PHASE II REMEDIAL INVESTIGATION REPORT FOR THE BEE-JAY SCALES SITE

Chevron Environmental Management Company & BP America, Inc.

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1.0 INTRODUCTION

This document summarizes the Phase II Remedial Investigation (RI) completed by SECOR International Incorporated (SECOR) on behalf of the Chevron Environmental Management Company (CEMC) and BP America, Incorporated (BP) at the Bee-Jay Scales Site in Sunnyside, Washington (the Site). This project is being implemented in accordance with the Washington State Department of Ecology (Ecology) Washington Model Toxics Control Act (MTCA) and Ecology Agreed Order No. DE 02TCPCR-3932.

1.1 Purpose

The purpose of this report is to summarize the sampling activities and treatability studies conducted as part of the Phase II investigation and present the results in comparison to screening criteria.

1.2 Report Organization

This report is organized as follows:

- A summary of the Site background and historical operations is included in the remaining portion of Section 1;
- A summary of the Phase I RI, resulting data gap evaluation, and recommendations for the Phase II RI are included in Section 2;
- A summary of the Phase II RI activities, including soil boring and monitoring well installation and sampling, surface water/sediment sampling, and quality control procedures, is presented in Section 3;
- An analytical data summary, including comparisons of analytical data to appropriate MTCA cleanup criteria, as well as the pump testing results are included in Section 4;
- A summary of the results of the treatability investigation, including results of the benchscale and field pilot study, is included in Section 5; and
- Summary and conclusions are presented in Section 6.

1.3 Background

Information regarding the Site description and historical operations at the Site has been adapted from the Remedial Investigation/Feasibility Study Work Plan, Bee-Jay Scales Site, Sunnyside, WA (CH2M Hill, February 2003). The RI/FS Work Plan was approved by Ecology in March 2003. Details of previous investigations can be found in the RI/FS Work Plan, and are also summarized in the Phase I Remedial Investigation Report (SECOR, October 2003).

1.3.1 Site Description

The Site is located in the city of Sunnyside, within Yakima County, and is composed of two property parcels: Parcel No. 22102522014 and Parcel No. 22102522015 as recorded by the Yakima County Department of Assessment. Parcel No. 22102522014 is located at 116 North 1st Street, and is owned by Bee-Jay Scales, Inc. Parcel No. 22102522015 is located at 301 Warehouse Avenue, and is owned by Hickenbottom & Sons, Inc. Hickenbottom & Sons also owns additional contiguous property on which their business is located. The Site location is shown on Figure 1-1, and the Site layout, including building locations, ground surface contours, and additional site features, is shown on Figure 1-2.

1.3.2 Site History

The Site and adjacent properties have been the location of agricultural warehouses, lumber yards, coal storage, and railroad transportation activities since approximately 1906.

Portions of the Site were owned by the Northern Pacific Railroad Company from 1906 until 1989 when purchased by the Glacier Park Company (GPC). An agricultural distribution facility operated at the Site from the 1960s through at least 1986. This facility consisted of buildings and above ground storage tanks (ASTs), and was operated by at least two separate companies: Laneger Agricultural Services and Valley Agricultural Inc. Documentation also indicates that during the 1970s, Amoco, now known as BP, leased portions of this property from Northern Pacific Railroad. The ASTs have since been removed from the Site. A lagoon was constructed by Valley Agricultural Inc. in the early 1980s to collect water from the washdown of farm chemical applicator vehicles.

The western portion of Lot 10 was purchased by the Chevron Chemical Company in 1981 and sold to Bee-Jay Scales, Inc. in 1987. Bee-Jay Scales, Inc. purchased additional portions of Lots 10 and 11 in 1995 and 1996. Please note Lots 10 and 11 are referenced in the Summary of Ownership included as Appendix B of the RI/FS Work Plan, and are not shown on any available figures.

Hickenbottom & Sons leased a portion of the Site from the Northern Pacific Railroad Company beginning in 1961 and purchased portions of Lots 10 and 11 in 1992. The Hickenbottom property was previously used as pastureland, and since 1961 has been used for food packing, storage, and a transportation business.

Three businesses currently operate at the Bee-Jay Scales portion of the property: Sandy Farms, a local trucking company; Sanleco, Inc., an interstate trucking company with an on-site tractor-trailer repair garage; and Bee-Jay Scales, a commercial scale operation.

Hickenbottom & Sons, Inc. is a food-processing and distribution company. Most of Hickenbottom & Sons' current operation consists of a refrigeration warehouse. The Hickenbottom property that makes up a portion of the Site is currently leased to the Johnson Fruit Company and is used to store produce bins, pallets, tractor-trailer rigs, and other miscellaneous equipment. The remainder of the Hickenbottom & Sons property is used for tractor-trailer and produce storage, as well as transportation.

2.0 SUMMARY OF PHASE I REMEDIAL INVESTIGATION

The Phase I RI activities were conducted in July 2003, and consisted of the soil and groundwater investigations summarized below, and also detailed in the Phase I Remedial Investigation Report. In addition to the Phase I work, quarterly groundwater monitoring was conducted at the Site and was summarized in the Final Quarterly Groundwater Monitoring Technical Memorandum (SECOR, August 2004).

2.1 Phase I Soil Investigation

SECOR collected soil samples from borings installed in each of the six identified areas at the Site. Boring locations can be found on Figure 2-1. For the purpose of clearing potential subgrade utilities, soil borings were installed by hand auger to a depth of 4.5 feet below ground surface (bgs), and then advanced to the water table by a hollow stem auger (HSA) drill rig. In five of the six identified areas, discrete soil samples were collected from the boring wall during hand clearing at the depth interval of 0.5 feet bgs to 1.5 feet bgs, and by split spoon sampler at depth intervals of 4.5 feet bgs to 6.0 feet bgs and 9.5 feet bgs to 11.0 feet bgs.

When a shallow water table was encountered, discrete samples from the interval above groundwater were collected at a depth of 7.5 feet bgs. In Area 5, only surface soil samples were collected from the boring wall during hand clearing at depths between 0.5 feet and 1.5 feet bgs, as required by the RI/FS Work Plan. Soil samples were submitted to Merit Laboratories and A&L Great Lakes Laboratories for analysis.

Groups of chemical parameters for the soil sampling plan at the Site were defined as follows:

- Conventional A parameters: ammonia, nitrite, nitrate, phosphate, sulfate, chloride, pH, and moisture content;
- Conventional B parameters: total organic carbon (TOC), grain size distribution, and void ratio/porosity;
- Conventional C parameters: agronomic analyses including extractable cations; sodium bicarbonate; cation exchange capacity (CEC); diethylenetriaminepentaacetic acid (DTPA)-available iron, manganese, zinc, and copper; electrical conductivity in saturated paste (ECe); calcium, magnesium, sodium, and chloride in saturation extract; and void ratio.

The number of borings in each area and the corresponding chemical analyses are identified below:

Area 1 - Liquid Fertilizer Plant and Truck Wash Area

Eight soil borings were installed in Area 1. Soil samples from all eight borings were analyzed for Conventional A parameters, Conventional C parameters, pesticides, herbicides, and metals. Samples from three of the borings were also analyzed for Conventional B parameters, and samples from two of the borings were also analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs).

Area 2 - Dry Fertilizer

Seven soil borings were installed in Area 2. Soil samples from all seven borings were analyzed for Conventional A parameters, pesticides, herbicides, and metals. Samples from two of the borings were also analyzed for Conventional B parameters.

Area 3 - Drum Storage Area

Two soil borings were installed in Area 3, and samples from both borings were analyzed for Conventional A parameters, total petroleum hydrocarbon (TPH)-gasoline extended (Gx), TPHdiesel extended (Dx), VOCs, SVOCs, pesticides, and metals. Soil samples from one of the borings were also analyzed for Conventional B parameters.

Area 4 - Suspected Historical Washdown Area

Six soil borings were installed in Area 4, and samples from these borings were analyzed for Conventional A parameters, TPH-Gx, TPH-Dx, pesticides, herbicides, and metals. Soil samples from two of the borings were also analyzed for Conventional B parameters, VOCs, and SVOCs.

Area 5 - North Area

Five shallow soil borings were installed in Area 5. Soil samples from all five borings were analyzed for Conventional A parameters, TPH-Hydrocarbon Identification (HCID), pesticides, herbicides, and metals. Samples from two of the five borings were also analyzed for Conventional B parameters.

Area 6 - Hickenbottom Area

A total of seven soil borings were installed in Area 6, two of which were shallow. Soil samples from all seven borings were analyzed for Conventional A parameters, TPH-HCID, pesticides, and herbicides. Samples from one boring were also analyzed for Conventional B parameters and VOCs. Samples from the two shallow borings were also analyzed for metals.

Phase I RI soil results were initially screened against Ecology's MTCA Method A Cleanup Levels (CULs) and natural background soil metals concentrations to identify potential indicator hazardous substances (IHSs). Potential IHSs were retained for further evaluation for one of the following reasons:

- Detected concentrations exceeded Method A CULs;
- Detected metals concentrations were above natural background; or
- Detected constituents do not have Method A CULs or natural background concentrations available.

The potential soil IHSs included: 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 2methylnaphthalene, 4,4'-DDE, ammonia-N, antimony, cadmium, chloride, chromium (total), copper, dinoseb, nickel, nitrate-N, nitrite-N, TPH-Gx, p,m-xylene, phosphate, silver, sulfate, thallium, and zinc.

The potential IHSs were then compared against MTCA Method C CULs to determine the constituents requiring further evaluation in the Phase II investigation. The only soil IHS with a maximum concentration exceeding the soil Method C CULs (from both Cleanup Levels and Risk Calculations (CLARC) version 3.1 and calculated) was TPH-Gx.

Geotechnical analyses (moisture content, void ratio/porosity, grain size distribution, and permeability) were also performed on soils collected from the Site to determine soil properties that have an effect on both soil strength and groundwater behavior. The average moisture content of the Site soil was estimated as 19.2%. The average water content of the void ratio samples was calculated as 22.1%; the estimate for the average Site porosity is 44.4%; and the estimated void ratio for Site soils is 0.80. The average grain size distribution for soils across the Site is as follows: 0.7% gravel, 1.3% coarse sand, 4.0% medium sand, 58.2% fine sand, and 35.8% silt-clay.

Most samples were categorized as well-graded, and there was a range of grain size distributions found at the Site, with a majority visually classified as sandy clay, silty clay, or sandy silt. The vertical permeability was calculated for one sample (collected from MW-7 in Area 5) to determine the properties of the aquitard. The estimated average permeability of the confining layer was determined by geotechnical testing to be 5.1E-06 cm/s.

