		2.2		mg/Kg	☼	06/07/19 12:12	06/07/19 20:17	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.033		mg/Kg	☼	06/05/19 11:47	06/05/19 16:34	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85.7		0.1		%			06/03/19 16:11	1
Percent Moisture	14.3		0.1		%			06/03/19 16:11	1

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-04

Lab Sample ID: 580-86496-4

Date Collected: 05/29/19 12:53

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 77.1

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		310		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Chloromethane	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Vinyl chloride	ND	*	230		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Bromomethane	ND		310		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Chloroethane	ND		620		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Trichlorofluoromethane	ND		310		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,1-Dichloroethene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Methylene Chloride	ND		390		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
trans-1,2-Dichloroethene	ND		93		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,1-Dichloroethane	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
2,2-Dichloropropane	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
cis-1,2-Dichloroethene	ND		93		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Bromochloromethane	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Chloroform	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,1,1-Trichloroethane	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Carbon tetrachloride	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,1-Dichloropropene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Benzene	ND		47		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,2-Dichloroethane	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Trichloroethene	ND		93		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,2-Dichloropropane	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Dibromomethane	ND		93		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Bromodichloromethane	ND		93		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
cis-1,3-Dichloropropene	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Toluene	ND		230		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
trans-1,3-Dichloropropene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,1,2-Trichloroethane	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Tetrachloroethene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,3-Dichloropropane	ND		93		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Dibromochloromethane	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,2-Dibromoethane	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Chlorobenzene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Ethylbenzene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,1,1,2-Tetrachloroethane	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,1,2,2-Tetrachloroethane	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
m-Xylene & p-Xylene	ND		310		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
o-Xylene	ND		93		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Styrene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Bromoform	ND		310		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Isopropylbenzene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Bromobenzene	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
N-Propylbenzene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,2,3-Trichloropropane	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
2-Chlorotoluene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,3,5-Trimethylbenzene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
4-Chlorotoluene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
t-Butylbenzene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,2,4-Trimethylbenzene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
sec-Butylbenzene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-04

Lab Sample ID: 580-86496-4

Date Collected: 05/29/19 12:53

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 77.1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		93		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
4-Isopropyltoluene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,4-Dichlorobenzene	ND		93		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
n-Butylbenzene	ND		230		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,2-Dichlorobenzene	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,2-Dibromo-3-Chloropropane	ND		390		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,2,4-Trichlorobenzene	ND		93		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
1,2,3-Trichlorobenzene	ND		230		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Hexachlorobutadiene	ND		230		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Naphthalene	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Methyl tert-butyl ether	ND		62		ug/Kg	☼	06/07/19 08:00	06/07/19 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		80 - 120				06/07/19 08:00	06/07/19 16:10	1
4-Bromofluorobenzene (Surr)	105		80 - 120				06/07/19 08:00	06/07/19 16:10	1
Dibromofluoromethane (Surr)	100		80 - 120				06/07/19 08:00	06/07/19 16:10	1
Trifluorotoluene (Surr)	102		80 - 120				06/07/19 08:00	06/07/19 16:10	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 121				06/07/19 08:00	06/07/19 16:10	1

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		110		ug/Kg	☼	06/01/19 10:39	06/05/19 00:39	1
2,4-D	ND		110		ug/Kg	☼	06/01/19 10:39	06/05/19 00:39	1
2,4-DB	ND		110		ug/Kg	☼	06/01/19 10:39	06/05/19 00:39	1
Dalapon	ND		200		ug/Kg	☼	06/01/19 10:39	06/05/19 00:39	1
Dicamba	ND		110		ug/Kg	☼	06/01/19 10:39	06/05/19 00:39	1
Dichlorprop	ND		110		ug/Kg	☼	06/01/19 10:39	06/05/19 00:39	1
Dinoseb	ND		200		ug/Kg	☼	06/01/19 10:39	06/05/19 00:39	1
MCPA	ND		110		ug/Kg	☼	06/01/19 10:39	06/05/19 00:39	1
Mecoprop	ND		110		ug/Kg	☼	06/01/19 10:39	06/05/19 00:39	1
Pentachlorophenol	ND		200		ug/Kg	☼	06/01/19 10:39	06/05/19 00:39	1
Silvex (2,4,5-TP)	ND		110		ug/Kg	☼	06/01/19 10:39	06/05/19 00:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	52		39 - 150				06/01/19 10:39	06/05/19 00:39	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	88		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
2-Methylnaphthalene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
1-Methylnaphthalene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Acenaphthylene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Acenaphthene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Fluorene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Phenanthrene	120		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Anthracene	44		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Fluoranthene	170		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Pyrene	88		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Benzo[a]anthracene	37		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Chrysene	140		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-04

Lab Sample ID: 580-86496-4

Date Collected: 05/29/19 12:53

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 77.1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	140		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Benzo[k]fluoranthene	39		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Benzo[a]pyrene	43		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Indeno[1,2,3-cd]pyrene	59		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Dibenz(a,h)anthracene	ND		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5
Benzo[g,h,i]perylene	58		29		ug/Kg	☼	06/04/19 10:45	06/05/19 13:32	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	70		57 - 120	06/04/19 10:45	06/05/19 13:32	5

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
4,4'-DDE	ND		2.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
4,4'-DDT	ND		2.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
Aldrin	ND		3.8		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
alpha-BHC	ND	*	2.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
beta-BHC	ND		6.3		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
cis-Chlordane	ND		2.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
delta-BHC	ND	*	3.8		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
Dieldrin	ND		2.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
Endosulfan I	ND		2.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
Endosulfan II	ND		2.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
Endosulfan sulfate	ND		2.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
Endrin	ND		2.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
Endrin aldehyde	ND		25		ug/Kg	☼	06/04/19 09:13	06/13/19 04:30	1
Endrin ketone	ND		2.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
gamma-BHC (Lindane)	ND		2.5		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
Heptachlor	ND		3.8		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
Heptachlor epoxide	ND		3.8		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
Methoxychlor	ND		13		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
Toxaphene	ND		130		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1
trans-Chlordane	ND		3.8		ug/Kg	☼	06/04/19 09:13	06/11/19 22:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	66		36 - 136	06/04/19 09:13	06/11/19 22:53	1
DCB Decachlorobiphenyl	103		36 - 136	06/04/19 09:13	06/13/19 04:30	1
Tetrachloro-m-xylene	81		50 - 123	06/04/19 09:13	06/11/19 22:53	1
Tetrachloro-m-xylene	138	X	50 - 123	06/04/19 09:13	06/13/19 04:30	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.025		mg/Kg	☼	06/04/19 09:13	06/11/19 15:08	1
PCB-1221	ND		0.025		mg/Kg	☼	06/04/19 09:13	06/11/19 15:08	1
PCB-1232	ND		0.025		mg/Kg	☼	06/04/19 09:13	06/11/19 15:08	1
PCB-1242	ND		0.025		mg/Kg	☼	06/04/19 09:13	06/11/19 15:08	1
PCB-1248	ND		0.025		mg/Kg	☼	06/04/19 09:13	06/11/19 15:08	1
PCB-1254	ND		0.025		mg/Kg	☼	06/04/19 09:13	06/11/19 15:08	1
PCB-1260	ND		0.025		mg/Kg	☼	06/04/19 09:13	06/11/19 15:08	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-04

Lab Sample ID: 580-86496-4

Date Collected: 05/29/19 12:53

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 77.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	58		39 - 142	06/04/19 09:13	06/11/19 15:08	1
Tetrachloro-m-xylene	69		35 - 129	06/04/19 09:13	06/11/19 15:08	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		640		mg/Kg	☼	06/04/19 09:14	06/06/19 00:26	10
Motor Oil (>C24-C36)	1800		640		mg/Kg	☼	06/04/19 09:14	06/06/19 00:26	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	948	X	50 - 150	06/04/19 09:14	06/06/19 00:26	10

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.5		3.0		mg/Kg	☼	06/07/19 12:12	06/07/19 20:20	1
Barium	97		0.49		mg/Kg	☼	06/07/19 12:12	06/07/19 20:20	1
Cadmium	ND		0.98		mg/Kg	☼	06/07/19 12:12	06/07/19 20:20	1
Chromium	25		1.3		mg/Kg	☼	06/07/19 12:12	06/07/19 20:20	1
Lead	160		1.5		mg/Kg	☼	06/07/19 12:12	06/07/19 20:20	1
Selenium	ND		4.9		mg/Kg	☼	06/07/19 12:12	06/07/19 20:20	1
Silver	ND		2.5		mg/Kg	☼	06/07/19 12:12	06/07/19 20:20	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.081		0.037		mg/Kg	☼	06/05/19 11:47	06/05/19 16:41	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	77.1		0.1		%			06/03/19 16:11	1
Percent Moisture	22.9		0.1		%			06/03/19 16:11	1

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-05

Lab Sample ID: 580-86496-5

Date Collected: 05/29/19 10:11

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 85.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		200		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Chloromethane	ND		98		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Vinyl chloride	ND	*	150		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Bromomethane	ND		200		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Chloroethane	ND		390		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Trichlorofluoromethane	ND		200		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,1-Dichloroethene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Methylene Chloride	ND		250		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
trans-1,2-Dichloroethene	ND		59		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,1-Dichloroethane	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
2,2-Dichloropropane	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
cis-1,2-Dichloroethene	ND		59		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Bromochloromethane	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Chloroform	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,1,1-Trichloroethane	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Carbon tetrachloride	ND		20		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,1-Dichloropropene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Benzene	ND		30		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,2-Dichloroethane	ND		20		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Trichloroethene	ND		59		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,2-Dichloropropane	ND		20		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Dibromomethane	ND		59		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Bromodichloromethane	ND		59		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
cis-1,3-Dichloropropene	ND		20		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Toluene	ND		150		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
trans-1,3-Dichloropropene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,1,2-Trichloroethane	ND		20		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Tetrachloroethene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,3-Dichloropropane	ND		59		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Dibromochloromethane	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,2-Dibromoethane	ND		20		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Chlorobenzene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Ethylbenzene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,1,1,2-Tetrachloroethane	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,1,1,2,2-Tetrachloroethane	ND		20		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
m-Xylene & p-Xylene	ND		200		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
o-Xylene	ND		59		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Styrene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Bromoform	ND		200		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Isopropylbenzene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Bromobenzene	ND		98		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
N-Propylbenzene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,2,3-Trichloropropane	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
2-Chlorotoluene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,3,5-Trimethylbenzene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
4-Chlorotoluene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
t-Butylbenzene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,2,4-Trimethylbenzene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
sec-Butylbenzene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-05

Lab Sample ID: 580-86496-5

Date Collected: 05/29/19 10:11

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 85.6

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		59		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
4-Isopropyltoluene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,4-Dichlorobenzene	ND		59		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
n-Butylbenzene	ND		150		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,2-Dichlorobenzene	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,2-Dibromo-3-Chloropropane	ND		250		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,2,4-Trichlorobenzene	ND		59		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
1,2,3-Trichlorobenzene	ND		150		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Hexachlorobutadiene	ND		150		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Naphthalene	ND		98		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Methyl tert-butyl ether	ND		39		ug/Kg	☼	06/07/19 08:00	06/07/19 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		80 - 120				06/07/19 08:00	06/07/19 16:36	1
4-Bromofluorobenzene (Surr)	104		80 - 120				06/07/19 08:00	06/07/19 16:36	1
Dibromofluoromethane (Surr)	98		80 - 120				06/07/19 08:00	06/07/19 16:36	1
Trifluorotoluene (Surr)	103		80 - 120				06/07/19 08:00	06/07/19 16:36	1
1,2-Dichloroethane-d4 (Surr)	100		80 - 121				06/07/19 08:00	06/07/19 16:36	1

