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April 4, 2001
Project 820910 09000000

Lee Zimmerli, Corporate Risk Manager
McCall Oil and Chemical Corporation
808 SW 15th Avenue
Portland, Oregon 97205

Re: McCall Oil and Chemical Corporation Remedial Investigation, Draft Interim Report

Dear Lee:

The draft interim report for the McCall Oil and Great Western Chemical upland remedial investigation is attached for your use. I understand that copies of this report will be sent to the Port of Portland and other stakeholders. Because this report will be used by others, please be aware of the following issues.

- The report is in draft form and has not undergone complete internal review by IT Corporation (ITC).
- ITC is in the process of validating the field data.
- Subsurface profiles will be included in the final draft.
- The updated spill history will be included in the final draft.
- DEQ has seen the field data, but will not receive this report until it is final.

Please contact me if you have any questions.

Sincerely,

IT CORPORATION

John E. Edwards, RG, CEG
Senior Consultant

Attachment: Draft Interim Report

cc/att: Terry Fisk; GeoEngineers (four copies)
Joe Mullusky; Port of Portland (two copies)

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FOCUSED REMEDIAL INVESTIGATION
INTERIM STATUS REPORT
MCCALL OIL AND CHEMICAL CORPORATION
PORTLAND, OREGON

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Submitted to:

McCall Oil and Chemical Corporation
808 SW 5th Avenue
Portland, Oregon 97204

Submitted by:

IT Corporation
A Member of The IT Group

Project No. 820910/09000000

Revision 0

April 4, 2001

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1.0 Introduction

On behalf of McCall Oil & Chemical Corporation (MOCC) and Great Western Chemical Company (GWCC), IT Corporation (ITC) developed this Interim Status Report for the focused remedial investigation (RI) at the MOCC/GWCC facility in Portland, Oregon. The RI is being conducted pursuant to a "Voluntary Agreement for Remedial Investigation and Source Control Measures" (the Agreement) entered into between MOCC/GWCC and the Oregon Department of Environmental Quality (DEQ) on August 13, 2000 (DEQ No. WMCV-NWR-00-13).

MOCC/GWCC and DEQ met on February 2 and March 26, 2001, to discuss the progress of the RI. During those meetings, ITC described the RI tasks completed to date and provided copies of the ITC working maps and site characterization data tables. Therefore, most of the data that is presented in this report has already been provided to DEQ.

RI reporting requirements are addressed on page 5-1 of the November 1[illegible], 2000, McCall Oil and Chemical Corporation Focused Remedial Investigation Work[illegible] workplan). The RI workplan states that the purpose of the interim status report is to develop preliminary conclusions about overall groundwater quality in the upper aquifer and identify whether constituents detected are at concentrations that warrant either further site characterization or risk assessment. Because this report coincides with the end of the first [illegible] investigation, this report will also serve as the first RI quarterly report. According to the RI workplan, quarterly reports are intended to provide the following information:

- Description of activities performed
- Summary of new data
- Description of problem(s) encountered during the reporting period, if any
- Activities planned for the upcoming quarter

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2.0 RI Objectives

Section 3.1 of the RI Workplan discussed the goal of the Focused RI. The RI investigation focuses on the transport mechanisms and exposure pathways that could contribute to Willamette River sediment impacts (i.e., through groundwater and stormwater).

The following RI objectives were identified in the RI Workplan, section 3.2.

A. Identify and characterize upland hazardous substance source areas.

B. Evaluate contaminant migration pathways from upland to river.

C. Determine nature and extent of upland affected media.

D. Identify human and ecological receptors.

E. Collect upland data to allow identification of areas of sediment contamination.

F. Conduct risk assessment.

G. Determine if upland hot spots are present.

H. Achieve adequate data quality for characterization and risk assessment.

I. Develop information necessary to evaluate and implement necessary source control measures, if needed.

J. Implement necessary source control measures.

The RI Workplan is designed to meet those portions of the objectives that had not been fully completed in pre-RI site investigations. The work described herein provides information that contributes toward satisfying each of the RI objectives.

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3.0 Work Completed

The following tasks have been conducted in accordance with the RI Workplan.

3.1 Characterize Site Hydrogeology and Groundwater Quality

3.1.1 Test Boring Program

Forty (40) test borings have been completed. The Geoprobe drilling system was used for all test borings. The test borings were conducted in two phases. Borings GP 1 through -21 were completed in December 2000, and GP-22 through -40 were completed in February 2001. The locations of the first 20 borings were described on Table 4-1 of the RI Workplan. That table has been modified to include the locations of all forty (40) borings and is presented as Table 1 of this report.

One purpose of the borings was to determine if potential on-site source areas have affected shallow groundwater quality. Several of the borings also were used to determine how off-site upgradient source areas (e.g., Chevron Asphalt and Tube Forging) are affecting groundwater. Table 1 lists the MOCC and GWCC potential source areas that were identified from review of the site operations and spill history described in the RI Proposal. The RI Proposal may be found in Appendix D of the RI Workplan. Table 1 also lists the RI test borings and pre-existing monitoring wells that address the potential off-site source areas. The locations of the test borings are shown on Figure 1.

The test boring, groundwater and soil sampling procedures were conducted according to the requirements of the RI Workplan. The test boring lithologic logs are in Appendix A. Subsurface profiles also are in preparation.

A piezometer was installed near well EX-3 as required in the RI Workplan. This piezometer may be needed if an aquifer pump test is conducted in EX-3. A piezometer also was planned near well EX-6, but was cancelled because EX-6 is damaged beyond repair. EX-6 will be abandoned. A second piezometer may be installed near another monitoring well.

3.1.2 Monitoring Well Sampling

The existing monitoring wells were sampled in December 2000 according the to RI Workplan.

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3.1.3 Analytical Testing

Laboratory analysis of the test boring groundwater and soil samples was conducted according to the RI Workplan requirements. Tables 2 and 3 list the target analytes for soil and groundwater samples obtained from the test borings and monitoring wells.

3.1.4 Water Level Monitoring

Monthly measurements of the Willamette River water level and groundwater levels in the site monitoring wells have been conducted according to the RI Workplan. These occurred in December 2000, January, February, and March 2001.

3.1.5 Hydraulic Testing

Field slug tests were completed in monitoring wells EX-1, EX-5, EX-7, and MW-4. EX-3 was substituted for EX-6, because the damaged condition of EX-6 was not known when the RI Workplan was written.

3.2 Characterize Catch Basin Stormwater and Sediments

Three site catch basins (S-1, -2, and -3) and the oil-water separator (S-4) were sampled in December 2000. Stormwater samples were obtained from S-1, -2, -3, and -4 and sediment samples were obtained from S-1, -2, and -3 per the RI workplan. A composite sample of river sediment, S3-01C, also was collected at the river outfall from catch basin S-3. The target analytes tested for these samples are shown in Table 2 and 3.

3.3 Data Management

The soil and water quality data resulting from these investigations have been tabulated and the tables are discussed under section four of this report. The testing laboratory, Columbia Analytical Services (CAS), has completed their internal validation of the data, but the ITC data validation is still in progress. The ITC data validation is expected to be completed by April 23, 2001.

3.4 Land and Water Use Evaluation

This evaluation has not yet been completed.

3.5 Level 1 Ecological Scoping Assessment

The level 1 scoping assessment has been completed according the RI workplan.

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3.6 *Review of Historic Industrial Practices and Spill History*

The RI Proposal included a detailed description of past GWCC and MOCC industrial practices. Subsequent review of the RI Proposal has resulted in additional detail and refinement of the Bulk Transfer/Tank Farm History (Appendix B). The MOCC and GWCC spill history that was presented in the RI Proposal is also being updated based on additional employee interviews. That history will be submitted by May 1, 2001.

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4.0 Findings

4.1 Hydrogeology

- Average depth to groundwater across the site during the RI investigation has ranged from about 14 to 20 feet below ground surface (bgs), corresponding to water-level elevations of 12 to 21 feet above mean sea level. The water level data are compiled on Table 4. Groundwater elevation contours are presented on Figure 1.

- The groundwater depth at the site has varied little during the RI investigation because of unseasonably low rainfall. The monitoring well hydrographs are shown on Figure 2.

- The March 2001 watertable elevation contours shown on Figure 1 show a pattern consistent with historic measurements and indicate shallow groundwater flow to the Willamette River.

- The groundwater flow pattern in the McCall terminal [illegible] and in the central site area is inferred because there are no monitoring wells in these areas.

- Shallow aquifer materials on site consist of alluvial sediments overlain by dredge fill. These materials are very similar and consist primarily of fine to medium grained, silty-sands, with silt interbeds.

- Evaluation of the field slug test results has shown that the rapid water-level recoveries limit the accuracy of the derived hydraulic conductivity values.

4.2 Groundwater Quality

4.2.1 Total Petroleum Hydrocarbons

- Total Petroleum Hydrocarbon (TPH) concentrations were measured in test boring groundwater samples. TPH concentrations are generally less than 1.0 milligrams per liter (mg/L) with higher concentrations scattered around the site. TPH data are presented on Figure 3, Table 5, and Table 6. TPH generally consisted of diesel and lube oil range hydrocarbons.

- The highest TPH groundwater concentrations on site were detected in the test borings located on the upgradient southeast and southwest boundaries of the site. Test borings GP-31 and GP-32 along the southeast boundary appear to be impacted by the adjacent Tube Forgings property. Groundwater from GP-31 contained 1.8 mg/L gasoline, the

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highest gasoline concentration of any of groundwater samples tested (Table 6). Test borings GP-3, -4, and -5 show likely impacts from Chevron Asphalt.

- Historic pre-RI shallow groundwater monitoring has shown fairly consistent detections of TPH ranging from not detected (ND) to 1.5 mg/L; however, the December 2000 RI well sampling data on Figure 3 show that there were no TPH detections in any of the site monitoring wells. This may be a result of the seasonally low rainfall and deep watertable discussed in Section 4.1. This also indicates that the TPH test boring water quality data are impacted by TPH on suspended sediment in the test boring water samples. Therefore, the groundwater TPH concentrations from the test borings probably do not represent the TPH concentration that is migrating in groundwater.

4.2.2 *Polynuclear Aromatic Hydrocarbons and other Semivolatile Organic Compounds*

- Total Polynuclear Aromatic Hydrocarbons (PAHs) were generally detected at less than 0.005 mg/L in shallow groundwater samples across the site as shown on Figure 4, Figure 5, and Table 7. Figure 4 shows the distribution and range of concentrations of total high molecular weight PAHs (HPAHs), and Figure 5 shows total low molecular weight PAHs (LPAHs).

- As described for TPH, some of the highest PAH concentrations were detected in groundwater samples from borings GP-21 and -22 adjacent to Tube Forgings, and from GP-4, downgradient from Chevron Asphalt.

- The data indicate that dissolved PAHs are fairly widespread in shallow groundwater across the site. However, comparison of PAH concentrations in test-boring groundwater samples to concentrations in nearby monitoring-well samples indicates that suspended sediment in the test-boring samples results in concentrations in groundwater that overestimate actual conditions. This is especially apparent if one compares the PAH concentrations in adjacent test borings and monitoring wells arrayed along the river shoreline adjacent to the McCall terminal. For most locations the test boring PAH concentrations are higher than the adjacent monitoring wells.

- To confirm the effect of suspended sediment in the test boring water samples, split samples were collected from test borings GP-22, -27, -28, and -29. The additional groundwater samples were filtered in the field. PAHs were detected in all four of the unfiltered samples (Table 7, sheet 2). The data from the split samples are indicated with an F. Of the filtered split samples, PAHs were detected only in GP-22F. PAH

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concentrations in GP-22F were less than those in the unfiltered samples. This analysis confirms that a significant fraction, and in some cases, all of the PAHs detected in the test boring groundwater samples are due to PAHs bound to the suspended sediment in the samples. Therefore, the test boring data are only reliable as general indicators of contamination, and only monitoring well data should be used for risk assessment purposes.

- The other four semi-volatile organic compounds (SVOCs) target analytes, 3,4-methylphenol, dibenzofuran, butyl benzyl phthalate, and di-n-octyl phthalate were detected at concentrations less than 0.001 mg/L in many of the test boring groundwater samples. Their presence correlates with the PAH detections, indicating that these compounds are derived from the same TPH source as the PAHs. In the monitoring well samples, however, only methylphenol (total of 3-methylphenol and 4-methylphenol) was detected. The concentrations of methylphenol ranged from 7 to 50 parts per trillion (ppt). Review of the concentrations of these SVOCs in the four unfiltered test boring samples (Table 7, Page 2) shows that the unfiltered test boring concentrations are largely caused by the presence of suspended sediment.

- The extent of PAH contamination is not defined. As with TPH, the highest concentrations are along the southeast and northwest property boundaries, which are upgradient of the site. Lower concentrations, less than 0.005 mg/L of PAHs, were found in several samples along the riverfront boundary of the investigation area.

4.2.3 Volatile Organic Compounds

- The data shown on Figure 6 and Table 8 illustrate a zone of shallow groundwater contaminated by chlorinated volatile organic compounds (VOCs). Pre-RI monitoring has shown chlorinated VOCs in monitoring wells MW-1, MW-3, MW-4, and EX-1.

- The pattern of borings and wells at which VOCs were detected (Figure 6) indicates the presence of at least one north trending plume, which is consistent with groundwater flow to the north. The plume source may be historic releases from the Great Western solvent drumming area, near well EX-1. The solvent tank farm has above-ground tanks with lined and bermed containment areas, so the tank farm is not considered a likely source. If the plume is sourced from the drumming shed, that could account for the solvents detected at GP-10, -11, -12, -13, -14, -15, -35, -36, -38, -39, and EX-1. Additional monitoring wells would be required to define the plume.

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- A test boring program is currently in progress to determine the depth of VOC contamination.

- Groundwater from test boring GP-7 also contained moderately high VOC concentrations (0.0259 mg/L total VOC). That boring is adjacent to the railcar solvent unloading site.

- The total VOC concentrations detected in wells and test borings MW-1, MW-3, MW-4, EX-4, GP-29, GP-30, are less than 0.010 mg/L, with no known potential sources.

4.2.4 Metals

- The target metal analytes, arsenic, cadmium, chromium, copper, lead, and zinc were detected at very low concentrations in most of the test borings and wells.

- The highest concentrations of arsenic were found in test borings GP-3, GP-13, and MW-3, with arsenic concentrations of 0.035, 0.061, and 0.039 mg/L respectively. Only one of these measured concentrations is above the maximum contamination level (MCL) of 0.05 mg/L. The arsenic found in groundwater at MW-3 and GP-13 may be from the former CCA (copper, chromium, arsenic) process area at the former Chemax site. A CCA release and subsequent soil cleanup in 1993 is documented as release number nine on Table 8 of the RI Proposal (Appendix A, RI Workplan). More detailed documentation of the cleanup is available from GWCC. Monitoring well 3 is downgradient of the former CCA process area in the GWCC building.

4.3 Stormwater Quality

- Testing of December 2000 stormwater samples from catch basins S-1, -2, and -3, and the oil-water separator (S-4) showed detections of TPH, semi-VOCs, and metals. VOCs were not target analytes for stormwater.

- TPH were not detected in catch basins S-1 and S-2 (Table 5 and Figure 3). The concentrations of TPH in catch basin S-3 and the oil-water separator (S-4) were less than 1 mg/L. The lab report for those two sites indicates that the fingerprint does not resemble a petroleum product. In any case, the results are well below the 10 mg/L MOCC and GWCC, National Pollutant Discharge Elimination System (NPDES), discharge limits for oil and grease.

- PAHs and the other semi-VOCs were detected in stormwater as indicated on Table 7 and Figures 4 and 5. The total HPAH concentrations ranged from 0.071 to 0.55 ppb.

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The total LPAH concentrations ranged from 0.176 to 1.11 ppb. Butyl benzyl phthalate, dibenzofuran, and methylphenol were detected at concentrations averaging about 0.1 ppb. There were no detections of di-n-octyl-phthalate.

- Of the target metal analytes, cadmium was detected in stormwater from the three catch basins at average concentration of about 0.2 ppb. Chromium was detected in the three catch basins and oil-water separator at concentrations ranging from 0.6 to 2.9 ppb. The site has no NPDES limit specified for cadmium or chromium. Copper was detected in the three catch basins and oil-water separator at concentrations ranging from 3.8 to 29.6 ppb. These concentrations are well below the copper NPDES limit of 100 ppb.

- Lead was detected in the three catch basins and the oil-water separator at concentrations ranging from 0.04 to 5.93 ppb. These concentrations are well below the NPDES limit specified for lead of 400 ppb. Zinc was detected in the three catch basins and the oil-water separator at concentrations ranging from 47.1 to 396 ppb. These concentrations are all below the site NPDES zinc limit of 600 ppb.

4.4 Upland Soil Quality

- This phase of the RI has focused on characterizing groundwater and stormwater, with some soil testing in those borings where there was visual or Photoionization detector indications of petroleum impacts. Boring soil samples tested during the RI show that the shallow soil on the MOCC property has widespread petroleum concentrations in shallow soil at concentrations generally less than 1,000 mg/kg TPH (Tables [illegible], and Figure [illegible]). These conclusions generally are based on the results of testing one soil sample per boring. Based on field observations during the test borings, the highest TPH soil concentrations generally are in the watertable fluctuation zone, which varies in depth across the site. Higher TPH concentrations were detected in test borings GP-29 and 30 in the MOCC asphalt plant tank farm, GP-7 near the railcar unloading area, GP-9 near the asphalt plant tank farm, GP-4 along Front Avenue, and GP-31 adjacent to Tube Forgings.

- Soil on the GWCC property has not been extensively tested to date in the RI, but field screening of test boring soil samples has shown that the TPH concentrations are generally lower than those on the MOCC property. This finding is consistent with historic site operations, since GWCC has not handled or stored petroleum products.

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- The TPH data also show significant soil TPH impacts in the upgradient test borings along Front Avenue and along the border with Tube Forgings. As with the PAHs and other semi-VOCs, these data appear to indicate impacts from Chevron Asphalt and Tube Forgings.

- Figures 8, 9, and Table 12 show that the occurrence and distribution of LPAHs in upland soil is similar to that found for HPAHs. This is expected since both the high and low molecular weight PAHs are chemical components of the petroleum compounds. The relative PAH concentrations between soil sample sites generally also parallels the concentration trends of the TPH.

- Total LPAHs and HPAHs at concentrations less than 1 mg/kg appear to be widely distributed in the shallow soil of MOCC. The samples with elevated LPAH's and HPAH's correlate with the samples that have elevated TPH concentrations.

- With the exception of test borings GP-20 and GP-28, there were PAHs detected in all of the samples where TPH was detected. In those borings there were trace to very low concentrations of PAHs detected, but TPH was not detected.

- The non-PAH semi-VOC target analytes were detected in upland soil samples, generally in the same samples that had the highest TPH concentrations (Table 12).

- Chlorinated VOCs were detected only in soil samples from GP-7, -9, -17, and -30 (Table 13). At these test boring locations, the detections included trace concentrations of cis-1,2-dichloroethene, tetrachloroethene, and chlorobenzene. All concentrations were less than 0.020 mg/kg. However, these data are not necessarily representative of soil conditions in the footprint of the shallow groundwater VOC plume described in Section 4.2.3. The RI test boring program was designed to select test boring soil samples based on field screening characteristics. Based on those characteristics, very few of the borings in the VOC plume had soil samples selected for lab testing. Therefore, we do not have a representative number of soil samples tested within the VOC plume to determine the extent or concentration of VOCs in soil.

- Table 14 shows that target metal analytes arsenic, chromium, and copper were detected in several test boring samples, but at very low, likely background concentrations.

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4.5 Catch Basin and River Sediment Quality

- Sediment samples from catch basins S-1, -2, and -3 had TPH diesel and residual range organic concentrations ranging from 300 to 7,600 mg/kg (Table 10). The highest concentrations were found in catch basin S-3. The workplan did not include testing of sediment trapped in the oil-water separator at location S-4. River sediment sample S3-01C had a diesel range concentration of 13 mg/kg and a residual range organics concentration of 34 mg/kg.

- Sediment samples from catch basins S1, -2, and -3 had total LPAHs and HPAHs ranging from 0.540 to 37.9 mg/kg (Table 12, sheet 4). Sample S3-01C had 2-methylnapthalene detected at 0.0006 mg/kg, and no other LPAHs detected. Sample S3-01C had a total HPAH concentration of 0.023 mg/kg.

- Table 12 also shows that the other target SVOCs were not detected. Dibenzofuran was detected in the catch basins at concentrations ranging from 0.02 to 200 mg/kg. But butyl benzyl phthalate was present in the catch basins at concentrations from 1.5 to 5.0 mg/kg. Catch basin S-3 had a pentachlorophenol concentration of 4.0 mg/kg. The river sediment sample only had butyl benzyl phthalate and di-n-butyl phthalate detected at 0.001 and 0.002 mg/kg, respectively.

- Of the metal analytes tested in sediment, chromium, copper, lead, and zinc concentrations were elevated in comparison to upland soil metals concentrations. Catch basin S-3 had the highest metals concentrations, including 1,050 mg/kg copper, 454 mg/kg lead and 985 mg/kg zinc. These are total metals concentrations. The river sediment sample S3-01C had metals concentrations an order of magnitude lower than the catch basins.

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5.0 Planned Work

- Design and implement a focused exploration program downgradient of the GWCC drumming shed to determine the depth of chlorinated VOC contamination.

- Conduct a preliminary risk screen following receipt and validation of all final lab reports.

- Meet with DEQ to discuss the results of the risk screen and discuss appropriate additional characterization, if needed.

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Table 1

Groundwater Sampling Rationale

McCall Oil and Chemical Corporation
Focused RI Workplan

Potential Source Area	Sampling Locations	Chemical Class Tested [a]	Rationale
McCall Oil & Chemical Corp.			
Diesel rack (marine terminal)	EX-2, GP-20	VOCs, SVOCs, PAHs, TPH	Downgradient of potential source of TPH/PAHs
Asphalt rack (asphalt plant)	GP-8	VOCs, SVOCs, PAHs, TPH	Downgradient of potential source of TPH/PAHs
Asphalt plant AST tank farm	GP-8, GP-9, GP-21, 28, 29, 30, 37	VOCs, SVOCs, PAHs, TPH	Downgradient of potential source of TPH/PAHs
Railcar loading/unloading facility	GP-6, GP-7	VOCs, SVOCs, PAHs, TPH	Downgradient of potential source of VOCs and TPH/PAHs
Marine terminal AST tank farm	GP-15 to GP-20, GP-22, 23, 24, 25, 26, 27, 34, 35, 36, EX-2, EX-3, EX-5	VOCs, SVOCs, PAHs, TPH	Document groundwater quality leaving site
Great Western Chemical Co.			
Railcar loading/unloading facility	GP-6, GP-7	VOCs, SVOCs, PAHs, TPH	Downgradient of potential source of VOCs and TPH/PAHs
Acid/solvent AST tank farm	EX-1, EX-6, GP-8, GP-9	VOCs, SVOCs, PAHs, TPH	Downgradient of potential source of VOCs
Drumming shed	EX-1, EX-6, GP-9, GP-10, GP-11, 38, 39	VOCs, SVOCs, PAHs, TPH	Downgradient of potential source of VOCs
Former CCA production area	EX-4 (MW-2), MW-1, MW-3, MW-4 GP-11, GP-12, GP-13, GP-14, GP-15	VOCs, SVOCs, PAHs, TPH Metals	Downgradient of documented source of metals. Source has been removed.
Upgradient Off-Site Source Areas	GP-1, GP-2, GP-3, GP-4, GP-5, GP-31, 32, 33, 40	VOCs, SVOCs, PAHs, TPH Metals	Evaluate groundwater quality entering the site from upgradient sources

NOTE: VOCs = chlorinated VOCs; SVOCs = four semivolatile organic compounds listed in workplan; PAHs = polynuclear aromatic hydrocarbons; TPH = total petroleum hydrocarbons as diesel and oil; Metals = dissolved arsenic, chromium, and copper.

[a] List of chemicals to be tested for each chemical class is shown in QAPP (Appendix B).