2.2 Phase I Groundwater Investigation

Three, two-inch diameter shallow wells were installed at the Site as part of the Phase I groundwater investigation. Two of the wells (MW-5 and MW-6) were installed in Area 2, and one well (MW-7) was installed in Area 5. These wells supplement existing groundwater quality information provided by three existing wells (MW-1, MW-3, and MW-4). The fourth previously installed monitoring well (MW-2) could not be located during the Phase I RI. Monitoring well locations are shown on Figure 2-1.

The borings for each of the monitoring wells were advanced to approximately 30 feet bgs. Soil samples were collected from the boreholes during well installation. Well installations were completed with a 10-foot screen installed at a depth interval of 6 feet to 16 feet bgs. After completion, each well was developed by surging and bailing to remove fine-grained sediment from the formation and filter packs, and increase the hydraulic efficiency of the wells.

Groundwater samples were collected from each of the six located monitoring wells. The groundwater samples were collected using minimal drawdown procedures using a combination of dedicated and non-dedicated equipment. Decontamination procedures were followed to prevent cross-contamination between monitoring wells during water level measurement.

Groups of chemical parameters for the groundwater sampling plan were defined as follows:

- Conventional A parameters: ammonia, nitrite, nitrate, phosphate, sulfate, chloride, and pH; and
- Conventional B parameters: TOC, total suspended solids (TSS), total dissolved solids (TDS), hardness, and alkalinity.

Groundwater samples were analyzed for Conventional A parameters, Conventional B parameters, TPH-HCID, VOCs, SVOCs, pesticides, herbicides, and metals. Phase I groundwater results were initially screened against Ecology's MTCA Method A CULs to identify potential IHSs.

The potential groundwater IHSs include: 1,2-dichloropropane, 2,4-dichlorophenol, ammonia-N, arsenic, chloride, chlorobenzene, copper, iron, manganese, nickel, o-xylene, p,m-xylene, phosphate, sulfate, total nitrates and nitrites, and zinc.

The potential IHSs were then compared against MTCA Method C CULs to determine the constituents requiring further evaluation. 1,2-Dichloropropane, arsenic, and total nitrates and nitrites exceeded Method C CULs. Sulfate and iron, for which no Method C CULs have been developed, exceeded their aesthetics-based Washington State Board of Health Secondary Maximum Contaminant Levels (MCLs). It should be noted that secondary MCLs are based on cosmetic and aesthetic criteria for drinking water rather than on human health.

Groundwater at the Site was encountered at depths ranging from approximately 7.4 to 11.9 feet bgs during the Phase I investigation, and the groundwater flow direction was determined to be south-easterly. The estimated average hydraulic conductivity of the water-bearing zone beneath the Site, based on slug tests conducted on all six monitoring wells during Phase I activities, is 5.23E-04 feet per second (ft/s) (1.59E-02 cm/s). The estimated hydraulic conductivity ranges from 8.44E-06 ft/s to 2.67E-03 ft/s (2.57E-04 cm/s to 8.12E-02 cm/s).

Consideration of the soil leaching to groundwater pathway focused on the constituents identified above MTCA Method C CULs or secondary MCLs in the groundwater investigation. A brief summary of the findings is provided below:

- 1,2-Dichloropropane was not detected in soil at the Site, indicating Site soils are not the source of its detection at MW-4;
- Arsenic concentrations in soil are less than, or just above, its background concentration. Arsenic will be further evaluated in the Phase II groundwater investigation;
- The soil data suggest an aboveground source of stored fertilizer has leached nitrogen compounds (nitrates, nitrites, and ammonia) to the soil. The major nitrogen source area appears to be directly east of the Dry Fertilizer Manufacturing Building in Area 2, and two source areas appear to be located adjacent to the lagoon;
- The potential source areas for sulfate are consistent with identified nitrogen source areas, indicating sulfate may be a component in the fertilizer blends released at the Site; and
- Iron is present in the surface soils at concentrations less than the natural background concentration; however, these low concentrations may still be contributing to the presence of iron in groundwater.

2.3 Data Gap Evaluation/Recommendations for Phase II

Results of the Phase I RI indicate the following:

- A TPH-Gx value exceeding its Method C CUL was observed at a depth of 7.5 feet bgs at A3-SB-002;
- Nitrogen and sulfate compounds are present throughout the unsaturated zone soil samples at high concentrations in potential surface source areas;
- Potential soil source areas occur in Area 5. Only surface soils were collected in this area during the Phase I RI. Therefore, the vertical extent of the nitrogen compound and sulfate impacts has not been delineated;

- Nitrogen compound, iron, and sulfate concentrations exceeded Method C CULs and secondary MCLs in groundwater samples collected downgradient of potential source areas;
- Nitrogen compound, iron, and sulfate concentrations appear to exceed the Method C CULs and secondary MCLs at the southern property boundary of the Site;
- Arsenic concentrations in groundwater exceeded Method C CULs, although no background concentrations for arsenic are established for local groundwater; and
- The soil leaching to groundwater pathway has been evaluated using a weight of evidence approach. The first line of evidence is comparison of the groundwater data to Method C CULs and secondary MCLs, since the soil release occurred years ago. Any impacts from soil leaching to the groundwater should have been observed by now. As a second line of evidence, soil samples will be selected during Phase II activities for synthetic precipitate leaching procedure (SPLP) analysis to further demonstrate that the soil leaching to groundwater pathway is protective of human health.

As a response to these findings, the Phase II RI was designed to gather additional soil, groundwater, and surface water/sediment data to fill in the identified data gaps. The sampling and analysis program and procedures implemented at the Site during the Phase II RI are described in the Phase II Work Plan (SECOR, May 2004). A summary of the Phase II RI activities is presented in the following sections, along with any deviations from the Phase II Work Plan.

3.0 SUMMARY OF PHASE II REMEDIAL INVESTIGATION

The Phase II RI activities at the Site included a soil investigation, groundwater investigation, surface water/sediment investigation, and pump testing for hydraulic conductivity. A discussion of the results of the soil, groundwater, and surface water/sediment investigation is presented in Section 4, as well as a summary of the single well pump testing results.

3.1 Phase II Soil Investigation

SECOR completed the Phase II soil investigation in May 2004. Soil samples were collected from borings installed in Areas 3 and 5, as described below. Soil borings were installed by hand auger to a depth of five feet bgs to clear potential subgrade utilities, then installed to completion depth using a 4-inch inside diameter (ID) truck-mounted HSA drilling rig. At boring completion, boreholes were decommissioned by sealing the borehole with hydrated bentonite chips and gravel or concrete, consistent with Washington Administrative Code (WAC) 173-160. Boring locations, determined by a survey conducted in October 2004, can be found on Figure 3-1.

3.1.1 Area 3 Soil Investigation

In Area 3, four soil borings were advanced to depths of 7.5 feet bgs. All drilling and sampling equipment was decontaminated both before and after drilling according to the procedures documented in the Phase II Work Plan.

Due to the storage of pallets over the proposed location of one of the borings and the proximity to a chain link fence, a deviation was made from the Phase II Work Plan. Boring A3-SB-004 was moved from its proposed location to a location approximately 20 feet west of boring A3-SB-006 and installed.

Soil samples were collected from the boring wall during hand clearing at the depth of 0.5 feet bgs, and by split spoon sampler at depths of 4.5 feet bgs and 7.5 feet bgs, and were submitted for laboratory analysis at Merit Laboratories in East Lansing, Michigan (Merit Laboratories). Area 3 samples were analyzed for TPH-Gx. Chains of custody can be found in Appendix A.

A portion of soil was retained from each split spoon for visual inspection, lithologic description, and field-screening for the presence of hydrocarbons. Visual inspection consisted of screening the sample for visual indications of hydrocarbons and sheen. Soil lithology was described using the United Soil Classification System (USCS). Lithologic descriptions included soil type(s), color, grain size/texture, degree of consolidation, and moisture content. Field-screening was completed by monitoring headspace vapor concentrations using a photo ionization detector (PID). Observations were recorded on boring logs, which are included in Appendix B.

3.1.2 Area 5 Soil Investigation

In Area 5, ten soil borings were advanced to depths of 9.0 feet bgs. All drilling and sampling equipment was decontaminated both before and after drilling by the procedures described in the Phase II Work Plan.

Due to equipment stored on this portion of the Site, two of the Area 5 soil borings were relocated. Boring A5-SB-002 was moved approximately 10 feet to the north of its proposed location, and boring A5-SB-010 was moved approximately 10 feet to the northeast of its proposed location.

Soil samples were collected by split spoon sampler at depths of 4.5 feet bgs and 9.0 feet bgs, and were submitted for laboratory analysis at Merit Laboratories. Area 5 samples were analyzed for ammonia, iron, nitrates, nitrites, phosphate, and sulfate. Chains of custody can be found in Appendix A.

A portion of soil was retained from each split spoon for visual inspection, lithologic description, and field-screening for the presence of hydrocarbons. Visual inspection consisted of screening the sample for visual indications of hydrocarbons and sheen. Soil lithology was described using the USCS. Lithologic descriptions included soil type(s), color, grain size/texture, degree of consolidation, and moisture content. Field-screening was completed by monitoring headspace vapor concentrations using a PID. Observations were recorded on boring logs, which are included in Appendix B.

3.1.3 Synthetic Precipitate Leaching Procedure Testing

Ten soil samples from Area 5 were selected for SPLP analysis following nitrogen compound analysis to more accurately evaluate the soil leaching to groundwater pathway. The ten samples were selected based upon the highest nitrogen compound concentrations. The SPLP analysis was performed by Merit Laboratories for ammonia, nitrates, nitrites, sulfate, phosphate, and iron.

3.2 Phase II Groundwater Investigation

SECOR initiated the Phase II groundwater investigation, consisting of the installation of vertical profile borings and one permanent monitoring well, in May 2004. Four additional permanent monitoring wells, one off-site and three on-site, were installed in October 2004, and installation details are documented below. All borings were installed by hand auger to a depth of five feet bgs to clear potential subgrade utilities, then installed to completion depth using a truck-mounted HSA drilling rig. Vertical profile boring and monitoring well locations, determined by a survey conducted in October 2004, can be found on Figure 3-1.

3.2.1 Vertical Profile Borings

A total of eighteen temporary monitoring wells were installed in vertical profile boreholes for groundwater sample collection as part of the Phase II RI activities. The vertical profile borings were installed in Area 1, Area 5, and Area 6. Two borings could not be installed as specified in the Phase II Work Plan. The proposed location of boring A1-VP-002 was beneath the soil bins and a concrete pad, and boring A1-VP-006 could not be installed because of limited access due to equipment that has been abandoned at the Site.