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 01:00	1
2,4-D	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 01:00	1
2,4-DB	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 01:00	1
Dalapon	ND		180		ug/Kg	☼	06/01/19 10:39	06/05/19 01:00	1
Dicamba	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 01:00	1
Dichlorprop	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 01:00	1
Dinoseb	ND		180		ug/Kg	☼	06/01/19 10:39	06/05/19 01:00	1
MCPA	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 01:00	1
Mecoprop	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 01:00	1
Pentachlorophenol	ND		180		ug/Kg	☼	06/01/19 10:39	06/05/19 01:00	1
Silvex (2,4,5-TP)	ND		100		ug/Kg	☼	06/01/19 10:39	06/05/19 01:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	60		39 - 150				06/01/19 10:39	06/05/19 01:00	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	37		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
2-Methylnaphthalene	ND		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
1-Methylnaphthalene	ND		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Acenaphthylene	29		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Acenaphthene	ND		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Fluorene	ND		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Phenanthrene	68		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Anthracene	ND		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Fluoranthene	180		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Pyrene	220		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Benzo[a]anthracene	97		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Chrysene	140		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-05

Lab Sample ID: 580-86496-5

Date Collected: 05/29/19 10:11

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 85.6

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	180		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Benzo[k]fluoranthene	69		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Benzo[a]pyrene	150		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Indeno[1,2,3-cd]pyrene	240		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Dibenz(a,h)anthracene	30		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5
Benzo[g,h,i]perylene	230		27		ug/Kg	☼	06/04/19 10:45	06/05/19 13:58	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	72		57 - 120	06/04/19 10:45	06/05/19 13:58	5

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
4,4'-DDE	ND		2.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
4,4'-DDT	5.9		2.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
Aldrin	ND		3.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
alpha-BHC	ND *		2.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
beta-BHC	ND		5.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
cis-Chlordane	ND		2.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
delta-BHC	ND *		3.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
Dieldrin	ND		2.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
Endosulfan I	ND		2.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
Endosulfan II	ND		2.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
Endosulfan sulfate	ND		2.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
Endrin	ND		2.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
Endrin aldehyde	ND		21		ug/Kg	☼	06/04/19 09:13	06/13/19 04:49	1
Endrin ketone	ND		2.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
gamma-BHC (Lindane)	ND		2.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
Heptachlor	ND		3.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
Heptachlor epoxide	ND		3.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
Methoxychlor	ND		10		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
Toxaphene	ND		100		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1
trans-Chlordane	ND		3.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	68		36 - 136	06/04/19 09:13	06/11/19 23:12	1
DCB Decachlorobiphenyl	70		36 - 136	06/04/19 09:13	06/13/19 04:49	1
Tetrachloro-m-xylene	83		50 - 123	06/04/19 09:13	06/11/19 23:12	1
Tetrachloro-m-xylene	81		50 - 123	06/04/19 09:13	06/13/19 04:49	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.021		mg/Kg	☼	06/04/19 09:13	06/11/19 15:25	1
PCB-1221	ND		0.021		mg/Kg	☼	06/04/19 09:13	06/11/19 15:25	1
PCB-1232	ND		0.021		mg/Kg	☼	06/04/19 09:13	06/11/19 15:25	1
PCB-1242	ND		0.021		mg/Kg	☼	06/04/19 09:13	06/11/19 15:25	1
PCB-1248	ND		0.021		mg/Kg	☼	06/04/19 09:13	06/11/19 15:25	1
PCB-1254	ND		0.021		mg/Kg	☼	06/04/19 09:13	06/11/19 15:25	1
PCB-1260	ND		0.021		mg/Kg	☼	06/04/19 09:13	06/11/19 15:25	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-05

Lab Sample ID: 580-86496-5

Date Collected: 05/29/19 10:11

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 85.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		39 - 142	06/04/19 09:13	06/11/19 15:25	1
Tetrachloro-m-xylene	79		35 - 129	06/04/19 09:13	06/11/19 15:25	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		53		mg/Kg	☼	06/04/19 09:14	06/06/19 00:46	1
Motor Oil (>C24-C36)	290		53		mg/Kg	☼	06/04/19 09:14	06/06/19 00:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	87		50 - 150	06/04/19 09:14	06/06/19 00:46	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7		2.6		mg/Kg	☼	06/07/19 12:12	06/07/19 20:29	1
Barium	69		0.43		mg/Kg	☼	06/07/19 12:12	06/07/19 20:29	1
Cadmium	ND		0.85		mg/Kg	☼	06/07/19 12:12	06/07/19 20:29	1
Chromium	15		1.1		mg/Kg	☼	06/07/19 12:12	06/07/19 20:29	1
Lead	110		1.3		mg/Kg	☼	06/07/19 12:12	06/07/19 20:29	1
Selenium	ND		4.3		mg/Kg	☼	06/07/19 12:12	06/07/19 20:29	1
Silver	ND		2.1		mg/Kg	☼	06/07/19 12:12	06/07/19 20:29	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091		0.028		mg/Kg	☼	06/05/19 11:47	06/05/19 16:43	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85.6		0.1		%			06/03/19 16:11	1
Percent Moisture	14.4		0.1		%			06/03/19 16:11	1

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-06

Lab Sample ID: 580-86496-6

Date Collected: 05/29/19 09:42

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 74.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		310		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Chloromethane	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Vinyl chloride	ND	*	240		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Bromomethane	ND		310		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Chloroethane	ND		630		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Trichlorofluoromethane	ND		310		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,1-Dichloroethene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Methylene Chloride	ND		390		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
trans-1,2-Dichloroethene	ND		94		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,1-Dichloroethane	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
2,2-Dichloropropane	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
cis-1,2-Dichloroethene	ND		94		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Bromochloromethane	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Chloroform	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,1,1-Trichloroethane	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Carbon tetrachloride	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,1-Dichloropropene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Benzene	ND		47		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,2-Dichloroethane	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Trichloroethene	ND		94		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,2-Dichloropropane	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Dibromomethane	ND		94		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Bromodichloromethane	ND		94		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
cis-1,3-Dichloropropene	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Toluene	ND		240		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
trans-1,3-Dichloropropene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,1,2-Trichloroethane	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Tetrachloroethene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,3-Dichloropropane	ND		94		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Dibromochloromethane	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,2-Dibromoethane	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Chlorobenzene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Ethylbenzene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,1,1,2-Tetrachloroethane	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,1,2,2-Tetrachloroethane	ND		31		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
m-Xylene & p-Xylene	ND		310		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
o-Xylene	ND		94		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Styrene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Bromoform	ND		310		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Isopropylbenzene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Bromobenzene	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
N-Propylbenzene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,2,3-Trichloropropane	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
2-Chlorotoluene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,3,5-Trimethylbenzene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
4-Chlorotoluene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
t-Butylbenzene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,2,4-Trimethylbenzene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
sec-Butylbenzene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-06

Lab Sample ID: 580-86496-6

Date Collected: 05/29/19 09:42

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 74.7

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		94		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
4-Isopropyltoluene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,4-Dichlorobenzene	ND		94		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
n-Butylbenzene	ND		240		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,2-Dichlorobenzene	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,2-Dibromo-3-Chloropropane	ND		390		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,2,4-Trichlorobenzene	ND		94		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
1,2,3-Trichlorobenzene	ND		240		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Hexachlorobutadiene	ND		240		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Naphthalene	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Methyl tert-butyl ether	ND		63		ug/Kg	☼	06/07/19 08:00	06/07/19 17:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		80 - 120				06/07/19 08:00	06/07/19 17:01	1
4-Bromofluorobenzene (Surr)	105		80 - 120				06/07/19 08:00	06/07/19 17:01	1
Dibromofluoromethane (Surr)	96		80 - 120				06/07/19 08:00	06/07/19 17:01	1
Trifluorotoluene (Surr)	104		80 - 120				06/07/19 08:00	06/07/19 17:01	1
1,2-Dichloroethane-d4 (Surr)	101		80 - 121				06/07/19 08:00	06/07/19 17:01	1

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		120		ug/Kg	☼	06/01/19 10:39	06/05/19 01:21	1
2,4-D	ND		120		ug/Kg	☼	06/01/19 10:39	06/05/19 01:21	1
2,4-DB	ND		120		ug/Kg	☼	06/01/19 10:39	06/05/19 01:21	1
Dalapon	ND		210		ug/Kg	☼	06/01/19 10:39	06/05/19 01:21	1
Dicamba	ND		120		ug/Kg	☼	06/01/19 10:39	06/05/19 01:21	1
Dichlorprop	ND		120		ug/Kg	☼	06/01/19 10:39	06/05/19 01:21	1
Dinoseb	ND		210		ug/Kg	☼	06/01/19 10:39	06/05/19 01:21	1
MCPA	ND		120		ug/Kg	☼	06/01/19 10:39	06/05/19 01:21	1
Mecoprop	ND		120		ug/Kg	☼	06/01/19 10:39	06/05/19 01:21	1
Pentachlorophenol	ND		210		ug/Kg	☼	06/01/19 10:39	06/05/19 01:21	1
Silvex (2,4,5-TP)	ND		120		ug/Kg	☼	06/01/19 10:39	06/05/19 01:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	56		39 - 150				06/01/19 10:39	06/05/19 01:21	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	31		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
2-Methylnaphthalene	24		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
1-Methylnaphthalene	12		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Acenaphthylene	8.6		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Acenaphthene	ND		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Fluorene	ND		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Phenanthrene	27		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Anthracene	ND		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Fluoranthene	38		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Pyrene	36		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Benzo[a]anthracene	21		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Chrysene	30		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-06

Lab Sample ID: 580-86496-6

Date Collected: 05/29/19 09:42

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 74.7

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	32		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Benzo[k]fluoranthene	7.4		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Benzo[a]pyrene	19		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Indeno[1,2,3-cd]pyrene	26		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Dibenz(a,h)anthracene	ND		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1
Benzo[g,h,i]perylene	29		6.3		ug/Kg	☼	06/04/19 10:45	06/05/19 17:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	65		57 - 120	06/04/19 10:45	06/05/19 17:29	1