Table 2
Sampling Matrix
Groundwater and Stormwater
McCall/GWCC
Portland, Oregon

		Organic Compounds							Metals	
Location	Date Sampled	Chlorinated VOCs	4-methylphenol	Butyl Benzyl Phthalate	Di-n-octyl Phthalate	Dibenzofuran	PAHs	Total Petroleum Hydrocarbons	As, Cu, Cr (dissolved for groundwater)	Cd, Pb, Zn (dissolved for groundwater)
Geoprobe Borings - Groundwater										
GP-1	12/11/00	X	X	X	X	X	X	X		
GP-2	12/11/00	X	X	X	X	X	X	X		
GP-3	12/11/00	X	X	X	X	X	X	X	X	
GP-4	12/11/00	X	X	X	X	X	X	X	X	
GP-5	12/11/00	X	X	X	X	X	X	X	X	
GP-6	12/14/00	X	X	X	X	X	X	X		
GP-7	12/14/00	X	X	X	X	X	X	X		
GP-8	12/12/00	X	X	X	X	X	X	X		
GP-9	12/12/00	X	X	X	X	X	X	X		
GP-10	12/12/00	X	X	X	X	X	X	X		
GP-11	12/12/00	X	X	X	X	X	X	X	X	
GP-12	12/13/00	X	X	X	X	X	X	X	X	
GP-12 Duplicate	12/13/00	X	X	X	X	X	X	X	X	
GP-13	12/12/00	X	X	X	X	X	X	X	X	
GP-14	12/13/00	X	X	X	X	X	X	X	X	
GP-15	12/13/00	X	X	X	X	X	X	X	X	
GP-16	12/13/00	X	X	X	X	X	X	X	X	
GP-17	12/13/00	X	X	X	X	X	X	X		
GP-18	12/14/00	X	X	X	X	X	X	X		
GP-19	12/14/00	X	X	X	X	X	X	X		
GP-19 Duplicate	12/14/00	X	X	X	X	X	X	X		
GP-20	12/14/00	X	X	X	X	X	X	X		
GP-21	12/12/00	X	X	X	X	X	X	X		
GP-22	02/09/01	X	X	X	X	X	X	X		
GP-22 Filtered	02/09/01		X	X	X	X	X			
GP-23	02/09/01	X	X	X	X	X	X	X		
GP-24	02/09/01	X	X	X	X	X	X	X		
GP-25	02/09/01	X	X	X	X	X	X	X		
GP-26	02/09/01	X	X	X	X	X	X	X		
GP-27	02/12/01	X	X	X	X	X	X	X		
GP-27 Filtered	02/09/01		X	X	X	X	X			
GP-28	02/12/01	X	X	X	X	X	X	X		
GP-28 Filtered	02/09/01		X	X	X	X	X			
GP-29	02/12/01	X	X	X	X	X	X	X		
GP-29 Filtered	02/09/01		X	X	X	X	X			
GP-30	02/12/01	X	X	X	X	X	X	X		
GP-30 Duplicate	02/12/01	X	X	X	X	X	X	X		
GP-31	02/13/01	X	X	X	X	X	X	X		
GP-32	02/13/01	X	X	X	X	X	X	X		
GP-33	02/13/01	X	X	X	X	X	X	X		
GP-34	02/13/01	X	X	X	X	X	X	X		
GP-35	02/13/01	X	X	X	X	X	X	X		
GP-36	02/13/01	X	X	X	X	X	X	X		
GP-37	02/14/01	X	X	X	X	X	X	X		
GP-38	02/14/01	X	X	X	X	X	X	X		
GP-38 Duplicate	02/14/01	X	X	X	X	X	X	X		
GP-39	02/14/01	X	X	X	X	X	X	X		
GP-40	02/14/01	X	X	X	X	X	X	X		
Field Blank	12/14/00	X	X	X	X	X	X	X		
Field Blank	02/14/01	X	X	X	X	X	X	X		

Table 2
Sampling Matrix
Groundwater and Stormwater
McCall/GWCC
Portland, Oregon

		Organic Compounds							Metals	
Location	Date Sampled	Chlorinated VOCs	4-methylphenol	Butyl Benzyl Phthalate	Di-n-octyl Phthalate	Dibenzofuran	PAHs	Total Petroleum Hydrocarbons	As, Cu, Cr (dissolved for groundwater)	Cd, Pb, Zn (dissolved for groundwater)
Monitoring Wells - Groundwater										
EX-1	12/20/00	X	X	X	X	X	X	X		
EX-2	12/20/00	X	X	X	X	X	X	X		
EX-3	12/20/00	X	X	X	X	X	X	X		
EX-4/MW-2	12/20/00	X	X	X	X	X	X	X	X	
EX-5	12/20/00	X	X	X	X	X	X	X		
EX-7	12/20/00	X	X	X	X	X	X	X		
MW-1	12/20/00	X	X	X	X	X	X	X	X	
MW-3	12/20/00	X	X	X	X	X	X	X	X	
MW-4	12/20/00	X	X	X	X	X	X	X	X	
MW-5	12/20/00	X	X	X	X	X	X	X		
Catch Basins - Storm Water										
S-1W	12/20/00		X	X	X	X	X	X	X	X
S-2W	12/20/00		X	X	X	X	X	X	X	X
S-3W	12/15/00		X	X	X	X	X	X	X	X
Oil/Water Separator - Storm Water										
S-4W	12/15/00		X	X	X	X	X	X	X	X
S-4W Duplicate	12/15/00		X	X	X	X	X	X	X	X

Table 3
Sampling Matrix
Upland Soil and Catch Basin Sediment
McCall/GWCC
Portland, Oregon

		Organic Compounds							Metals			
Location	Date Sampled	Chlorinated VOCs	4-methylphenol	Butyl Benzyl Phthalate	Di-n-octyl Phthalate	Dibenzofuran	PAHs	Total Petroleum Hydrocarbons	As, Cu, Cr (dissolved for groundwater)	Cd, Pb, Zn (dissolved for groundwater)	Total Organic Carbon	Grain Size
Geoprobe Borings - Soil												
GP-1 18-20	12/11/00										X	X
GP-4 10-12	12/11/00	X	X	X	X	X	X	X	X			
GP-4 18-20	12/11/00										X	X
GP-6 18-20	12/14/00										X	X
GP-7 2-4	12/14/00	X	X	X	X	X	X	X	X			
GP-8 16-18	12/12/00										X	X
GP-9 10-12	12/12/00	X	X	X	X	X	X	X	X			
GP-11 18-20	12/12/00										X	X
GP-13 22-24	12/12/00										X	X
GP-14 0-2	12/13/00		X	X	X	X	X	X	X			
GP-14 2-4	12/13/00		X	X	X	X	X	X	X			
GP-14 20-22	12/13/00		X	X	X	X	X	X	X			
GP-14 22-24	12/13/00										X	X
GP-15 0-2	12/13/00		X	X	X	X	X	X	X			
GP-15 2-4	12/13/00		X	X	X	X	X	X	X			
GP-15 20-22	12/13/00	X	X	X	X	X	X	X	X			
GP-16 0-2	12/13/00		X	X	X	X	X	X	X			
GP-16 2-4	12/13/00		X	X	X	X	X	X	X			
GP-16 16-18	12/13/00		X	X	X	X	X	X	X			
GP-16 20-22	12/13/00										X	X
GP-17 0-2	12/13/00		X	X	X	X	X	X	X			
GP-17 2-4	12/13/00		X	X	X	X	X	X	X			
GP-17 12-14	12/13/00	X	X	X	X	X	X	X	X			
GP-18 0-2	12/14/00		X	X	X	X	X	X	X			
GP-18 2-4	12/14/00		X	X	X	X	X	X	X			
GP-18 16-18	12/14/00		X	X	X	X	X	X	X			
GP-18 22-24	12/14/00										X	X
GP-19 0-2	12/14/00		X	X	X	X	X	X	X			
GP-19 2-4	12/14/00		X	X	X	X	X	X	X			
GP-19 16-18	12/14/00		X	X	X	X	X	X	X			
GP-19 18-20	12/14/00										X	X
GP-20 2-4	12/14/00		X	X	X	X	X	X	X			
GP-20 16-18	12/14/00		X	X	X	X	X	X	X			
GP-21 16-18	12/12/00										X	X
GP-22 10-12	02/09/01	X	X	X	X	X	X	X				
GP-23 16-18	02/09/01	X	X	X	X	X	X	X				
GP-24 12-14	02/09/01	X	X	X	X	X	X	X				
GP-24 16-18	02/09/01	X	X	X	X	X	X	X				
GP-25 10-12	02/09/01	X	X	X	X	X	X	X				
GP-25 14-16	02/09/01	X	X	X	X	X	X	X				
GP-26 14-16	02/09/01	X	X	X	X	X	X	X				
GP-26 18-20	02/09/01	X	X	X	X	X	X	X				
GP-27 10-12	02/12/01	X	X	X	X	X	X	X				
GP-28 12-14	02/12/01	X	X	X	X	X	X	X				
GP-29 4-6	02/12/01	X	X	X	X	X	X	X				
GP-30 4-6	02/12/01	X	X	X	X	X	X	X				
GP-31 14-16	02/13/01	X	X	X	X	X	X	X				
GP-32 10-12	02/13/01	X	X	X	X	X	X	X				
GP-33 16-18	02/13/01	X	X	X	X	X	X	X				
GP-34 12-14	02/13/01	X	X	X	X	X	X	X				
GP-35 10-12	02/13/01	X	X	X	X	X	X	X				
GP-36 12-14	02/13/01	X	X	X	X	X	X	X				
GP-38 10-12	02/13/01	X	X	X	X	X	X	X				
Catch Basins - Sediment												
S-1	12/15/00		X	X	X	X	X	X	X	X	X	
S-2	12/15/00		X	X	X	X	X	X	X	X	X	
S-3	12/15/00		X	X	X	X	X	X	X	X	X	
S3-01C	12/15/00		X	X	X	X	X	X	X	X	X	

Table 4

Monitoring Well and River Hydrology Measurements

McCall Oil and Chemical Corporation

Well	Reference Point Elevation (Feet MSL)	Date	DTW (Feet)	WLE (Feet MSL)
EX-1	36.12	09/08/94	15.35	20.77
		12/29/94	14.60	21.52
		03/29/95	13.06	23.06
		06/27/95	13.65	22.47
		07/14/95	13.82	22.30
		05/01/97	12.71	23.41
		02/03/99	13.21	22.91
		12/08/00	15.65	20.47
		01/19/01	15.46	20.66
		02/08/01	15.55	20.57
		03/08/01	15.65	20.47
EX-2	32.28	09/08/94	18.56	13.72
		12/29/94	17.87	14.41
		03/29/95	17.11	15.17
		06/27/95	17.27	15.01
		07/14/95	17.42	14.86
		05/01/97	13.08	19.20
		02/03/99	16.30	15.98
		12/08/00	18.66	13.62
		01/19/01	18.67	13.61
		02/08/01	18.70	13.58
		03/08/01	18.76	13.52
EX-3	32.07	09/08/94	17.96	14.11
		12/29/94	16.72	15.35
		03/29/95	15.43	16.64
		06/27/95	15.91	16.16
		07/14/95	15.96	16.11
		05/01/97	12.84	19.23
		02/03/99	15.12	16.95
		12/08/00	18.27	13.80
		01/19/01	18.13	13.94
		02/08/01	18.10	13.97
		03/08/01	18.17	13.90
EX-4 (MW-2)	35.60	10/18/93	16.63	18.97
		10/28/93	16.72	18.88
		01/27/94	16.56	19.04
		09/08/94	16.86	18.74
		12/29/94	16.09	19.51
		03/29/95	14.63	20.97
		06/27/95	15.22	20.38
		07/14/95	15.41	20.19
		05/01/97	14.08	21.52
		02/03/99	14.58	21.02
		12/08/00	16.97	18.63
		01/19/01	16.81	18.79
		02/08/01	16.84	18.76
		03/08/01	16.92	18.68
EX-5	31.87	09/08/94	NM	
		12/29/94	15.85	16.02

Table 4

Monitoring Well and River Hydrology Measurements

McCall Oil and Chemical Corporation

Well	Reference Point Elevation (Feet MSL)	Date	DTW (Feet)	WLE (Feet MSL)
		03/29/95	14.84	17.03
		06/27/95	16.32	15.55
		07/14/95	16.34	15.53
		05/01/97	12.06	19.81
		02/03/99	13.45	18.42
		12/08/00	19.72	12.15
		01/19/01	18.87	13.00
		02/08/01	18.98	12.89
		03/08/01	19.22	12.65
EX-6	34.38	09/08/94	NM	
		12/29/94	13.98	20.40
		03/29/95	12.51	21.87
		06/27/95	13.04	21.34
		07/14/95	13.17	21.21
		05/01/97	11.93	22.45
		02/03/99	12.71	21.67
		12/08/00	Well casing filled with silt	

Table 4

Monitoring Well and River Hydrology Measurements

McCall Oil and Chemical Corporation

Well	Reference Point Elevation (Feet MSL)	Date	DTW (Feet)	WLE (Feet MSL)
EX-7	35.29	09/08/94	NM	
		12/29/94	13.21	22.08
		03/29/95	11.69	23.60
		06/27/95	12.34	22.95
		07/14/95	12.38	22.91
		05/01/97	11.44	23.85
		02/03/99	11.81	23.48
		12/08/00	14.32	20.97
		01/19/01	14.15	21.14
		02/08/01	14.18	21.11
		03/08/01	14.30	20.99
MW-1	35.48	05/11/93	15.56	19.92
		10/18/93	17.04	18.44
		10/28/93	17.16	18.32
		01/27/94	16.99	18.49
		09/08/94	NM	
		12/29/94	16.43	19.05
		03/29/95	NM	
		06/27/95	NM	
		07/14/95	NM	
		05/01/97	14.12	21.36
		02/03/99	14.83	20.65
		12/08/00	17.40	18.08
		01/19/01	17.23	18.25
		02/08/01	17.32	18.16
		03/08/01	17.42	18.06
MW-3	34.56	10/18/93	16.47	18.09
		10/28/93	16.60	17.96
		01/27/94	16.40	18.16
		09/08/94	NM	
		12/29/94	15.90	18.66
		03/29/95	NM	
		06/27/95	NM	
		07/14/95	NM	
		05/01/97	13.73	20.83
		02/03/99	14.36	20.20
		12/08/00	16.73	17.83
		01/19/01	16.60	17.96
		02/08/01	16.64	17.92
		03/08/01	16.73	17.83
MW-4	33.61	10/18/93	16.21	17.40
		10/28/93	16.26	17.35
		01/27/94	16.06	17.55
		09/08/94	NM	
		12/29/94	15.55	18.06
		03/29/95	NM	
		06/27/95	NM	
		07/14/95	NM	
		05/01/97	13.32	20.29

Table 4

Monitoring Well and River Hydrology Measurements

McCall Oil and Chemical Corporation

Well	Reference Point Elevation (Feet MSL)	Date	DTW (Feet)	WLE (Feet MSL)
		02/03/99	14.04	19.57
		12/08/00	16.25	17.36
		01/19/01	16.17	17.44
		02/08/01	16.21	17.40
		03/08/01	16.29	17.32
MW-5	34.66	10/18/93	20.13	14.53
		10/28/93	20.48	14.18
		01/27/94	19.89	14.77
		09/08/94	NM	
		12/29/94	19.25	15.41
		03/29/95	NM	
		06/27/95	NM	
		07/14/95	NM	
		05/01/97	15.91	18.75
		02/03/99	18.15	16.51
		12/08/00	19.80	14.86
		01/19/01	19.69	14.97
		02/08/01	19.67	14.99
		03/08/01	19.75	14.91
WG-1	37.28	10/28/93	32.82	4.46
		01/27/94	30.04	7.24
		09/08/94	NM	
		12/29/94	NM	
		03/29/95	NM	
		06/27/95	NM	
		07/14/95	NM	
		05/01/97	17.80	19.48
		02/03/99	23.02	14.26
		12/08/00	31.60	5.68
		01/19/01	31.74	5.54
		02/08/01	30.78	6.50
		03/08/01	31.80	5.48

Note: Reference point elevations surveyed by WHP on September 19, 2000.

Table 5
Total Petroleum Hydrocarbons
Groundwater and Storm Water
McCall/GWCC
Portland, Oregon

Location	Matrix	Date Sampled	TPH - FIQ			
			Diesel Range Organics		Residual Range Organics	
Geoprobe Borings - Groundwater µg/L (ppb)						
GP-1	Water	12/11/00	100	U	250	U
GP-2	Water	12/11/00	100	U	250	U
GP-3	Water	12/11/00	280	L	250	U
GP-4	Water	12/11/00	7100	F	4400	L
GP-5	Water	12/11/00	430	Y	300	Y
GP-6	Water	12/14/00	100	U	250	U
GP-7	Water	12/14/00	100	U	250	U
GP-8	Water	12/12/00	100	Y	250	U
GP-9	Water	12/12/00	130	Y	250	U
GP-10	Water	12/12/00	100	Y	250	U
GP-11	Water	12/12/00	130	Y	250	U
GP-12	Water	12/13/00	130	H	250	U
GP-12 Duplicate	Water	12/13/00	160	Y	250	U
GP-13	Water	12/12/00	260	Y	250	U
GP-14	Water	12/13/00	100	U	250	U
GP-15	Water	12/13/00	2800	F	1200	F
GP-16	Water	12/13/00	100	U	250	U
GP-17	Water	12/13/00	100	U	250	U
GP-18	Water	12/14/00	100	U	250	U
GP-19	Water	12/14/00	100	U	250	U
GP-19 Duplicate	Water	12/14/00	100	U	250	U
GP-20	Water	12/14/00	550	Y	250	U
GP-21	Water	12/12/00	120	Y	250	U
Field Blank	Water	12/13/00	100	U	250	U
Monitoring Wells - Groundwater µg/L (ppb)						
EX-1	Water	12/20/00	100	U	250	U
EX-2	Water	12/20/00	100	U	250	U
EX-3	Water	12/20/00	100	U	250	U
EX-4/MW-2	Water	12/20/00	100	U	250	U
EX-5	Water	12/20/00	100	U	250	U
EX-7	Water	12/20/00	100	U	250	U
MW-1	Water	12/20/00	100	U	250	U
MW-3	Water	12/20/00	100	U	250	U
MW-4	Water	12/20/00	100	U	250	U
MW-5	Water	12/20/00	100	U	250	U
Catch Basins - Storm Water µg/L (ppb)						
S-1W	Water	12/20/00	100	U	250	U
S-2W	Water	12/20/00	100	U	250	U
S-3W	Water	12/15/00	510	Z	700	Z
Oil/Water Separator - Storm Water µg/L (ppb)						
S-4W	Water	12/15/00	280	Z	250	UZ
S-4W Duplicate	Water	12/15/00	300	Z	250	UZ

Notes: U = Not detected at method reporting limit. F = Fingerprit of the sample matches the elution pattern of calibration standard
L = The fingerprint resembles a petroleum product, but the elution pattern indicates the presence of lighter weight constituents.
H = The fingerprint resembles a petroleum product, but the elution pattern indicates the presence of heavier weight constituents.
O = The fingerprint resembles oil, but does not match the calibration standard.
Y = The fingerprint resembles a petroleum product in the correct carbon range, but the elution pattern does not match the calibration standard.
Z = The fingerprint does not resemble a petroleum product.
D = The reported result is from a dilution.

Table 6
Total Petroleum Hydrocarbons
Groundwater
McCall/GWCC
Portland, Oregon

Location	Matrix	Date Sampled	TPH - FIQ																	
			Gasoline		Naphtha Distillate		Jet Fuel as JP-4		Mineral Spirits		Jet Fuel as Jet A		Kerosene		Diesel		Heavy Fuel Oil		Lube Oil	
Geoprobe Borings - Water µg/L (ppb)																				
GP-22	Water	02/09/01	210	H	100	U	100	U	100	U	100	U	100	U	1100	F	250	U	250	U
GP-23	Water	02/09/01	100	U	100	U	100	U	100	U	100	U	100	U	440	H	250	U	250	U
GP-24	Water	02/09/01	100	U	100	U	100	U	100	U	100	U	100	U	270	H	250	U	110	Y
GP-25	Water	02/09/01	100	U	100	U	100	U	100	U	100	U	100	U	280	H	250	U	250	U
GP-26	Water	02/09/01	100	U	100	U	100	U	100	U	100	U	100	U	300	H	250	U	500	L
GP-27	Water	02/12/01	100	U	100	U	100	U	100	U	100	U	100	U	170	H	250	U	250	U
GP-28	Water	02/12/01	100	U	100	U	100	U	100	U	100	U	100	U	100	U	250	U	250	U
GP-29	Water	02/12/01	100	U	100	U	100	U	100	U	100	U	100	U	100	U	250	U	250	U
GP-30	Water	02/12/01	100	U	100	U	100	U	100	U	100	U	100	U	100	U	250	U	250	U
GP-30 Duplicate	Water	02/12/01	100	U	100	U	100	U	100	U	100	U	100	U	120	H	250	U	250	U
GP-31	Water	02/13/01	1800	H	100	U	100	U	100	U	100	U	100	U	7600	Y	250	U	4800	F
GP-32	Water	02/13/01	100	U	100	U	100	U	100	U	100	U	100	U	700	H	250	U	1100	F
GP-33	Water	02/13/01	100	U	100	U	100	U	100	U	100	U	100	U	320	Y	250	U	250	U
GP-34	Water	02/13/01	100	U	100	U	100	U	100	U	100	U	100	U	2100	Y	250	U	580	L
GP-35	Water	02/13/01	100	U	100	U	100	U	100	U	100	U	100	U	200	H	250	U	270	Y
GP-36	Water	02/13/01	100	U	100	U	100	U	100	U	100	U	100	U	210	Y	250	U	250	U
GP-37	Water	02/14/01	100	U	100	U	100	U	100	U	100	U	100	U	100	U	250	U	250	U
GP-38	Water	02/14/01	100	U	100	U	100	U	100	U	100	U	100	U	100	U	250	U	250	U
GP-38 Duplicate	Water	02/14/01	100	U	100	U	100	U	100	U	100	U	100	U	100	U	250	U	250	U
GP-39	Water	02/14/01	100	U	100	U	100	U	100	U	100	U	100	U	100	U	250	U	250	U
GP-40	Water	02/14/01	100	U	100	U	100	U	100	U	100	U	100	U	100	U	250	U	250	U
Field Blank	Water	02/14/01	100	U	100	U	100	U	100	U	100	U	100	U	100	U	250	U	250	U

Notes: U = Not detected at method reporting limit. F = Fingerprit of the sample matches the elution pattern of calibration standard
L = The fingerprint resembles a petroleum product, but the elution pattern indicates the presence of lighter weight constituents.
H = The fingerprint resembles a petroleum product, but the elution pattern indicates the presence of heavier weight constituents.
O = The fingerprint resembles oil, but does not match the calibration standard.
Y = The fingerprint resembles a petroleum product in the correct carbon range, but the elution pattern does not match the calibration standard.
Z = The fingerprint does not resemble a petroleum product.
D = The reported result is from a dilution.

TABLE 7
PAHs and SVOCs (µg/L)
Groundwater and Storm Water
McCall/GWCC

	Groundwater																		
Sample Designation	GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-8	GP-9	GP-10	GP-11	GP-12	GP-12 Duplicate	GP-13	GP-14	GP-15	GP-16	GP-17	GP-18
Matrix	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
Date Sampled	12/11/00	12/11/00	12/11/00	12/11/00	12/11/00	12/14/00	12/14/00	12/12/00	12/12/00	12/12/00	12/12/00	12/13/00	12/13/00	12/12/00	12/13/00	12/13/00	12/13/00	12/13/00	12/14/00
	LPAHs																		
Naphthalene	0.12	0.16	2.9	96 D	0.11	0.07 J	0.05 J	0.04 J	0.38	0.05 J	0.02 J	0.1 J	0.08 J	0.03 J	0.24	0.23	0.19	0.16	0.13
Acenaphthylene	0.02 J	0.05 J	0.096 U	1 JD	0.099 U	0.04 J	0.02 J	0.096 U	0.096 U	0.009 J	0.010 U	0.06 J	0.01 J	0.098 U	0.03 J	0.04 J	0.04 J	0.03 J	0.04 J
Acenaphthene	0.02 J	0.02 J	0.70	16 D	0.11	0.03 J	0.02 J	0.096 U	0.08 J	0.01 J	0.010 U	0.03 J	0.01 J	0.03 J	0.01 J	0.13	0.12	0.08 J	0.36
Fluorene	0.04 J	0.02 J	2.1	47 D	0.099 U	0.03 J	0.03 J	0.006 J	0.22	0.02 J	0.01 J	0.02 J	0.02 J	0.01 J	0.02 J	0.51	0.25	0.06 J	0.07 J
Phenanthrene	0.15	0.21	1.9	140 D	0.06 J	0.28	0.24	0.04 J	0.43	0.09 J	0.04 J	0.41	0.16	0.05 J	0.23	1.2	0.70	0.23	0.60
Anthracene	0.02 J	0.07 J	0.09 J	6 JD	0.008 J	0.07 J	0.02 J	0.01 J	0.02 J	0.01 J	0.03 J	0.09 J	0.02 J	0.008 J	0.04 J	0.07 J	0.05 J	0.02 J	0.07 J
2-Methylnaphthalene	0.09 J	0.12	19 D	340 D	0.09 J	0.06 J	0.09 J	0.02 J	1.5	0.14	0.03 J	0.07 J	0.08 J	0.03 J	0.06 J	0.14	0.1 J	0.07 J	0.08 J
Total LPAH	0.46	0.65	26.69	646	0.378	0.58	0.47	0.12	2.63	0.33	0.13	0.78	0.38	0.16	0.63	2.32	1.45	0.65	1.35
	HPAHs																		
Fluoranthene	0.15	0.55	0.06 J	4.0 JD	0.02 J	0.33	0.20	0.07 J	0.11	0.04 J	0.04 J	0.49	0.12	0.06 J	0.35	0.17	0.20	0.13	0.47
Pyrene	0.20	0.64	0.13	13 D	0.05 J	0.40	0.24	0.11	0.50	0.09 J	0.09 J	0.67	0.18	0.06 J	0.50	0.51	0.32	0.20	0.68
Benz(a)anthracene	0.11	0.48	0.03 J	9.0 D	0.02 J	0.22	0.16	0.04 J	0.06 J	0.02 J	0.01 J	0.40	0.09 J	0.04 J	0.19	0.14	0.13	0.07 J	0.15
Chrysene	0.12	0.41	0.03 J	25 D	0.03 J	0.24	0.16	0.04 J	0.07 J	0.02 J	0.02 J	0.43	0.09 J	0.04 J	0.27	0.21	0.18	0.09 J	0.18
Benzo(b)fluoranthene	0.07 J	0.24	0.01 J	3 JD	0.01 J	0.10	0.097	0.02 J	0.02 J	0.01 J	0.008 J	0.21	0.04 J	0.02 J	0.21	0.099	0.10	0.06 J	0.15
Benzo(k)fluoranthene	0.08 J	0.28	0.02 J	4 JD	0.008 J	0.18	0.11	0.03 J	0.03 J	0.02 J	0.008 J	0.29	0.07 J	0.02 J	0.21	0.09 J	0.12	0.08 J	0.17
Benzo(a)pyrene	0.13	0.43	0.02 J	1 JD	0.01 J	0.23	0.15	0.04 J	0.03 J	0.02 J	0.008 J	0.39	0.08 J	0.03 J	0.37	0.16	0.17	0.10	0.29
Indeno(1,2,3-cd)pyrene	0.09 J	0.26	0.01 J	0.8 JD	0.02 J	0.10 J	0.09 J	0.03 J	0.02 J	0.01 J	0.01 J	0.2 J	0.05 J	0.02 J	0.37	0.1 J	0.1 J	0.07 J	0.20
Dibenz(a,h)anthracene	0.01 J	0.03 J	0.005 J	0.7 JD	0.20 U	0.03 J	0.02 J	0.00 J	0.005 J	0.007 J	0.2 U	0.04 J	0.02 J	0.006 J	0.05 J	0.02 J	0.03 J	0.01 J	0.02 J
Benzo(g,h,i)perylene	0.09 J	0.2 J	0.01 J	1 JD	0.02 J	0.10 J	0.07 J	0.04 J	0.02 J	0.01 J	0.01 J	0.2 J	0.05 J	0.02 J	0.43	0.2 J	0.1 J	0.08 J	0.27
Total HPAHs	1.05	3.52	0.33	61.50	0.19	1.93	1.30	0.42	0.87	0.25	0.201	3.32	0.79	0.32	2.95	1.70	1.45	0.89	2.58
	SVOCs																		
3- and 4-Methylphenol Coelution	0.07 J	0.02 J	0.03 J	38 U	0.04 J	0.30 J	0.1 J	0.02 J	0.08 J	0.1 J	0.03 J	0.2 J	0.1 J	0.06 J	0.2 J	0.3 J	0.60	0.75	0.3 J
Dibenzofuran	0.01 J	0.01 J	1.0	19 D	0.099 U	0.01 J	0.01 J	0.096 U	0.09 J	0.01 J	0.09 J	0.01 J	0.01 J	0.098 U	0.02 J	0.02 J	0.02 J	0.01 J	0.02 J
Butyl Benzyl Phthalate	0.08 J	0.30	0.20	15 U	0.01 J	0.09 J	0.05 J	0.07 J	0.2 J	0.20 J	0.2 J	0.07 J	0.31	0.06 J	0.21 U	0.1 J	0.08 J	0.06 J	0.07 J
Di-n-octyl Phthalate	0.95 U	0.95 U	0.96 U	77 U	0.99 U	0.97 U	0.96 U	0.96 U	0.96 U	0.96 U	1.0 U	1.1 U	0.06 J	0.98 U	1.0 U	0.96 U	0.98 U	0.96 U	0.96 U

NOTE: µg/L = micrograms per liter or parts per billion. U = not detected at or above the indicated method reporting limit. J = estimated concentration. D = reported result is from a dilution.