The vertical profile borings were installed to a depth of 10 feet bgs, sampled, then drilling continued to a final depth of 20 feet bgs. Lithology was recorded on the boring logs contained in Appendix B. Please note that vertical profile borings A5-VP-001 through A5-VP-007 correspond

to soil borings A5-SB-001 through A5-SB-007, and were only named differently to distinguish between soil and groundwater samples; therefore, separate boring logs were not completed.

The auger was advanced until the first sample collection depth of 10 feet bgs was reached. A two-inch diameter PVC temporary well with five-foot screen was inserted into the auger. A sand pack was installed while the auger was withdrawn until the screen was covered with sand. The well was then purged and sampled according to the procedures in the Phase II Work Plan, then the PVC was pulled and drilling commenced until the second sample collection depth of 20 feet bgs was reached. The temporary well was installed and sampled as before. Groundwater sample collection details were recorded on groundwater purge and sample forms contained in Appendix C.

In locations where the water table was lower, groundwater samples could not be collected at the specified depth. Groundwater samples were not collected at 10 feet bgs at A5-VP-001, A5-VP-007, A5-VP-008, A5-VP-009, A6-VP-002, and A6-VP-004.

After all groundwater samples were collected, the PVC was pulled. The borings were decommissioned by sealing the borehole with hydrated bentonite chips and gravel or concrete, consistent with WAC 173-160. All equipment was decontaminated as described in the Phase II Work Plan to minimize cross-contamination between well locations.

Groundwater samples from the vertical profile borings were sent to Merit Laboratories for the following analyses: arsenic, alkalinity, chloride, dissolved oxygen (DO), nitrates, nitrites, ammonia, phosphate, sulfate, iron, herbicides, pH, and oxidation-reduction potential (ORP). Chains of custody are included in Appendix A.

3.2.2 Monitoring Wells

A total of five permanent monitoring wells were installed at the Site during various stages of the Phase II investigation. Monitoring well MW-8 was installed in Area 1 to a final depth of approximately 17 feet bgs to delineate the nitrogen compound plumes. Monitoring well MW-9 was installed approximately 100 feet downgradient of the southern property boundary to a depth of approximately 18 feet bgs to assess off-site conditions. Monitoring well MW-10 was installed to a depth of approximately 18 feet bgs in the eastern portion of Area 3 to test for the presence of petroleum hydrocarbons in groundwater. Monitoring well MW-11 was installed in the western portion of Area 3 to a depth of approximately 18 feet bgs to approximately 18 feet bgs to delineate possible fertilizer contamination emanating from properties across N. First Street. Monitoring well MW-12 was installed to a depth of approximately 18 feet bgs to delineate groundwater conditions at the property boundary in Area 6. Monitoring wells MW-10, MW-11, and MW-12 were not included in the Phase II Work Plan, but were installed according to its procedures.

Two-inch diameter PVC wells were installed in 8-inch diameter borings drilled by HSA method. Wells were set with ten-foot slotted (0.010-inch) PVC screens. Well installations were completed with sand filter packs and hydrated bentonite seals, as well as flush-mounted well monuments. Well construction details were recorded on boring logs contained in Appendix B.

Once the wells were completed, each was developed by surging and bailing to remove finegrained sediment from the formation and filter packs, and increase the hydraulic efficiency of the well. The wells were surged with a surge block through the full extent of the screened interval while simultaneously being purged. Development was considered complete when each respective well produced water that was relatively free of sediment. Groundwater samples were collected using minimal drawdown procedures with a combination of dedicated and non-dedicated equipment. Static water levels and water quality parameters were measured and logged on the groundwater purge and sample forms contained in Appendix C.

Groundwater samples were collected in the laboratory-prepared containers and shipped to Merit Laboratories for analysis. Samples from all five wells were analyzed for arsenic, alkalinity, chloride, DO, nitrogen compounds, phosphate, sulfate, iron, herbicides, pH, and ORP. Samples from MW-10 and MW-11 were also analyzed for VOCs, TPH-Gx, and TPH-Dx. Chains of custody are located in Appendix A.

3.3 Phase II Surface Water/Sediment Investigation

The surface water/sediment investigation of the lagoon located in the southeastern portion of Area 1 was completed in June 2004. One sample of the lagoon surface water and one sample of the lagoon sediment, along with duplicate samples, were collected to evaluate the nitrogen concentrations. The sediment was sampled from the west edge of the lagoon using a ponar dredge. The surface water was sampled from approximately the middle of the lagoon using a HDPE water collection wand. Sampling implements were decontaminated following use according to procedures from the Phase II Work Plan. Both samples were analyzed by Merit Laboratories for nitrates, nitrites, and ammonia. Chains of custody are included in Appendix A.

3.4 Quality Assurance/Quality Control Procedures

To ensure accuracy in sampling results, the following quality assurance/quality control (QA/QC) samples were collected during the Phase II sampling activities: duplicates and equipment blanks. Duplicate samples were collected at a frequency of approximately ten percent to evaluate the laboratory's performance by comparing the analytical results of two samples collected at the same location. Equipment blanks were collected to determine if any contamination was introduced due to improper decontamination of equipment. A review of the analytical results shows that duplicate results were generally consistent, and results do not indicate that contamination from equipment was an issue.

3.5 Single Well Pump Testing

Single well pump tests were performed at monitoring wells MW-1, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8 to estimate the horizontal hydraulic conductivity of the shallow aquifer. Before pump testing was performed, depth to water and total depth of each well at the Site was measured.

Each well had a remote sensing device (RSD; In-Situ TROLL 9000, HERMIT Monitoring System) placed in it to record water levels in the well. The RSD was positioned as close to the bottom of the well as possible without touching the bottom. The RSD was then secured so the position of the RSD was stationary and was not affected by the pump and/or change in water levels. Once the RSD was secured, it was calibrated to the height of water previously measured above it.

Subsequently, the pump was placed into the well and positioned approximately 70% beneath the height of the water column. The RSD was programmed to record water levels with a logarithmic interval. The pump test was started once the static water level in the well recovered to equilibrium conditions. The recording of water levels began just prior to initiating pumping. The pumping rate was set at approximately 0.5 gpm in most of the wells, but ranged from 0.3 gpm to 1.0 gpm due to pump operation and relatively fast drawdown. To verify RSD measurements, water levels in the well were also collected manually during the pump test.

The pumping portion of the test was completed when equilibrium conditions were reached. Equilibrium conditions are defined when water level measurements are unchanged for one-half of a log cycle of time. The RSD then recorded the recovery of the well. As with the pumping portion of the test, water levels in the well were manually measured during recovery to verify the values recorded with the RSD. The RSD was used to measure water levels until the original water level was achieved.

Data collected during the pump test was analyzed to evaluate hydraulic conductivity of the portion of the aquifer that was stressed. The method used to analyze the pump test data was the Cooper-Jacob Method. Results are discussed in Section 4.4.

4.0 DATA PRESENTATION AND SCREENING

In the same manner as during the Phase I RI, detected constituents were screened against MTCA criteria to determine the IHSs and further delineate areas of contamination on the Site. Results for the soil, groundwater, and surface water/sediment investigations are discussed below, as are the results for the single well pump testing.

4.1 Soil Screening

Concentrations of constituents detected in soil during the Phase II RI were first screened against Ecology's MTCA Method A CULs and natural background soil metals concentration to determine the IHSs. Constituents were retained as IHSs for one of the following reasons:

- Detected concentrations exceeded MTCA Method A CULs;
- Detected metals concentrations were above natural background; or
- Detected constituents do not have MTCA Method A CULs or natural background concentrations available.

The IHSs were then screened against MTCA Method B and C CULs, as required by Ecology's MTCA program. Results for each area are discussed below.

4.1.1 Area 3 Results

A summary of the detected concentrations from the Area 3 soil investigation compared to the MTCA Method A CULs is provided in Table 4-1, and the analytical laboratory reports are included in Appendix D. Based upon this comparison, TPH-Gx was retained as an IHS. Results were then screened against MTCA Method B and C CULs in Table 4-2. Please note the MTCA Method C CUL for TPH-Gx was calculated using the "Workbook for Calculating Cleanup Levels for Individual Hazardous Substances." There were five detections of TPH-Gx exceeding Method B and C CULs, all of which were at a depth of 7.5 feet bgs. One additional detection of TPH-Gx at a depth of 4.5 feet bgs exceeded MTCA Method B CULs. Area 3 results are shown on Figure 4-1.

4.1.2 Area 5 Results

Table 4-3 summarizes the detected concentrations from the Area 5 soil investigation in comparison to the MTCA Method A CULs and the natural background soil metals concentrations. The analytical laboratory reports are provided in Appendix D. Based upon this comparison, nitrate-N, phosphate, and sulfate were retained as IHSs, since no MTCA Method A criteria are available. Iron was eliminated as an IHS, since concentrations were below the natural background concentration of 51,500 mg/kg.

Phosphate and sulfate are not recognized as hazardous substances by U.S. Environmental Protection Agency (USEPA), as they are not in Table 302.4 – List of Hazardous Substances and Reportable Quantities (40 CFR, Section 302.4). No MTCA Method B or C CULs for soil have been developed for phosphate or sulfate. These constituents were analyzed for remedial

design purposes rather than for evaluation of risk to human health. Therefore, no comparison to MTCA criteria is required.

The screening of detected concentrations of nitrate-N in Area 5 soil against MTCA Method B and C CULs is provided in Table 4-4. No exceedances were observed.

Figure 4-2 and Figure 4-3 summarize the nitrate-N soil data from Area 5 at depths of 4.5 feet bgs and 9.0 feet bgs, respectively, and also present concentration isopleths to aid in identifying possible source areas. In the Phase I RI Report, a concentration isopleth of 500 mg/kg was chosen to illustrate areas of concern. No Area 5 soil detections in Phase II exceeded 500 mg/kg, indicating that surface soils in Area 5 are of greater concern than subsurface soils. A 300 mg/kg concentrations isopleth was chosen in Figures 4-2 and 4-3 to identify the areas with higher nitrate-N concentrations.

4.1.3 Area 5 SPLP Results

The results of the Area 5 SPLP analysis are found in Table 4-5, and the analytical laboratory reports are included in Appendix D. Comparing the detected results against MTCA Method B and C groundwater criteria or secondary MCLs, nitrite-N and sulfate did not exceed groundwater standards. Nitrate-N and iron did exceed MTCA Method B and C criteria and secondary MCLs, respectively.

The SPLP results will be further discussed in Section 4.5, as they relate to the fate and transport of constituents at the Site.

4.2 Groundwater Screening

Concentrations of constituents detected in groundwater during the Phase II RI were first screened against Ecology's MTCA Method A CULs to determine the list of IHSs. Constituents were retained as IHSs if they exceeded their MTCA Method A CULs, or if no MTCA Method A CULs were available. Detected concentrations of IHSs were then screened against MTCA Method B and C CULs, as required by Ecology's MTCA program. Results are discussed below.