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
4,4'-DDE	ND		2.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
4,4'-DDT	ND		2.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
Aldrin	ND		3.3		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
alpha-BHC	ND	*	2.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
beta-BHC	ND		5.4		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
cis-Chlordane	ND		2.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
delta-BHC	ND	*	3.3		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
Dieldrin	ND		2.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
Endosulfan I	ND		2.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
Endosulfan II	ND		2.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
Endosulfan sulfate	ND		2.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
Endrin	ND		2.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
Endrin aldehyde	ND		22		ug/Kg	☼	06/04/19 09:13	06/13/19 05:08	1
Endrin ketone	ND		2.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
gamma-BHC (Lindane)	ND		2.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
Heptachlor	ND		3.3		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
Heptachlor epoxide	ND		3.3		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
Methoxychlor	ND		11		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
Toxaphene	ND		110		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1
trans-Chlordane	ND		3.3		ug/Kg	☼	06/04/19 09:13	06/11/19 23:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	35	X	36 - 136	06/04/19 09:13	06/11/19 23:32	1
DCB Decachlorobiphenyl	32	X	36 - 136	06/04/19 09:13	06/13/19 05:08	1
Tetrachloro-m-xylene	44	X	50 - 123	06/04/19 09:13	06/11/19 23:32	1
Tetrachloro-m-xylene	47	X	50 - 123	06/04/19 09:13	06/13/19 05:08	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.022		mg/Kg	☼	06/04/19 09:13	06/11/19 15:42	1
PCB-1221	ND		0.022		mg/Kg	☼	06/04/19 09:13	06/11/19 15:42	1
PCB-1232	ND		0.022		mg/Kg	☼	06/04/19 09:13	06/11/19 15:42	1
PCB-1242	ND		0.022		mg/Kg	☼	06/04/19 09:13	06/11/19 15:42	1
PCB-1248	ND		0.022		mg/Kg	☼	06/04/19 09:13	06/11/19 15:42	1
PCB-1254	ND		0.022		mg/Kg	☼	06/04/19 09:13	06/11/19 15:42	1
PCB-1260	ND		0.022		mg/Kg	☼	06/04/19 09:13	06/11/19 15:42	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-06

Lab Sample ID: 580-86496-6

Date Collected: 05/29/19 09:42

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 74.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	33	X	39 - 142	06/04/19 09:13	06/11/19 15:42	1
Tetrachloro-m-xylene	38		35 - 129	06/04/19 09:13	06/11/19 15:42	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		63		mg/Kg	☼	06/04/19 09:14	06/06/19 01:06	1
Motor Oil (>C24-C36)	170		63		mg/Kg	☼	06/04/19 09:14	06/06/19 01:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150	06/04/19 09:14	06/06/19 01:06	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.2		3.4		mg/Kg	☼	06/07/19 12:12	06/07/19 20:32	1
Barium	140		0.57		mg/Kg	☼	06/07/19 12:12	06/07/19 20:32	1
Cadmium	ND		1.1		mg/Kg	☼	06/07/19 12:12	06/07/19 20:32	1
Chromium	31		1.5		mg/Kg	☼	06/07/19 12:12	06/07/19 20:32	1
Lead	22		1.7		mg/Kg	☼	06/07/19 12:12	06/07/19 20:32	1
Selenium	ND		5.7		mg/Kg	☼	06/07/19 12:12	06/07/19 20:32	1
Silver	ND		2.9		mg/Kg	☼	06/07/19 12:12	06/07/19 20:32	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.052		0.036		mg/Kg	☼	06/05/19 11:47	06/05/19 16:45	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	74.7		0.1		%			06/03/19 16:11	1
Percent Moisture	25.3		0.1		%			06/03/19 16:11	1

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-07

Lab Sample ID: 580-86496-7

Date Collected: 05/29/19 11:02

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 89.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		180		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Chloromethane	ND		91		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Vinyl chloride	ND	*	140		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Bromomethane	ND		180		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Chloroethane	ND		370		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Trichlorofluoromethane	ND		180		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,1-Dichloroethene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Methylene Chloride	ND		230		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
trans-1,2-Dichloroethene	ND		55		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,1-Dichloroethane	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
2,2-Dichloropropane	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
cis-1,2-Dichloroethene	ND		55		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Bromochloromethane	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Chloroform	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,1,1-Trichloroethane	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Carbon tetrachloride	ND		18		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,1-Dichloropropene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Benzene	ND		27		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,2-Dichloroethane	ND		18		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Trichloroethene	ND		55		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,2-Dichloropropane	ND		18		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Dibromomethane	ND		55		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Bromodichloromethane	ND		55		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
cis-1,3-Dichloropropene	ND		18		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Toluene	ND		140		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
trans-1,3-Dichloropropene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,1,2-Trichloroethane	ND		18		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Tetrachloroethene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,3-Dichloropropane	ND		55		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Dibromochloromethane	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,2-Dibromoethane	ND		18		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Chlorobenzene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Ethylbenzene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,1,1,2-Tetrachloroethane	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,1,2,2-Tetrachloroethane	ND		18		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
m-Xylene & p-Xylene	ND		180		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
o-Xylene	ND		55		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Styrene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Bromoform	ND		180		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Isopropylbenzene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Bromobenzene	ND		91		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
N-Propylbenzene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,2,3-Trichloropropane	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
2-Chlorotoluene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,3,5-Trimethylbenzene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
4-Chlorotoluene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
t-Butylbenzene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,2,4-Trimethylbenzene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
sec-Butylbenzene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-07
Date Collected: 05/29/19 11:02
Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-7
Matrix: Solid
Percent Solids: 89.9

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		55		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
4-Isopropyltoluene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,4-Dichlorobenzene	ND		55		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
n-Butylbenzene	ND		140		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,2-Dichlorobenzene	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,2-Dibromo-3-Chloropropane	ND		230		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,2,4-Trichlorobenzene	ND		55		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
1,2,3-Trichlorobenzene	ND		140		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Hexachlorobutadiene	ND		140		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Naphthalene	ND		91		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Methyl tert-butyl ether	ND		37		ug/Kg	☼	06/07/19 08:00	06/07/19 17:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		80 - 120				06/07/19 08:00	06/07/19 17:26	1
4-Bromofluorobenzene (Surr)	104		80 - 120				06/07/19 08:00	06/07/19 17:26	1
Dibromofluoromethane (Surr)	98		80 - 120				06/07/19 08:00	06/07/19 17:26	1
Trifluorotoluene (Surr)	105		80 - 120				06/07/19 08:00	06/07/19 17:26	1
1,2-Dichloroethane-d4 (Surr)	103		80 - 121				06/07/19 08:00	06/07/19 17:26	1

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		94		ug/Kg	☼	06/01/19 11:00	06/05/19 01:43	1
2,4-D	ND		94		ug/Kg	☼	06/01/19 11:00	06/05/19 01:43	1
2,4-DB	ND		94		ug/Kg	☼	06/01/19 11:00	06/05/19 01:43	1
Dalapon	ND		170		ug/Kg	☼	06/01/19 11:00	06/05/19 01:43	1
Dicamba	ND		94		ug/Kg	☼	06/01/19 11:00	06/05/19 01:43	1
Dichlorprop	ND		94		ug/Kg	☼	06/01/19 11:00	06/05/19 01:43	1
Dinoseb	ND		170		ug/Kg	☼	06/01/19 11:00	06/05/19 01:43	1
MCPA	ND		94		ug/Kg	☼	06/01/19 11:00	06/05/19 01:43	1
Mecoprop	ND		94		ug/Kg	☼	06/01/19 11:00	06/05/19 01:43	1
Pentachlorophenol	ND		170		ug/Kg	☼	06/01/19 11:00	06/05/19 01:43	1
Silvex (2,4,5-TP)	ND		94		ug/Kg	☼	06/01/19 11:00	06/05/19 01:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	66		39 - 150				06/01/19 11:00	06/05/19 01:43	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
2-Methylnaphthalene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
1-Methylnaphthalene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Acenaphthylene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Acenaphthene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Fluorene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Phenanthrene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Anthracene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Fluoranthene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Pyrene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Benzo[a]anthracene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Chrysene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-07

Lab Sample ID: 580-86496-7

Date Collected: 05/29/19 11:02

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 89.9

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Benzo[k]fluoranthene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Benzo[a]pyrene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Indeno[1,2,3-cd]pyrene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Dibenz(a,h)anthracene	ND		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5
Benzo[g,h,i]perylene	36		26		ug/Kg	☼	06/04/19 10:45	06/05/19 17:55	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	70		57 - 120	06/04/19 10:45	06/05/19 17:55	5

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
4,4'-DDE	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
4,4'-DDT	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
Aldrin	ND		9.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
alpha-BHC	ND	*	6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
beta-BHC	ND		15		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
cis-Chlordane	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
delta-BHC	ND	*	9.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
Dieldrin	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
Endosulfan I	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
Endosulfan II	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
Endosulfan sulfate	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
Endrin	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
Endrin aldehyde	ND		61		ug/Kg	☼	06/04/19 09:13	06/13/19 05:27	3
Endrin ketone	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
gamma-BHC (Lindane)	ND		6.1		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
Heptachlor	ND		9.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
Heptachlor epoxide	ND		9.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
Methoxychlor	ND		31		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
Toxaphene	ND		310		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3
trans-Chlordane	ND		9.2		ug/Kg	☼	06/04/19 09:13	06/11/19 23:51	3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	53		36 - 136	06/04/19 09:13	06/11/19 23:51	3
DCB Decachlorobiphenyl	48		36 - 136	06/04/19 09:13	06/13/19 05:27	3
Tetrachloro-m-xylene	66		50 - 123	06/04/19 09:13	06/11/19 23:51	3
Tetrachloro-m-xylene	93		50 - 123	06/04/19 09:13	06/13/19 05:27	3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 15:59	1
PCB-1221	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 15:59	1
PCB-1232	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 15:59	1
PCB-1242	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 15:59	1
PCB-1248	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 15:59	1
PCB-1254	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 15:59	1
PCB-1260	ND		0.020		mg/Kg	☼	06/04/19 09:13	06/11/19 15:59	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-07

Lab Sample ID: 580-86496-7

Date Collected: 05/29/19 11:02

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 89.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	50		39 - 142	06/04/19 09:13	06/11/19 15:59	1
Tetrachloro-m-xylene	52		35 - 129	06/04/19 09:13	06/11/19 15:59	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		260		mg/Kg	☼	06/04/19 09:14	06/06/19 01:26	5
Motor Oil (>C24-C36)	300		260		mg/Kg	☼	06/04/19 09:14	06/06/19 01:26	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	50		50 - 150	06/04/19 09:14	06/06/19 01:26	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.3		mg/Kg	☼	06/07/19 12:12	06/07/19 20:36	1
Barium	44		0.54		mg/Kg	☼	06/07/19 12:12	06/07/19 20:36	1
Cadmium	ND		1.1		mg/Kg	☼	06/07/19 12:12	06/07/19 20:36	1
Chromium	40		1.4		mg/Kg	☼	06/07/19 12:12	06/07/19 20:36	1
Lead	1300		1.6		mg/Kg	☼	06/07/19 12:12	06/07/19 20:36	1
Selenium	ND		5.4		mg/Kg	☼	06/07/19 12:12	06/07/19 20:36	1
Silver	ND		2.7		mg/Kg	☼	06/07/19 12:12	06/07/19 20:36	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.032		mg/Kg	☼	06/05/19 11:47	06/05/19 16:48	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89.9		0.1		%			06/03/19 16:11	1
Percent Moisture	10.1		0.1		%			06/03/19 16:11	1