TABLE 7
PAHs and SVOCs (µg/L)
Groundwater and Storm Water
McCall/GWCC

Sample Designation	GP-19	GP-19 Duplicate	GP-20	GP-21	GP-22	GP-22 F	GP-23	GP-24	GP-25	GP-26	GP-27	GP-27 F	GP-28	GP-28 F	GP-29	GP-29 F	GP-30	GP-30 Duplicate	GP-31	GP-32	GP-33
Matrix	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
Date Sampled	12/14/00	12/14/00	12/14/00	12/13/00	02/09/01	02/09/01	02/09/01	02/09/01	02/09/01	02/09/01	02/12/01	02/12/01	02/12/01	02/12/01	02/12/01	02/12/01	02/12/01	02/12/01	02/13/01	02/13/01	02/13/01
	Groundwater																				
	LPAHs																				
Naphthalene	0.02 J	0.008 J	0.15	0.04 J	0.56	0.09 J	0.05 J	0.21	0.22	0.20	0.22	0.095 U	0.097 U	0.096 U	0.17	0.096 U	0.097 U	0.097 U	7.6 D	0.57 D	0.12
Acenaphthylene	0.096 U	0.096 U	0.03 J	0.096 U	0.096 U	0.10 U	0.008 J	0.02 J	0.02 J	0.02 J	0.097 U	0.095 U	0.097 U	0.096 U	0.097 U	0.096 U	0.097 U	0.097 U	4.8 U	0.09 JD	0.02 J
Acenaphthene	0.096 U	0.096 U	0.11	0.096 U	0.81	0.1 J	0.03 J	0.09 J	0.11	0.03 J	0.11	0.095 U	0.097 U	0.096 U	0.097 U	0.096 U	0.097 U	0.097 U	12 D	0.5 JD	0.17
Fluorene	0.096 U	0.096 U	0.02 J	0.01 J	2.1	0.13	0.02 J	0.06 J	0.05 J	0.05 J	0.32	0.095 U	0.097 U	0.096 U	0.097 U	0.096 U	0.097 U	0.097 U	24 D	0.79 D	0.04 J
Phenanthrene	0.03 J	0.008 J	0.26	0.06 J	2.0	0.10	0.06 J	0.21	0.28	0.13	0.73	0.095 U	0.12	0.096 U	0.28	0.096 U	0.16	0.12	70 D	2.6 D	0.16
Anthracene	0.096 U	0.096 U	0.02 J	0.006 J	0.06 J	0.10 U	0.008 J	0.02 J	0.06 J	0.02 J	0.097 U	0.095 U	0.097 U	0.096 U	0.097 U	0.096 U	0.097 U	0.097 U	13 D	0.54 D	0.02 J
2-Methylnaphthalene	0.01 J	0.096 U	0.07 J	0.04 J	14 D	0.4	0.04 J	0.07 J	0.07 J	0.07 J	0.15	0.095 U	0.097 U	0.096 U	0.49	0.096 U	0.097 U	0.097 U	430 D	13 D	0.26
Total LPAH	0.06	0.016	0.66	0.16	19.53	0.82	0.22	0.68	0.81	0.52	1.53		0.12		0.94		0.16	0.12	556.6	18.1	0.79
	HPAHs																				
Fluoranthene	0.096 U	0.096 U	0.15	0.01 J	0.06 J	0.02 J	0.03 J	0.099	0.38	0.12	0.12	0.095 U	0.23	0.096 U	0.46	0.096 U	0.097 U	0.097 U	6.3 D	0.75 D	0.09 J
Pyrene	0.01 J	0.02 J	0.20	0.04 J	0.23	0.03 J	0.06 J	0.23	0.48	0.15	0.23	0.095 U	0.31	0.096 U	0.81	0.096 U	0.28	0.31	32 D	2.0 D	0.15
Benz(a)anthracene	0.005 J	0.096 U	0.08 J	0.096 U	0.02 J	0.009 J	0.01 J	0.06 J	0.26	0.06 J	0.097 U	0.095 U	0.18	0.096 U	0.28	0.096 U	0.097 U	0.097 U	9.2 D	0.75 D	0.06 J
Chrysene	0.007 J	0.096 U	0.12	0.096 U	0.03 J	0.01 J	0.02 J	0.07 J	0.28	0.07 J	0.13	0.095 U	0.17	0.096 U	0.40	0.096 U	0.11	0.10	25 D	1.4 D	0.08 J
Benzo(b)fluoranthene	0.005 J	0.096 U	0.08 J	0.096 U	0.01 J	0.006 J	0.01 J	0.05 J	0.15	0.05 J	0.10	0.095 U	0.12	0.096 U	0.27	0.096 U	0.097 U	0.097 U	2 JD	0.4 JD	0.05 J
Benzo(k)fluoranthene	0.006 J	0.096 U	0.07 J	0.096 U	0.01 J	0.007 J	0.02 J	0.06 J	0.16	0.06 J	0.097 U	0.095 U	0.12	0.096 U	0.25	0.096 U	0.097 U	0.097 U	1 JD	0.3 JD	0.05 J
Benzo(a)pyrene	0.096 U	0.096 U	0.12	0.096 U	0.02 J	0.10 U	0.02 J	0.08 J	0.23	0.07 J	0.12	0.095 U	0.20	0.096 U	0.46	0.096 U	0.097 U	0.097 U	5 JD	0.59 D	0.08 J
Indeno(1,2,3-cd)pyrene	0.008 J	0.005 J	0.10 J	0.004 J	0.01 J	0.005 J	0.01 J	0.05 J	0.12	0.06 J	0.14	0.095 U	0.18	0.096 U	0.51	0.096 U	0.097 U	0.097 U	1 JD	0.4 JD	0.06 J
Dibenz(a,h)anthracene	0.006 J	0.006 J	0.02 J	0.19 U	0.006 J	0.005 J	0.005 J	0.01 J	0.03 J	0.02 J	0.097 U	0.095 U	0.097 U	0.096 U	0.097 U	0.096 U	0.097 U	0.097 U	0.6 JD	0.1 JD	0.01 J
Benzo(g,h,i)perylene	0.009 J	0.008 J	0.10 J	0.19 U	0.01 J	0.007 J	0.02 J	0.06 J	0.11	0.05 J	0.10	0.095 U	0.13	0.096 U	0.47	0.096 U	0.097 U	0.097 U	3 JD	0.53 D	0.07 J
Total HPAHs	0.056	0.039	1.04	0.054	0.406	0.099	0.205	0.769	2.200	0.710	0.94		1.64		3.91		0.39	0.41	85.1	7.2	0.70
	SVOCs																				
3- and 4-Methylphenol Coelution	0.03 J	0.007 J	2.0	0.06 J	0.01 J	0.25 U	0.2 J	0.88	0.44	1.3	0.49	0.24 U	0.24 U	0.24 U	0.28	0.24 U	0.24 U	0.24 U	12 U	1.4 D	0.74
Dibenzofuran	0.096 U	0.096 U	0.01 J	0.096 U	0.86 J	0.02 J	0.097 U	0.02 J	0.02 J	0.02 J	0.12	0.095 U	0.097 U	0.096 U	0.097 U	0.096 U	0.097 U	0.097 U	6.1 D	0.2 JD	0.02 J
Butyl Benzyl Phthalate	0.02 J	0.19 U	0.04 J	0.35	0.098	0.16	0.05 J	0.06 J	0.1 J	0.08 J	1.7	0.25	0.25	0.096 U	0.33	0.096 U	0.45	0.28	4.8 U	0.65 D	0.53
Di-n-octyl Phthalate	0.96 U	0.004 J	1.1 U	0.96 U	0.96 U	0.04 J	0.97 U	0.97 U	0.96 U	0.96 U	0.97 U	0.95 U	0.97 U	0.96 U	0.97 U	0.96 U	0.97 U	0.97 U	48 U	4.8 U	0.95 U

NOTE: µg/L = micrograms per liter. U = not detected at or above the indicated method reporting limit. J = estimated concentration.

TABLE 7
PAHs and SVOCs (µg/L)
Groundwater and Storm Water
McCall/GWCC

| | Groundwater | | |

TABLE 7
PAHs and SVOCs (µg/L)
Groundwater and Storm Water
McCall/GWCC

	Storm Water									
Sample Designation	S-1		S-2		S-3		S-4		S-4 Duplicate	
Matrix	Water		Water		Water		Water		Water	
Date Sampled	12/20/00		12/20/00		12/20/00		12/20/00		12/20/00	
	LPAHs									
Naphthalene	0.03	J	0.07	J	0.07	J	0.04	J	0.04	J
Acenaphthylene	0.006	J	0.02	J	0.095	U	0.095	U	0.096	U
Acenaphthene	0.02	J	0.02	J	0.095	U	0.14		0.12	
Fluorene	0.02	J	0.04	J	0.02	J	0.36		0.34	
Phenanthrene	0.07	J	0.25		0.20		0.46		0.35	
Anthracene	0.095	U	0.02	J	0.095	U	0.02	J	0.01	J
2-Methylnaphthalene	0.03	J	0.05	J	0.096		0.09	J	0.10	
Total LPAH	0.176		0.470		0.386		1.110		0.960	
	HPAHs									
Fluoranthene	0.02	J	0.099		0.06	J	0.06	J	0.05	J
Pyrene	0.02	J	0.12		0.03	J	0.19		0.16	
Benz(a)anthracene	0.095	U	0.03	J	0.007	J	0.03	J	0.02	J
Chrysene	0.008	J	0.06	J	0.03	J	0.12		0.09	J
Benzo(b)fluoranthene	0.006	J	0.04	J	0.01	J	0.03	J	0.03	J
Benzo(k)fluoranthene	0.004	J	0.03	J	0.008	J	0.02	J	0.01	J
Benzo(a)pyrene	0.095	U	0.03	J	0.095	U	0.03	J	0.02	J
Indeno(1,2,3-cd)pyrene	0.006	J	0.04	J	0.01	J	0.02	J	0.02	J
Dibenz(a,h)anthracene	0.19	U	0.009	J	0.19	U	0.009	J	0.008	J
Benzo(g,h,i)perylene	0.007	J	0.06	J	0.01	J	0.04	J	0.03	J
Total HPAHs	0.071		0.52		0.17		0.55		0.44	
	SVOCs									
3- and 4-Methylphenol Coelution	0.3	J	0.49		0.48	U	0.2	J	0.2	J
Dibenzofuran	0.01	J	0.02	J	0.10	U	0.13		0.11	
Butyl Benzyl Phthalate	0.1	J	0.1	J	0.08	J	0.05	J	0.04	J
Di-n-octyl Phthalate	0.95	U	0.95	U	0.95	U	0.95	U	0.96	U

TABLE 8
VOLATILE ORGANIC COMPOUNDS (µg/L)
GROUNDWATER
McCall/GWCC

Sample Designation	Matrix	Date Sampled	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	Trichlorotrifluoroethane	Methylene Chloride	*trans*-1,2-dichloroethene	1,1-Dichloroethane	*cis*-1,2-dichloroethene	Chloroform	Bromochloromethane	1,1,1-Trichloroethane	Carbon Tetrachloride
GP-1	Water	12/11/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-2	Water	12/11/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-3	Water	12/11/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-4	Water	12/11/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-5	Water	12/11/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-6	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-7	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	**1.1**	0.5 U	0.5 U	0.5 U	**3.3**	0.5 U
GP-8	Water	12/12/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-9	Water	12/12/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-10	Water	12/12/00	0.5 U	0.5 U	**2.6** D	0.5 U	0.5 U	0.5 U	**2.6** D	0.5 U	1.0 U	0.5 U	**7.6** D	**210** D	0.5 U	0.5 U	**26** D	0.5 U
GP-11	Water	12/12/00	0.5 U	0.5 U	**1.8**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	**2.2**	**23**	0.5 U	0.5 U	**2.5**	0.5 U
GP-12	Water	12/13/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	**2.5**	0.5 U	0.5 U	0.5 U	0.5 U
GP-12 Duplicate	Water	12/13/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	**2.4**	0.5 U	0.5 U	0.5 U	0.5 U
GP-13	Water	12/12/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	**0.76**	0.5 U	0.5 U	0.5 U	0.5 U
GP-14	Water	12/13/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	**0.75**	**15**	0.5 U	0.5 U	0.5 U	0.5 U
GP-15	Water	12/13/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	**0.52**	**4.6**	0.5 U	0.5 U	0.5 U	0.5 U
GP-16	Water	12/13/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-17	Water	12/13/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-18	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-19	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-19 Duplicate	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-20	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-21	Water	12/13/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	**0.54**	0.5 U	0.5 U	0.5 U	0.5 U
GP-22	Water	02/09/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-23	Water	02/09/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-24	Water	02/09/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-25	Water	02/09/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-26	Water	02/09/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-27	Water	02/12/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-28	Water	02/12/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-29	Water	02/12/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-30	Water	02/12/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-30 Duplicate	Water	02/12/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-31	Water	02/13/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-32	Water	02/13/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-33	Water	02/13/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE 8
VOLATILE ORGANIC COMPOUNDS (µg/L)
GROUNDWATER
McCall/GWCC

Sample Designation	Matrix	Date Sampled	1,2-Dichloroethane	Trichloroethene	1,2-Dichloropropane	Bromodichloromethane	2-Chloroethyl Vinyl Ether	cis-1,3-Dichloropropene	trans 1,3-Dichloropropene	1,1,2-Trichloroethane	Tetrachloroethene	Dibromochloromethane	Chlorobenzene	Bromoform	1,1,2,2-Tetrachloroethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene
GP-1	Water	12/11/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-2	Water	12/11/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-3	Water	12/11/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-4	Water	12/11/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-5	Water	12/11/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-6	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-7	Water	12/14/00	0.5 U	**1.6**	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**21**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-8	Water	12/12/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-9	Water	12/12/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**1.2**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-10	Water	12/12/00	0.5 U	**220** D	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**430** D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-11	Water	12/12/00	0.5 U	**27**	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**140** D	0.5 U	**1.1**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-12	Water	12/13/00	0.5 U	**1.3**	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**1.2**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-12 Duplicate	Water	12/13/00	0.5 U	**1.1**	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**0.87**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-13	Water	12/12/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-14	Water	12/13/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-15	Water	12/13/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-16	Water	12/13/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-17	Water	12/13/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-18	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-19	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-19 Duplicate	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-20	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-21	Water	12/13/00	0.5 U	**0.56**	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-22	Water	02/09/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-23	Water	02/09/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-24	Water	02/09/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-25	Water	02/09/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-26	Water	02/09/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-27	Water	02/12/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-28	Water	02/12/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-29	Water	02/12/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**3.3**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-30	Water	02/12/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**1.2**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-30 Duplicate	Water	02/12/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**1.2**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-31	Water	02/13/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-32	Water	02/13/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-33	Water	02/13/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE 8
VOLATILE ORGANIC COMPOUNDS (µg/L)
GROUNDWATER
McCall/GWCC

Sample Designation	Matrix	Date Sampled	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	Trichlorotrifluoroethane	Methylene Chloride	*trans*- 1, 2-dichloroethene	1,1-Dichloroethane	*cis*-1, 2-dichloroethene	Chloroform	Bromochloromethane	1,1,1-Trichloroethane	Carbon Tetrachloride
GP-34	Water	02/13/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-35	Water	02/13/01	0.5 U	0.5 U	**67**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	**7**	**8.9**	0.5 U	0.5 U	0.5 U	0.5 U
GP-36	Water	02/13/01	0.5 U	0.5 U	**2.5**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	**1.1**	**23**	0.5 U	0.5 U	0.5 U	0.5 U
GP-37	Water	02/14/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-38	Water	02/14/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	**11**	0.5 U	0.5 U	0.5 U	0.5 U
GP-38 Duplicate	Water	02/14/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	**8.6**	0.5 U	0.5 U	0.5 U	0.5 U
GP-39	Water	02/14/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	**5.9**	0.5 U	0.5 U	**0.83**	0.5 U
GP-40	Water	02/14/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trip Blank	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trip Blank	Water	02/09/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trip Blank	Water	02/12/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trip Blank	Water	02/14/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	**2.8**	0.5 U	0.5 U	0.5 U
Field Blank	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Field Blank	Water	02/14/01	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EX-1	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	**0.53**	0.5 U	0.5 U	0.5 U	**9.1**	0.5 U
EX-2	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EX-3	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EX-4/MW-2	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	**1.1**	0.5 U	0.5 U	0.5 U
EX-5	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EX-7	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-1	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	**0.53**	0.5 U	0.5 U	0.5 U
MW-3	Water	12/20/00	0.5 U	0.5 U	**1.2**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-4	Water	12/20/00	0.5 U	0.5 U	**1.4**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-5	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

NOTE: µg/L = micrograms per liter or parts per billion. U = not detected at or above the indicated method reporting limit. J = estimated concentration.

TABLE 8
VOLATILE ORGANIC COMPOUNDS (µg/L)
GROUNDWATER
McCall/GWCC

Sample Designation	Matrix	Date Sampled	1,2-Dichloroethane	Trichloroethene	1,2-Dichloropropane	Bromodichloromethane	2-Chloroethyl Vinyl Ether	cis-1,3-Dichloropropene	trans 1,3-Dichloropropene	1,1,2-Trichloroethane	Tetrachloroethene	Dibromochloromethane	Chlorobenzene	Bromoform	1,1,2,2-Tetrachloroethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene
GP-34	Water	02/13/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-35	Water	02/13/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-36	Water	02/13/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-37	Water	02/14/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-38	Water	02/14/01	0.5 U	**2.3**	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**3.1**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-38 Duplicate	Water	02/14/01	0.5 U	**2.1**	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**2.9**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-39	Water	02/14/01	0.5 U	**5.6**	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**14**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GP-40	Water	02/14/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trip Blank	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trip Blank	Water	02/09/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trip Blank	Water	02/12/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trip Blank	Water	02/14/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Field Blank	Water	12/14/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Field Blank	Water	02/14/01	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EX-1	Water	12/20/00	0.5 U	**20**	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**400** D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EX-2	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EX-3	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EX-4/MW-2	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**0.65**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EX-5	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EX-7	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-1	Water	12/20/00	0.5 U	**0.56**	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	**3.5**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-3	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-4	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-5	Water	12/20/00	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

NOTE: µg/L = micrograms per liter or parts per billion. U = not detected at or above the indicated method reporting limit. J = estimated concentration.

Table 9
Metals
Groundwater and Stormwater
McCall/GWCC
Portland, Oregon

Location		Matrix	Date Sampled	Arsenic	Cadmium	Chromium	Copper	Lead	Zinc
Geoprobe Borings - Groundwater µg/L (ppb)									
GP-3	Dissolved	Water	12/11/00	35.8		4.75	3.71		
GP-4	Dissolved	Water	12/11/00	19.3		5.89	3.69		
GP-5	Dissolved	Water	12/11/00	22.5		8.06	3.04		
GP-11	Dissolved	Water	12/12/00	14.7		5.04	2.33		
GP-12	Dissolved	Water	12/13/00	11.1		6.1	1 U		
GP-12 Duplicate	Dissolved	Water	12/13/00	11.3		5.0	0.5		
GP-13	Dissolved	Water	12/12/00	61.9		7.63	5.35		
GP-14	Dissolved	Water	12/13/00	4.8		5.1	1.3		
GP-15	Dissolved	Water	12/13/00	18.6		8.1	1.1		
Field Blank	Dissolved	Water	12/13/00	0.5 U		0.3	0.2 U		
Monitoring Wells - Groundwater µg/L (ppb)									
EX-4/MW-2	Dissolved	Water	12/20/00	8.8		8.1	2.0		
MW-1	Dissolved	Water	12/20/00	2.50 U		9.5	514		
MW-3	Dissolved	Water	12/20/00	39.7	0.10 U	0.4 U	0.5	0.04 U	1.3
MW-4	Dissolved	Water	12/20/00	12.7		1.00 U	1.00 U		
Catch Basins - Storm Water µg/L (ppb)									
S-1W	Total	Water	12/20/00	0.5 U	0.05 U	0.4	3.8	0.43	200
S-2W	Total	Water	12/20/00	1 U	0.22	2.0	9.9	5.93	113
S-3W	Dissolved	Water	12/15/00	1 U	0.63	2.9	29.6	1.62	596
Oil/Water Separator - Storm Water µg/L (ppb)									
S-4W	Dissolved	Water	12/15/00	0.5 U	0.22	0.8	4.9	0.05	47.1
S-4W Duplicate	Dissolved	Water	12/15/00	0.5 U	0.21	0.6	4.7	0.04	45.0

Note: U = not detected at method reporting limit. µg/L = micrograms per liter. ppb = parts per billion.

Table 10
Total Petroleum Hydrocarbons
Upland Soil and Catch Basin Sediment
McCall/GWCC
Portland, Oregon

Location	Matrix	Date Sampled	TPH - FIQ			
			Diesel Range Organics		Residual Range Organics	
Geoprobe Borings - Soil mg/kg (ppm)						
GP-4 10-12	Soil	12/11/00	220	F	200	F
GP-7 2-4	Soil	12/14/00	5500	DH	4100	DL
GP-9 10-12	Soil	12/12/00	12000	DH	10000	DO
GP-15 20-22	Soil	12/14/00	78	F	160	Z
GP-17 12-14	Soil	12/13/00	16	H	160	O
Catch Basins - Sediment mg/kg (ppm)						
S-1	Sediment	12/15/00	400	H	1900	O
S-2	Sediment	12/15/00	300	H	2200	DO
S-3	Sediment	12/15/00	2400	H	7600	DO
S3-01C	Sediment	12/15/00	13	U	34	U

Notes: U = Not detected at method reporting limit. F = Fingerprit of the sample matches the elution pattern of calibration standard

L = The fingerprint resembles a petroleum product, but the elution pattern indicates the presence of lighter weight constituents.

H = The fingerprint resembles a petroleum product, but the elution pattern indicates the presence of heavier weight constituents.

O = The fingerprint resembles oil, but does not match the calibration standard.

Y = The fingerprint resembles a petroleum product in the correct carbon range, but the elution pattern does not match the calibration standard.

Z = The fingerprint does not resemble a petroleum product.

D = The reported result is from a dilution.

Table 11
Total Petroleum Hydrocarbons
Upland Soil
McCall/GWCC
Portland, Oregon

Location	Matrix	Date Sampled	TPH - FIQ																	
			Gasoline		Naphtha Distillate		Jet Fuel as JP-4		Mineral Spirits		Jet Fuel as Jet A		Kerosene		Diesel		Heavy Fuel Oil		Lube Oil	
Geoprobe Borings - Soil mg/kg (ppm)																				
GP-14 0-2	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	14	F	25	U	55	F
GP-14 2-4	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	25	U
GP-14 20-22	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	30	Y	25	U	110	Y
GP-15 0-2	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	30	Z
GP-15 2-4	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	31	Z
GP-16 0-2	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	49	F
GP-16 2-4	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	25	U
GP-16 16-18	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	33	H	25	U	85	Y
GP-17 0-2	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	13	H	25	U	84	F
GP-17 2-4	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	25	U
GP-18 0-2	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	21	H	25	U	210	F
GP-18 2-4	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	25	U
GP-18 16-18	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	38	F
GP-19 0-2	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	25	U
GP-19 2-4	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	68	H	25	U	160	L
GP-19 16-18	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	25	U
GP-20 2-4	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	25	U
GP-20 16-18	Soil	12/13/00	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	25	U
GP-22 10-12	Soil	02/09/01	17	H	10	U	10	U	10	U	10	U	10	U	310	F	25	U	160	Y
GP-23 16-18	Soil	02/09/01	10	U	10	U	10	U	10	U	10	U	10	U	80	H	25	U	220	Y
GP-24 12-14	Soil	02/09/01	10	U	10	U	10	U	10	U	10	U	10	U	74	H	25	U	130	Y
GP-24 16-18	Soil	02/09/01	10	U	10	U	10	U	10	U	10	U	10	U	65	H	25	U	180	Y
GP-25 10-12	Soil	02/09/01	10	U	10	U	10	U	10	U	10	U	10	U	72	H	25	U	250	Y
GP-25 14-16	Soil	02/09/01	10	U	10	U	10	U	10	U	10	U	10	U	65	H	25	U	160	Y
GP-26 14-16	Soil	02/09/01	10	U	10	U	10	U	10	U	10	U	10	U	68	H	25	U	170	Y
GP-26 18-20	Soil	02/09/01	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	25	U
GP-27 10-12	Soil	02/12/01	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	48	Y
GP-28 12-14	Soil	02/12/01	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	25	U
GP-29 4-6	Soil	02/12/01	710	H	500	U	500	U	500	U	500	U	500	U	18000	H	1300	U	36000	F
GP-30 4-6	Soil	02/12/01	500	U	500	U	500	U	500	U	500	U	500	U	4200	H	1300	U	1700	F
GP-31 14-16	Soil	02/13/01	6300	DH	100	U	100	U	100	U	100	U	100	U	35000	DH	250	U	38000	DF
GP-32 10-12	Soil	02/13/01	10	U	10	U	10	U	10	U	10	U	10	U	10	U	25	U	29	F
GP-33 16-18	Soil	02/13/01	10	U	10	U	10	U	10	U	10	U	10	U	130	H	25	U	280	Y
GP-34 12-14	Soil	02/13/01	10	U	10	U	10	U	10	U	10	U	10	U	48	H	25	U	160	Y
GP-35 10-12	Soil	02/13/01	10	U	10	U	10	U	10	U	10	U	10	U	25	H	25	U	55	Y
GP-36 12-14	Soil	02/13/01	18	H	10	U	10	U	10	U	10	U	10	U	240	H	25	U	430	Y
GP-38 10-12	Soil	02/14/01	47	H	100	U	100	U	100	U	100	U	100	U	930	Y	250	U	440	Y

Notes: U = Not detected at method reporting limit. F = Fingerprit of the sample matches the elution pattern of calibration standard

L = The fingerprint resembles a petroleum product, but the elution pattern indicates the presence of lighter weight constituents.

H = The fingerprint resembles a petroleum product, but the elution pattern indicates the presence of heavier weight constituents.

O = The fingerprint resembles oil, but does not match the calibration standard.

Y = The fingerprint resembles a petroleum product in the correct carbon range, but the elution pattern does not match the calibration standard.

Z = The fingerprint does not resemble a petroleum product.

D = The reported result is from a dilution.

TABLE 12
PAHs and SVOCs (µg/kg)
Upland Soil and Catch Basin Sediment
McCall/GWCC

Sample Designation	GP-4 10-12		GP-7 2-4		GP-9 10-12		GP-14 0-2		GP-14 2-4		GP-14 20-22		GP-15 0-2		GP-15 2-4		GP-15 20-22		GP-16 0-2		GP-16 2-4		GP-16 16-18	
Matrix	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Date Sampled	12/11/00		12/14/00		12/12/00		12/13/00		12/13/00		12/13/00		12/13/00		12/13/00		12/13/00		12/13/00		12/13/00		12/13/00	
	LPAHs																							
Naphthalene	110	U	40	JD	70	JD	7.5	U	7.4	U	25		1	J	7.9	U	150		1	J	7.9	U	27	
Acenaphthylene	110	U	83	U	160	U	0.7	J	0.5	J	6	J	0.5	J	7.9	U	40		7.6	U	7.9	U	5	J
Acenaphthene	110	U	70	JD	80	JD	7.5	U	7.4	U	9.4	U	7.6	U	7.9	U	84		7.6	U	7.9	U	7	J
Fluorene	110	U	89	D	280	D	7.5	U	0.6	J	3	J	0.8	J	7.9	U	240		7.6	U	7.9	U	4	J
Phenanthrene	140	D	520	D	1800	D	7.5	U	7.4	U	55		13		7.9	U	1300	D	3	J	7.9	U	36	
Anthracene	10	JD	140	D	210	D	0.9	J	0.7	J	8	J	2	J	7.9	U	65		7.6	U	7.9	U	8	J
2-Methylnaphthalene	110	U	380	D	420	D	0.6	J	0.5	J	9.9		1	J	7.9	U	64		1	J	0.8	J	8	J
Total LPAH	150		1239		2860		2.2		2.3		106.9		18.3				1943		5		0.8		95	
	HPAHs																							
Fluoranthene	70	JD	83	U	310	D	6	J	2	J	94		34		7.9	U	330		8	J	1	J	30	
Pyrene	160	D	83	U	1200	D	7	J	2	J	130		29		0.7	J	390		7	J	1	J	89	
Benz(a)anthracene	80	JD	240	D	330	D	4	J	1	J	40		17		7.9	U	110		5	J	0.9	J	38	
Chrysene	100	JD	740	D	1300	D	7	J	1	J	63		28		0.7	J	130		7	J	1	J	48	
Benzo(b)fluoranthene	50	JD	83	U	160	U	5	J	1	J	56		25		0.7	J	96		6	J	1	J	30	
Benzo(k)fluoranthene	40	JD	83	U	160	U	5	J	1	J	46		22		0.9	J	97		6	J	2	J	33	
Benzo(a)pyrene	80	JD	70	JD	210	D	6	J	1	J	76		24		0.7	J	160		5	J	1	J	44	
Indeno(1,2,3-cd)pyrene	60	JD	30	JD	60	JD	6	J	1	J	89		24		1	J	130		7	J	2	J	28	
Dibenz(a,h)anthracene	20	JD	20	JD	20	JD	1	J	15	U	10	J	5	J	0.7	J	20	J	1	J	16	U	4	J
Benzo(g,h,i)perylene	70	JD	60	JD	1100	JD	8	J	2	J	100		23		1	J	140		8	J	2	J	33	
Total HPAHs	730		1160		4530		55		42		704		231		6		1603		60		12		377	
	SVOCs																							
3- and 4-Methylphenol Coelution	2200	U	1700	U	3300	U	150	U	150	U	190	U	150	U	160	U	60	J	150	U	160	U	180	U
Dibenzofuran	110	U	20	JD	80	JD	0.6	J	0.7	J	2.0	J	0.8	J	7.9	U	47		7.6	U	7.9	U	2	J
Butyl Benzyl Phthalate	220	U	170	U	930	D	15	U	15	U	19	U	4	J	16	U	26	U	0.7	J	16	U	18	U
Di-n-octyl Phthalate	2200	U	1700	U	3300	U	150	U	150	U	190	U	150	U	160	U	260	U	150	U	160	U	180	U

NOTE: µg/kg = micrograms per kilogram or part per billion. U = not detected at or above the indicated method reporting limit. J = estimated concentration. D = reported result is from a dilution.