4.2.1 Vertical Profile Boring Results

A summary of the detected concentrations from the vertical profile boring groundwater sampling compared to the MTCA Method A CULs is found in Table 4-6, and the analytical laboratory reports are provided in Appendix D. Based upon this comparison, the following constituents were retained as IHSs: 2,4-D, ammonia-N, arsenic, chloride, dinoseb, iron, nitrate-N, nitrite-N, phosphate, and sulfate. Alkalinity as CaCO₃ and pH were also analyzed in these samples, and results are presented in Table 4-6. These two parameters were analyzed for remedial design purposes and are not considered IHSs.

Detected concentrations of IHSs were then compared to the MTCA Method B and C CULs in Table 4-7. Exceedances were observed for 2,4-D, arsenic, dinoseb, nitrate-N, and nitrite-N. No MTCA Method B and C CULs have been developed for ammonia-N. Ammonia-N will be discussed further in Section 4.5.2.

Chloride, iron, sulfate, and phosphate were analyzed for remedial design purposes rather than for evaluation of risk to human health, and do not have MTCA Method B and C CULs for groundwater. Phosphate and sulfate are not recognized by USEPA as hazardous substances (according to 40 CFR, Section 302.4). Detected concentrations of chloride, iron, and sulfate were compared to their secondary MCLs, and exceedances were observed. No secondary MCL exists for phosphate. Secondary MCLs are based on cosmetic and aesthetic criteria for drinking water rather than on human health.

The maximum detected concentrations of constituents at each vertical profile boring location (regardless of depth or duplicate) exceeding MTCA Method B and C CULs or secondary MCLs are shown on Figure 4-4.

Summaries of the vertical profile boring groundwater results and concentration isopleths for nitrate-N and ammonia-N are included in Figures 4-5 through 4-8. Figure 4-5 and Figure 4-6 present nitrate-N concentration isopleths for the vertical profile borings at depths of 10 feet bgs and 20 feet bgs, respectively. Figure 4-7 and Figure 4-8 present ammonia-N concentration isopleths for the vertical profile borings at depths of 10 feet bgs and 20 feet bgs, respectively. These figures demonstrate that source areas are limited to the southeastern portion of the Site, located in Area 1 and the southern section of Area 6.

4.2.2 Permanent Monitoring Well Results

A summary of the detected concentrations from the sampling of permanent monitoring wells MW-8, MW-9, MW-10, MW-11, and MW-12 compared against the MTCA Method A CULs is found in Table 4-8, and the analytical laboratory reports are provided in Appendix D. Based upon this comparison, the following were retained as IHSs: ammonia-N, arsenic, benzene, chloride, 2,4-D, dinoseb, iron, nitrate-N, phosphate, n-propylbenzene, sulfate, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, o-xylene, and p,m-xylene. Only arsenic and benzene exceeded their MTCA Method A CULs. All other constituents listed above were retained on the basis that no Method A criteria were available. Alkalinity as CaCO₃ and pH were also analyzed in these samples, and the results are presented in Table 4-8. These two parameters were analyzed for remedial design purposes; therefore, they are not considered IHSs and are not included in further result analysis.

Table 4-9 presents the comparison between detected concentrations of IHSs against MTCA Method B and C CULs. Exceedances of MTCA Method B and C CULs were observed for arsenic and nitrate-N in all five wells. Exceedances of MTCA Method B and C CULs were also observed for benzene in MW-10 and 2,4-D in MW-12. Ammonia-N was detected in MW-8, MW-9, and MW-12, but no MTCA Method B and C CULs have been developed. Ammonia-N will be discussed in Section 4.5.2.

Detected concentrations of chloride, iron, and sulfate were compared to their secondary MCLs. Iron exceeded its secondary MCL in all five wells, while sulfate its secondary MCL in MW-8, MW-9, and MW-12. Chloride only exceeded its MCL in MW-12.

The maximum detected concentrations of constituents at each monitoring well location installed during Phase II exceeding MTCA Method B and C CULs or secondary MCLs are shown on Figure 4-9. The maximum detected concentrations of constituents from MW-1, MW-3, MW-4,

MW-5, MW-6, and MW-7 exceeding MTCA Method B and C CULs or secondary MCLs are also shown on this figure. These samples were collected during the fourth quarter of groundwater monitoring on June 1, 2004.

4.2.3 Groundwater Summary

Figure 4-10 and Figure 4-11 show the maximum detected groundwater concentrations for nitrate-N and ammonia-N, respectively, regardless of sample date or depth at all monitoring well and vertical profile boring locations. Maximum detected groundwater concentrations at wells MW-1 through MW-7 are also shown on these drawings. Please note that Phase I results on Figure 4-10 are for total nitrates + nitrites, as no separate analysis was performed for nitrate-N.

Concentration isopleths of 1,000 mg/l and 500 mg/l have been drawn to help illustrate the areas of concern at the Site. These areas are focused in the southeastern portion of the Site. These results will be further discussed in Section 4.5.

4.3 Surface Water/Sediment Investigation Results

Table 4-10 summarizes the detected concentrations from the surface water/sediment sampling of the lagoon, and the analytical laboratory results are included in Appendix D. No detections of nitrate-N or nitrite-N were observed. Ammonia-N was detected in both the sediment and surface water samples and their duplicate samples.

4.4 Single Well Pump Testing Results

Drawdown and recovery data from the single well pump testing were analyzed according to the Cooper-Jacob Method to determine the hydraulic conductivity of each well. The results are summarized in Table 4-11. The hydraulic conductivities (K) were calculated to range from 2.74E-05 cm/s to 4.12E-04 cm/s, with an average hydraulic conductivity of 1.45E-04 cm/s. This hydraulic conductivity is characteristic of fine sands, organic and inorganic silts, and mixtures of sand, silt, and clay.

4.5 Fate and Transport

Based upon the results of the Phase I RI, further delineation and analysis was performed regarding the fate and transport for constituents at the Site, including nitrate, ammonia, dinoseb, and arsenic. This delineation and findings are discussed in the following sections.

4.5.1 Nitrate

Nitrate-N was detected in off-site monitoring well MW-9 at a concentration of 1,000 mg/l in groundwater, which is above MTCA Method B and C criteria. This indicates that nitrates are leaching from the soil column and migrating off-site through groundwater flow. This is further reinforced by the results of the SPLP testing on soil samples from Area 5. This testing showed that nitrates did leach from the soil column, resulting in concentrations ranging from 1 mg/l to 14.7 mg/l. Nitrate migration is also illustrated in Figure 4-10. Concentration isopleths were generated using the maximum nitrate-N concentrations in groundwater, and show that the

nitrate-N plume is concentrated in Area 1 and in the southern portion of Area 6. It also extends off-site.

Nitrite-N is not shown to exhibit the same behavior, as it was not detected in off-site monitoring well MW-9, and was also not detected in the SPLP testing. Therefore, nitrite-N is not a concern for leaching to groundwater and off-site migration.

4.5.2 Ammonia

Ammonia is not shown to mobilize from the soil column, and is not a concern for leaching to groundwater and migrating off-site. Ammonia-N was detected at the method detection limit in off-site well MW-9 at a concentration of 0.1 mg/l in groundwater. The SPLP testing in Area 5 showed that ammonia-N only leached from the soil column in one out of ten samples, and at a low concentration of 0.5 mg/l. Figure 4-11, which shows concentration isopleths generated using the maximum ammonia-N concentrations in groundwater, indicates that ammonia-N concentrations are centered in Area 1 and the southern portion of Area 6, and do not significantly extend off-site.

The cation exchange capacity (CEC) of the soils in Area 1 was investigated during the Phase I RI, and an average CEC of 20.3 milliequivalents/100 grams was reported. This is a relatively high CEC for sandy soils, indicating the Site soils have a great capacity to hold exchangeable cations, such as ammonium.

Research involving soil testing indicates most nutrient anions in their available form, such as nitrate (NO₃⁻), chloride (Cl⁻), sulfate (SO₄⁻²) and borate (BO₃⁻³), are repelled by the soil-exchange complex and, therefore, will easily leach with excess water. This reinforces the conclusions from Section 4.5.1.

4.5.3 Dinoseb

Dinoseb is not shown to be a concern for migration off-site. Though dinoseb was detected in samples collected from the on-site vertical profile borings at levels above MTCA Method B and C criteria, dinoseb was not detected at levels above MTCA Method B and C criteria in off-site monitoring well MW-9 or monitoring well MW-12.

4.5.4 Arsenic

Arsenic exceeds the MTCA Method B and C criteria across the Site in both impacted and nonimpacted areas. Arsenic can be released naturally into the groundwater from the soil by a variety of weathering and biological mechanisms. When the arsenic is dissolved into the groundwater, it may undergo other transformations involving redox reactions or ligand exchange. The fate and transport process for arsenic in groundwater is highly dependent upon the valence state of the arsenic, the pH of the groundwater, and the concentration of iron in the soil and groundwater. Arsenic is most commonly found in groundwater in the form of arsenate, As (V), and less frequently as arsenite, As (III), depending on subsurface redox conditions.

The presence of nitrate (an oxidizing agent) in the Site groundwater has produced elevated redox conditions (+70 mV to +182 mV) which makes arsenic more stable in the soil and less

soluble in the groundwater due to high sorption capacity. At the typical Site groundwater pH conditions of 7.2 to 8.3, the arsenic exists in the form of the $H_2AsO_4^-$ and $H_2AsO_4^{-2-}$ arsenic conjugate bases. These two anions are readily sorbed to common iron minerals and iron oxyhydroxides in the subsurface. This arsenic can be released by reductive dissolution of the iron mineral or oxyhydroxide. Movement of most arsenic species in the groundwater will occur by the reduction of iron minerals and/or ferric oxyhydroxides which release sorbed arsenate anions into solution. Once in solution, the arsenate may be reduced to arsenious acid (H_3AsO_3). Arsenious acid has a pK_a value of 9.2, so very little conjugate base is available for sorption. Therefore, the arsenite, As (IIII), is more soluble and mobile in groundwater than arsenate, As (V).

5.0 TREATABILITY INVESTIGATION

A treatability investigation, including both a bench-scale study and field pilot study, was conducted at the Site to guide future remediation activities. Results of the treatability investigation are detailed below.

5.1 Bench-scale Study Results

Bench-scale testing was conducted using representative soil and groundwater samples collected from the Site. Five gallons of soil were collected from the unsaturated zone and designated for evaluation of potential ex-situ treatment remedies. Five gallons of soil were collected from the saturated zone and designated for testing of potential in-situ treatment processes. Ten gallons of groundwater were collected from MW-04, where dinoseb has previously been detected. The samples were delivered to SECOR's Treatability Laboratory in Toledo, Ohio, where the bench-scale testing was performed.