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-08

Lab Sample ID: 580-86496-8

Date Collected: 05/29/19 10:40

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 85.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		220		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Chloromethane	ND		110		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Vinyl chloride	ND	*	160		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Bromomethane	ND		220		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Chloroethane	ND		430		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Trichlorofluoromethane	ND		220		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,1-Dichloroethene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Methylene Chloride	ND		270		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
trans-1,2-Dichloroethene	ND		65		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,1-Dichloroethane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
2,2-Dichloropropane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
cis-1,2-Dichloroethene	ND		65		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Bromochloromethane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Chloroform	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,1,1-Trichloroethane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Carbon tetrachloride	ND		22		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,1-Dichloropropene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Benzene	ND		33		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,2-Dichloroethane	ND		22		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Trichloroethene	ND		65		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,2-Dichloropropane	ND		22		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Dibromomethane	ND		65		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Bromodichloromethane	ND		65		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
cis-1,3-Dichloropropene	ND		22		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Toluene	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
trans-1,3-Dichloropropene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,1,2-Trichloroethane	ND		22		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Tetrachloroethene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,3-Dichloropropane	ND		65		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Dibromochloromethane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,2-Dibromoethane	ND		22		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Chlorobenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Ethylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,1,1,2-Tetrachloroethane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,1,2,2-Tetrachloroethane	ND		22		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
m-Xylene & p-Xylene	ND		220		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
o-Xylene	ND		65		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Styrene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Bromoform	ND		220		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Isopropylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Bromobenzene	ND		110		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
N-Propylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,2,3-Trichloropropane	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
2-Chlorotoluene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,3,5-Trimethylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
4-Chlorotoluene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
t-Butylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,2,4-Trimethylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
sec-Butylbenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-08

Lab Sample ID: 580-86496-8

Date Collected: 05/29/19 10:40

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 85.9

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		65		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
4-Isopropyltoluene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,4-Dichlorobenzene	ND		65		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
n-Butylbenzene	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,2-Dichlorobenzene	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,2-Dibromo-3-Chloropropane	ND		270		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,2,4-Trichlorobenzene	ND		65		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
1,2,3-Trichlorobenzene	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Hexachlorobutadiene	ND		160		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Naphthalene	ND		110		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Methyl tert-butyl ether	ND		43		ug/Kg	☼	06/07/19 08:00	06/07/19 17:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120				06/07/19 08:00	06/07/19 17:52	1
4-Bromofluorobenzene (Surr)	101		80 - 120				06/07/19 08:00	06/07/19 17:52	1
Dibromofluoromethane (Surr)	98		80 - 120				06/07/19 08:00	06/07/19 17:52	1
Trifluorotoluene (Surr)	105		80 - 120				06/07/19 08:00	06/07/19 17:52	1
1,2-Dichloroethane-d4 (Surr)	103		80 - 121				06/07/19 08:00	06/07/19 17:52	1

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		100		ug/Kg	☼	06/01/19 11:02	06/05/19 02:04	1
2,4-D	ND		100		ug/Kg	☼	06/01/19 11:02	06/05/19 02:04	1
2,4-DB	ND		100		ug/Kg	☼	06/01/19 11:02	06/05/19 02:04	1
Dalapon	ND		180		ug/Kg	☼	06/01/19 11:02	06/05/19 02:04	1
Dicamba	ND		100		ug/Kg	☼	06/01/19 11:02	06/05/19 02:04	1
Dichlorprop	ND		100		ug/Kg	☼	06/01/19 11:02	06/05/19 02:04	1
Dinoseb	ND		180		ug/Kg	☼	06/01/19 11:02	06/05/19 02:04	1
MCPA	ND		100		ug/Kg	☼	06/01/19 11:02	06/05/19 02:04	1
Mecoprop	ND		100		ug/Kg	☼	06/01/19 11:02	06/05/19 02:04	1
Pentachlorophenol	ND		180		ug/Kg	☼	06/01/19 11:02	06/05/19 02:04	1
Silvex (2,4,5-TP)	ND		100		ug/Kg	☼	06/01/19 11:02	06/05/19 02:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	53		39 - 150				06/01/19 11:02	06/05/19 02:04	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
2-Methylnaphthalene	ND		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
1-Methylnaphthalene	ND		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Acenaphthylene	ND		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Acenaphthene	ND		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Fluorene	ND		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Phenanthrene	26		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Anthracene	ND		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Fluoranthene	56		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Pyrene	62		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Benzo[a]anthracene	33		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Chrysene	49		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-08

Lab Sample ID: 580-86496-8

Date Collected: 05/29/19 10:40

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 85.9

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	62		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Benzo[k]fluoranthene	ND		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Benzo[a]pyrene	48		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Indeno[1,2,3-cd]pyrene	75		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Dibenz(a,h)anthracene	ND		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5
Benzo[g,h,i]perylene	77		25		ug/Kg	☼	06/04/19 10:45	06/05/19 18:21	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	69		57 - 120	06/04/19 10:45	06/05/19 18:21	5

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
4,4'-DDE	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
4,4'-DDT	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
Aldrin	ND		3.4		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
alpha-BHC	ND *		2.3		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
beta-BHC	ND		5.7		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
cis-Chlordane	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
delta-BHC	ND *		3.4		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
Dieldrin	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
Endosulfan I	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
Endosulfan II	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
Endosulfan sulfate	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
Endrin	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
Endrin aldehyde	ND		23		ug/Kg	☼	06/04/19 09:13	06/13/19 05:46	1
Endrin ketone	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
gamma-BHC (Lindane)	ND		2.3		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
Heptachlor	ND		3.4		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
Heptachlor epoxide	ND		3.4		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
Methoxychlor	ND		11		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
Toxaphene	ND		110		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1
trans-Chlordane	ND		3.4		ug/Kg	☼	06/04/19 09:13	06/12/19 00:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	29	X	36 - 136	06/04/19 09:13	06/12/19 00:10	1
DCB Decachlorobiphenyl	30	X	36 - 136	06/04/19 09:13	06/13/19 05:46	1
Tetrachloro-m-xylene	33	X	50 - 123	06/04/19 09:13	06/12/19 00:10	1
Tetrachloro-m-xylene	34	X	50 - 123	06/04/19 09:13	06/13/19 05:46	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 16:16	1
PCB-1221	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 16:16	1
PCB-1232	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 16:16	1
PCB-1242	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 16:16	1
PCB-1248	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 16:16	1
PCB-1254	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 16:16	1
PCB-1260	ND		0.023		mg/Kg	☼	06/04/19 09:13	06/11/19 16:16	1

Eurofins TestAmerica, Seattle

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-08

Lab Sample ID: 580-86496-8

Date Collected: 05/29/19 10:40

Matrix: Solid

Date Received: 05/29/19 09:25

Percent Solids: 85.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	27	X	39 - 142	06/04/19 09:13	06/11/19 16:16	1
Tetrachloro-m-xylene	30	X	35 - 129	06/04/19 09:13	06/11/19 16:16	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		280		mg/Kg	☼	06/04/19 09:14	06/06/19 01:47	5
Motor Oil (>C24-C36)	420		280		mg/Kg	☼	06/04/19 09:14	06/06/19 01:47	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	55		50 - 150	06/04/19 09:14	06/06/19 01:47	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.4		2.7		mg/Kg	☼	06/07/19 12:12	06/07/19 20:39	1
Barium	76		0.45		mg/Kg	☼	06/07/19 12:12	06/07/19 20:39	1
Cadmium	ND		0.89		mg/Kg	☼	06/07/19 12:12	06/07/19 20:39	1
Chromium	27		1.2		mg/Kg	☼	06/07/19 12:12	06/07/19 20:39	1
Lead	81		1.3		mg/Kg	☼	06/07/19 12:12	06/07/19 20:39	1
Selenium	ND		4.5		mg/Kg	☼	06/07/19 12:12	06/07/19 20:39	1
Silver	ND		2.2		mg/Kg	☼	06/07/19 12:12	06/07/19 20:39	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.035		mg/Kg	☼	06/05/19 11:47	06/05/19 16:50	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85.9		0.1		%			06/03/19 16:11	1
Percent Moisture	14.1		0.1		%			06/03/19 16:11	1

QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-302647/1-A
Matrix: Solid
Analysis Batch: 302681

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 302647

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		200		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Chloromethane	ND		100		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Vinyl chloride	ND		150		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Bromomethane	ND		200		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Chloroethane	ND		400		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Trichlorofluoromethane	ND		200		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,1-Dichloroethene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Methylene Chloride	ND		250		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
trans-1,2-Dichloroethene	ND		60		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,1-Dichloroethane	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
2,2-Dichloropropane	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
cis-1,2-Dichloroethene	ND		60		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Bromochloromethane	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Chloroform	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,1,1-Trichloroethane	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Carbon tetrachloride	ND		20		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,1-Dichloropropene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Benzene	ND		30		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,2-Dichloroethane	ND		20		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Trichloroethene	ND		60		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,2-Dichloropropane	ND		20		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Dibromomethane	ND		60		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Bromodichloromethane	ND		60		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
cis-1,3-Dichloropropene	ND		20		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Toluene	ND		150		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
trans-1,3-Dichloropropene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,1,2-Trichloroethane	ND		20		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Tetrachloroethene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,3-Dichloropropane	ND		60		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Dibromochloromethane	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,2-Dibromoethane	ND		20		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Chlorobenzene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Ethylbenzene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,1,1,2-Tetrachloroethane	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,1,2,2-Tetrachloroethane	ND		20		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
m-Xylene & p-Xylene	ND		200		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
o-Xylene	ND		60		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Styrene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Bromoform	ND		200		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Isopropylbenzene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Bromobenzene	ND		100		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
N-Propylbenzene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,2,3-Trichloropropane	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
2-Chlorotoluene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,3,5-Trimethylbenzene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
4-Chlorotoluene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
t-Butylbenzene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,2,4-Trimethylbenzene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1

Eurofins TestAmerica, Seattle

QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 580-302647/1-A
Matrix: Solid
Analysis Batch: 302681

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 302647

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,3-Dichlorobenzene	ND		60		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
4-Isopropyltoluene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,4-Dichlorobenzene	ND		60		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
n-Butylbenzene	ND		150		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,2-Dichlorobenzene	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,2-Dibromo-3-Chloropropane	ND		250		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,2,4-Trichlorobenzene	ND		60		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
1,2,3-Trichlorobenzene	ND		150		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Hexachlorobutadiene	ND		150		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Naphthalene	ND		100		ug/Kg		06/07/19 08:00	06/07/19 12:20	1
Methyl tert-butyl ether	ND		40		ug/Kg		06/07/19 08:00	06/07/19 12:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		80 - 120	06/07/19 08:00	06/07/19 12:20	1
4-Bromofluorobenzene (Surr)	104		80 - 120	06/07/19 08:00	06/07/19 12:20	1
Dibromofluoromethane (Surr)	96		80 - 120	06/07/19 08:00	06/07/19 12:20	1
Trifluorotoluene (Surr)	105		80 - 120	06/07/19 08:00	06/07/19 12:20	1
1,2-Dichloroethane-d4 (Surr)	103		80 - 121	06/07/19 08:00	06/07/19 12:20	1

Lab Sample ID: LCS 580-302647/2-A
Matrix: Solid
Analysis Batch: 302681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 302647

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	800	636		ug/Kg		80	10 - 150
Chloromethane	800	724		ug/Kg		90	43 - 150
Vinyl chloride	800	1110		ug/Kg		139	13 - 150
Bromomethane	800	961		ug/Kg		120	42 - 150
Chloroethane	800	833		ug/Kg		104	31 - 150
Trichlorofluoromethane	800	990		ug/Kg		124	48 - 150
1,1-Dichloroethene	800	927		ug/Kg		116	58 - 150
Methylene Chloride	800	825		ug/Kg		103	54 - 149
trans-1,2-Dichloroethene	800	809		ug/Kg		101	61 - 150
1,1-Dichloroethane	800	815		ug/Kg		102	70 - 135
2,2-Dichloropropane	800	740		ug/Kg		93	62 - 150
cis-1,2-Dichloroethene	800	786		ug/Kg		98	68 - 143
Bromochloromethane	800	804		ug/Kg		101	76 - 131
Chloroform	800	830		ug/Kg		104	74 - 133
1,1,1-Trichloroethane	800	947		ug/Kg		118	69 - 150
Carbon tetrachloride	800	968		ug/Kg		121	66 - 150
1,1-Dichloropropene	800	923		ug/Kg		115	69 - 150
Benzene	800	880		ug/Kg		110	72 - 135
1,2-Dichloroethane	800	816		ug/Kg		102	68 - 132
Trichloroethene	800	932		ug/Kg		116	69 - 144
1,2-Dichloropropane	800	813		ug/Kg		102	65 - 136
Dibromomethane	800	797		ug/Kg		100	72 - 130
Bromodichloromethane	800	814		ug/Kg		102	73 - 125