TABLE 12
PAHs and SVOCs (µg/kg)
Upland Soil and Catch Basin Sediment
McCall/GWCC

Sample Designation	GP-17 0-2		GP-17 2-4		GP-17 12-14		GP-18 0-2		GP-18 2-4		GP-18 16-18		GP-19 0-2		GP-19 2-4		GP-19 16-18		GP-20 2-4		GP-20 16-18		GP-22 10-12		GP-23 16-18		GP-24 12-14		GP-24 16-18	
Matrix	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Date Sampled	12/13/00		12/13/00		12/13/00		12/14/00		12/14/00		12/14/00		12/14/00		12/14/00		12/14/00		12/14/00		12/14/00		02/09/01		02/09/01		02/09/01		02/09/01	
LPAHs																														
Naphthalene	7.4	U	7.5	U	26		7.6	U	7.6	U	7.3	U	7.3	U	6	J	2	J	2	J	7.1	U	47		32		36		18	
Acenaphthylene	7.4	U	0.6	J	7.0	J	7.6	U	7.6	U	0.5	J	7.3	U	0.8	J	0.8	J	0.4	J	7.1	U	5	J	10		5	J	3	J
Acenaphthene	7.4	U	7.5	U	8.7	U	7.6	U	7.6	U	7.3	U	7.3	U	7.4	U	7.1	U	7.5	U	7.1	U	27		9	J	8	J	22	
Fluorene	7.4	U	7.5	U	4	J	7.6	U	7.6	U	0.6	J	7.3	U	0.9	J	0.7	J	7.5	U	7.1	U	82		8	J	8	J	6	J
Phenanthrene	7.4	U	7.5	U	37		7.6	U	7.6	U	4	J	7.3	U	4	J	7.1	U	4	J	7.1	U	180		66		47		37	
Anthracene	7.4	U	0.6	J	6	J	7.6	U	7.6	U	1	J	7.3	U	1	J	0.7	J	1	J	7.1	U	11		16		10		7	J
2-Methylnaphthalene	7.4	U	2	J	6	J	0.5	J	7.6	U	0.6	J	7.3	U	1	J	0.7	J	0.8	J	7.1	U	160		13		19		4	J
Total LPAH			3.2		86		0.5				6.7				13.7		4.9		8.2				512		154		133		97	
HPAHs																														
Fluoranthene	5	J	7	J	63		6	J	2	J	9.4		2	J	4	J	0.9	J	6	J	2	J	49		120		54		34	
Pyrene	4	J	8.8		68		6	J	2	J	11		2	J	5	J	2	J	7	J	4	J	63		150		70		54	
Benz(a)anthracene	3	J	4	J	29		3	J	1	J	6	J	2	J	3	J	0.5	J	3	J	2	J	18		30		15		13	
Chrysene	5	J	7	J	36		6	J	2	J	11		2	J	4	J	0.6	J	5	J	3	J	24		39		19		18	
Benzo(b)fluoranthene	4	J	4	J	28		5	J	1	J	8.4		2	J	4	J	7.1	U	3	J	1	J	19		28		13		9.5	
Benzo(k)fluoranthene	3	J	5	J	31		4	J	2	J	5	J	2	J	4	J	0.7	J	4	J	1	J	15		27		12		11	
Benzo(a)pyrene	4	J	5	J	37		4	J	1	J	6	J	2	J	5	J	0.6	J	4	J	2	J	21		38		17		15	
Indeno(1,2,3-cd)pyrene	5	J	5	J	28		5	J	1	J	6	J	2	J	7	J	0.8	J	3	J	1	J	25		27		12		11	
Dibenz(a,h)anthracene	1	J	0.8	J	5	J	1	J	15	U	2	J	1	J	1	J	0.7	J	0.9	J	14	U	4	J	5	J	3	J	2	J
Benzo(g,h,i)perylene	6	J	6	J	27		5	J	1	J	7	J	2	J	7	J	0.9	J	4	J	3	J	23		32		14		12	
Total HPAHs	40		53		352		45		13		71.8		19		44		7.7		40		19		261		496		229		180	
SVOCs																														
3- and 4-Methylphenol Coelution	150	U	150	U	170	U	150	U	150	U	150	U	150	U	150	U	140	U	150	U	140	U	96	U	60	J	110		90	U
Dibenzofuran	7.4	U	7.5	U	2	J	7.6	U	7.6	U	0.5	J	7.3	U	1	J	0.9	J	0.5	J	7.1	U	32		6	J	4	J	2	J
Butyl Benzyl Phthalate	1	J	15	U	17	U	1	J	15	U	3	J	1	J	15	U	14	U	15	U	14	U	9.6	U	10.0	U	9.9	U	9.0	U
Di-n-octyl Phthalate	150	U	150	U	2	J	150	U	150	U	5	J	0.8	J	150	U	140	U	150	U	140	U	9.6	U	10.0	U	9.9	U	9.0	U

NOTE: µg/kg = micrograms per kilogram or part per billion. U = not detected at or above the indicated method reporting limit. J = estimated concentration. D = reported result is from a dilution.

TABLE 12
PAHs and SVOCs (µg/kg)
Upland Soil and Catch Basin Sediment
McCall/GWCC

Sample Designation	GP-25 10-12	GP-25 14-16	GP-26 14-16	GP-26 18-20	GP-27 10-12	GP-28 12-14	GP-29 4-6	GP-30 4-6	GP-31 14-16	GP-32 10-12	GP-33 16-18	GP-34 12-14	GP-35 10-12	GP-36 12-14	GP-38 10-12
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date Sampled	02/09/01	02/09/01	02/09/01	02/09/01	02/12/01	02/12/01	02/12/01	02/12/01	02/13/01	02/13/01	02/13/01	02/13/01	02/13/01	02/13/01	02/14/01
								LPAHs							
Naphthalene	67	100	61	15	8	7.2 U	870 D	150 U	4300 D	7.1 U	12	56	4 J	54	800 D
Acenaphthylene	17	15	8 J	1 J	0.9 J	7.2 U	380 U	150 U	1500 U	7.1 U	3 J	9.8	4 J	9 J	83
Acenaphthene	15	25	17	8.4 U	7.6 U	7.2 U	1000 D	150 U	5500 D	7.1 U	8 U	10	7.7 U	9.4	200
Fluorene	18	21	14	2 J	1 J	7.2 U	1500 D	10 JD	12000 D	0.5 J	4 J	13	3 J	10	130
Phenanthrene	110	150	83	11	7	7.2 U	3900 D	40 JD	37000 D	6 J	22	79	20	67	590 D
Anthracene	28	30	19	2 J	2 J	7.2 U	1100 D	20 JD	6300 D	7.1 U	5 J	17	4 J	13	110
2-Methylnaphthalene	30	38	24	5 J	2 J	7.2 U	13000 D	20 JD	19000 D	2 J	5 J	21	3 J	19	200
Total LPAH	285	379	226	36	21		21370	90	84100	9	51	206	38	181	2113
								HPAHs							
Fluoranthene	160	160	86	12	6 J	7.2 U	1100 D	20 JD	2400 D	4 J	24	93	30	70	540 D
Pyrene	190	190	120	15	10	7.2 U	6800 D	80 JD	16000 D	5 J	34	120	38	95	650 D
Benz(a)anthracene	58	57	44	5 J	4 J	7.2 U	1100 D	150 U	4200 D	2 J	8.5	29	10	29	120
Chrysene	71	69	52	7 J	4 J	7.2 U	2600 D	100 JD	14000 D	6 J	13	41	13	37	150
Benzo(b)fluoranthene	50	40	33	5 J	4 J	7.2 U	400 D	40 JD	1000 JD	3 J	9	31	12	25	94
Benzo(k)fluoranthene	40	38	31	4 J	4 J	7.2 U	200 JD	10 JD	600 JD	2 J	8.4	24	12	25	87
Benzo(a)pyrene	66	59	46	6 J	5 J	7.2 U	730 D	70 JD	2600 D	2 J	11	34	19	34	78
Indeno(1,2,3-cd)pyrene	72	56	45	7 J	6 J	1 J	200 JD	40 JD	500 JD	2 J	7 J	23	14	25	78
Dibenz(a,h)anthracene	9 J	9 J	8 J	1 J	1 J	7.2 U	100 JD	30 JD	400 JD	0.7 J	2 J	4 J	2 J	4 J	12
Benzo(g,h,i)perylene	61	48	36	6 J	5 J	7.2 U	400 JD	60 JD	1000 JD	2 J	7 J	26	15	25	73
Total HPAHs	777	726	501	68	49	1	13630	450	42700	29	124	425	165	369	1882
								SVOCs							
3- and 4-Methylphenol Coelution	50 J	160	180	84 U	76 U	72 U	3800 U	1500 U	15000 U	71 U	80 U	95 U	77 U	80 J	1000 D
Dibenzofuran	11	11	9 J	2 J	0.8 J	7.2 U	380 U	6 JD	3000 D	7.1 U	2 J	8 J	0.8 J	6 J	45
Butyl Benzyl Phthalate	9.9 U	9.8 U	9.9 U	8.4 U	2 J	7.2 U	380 U	150 U	1500 U	7.1 U	8.0 U	9.5 U	0.7 J	9.4 U	8.4 U
Di-n-octyl Phthalate	9.9 U	9.8 U	9.9 U	8.4 U	7.6 U	7.2 U	380 U	150 U	1500 U	7.1 U	8.0 U	9.5 U	7.7 U	9.4 U	8.4 U

TABLE 12
PAHs and SVOCs (µg/kg)
Upland Soil and Catch Basin Sediment
McCall/GWCC

Sample Designation	S-1		S-2		S-3		S3-01C	
Matrix	Sediment		Sediment		Sediment		Sediment	
Date Sampled	12/15/00		12/15/00		12/15/00		12/15/00	
	LPAHs							
Naphthalene	**200**	JD	**50**	JD	**400**	JD	12	U
Acenaphthylene	**40**	JD	**20**	JD	**60**	JD	12	U
Acenaphthene	**200**	JD	**30**	JD	720	U	12	U
Fluorene	**100**	JD	**20**	JD	**3600**	D	12	U
Phenanthrene	**1500**	D	**320**	D	**3600**	D	12	U
Anthracene	**400**	JD	**50**	JD	**2600**	D	12	U
2-Methylnaphthalene	**100**	JD	**50**	JD	**400**	JD	**0.6**	J
Total LPAH	**2540**		**540**		**10660**		**0.6**	
	HPAHs							
Fluoranthene	**2600**	D	**690**	D	**5800**	D	**3**	J
Pyrene	**2600**	D	**770**	D	**5500**	D	**3**	J
Benz(a)anthracene	**1300**	D	**440**	D	**2500**	D	**2**	J
Chrysene	**2000**	D	**740**	D	**5300**	D	**3**	J
Benzo(b)fluoranthene	**2000**	D	**780**	D	**4100**	D	**3**	J
Benzo(k)fluoranthene	**1500**	D	**540**	D	**3400**	D	**2**	J
Benzo(a)pyrene	**1900**	D	**670**	D	**3700**	D	**2**	J
Indeno(1,2,3-cd)pyrene	**1500**	D	**490**	D	**3200**	D	**2**	J
Dibenz(a,h)anthracene	**300**	JD	**100**	JD	**800**	JD	24	U
Benzo(g,h,i)perylene	**1600**	D	**500**	D	**3600**	D	**3**	J
Total HPAHs	**17300**		**5720**		**37900**		**23**	
	SVOCs							
3- and 4-Methylphenol Coelution	13000	U	1900	U	**4000**	JD	240	U
Dibenzofuran	**100**	JD	**20**	JD	**200**	JD	12	U
Butyl Benzyl Phthalate	**1500**	D	**2500**	D	**5000**	D	**1**	J
Di-n-octyl Phthalate	13000	U	1900	U	14000	U	**2**	J

TABLE 13
VOLATILE ORGANIC COMPOUNDS (µg/kg)
UPLAND SOIL
McCall/GWCC

Sample Designation	Matrix	Date Sampled	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	Trichlorotrifluoroethane	Methylene Chloride	*trans*- 1, 2-dichloroethene	1,1-Dichloroethane	*cis* -1, 2-dichloroethene	Chloroform	Bromochloromethane	1,1,1-Trichloroethane	Carbon Tetrachloride
GP-4 10-12	Soil	12/11/00	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	13 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U
GP-7 2-4	Soil	12/14/00	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U
GP-9 10-12	Soil	12/12/00	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	11 U	5.5 U	5.5 U	**5.7**	5.5 U	5.5 U	5.5 U	5.5 U
GP-15 20-22	Soil	12/14/00	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	14 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U
GP-17 12-14	Soil	12/13/00	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	11 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U
GP-22 10-12	Soil	02/09/01	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	14 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U
GP-23 16-18	Soil	02/09/01	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	15 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U
GP-24 12-14	Soil	02/09/01	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	15 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U
GP-24 16-18	Soil	02/09/01	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	13 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U
GP-25 10-12	Soil	02/09/01	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	15 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U
GP-25 14-16	Soil	02/09/01	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	15 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U
GP-26 14-16	Soil	02/09/01	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	15 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U
GP-26 18-20	Soil	02/09/01	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	13 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U
GP-27 10-12	Soil	02/12/01	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U
GP-28 12-14	Soil	02/12/01	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	11 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
GP-29 4-6	Soil	02/12/01	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.56 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
GP-30 4-6	Soil	02/12/01	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	11 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U
GP-31 14-16	Soil	02/13/01	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.57 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
GP-32 10-12	Soil	02/13/01	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	11 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U
GP-33 16-18	Soil	02/13/01	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	12 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U
GP-34 12-14	Soil	02/13/01	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	14 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U
GP-35 10-12	Soil	02/13/01	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	12 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U
GP-36 12-14	Soil	02/13/01	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	14 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U
GP-38 10-12	Soil	12/13/00	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	12 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U

NOTE: µg/kg = micrograms per kilogram or part per billion. U = not detected at or above the indicated method reporting limit. J = estimated concentration.

TABLE 13
VOLATILE ORGANIC COMPOUNDS (µg/kg)
UPLAND SOIL
McCall/GWCC

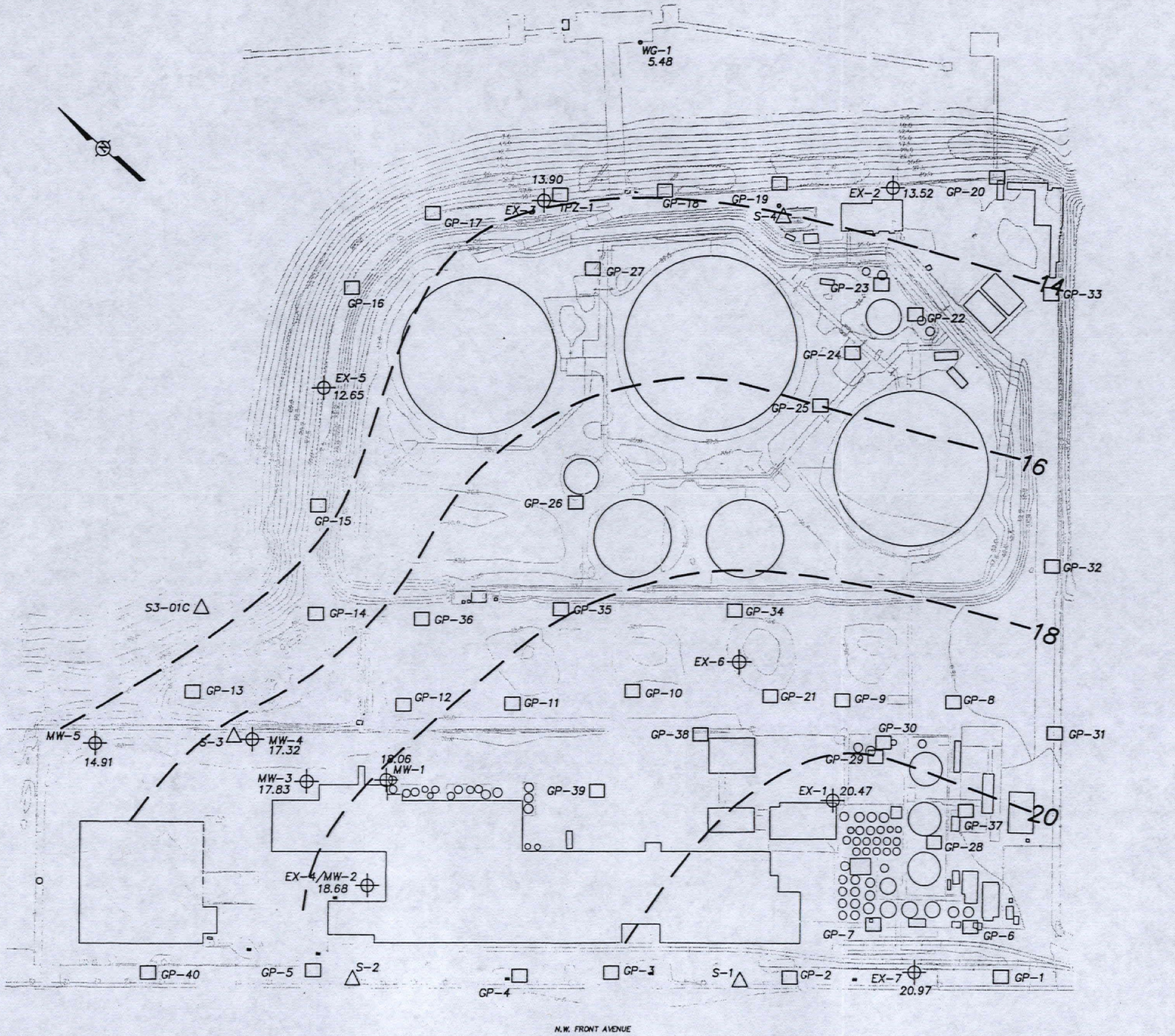
Sample Designation	Matrix	Date Sampled	1,2-Dichloroethane	Trichloroethene	1,2-Dichloropropane	Bromodichloromethane	2-Chloroethyl Vinyl Ether	cis-1,3-Dichloropropene	trans 1,3-Dichloropropene	1,1,2-Trichloroethane	Tetrachloroethene	Dibromochloromethane	Chlorobenzene	Bromoform	1,1,2,2-Tetrachloroethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene
GP-4 10-12	Soil	12/11/00	6.4 U	6.4 U	6.4 U	6.4 U	13 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U
GP-7 2-4	Soil	12/14/00	5.6 U	5.6 U	5.6 U	5.6 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	**9.5**	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U
GP-9 10-12	Soil	12/12/00	5.5 U	5.5 U	5.5 U	5.5 U	11 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
GP-15 20-22	Soil	12/14/00	6.9 U	6.9 U	6.9 U	6.9 U	14 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U
GP-17 12-14	Soil	12/13/00	5.7 U	5.7 U	5.7 U	5.7 U	11 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	**8.6**	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U
GP-22 10-12	Soil	02/09/01	7.2 U	7.2 U	7.2 U	7.2 U	14 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U
GP-23 16-18	Soil	02/09/01	7.5 U	7.5 U	7.5 U	7.5 U	15 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U
GP-24 12-14	Soil	02/09/01	7.3 U	7.3 U	7.3 U	7.3 U	15 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U
GP-24 16-18	Soil	02/09/01	6.7 U	6.7 U	6.7 U	6.7 U	13 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U
GP-25 10-12	Soil	02/09/01	7.4 U	7.4 U	7.4 U	7.4 U	15 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U
GP-25 14-16	Soil	02/09/01	7.4 U	7.4 U	7.4 U	7.4 U	15 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U
GP-26 14-16	Soil	02/09/01	7.3 U	7.3 U	7.3 U	7.3 U	15 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U
GP-26 18-20	Soil	02/09/01	6.3 U	6.3 U	6.3 U	6.3 U	13 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U	6.3 U
GP-27 10-12	Soil	02/12/01	5.6 U	5.6 U	5.6 U	5.6 U	11 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U
GP-28 12-14	Soil	02/12/01	5.4 U	5.4 U	5.4 U	5.4 U	11 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
GP-29 4-6	Soil	02/12/01	0.28 U	0.28 U	0.28 U	0.28 U	0.56 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
GP-30 4-6	Soil	02/12/01	5.7 U	5.7 U	5.7 U	5.7 U	11 U	5.7 U	5.7 U	5.7 U	**19** U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U
GP-31 14-16	Soil	02/13/01	0.29 U	0.29 U	0.29 U	0.29 U	0.57 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
GP-32 10-12	Soil	02/13/01	5.3 U	5.3 U	5.3 U	5.3 U	11 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U
GP-33 16-18	Soil	02/13/01	6.0 U	6.0 U	6.0 U	6.0 U	12 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U
GP-34 12-14	Soil	02/13/01	7.1 U	7.1 U	7.1 U	7.1 U	14 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U
GP-35 10-12	Soil	02/13/01	5.8 U	5.8 U	5.8 U	5.8 U	12 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U
GP-36 12-14	Soil	02/13/01	7.0 U	7.0 U	7.0 U	7.0 U	14 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U
GP-38 10-12	Soil	12/13/00	6.2 U	6.2 U	6.2 U	6.2 U	12 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U

NOTE: µg/kg = micrograms per kilogram or part per billion. U = not detected at or above the indicated method reporting limit. J = estimated concentration.

Table 14
Metals
Upland Soil and Catch Basin Sediment
McCall/GWCC
Portland, Oregon

Location		Matrix	Date Sampled	Arsenic	Cadmium	Chromium	Copper	Lead	Zinc
Geoprobe Borings - Soil mg/kg (ppm)									
GP-4 10-12	Total	Soil	12/11/00	3.3		11.6	15.7		
GP-7 2-4	Total	Soil	12/14/00	2.9		13.3	16.8		
GP-9 10-12	Total	Soil	12/12/00	2.4		14.2	19.3		
GP-14 0-2	Total	Soil	12/14/00	2.2		13.1	17.4		
GP-14 2-4	Total	Soil	12/14/00	1.7		12.3	13.4		
GP-14 20-22	Total	Soil	12/14/00	4.6		14.5	19.0		
GP-15 0-2	Total	Soil	12/14/00	1.7		11.1	18.1		
GP-15 2-4	Total	Soil	12/14/00	1.8		12.7	14.7		
GP-15 20-22	Total	Soil	12/14/00	3.1		22.8	27.1		
GP-16 0-2	Total	Soil	12/14/00	1.6		10.9	15.4		
GP-16 2-4	Total	Soil	12/14/00	1.8		14.0	15.4		
GP-16 16-18	Total	Soil	12/14/00	3.2		12.9	20.7		
GP-17 0-2	Total	Soil	12/14/00	1.5		9.96	13.4		
GP-17 2-4	Total	Soil	12/14/00	1.8		11.9	14.6		
GP-17 12-14	Total	Soil	12/13/00	2.2		16.6	18.7		
GP-18 0-2	Total	Soil	12/14/00	1.3		8.88	13.7		
GP-18 2-4	Total	Soil	12/14/00	1.6		11.1	13.5		
GP-18 16-18	Total	Soil	12/14/00	2.5		12.6	16.9		
GP-19 0-2	Total	Soil	12/14/00	1.6		10.1	12.3		
GP-19 2-4	Total	Soil	12/14/00	1.9		12.9	15.0		
GP-19 16-18	Total	Soil	12/14/00	1.6		10.6	13.2		
GP-20 2-4	Total	Soil	12/14/00	1.6		11.1	14.2		
GP-20 16-18	Total	Soil	12/13/00	1.6		9.11	11.6		
Catch Basins - Sediment mg/kg (ppm)									
S-1	Total	Sediment	12/15/00	5.2	2.00	48.9	137	145	638
S-2	Total	Sediment	12/15/00	7.5	1.42	63.7	316	211	584
S-3	Total	Sediment	12/15/00	37.9	2.86	144	1050	454	985
S3-01C	Total	Sediment	12/15/00	4.4	0.12	11.9	27.4	8.58	82.7

Note: U = not detected at method reporting limit. mg/kg = milligrams per kilogram. ppm = parts per million.



LIST OF MONITORING WELLS

PT#	NORTHING	EASTING	GROUND EL.	RIM EL.	TOP PVC EL.	DESCRIPTION
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6002	10884.027	4568.183	32.34	32.350	32.07	MONITOR WELL EX-3
6003	10558.448	4883.507	33.11	33.140	32.28	MONITOR WELL EX-2
6005	10932.866	4201.793	32.14	32.190	31.87	MONITOR WELL EX-5
6006	10531.660	3883.202	35.74	35.760	35.48	MONITOR WELL MW-1
6007	10606.911	3812.937	35.25	35.270	34.56	MONITOR WELL MW-3
6008	10694.292	3806.683	34.07	34.140	33.61	MONITOR WELL MW-4
6009	10840.045	3669.241	34.99	35.050	34.66	MONITOR WELL MW-5
6011	10459.152	3767.039	35.85	35.900	35.60	MONITOR WELL MW-2
6012	10295.278	4299.654	34.83	35.070	34.38	MONITOR WELL EX-6
6013	10085.543	4249.628	36.42	36.510	36.12	MONITOR WELL EX-1

HORIZONTAL DATUM

COORDINATES ARE ON A LOCAL PLANE AND ARE ASSUMED.