To ensure an efficient, cost-effective collection of data, the bench-scale treatability study was conducted in a phased approach. Testing results from the initial phases were incorporated within the design parameters of subsequent testing. The following sections provide a summary of the work scope completed during each phase of testing, and provide testing results.

5.1.1 Phase I – Initial Baseline Screening

Upon receipt of samples by SECOR's Treatability Laboratory, initial baseline screening of the soil and groundwater was conducted. The groundwater was analyzed for the following parameters.

- Alkalinity
- pH
- ORP
- Nitrates
- Nitrites
- Ammonia

- Phosphorus
- Total heterotrophs
- Denitrifying bacteria
- Nitrifying bacteria
 - Sulfates

- Arsenic
- Iron
- Manganese
- TOC
- Dinoseb
- The saturated and unsaturated soil samples were analyzed for the following parameters:
 - Nitrates
 - Nitrites
 - Ammonia
 - Phosphorus
 - Dinoseb

The nitrogen and phosphorus data were used to determine if the nitrogen-to-phosphorus ratios were adequate for nitrification and denitrification. Alkalinity data was used to determine if alkalinity supplements were required for nitrification (the alkalinity-to-ammonia-N ratio should be approximately 9:1 to avoid acidic pH conditions). The total nitrogen loading was also used to

establish the dosage demands for the soluble carbon substrate required in the denitrification stage. All other analyses were used to establish baseline criteria for the bench-scale test. The results of Phase I are presented below.

Soil Analysis Results

Representative samples of the unsaturated and saturated soil zones were sent to Merit Laboratories for analysis. Initial samples were also sent to Brookside Laboratories, Inc. (Brookside) in New Knoxville, Ohio for dinoseb analysis. The results are presented in the following table.

Initial Soil Analysis Results					
Analysis Parameter Unsaturated Soil Saturated Soil EPA Method					
Ammonia	820 mg/kg	85 mg/kg	350.3		
Nitrate	180 mg/kg	153 mg/kg	300.0		
Nitrite	< 40 mg/kg	< 40 mg/kg	300.0		
Total Phosphorus	810 mg/kg	2,440 mg/kg	365.2		
Solids	78%	77%	160.3		
Dinoseb	< 0.5 mg/kg	< 0.5 mg/kg	8150		

Groundwater Analysis Results

Representative groundwater samples were also sent to Merit Laboratories and Brookside for baseline analyses. The results of these groundwater analyses are provided in the following table.

Initial Groundwater Analysis Results							
Analysis Parameter	Analysis Parameter Groundwater Concentration EPA Method						
Ammonia	730 mg/l	350.3					
Nitrate	754 mg/l	300.0					
Nitrite	3.7 mg/l	300.0					
TOC	8.88 mg/l	415.1					
Total Phosphorus	0.1 mg/l	365.2					
Sulfate	208 mg/l	300.0					
Arsenic	0.008 mg/l	200.8					
Iron	0.22 mg/l	200.8					
Manganese	0.328 mg/l	200.8					
Dinoseb	0.459 mg/l	8150					

SECOR's Treatability Laboratory performed groundwater screening for a variety of parameters. The results are presented below.

SECOR's Initial Groundwater Analysis Results					
Analysis Parameter Groundwater Results Screening Method					
рН	7.65	Oakton Meter 35624-34			
ORP	131 mV	Oakton Meter 35650-02			
Alkalinity	454 mg/l	Sulfuric Acid Titration			
Nitrate	> 500 mg/l	Hach Test Strip 27454-25			
Nitrite	> 3 mg/l	Hach Test Strip 27454-25			

Initial analyses were performed on Site groundwater to quantify populations of heterotrophic, nitrifying, and denitrifying bacteria to provide baseline criteria for evaluating bench-scale efforts to stimulate the desired microbes. Testing was performed using BART[™] microbiology test kits manufactured by Droycon Bioconcepts, Inc. The initial testing results are provided below.

Initial Microbial Screening Results			
Parameter	Population (colony forming units/milliliter)		
Total Heterotrophs*	500,000		
Nitrifying Bacteria	> 100,000		
Denitrifying Bacteria	1,000		

* Test results further identified the dominant heterotroph type to be aerobic.

5.1.2 Phase II – Treatment Using Indigenous Bacteria Versus Inoculants

Once baseline criteria were established, the second phase of testing was initiated to evaluate the potential for stimulating the indigenous microbial populations for the desired remediation purposes. Commercially-made inoculants were also evaluated as part of the testing. The inoculants were obtained from Acquamarine and Alken-Murray Corporation. The Acquamarine inoculants consisted of freeze-dried nitrifying (ACM-NH₃) and denitrifying (ACM-NO₃) bacteria. The Alken-Murray products consisted of a liquid concentrate of nitrifying bacteria (Alken Clear-Flo 7110(50x)) and a dried blend of denitrifying bacteria (Alken Enz-Odor 6). In-situ treatment was evaluated using soils collected from below the water table and ex-situ treatments were simulated using unsaturated zone soil moistened with groundwater. Analytical parameters were similar to those completed in Phase I.

Testing was conducted by preparing four sample subsets. Enhanced nitrification and denitrification were evaluated under both in-situ and ex-situ conditions. Test samples were comprised of a soil/groundwater matrix in a container with the chemical additive to be evaluated. The subsets included a kill group (where sulfuric acid was used to eliminate the microbes) and a control group (soil and groundwater without additive). The kill group underwent the same enhancement process as the bacterial samples.

The in-situ nitrification subset evaluated enhancement of the indigenous bacteria with an inoculant (ACF 110-50X or ACM-NH₃) to determine if inoculation was required and if it was beneficial. The samples were supplemented with bicarbonate alkalinity, as required, and sparged with a small air pump to oxygenate the samples. The evaluated inoculants contained both the *Nitrosomonas* and *Nitrobacter* bacteria for optimal nitrification. The ex-situ nitrification process evaluated percarbonate addition as a chemical capable of delivering both bicarbonate and oxygen for enhanced nitrification. The denitrification treatment studies for the in-situ and ex-situ applications were evaluated using acetate addition as an electron donor enhancement. The samples included an indigenous bacteria test group and two inoculated test groups. The inoculated test groups included commercial inoculants of denitrifying bacteria cultures (ACM-NO3 and A-EO-6) known to contain a wide variety of denitrifying bacteria.

Nitrification Process

Process monitoring was conducted for the saturated system through measurement of pH, ORP, and ammonia levels over the course of the testing timeframe. The pH and ORP levels for the individual test samples showed little fluctuation over the course of the first 21 days of testing.

Monitoring of ammonia levels within the test samples using an EM Science test kit indicated levels exceeded the maximum detectable concentration of 400 mg/l.

The results indicated that geochemical parameters present at the Site produced rate-limited conditions resulting from low alkalinity. The bioactivity within the test samples leveled off as the alkalinity dropped below 100 mg/l. The indigenous and two commercially-produced inoculant samples were therefore supplemented using sodium bicarbonate, instead of sodium carbonate, to increase alkalinity. The results were very promising, as monitoring of ammonia levels using the EM Science test kit produced concentrations ranging from 10 mg/l to 100 mg/l. The monitoring results showed the best performance was achieved through the stimulation of indigenous microbial populations.

Nitrification – Unsaturated Test Samples						
Analyte	ACF 110-50x					
Ammonia	70 mg/kg	100 mg/kg	90 mg/kg	100 mg/kg	120 mg/kg	
Nitrate	166 mg/kg	130 mg/kg	145 mg/kg	125 mg/kg	155 mg/kg	
Nitrite	< 10 mg/kg					
Phosphorus	2,240 mg/kg	2,120 mg/kg	2,380 mg/kg	2,080 mg/kg	2,720 mg/kg	
Solids	76%	78%	77%	79%	77%	

Nitrification testing results are presented in the following tables.

Nitrification – Saturated Test Samples						
Analyte Control Kill Indigenous ACM-NH ₃ ACF 110-5						
Ammonia	240 mg/l	970 mg/l	8.5 mg/l	38 mg/l	73 mg/l	
Nitrate	859 mg/l	908 mg/l	906 mg/l	1,010 mg/l	987 mg/l	
Nitrite	55.9 mg/l	< 0.2 mg/l	929 mg/l	832 mg/l	819 mg/l	
Phosphorus	6.34 mg/l	10.0 mg/l	4.35 mg/l	2.94 mg/l	4.00 mg/l	

Testing performed using the BART[™] test kits showed that greater than 10,000-fold increases in nitrifying bacteria microbial populations occurred within the indigenous and two commercially-produced inoculant test samples, compared to pre-test levels. However, the laboratory results show that incomplete oxidation of ammonia occurred, resulting in the formation of nitrites and not nitrates. These results were observed in both the inoculated samples and the indigenous samples, thus indicating that the incomplete bio-oxidation was the result of chemical biological inhibitions rather than a lack of suitable bacteria for nitrification.

Denitrification Process

Process monitoring conducted for the saturated system indicated Site soils may be highly amenable to the denitrification of nitrates and nitrites through the enhancement of naturally occurring biological processes. The pH of the indigenous and two inoculant samples increased by approximately 15 percent within the first few days of testing, before stabilizing between 9.0 and 9.2. A decrease in sample ORPs to levels less than -100 mV were recorded within the first week.

The data collected during testing indicated that following a brief acclimation period of a few days, stimulation of bacteria occurred within the test samples for the denitrification process. Monitoring of nitrate and nitrite levels using the Hach test kits showed reduction in

concentrations to below detection limits occurs within the first ten days. The process also resulted in elevated alkalinity levels, averaging approximately 6,600 mg/l. This concentration was 22 times that observed within the control sample. The monitoring results showed the best performance was achieved through the stimulation of indigenous microbial populations.

Final samples for the saturated and unsaturated systems of the denitrification process were collected and submitted to Merit Laboratories for analysis. The results of these analyses are presented in the tables below.