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QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 580-302647/2-A
Matrix: Solid
Analysis Batch: 302681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 302647

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
cis-1,3-Dichloropropene	800	862		ug/Kg		108	80 - 122
Toluene	800	902		ug/Kg		113	75 - 137
trans-1,3-Dichloropropene	800	923		ug/Kg		115	80 - 121
1,1,2-Trichloroethane	800	868		ug/Kg		108	80 - 123
Tetrachloroethene	800	958		ug/Kg		120	71 - 145
1,3-Dichloropropane	800	889		ug/Kg		111	75 - 120
Dibromochloromethane	800	912		ug/Kg		114	75 - 125
1,2-Dibromoethane	800	869		ug/Kg		109	77 - 123
Chlorobenzene	800	883		ug/Kg		110	80 - 123
Ethylbenzene	800	919		ug/Kg		115	80 - 135
1,1,1,2-Tetrachloroethane	800	885		ug/Kg		111	79 - 128
1,1,1,2-Tetrachloroethane	800	830		ug/Kg		104	66 - 127
m-Xylene & p-Xylene	800	899		ug/Kg		112	80 - 132
o-Xylene	800	871		ug/Kg		109	80 - 125
Styrene	800	926		ug/Kg		116	79 - 129
Bromoform	800	968		ug/Kg		121	71 - 129
Isopropylbenzene	800	963		ug/Kg		120	74 - 140
Bromobenzene	800	862		ug/Kg		108	78 - 126
N-Propylbenzene	800	925		ug/Kg		116	74 - 143
1,2,3-Trichloropropane	800	842		ug/Kg		105	70 - 127
2-Chlorotoluene	800	881		ug/Kg		110	77 - 127
1,3,5-Trimethylbenzene	800	918		ug/Kg		115	72 - 136
4-Chlorotoluene	800	879		ug/Kg		110	78 - 126
t-Butylbenzene	800	959		ug/Kg		120	72 - 144
1,2,4-Trimethylbenzene	800	909		ug/Kg		114	73 - 127
sec-Butylbenzene	800	975		ug/Kg		122	77 - 143
1,3-Dichlorobenzene	800	880		ug/Kg		110	78 - 122
4-Isopropyltoluene	800	942		ug/Kg		118	71 - 142
1,4-Dichlorobenzene	800	855		ug/Kg		107	77 - 123
n-Butylbenzene	800	920		ug/Kg		115	69 - 143
1,2-Dichlorobenzene	800	856		ug/Kg		107	78 - 126
1,2-Dibromo-3-Chloropropane	800	844		ug/Kg		106	62 - 135
1,2,4-Trichlorobenzene	800	869		ug/Kg		109	68 - 131
1,2,3-Trichlorobenzene	800	855		ug/Kg		107	62 - 136
Hexachlorobutadiene	800	904		ug/Kg		113	65 - 150
Naphthalene	800	851		ug/Kg		106	49 - 147
Methyl tert-butyl ether	800	833		ug/Kg		104	68 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	103		80 - 120
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	95		80 - 120
Trifluorotoluene (Surr)	104		80 - 120
1,2-Dichloroethane-d4 (Surr)	97		80 - 121

QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 580-302647/3-A

Matrix: Solid

Analysis Batch: 302681

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 302647

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD	
									%Rec.	Limit
Dichlorodifluoromethane	800	664		ug/Kg		83	10 - 150	4	40	
Chloromethane	800	758		ug/Kg		95	43 - 150	5	26	
Vinyl chloride	800	1940	*	ug/Kg		243	13 - 150	54	40	
Bromomethane	800	928		ug/Kg		116	42 - 150	3	22	
Chloroethane	800	848		ug/Kg		106	31 - 150	2	31	
Trichlorofluoromethane	800	988		ug/Kg		123	48 - 150	0	40	
1,1-Dichloroethene	800	936		ug/Kg		117	58 - 150	1	29	
Methylene Chloride	800	838		ug/Kg		105	54 - 149	2	30	
trans-1,2-Dichloroethene	800	875		ug/Kg		109	61 - 150	8	22	
1,1-Dichloroethane	800	851		ug/Kg		106	70 - 135	4	21	
2,2-Dichloropropane	800	893		ug/Kg		112	62 - 150	19	20	
cis-1,2-Dichloroethene	800	840		ug/Kg		105	68 - 143	7	20	
Bromochloromethane	800	854		ug/Kg		107	76 - 131	6	15	
Chloroform	800	876		ug/Kg		109	74 - 133	5	13	
1,1,1-Trichloroethane	800	948		ug/Kg		119	69 - 150	0	14	
Carbon tetrachloride	800	996		ug/Kg		125	66 - 150	3	12	
1,1-Dichloropropene	800	926		ug/Kg		116	69 - 150	0	11	
Benzene	800	868		ug/Kg		108	72 - 135	1	15	
1,2-Dichloroethane	800	824		ug/Kg		103	68 - 132	1	17	
Trichloroethene	800	940		ug/Kg		117	69 - 144	1	21	
1,2-Dichloropropane	800	803		ug/Kg		100	65 - 136	1	13	
Dibromomethane	800	787		ug/Kg		98	72 - 130	1	14	
Bromodichloromethane	800	832		ug/Kg		104	73 - 125	2	15	
cis-1,3-Dichloropropene	800	841		ug/Kg		105	80 - 122	3	16	
Toluene	800	894		ug/Kg		112	75 - 137	1	20	
trans-1,3-Dichloropropene	800	871		ug/Kg		109	80 - 121	6	21	
1,1,2-Trichloroethane	800	833		ug/Kg		104	80 - 123	4	20	
Tetrachloroethene	800	941		ug/Kg		118	71 - 145	2	16	
1,3-Dichloropropane	800	842		ug/Kg		105	75 - 120	5	18	
Dibromochloromethane	800	890		ug/Kg		111	75 - 125	2	18	
1,2-Dibromoethane	800	850		ug/Kg		106	77 - 123	2	20	
Chlorobenzene	800	885		ug/Kg		111	80 - 123	0	18	
Ethylbenzene	800	932		ug/Kg		117	80 - 135	1	16	
1,1,1,2-Tetrachloroethane	800	911		ug/Kg		114	79 - 128	3	17	
1,1,2,2-Tetrachloroethane	800	816		ug/Kg		102	66 - 127	2	18	
m-Xylene & p-Xylene	800	912		ug/Kg		114	80 - 132	1	20	
o-Xylene	800	898		ug/Kg		112	80 - 125	3	14	
Styrene	800	954		ug/Kg		119	79 - 129	3	15	
Bromoform	800	981		ug/Kg		123	71 - 129	1	17	
Isopropylbenzene	800	975		ug/Kg		122	74 - 140	1	17	
Bromobenzene	800	839		ug/Kg		105	78 - 126	3	19	
N-Propylbenzene	800	887		ug/Kg		111	74 - 143	4	21	
1,2,3-Trichloropropane	800	775		ug/Kg		97	70 - 127	8	16	
2-Chlorotoluene	800	841		ug/Kg		105	77 - 127	5	16	
1,3,5-Trimethylbenzene	800	886		ug/Kg		111	72 - 136	4	21	
4-Chlorotoluene	800	851		ug/Kg		106	78 - 126	3	16	
t-Butylbenzene	800	915		ug/Kg		114	72 - 144	5	24	
1,2,4-Trimethylbenzene	800	883		ug/Kg		110	73 - 127	3	20	

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QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 580-302647/3-A
Matrix: Solid
Analysis Batch: 302681

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 302647

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
sec-Butylbenzene	800	938		ug/Kg		117	77 - 143	4	24
1,3-Dichlorobenzene	800	860		ug/Kg		108	78 - 122	2	20
4-Isopropyltoluene	800	907		ug/Kg		113	71 - 142	4	23
1,4-Dichlorobenzene	800	840		ug/Kg		105	77 - 123	2	20
n-Butylbenzene	800	885		ug/Kg		111	69 - 143	4	26
1,2-Dichlorobenzene	800	837		ug/Kg		105	78 - 126	2	21
1,2-Dibromo-3-Chloropropane	800	748		ug/Kg		93	62 - 135	12	25
1,2,4-Trichlorobenzene	800	786		ug/Kg		98	68 - 131	10	29
1,2,3-Trichlorobenzene	800	732		ug/Kg		91	62 - 136	16	34
Hexachlorobutadiene	800	823		ug/Kg		103	65 - 150	9	36
Naphthalene	800	739		ug/Kg		92	49 - 147	14	35
Methyl tert-butyl ether	800	842		ug/Kg		105	68 - 132	1	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	100		80 - 120
Trifluorotoluene (Surr)	104		80 - 120
1,2-Dichloroethane-d4 (Surr)	101		80 - 121

Method: 8151A - Herbicides (GC/MS)

Lab Sample ID: MB 580-302162/1-A
Matrix: Solid
Analysis Batch: 302377

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 302162

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		90		ug/Kg		06/01/19 10:35	06/04/19 20:42	1
2,4-D	ND		90		ug/Kg		06/01/19 10:35	06/04/19 20:42	1
2,4-DB	ND		90		ug/Kg		06/01/19 10:35	06/04/19 20:42	1
Dalapon	ND		160		ug/Kg		06/01/19 10:35	06/04/19 20:42	1
Dicamba	ND		90		ug/Kg		06/01/19 10:35	06/04/19 20:42	1
Dichlorprop	ND		90		ug/Kg		06/01/19 10:35	06/04/19 20:42	1
Dinoseb	ND		160		ug/Kg		06/01/19 10:35	06/04/19 20:42	1
MCPA	ND		90		ug/Kg		06/01/19 10:35	06/04/19 20:42	1
Mecoprop	ND		90		ug/Kg		06/01/19 10:35	06/04/19 20:42	1
Pentachlorophenol	ND		160		ug/Kg		06/01/19 10:35	06/04/19 20:42	1
Silvex (2,4,5-TP)	ND		90		ug/Kg		06/01/19 10:35	06/04/19 20:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	111		39 - 150	06/01/19 10:35	06/04/19 20:42	1

Lab Sample ID: LCS 580-302162/2-A
Matrix: Solid
Analysis Batch: 302377

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 302162

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	500	628		ug/Kg		126	34 - 150

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QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 8151A - Herbicides (GC/MS) (Continued)