ELEVATION DATUM

ELEVATIONS ARE BASED ON CITY OF PORTLAND BENCHMARK #2528. ELEVATION = 34.64 FEET

LEGEND

- MONITORING WELL
- GEOPROBE BORING
- SURFACE WATER/SEDIMENT SAMPLE LOCATION
- VEGETATION
- BUILDING
- TANK
- INFERRED GROUNDWATER ELEVATION COUTOUR LINE (MARCH 8, 2001)

SCALE

0 150 300 FEET

IT CORPORATION
15055 SW Sequoia Parkway
Suite 140
Portland, Oregon 97224
(503)624-7200 Fax(503)620-7658

FIGURE 1
GROUNDWATER ELEVATION CONTOURS
(MARCH 8, 2001)

McCALL OIL
PORTLAND, OREGON

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		PROJECT NUMBER 820910-B2
Portland	TWilliams	3/15/2001					

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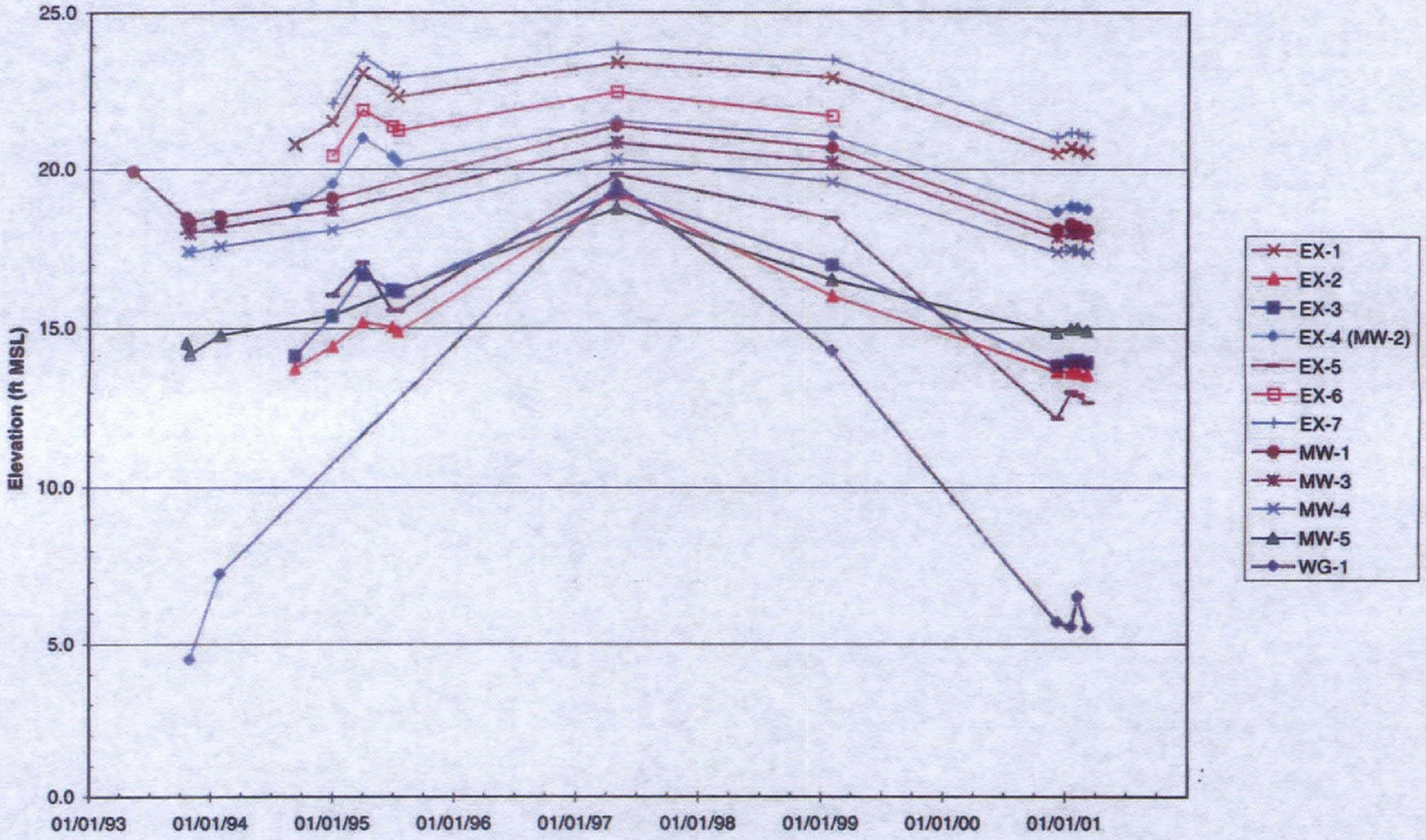
Figure 2

Monitoring Well and Willamette River Hydrographs
McCall Oil and Chemical Corporation
Focused RI Workplan



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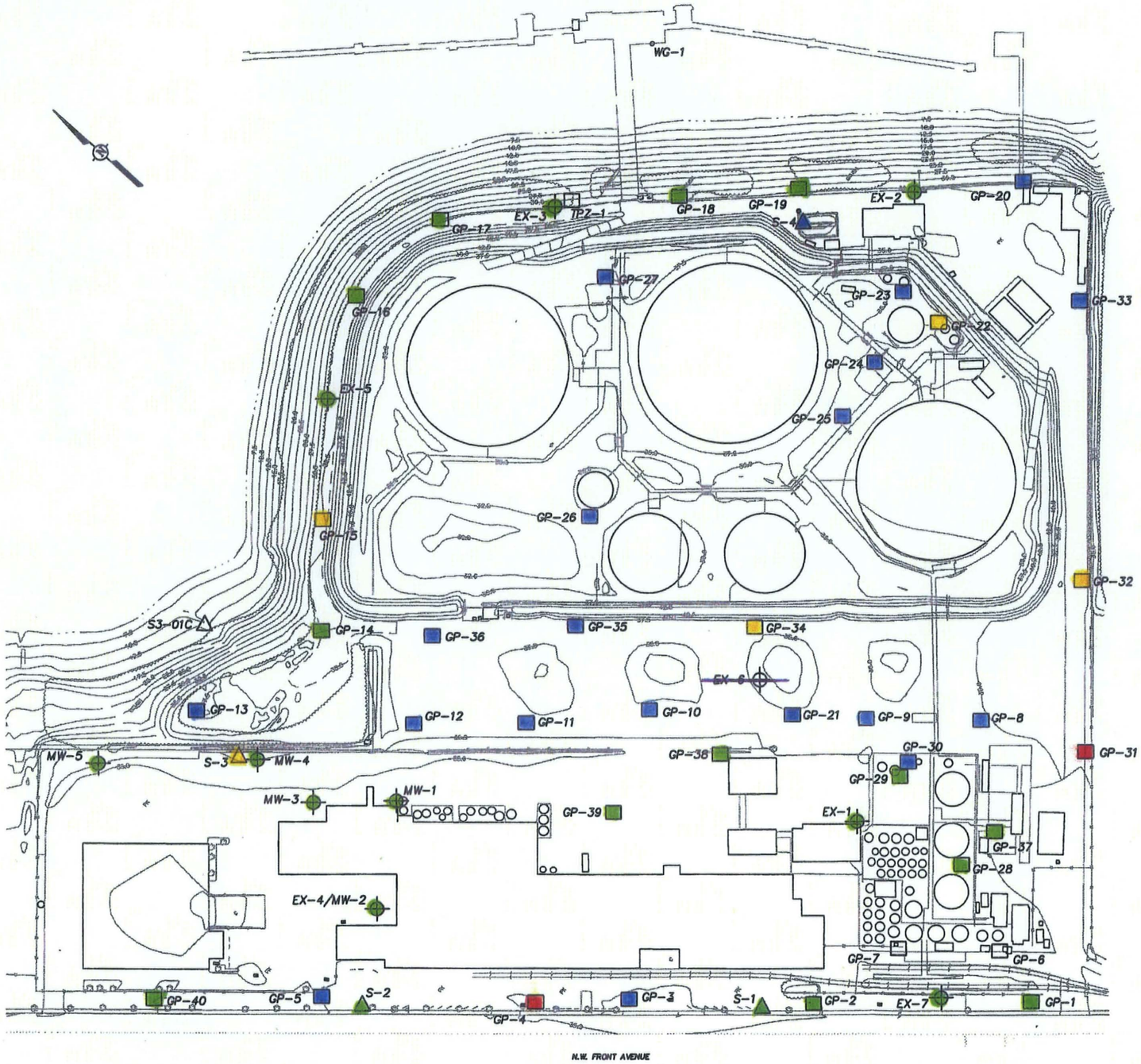
03/29/2001



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HORIZONTAL DATUM

COORDINATES ARE ON A LOCAL PLANE AND ARE ASSUMED.

ELEVATION DATUM

ELEVATIONS ARE BASED ON CITY OF PORTLAND BENCHMARK #2528. ELEVATION = 34.64 FEET

LEGEND

- MONITORING WELL
- GEOPROBE BORING
- SURFACE WATER/SEDIMENT SAMPLE LOCATION
- VEGETATION
- BUILDING
- TANK

Total TPH Range

- ND
- 0.1 - 1.0 mg/L
- 1.1 - 10.0 mg/L
- 10.1 - 100.0 mg/L

DRAFT
3/30/01

SCALE
0 150 300 FEET

IT CORPORATION
15055 SW Sequoia Parkway
Suite 140
Portland, Oregon 97224
(503)624-7200 Fax(503)620-7658

FIGURE 3
GROUNDWATER AND STORMWATER
TOTAL TPH
McCALL/GWCC
PORTLAND, OREGON

OFFICE	DRAWN BY		CHECKED BY	APPROVED BY	PROJECT NUMBER
Portland	J. Clugston	1/10/2001			820910-B2

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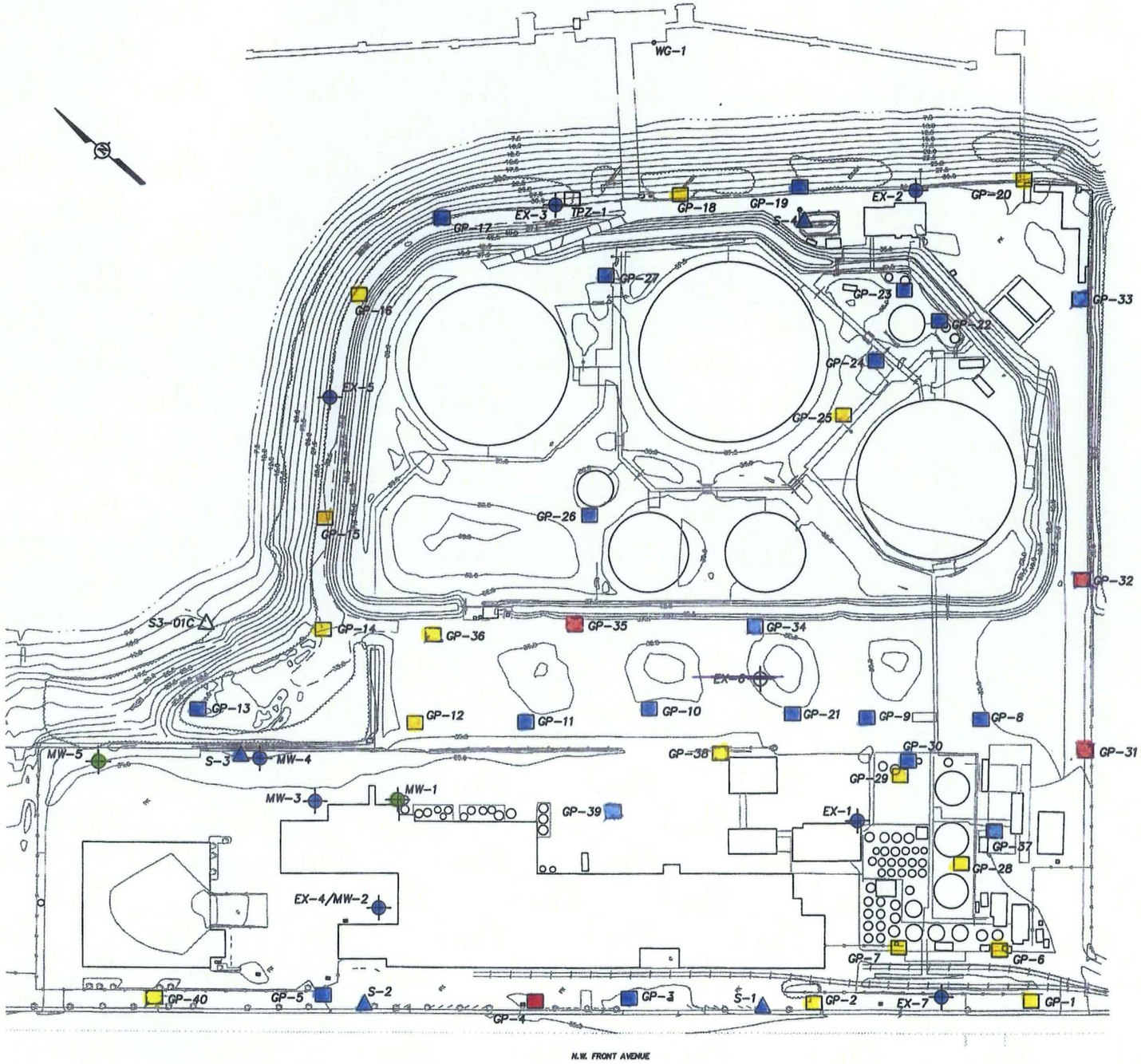

LIST OF MONITORING WELLS

PT#	NORTHING	EASTING	GROUND EL.	RIM EL.	TOP PVC EL.	DESCRIPTION
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6006	10531.660	3883.202	35.74	35.760	35.48	MONITOR WELL MW-1
6007	10606.911	3812.937	35.25	35.270	34.56	MONITOR WELL MW-3
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6013	10085.543	4249.628	36.42	36.510	36.12	MONITOR WELL EX-1

HORIZONTAL DATUM

COORDINATES ARE ON A LOCAL PLANE AND ARE ASSUMED.

ELEVATION DATUM

ELEVATIONS ARE BASED ON CITY OF PORTLAND BENCHMARK #2528. ELEVATION = 34.64 FEET

LEGEND

- MONITORING WELL
- GEOPROBE BORING
- SURFACE WATER/SEDIMENT SAMPLE LOCATION
- VEGETATION
- BUILDING
- TANK

Total HPAH Range

- ND
- < 1 µg/L
- 1 - 5 µg/L
- > 5 µg/L

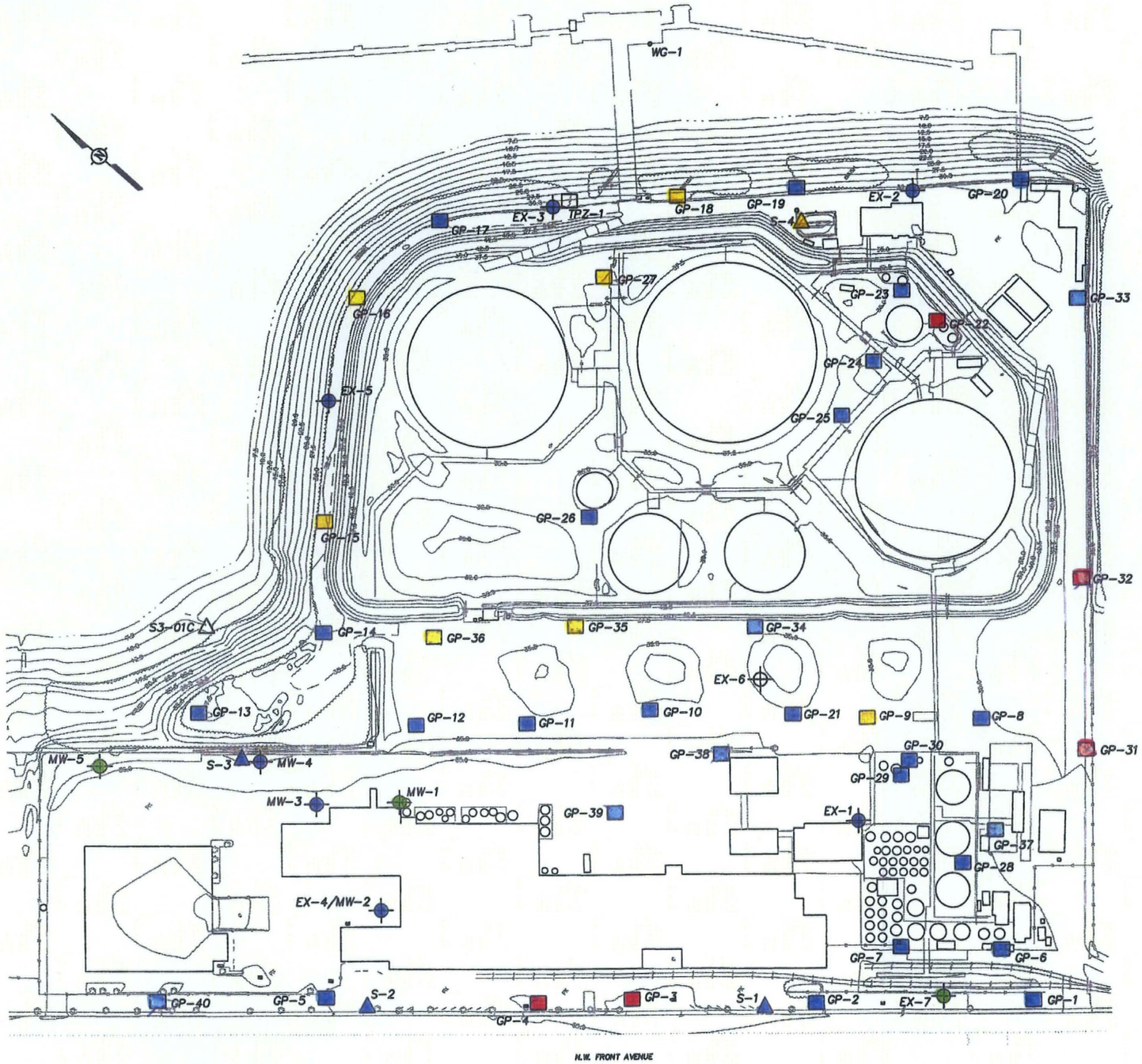
DRAFT
3/30/01

SCALE
0 150 300 FEET

IT CORPORATION
15055 SW Sequoia Parkway
Suite 140
Portland, Oregon 97224
(503)624-7200 Fax(503)620-7658

FIGURE 4
GROUNDWATER AND STORMWATER
TOTAL HPAHs
McCALL/GWCC
PORTLAND, OREGON

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
Portland	J. Clugston 1/10/2001			820910-B2



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HORIZONTAL DATUM

COORDINATES ARE ON A LOCAL PLANE AND ARE ASSUMED.

ELEVATION DATUM

ELEVATIONS ARE BASED ON CITY OF PORTLAND BENCHMARK #2528. ELEVATION = 34.64 FEET

LEGEND

- MONITORING WELL
- GEOPROBE BORING
- SURFACE WATER/SEDIMENT SAMPLE LOCATION
- VEGETATION
- BUILDING
- TANK

Total LPAH Range

- ND
- < 1 µg/L
- 1 - 5 µg/L
- > 5 µg/L

DRAFT
3/30/01

SCALE
0 150 300 FEET

IT CORPORATION
15055 SW Sequoia Parkway
Suite 140
Portland, Oregon 97224
(503)624-7200 Fax(503)620-7658

FIGURE 5
GROUNDWATER AND STORMWATER
TOTAL LPAHs
McCALL/GWCC
PORTLAND, OREGON

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
Portland	J. Clugston 1/10/2001			820910-B2

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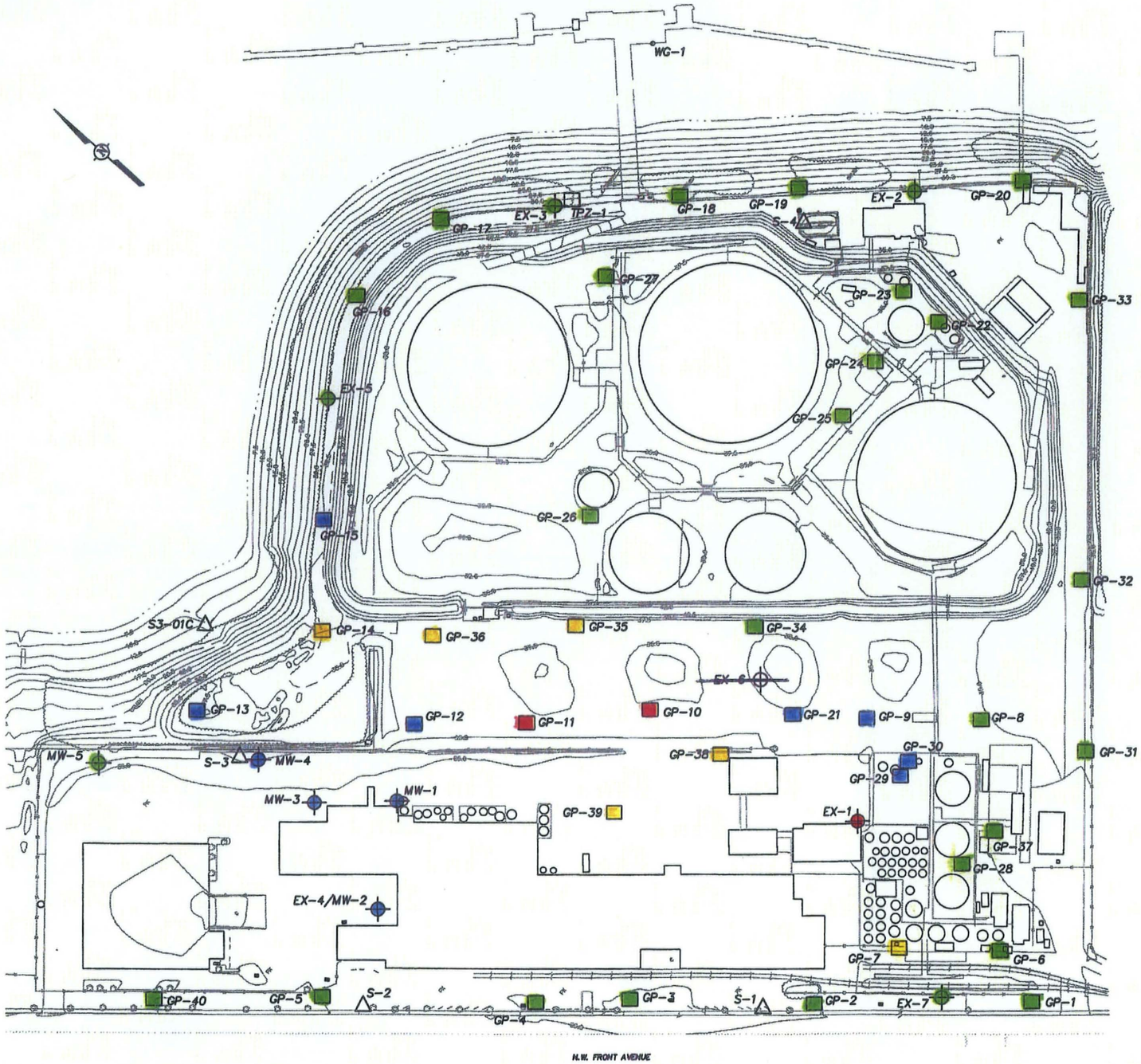

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HORIZONTAL DATUM

COORDINATES ARE ON A LOCAL PLANE AND ARE ASSUMED.

ELEVATION DATUM

ELEVATIONS ARE BASED ON CITY OF PORTLAND BENCHMARK #2528. ELEVATION = 34.64 FEET

LEGEND

- MONITORING WELL
- GEOPROBE BORING
- SURFACE WATER/SEDIMENT SAMPLE LOCATION
- VEGETATION
- BUILDING
- TANK

Total VOC Range

- ND
- < 10 µg/L
- 10 - 100 µg/L
- 101 - 1,000 µg/L

SCALE

0 150 300 FEET

DRAFT

3/30/01

IT CORPORATION
15055 SW Sequoia Parkway
Suite 140
Portland, Oregon 97224
(503)624-7200 Fax(503)620-7658

FIGURE 6
GROUNDWATER
TOTAL VOCs
McCALL/GWCC
PORTLAND, OREGON

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
Portland	J. Clugston 1/10/2001			820910-B2

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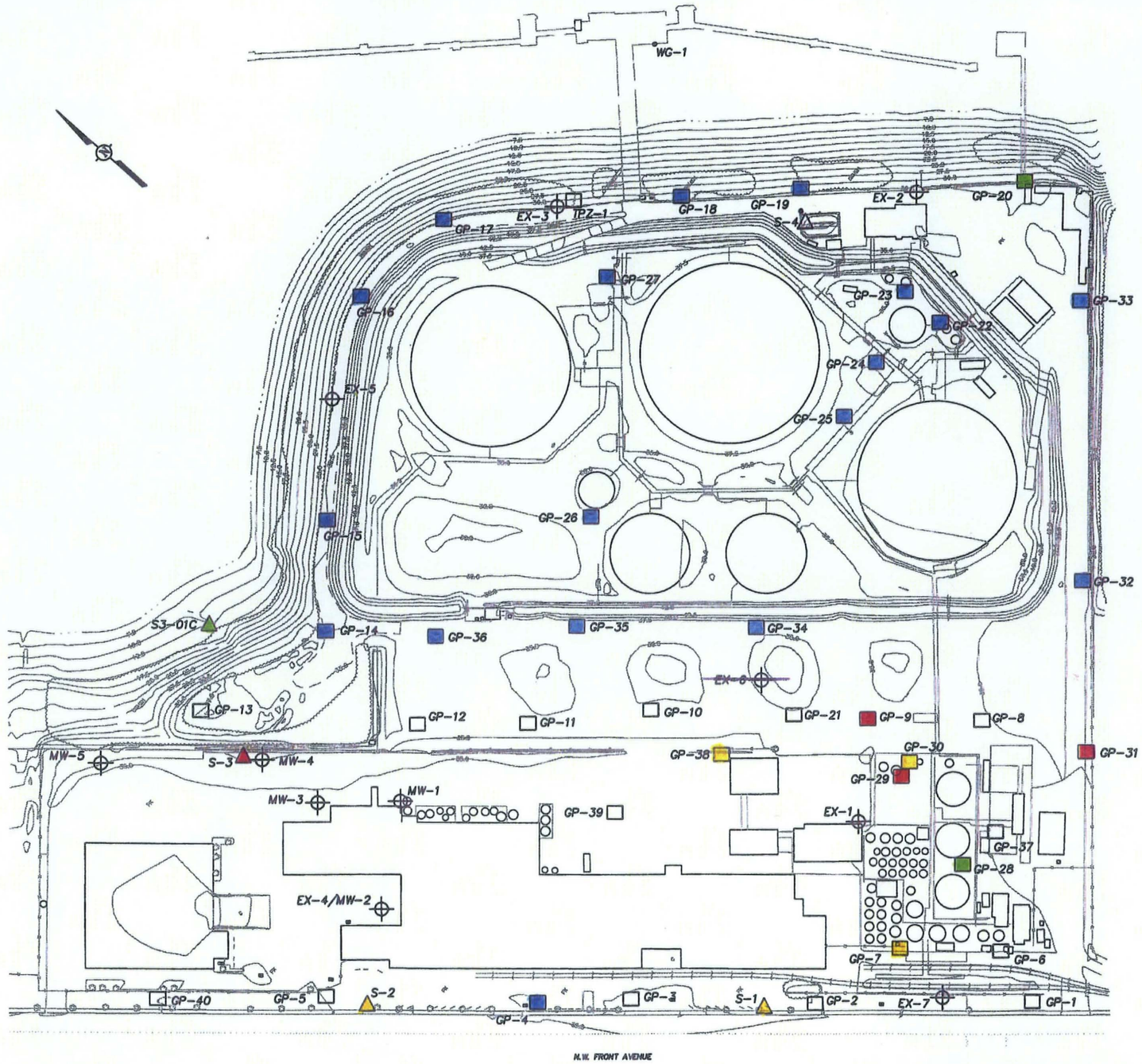

LIST OF MONITORING WELLS

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HORIZONTAL DATUM

COORDINATES ARE ON A LOCAL PLANE AND ARE ASSUMED.