Denitrification – Unsaturated Test Samples								
Analyte	Analyte Control Indigenous ACM-NO ₃ A-EO-6							
Ammonia	70 mg/kg	60 mg/kg	40 mg/kg	60 mg/kg				
Nitrate	165 mg/kg	< 4.0 mg/kg	< 4.0 mg/kg	< 4.0 mg/kg				
Nitrite	< 4.0 mg/kg	< 4.0 mg/kg	< 4.0 mg/kg	< 4.0 mg/kg				
Phosphorus	2,220 mg/kg	2,700 mg/kg	2,210 mg/kg	2,220 mg/kg				
Solids	74%	74%	77%	76%				

Denitrification – Saturated Test Samples						
Analyte Control Indigenous ACM-NO ₃ A-EO						
Ammonia	750 mg/l	590 mg/l	550 mg/l	600 mg/l		
Nitrate	890 mg/l	< 4.0 mg/l	< 4.0 mg/l	< 4.0 mg/l		
Nitrite	5.0 mg/l	< 4.0 mg/l	< 4.0 mg/l	< 4.0 mg/l		
Phosphorus	2.17 mg/l	4.53 mg/l	6.75 mg/l	5.34 mg/l		
TOC	10.6 mg/l	561 mg/l	238 mg/l	219 mg/l		
Arsenic	0.068 mg/l	0.103 mg/l	0.153 mg/l	0.151 mg/l		
Iron	0.880 mg/l	1.410 mg/l	1.600 mg/l	1.710 mg/l		
Manganese	0.404 mg/l	0.293 mg/l	0.315 mg/l	0.311 mg/l		
Selenium	< 0.005 mg/l	< 0.005 mg/l	< 0.005 mg/l	< 0.005 mg/l		

Testing performed using the BART[™] microbiology test kits showed greater than 5,000-fold increases in microbial populations for denitrifying bacteria occurred within the indigenous and two commercially-produced inoculant test samples when compared to pre-test levels.

5.1.3 Phase III – Electron Acceptor and Donor Optimization

This phase of the treatability study was designed to evaluate the effectiveness of multiple electron donors and acceptors to enhance the desired nitrification/denitrification reactions. Testing was conducted utilizing stimulation of the indigenous microbial population, identified as showing optimal performance during Phase II. Analytical parameters are the same as those in Phase II, and samples were collected at the same sampling frequency.

Testing was conducted by preparing four sample subsets. Enhanced nitrification and denitrification was evaluated under in-situ and ex-situ conditions. Test samples were comprised of a soil/groundwater matrix in a container with the chemical additive to be evaluated. The nitrification subsets contained a control group comprised of soil, groundwater, and selected microbes without addition of an electron acceptor. The denitrification subsets were compared to a control group utilizing acetate as an electron donor.

The in-situ nitrification subset evaluated the ability of two electron acceptors: aeration/bicarbonate and sodium percarbonate. The ex-situ nitrification process evaluated sodium percarbonate and calcium peroxide addition. Denitrification treatment for the in-situ and ex-situ applications was evaluated using both glucose and whey powder as electron donors.

At completion of the test, water samples were filtered from the saturated denitrification treatability studies for analyses of dissolved arsenic, manganese, and iron to determine if reduced groundwater conditions increased concentrations of these metals in solution. In addition, the water was analyzed for TOC to determine the extent of electron donor degradation, and for dinoseb to evaluate the extent of dinoseb degradation resulting from the carbon substrate addition.

Final samples were collected and submitted to Merit Laboratories and Brookside. The nitrification and denitrification tests were conducted concurrently for both the saturated and unsaturated soils. Phase III testing results are presented below.

Nitrification Process

Test sample monitoring followed the same procedures and parameters outlined during the Phase II testing. Given the rate-limiting conditions observed during the previous tests, the addition of sodium bicarbonate was incorporated during preparation of the aeration sample for the saturated soils. The production of excessive amounts of off-gas and pressure build up within five minutes of preparing the unsaturated soil sample amended with calcium peroxide excluded this remedial option from further evaluation.

Process monitoring was conducted for pH, ORP, and ammonia levels within the saturated soil samples. The sodium percarbonate sample pH held steady throughout the testing at approximately 9.9, while the ORP showed an initial decrease from +54 mV to +12 mV in the first two days before steadily increasing back to pretest levels over the course of the next four weeks. A similar trend was observed for the aeration sample ORP, as an initial decrease from +64 mV to +26 mV was observed. However, the subsequent increase exceeded pretest levels at the end of the test, achieving +149 mV. The pH levels recorded for the aeration sample held steady at approximately 9.2 for the first sixteen days, and then decreased to 6.6 over final two weeks of testing. The alkalinities of the aeration and sodium percarbonate test samples were determined to be approximately 100 mg/l and 10,400 mg/l, respectively

The results of the laboratory analyses performed by Merit Laboratories and Brookside for the Phase III test samples are provided in the following tables.

Nitrification – Unsaturated Test Sample						
Sample Total Solids Ammonia Nitrate Nitrite Phosphorus						
Sodium Percarbonate 80% 40 mg/kg 129 mg/kg < 5 mg/kg 2,040 mg/kg						

Nitrification – Saturated Soils						
Analyte Aeration Sample Sodium Percarbonate Sam						
Ammonia	75 mg/l	740 mg/l				
Nitrate	1,070 mg/l	906 mg/l				
Nitrite	461 mg/l	13.6 mg/l				
Phosphorus	7.47 mg/l	4.43 mg/l				

Monitoring with the BART[™] test kits showed total heterotroph populations for the aeration sample to be approximately 1,000–10,000 cfus/ml. No heterotrophs were observed in the sodium percarbonate sample. Testing for nitrifying bacteria provided the same results for both samples as populations ranged between 1,000 and 10,000 cfus/ml.

Denitrification Process

Phase III denitrification testing was designed to evaluate the ability of sodium acetate, glucose, and whey powder to act as electron donors for stimulating indigenous bacteria for the reduction of dinoseb, nitrate, and nitrite levels within the subsurface. After a four-week reaction period, final samples were collected and submitted for off-site laboratory analyses for the parameters of concern.

Monitoring of pH, ORP, nitrate, and nitrite levels was conducted for the saturated systems of the sodium acetate, glucose, and whey powder test samples. The ORP for all three samples decreased from pretest levels of approximately +80 mV to < -100 mV within the first three days and remained at this level for the duration of the testing. The pH of the whey powder and sodium acetate samples increased over the course of the testing timeframe, while pH levels decreased within the glucose sample. The recorded pH levels from before and after treatment are provided in the following table.

Denitrification pH Monitoring Results						
Sample Sodium Acetate Glucose Whey Powder						
Pre-treatment pH	7.44	7.42	6.64			
Post-treatment pH	9.04	6.91	7.15			

Nitrate and nitrite levels were monitored during testing through screening with the Hach test strips. Pretest levels exceeded 500 mg/l and 30 mg/l for nitrate and nitrite, respectively, in all three samples. These levels were reduced below detection limits for the test strips within nine days, and remained undetected for all three sample subsets until completion of the testing timeframe.

Representative samples were collected and submitted to Merit Laboratories and Brookside for analysis of the parameters of concern. The results of these analyses are presented in the following tables.

Denitrification – Unsaturated Test Samples							
Analyte Sodium Acetate Glucose Whey Powder							
Ammonia	50 mg/kg	30 mg/kg	50 mg/kg				
Nitrate	12 mg/kg	< 5 mg/kg	< 5 mg/kg				
Nitrite	76 mg/kg	< 5 mg/kg	< 5 mg/kg				
Phosphorus	2,090 mg/kg	2,130 mg/kg	2,120 mg/kg				
Total Solids	76%	80%	80%				

Denitrification – Saturated Test Samples					
Analyte	Sodium Acetate	Glucose	Whey Powder		
Ammonia	540 mg/l	610 mg/l	650 mg/l		
Nitrate	< 50 mg/l	< 50 mg/l	< 50 mg/l		
Nitrite	< 50 mg/l	< 50 mg/l	< 50 mg/l		
Phosphorus	9.44 mg/l	3.04 mg/l	18.6 mg/l		
TOC	807 mg/l	1,610 mg/l	1,170 mg/l		
Sulfate	< 500 mg/l	< 500 mg/l	< 500 mg/l		
Arsenic	0.144 mg/l	0.138 mg/l	0.196 mg/l		
Iron	1.13 mg/l	81.2 mg/l	37.2 mg/l		
Manganese	0.161 mg/l	19.8 mg/l	14.4 mg/l		
Selenium	< 0.005 mg/l	< 0.005 mg/l	< 0.005 mg/l		
Dinoseb	< 0.0025 mg/l	< 0.0025 mg/l	< 0.0025 mg/l		

Monitoring was also conducted on the three saturated test samples for alkalinity and microbial populations using the BARTTM test kits. The results are presented in the following table.

Denitrification SECOR Monitoring Results							
Parameter Sodium Acetate Glucose Whey Powder							
Alkalinity	7,270 mg/l	2,630 mg/l	3,030 mg/l				
Total Heterotrophs	> 5,000,000 cfus/ml	> 5,000,000 cfus/ml	> 5,000,000 cfus/ml				
Denitrifying Bacteria	> 5,000,000 cfus/ml	> 5,000,000 cfus/ml	> 5,000,000 cfus/ml				

5.1.4 Phase IV – Evaluation of Bench-Scale Nitrification/Denitrification Kinetics

The fourth phase of bench-scale testing was designed to evaluate the potential full-scale in-situ treatment procedures to be implemented during the field pilot study. The results obtained during Phase II and Phase III were used to identify the optimal microbial population, electron donor, and electron acceptor for the site-specific process application for the optimal denitrification and nitrification steps. The process was conducted on a mixed soil/groundwater sample utilizing two sequential steps. The following work tasks were completed for evaluating the potential process:

- Preparation of test sample with the selected microbial population from Phase II in-situ denitrification tests;
- Addition of selected electron acceptor identified during the Phase III in-situ denitrification tests;
- Completion of an initial four-week reaction period;
- Collection of midpoint samples for analysis of specific parameters to evaluate the denitrification portion of the test;
- Initiation of sample nitrification through the addition of the selected microbes identified in Phase II and the optimal oxygen source and bicarbonate supplement identified during Phase III;
- Completion of a second four-week reaction period; and
- Collection of final samples for analysis of specific parameters to evaluate the nitrification portion of the test and the overall performance of the recommended remedial program.

The test was designed to first stimulate the indigenous denitrifying bacteria to address the nitrate, nitrite, and dinoseb concentrations within the sample. Testing conducted during Phases II and III indicated the process would result in increased alkalinity and pH levels, thereby providing favorable conditions for the second step incorporating ammonia removal through sample aeration.

The Phase IV test sample was prepared in a 10-liter plastic container. Five kilograms of saturated zone soil was combined with 5.5 liters of groundwater. The theoretical carbon demand for the denitrification process within the test sample was calculated to be 29.5 grams. Therefore, approximately 101 grams of sodium acetate was added to the test sample to act as a carbon source. An additional 70.2 milligrams of phosphorus was introduced, as a solution of sodium phosphate, to ensure proper nutrient levels. The results of baseline screening conducted on the groundwater within the test sample for treatment evaluation purposes are presented in the following table.