Lab Sample ID: LCS 580-302162/2-A
Matrix: Solid
Analysis Batch: 302377

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 302162

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	500	581		ug/Kg		116	30 - 150
2,4-DB	500	606		ug/Kg		121	20 - 150
Dalapon	500	264		ug/Kg		53	10 - 120
Dicamba	500	563		ug/Kg		113	36 - 144
Dichlorprop	500	596		ug/Kg		119	32 - 150
Dinoseb	500	576		ug/Kg		115	10 - 150
MCPA	500	672		ug/Kg		134	26 - 150
Mecoprop	500	626		ug/Kg		125	25 - 150
Pentachlorophenol	500	649		ug/Kg		130	24 - 150
Silvex (2,4,5-TP)	500	601		ug/Kg		120	31 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	90		39 - 150

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 580-302344/1-A
Matrix: Solid
Analysis Batch: 302419

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 302344

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
2-Methylnaphthalene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
1-Methylnaphthalene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Acenaphthylene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Acenaphthene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Fluorene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Phenanthrene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Anthracene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Fluoranthene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Pyrene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Benzo[a]anthracene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Chrysene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Benzo[a]pyrene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		06/04/19 10:45	06/05/19 11:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	72		57 - 120	06/04/19 10:45	06/05/19 11:20	1

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QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 580-302344/2-A
Matrix: Solid
Analysis Batch: 302419

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 302344
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Naphthalene	1000	848		ug/Kg		85	70 - 120
2-Methylnaphthalene	1000	869		ug/Kg		87	68 - 120
1-Methylnaphthalene	1000	860		ug/Kg		86	71 - 120
Acenaphthylene	1000	919		ug/Kg		92	68 - 120
Acenaphthene	1000	869		ug/Kg		87	68 - 120
Fluorene	1000	914		ug/Kg		91	73 - 120
Phenanthrene	1000	865		ug/Kg		87	66 - 120
Anthracene	1000	954		ug/Kg		95	73 - 125
Fluoranthene	1000	865		ug/Kg		87	74 - 125
Pyrene	1000	842		ug/Kg		84	70 - 120
Benzo[a]anthracene	1000	1000		ug/Kg		100	66 - 120
Chrysene	1000	891		ug/Kg		89	63 - 120
Benzo[b]fluoranthene	1000	1050		ug/Kg		105	63 - 132
Benzo[k]fluoranthene	1000	912		ug/Kg		91	63 - 131
Benzo[a]pyrene	1000	1030		ug/Kg		103	72 - 124
Indeno[1,2,3-cd]pyrene	1000	1030		ug/Kg		103	65 - 132
Dibenz(a,h)anthracene	1000	946		ug/Kg		95	70 - 133
Benzo[g,h,i]perylene	1000	955		ug/Kg		95	63 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Terphenyl-d14	68		57 - 120

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 580-302313/1-A
Matrix: Solid
Analysis Batch: 302882

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 302313

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
4,4'-DDE	ND		2.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
4,4'-DDT	ND		2.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
Aldrin	ND		3.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
alpha-BHC	ND		2.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
beta-BHC	ND		5.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
cis-Chlordane	ND		2.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
delta-BHC	ND		3.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
Dieldrin	ND		2.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
Endosulfan I	ND		2.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
Endosulfan II	ND		2.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
Endosulfan sulfate	ND		2.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
Endrin	ND		2.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
Endrin ketone	ND		2.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
Heptachlor	ND		3.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
Heptachlor epoxide	ND		3.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
Methoxychlor	ND		10		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
Toxaphene	ND		100		ug/Kg		06/04/19 09:13	06/11/19 19:57	1

Eurofins TestAmerica, Seattle

QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 580-302313/1-A
Matrix: Solid
Analysis Batch: 302882

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 302313

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-Chlordane	ND		3.0		ug/Kg		06/04/19 09:13	06/11/19 19:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	123		36 - 136				06/04/19 09:13	06/11/19 19:57	1
Tetrachloro-m-xylene	80		50 - 123				06/04/19 09:13	06/11/19 19:57	1

Lab Sample ID: MB 580-302313/1-A
Matrix: Solid
Analysis Batch: 302994

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 302313

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		20		ug/Kg		06/04/19 09:13	06/13/19 01:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	135		36 - 136				06/04/19 09:13	06/13/19 01:36	1
Tetrachloro-m-xylene	80		50 - 123				06/04/19 09:13	06/13/19 01:36	1

Lab Sample ID: LCS 580-302313/2-A
Matrix: Solid
Analysis Batch: 302882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 302313
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
4,4'-DDD	20.0	14.9		ug/Kg		74	61 - 132
4,4'-DDE	20.0	14.6		ug/Kg		73	53 - 124
4,4'-DDT	20.0	15.7		ug/Kg		79	43 - 150
Aldrin	20.0	13.3		ug/Kg		67	56 - 121
beta-BHC	20.0	12.0		ug/Kg		60	42 - 138
cis-Chlordane	20.0	14.0		ug/Kg		70	62 - 125
Dieldrin	20.0	14.9		ug/Kg		74	55 - 121
Endosulfan I	20.0	15.2		ug/Kg		76	57 - 121
Endosulfan II	20.0	15.7		ug/Kg		78	47 - 125
Endosulfan sulfate	20.0	14.2		ug/Kg		71	50 - 125
Endrin	20.0	18.3		ug/Kg		91	56 - 150
Endrin ketone	20.0	15.9		ug/Kg		79	56 - 128
gamma-BHC (Lindane)	20.0	12.0		ug/Kg		60	55 - 120
Heptachlor	20.0	15.2		ug/Kg		76	64 - 124
Heptachlor epoxide	20.0	15.2		ug/Kg		76	52 - 120
Methoxychlor	20.0	18.2		ug/Kg		91	42 - 150
trans-Chlordane	20.0	13.4		ug/Kg		67	60 - 120
Surrogate	%Recovery	Qualifier	Limits				
DCB Decachlorobiphenyl	127		36 - 136				
Tetrachloro-m-xylene	80		50 - 123				

QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 580-302313/2-A
Matrix: Solid
Analysis Batch: 303137

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 302313
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
alpha-BHC	20.0	17.9		ug/Kg		89	62 - 120
delta-BHC	20.0	17.8		ug/Kg		89	60 - 124
Endrin	20.0	18.1		ug/Kg		90	56 - 150

Lab Sample ID: LCS 580-302313/4-A
Matrix: Solid
Analysis Batch: 302882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 302313
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Toxaphene	500	370		ug/Kg		74	57 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	127		36 - 136
Tetrachloro-m-xylene	84		50 - 123

Lab Sample ID: LCSD 580-302313/5-A
Matrix: Solid
Analysis Batch: 302882

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 302313
%Rec. **RPD**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toxaphene	500	436		ug/Kg		87	57 - 136	NaN	24

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	130		36 - 136
Tetrachloro-m-xylene	87		50 - 123

Lab Sample ID: 580-86496-1 MS
Matrix: Solid
Analysis Batch: 302882

Client Sample ID: SS-01
Prep Type: Total/NA
Prep Batch: 302313
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
4,4'-DDD	ND	F1	23.7	11.5	F1	ug/Kg	☼	48	61 - 132
4,4'-DDE	ND	F1	23.7	12.7	F1	ug/Kg	☼	51	53 - 124
4,4'-DDT	ND		23.7	17.1		ug/Kg	☼	72	43 - 150
Aldrin	ND	F1	23.7	12.4	F1	ug/Kg	☼	52	56 - 121
alpha-BHC	ND	F1 *	23.7	13.9	F1	ug/Kg	☼	59	62 - 120
beta-BHC	ND		23.7	18.2		ug/Kg	☼	77	42 - 138
cis-Chlordane	ND	F1	23.7	12.3	F1	ug/Kg	☼	52	62 - 125
delta-BHC	ND	F1 *	23.7	13.9	F1	ug/Kg	☼	59	60 - 124
Dieldrin	ND		23.7	14.0		ug/Kg	☼	59	55 - 121
Endosulfan I	ND	F1	23.7	12.4	F1	ug/Kg	☼	52	57 - 121
Endosulfan II	ND		23.7	12.3		ug/Kg	☼	52	47 - 125
Endosulfan sulfate	ND	F1	23.7	11.1	F1	ug/Kg	☼	47	50 - 125
Endrin	ND	F2	23.7	21.0		ug/Kg	☼	89	56 - 150
Endrin ketone	ND	F1	23.7	12.3	F1	ug/Kg	☼	52	56 - 128
gamma-BHC (Lindane)	ND	F1	23.7	12.2	F1	ug/Kg	☼	52	55 - 120
Heptachlor	ND	F1	23.7	15.0	F1	ug/Kg	☼	63	64 - 124
Heptachlor epoxide	ND	F2 F1	23.7	11.4	F1	ug/Kg	☼	48	52 - 120

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QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 580-86496-1 MS
Matrix: Solid
Analysis Batch: 302882

Client Sample ID: SS-01
Prep Type: Total/NA
Prep Batch: 302313

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Methoxychlor	ND		23.7	15.2		ug/Kg	☼	64	42 - 150
trans-Chlordane	ND	F1	23.7	13.2	F1	ug/Kg	☼	56	60 - 120
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
DCB Decachlorobiphenyl	448	X	36 - 136						
Tetrachloro-m-xylene	78		50 - 123						

Lab Sample ID: 580-86496-1 MS
Matrix: Solid
Analysis Batch: 302994

Client Sample ID: SS-01
Prep Type: Total/NA
Prep Batch: 302313

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Endrin aldehyde	ND	F1	23.7	ND		ug/Kg	☼	31	30 - 136

Lab Sample ID: 580-86496-1 MSD
Matrix: Solid
Analysis Batch: 302882

Client Sample ID: SS-01
Prep Type: Total/NA
Prep Batch: 302313

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4,4'-DDD	ND	F1	24.4	13.6	F1	ug/Kg	☼	56	61 - 132	17	18
4,4'-DDE	ND	F1	24.4	14.1		ug/Kg	☼	56	53 - 124	11	18
4,4'-DDT	ND		24.4	15.3		ug/Kg	☼	63	43 - 150	11	15
Aldrin	ND	F1	24.4	13.8		ug/Kg	☼	57	56 - 121	11	12
alpha-BHC	ND	F1 *	24.4	15.3		ug/Kg	☼	62	62 - 120	9	15
beta-BHC	ND		24.4	19.9		ug/Kg	☼	81	42 - 138	9	19
cis-Chlordane	ND	F1	24.4	12.9	F1	ug/Kg	☼	53	62 - 125	5	13
delta-BHC	ND	F1 *	24.4	15.0		ug/Kg	☼	62	60 - 124	8	18
Dieldrin	ND		24.4	15.1		ug/Kg	☼	62	55 - 121	7	12
Endosulfan I	ND	F1	24.4	13.5	F1	ug/Kg	☼	55	57 - 121	9	20
Endosulfan II	ND		24.4	13.8		ug/Kg	☼	56	47 - 125	11	18
Endosulfan sulfate	ND	F1	24.4	11.5	F1	ug/Kg	☼	47	50 - 125	3	13
Endrin	ND	F2	24.4	24.1	F2	ug/Kg	☼	99	56 - 150	14	13
Endrin ketone	ND	F1	24.4	13.1	F1	ug/Kg	☼	54	56 - 128	7	18
gamma-BHC (Lindane)	ND	F1	24.4	12.9	F1	ug/Kg	☼	53	55 - 120	5	12
Heptachlor	ND	F1	24.4	16.0		ug/Kg	☼	65	64 - 124	7	17
Heptachlor epoxide	ND	F2 F1	24.4	14.4	F2	ug/Kg	☼	59	52 - 120	23	20
Methoxychlor	ND		24.4	14.0		ug/Kg	☼	57	42 - 150	8	14
trans-Chlordane	ND	F1	24.4	13.6	F1	ug/Kg	☼	56	60 - 120	4	13
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
DCB Decachlorobiphenyl	95		36 - 136								
Tetrachloro-m-xylene	78		50 - 123								

QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 580-86496-1 MSD
Matrix: Solid
Analysis Batch: 302994

Client Sample ID: SS-01
Prep Type: Total/NA
Prep Batch: 302313

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endrin aldehyde	ND	F1	24.4	ND	F1	ug/Kg	☼	28	30 - 136	8	36

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 580-302313/1-A
Matrix: Solid
Analysis Batch: 302814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 302313

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.020		mg/Kg		06/04/19 09:13	06/11/19 13:09	1
PCB-1221	ND		0.020		mg/Kg		06/04/19 09:13	06/11/19 13:09	1
PCB-1232	ND		0.020		mg/Kg		06/04/19 09:13	06/11/19 13:09	1
PCB-1242	ND		0.020		mg/Kg		06/04/19 09:13	06/11/19 13:09	1
PCB-1248	ND		0.020		mg/Kg		06/04/19 09:13	06/11/19 13:09	1
PCB-1254	ND		0.020		mg/Kg		06/04/19 09:13	06/11/19 13:09	1
PCB-1260	ND		0.020		mg/Kg		06/04/19 09:13	06/11/19 13:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	63		39 - 142	06/04/19 09:13	06/11/19 13:09	1
Tetrachloro-m-xylene	70		35 - 129	06/04/19 09:13	06/11/19 13:09	1

Lab Sample ID: LCS 580-302313/3-A
Matrix: Solid
Analysis Batch: 302814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 302313

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.100	0.0721		mg/Kg		72	41 - 138
PCB-1260	0.100	0.0674		mg/Kg		67	47 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	72		39 - 142
Tetrachloro-m-xylene	75		35 - 129

Lab Sample ID: 580-86496-1 MS
Matrix: Solid
Analysis Batch: 302814

Client Sample ID: SS-01
Prep Type: Total/NA
Prep Batch: 302313

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		0.121	0.0881		mg/Kg	☼	73	41 - 138
PCB-1260	ND		0.121	0.0729		mg/Kg	☼	60	47 - 142

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	49		39 - 142
Tetrachloro-m-xylene	52		35 - 129

QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 580-86496-1 MSD
Matrix: Solid
Analysis Batch: 302814

Client Sample ID: SS-01
Prep Type: Total/NA
Prep Batch: 302313

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
PCB-1016	ND		0.117	0.124	F2	mg/Kg	☼	106		41 - 138	34	21
PCB-1260	ND		0.117	0.0943	F2	mg/Kg	☼	80		47 - 142	26	19
MSD MSD												
Surrogate	%Recovery	Qualifier	Limits									
DCB Decachlorobiphenyl	16	X	39 - 142									
Tetrachloro-m-xylene	65		35 - 129									

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-302314/1-A
Matrix: Solid
Analysis Batch: 302487

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 302314

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
#2 Diesel (C10-C24)	ND		50		mg/Kg		06/04/19 09:14	06/05/19 17:04	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		06/04/19 09:14	06/05/19 17:04	1
MB MB									
Surrogate	%Recovery	Qualifier	Limits		Prepared		Analyzed		Dil Fac
o-Terphenyl	79		50 - 150		06/04/19 09:14		06/05/19 17:04		1

Lab Sample ID: LCS 580-302314/2-A
Matrix: Solid
Analysis Batch: 302487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 302314

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
#2 Diesel (C10-C24)	500	495		mg/Kg		99		70 - 125
Motor Oil (>C24-C36)	500	488		mg/Kg		98		70 - 129
LCS LCS								
Surrogate	%Recovery	Qualifier	Limits					
o-Terphenyl	78		50 - 150					

Lab Sample ID: LCSD 580-302314/3-A
Matrix: Solid
Analysis Batch: 302487

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 302314

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
		Result	Qualifier							
#2 Diesel (C10-C24)	500	502		mg/Kg		100		70 - 125	1	16
Motor Oil (>C24-C36)	500	491		mg/Kg		98		70 - 129	1	16
LCSD LCSD										
Surrogate	%Recovery	Qualifier	Limits							
o-Terphenyl	93		50 - 150							

QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 580-302659/23-A
Matrix: Solid
Analysis Batch: 302725

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 302659

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.0		mg/Kg		06/07/19 12:12	06/07/19 19:18	1
Barium	ND		0.50		mg/Kg		06/07/19 12:12	06/07/19 19:18	1
Cadmium	ND		1.0		mg/Kg		06/07/19 12:12	06/07/19 19:18	1
Chromium	ND		1.3		mg/Kg		06/07/19 12:12	06/07/19 19:18	1
Lead	ND		1.5		mg/Kg		06/07/19 12:12	06/07/19 19:18	1
Selenium	ND		5.0		mg/Kg		06/07/19 12:12	06/07/19 19:18	1
Silver	ND		2.5		mg/Kg		06/07/19 12:12	06/07/19 19:18	1

Lab Sample ID: LCS 580-302659/24-A
Matrix: Solid
Analysis Batch: 302725

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 302659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
Arsenic	50.0	48.5		mg/Kg		97	80 - 120	
Barium	50.0	47.4		mg/Kg		95	80 - 120	
Cadmium	50.0	48.6		mg/Kg		97	80 - 120	
Chromium	50.0	48.8		mg/Kg		98	80 - 120	
Lead	50.0	50.4		mg/Kg		101	80 - 120	
Selenium	50.0	48.8		mg/Kg		98	80 - 120	
Silver	50.0	51.0		mg/Kg		102	80 - 120	

Lab Sample ID: LCSD 580-302659/25-A
Matrix: Solid
Analysis Batch: 302725

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 302659

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Arsenic	50.0	48.6		mg/Kg		97	80 - 120	0	20
Barium	50.0	47.0		mg/Kg		94	80 - 120	1	20
Cadmium	50.0	48.7		mg/Kg		97	80 - 120	0	20
Chromium	50.0	49.1		mg/Kg		98	80 - 120	1	20
Lead	50.0	50.9		mg/Kg		102	80 - 120	1	20
Selenium	50.0	49.0		mg/Kg		98	80 - 120	0	20
Silver	50.0	50.7		mg/Kg		101	80 - 120	1	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 580-302449/23-A
Matrix: Solid
Analysis Batch: 302505

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 302449

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030		mg/Kg		06/05/19 11:47	06/05/19 15:47	1

Lab Sample ID: LCS 580-302449/24-A
Matrix: Solid
Analysis Batch: 302505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 302449

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.153		mg/Kg		92	80 - 120

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QC Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 580-302449/25-A
Matrix: Solid
Analysis Batch: 302505

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 302449

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.167	0.154		mg/Kg		92	80 - 120	1	20

Method: 2540G - SM 2540G

Lab Sample ID: 580-86496-1 DU
Matrix: Solid
Analysis Batch: 302273

Client Sample ID: SS-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	79.4		80.5		%		1	20
Percent Moisture	20.6		19.5		%		5	20

DRAFT

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Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-01
Date Collected: 05/29/19 11:29
Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	302273	06/03/19 16:11	FCG	TAL SEA

Client Sample ID: SS-01
Date Collected: 05/29/19 11:29
Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-1
Matrix: Solid
Percent Solids: 79.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			302647	06/07/19 08:00	ASJ	TAL SEA
Total/NA	Analysis	8260C		1	302681	06/07/19 14:54	T1W	TAL SEA
Total/NA	Prep	8151A			302162	06/01/19 10:39	ERZ	TAL SEA
Total/NA	Analysis	8151A		1	302377	06/04/19 23:35	KFS	TAL SEA
Total/NA	Prep	3546			302344	06/04/19 10:45	FCG	TAL SEA
Total/NA	Analysis	8270C SIM		5	302419	06/05/19 12:12	KFS	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		1	302882	06/11/19 21:16	T1W	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		1	302994	06/13/19 02:53	CJB	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8082A		1	302814	06/11/19 13:43	CJB	TAL SEA
Total/NA	Prep	3546			302314	06/04/19 09:14		TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	302487	06/05/19 23:06	W1T	TAL SEA
Total/NA	Prep	3050B			302659	06/07/19 12:12	PAB	TAL SEA
Total/NA	Analysis	6010C		1	302725	06/07/19 20:11	SPP	TAL SEA
Total/NA	Prep	7471A			302449	06/05/19 11:47	FCW	TAL SEA
Total/NA	Analysis	7471A		1	302505	06/05/19 16:29	FCW	TAL SEA

Client Sample ID: SS-02
Date Collected: 05/29/19 12:00
Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	302273	06/03/19 16:11	FCG	TAL SEA

Client Sample ID: SS-02
Date Collected: 05/29/19 12:00
Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-2
Matrix: Solid
Percent Solids: 78.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			302647	06/07/19 08:00	ASJ	TAL SEA
Total/NA	Analysis	8260C		1	302681	06/07/19 15:19	T1W	TAL SEA
Total/NA	Prep	8151A			302162	06/01/19 10:39	ERZ	TAL SEA
Total/NA	Analysis	8151A		1	302377	06/04/19 23:56	KFS	TAL SEA
Total/NA	Prep	3546			302344	06/04/19 10:45	FCG	TAL SEA
Total/NA	Analysis	8270C SIM		5	302419	06/05/19 12:39	KFS	TAL SEA

Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-02

Date Collected: 05/29/19 12:00

Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-2

Matrix: Solid

Percent Solids: 78.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		1	302882	06/11/19 22:14	T1W	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		1	302994	06/13/19 03:51	CJB	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8082A		1	302814	06/11/19 14:34	CJB	TAL SEA
Total/NA	Prep	3546			302314	06/04/19 09:14		TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	302487	06/05/19 23:26	W1T	TAL SEA
Total/NA	Prep	3050B			302659	06/07/19 12:12	PAB	TAL SEA
Total/NA	Analysis	6010C		1	302725	06/07/19 20:14	SPP	TAL SEA
Total/NA	Prep	7471A			302449	06/05/19 11:47	FCW	TAL SEA
Total/NA	Analysis	7471A		1	302505	06/05/19 16:31	FCW	TAL SEA

Client Sample ID: SS-03

Date Collected: 05/29/19 12:28

Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	302273	06/03/19 16:11	FCG	TAL SEA

Client Sample ID: SS-03

Date Collected: 05/29/19 12:28

Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-3

Matrix: Solid

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			302647	06/07/19 08:00	ASJ	TAL SEA
Total/NA	Analysis	8260C		1	302681	06/07/19 15:45	T1W	TAL SEA
Total/NA	Prep	8151A			302162	06/01/19 10:39	ERZ	TAL SEA
Total/NA	Analysis	8151A		1	302377	06/05/19 00:17	KFS	TAL SEA
Total/NA	Prep	3546			302344	06/04/19 10:45	FCG	TAL SEA
Total/NA	Analysis	8270C SIM		5	302419	06/05/19 17:02	KFS	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		3	302882	06/11/19 22:34	T1W	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		3	302994	06/13/19 04:11	CJB	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8082A		1	302814	06/11/19 14:51	CJB	TAL SEA
Total/NA	Prep	3546			302314	06/04/19 09:14		TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	302487	06/05/19 23:46	W1T	TAL SEA
Total/NA	Prep	3050B			302659	06/07/19 12:12	PAB	TAL SEA
Total/NA	Analysis	6010C		1	302725	06/07/19 20:17	SPP	TAL SEA
Total/NA	Prep	7471A			302449	06/05/19 11:47	FCW	TAL SEA
Total/NA	Analysis	7471A		1	302505	06/05/19 16:34	FCW	TAL SEA

Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-04

Date Collected: 05/29/19 12:53

Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	302273	06/03/19 16:11	FCG	TAL SEA

Client Sample ID: SS-04

Date Collected: 05/29/19 12:53

Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-4

Matrix: Solid

Percent Solids: 77.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			302647	06/07/19 08:00	ASJ	TAL SEA
Total/NA	Analysis	8260C		1	302681	06/07/19 16:10	T1W	TAL SEA
Total/NA	Prep	8151A			302162	06/01/19 10:39	ERZ	TAL SEA
Total/NA	Analysis	8151A		1	302377	06/05/19 00:39	KFS	TAL SEA
Total/NA	Prep	3546			302344	06/04/19 10:45	FCG	TAL SEA
Total/NA	Analysis	8270C SIM		5	302419	06/05/19 13:32	KFS	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		1	302882	06/11/19 22:53	T1W	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		1	302994	06/13/19 04:30	CJB	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8082A		1	302814	06/11/19 15:08	CJB	TAL SEA
Total/NA	Prep	3546			302314	06/04/19 09:14		TAL SEA
Total/NA	Analysis	NWTPH-Dx		10	302487	06/06/19 00:26	W1T	TAL SEA
Total/NA	Prep	3050B			302659	06/07/19 12:12	PAB	TAL SEA
Total/NA	Analysis	6010C		1	302725	06/07/19 20:20	SPP	TAL SEA
Total/NA	Prep	7471A			302449	06/05/19 11:47	FCW	TAL SEA
Total/NA	Analysis	7471A		1	302505	06/05/19 16:41	FCW	TAL SEA

Client Sample ID: SS-05

Date Collected: 05/29/19 10:11

Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	302273	06/03/19 16:11	FCG	TAL SEA

Client Sample ID: SS-05

Date Collected: 05/29/19 10:11

Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-5

Matrix: Solid

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			302647	06/07/19 08:00	ASJ	TAL SEA
Total/NA	Analysis	8260C		1	302681	06/07/19 16:36	T1W	TAL SEA
Total/NA	Prep	8151A			302162	06/01/19 10:39	ERZ	TAL SEA
Total/NA	Analysis	8151A		1	302377	06/05/19 01:00	KFS	TAL SEA
Total/NA	Prep	3546			302344	06/04/19 10:45	FCG	TAL SEA
Total/NA	Analysis	8270C SIM		5	302419	06/05/19 13:58	KFS	TAL SEA

Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-05

Date Collected: 05/29/19 10:11

Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-5

Matrix: Solid

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		1	302882	06/11/19 23:12	T1W	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		1	302994	06/13/19 04:49	CJB	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8082A		1	302814	06/11/19 15:25	CJB	TAL SEA
Total/NA	Prep	3546			302314	06/04/19 09:14		TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	302487	06/06/19 00:46	W1T	TAL SEA
Total/NA	Prep	3050B			302659	06/07/19 12:12	PAB	TAL SEA
Total/NA	Analysis	6010C		1	302725	06/07/19 20:29	SPP	TAL SEA
Total/NA	Prep	7471A			302449	06/05/19 11:47	FCW	TAL SEA
Total/NA	Analysis	7471A		1	302505	06/05/19 16:43	FCW	TAL SEA

Client Sample ID: SS-06

Date Collected: 05/29/19 09:42

Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	302273	06/03/19 16:11	FCG	TAL SEA

Client Sample ID: SS-06

Date Collected: 05/29/19 09:42

Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-6

Matrix: Solid

Percent Solids: 74.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			302647	06/07/19 08:00	ASJ	TAL SEA
Total/NA	Analysis	8260C		1	302681	06/07/19 17:01	T1W	TAL SEA
Total/NA	Prep	8151A			302162	06/01/19 10:39	ERZ	TAL SEA
Total/NA	Analysis	8151A		1	302377	06/05/19 01:21	KFS	TAL SEA
Total/NA	Prep	3546			302344	06/04/19 10:45	FCG	TAL SEA
Total/NA	Analysis	8270C SIM		1	302419	06/05/19 17:29	KFS	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		1	302882	06/11/19 23:32	T1W	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		1	302994	06/13/19 05:08	CJB	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8082A		1	302814	06/11/19 15:42	CJB	TAL SEA
Total/NA	Prep	3546			302314	06/04/19 09:14		TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	302487	06/06/19 01:06	W1T	TAL SEA
Total/NA	Prep	3050B			302659	06/07/19 12:12	PAB	TAL SEA
Total/NA	Analysis	6010C		1	302725	06/07/19 20:32	SPP	TAL SEA
Total/NA	Prep	7471A			302449	06/05/19 11:47	FCW	TAL SEA
Total/NA	Analysis	7471A		1	302505	06/05/19 16:45	FCW	TAL SEA

Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-07
Date Collected: 05/29/19 11:02
Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	302273	06/03/19 16:11	FCG	TAL SEA

Client Sample ID: SS-07
Date Collected: 05/29/19 11:02
Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-7
Matrix: Solid
Percent Solids: 89.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			302647	06/07/19 08:00	ASJ	TAL SEA
Total/NA	Analysis	8260C		1	302681	06/07/19 17:26	T1W	TAL SEA
Total/NA	Prep	8151A			302162	06/01/19 11:00	ERZ	TAL SEA
Total/NA	Analysis	8151A		1	302377	06/05/19 01:43	KFS	TAL SEA
Total/NA	Prep	3546			302344	06/04/19 10:45	FCG	TAL SEA
Total/NA	Analysis	8270C SIM		5	302419	06/05/19 17:55	KFS	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		3	302882	06/11/19 23:51	T1W	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		3	302994	06/13/19 05:27	CJB	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8082A		1	302814	06/11/19 15:59	CJB	TAL SEA
Total/NA	Prep	3546			302314	06/04/19 09:14		TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	302487	06/06/19 01:26	W1T	TAL SEA
Total/NA	Prep	3050B			302659	06/07/19 12:12	PAB	TAL SEA
Total/NA	Analysis	6010C		1	302725	06/07/19 20:36	SPP	TAL SEA
Total/NA	Prep	7471A			302449	06/05/19 11:47	FCW	TAL SEA
Total/NA	Analysis	7471A		1	302505	06/05/19 16:48	FCW	TAL SEA

Client Sample ID: SS-08
Date Collected: 05/29/19 10:40
Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	302273	06/03/19 16:11	FCG	TAL SEA

Client Sample ID: SS-08
Date Collected: 05/29/19 10:40
Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-8
Matrix: Solid
Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			302647	06/07/19 08:00	ASJ	TAL SEA
Total/NA	Analysis	8260C		1	302681	06/07/19 17:52	T1W	TAL SEA
Total/NA	Prep	8151A			302162	06/01/19 11:02	ERZ	TAL SEA
Total/NA	Analysis	8151A		1	302377	06/05/19 02:04	KFS	TAL SEA
Total/NA	Prep	3546			302344	06/04/19 10:45	FCG	TAL SEA
Total/NA	Analysis	8270C SIM		5	302419	06/05/19 18:21	KFS	TAL SEA

Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Client Sample ID: SS-08

Date Collected: 05/29/19 10:40

Date Received: 05/29/19 09:25

Lab Sample ID: 580-86496-8

Matrix: Solid

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		1	302882	06/12/19 00:10	T1W	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8081A		1	302994	06/13/19 05:46	CJB	TAL SEA
Total/NA	Prep	3546			302313	06/04/19 09:13	FCG	TAL SEA
Total/NA	Analysis	8082A		1	302814	06/11/19 16:16	CJB	TAL SEA
Total/NA	Prep	3546			302314	06/04/19 09:14		TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	302487	06/06/19 01:47	W1T	TAL SEA
Total/NA	Prep	3050B			302659	06/07/19 12:12	PAB	TAL SEA
Total/NA	Analysis	6010C		1	302725	06/07/19 20:39	SPP	TAL SEA
Total/NA	Prep	7471A			302449	06/05/19 11:47	FCW	TAL SEA
Total/NA	Analysis	7471A		1	302505	06/05/19 16:50	FCW	TAL SEA

Laboratory References:

TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Accreditation/Certification Summary

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City

Job ID: 580-86496-1

Laboratory: Eurofins TestAmerica, Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-20
ANAB	DoD		L2236	01-19-22
ANAB	ISO/IEC 17025		L2236	01-19-22
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-20

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Sample Summary

Client: Cascade Earth Sciences Inc.
Project/Site: Mill City


Job ID: 580-86496-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
580-86496-1	SS-01	Solid	05/29/19 11:29	05/29/19 09:25	
580-86496-2	SS-02	Solid	05/29/19 12:00	05/29/19 09:25	
580-86496-3	SS-03	Solid	05/29/19 12:28	05/29/19 09:25	
580-86496-4	SS-04	Solid	05/29/19 12:53	05/29/19 09:25	
580-86496-5	SS-05	Solid	05/29/19 10:11	05/29/19 09:25	
580-86496-6	SS-06	Solid	05/29/19 09:42	05/29/19 09:25	
580-86496-7	SS-07	Solid	05/29/19 11:02	05/29/19 09:25	
580-86496-8	SS-08	Solid	05/29/19 10:40	05/29/19 09:25	

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Chain of Custody Record

Client Information Client Contact: Jessica Penetar Company: Cascade Earth Sciences Inc. Address: 3511 Pacific Blvd Sw City: Albany State, Zip: OR, 97321 Phone: 541-812-6621 (Tel) Email: jessica.penetar@valmont.com Project Name: Mill City Site:		Lab PM: Lewis, Nathan A E-Mail: nathan.lewis@testamericainc.com Phone: 541-812-6621 Project #: 58008847 SSO#: PO #: Purchase Order not required WO #:		Carrier Tracking No(s): COC No: 580-33776-10992.2 Page: Page 2 of 2 Job #:			
Due Date Requested: TAT Requested (days): PO #: Purchase Order not required WO #:		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 6010C - Cd, Cr, Pb 6010C, 7471A, 8082A, 8151A, MS, 8270C, SIM, NMTPH, Dx 8081A - Pesticides, standard list 8260C - Volatiles, standard list Total Number of Containers:					
Sample Identification Sample ID: SS-01 SS-02 SS-03 SS-04 SS-05 SS-06 SS-07 SS-08		Sample Date 5/29/19 / / / / / /	Sample Time 1129 1200 1228 1253 1011 9:42 1102 1040	Sample Type (C=comp, G=grab) C / / / / / /	Matrix (W=water, S=solid, O=waste/soil, BT=tissue, Ash/ur) Solid Solid Solid Solid Solid Solid Solid Solid Solid	Preservation Code: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - NaHSO4 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDA Other:	Special Instructions/Note: 580-86496 Chain of Custody 
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Empty Kit Relinquished by: Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by:		Special Instructions/QC Requirements: Method of Shipment: Date/Time: 5/29/19 1415 Date/Time: Date/Time:					
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 3.9					



Login Sample Receipt Checklist

Client: Cascade Earth Sciences Inc.

Job Number: 580-86496-1

Login Number: 86496

List Source: Eurofins TestAmerica, Seattle

List Number: 1

Creator: O'Connell, Jason I

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