ELEVATION DATUM

ELEVATIONS ARE BASED ON CITY OF PORTLAND BENCHMARK #2528. ELEVATION = 34.64 FEET

LEGEND

- MONITORING WELL
- GEOPROBE BORING
- SURFACE WATER/SEDIMENT SAMPLE LOCATION
- VEGETATION
- BUILDING
- TANK

Total TPH Range

- Not Tested
- ND
- <1,000 mg/kg
- 1,000 - 10,000 mg/kg
- > 10,000 mg/kg

DRAFT
3/30/01

SCALE
0 150 300 FEET

IT CORPORATION
15055 SW Sequoia Parkway
Suite 140
Portland, Oregon 97224
(503)624-7200 Fax(503)620-7658

FIGURE 7
UPLAND SOIL AND
CATCH BASIN SEDIMENT
TOTAL TPH
McCALL/GWCC
PORTLAND, OREGON

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
Portland	J. Clugston 1/10/2001			820910-B2

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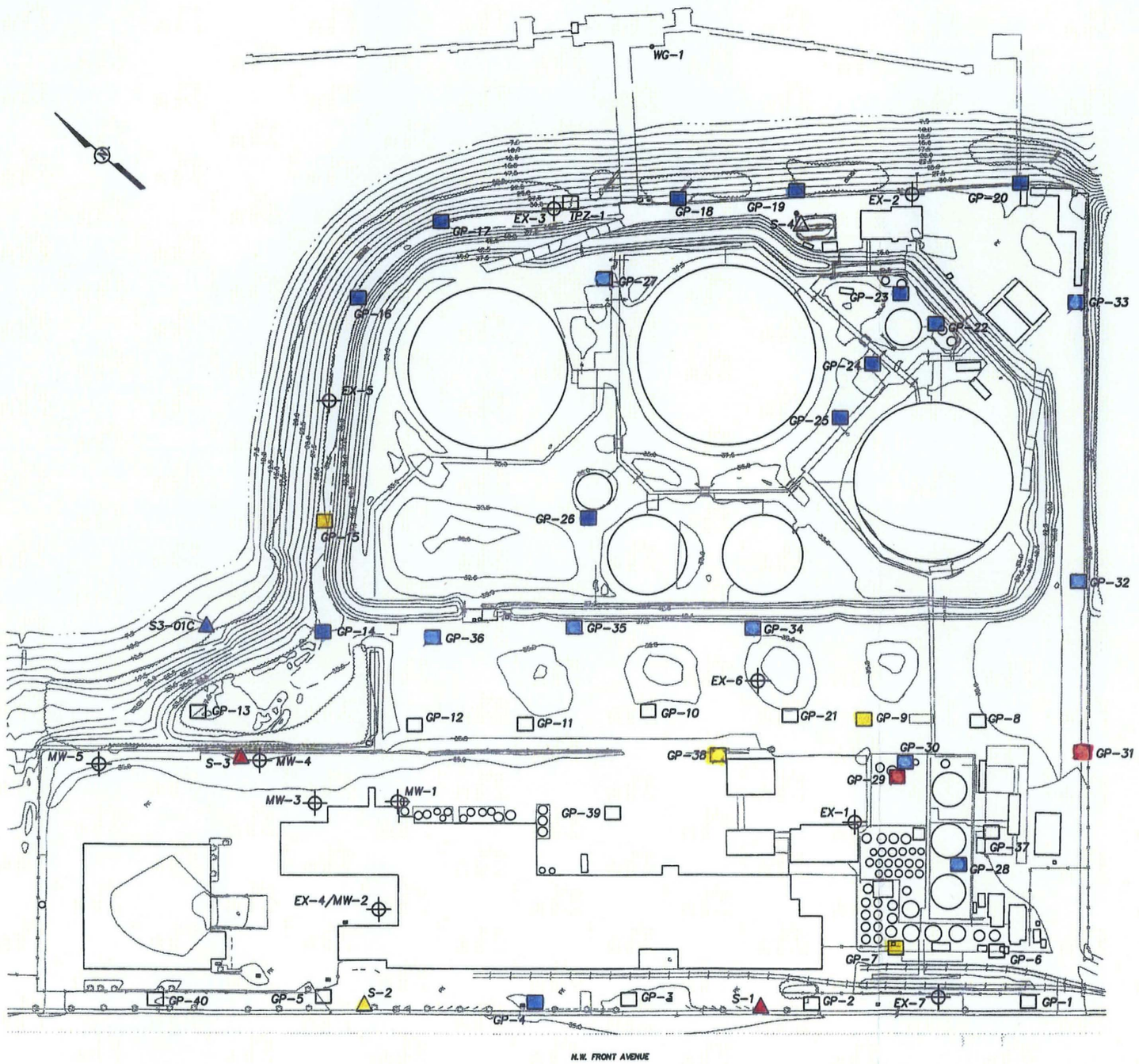

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6003	10558.448	4883.507	33.11	33.140	32.28	MONITOR WELL EX-2
6005	10932.866	4201.793	32.14	32.190	31.87	MONITOR WELL EX-5
6006	10531.660	3883.202	35.74	35.760	35.48	MONITOR WELL MW-1
6007	10606.911	3812.937	35.25	35.270	34.56	MONITOR WELL MW-3
6008	10694.292	3806.683	34.07	34.140	33.61	MONITOR WELL MW-4
6009	10840.045	3669.241	34.99	35.050	34.66	MONITOR WELL MW-5
6011	10459.152	3767.039	35.85	35.900	35.60	MONITOR WELL MW-2
6012	10295.278	4299.654	34.83	35.070	34.38	MONITOR WELL EX-6
6013	10085.543	4249.628	36.42	36.510	36.12	MONITOR WELL EX-1

HORIZONTAL DATUM

COORDINATES ARE ON A LOCAL PLANE AND ARE ASSUMED.

ELEVATION DATUM

ELEVATIONS ARE BASED ON CITY OF PORTLAND BENCHMARK #2528. ELEVATION = 34.64 FEET

LEGEND

- MONITORING WELL
- GEOPROBE BORING
- SURFACE WATER/SEDIMENT SAMPLE LOCATION
- VEGETATION
- BUILDING
- TANK

Total HPAH Range

- ND
- < 1,000 µg/L
- 1,000 - 10,000 µg/L
- > 10,000 µg/L

SCALE

0 150 300 FEET

DRAFT
3/30/01

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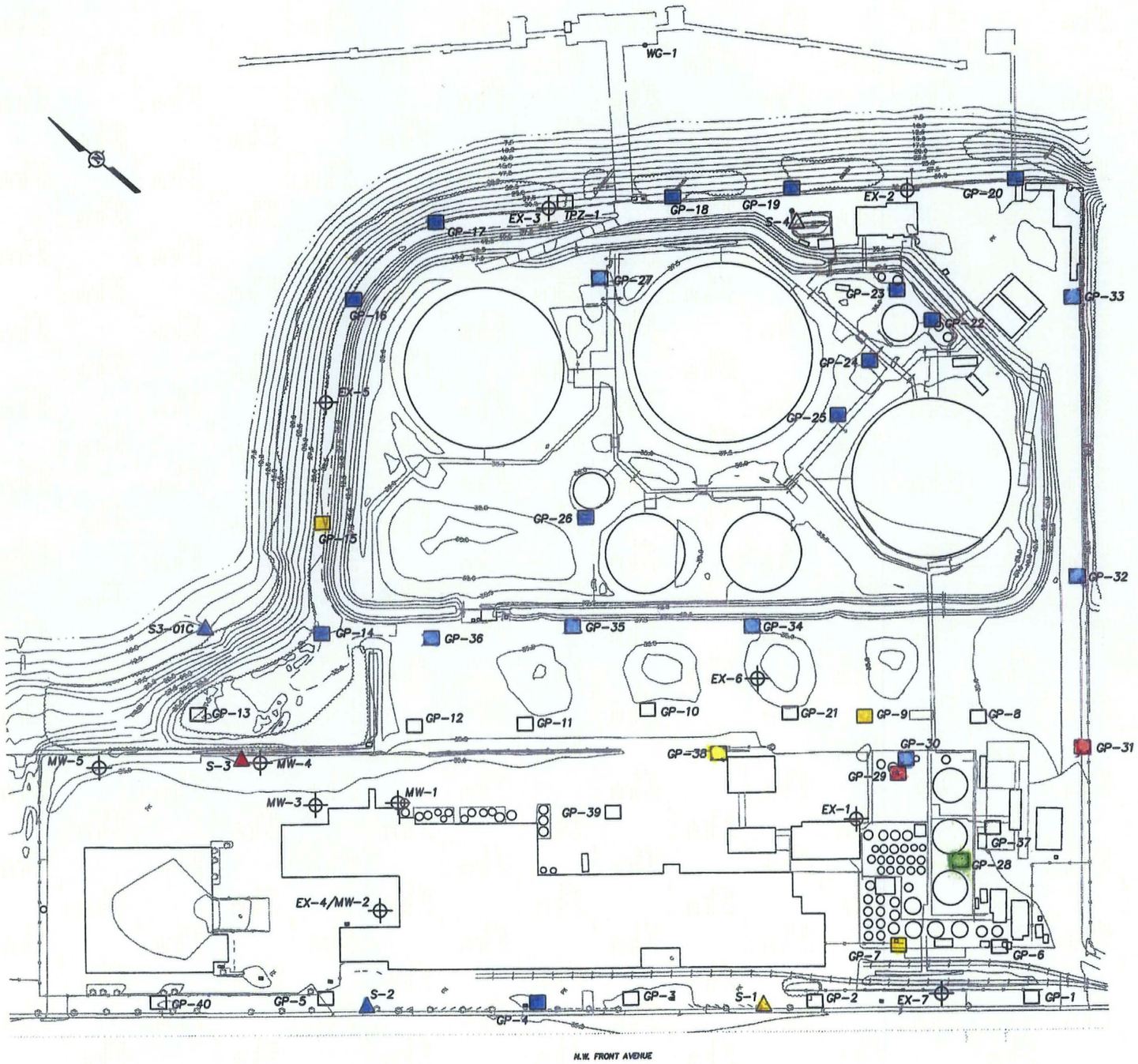
15055 SW Sequoia Parkway
Suite 140
Portland, Oregon 97224
(503)624-7200 Fax(503)620-7658

FIGURE 8
UPLAND SOIL AND
CATCH BASIN SEDIMENT
TOTAL HPAHs
McCALL/GWCC
PORTLAND, OREGON

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
Portland	J. Clugston 1/10/2001			820910-B2

I:\Cad\Drawings\820910-McCall\820910-B2.dwg Tue, 13/Mar/01 02:09pm jclugston

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
Portland	J. Clugston 1/10/2001			820910-B2



LIST OF MONITORING WELLS

PT#	NORTHING	EASTING	GROUND EL.	RIM EL.	TOP PVC EL.	DESCRIPTION
6000	9860.733	4158.265	35.91	35.930	35.29	MONITOR WELL EX-7
6002	10884.027	4568.183	32.34	32.350	32.07	MONITOR WELL EX-3
6003	10558.448	4883.507	33.11	33.140	32.28	MONITOR WELL EX-2
6005	10932.866	4201.793	32.14	32.190	31.87	MONITOR WELL EX-5
6006	10531.660	3883.202	35.74	35.760	35.48	MONITOR WELL MW-1
6007	10606.911	3812.937	35.25	35.270	34.56	MONITOR WELL MW-3
6008	10694.292	3806.683	34.07	34.140	33.61	MONITOR WELL MW-4
6009	10840.045	3669.241	34.99	35.050	34.66	MONITOR WELL MW-5
6011	10459.152	3767.039	35.85	35.900	35.60	MONITOR WELL MW-2
6012	10295.278	4299.654	34.83	36.070	34.38	MONITOR WELL EX-6
6013	10085.543	4249.628	36.42	36.510	36.12	MONITOR WELL EX-1

HORIZONTAL DATUM

COORDINATES ARE ON A LOCAL PLANE AND ARE ASSUMED.

ELEVATION DATUM

ELEVATIONS ARE BASED ON CITY OF PORTLAND BENCHMARK #2528. ELEVATION = 34.64 FEET

LEGEND

- MONITORING WELL
- GEOPROBE BORING
- SURFACE WATER/SEDIMENT SAMPLE LOCATION
- VEGETATION
- BUILDING
- TANK

Total LPAH Range

- ND
- < 1,000 µg/L
- 1,000 - 10,000 µg/L
- > 10,000 µg/L

DRAFT

3/30/01

SCALE

0 150 300 FEET

IT CORPORATION
15055 SW Sequoia Parkway
Suite 140
Portland, Oregon 97224
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FIGURE 9
UPLAND SOIL AND
CATCH BASIN SEDIMENT
TOTAL LPAHs
McCALL/GWCC
PORTLAND, OREGON

APPENDIX A
TEST BORING LOGS

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-1
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/11/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		2						0 to 1.5 feet: SANDY GRAVEL (GW); fine to coarse, angular basalt gravel. (FILL)
		1						1.5 to 20.0 feet: SAND (SP); light to medium brown; fine to medium sand; trace silt.
		0		5				
		1						
		0						
		1						
		1						
		0		15				@ 14.6 feet: wet.
		1						@ 18.0 feet: 0.1-foot silt lense.
		1		20				

DRAFT

IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 14.6', pH = 7.06, Conductivity = 207 µS, Temp. = 12.2°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-1
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/11/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Borehole backfilled with bentonite chips.
				25				
				35				
				40				

DRAFT

IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 14.6', pH = 7.06, Conductivity = 207 µS, Temp. = 12.2°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-2
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/11/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.3 foot: ASPHALT
		0						**0.3 to 1.5 feet: SANDY GRAVEL (GW)**; fine to coarse, angular basalt gravel. (FILL)
		0						**1.5 to 18.0 feet: SAND (SP)**; light to medium brown; fine to medium sand; trace silt.
		0		5				
		1						
		1		10				
		0						
		0	▽	15				@ 14.5 feet: wet.
		0						
		2		20				**18.0 to 20.0 feet: SAND (SP)**; gray to black; fine to medium sand; trace silt.

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 14.8', pH = 6.86, Conductivity = 278 µS, Temp. = 14.5°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-2
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/11/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Boring backfilled with bentonite chips.
				25				
				35				
				40				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 14.8', pH = 6.86, Conductivity = 278 µS, Temp. = 14.5°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-3
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/11/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		0						**0 to 0.3 foot: ASPHALT** **0.3 to 1.5 feet: SANDY GRAVEL (GW)**; fine to coarse, angular basalt gravel. (FILL)
		1						**1.5 to 14.0 feet: SAND (SP)**; light to medium brown; fine to medium sand; trace silt.
		1		5				
		5						@ 7.0 feet: 0.1-foot silt lense.
		1		10				
		2						
		2						
		12	▽	15				**14.0 to 14.5 feet: SILT (ML)**; light to medium brown; non to low plasticity; micaceous. **14.5 to 15.4 feet: SANDY SILT (ML)**; medium to dark gray; 60 to 70 percent non to low plasticity fines; 30 to 40 percent fine to medium sand. @ 14.7 feet: wet.
		4						**15.4 to 20.0 feet: SAND (SP)**; medium to dark gray; fine to medium sand; petroleum hydrocarbon odor; sheen.
		4		20				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 14.7', pH = 6.98, Conductivity = 330 µS, Temp. = 14.1°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-3
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/11/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Boring backfilled with bentonite chips.
				25				
				35				
				40				

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IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 14.7', pH = 6.98, Conductivity = 330 µS, Temp. = 14.1°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-4
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/11/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		1						**0 to 10.5 feet: SAND (SP)**; light to medium brown; fine to medium sand; trace silt.
		0						
		0		5				
		2						
		4		10				
								10.5 to 12.0 feet: SILT (ML); light to medium brown; non to low plasticity fines. @ 10.7 feet: oil spot.
		NR						**10.0 to 20.0 feet: SAND (SP)**; medium to dark gray; fine to medium sand; petroleum hydrocarbon odor.
		150	▽	15				@ 15.3 feet: wet.
		200						
		50		20				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 15.3', pH = 6.92, Conductivity = 371 µS, Temp. = 17.5°C. (3) NR = No Recovery.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820810

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-4
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/11/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Boring backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 15.3', pH = 6.92, Conductivity = 371 µS, Temp. = 17.5°C. (3) NR = No Recovery.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-5
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.5'
LOGGED BY	J. Renda	DATE COMPLETED	12/11/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		1						0 to 1.5 feet: SANDY GRAVEL (GW); fine to coarse angular gravel; fine to coarse sand. (FILL)
		0						1.5 to 19.0 feet: SAND (SP); light to medium brown; fine to medium sand; trace silt.
		2		5				
		1						
		1		10				
		0						
		0		15				
		1	∇					@ 17.8 feet: wet.
		1		20				19.0 to 20.0 feet: SAND (SP); medium to dark gray; fine to medium sand; trace silt.

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 17.8', pH = 6.70, Conductivity = 488 µS, Temp. = 13.9°C.

IT CORPORATION

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-5
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.5'
LOGGED BY	J. Renda	DATE COMPLETED	12/11/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		2						**20.0 to 20.5 feet: BASALT COBBLE OR BOULDER.** Free product on basalt fragments.
								Refusal at 20.5 feet.
								Boring backfilled with bentonite chips.
				25				
				30				
				35				
				40				

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IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 17.8', pH = 6.70, Conductivity = 488 µS, Temp. = 13.9°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-6
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/14/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 1.5 feet: ASPHALT AND GRAVEL BASE FILL
		1						1.5 to 2.0 feet: SAND (SP); light to medium [illegible] fine to medium sand; trace silt.
								2.0 to 3.0 feet: SILT (ML); light to [illegible] brown; non to low plasticity fines.
		1						3.0 to 8.0 feet: SAND ([illegible]); light to medium [illegible]; fine to medium sand; [illegible]
		1		5				
		1						
								[illegible] 9.0 feet: SILT[illegible]ND (SM); light to medium brown; [illegible]rcent fine to [illegible]ium sand; 20 percent non to low [illegible] fines.
		1						to [illegible]t: SAND (SP); light to medium brown; fine to me[illegible]um sand; trace silt.
		2						
		1	∇	15				@ 15.6 feet: wet.
		1						
		1		20				

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 15.6', pH = 7.07, Conductivity = 260 µS, Temp. = 10.7°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

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LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-6
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/14/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Boring backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 15.6', pH = 7.07, Conductivity = 260 µS, Temp. = 10.7°C.

IT CORPORATION

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-7
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/14/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		15						**0 to 2.0 feet: ASPHALT AND GRAVEL BASE FILL.** 0.2-foot piece of tar at base of asphalt.
		1						**2.0 to 2.8 feet: SILTY SAND (SM);** m[illegible] dark gray; 80 percent fine to medium s[illegible] low to non plasticity fines.
		0		5				**2.8 to 3.0 feet: SAND ([illegible]** light to medium [illegible]; fine to medium sand; [illegible]
								3.0 to 3.5 fe[illegible] (ML); medium to dark gra[illegible] to low p[illegible]nes; petroleum hydrocarbon [illegible]
								3.5 to 4.0 [illegible] AND (SP) [illegible]t to medium brow[illegible] to medium [illegible] trac[illegible]
		0						**4.0 to 4.5 fe[illegible]** medium to dark gray; non to low plastic[illegible], petroleum hydrocarbon odor.
								4.5 to 5.5 feet: [illegible] (SP); light to medium brown; fine to medium sand, [illegible] silt.
								[illegible] to 6.0 feet: SIL[illegible] light to medium brown; non to [illegible] plasticity fine[illegible]
		0						**6[illegible] feet: SAND (SP);** light to medium brown; fine to [illegible] sand; trace silt.
				10				**[illegible].0 to 9.[illegible] SILT (ML);** medium to dark gray; non to low plasticity fines; petroleum hydrocarbon odor.
								9.5 to 17.0 feet: SAND (SP); light to medium brown; fine to medium sand; trace silt.
		0						
		4	▽	15				@ 15.7 feet: wet.
		3						**17.0 to 17.5 feet: SILT (ML);** medium to dark gray; non to low plasticity fines; trace silt.
								17.5 to 20.0 feet: SAND (SP); medium to dark gray; fine to medium sand; trace silt.
		2						@ 19.5 feet: 0.1-foot wood fragment.
				20				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 15.7', pH = 6.95, Conductivity = 242 µS, Temp. = 15.4°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-7
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/14/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Boring backfilled with bentonite chips.
				25				
				35				
				40				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 15.7', pH = 6.95, Conductivity = 242 µS, Temp. = 15.4°C.

IT CORPORATION

MCCALL.gds,1.2/5/01,MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-8
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/12/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		2						**0 to 2.0 feet: SANDY GRAVEL (GW)**; fine to coarse, angular basalt gravel with sand. (FILL)
		3						**2.0 to 2.5 feet: SILT (ML)**; medium to dark brown; non to low plasticity fines; wood fragments. **2.5 to 5.5 feet: SAND (SP)**; medium gray with red and green grains; fine to medium sand.
		3		5				
		2						**5.5 to 5.7 feet: SAND (SP)**; fine to medium sand. (ROOFING SAND) **5.7 to 5.9 feet: SAND (SP)**; green and yellow; fine to medium sand. (ROOFING SAND) **5.9 to 6.2 feet: SAND (SP)**; red and white; fine to medium sand. (ROOFING SAND) **6.2 to 7.0 feet: SAND (SP)**; light to medium brown; fine to medium sand.
		3		10				**7.0 to 8.0 feet: SAND (SP)**; red, green, white and dark brown; fine to medium sands, layered. (ROOFING SAND) **8.0 to 11.0 feet: SAND (SP)**; red, green, tan, and brown; fine to medium sand. @ 10.5 feet: chunk of brittle tar-like material.
		105						**11.0 to 17.0 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.
		2						
		2	▽	15				@ 14.5 feet: wet.
		30						**17.0 to 18.5 feet: SAND (SP)**; dark gray to black; fine to medium sand; trace silt.
		1000						**18.5 to 20.0 feet: SILT (ML)**; medium to dark gray; low to medium plasticity fines; trace root hairs.
				20				

DRAFT

IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 14.5', pH = 7.10, Conductivity = 487 µS, Temp. = 8.0°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-8
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/12/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Boring backfilled with bentonite chips.
				25				
				35				
				40				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 14.5', pH = 7.10, Conductivity = 487 µS, Temp. = 8.0°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-9
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/12/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		0						**0 to 2.0 feet: SANDY GRAVEL (GW)**; fine to coarse, angular basalt gravel with sand and silt. (FILL)
		1						**2.0 to 3.8 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.
		0		5				**3.8 to 4.0 feet: SI**[illegible] medium to dark gr[illegible]n to low plasti[illegible] **4.0 to 6.5** [illegible]ND (SP); gray to black; fine t[illegible]ium sand; t[illegible]ilt. Slight [illegible]oleum hydrocarbo[illegible]odor.
		2						**6.5 to 7.0 feet:** [illegible]ML); medium to dark gray; non to low plasticity [illegible] **[illegible]0 to 14.5 feet:** [illegible] (SP); gray to black; fine to medium [illegible]sand; trace silt; [illegible]red and green roofing sand.
		1		10				
		1						@ 11.5 to 12.0 feet: consolidated oily layer.
		2						
		2	∇	15				**14.5 to 17.8 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.
		3						
								17.8 to 19.0 feet: SAND (SP); gray to black; fine to medium sand; trace silt.
		70		20				**19.0 to 20.0 feet: SILT (ML)**; medium to dark gray; non to low plasticity fines.

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REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 15.0', pH = 7.13, Conductivity = 474 µS, Temp. = 14.8°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-9
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/12/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Boring backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm Isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 15.0', pH = 7.13, Conductivity = 474 µS, Temp. = 14.8°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-10
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/12/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: SANDY GRAVEL (GW); fine to coarse, angular basalt gravel with sand and silt. (FILL)
		2						**0.5 to 3.0 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.
		3						**3.0 to 13.0 feet: SAND (SP)**; medium to dark gray; fine to medium sand; trace silt.
								@ 3.5 feet: wood fragment.
		3		5				
								@ 6.0 feet: 0.2-[illegible] silt lense.
		5						@ 7.0 feet: 0.2-[illegible] gray silt lense.
		4						
				10				
		5						
		5						**13.0 to 14.0 feet: SILTY SAND (SM)**; medium to dark gray; 80 percent fine to medium sand; 20 percent non to low plasticity fines.
		4	▽	15				**14.0 to 20.0 feet: SAND (SP)**; medium to dark gray; fine to medium sand; trace silt.
		4						@ 17.5 to 18.5 feet: color change to brown.
		4		20				

DRAFT

IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 15.7', pH = 6.97, Conductivity = 557 µS, Temp. = 14.2°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-10
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/12/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Boring backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 15.7', pH = 6.97, Conductivity = 557 µS, Temp. = 14.2°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-11
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/12/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		2						**0 to 2.0 feet: SANDY GRAVEL (GW)**; fine to coarse, angular basalt gravel with sand and silt. (FILL)
		3						**2.0 to 7.0 feet: SAND (SP)**; medium [illegible] to medium sand; trace silt.
		3		5				
		4						**7.0 to 7.1 feet: [illegible] (SP)**; rust-colored; consolidated. **[illegible] 1 to 7.3 feet: SI[illegible]**; medium to dark gray; non to [illegible]w plasticity fin[illegible] charred wood fragments. **[illegible] 3.5 feet: SA[illegible]**; medium to dark gray; fine to [illegible]n sand; trace red, green, and white roofing sands.
		5						
				10				@ 10.5 feet: 0.2-foot-thick gray silt layer.
								@ 11.5 feet: red, green and white roofing sands no longer present.
		5						**13.5 to 14.0 feet: SILT (ML)**; medium brown; non to low plasticity fines; root hairs.
		2		15				**14.0 to 20.0 feet: SAND (SP)**; medium to dark gray; fine to medium sand; trace silt.
		2	∇					
		8						
				20				

DRAFT

IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 16.9', pH = 6.96, Conductivity = 343 µS, Temp. = 14.1°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-11
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/12/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Boring backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 16.9', pH = 6.96, Conductivity = 343 µS, Temp. = 14.1°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-12
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/13/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 1.0 foot: SANDY GRAVEL (GW); fine to coarse, angular basalt and gravel with sand and silt. (FILL)
		1						**1.0 to 3.0 feet: SAND (SP)**; medium brown; fine to medium sand with silt and gravel.
		1						**3.0 to 8.0 feet: SAND (SP)**; medium brown; fine to medium sand.
		1		5				
		1						
		1						**8.0 to 9.2 feet: GRAVELLY SAND (SP)**; grayish brown; 80 to 85 percent fine to medium sand; 15 to 20 percent fine to medium gravel, subrounded; trace silt.
				10				**9.2 to 10.0 feet: SAND (SP)**; medium brown; fine to medium sand.
								10.0 to 12.0 feet: SILT (ML); medium to dark gray; low to medium plasticity fines.
		1						**12.0 to 15.0 feet: SAND (SP)**; medium to dark gray; fine to medium sand.
		1		15				**15.0 to 16.0 feet: SILT (ML)**; medium to dark gray; low to medium plasticity fines.
								16.0 to 24.0 feet: SAND (SP); medium to dark gray; fine to medium sand; trace silt.
		1						
		1	▽	20				

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IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 19.5', pH = 6.84, Conductivity = 519 µS, Temp. = 9.6°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-12
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/13/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								16.0 to 24.0 feet: SAND (SP); continued.
		10						
								Boring terminated at 24.0 feet. Boring backfilled with bentonite chips.
				25				
				30				
				35				
				40				

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IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 19.5', pH = 6.84, Conductivity = 519 µS, Temp. = 9.6°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-13
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/13/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 1.0 foot: SAND (SP); medium brown; fine to medium sand; trace silt.
		1						**1.0 to 3.0 feet: ASPHALT DEBRIS**
		1						**3.0 to 7.0 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.
		1		5				@ 5.0 feet: 0.5 foot-thick asphalt and gravel layer.
		1						**7.0 to 13.0 feet: SILT (ML)**; medium brown; low to medium plasticity fines with coarse gravel and asphalt. @ 7.8 feet: a piece of copper wire.
		2		10				
		1						**13.0 to 14.0 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.
		1		15				**14.0 to 18.0 feet: SILT (ML)**; medium brown; low to medium plasticity fines. Some gray-brown mottling; root hairs.
		1						
		1		20				**18.0 to 22.0 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 21.0', pH = 6.96, Conductivity = 673 µS, Temp. = 11.7°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-14
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/13/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		1						**0 to 0.5 foot: GRAVELLY SAND (SP)**; medium brown; fine to medium sand with fine to coarse, subangular to subrounded gravel.
		1						**0.5 to 18.0 feet: SAND (SP)**; medium brown; fine to medium sand; trace fines.
		1		5				
		1						
		1						@ [illegible] feet: SILT (ML); medium brown; low to medium [illegible]
		1						
		1						@ 14.0 to 18.0 feet: trace gravel.
		1		15				
		1						@ 16.0 to 18.0 feet: increase in silt.
		1						**18.0 to 20.0 feet: GRAVEL AND COBBLES**
				20				

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IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 22.2', pH = 6.96, Conductivity = 542 µS, Temp. = 9.3°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-14
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/13/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		4	∇					**20.0 to 24.0 feet: SAND (SP)**; medium to dark gray; fine to medium sand; trace fines.
		1						@ 21.8 feet: roots and wood fragment
								Boring terminated at 24.0 feet. Boring backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 22.2', pH = 6.96, Conductivity = 542 µS, Temp. = 9.3°C.