Phase IV – Baseline Screening Results				
Parameter	Results			
Ammonia	730 mg/l			
Nitrate	754 mg/l			
Nitrite	3.7 mg/l			
Dinoseb	0.459 mg/l			
TOC	8.8 mg/l			
Total Phosphorus	0.1 mg/l			
Sulfate	208 mg/l			
Arsenic	0.008 mg/l			
Iron	0.22 mg/l			
Manganese	0.328 mg/l			
рН	7.58 mg/l			
ORP	128 mV			
Alkalinity	500 mg/l			
Total Heterotrophs	500,000 cfu/ml			
Denitrifying Bacteria	1,000 cfu/ml			
Nitrifying Bacteria	> 100,000 cfu/ml			

The test sample was placed in a light-deficient environment and allowed to react over the course of the following four weeks. Periodic monitoring of the sample was conducted for the parameters of pH, ORP, ammonia, nitrates, and nitrites. The pH and ORP levels were monitored using Oakton meters. The ammonia, nitrate, and nitrite concentrations were determined using Hach test kits. The results of the denitrification process monitoring are provided in the table below.

Phase IV – Denitrification Process Monitoring						
Day	рН	ORP (mV)	Ammonia (mg/l)	Nitrate (mg/l)	Nitrite (mg/l)	
0	7.58	128	> 400	>500	> 3	
1	7.46	108	> 400	>500	> 3	
2	7.61	76	> 400	>500	> 3	
5	8.55	-24	> 400	>500	> 3	
7	9.08	< -100	> 400	BDL*	BDL	
8	9.02	< -100	> 400	BDL	BDL	
9	8.98	< -100	> 400	BDL	BDL	
12	8.97	< -100	> 400	BDL	BDL	
14	8.95	< -100	> 400	BDL	BDL	
19	8.90	< -100	> 400	BDL	BDL	
23	8.91	< -100	> 400	BDL	BDL	
27	8.92	< -100	> 400	BDL	BDL	
28	8.91	< -100	> 400	BDL	BDL	

*BDL = Below detection limit.

The results of the process monitoring showed a steady increase in pH levels over the first week of testing to slightly above 9.0, while a corresponding decrease in test sample ORP to levels below -100 mV was observed over the same timeframe. Reduction in nitrate and nitrite concentrations to levels below detection limits of the Hach test kits also occurred within the first seven days of Phase IV testing. Ammonia levels remained above 400 mg/l for the duration of the 28-day monitoring period. After peaking at 9.08 on Day 7, pH levels stabilized at approximately 8.9.

For the midpoint sampling, representative samples of the groundwater were collected and sent for off-site laboratory analyses for the parameters of concern at Merit Laboratories and Brookside. The results are presented in the following table.

Phase IV – Midpoint Sample Analysis Results					
Parameter	Results	Parameter	Results		
Ammonia	580 mg/l	Iron	1.21 mg/l		
Nitrate	< 0.2 mg/l	Manganese	0.095 mg/l		
Nitrite	< 0.2 mg/l	рН	8.91		
Dinoseb	< 0.01 mg/l	ORP	< -100 mV		
TOC	1,030 mg/l	Alkalinity	7,330 mg/l		
Total Phosphorus	7.23 mg/l	Total Heterotrophs	> 5,000,000 cfu/ml		
Sulfate	197 mg/l	Denitrifying Bacteria	> 5,000,000 cfu/ml		
Arsenic	0.068 mg/l	Nitrifying Bacteria	10,000 – 100,000 cfu/ml		

The results of the midpoint sampling indicated the indigenous bacteria at the Site could be successfully stimulated within a laboratory setting to reduce dinoseb, nitrate, and nitrite levels below analytical detection limits. This stimulation in bioactivity was further verified by the 500,000 fold increase observed in denitrifying bacteria populations. As predicted by the earlier testing, the denitrification process also resulted in the significant increase in test sample alkalinity required for the nitrification portion of the Phase IV testing.

Once the midpoint sampling was completed, sparging of the test sample was initiated. A small air pump, connected by Tygon tubing to a diffuser stone installed in the bottom of the sample container, was used to oxygenate the soil/water matrix. The aeration was continued for the next three weeks, with periodic sample monitoring conducted for the parameters of pH, ORP, ammonia, nitrates, and nitrites. The pH and ORP levels were monitored using Oakton meters. The ammonia, nitrate, and nitrite concentrations were determined using Hach test kits. The results of the nitrification process monitoring are provided in the table below.

Phase IV – Nitrification Process Monitoring							
Day	Day pH ORP (mV) Ammonia (me						
0	8.91	< -100	> 400				
1	9.04	-36	> 400				
2	9.32	28	200 - 400				
6	9.54	35	200 - 400				
15	9.56	40	100 - 200				
20	9.56	45	100 - 200				

A steady increase was observed in both the pH and ORP levels of the test sample. Aeration of the sample also appeared to result in reduction of ammonia levels, based on the results obtained using the Hach test kit. After Phase IV activities were discontinued, groundwater samples were collected for analysis by Merit Laboratories. The results are presented in the following table.

Phase IV – Final Sample Analysis Results				
Parameter	Results			
Ammonia	132 mg/l			
Nitrate	< 0.2 mg/l			
Nitrite	< 0.2 mg/l			
Total Phosphorus	26.1 mg/l			
рН	9.56			
ORP	45 mV			
Alkalinity	4,450 mg/l			
Total Heterotrophs	> 5,000,000 cfu/ml			
Denitrifying Bacteria	> 5,000,000 cfu/ml			
Nitrifying Bacteria	> 100,000 cfu/ml			

The results show that the overall process was able to reduce ammonia concentrations in the test sample. An 82 percent reduction was observed over the course of Phase IV testing, with 61 percent of the ammonia present removed during the aeration portion of the test. The increased pH levels produced during testing appear to have created conditions within in the test sample where ammonia levels were more amenable to stripping as opposed to the biodegradation pathway. As a result, the significant reduction in alkalinity (39 percent) is likely due to the precipitation of carbonates based on Langelier saturation resulting from the pH shift of the water, and not alkalinity uptake by nitrifying bacteria. However, the elevated bioactivity for the indigenous nitrifying/denitrifying bacteria shown with the BART[™] test kits indicates some nitrification/denitrification processes may have been occurring simultaneously with test sample aeration.

5.1.5 Phase V – Nitrate/Ammonia Flushing Column Test

Phase V of testing was designed to evaluate the potential application of the pump and treat technology to address nitrate, nitrite, and ammonia levels within the unsaturated and saturated soils. Two columns were constructed using a 12-inch section of 2-inch outer diameter Plexiglas tubing. The columns were constructed to provide a 9-inch soil bed, with sand intervals at the inlet and outlet to keep the soil in place. The ends of the column were capped and sealed. Hose barb fittings were installed at each end of the soil bed to allow the conveyance of "clean" water through the column using FMI Model QG 6 laboratory pumps.

The first column was constructed with unsaturated soils, and the second with saturated soils. The two column tests were conducted simultaneously, using separate pumps, to reduce the testing timeframe. Assuming a forty percent soil porosity and soil bed volume of approximately 355 cubic centimeters, it was calculated that a pumping rate of 0.099 ml/min would provide for one pore volume exchange per day through the columns. These testing parameters allowed for completion of testing in 21 days.

Samples of the column effluents were collected on a frequency of once every three pore volume exchanges, and were sent to Merit Laboratories for analysis of nitrates, nitrites, and ammonia. Process monitoring of the column effluents for nitrate and nitrite levels using the Hach test kit showed concentrations peaked within the initial pore volume exchanges before decreasing over the course of the testing timeframe. Upon completion of the Phase V testing, representative soil samples from each column were collected and also submitted for analysis. The results of off-site laboratory analyses performed by Merit Laboratories for the column effluents and soil samples are presented in the following tables.

Nitrate/Ammonia Flushing Column Tests – Effluent Analysis Results						
Pore	Unsaturated Soil			Saturated Soil		
Volumes	Ammonia	Nitrate	Nitrite	Ammonia	Nitrate	Nitrite
Initial	< 0.1 mg/l	< 4.0 mg/l	< 4.0 mg/l	< 0.1 mg/l	< 4.0 mg/l	< 4.0 mg/l
3	3.9 mg/l	160 mg/l	< 4.0 mg/l	260 mg/l	236 mg/l	< 4.0 mg/l
6	1.5 mg/l	8.1 mg/l	< 4.0 mg/l	100 mg/l	12.2 mg/l	< 4.0 mg/l
9	1.0 mg/l	4.5 mg/l	< 4.0 mg/l	90 mg/l	8.2 mg/l	< 4.0 mg/l
12	< 0.1 mg/l	< 4.0 mg/l	< 4.0 mg/l	70 mg/l	5.5 mg/l	< 4.0 mg/l
15	< 0.1 mg/l	< 4.0 mg/l	< 4.0 mg/l	40 mg/l	6.1 mg/l	< 4.0 mg/l
18	< 0.1 mg/l	< 4.0 mg/l	< 4.0 mg/l	60 mg/l	11.3 mg/l	< 4.0 mg/l
21	< 0.1 mg/l	< 4.0 mg/l	< 4.0 mg/l	1.7 mg/l	< 4.0 mg/l	< 4.0 mg/l

Nitrate/Ammonia Flushing Column Tests – Soil Analysis Results								
	Unsaturated Soil			Saturated Soil				
Sample	Ammonia	Nitrate	Nitrite	Ammonia	Nitrate	Nitrite		
Pre-								
Treatment	820 mg/kg	180 mg/kg	<40 mg/kg	85 mg/kg	153 mg/kg	<40 mg/kg		
Post-								
Treatment	240 mg/kg	<20 mg/kg	<20 mg/kg	70 mg/kg	<20 mg/kg	<20 mg/kg		

5.2 Field Pilot Study Implementation and Results

The optimal remedial approach identified during bench-scale testing activities and implemented during the field pilot study was to first stimulate the indigenous denitrifying bacteria for removal of nitrates, nitrites, and dinoseb. During this process, the pH of the groundwater is increased to transform ionized ammonium cations into deionized ammonia gas that can be stripped from the groundwater. A second treatment step involved subsurface aeration to strip deionized ammonia from the groundwater. The pilot study procedures are detailed in the Pilot Study Work Plan, contained in Appendix B of the Phase II Work Plan. Procedures and results of the field pilot study are summarized below.

5.2.1 Pilot Study Implementation of Denitrification

The first stage of pilot study implementation was the selection of the treatment area. The area surrounding monitoring well MW-4 was selected based on the presence of elevated nitrate, nitrite, dinoseb, and ammonia levels within the groundwater, as determined during the Phase I RI and quarterly groundwater monitoring. Data from the single well pump test conducted at MW-4 during the Phase II activities was used to determine appropriate injection rates for the pilot study.