IT CORPORATION

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-15
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	32.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/13/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: SANDY GRAVEL (GW); fine to coarse, angular basalt gravel with sand and silt. (FILL)
		1						**0.5 to 12.0 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.
		1						
		1		5				
		1						@ 7.0 feet: 0.2-in[illegible] lense with charred wood. Trace green and red [illegible] sand.
		1						@ [illegible] yellow rock. Firebrick?
				10				
		2						@ 11.0 feet: gray, silty sand with charred wood.
		1						**12.0 to 16.5 feet: SILTY SAND (SM)**; medium to dark gray; 80 to 85 percent fine to medium sand; 15 to 20 percent non to low plasticity fines.
		2		15				
		3						**16.5 to 18.5 feet: SILT (ML)**; medium to dark gray; low to medium plasticity fines; trace fine to medium sand.
		8						**18.5 to 22.0 feet: SAND WITH SILT (SP-SM)**; medium to dark gray; 85 to 90 percent fine to medium sand; 10 to 15 percent low plasticity fines; trace roots, twigs,
				20				

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IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 23.3', pH = 6.71, Conductivity = 571 µS, Temp. = 10.5°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-15
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	32.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/13/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								and wood fragments.
		200						@ 21.0 feet: wet.
		40	▽					22.0 to 27.5 feet: SILT (ML); medium to dark gray; low plasticity fines; decrease in moisture.
		40		25				
		60						27.5 to 29.5 feet: SILT (ML); medium to dark gray; low to medium plasticity.
		600						
								29.5 to 30.5 feet: SAND (SP); medium to dark gray; fine to medium sand; oily.
								30.5 to 31.0 feet: SILT (ML); medium to dark gray; low to medium plasticity fines.
								31.0 to 32.0 feet: SAND AND SILT (SP/ML), stratified.
								Boring terminated at 32.0 feet. Boring backfilled with bentonite chips.
				35				
				40				

DRAFT

IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 23.3', pH = 6.71, Conductivity = 571 µS, Temp. = 10.5°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-16
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/13/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: SANDY GRAVEL (GW); fine to coarse, angular basalt gravel with sand and silt. (FILL)
		1						**0.5 to 5.5 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.
		1						@ 4.0 to 5.0 feet: [illegible] in sand.
		1		5				@ 5.4 feet: [illegible] fragment.
								5.5 to 8.5 feet: SAND (SP); medium to dark gray; fine to medium sand.
		1						
		1						**8.5 to 9.5 feet: SILTY SAND (SM)**; medium brown; 80 to [illegible] percent fine to medium sand; 15 to 20 percent non [illegible] plasticity fines.
				10				**9.5 to 15.0 feet: SAND (SP)**; medium to dark gray; fine to medium sand.
		1						
		2		15				**15.0 to 20.0 feet: SILT (SM)**; medium to dark gray; non to low plasticity fines; micaceous.
		20						
		20						@ 19.0 feet: 0.2-foot sand layer, medium to dark gray.
				20				

DRAFT

IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 20.6', pH = 6.96, Conductivity = 280 µS, Temp. = 13.5°C.

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-16
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/13/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		300	∇					**20.0 to 22.0 feet: SILTY SAND (SM)**; medium to dark gray; 80 to 85 percent fine to medium sand; 15 to 20 percent non to low plasticity fines. @ 21.0 feet: 0.1-foot greenish gray clay lens.
		20						**22.0 to 24.0 feet: SANDY SILT (ML)**: [illegible] to dark gray; 60 to 70 percent non to [illegible] fines; 30 to 40 percent fine to medium sa[illegible] @ 23.0 feet: 0.1-foot [illegible]ish gray clay le[illegible]
								Boring terminate[illegible] feet. Boring back[illegible] bentonite chips.
				25				
				35				
				40				

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IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 20.6', pH = 6.96, Conductivity = 280 µS, Temp. = 13.5°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-17
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/13/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: SANDY GRAVEL (GW); fine to coarse, angular basalt gravel with sand and silt. (FILL)
		1						**0.5 to 6.1 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.
		1						
		1		5				@ 6.0 feet: [illegible]ot iron [illegible]
								6.1 to 12.5 fee[illegible]; medium to dark gray; fine to medium san[illegible] silt.
		3						
		1		10				
		3						
								12.5 to 13.0 feet: SAND (SP); medium brown; fine to medium sand; trace silt.
		10						**13.0 to 13.3 feet: GRAVEL (GP)**; gray to black; fine to medium; angular to subangular, basalt gravel.
								13.3 to 13.4 feet: SILT (ML); medium brown; non to low plasticity fines.
		1		15				**13.4 to 13.5 feet: SILT (ML)**; medium to dark gray; non to low plasticity fines.
								13.5 to 21.0 feet: SAND (SP); medium to dark gray; fine to medium sand; trace silt; trace red and green roofing sands.
		1						@ 15.0 feet: black plastic sheeting.
		1	▽	20				

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IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 19.2', pH = 6.78, Conductivity = 383 µS, Temp. = 14.4°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-17
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/13/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								13.5 to 21.0 feet: SAND (SP); continued.
		200						**21.0 to 24.0 feet: SANDY SILT (ML)**; medium to dark gray; 60 to 70 percent non to low plasticity fines; 30 to 40 percent fine to medium sand.
								@ 22.0 feet: black plastic sheeting.
		300						
								Boring terminated at 24.0 feet. Boring backfilled with bentonite chips.
				25				
				35				
				40				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 19.2', pH = 6.78, Conductivity = 383 µS, Temp. = 14.4°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-18
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/14/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		1						**0 to 2.0 feet: SILTY GRAVEL (GW)**; fine to medium, angular basalt gravel with non to low plasticity fines. (FILL) @ 1.0 foot: phone line.
		2						**2.0 to 7.8 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.
		1		5				
		1						
								7.8 to 8.0 feet: SILT (ML); medium brown; low plasticity fines.
		1						**8.0 to 9.5 feet: SILTY SAND (SM)**; medium brown; 80 to 85 percent fine to medium sand; 15 to 20 percent non to low plasticity fines.
				10				**9.5 to 15.8 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt; trace white, red, and green roofing sand; trace fine to medium gravel.
		1						
		1		15				
								15.8 to 16.0 feet: SILT (ML); medium to dark gray; low plasticity fines.
		1						**16.0 to 17.0 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.
			▽					**17.0 to 24.0 feet: SAND (SP)**; gray to black; fine to medium sand; trace silt.
		1						
				20				

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IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 18.1', pH = 6.74, Conductivity = 682 µS, Temp. = 13.1°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-18
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/14/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								17.0 to 24.0 feet: SAND (SP); continued.
		1						
		2						
								Boring terminated [illegible] feet. Boring back[illegible] bentonite chips.
				25				
				35				
				40				

DRAFT

IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 18.1', pH = 6.74, Conductivity = 682 µS, Temp. = 13.1°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-19
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/14/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		1						**0 to 0.5 foot: SILTY GRAVEL (GW)**; fine to medium, angular basalt gravel with non to low plasticity fines. (FILL)
		1						**0.5 to 12.0 feet: SAND (SP)**; medium brown; fine to medium sand; trace silt.
		1		5				@ 4.0 to 5.0 feet: increase in SILT to 10 to 15 percent.
		0						
		0		10				@ 10.0 feet: 0.1-foot lense of light tan to light gray silt.
								@ 11.0 feet: 0.1-foot lense of light tan to light tray silt.
		0						**12.0 to 20.0 feet: SAND (SP)**; medium to dark gray; fine to medium sand; trace silt.
		1		15				
		1	∇					
		0		20				

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 18.4', pH = 6.76, Conductivity = 676 µS, Temp. = 15.2°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

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LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-19
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/14/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Boring backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 18.4', pH = 6.76, Conductivity = 676 µS, Temp. = 15.2°C.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-20
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/14/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
		1						**0.5 to 2.0 feet: SILTY GRAVEL (GW)**; fine to medium, angular basalt gravel with non to low plasticity fines. (FILL)
		1						**2.0 to 4.0 feet: SAND (SP)**; medium brown, fine to medium sand; trace silt. @ 2.3 feet: color change to medium to dark gray. @ 2.8 feet: color change to medium brown. @ 3.1 feet: color change to medium to dark gray.
		NS		5				**4.0 to 8.0 feet: Soil backed up in sampler**, removed with pressure washer. Soil not logged.
		NS						
		4		10				**8.0 to 10.2 feet: SILTY SAND (SM)**; medium to dark gray; 80 to 85 percent fine to medium sand; 15 to 20 percent non to low plasticity fines. @ 9.0 feet: color change to medium brown, trace gravel. @ 9.2 feet: color change to medium to dark gray, wood fragment.
		2						**10.2 to 20.0 feet: SAND (SP)**; medium to dark gray; fine to medium sand; trace silt; trace red, green, and white roofing sand. @ 11.8 to 12.0 feet: wood fragments.
		1						
		1		15				@ 16.0 feet: roofing sand no longer present.
		2						
		1	∇					
				20				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 18.6', pH = 7.06, Conductivity = 628 µS, Temp. = 9.5°C. NS = Not screened.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-20
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/14/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		150						**20.0 to 24.0 feet:** 1.0 foot recovery: 0.3 foot **SAND (SP)**; medium to dark gray; 0.7 foot **SILT (ML)**; medium to dark gray; medium to high plasticity fines.
				25				Boring terminated at 24.0 feet. Boring backfilled with bentonite chips.
				30				
				35				
				40				

DRAFT

IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 18.6', pH = 7.06, Conductivity = 628 µS, Temp. = 9.5°C. NS = Not screened.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-21
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/12/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		2						**0 to 2.0 feet: SANDY GRAVEL (GW)**; fine to coarse, angular basalt gravel with sand and silt.
		2						**2.0 to 1.0 feet: SAND (SP)**; medium to dark gray; fine to medium sand; trace silt.
		1		5				@ 3.0 feet: 0.5-foot silt lense, medium brown with wood fragments.
		2						@ 7.5 feet: 0.5-foot silt lense, dark gray with wood fragments.
		4						@ 11.8 feet: trace roofing sands.
		4		10				
		3						@ 11.8 feet: 0.2-foot tan silica sand.
		NR	∇	15				
		70						
		400						**18.0 to 20.0 feet: SILT (ML)**; medium to dark gray; medium plasticity fines.
				20				

DRAFT

IT CORPORATION

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 15.2', pH = 7.19, Conductivity = 4.79 µS, Temp. = 14.4°C. (3) NR = No recovery.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-21
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	Geo-Tech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Renda	DATE COMPLETED	12/12/00

SAMPLE NUMBER	SAMPLE TYPE	FID	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Boring backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

REMARKS

(1) Flame Ionization Detector calibrated to 98 ppm isobutylene. (2) Groundwater sample collected at terminal depth. DTW = 15.2', pH = 7.19, Conductivity = 4.79 µS, Temp. = 14.4°C. (3) NR = No recovery.

IT CORPORATION

MCCALL.gds.1.2/5/01.MCCALL...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-22
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/9/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		9						**0 to 2.5 feet: SILTY SAND (SM)**; reddish brown; 80 percent fine to medium sand, subangular; 20 percent low plasticity fines; moist.
		50						**2.5 to 8.0 feet: SAND (SP)**; medium to dark gray; medium sand; trace silt; trace felsic grains. @ 2.5 to 4.0 feet: slight petroleum hydrocarbon like odor.
		10		5				
		15						
		80						**8.0 to 9.0 feet: SANDY SILT (ML)**; medium to dark gray; 15 to 20 percent fine to medium sand; 20 percent non to low plasticity fines.
		1000		10				**9.0 to 13.0 feet: SILT (ML)**; medium to dark gray; 20 to 30 percent low to medium plasticity fines. @ 10.0 feet: wet. @ 11.0 feet: oil sheen.
		100						**12.0 to 13.4 feet: SAND (SP)**; medium to dark brown; fine to medium sand; trace silt; trace felsic grains; wet.
								13.4 to 14.5 feet: SILT (ML); medium to dark gray; low to medium plasticity fines; wet.
		300		15				**14.5 to 16.5 feet: SILTY SAND (SM)**; medium to dark gray; 80 percent fine to medium sand; 15 to 20 percent low to medium plasticity fines. @ 16.5 feet: oil sheen.
		150						**16.5 to 17.0 feet: SILT (ML)**; medium to dark gray; low to medium plasticity fines.
		250		20				**17.0 to 21.0 feet: SAND (SP)**; medium to dark gray; fine to medium sands; trace silt. @ 17.8 feet: laminated wood.

DRAFT

IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 21.0', pH = 6.49, conductivity = 773, temp = 16.2°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-22
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/9/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
			∇					**17.0 to 21.0 feet: SAND (SP)**; continued. @ 21.0 feet: wet.
		600						**21.0 to 21.8 feet: SILT (ML)**; medium to dark gray, low to medium plasticity fines; wet.
		200						**21.8 to 24.0 feet: SAND (SP)**; medium to dark gray; fine to medium sands, subangular, trace silts.
				25				Boring terminated at 24.0 feet. Borehole backfilled with bentonite chips.
				35				
				40				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 21.0', pH = 6.49, conductivity = 773, temp = 16.2°C.

IT CORPORATION

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-23
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/9/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		7						**0 to 2.0 feet: SANDY GRAVEL (GW)**; fine to coarse, angular basalt gravel with sand and silt. (FILL)
		2						**2.0 to 5.4 feet: SAND (SP)**; medium to dark brown; fine to medium sands, subangular, trace felsics, trace silt.
		5		5				**5.4 to 7.8 feet: SAND (SP)**; medium to dark gray; fine to medium sands, felsic grains, subangular; trace silt.
		5						@ 6.4 to 7.5 feet: increased silt.
								7.8 to 9.5 feet: SILT (ML); dark gray; low plasticity fines.
		70						**9.5 to 10.0 feet: SAND (SP)**; medium to dark brown; fine to medium sands, subangular; trace silts.
								10.0 to 10.4 feet: SANDY GRAVEL (GW); fine to medium basalt gravel; fine to medium sands.
								10.4 to 13.4 feet: SAND (SP); dark gray; fine to medium; laminated; subangular; trace silts.
		40						**13.4 to 14.0 feet: SILT (ML)**; dark gray; low to medium plasticity fines; wet.
								14.0 to 14.4 feet: SAND (SP); dark gray; fine to medium sands, trace felsics, subangular; trace silts.
		1000		15				**14.4 to 15.0 feet: SILT (ML)**; dark gray; low to medium plasticity fines; moist.
								15.0 to 17.4 feet: SILTY SAND (SM); dark brownish gray; 80 percent fine to medium sands; 20 percent low to medium plasticity fines.
		2000						**17.4 to 18.2 feet: SILT (ML)**; dark gray; medium to high plasticity fines; wet.
		500						**18.2 to 20.0 feet: SAND (SP)**; dark gray; fine to medium sands; trace silts; laminated.
				20				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 22.2', pH = 6.43, conductivity = 468, temp = 15.8°C.

IT CORPORATION

MCCALL2.gds:2.3/15/01.MCCALL2...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-23
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/9/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		250						**20.0 to 22.0 feet: SILT (ML)**; dark gray; medium high plasticity fines; wet.
		40	∇					**22.0 to 24.0 feet: SAND (SP)**; dark gr[illegible] medium sands, trace felsics; trace silt[illegible] @ 22.2 feet: wet.
								Boring terminat[illegible] feet. Borehole b[illegible] with bentonite chips.
				25				
				35				
				40				

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.

2) Water sample taken at terminal depth. DTW = 22.2', pH = 6.43, conductivity = 468, temp = 15.8°C.

IT CORPORATION

MCCALL2.1.3/15/01.MCCALL2...820910

DRAFT

LOG OF EXPLORATORY BORING

PROJECT NAME	**McCall/GWCC**	BORING NO.	**GP-24**
LOCATION	**Portland, Oregon**	PAGE	**1 of 2**
DRILLED BY	**GeoTech Explorations, Inc.**	REFERENCE ELEV.	
DRILL METHOD	**Direct Push**	TOTAL DEPTH	**24.0'**
LOGGED BY	**J. Thomason**	DATE COMPLETED	**2/9/01**

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: SANDY GRAVEL (GW); fine to coarse angular basalt gravel; fine to medium sands.
		2						**0.5 to 3.5 feet: SAND (SP)**; medium to dark brown; fine to medium sands, subangular; trace silts.
		5						**3.5 to 8.0 feet: SAND (SP)**; medium to dark gray sand; fine to medium sands, subangular; trace silts. @ 3.5 to 5.5 feet: slight petroleum hydrocarbon odor.
		40		5				
		25						**8.0 to 10.0 feet: SILT (ML)**; medium to dark gray; non to low plasticity fines.
		100						**10.0 to 10.4 feet: SAND (SP)**; dark gray; medium sands; trace silts; trace felsics.
								10.4 to 10.5 feet: SILT (ML); dark gray; low to medium plasticity fines.
								11.5 to 12.0 feet: SAND (SP); dark gray; fine to medium sands, subangular, trace felsics; trace silts.
		2000						**12.0 to 17.2 feet: SILT (ML)**; dark gray; low to medium plasticity fines. @ 14.0 to 14.9 feet: wet silt.
		400		15				
		2000						**17.2 to 18.0 feet: SAND (SP)**; dark gray; fine to medium sands, subangular, trace felsics; trace silts.
		500	∇					**18.2 to 20.0 feet: SILT (ML)**; dark gray; medium to high plasticity clays; wet. @ 18.6 feet: wet.
				20				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 18.6', pH = 6.64, conductivity = 600, temp = 15.6°C.

IT CORPORATION

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-25
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/9/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 1.1 feet: SANDY GRAVEL (GW); fine to coarse angular basalt gravel; fine to coarse sands. (FILL)
		2						**1.1 to 7.9 feet: SAND (SP)**; medium dark brown [illegible] to medium sands, subangular, trace felsic[illegible] [illegible]its.
		2						@ 2.5 to 3.2 feet: increased fine [illegible]
		2		5				
		2						@ 7.8 feet: wood [illegible]tions.
								[illegible] 16.0 feet: SIL[illegible]: dark gray; low to medium [illegible]icity fines; m[illegible]
		300						
				10				@ 10.0 to 12.0 feet: oily, slight petroleum hydrocarbon-like odor.
		800						@ 13.9 to 16.0 feet: increased moisture.
		2500		15				
								16.0 to 17.8 feet: SAND (SP); dark gray; fine to medium sands, subangular, trace felsics; red and green roofing sands; wet.
		350						
			▽					**17.8 to 20.0 feet: SILT (ML)**; dark gray; medium to high plasticity fines.
		500						@ 17.8 to 18.2 feet: trace wood.
								@ 18.4 feet: wet.
				20				

DRAFT

IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 18.4', pH = 7.13, conductivity = 746, temp = 12.0°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-25
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/9/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Borehole backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 18.4', pH = 7.13, conductivity = 746, temp = 12.0°C.

IT CORPORATION

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-26
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/9/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 1.0 foot: SANDY GRAVEL (GW); fine to coarse; angular basalt gravel; fine to coarse sands. (FILL)
		5						**1.0 to 9.4 feet: SAND (SP)**; medium to dark brown; fine to medium sands, subangular, trace felsic [illegible] fines.
		2						
		2		5				
		2						
		5						**[illegible] to [illegible] feet: SAND (SP)**; dark gray; fine sand; trace silts.
				10				@ 10.4 to 11.0 feet: coarsening sands.
		200						**11.0 to 16.0 feet: SILT (ML)**; dark gray; non to low plasticity fines.
								@ 11.8 feet: trace wood.
		350						
								@ 14.0 to 16.0 feet: trace sand lenses.
		3000		15				
								16.0 to 24.0 feet: SILTY SAND (SM); dark gray; 80 percent fine to medium sands, subangular; 15 to 20 percent nonplastic fines; trace wood.
		80						
								@ 18.0 to 19.5 feet: increased moisture.
		5000						
				20				

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 22.15', pH = 7.05, conductivity = 545, temp = 9.8°C.

MCCALL2.1.3/15/01.MCCALL2...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-26
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/9/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		3000						**16.0 to 24.0 feet: SILTY SAND (SM)**; continued.
			▽					@ 22.15 feet: wet.
		3000						
								Boring terminated @ 24.0 feet. Borehole backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 22.15', pH = 7.05, conductivity = 545, temp = 9.8°C.

IT CORPORATION

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-27
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	28.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/12/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		1						**0 to 2.0 feet: SANDY GRAVEL (GW)**; fine to coarse, angular basalt gravel; fine to coarse sands. (FILL)
		1						**2.0 to 7.5 feet: SAND (SP)**; medium to dark brown; fine to medium sands, subangular, trace felsics; trace silts.
		1		5				@ 5.9 to 7.5 feet: increased fine sands.
		2						**7.5 to 7.9 feet: SILT (ML)**; gray; non to low plasticity fines.
		2						**7.9 to 11.4 feet: SAND (SP)**; dark gray; fine to medium sands, trace felsics, subangular; trace silts.
		150		10				
		50						**11.4 to 14.2 feet: SILT (ML)**; dark gray; non to low plasticity fines; trace sands. @ 13.2 to 14.2 feet: increased plasticity.
		30		15				**14.2 to 17.5 feet: SILTY SAND (SM)**; dark gray; 75 to 80 percent fine sands, 20 to 25 percent nonplastic fines; subangular sands.
		30						**17.5 to 18.5 feet: SILT (ML)**; dark gray; low too medium plasticity fines; moist. @ 18.0 to 18.5 feet: decreased plasticity.
		30		20				**18.5 to 21.2 feet: SAND (SP)**; dark gray; fine to medium sands, subangular, trace felsics; trace silts.

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 23.2', pH = 6.10, conductivity = 465, temp = 12.0°C.

MCCALL2.1.3/15/01.MCCALL2...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-27
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	28.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/12/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								18.5 to 21.2 feet: SAND (SP); continued.
		80						**21.2 to 24.0 feet: SILT (ML)**; dark gray; non to low plasticity fines; high dilatancy noted.
		300	∇					@ 23.2 feet: wet.
		40		25				**24.0 to 27.5 feet: [illegible]**); dark gray; fine to [illegible]um sands, sub[illegible]; trace felsics; trace silts; [illegible]
		150						**[illegible].5 to 28.0 feet: S[illegible]ML)**; dark gray; non to low [illegible]asticity fines.
								[illegible]erminated at [illegible]et.
								Bo[illegible]ackfilled with bentonite chips.
				30				
				35				
				40				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 23.2', pH = 6.10, conductivity = 465, temp = 12.0°C.

IT CORPORATION

MCCALL2.gds:2.3/15/01.MCCALL2...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-28
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	22.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/12/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		1						**0 to 0.5 foot: SAND (SP)**; light to medium brown; medium sands; trace gravel, subangular. (FILL)
		1						**0.5 to 11.2 feet: SAND (SP)**; medium to dark brown; fine to medium sands, subangular, trace felsics; trace silts; trace red and green roofing sands.
		1		5				
		1						
		0		10				
								11.2 to 11.5 feet: SILT (ML); dark gray; non to low plasticity fines; moist.
		1						**11.5 to 19.5 feet: SAND (SP)**; dark brown; fine to medium sand, subangular, trace felsics; trace silts; trace red and green roofing sands.
		1	∇	15				@ 15.2 feet: wet.
		1						@ 18.5 to 19.0 feet: grayish brown color.
		2		20				

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 15.2', pH = 6.55, conductivity = 393, temp = 17.9°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-28
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	22.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/12/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		30						**19.5 to 22.0 feet: SAND (SP)**; dark gray; fine to medium sands, subangular, trace felsics; trace silts; trace red and green roofing sands.
								Boring terminated at 22.0 feet. Borehole backfilled with bentonite chips.
				25				
				30				
				35				
				40				

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 15.2', pH = 6.55, conductivity = 393, temp = 17.9°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-29
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/12/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		0						**0 to 1.2 feet: SANDY GRAVEL (GW)**; fine to coarse angular gravel; fine to coarse subangular sands. (FILL)
		2						**1.2 to 3.1 feet: SAND (SP)**; light to medium b[illegible] fine to medium sands, subangular; trace silt[illegible] and green roofing sands.
		20						**3.1 to 3.5 feet: SILT (ML)**; gray; non to low [illegible]city fines; moist; trace sand.
		3		5				**3.5 to 17.2 feet: [illegible] (SP)**; light to medium b[illegible] fine to medi[illegible], subangular. @ 4.0 to [illegible] oily; petroleum hydrocarbon-li[illegible], trace w[illegible] @ 6.0 to 6.5 [illegible] and yellow roofing sands. @ 6.5 to 6.7 fe[illegible], petroleum hydrocarbon-like odor to sand.
		1		10				
		0						
		1	▽	15				@ 15.3 feet: wet.
		20						**17.2 to 19.7 feet: SAND (SP)**; dark gray; fine to medium sands, subangular; trace silts; wet.
		200		20				

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 15.3', pH = 6.83, conductivity = 461, temp = 22.2°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-29
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/12/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								19.7 to 20.0 feet: SILT (ML); medium to dark gray; non to low plasticity fines; wet.
								Boring terminated at 20.0 feet.
								Borehole backfilled with bentonite chips.
				25				
				30				
				35				
				40				

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 15.3', pH = 6.83, conductivity = 461, temp = 22.2°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-30
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/12/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 1.0 foot: SANDY GRAVEL (GW); fine to coarse angular gravel; fine to coarse sands. (FILL)
		0						**1.0 to 3.5 feet: SAND (SP)**; light to medium brown; fine to medium sands, subangular, trace felsics; trace silts; trace red and green roofing sands.
		2						
		9		5				**3.5 to 5.5 feet: SAND (SP)**; medium to dark gray; fine to medium sands, subangular, trace red, green and blue roofing sands; trace silts; slight petroleum hydrocarbon like odor.
								@ 4.9 to 5.5 feet: oily; 0.2 foot chunk of brittle tar with copper wire; trace red, green roofing sands.
		0						**5.5 to 17.2 feet: SAND (SP)**; medium to dark brown sand; fine to medium sands, subangular, trace felsics; trace silts.
		0		10				
		0						
		0						
		1	▽	15				@ 15.2 feet: wet.
		20						**17.2 to 19.5 feet: SAND (SP)**; dark gray; fine to medium sands, subangular; trace silts; wet.
		400						
				20				

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 15.2', pH = 7.55, conductivity = 426, temp = 19.3°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-30
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/12/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								19.5 to 20.0 feet: SILT (ML); dark gray; medium to high plasticity fines; wet.
								Boring terminated at 20.0 feet.
								Borehole backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 15.2', pH = 7.55, conductivity = 426, temp = 19.3°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-31
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/13/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		30						**0 to 4.0 feet: SANDY GRAVEL (GW)**; fine to coarse gravel, angular; fine to coarse subangular sands. (FILL)
		20						
		20		5				**4.0 to 14.5 feet: S[illegible]**, medium to dark b[illegible] fine to mediu[illegible] subangular, trace felsics; [illegible]ilts.
		20						
		15						
		30						@ 14.0 feet: wet.
		500		15				**14.5 to 19.0 feet: SAND (SP)**; dark gray; fine to medium sands, subangular; oil saturated; high petroleum hydrocarbon-like odor.
		600						
		600		20				**19.0 to 19.3 feet: SILT (ML)**; dark gray; medium to high plasticity fines.

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REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 14.0', pH = 8.37, conductivity = 672, temp = 12.2°C.

IT CORPORATION

MCCALL2.1.3/15/01.MCCALL2...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-31
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/13/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								19.3 to 19.7 feet: SILTY SAND (SM); dark gray; 80 percent fine to medium sands; 15 to 20 percent low to medium plasticity fines.
								19.7 to 20.0 feet: SILT (ML); dark gray; low to [illegible] plasticity fines.
								Boring terminated at 20.0 feet.
								Borehole backfilled with bentonite [illegible]
				25				
				35				
				40				

DRAFT

IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 14.0', pH = 8.37, conductivity = 672, temp = 12.2°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-32
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/13/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
		20						0.5 to 20.5 feet: SANDY GRAVEL (GW); fine to coarse angular basalt gravel; fine to coarse brown sandy; trace silts.
		30						
		10		5				
		10						
								@ [illegible] to 9.0 feet: increased silts and sands, interstitial.
		10						
		40		10				
		20						
		20		15				@ 15.0 to 15.5 feet: silty, medium brown.
		20						
								@ 18.0 to 20.0 feet: silty, slight petroleum hydrocarbon-like odor.
		30	∇	20				

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 19.7', pH = 6.64, conductivity = 542, temp = 13.8°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-32
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/13/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0.5 to 20.5 feet: SANDY GRAVEL (GW); continued.
								@ 19.7 feet: wet.
		200						**20.5 to 22.5 feet: SILTY SAND (SM)**; dark gray; 80 percent fine to medium sands; 15 to 20 percent nonplastic fines; trace clay.
		400						**22.5 to 24.0 feet: SILT (ML)**; dark gray; medium to high plasticity fines; moist.
				25				First boring attempted resulted in refusal at 17.3 feet in coarse gravel. Second boring was completed to 24.0 feet approximately 5.0 feet northeast of first boring. Borehole backfilled with bentonite chips.
				35				
				40				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 19.7', pH = 6.64, conductivity = 542, temp = 13.8°C.

IT CORPORATION

MCCALL2.gds:2.3/15/01.MCCALL2...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-33
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/13/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
		5						**0.5 to 1.5 feet: SANDY GRAVEL (GW)**; fine to coarse angular basalt gravel; fine to coarse sands. (F[illegible]L)
		5						**1.5 to 4.8 feet: SAND (SP)**; medium to dark [illegible]ne to medium sands, subangular; trace [illegible] felsics.
		20		5				**4.8 to 9.5 [illegible]LT (ML)**; dark gray; low to med[illegible] plasticity [illegible] moderat[illegible]troleum hydrocarb[illegible] odor.
		30						
		60						[illegible] trace wood.
								[illegible] SILTY SAND (SM); dark gray; 80 percent fine sands, subangular; 15 to 20 percent nonplastic fines.
								12.0 to 12.5 feet: SILT (ML); dark gray; non to low plasticity fines.
		300						**12.5 to 12.7 feet: SAND (SP)**; dark brown; medium sands, subangular, trace felsics; trace silts.
								12.7 to 17.0 feet: SILT (ML); dark gray; medium plasticity fines.
		300		15				@ 12.7 to 13.5 feet: increased moisture, increased plasticity.
		400						**17.0 to 17.5 feet: SAND (SP)**; dark gray; fine to medium sands, subangular; trace silts.
								17.5 to 18.0 feet: SILT (ML); dark gray; medium plasticity fines; moist.
		20	∇	20				**18.0 to 23.5 feet: SAND (SP)**; dark gray; fine to medium sands, subangular, trace felsics; trace silts.

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 19.6', pH = 6.07, conductivity = 788, temp = 13.0°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-33
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/13/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								18.0 to 23.5 feet: SAND (SP), continued.
								@ 19.6 feet: wet.
		10						
		200						
								23.5 to 24.0 feet: SILTSTONE, dark gray; medium to high plasticity fines.
								Boring terminated at 24.0 feet.
				25				Borehole backfilled with bentonite chips.
				35				
				40				

DRAFT

IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 19.6', pH = 6.07, conductivity = 788, temp = 13.0°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-34
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/13/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
		40						**0.5 to 2.0 feet: SANDY GRAVEL (GW)**; fine to coarse angular basalt gravel; fine to coarse sands. (FILL)
		50						**2.0 to 3.5 feet: SAND (SP)**; dark gray; fine to medium sands, subangular, trace felsic, trace silts.
								3.5 to 4.0 feet: SILT (ML); dark gray; non to low plasticity fines.
		20		5				**4.0 to 7.5 feet: SAND (SP)**; medium to dark gray; fine to medium sands, subangular; trace silts.
		50						
								7.5 to 8.0 feet: SILT (ML); medium to dark gray; low to medium plasticity fines.
		1						**8.0 to 12.0 feet: SAND (SP)**; medium to dark gray; fine to medium sands, subangular; trace silts.
		300		10				@ 11.0 to 12.0 feet: increased silt.
		2000						**12.0 to 15.2 feet: SILT (ML)**; dark gray; medium plasticity fines; trace sand.
		40		15				**15.2 to 17.5 feet: SANDY GRAVEL (GW)**; fine to coarse angular grave; fine to coarse sands.
		300						**17.5 to 22.0 feet: SILT (ML)**; dark gray; medium to high plasticity fines; slight petroleum-hydrocarbon odor.
		300		20				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 21.4', pH = 6.33, conductivity = 840, temp = 17.0°C.

IT CORPORATION

MCCALL2.1.3/15/01.MCCALL2...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-34
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/13/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		1500	▽					**17.5 to 22.0 feet: SILT (ML)**; continued. @ 21.4 feet: wet.
		800						**22.0 to 23.5 feet: SAND (SP)**; dark gray; fine to medium sands, subangular; trace silts; [illegible] hydrocarbon-like odor; trace [illegible]
								23.5 to 24.0 feet: SILT [illegible]; dark gray; low to medium plasticity fines.
				25				Boring terminated at 24.0 feet. Borehole backfilled with bentonite chips.
				30				
				35				
				40				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 21.4', pH = 6.33, conductivity = 840, temp = 17.0°C.

IT CORPORATION

MCCALL2.1.3/15/01.MCCALL2...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-35
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	28.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/13/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
		30						**0.5 to 2.0 feet: SANDY GRAVEL (GW)**; fine to coarse angular basalt gravel; fine to coarse sands. (FILL)
		50						**2.0 to 14.0 feet: SAND (SP)**; medium to dark gray; fine to medium sands, subangular, trace felsics; trace silts.
		20		5				
		30						@ 7.2 to 8.0 feet: increased silt.
		70						
		200		10				
								@ 11.7 feet: 0.1 foot silt lense; dark gray.
		90						
								14.0 to 14.5 feet: SANDY GRAVEL (GW); fine to coarse angular basalt gravel; fine to coarse sands; trace silts.
		50		15				**14.5 to 24.7 feet: SAND (SP)**; dark gray; fine to medium sands, subangular, trace felsics; trace silts.
		60						@ 17.2 feet: trace gravel.
		20		20				

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 22.85', pH = 6.51, conductivity = 559, temp = 16.0°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-35
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	28.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/13/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		100						**14.5 to 24.7 feet: SAND (SP)**; continued.
		100	∇					@ 22.9 feet: wet.
		500		25				**24.7 to 25.[illegible] SILT (ML)**; dark gray; low to m[illegible] plastici[illegible]: wet.
								25.2 to 25.6 [illegible] dark gray; fine to me[illegible] sands, su[illegible]ce silts.
		200						**25.6 to 27.0 fee[illegible] (ML)**; dark gray; non to low plasticity fine[illegible]st.
								[illegible]7.0 to 28.0 feet: [illegible]ML); dark gray; non to low [illegible]lasticity fines; [illegible] [illegible]erminated at [illegible]eet. B[illegible]ackfilled with bentonite chips.
				35				
				40				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 22.85', pH = 6.51, conductivity = 559, temp = 16.0°C.

IT CORPORATION

MCCALL2.1.3/15/01.MCCALL2...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-36
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	28.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/13/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
		0						**0.5 to 1.5 feet: SANDY GRAVEL (GW)**; fine to coarse angular basalt gravel; fine to coarse sands.
		0						**1.5 to 10.5 feet: SAND (SP)**; yellowish brown to medium brown sand; fine to medium sands, subangular; trace silts.
		0		5				
		0						
		1		10				
		50						**10.5 to 11.0 feet: SILT (ML)**; dark gray; low to medium plasticity fines; moist.
								11.0 to 12.5 feet: SAND (SP); medium to dark gray; fine to medium sands, subangular, trace felsics; trace silts.
		800						**12.5 to 14.0 feet: SILT (ML)**; dark gray; low to medium plasticity fines; moist.
		5		15				**14.0 to 19.8 feet: SAND (SP)**; dark gray; fine to medium sands, subangular, trace felsics; trace silts; trace red and green roofing sands.
		30						
		20		20				

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 23.5', pH = 6.58, conductivity = 562, temp = 15.2°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-36
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	28.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/13/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		40						**19.8 to 24.0 feet: SILTY SAND (SM)**; dark gray; 75 to 80 percent fine sands; 20 to 25 percent silts; trace felsics. @ 19.8 to 20.2 feet: laminated fine sand.
		90	▽					@ 23.5 feet: wet.
		400		25				**24.0 to 25.5 fe[illegible] (ML)**; dark gray; non to [illegible] plastic[illegible] [illegible] moist.
								25.5 to 27.5 [illegible] SAN[illegible] [illegible] ark gray; fine to m[illegible] sands, su[illegible] [illegible] e felsics; trace silts.
		300						**[illegible].5 to 28.0 feet: [illegible] ML)**; dark gray; high plasticity [illegible]es; moist.
								[illegible]erminated at [illegible] feet. [illegible]ackfilled with bentonite chips.
				35				
				40				

DRAFT

IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 23.5', pH = 6.58, conductivity = 562, temp = 15.2°C.

MCCALL2.gds:2.3/15/01.MCCALL2...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-37
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/14/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.4 foot: CONCRETE
		1						**0.4 to 18.2 feet: SAND (SP)**; medium to dark brown; fine to medium sands, subangular, trace felsics; trace red and green roofing sands; trace silts.
		1						
		1		5				
		1						
		0		10				
		1						
		1	▽	15				@ 15.3 feet: wet.
		2						
		70		20				**18.2 to 20.0 feet: SAND (SP)**; dark gray; fine to medium sands, subangular, trace felsics; trace silts.

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 15.3', pH = 5.90, conductivity = 346, temp = 11.7°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-37
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/14/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Borehole backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 15.3', pH = 5.90, conductivity = 346, temp = 11.7°C.

IT CORPORATION

MCCALL2.1.3/15/01.MCCALL2...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-38
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/14/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 feet: ASPHALT
		1						**0.5 to 1.5 feet: SANDY GRAVEL (GW)**; fine to coarse angular basalt grave; fine to coarse sands. (FILL)
		0						**1.5 to 6.0 feet: SAND (SP)**; medium to dark brown; fine to medium sands, subangular, trace fines; trace silts.
		2		5				
		40						**6.0 to 7.0 feet:** [illegible] dark gray; non to low plasticity fines; moist; [illegible] petroleum hydrocarbon-like odor.
		40						**[illegible] to 8.0 feet: SA[illegible]P)**; dark gray; fine to medium [illegible]nd, subangula[illegible] silts; slight petroleum [illegible]ocarbon-like o[illegible] @ [illegible] piece of br[illegible]e black tar.
				10				**[illegible]: SILT (ML)**; dark gray; low to medium plast[illegible]es; moist.
								8.5 to 9.0 feet: SAND (SP); dark brown; fine to medium sands.
								9.0 to 9.5 feet: SAND (SP); dark gray; fine to medium sand, subangular; trace silts; trace red sands.
								9.5 to 11.5 feet: SILT (ML); dark gray; low to medium plasticity fines; trace sands; trace wood.
		2						**11.5 to 15.0 feet: SAND (SP)**; dark gray; fine to medium sand, subangular; trace silts.
		5	▽	15				@ 15.0 feet: wet.
								15.0 to 16.0 feet: SAND (SP); dark brown; fine to medium sands.
								16.0 to 16.5 feet: SILT (ML); dark gray; low to medium plasticity fines.
		200						**16.5 to 17.2 feet: SAND (SP)**; dark gray; fine to medium sands.
								17.2 to 18.0 feet: SAND (SP); dark brown; fine to medium sands; wet.
		200						**18.0 to 19.2 feet: SAND (SP)**; dark gray; fine to medium sands.
				20				

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 15.0', pH = 6.22, conductivity = 620, temp = 15.8°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-38
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/14/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								19.2 to 20.0 feet: SILT (ML); dark gray; medium to high plasticity fines.
								Boring terminated at 20.0 feet.
								Borehole backfilled with bentonite chips.
				25				
				30				
				35				
				40				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 15.0', pH = 6.22, conductivity = 620, temp = 15.8°C.

IT CORPORATION

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-39
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/14/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								0 to 0.5 foot: ASPHALT
		2						**0.5 to 1.5 feet: SANDY GRAVEL (GW)**; fine to coarse angular basalt gravel, fine to coarse sands. (Fill)
		7						**1.5 to 17.5 feet: SAND (SP)**; medium to dark brown, fine to medium sands, subangular; trace silts.
								@ 3.2 to 3.7 feet: increased silt.
		0		5				
		0						
		0						
				10				@ 9.5 feet: trace red, yellow and green roofing sands.
		0						
		0		15				
		2	▽					@ 16.5 feet: wet.
		60						**17.5 to 20.0 feet: SAND (SP)**; dark gray; fine to medium sands, subangular, trace felsics; trace silts.
				20				

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IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 16.5', pH = 6.71, conductivity = 342, temp = 13.7°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-39
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	20.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/14/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
								Boring terminated at 20.0 feet. Borehole backfilled with bentonite chips.
				25				
				35				
				40				

DRAFT

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 16.5', pH = 6.71, conductivity = 342, temp = 13.7°C.

IT CORPORATION

MCCALL2.1.3/15/01.MCCALL2...820910

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-40
LOCATION	Portland, Oregon	PAGE	1 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/14/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		0						**0 to 1.5 feet: SANDY GRAVEL (GW)**; fine to coarse angular basalt gravel; fine to coarse sands. (FILL)
		1						**1.5 to 2.0 feet: SAND (SW)**; medium to dar[illegible] fine to coarse sands; poorly sorted, su[illegible] trace silts.
		0		5				**2.0 to 2.3 feet: SILT (ML)**; mediu[illegible]n; medium to high plasticity fines.
		0						**2.3 to 19.5 feet: SAND ([illegible]**; medium to dar[illegible]n; fine to medium sa[illegible]gular, trace felsic [illegible]e silts; abundant [illegible]s.
		0						
		0						
		1		15				
		2	∇					@ 18.4 feet: wet.
		40						
				20				

DRAFT

IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 18.4', pH = 6.71, conductivity = 420, temp = 13.8°C.

LOG OF EXPLORATORY BORING

PROJECT NAME	McCall/GWCC	BORING NO.	GP-40
LOCATION	Portland, Oregon	PAGE	2 of 2
DRILLED BY	GeoTech Explorations, Inc.	REFERENCE ELEV.	
DRILL METHOD	Direct Push	TOTAL DEPTH	24.0'
LOGGED BY	J. Thomason	DATE COMPLETED	2/14/01

SAMPLE NUMBER	SAMPLE TYPE	FID (ppm)	GROUND WATER LEVEL	DEPTH IN FEET	SAMPLES	WELL DETAILS	LITHO-LOGIC COLUMN	LITHOLOGIC DESCRIPTION
		80						**19.5 to 24.0 feet: SAND (SP)**; dark gray; fine to medium sands, subangular, trace felsics; trace silts, slight petroleum hydrocarbon-like odor.
		200						
				25				Boring terminated at 24.0 feet. Borehole backfilled with bentonite chips.
				35				
				40				

DRAFT

IT CORPORATION

REMARKS

1) Flame Ionization Detector calibrated to 98 ppm isobutylene.
2) Water sample taken at terminal depth. DTW = 18.4', pH = 6.71, conductivity = 420, temp = 13.8°C.

APPENDIX B
BULK TRANSFER/TANK FARM HISTORY

Portland Branch – Bulk Transfer/Tank Farm History
(1985 – 2001)

1. **Sulfuric Acid:** Bulk liquid product has been delivered to the branch via rail car on a continuous basis from 1985 to present. Overall, the weekly average has been about three cars of sulfuric a week; during the period 1985 to 1995, rail deliveries occurred at a rate of about four cars per week. Product is top-unloaded, using air pressure, into the bulk sulfuric acid above-ground storage tank. During the period 1985 to 1989, product was offloaded and loaded at the acid loading/unloading rack situated near the McCall asphalt plant (same location as current asphalt loading/unloading rack). From 1989 to present, bulk sulfuric acid has been offloaded and loaded at the current GWCC acid loading/unloading rack. Bulk product has been re-packaged into 55-gallon drums, warehoused and delivered to customers since 1985.

2. **Hydrochloric Acid:** Bulk liquid product has been delivered to the facility by tanker truck only on an average of two times per month and offloaded in the area located in front of the drumming area into the bulk HCl tank. Product subsequently is transferred into 55-gallon drums for deliveries to customers. No bulk loading out of HCl has occurred at the facility. Product has never been delivered by rail.

3. **Nitric Acid:** Every four weeks or so, bulk liquid product has been delivered to the facility by tanker truck only on an average of once per month and offloaded in the area located in front of the drumming area into the bulk nitric tank. Product subsequently is transferred into 55-gallon drums for deliveries to customers. Only a few tanker trucks have been loaded out with bulk nitric over the lifespan of the facility. From about 1985 to 1989, averaging one time per month, Nitric acid was loaded at the rack situated near the McCall asphalt plant as part of the blend Evac containing Nitric acid, Phosphoric acid, Citric acid, and water. From 1989 to present, this blending has been performed at the GWCC loading rack with similar frequency. On occasion, Nitric acid has been mixed with water to make EVAC products. Product never has been delivered to the facility by rail.

4. **Phosphoric Acid**: Every four weeks or so, bulk liquid product has been delivered to the facility by tanker truck only on an average of once per month and offloaded in the area located in front of the drumming area into the bulk phosphoric tank. Product subsequently is transferred into 55-gallon drums for deliveries to customers. Occasionally, phosphoric acid product has been cut with water. No bulk loading or

unloading was performed at the acid loading/unloading rack situated near the McCall asphalt plant with the exception of the Evac blend described above. Product never has been delivered by rail.

5. **Acetone:** From approximately 1985 to 1993, bulk liquid product was delivered by rail car via a bottom unloading process into a storage tank located in the solvent tank farm. Also, bulk product has been *unloaded* at both solvent loading racks from common carrier tanker trucks and *loaded* at both solvent loading racks by GWCC trucks and common carrier trucks. Product was re-packaged from bulk storage tanks into pails and drums in the solvent drumming area. Some bulk blending operations were performed in the solvent drumming area. The facility has not handled bulk acetone since the early nineties; currently, vendor packaged drums of acetone are warehoused and distributed at the facility. Some downpacking from drums to pails currently is performed.

6. **Isopropyl Alcohol:** From approximately 1985 to 1993, bulk liquid product was delivered by rail car via a bottom unloading process. From 1985 to present, product has been *unloaded* at both solvent loading racks from common carrier tanker trucks and *loaded* at both solvent loading racks by GWCC trucks and common carrier trucks. Product was re-packaged from bulk storage tanks into drums in the solvent drumming area. For the last several years, bulk product has been re-packaged into 330-gallon totes.

7. **Methanol:** Bulk liquid methanol product was delivered by rail car via a bottom unloading process from 1985 to about 1995 and stored in bulk in the solvent tank farm. Product has been *unloaded* and *loaded* at both solvent loading racks and re-packaged into 55-gallon drums. Currently, methanol is received by tanker trucks only, re-packaged into 55-gallon drums, and delivered to customers in drums. Product is stored in bulk.

8. **N-Propyl Alcohol:** Bulk product has been delivered by rail car and tanker trucks and stored in the solvent tank farm. This product was never unloaded or loaded at the former solvent loading/unloading rack at the McCall asphalt plant. The product is re-packaged into 55-gallon drums and delivered to customers in drums and in bulk.

9. **N-Propyl Acetate:** Bulk product has been delivered by rail car and tanker trucks. This product has never been re-packaged; primarily, it has been used as a blend to

mix with N-Propyl Alcohol. N-Propyl Acetate has not been unloaded or loaded at the former solvent loading/unloading rack located near the McCall asphalt plant.

10. **Anhydrol products:** Bulk product has been delivered by rail car on occasion and stored in the solvent tank farm and loaded at both racks. Primarily, these products have been delivered to the facility via tanker trucks. Product has been delivered to customers in bulk and drums or pails.

11. **Styrene:** Bulk styrene has been delivered to the facility by rail car and stored in the solvent tank farm. Product has been unloaded and loaded at both solvent loading racks. There has been some re-packaging. Product is not in current inventory.

12. **Methyl Ethyl Ketone (MEK):** Bulk MEK has been delivered by rail car and tanker truck. Product has been unloaded and loaded at both solvent loading/unloading racks. MEK has been re-packaged from bulk storage tanks into containers; occasionally, the product has been re-packaged directly from tanker trucks into containers.

13. **Methyl Isobutyl Keytone (MIBK):** Bulk MIBK has been delivered by rail car and tanker truck. Product has been unloaded and loaded at both solvent loading/unloading racks. Product has been re-packaged into containers from storage tanks and, on occasion, directly from tanker trucks.

14. **Triethylamine:** Bulk product has been delivered to the facility by rail car and tanker truck. This product never was loaded or unloaded at the former solvent loading/unloading rack which was located near the McCall asphalt plant. Product has been re-packaged from bulk storage tanks and tanker trucks.

15. **350B, Special Napthalite, Solvent 25, Solvent 225, Solvent 450 (Mineral Spirits):** 350B and Special Napthalite were delivered by rail; the other mineral spirits products never were received by rail. Only 350B utilized both the former and current solvent loading racks. All mineral spirits products have been re-packaged from bulk to 55-gallon drums. All of products were loaded and unloaded via tanker truck.

16. **Propylene Glycol:** Bulk product has been delivered by rail car on occasion and stored in the solvent tank farm for bulk customer delivery and re-packaging into drums. Product never was loaded or unloaded at the former solvent loading/unloading rack located near the McCall asphalt plant.

17. **Ethylene Glycol:** Bulk product has been delivered by rail car on occasion and stored in the solvent tank farm for bulk customer delivery and re-packaging into drums. Product never was loaded or unloaded at the former solvent loading/unloading rack.

18. **Anthraquinone:** This non-hazardous coagulator has been delivered since 1996 via isotainer and occasional rail car.

19. **Xylene:** Significant volumes of product have been received by rail car and tanker trucks for storage in the solvent tank farm for bulk delivery and re-packaging into drums. Product has been loaded/unloaded at both solvent loading racks.

20. **Toluene:** Significant volumes of product have been received by rail car and tanker trucks for storage in the solvent tank farm for bulk delivery and re-packaging into drums. Product has been loaded/unloaded at both solvent loading racks. Since 1999, toluene is no longer delivered to the facility by rail.

21. **Calcium Chloride:** This non-hazardous, salt-based product has been delivered by tanker truck only – no rail car delivery. Product is stored in the solvent tank farm and re-packaged into drums and totes. Calcium chloride never was loaded/unloaded at the former solvent loading rack located near the McCall asphalt plant.

22. **Trichloroethylene (TCE) and Trichloroethane:** Product has been delivered to the facility by tanker truck only – never by rail – for storage in the solvent tank farm. Product has been offloaded and re-packaged in the solvent drumming area only. Product has been delivered to customers in bulk and in 55-gallon drums. Some Trichloroethane product was received in drums and pumped into tanker trucks in the solvent drumming area. Neither product was loaded or unloaded at the former solvent loading rack located near the McCall asphalt plant. These products have not been received, shipped, or packaged since 1991.

23. **Methylene Chloride:** Product has been delivered to the facility by tanker truck only – never by rail – for storage in the solvent tank farm. Product was drummed, offloaded, and loaded in the drumming area prior to 1999. Product has been loaded from the new solvent loading rack since 1999. Product never was loaded or unloaded at the former solvent loading rack located near the McCall asphalt plant. Some Methylene Chloride product was received in drums and pumped into tanker trucks in the solvent drumming area. Product is not in current inventory.

24. **Perchlorethylene:** Bulk product has been delivered to the facility by tanker truck only – never by rail – for storage in the solvent tank farm. Product has been drummed, offloaded, and loaded in the drumming area. From 1985 to about 1994, product was pumped into GWCC's 500-gallon portable tanker truck for delivery to dry cleaning customers. Product is not in current inventory.

25. **Caustic Soda:** Bulk caustic was stored in a tank located in the McCall tank farm located directly southeast of the current McCall loading rack. All product was loaded/unloaded by tanker truck. Product has never been received by rail. Prior to 1985, Caustic Soda was loaded into rail cars by McCall employees. From 1985 to 1987, GWCC employees loaded Caustic Soda into rail cars at the facility. Caustic has not been stored in bulk at the facility since 1987. Presently, Caustic is drummed off tanker trucks in the GWCC acid drumming area.