Prior to the pilot study, a groundwater sample (MW04-070704-0) was collected from MW-4 to obtain baseline criteria for comparison, and was analyzed by Merit Laboratories for ammonia, nitrate, nitrite, dinoseb, total phosphorus, alkalinity, TOC, and dissolved arsenic, iron, and manganese. The chain of custody is included in Appendix E, and analytical laboratory reports are included in Appendix H. Field screening for pH and ORP was conducted, and results were recorded on the groundwater purge and sample form included in Appendix G. A portion of the groundwater sample also underwent analysis using a BART[™] microbiology test kit for the purposes of quantifying baseline populations of indigenous heterotrophic, nitrifying, and denitrifying bacteria prior to initiating injection of the sodium acetate solution into the subsurface. The baseline testing results are provided in the following table and are used for evaluating the ability of pilot study activities to stimulate the desired microbial activities.

Baseline Microbial Screening Results – MW-4					
Microbial Parameter	Population (colony forming units/milliliter)				
Total Heterotrophs [*]	1,000 - 500,000				
Nitrifying Bacteria	1,000				
Denitrifying Bacteria	1,000				

Test kit further identified the dominant heterotroph type to be aerobic.

Following groundwater sample collection, four injection wells (IW-1 through IW-4) were installed by HSA methods on 5-foot centers around MW-4. The wells were constructed with Schedule 40 PVC pipe and 0.020-inch slotted well screen. The completion depth of each injection well was approximately 18 feet bgs, with a 10-foot screen interval installed across the saturated zone from 8 feet bgs to 18 feet bgs. Soil samples were collected during installation from two of the injection well locations (IW-1 and IW-4) to obtain baseline criteria for comparison, and were analyzed by Merit Laboratories for nitrate, nitrite, ammonia, dinoseb, total phosphorus, and TOC. Chains of custody and boring logs are included in Appendices E and F, respectively. Analytical laboratory reports are provided in Appendix H. Once the injection wells were installed, assembly of the system and nutrient injection began. The injection manifold and berm were assembled and constructed around the injection well area. A total of 2,000 pounds of sodium acetate and 3 kg of disodium phosphate (phosphorus source) were purchased in their anhydrous forms, then mixed in batches with over 5,000 gallons of water, and injected into the treatment area. Each batch contained approximately 345 gallons of water, 125 pounds of sodium acetate, and 4 ounces of disodium phosphate.

The solution was injected into the subsurface using a centrifugal transfer pump. The pumping rate was monitored continuously during injection activities to maintain a slow and steady rate that ensured an even distribution across the well screen interval and minimized adverse effects from channeling of injection fluid. The pumping rate ranged from approximately 1.0 gpm to 6.0 gpm, depending on whether injection was to all four wells or an individual well. A total of 16 batches were injected into the system over the duration of the field pilot study. Water levels were monitored in MW-4 and the injection wells during treatment, and it was determined the wells were influencing each other during injection. This indicates injection well spacing during full-scale or interim remediation by this technique could be increased to decrease inter-well influences. Photographs documenting the pilot study activities associated with the injection of the sodium acetate solution are included in Appendix I.

5.2.2 Pilot Study Monitoring and Results Following Denitrification

After the injection of the sodium acetate and disodium phosphate solution was completed, a week was allowed to pass before the monitoring program for the first phase of the pilot study was implemented. Groundwater samples were collected from monitoring well MW-4 and the four injection wells (IW-1 through IW-4) on a weekly basis for a six-week timeframe, and analyzed by Merit Laboratories for alkalinity, ammonia, nitrate, nitrite, total phosphorus, and TOC. During the final weekly monitoring activity, the groundwater samples collected from MW-4 and the four injection wells were also analyzed for dinoseb, iron, arsenic, and manganese. Screening of pH and ORP levels was completed and documented during each week of sample collection. Chains of custody are included in Appendix E, groundwater purge and sample forms are included in Appendix G, and analytical laboratory reports are included in Appendix H. Results from all six weeks of monitoring at MW-4 and the injection wells are summarized in Table 5-1. Baseline pre-pilot results and results from Week 6 of post-pilot monitoring at MW-4 are compared in the table below:

Comparison of MW-4 Pre-pilot and Post-pilot Results						
Parameter	Pre-pilot Results	Post-pilot Results				
Dinoseb	0.32 mg/l	Not Detected				
Arsenic, Dissolved	0.007 mg/l	0.069 mg/l				
Iron, Dissolved	0.70 mg/l	4.59 mg/l				
Manganese, Dissolved	0.377 mg/l	7.54 mg/l				
Alkalinity as CaCO ₃	490 mg/l	6,250 mg/l				
Ammonia-N	780 mg/l	560 mg/l				
Nitrate-N	962 mg/l	Not Detected				
Nitrite-N	6.7 mg/l	Not Detected				
TOC	10 mg/l	5,500 mg/l				
Total Phosphorus	0.10 mg/l	1.71 mg/l				
During the final weekly monitoring activity, a groundwater sample was also collected for screening of bacteria populations using the BARTTM microbiology test kits.

Pilot Study Monitoring Week 6 Microbial Screening Results – MW-4							
Microbial Parameter	Population (colony forming units/milliliter)						
Total Heterotrophs	500,000 - 5,000,000						
Nitrifying Bacteria	< 1,000						
Denitrifying Bacteria	100,000 - 5,000,000						

Beginning in Week 2 of monitoring and continuing through Week 6, both nitrates and nitrites were no longer detected in the pilot study samples. Dinoseb, detected in the pre-pilot results, was not detected in the post-pilot samples. Detected concentrations of ammonia were observed; therefore, air stripping was conducted at the Site as part of the pilot study to evaluate this method as the ammonia removal process.

5.2.3 Pilot Study Implementation of Nitrification

After final sample collection for evaluation of the denitrification process was completed, each injection well was modified to accept low-pressure compressed air (<15 psi) from an air compressor to evaluate the effectiveness of subsurface aeration as a mechanism for stripping deionized ammonia from the groundwater. A secondary purpose of the air injection was to provide in-situ oxidation of iron and manganese and co-precipitation of arsenic. The air was injected through ³/₄-inch PVC drop tubes that extended to the bottom of each injection well. A 1-HP compressor was connected to an air distribution manifold containing four solenoid valves operated by a controller to sparge each well on rotating two-hour intervals. The system was placed into operation on November 16, 2004 at 7:30 p.m., and operated for 12 hours overnight before the first round of pH and ORP data was collected from the wells the following morning. The first round of data is summarized in the table below.

Groundwater Parameters During Sparging – 11/17/04 @ 7:30 a.m.										
Parameter IW-1 IW-2 IW-3 IW-4 MW-4										
рН	8.54	8.28	8.54	8.44	7.90					
ORP (mV)	+72	+74	+92	+98	- 11					

The data showed minor increases in ORP and pH when compared to previous monitoring data. The goal of the sparging test was to increase the pH of the groundwater to 9.4 or greater (by stripping carbon dioxide from the water) so the majority of the ammonia in the groundwater would become deionized for volatilization. At a pH of 9.4, the iron and manganese are also highly insoluble, and arsenic is readily co-precipitated onto the iron and manganese oxides. During aeration, the average pH at the wells increased from 7.9 to 8.3 overnight, representing a shift in the deionized ammonia fraction from 8 to 14 percent. This was not considered adequate to achieve any significant ammonia stripping. Therefore, a decision was made to replace the 1-HP compressor with a larger 5-HP compressor. This increased the injected airflow from approximately one scfm to eight scfm.

The larger compressor was placed on-line at 12:30 p.m. on November 17, 2004. Sparging influence could be observed at monitoring well MW-4 as the compressor alternated between each of the injection wells, thus showing communication throughout the pilot study area. The

system operated for approximately five hours before collecting a groundwater sample from well MW-4 to determine if the larger compressor was influencing the pH. A sample collected from MW-4 at approximately 5:30 p.m. had an ORP of +45 mV and a pH of 8.26. This showed that the groundwater at MW-4 was being aerated, but that only minor pH changes were occurring in the groundwater as a result of the aeration. The system was left in operation overnight so changes in groundwater chemistry could be observed the following morning.

Samples were collected from each of the wells at 8:00 a.m. on November 18, 2004 for analysis of pH and ORP. The results are shown in the table below.

Groundwater Parameters During Sparging – 11/18/04 @ 8:00 a.m.										
Parameter IW-1 IW-2 IW-3 IW-4 MW-4										
рН	8.23	8.38	8.29	8.15	8.54					
ORP (mV)	+76	+73	+80	+87	+56					

The results showed that the pH of the groundwater was stabilizing between pH values of 8.15 and 8.54, indicating that less than 20 percent of the ammonia in the groundwater was in the deionized state where it was amenable to volatilization. Department of Ecology approval was given to investigate the effectiveness of dosing the four injection wells with sodium hydroxide to further deionize the ammonia. Each injection well was dosed with ten gallons of a solution containing five percent sodium hydroxide, temporarily sparged for ten minutes to achieve subsurface mixing, and then subjected to normal operation of the air sparging system. Immediate changes were apparent in the water chemistry as the water turned clearer from precipitation. An ammonia odor was very apparent in the pH-adjusted water samples. The system remained in operation until noon the following day (November 19, 2004), and one additional round of samples were collected from the wells for on-site analysis. The results of the last sampling round are summarized below.

Groundwater Parameters During Sparging – 11/19/04 @ 12:00 noon.										
Parameter IW-1 IW-2 IW-3 IW-4 MW-4										
pН	9.03	9.63	9.98	9.55	9.91					
ORP (mV)	+163	+45	+112	+114	+14					

Though the odor of ammonia could be detected from water samples collected from each of the wells, an ammonia test kit indicated that ammonia concentrations in the groundwater were still greater than 400 mg/l. These data show that partial deionization of the ammonia was achieved, but that groundwater ammonia concentrations still remained high due to poor stripping efficiency.

After the pilot study was completed, the system was disassembled. Photographs of the pilot operations prior to disassembly are included in Appendix I.

5.2.4 Pilot Study Monitoring and Results Following Nitrification

After the subsurface aeration was completed, samples of the groundwater were collected from monitoring well MW-4 and the four injection wells for analysis of alkalinity, ammonia, nitrate, nitrite, total phosphorus, TOC, iron, arsenic, manganese, and dinoseb.

As shown in Table 5-2, arsenic and iron were detected above MTCA Method B and C groundwater criteria and secondary MCLs in all five samples. However, the analyses for iron and arsenic are for total metals in unfiltered water samples. The water samples had a yellowish to brown color, thus indicating that most of the iron and arsenic in the water sample was likely in the form of suspended solids. Ammonia-N was detected in all five samples. Nitrate-N and nitrite-N were detected above MTCA Method B and C criteria in only one sample, collected from IW-1. Injection well IW-1 is located northwest of the pilot study area, and based upon the historical southeastern groundwater flow direction, would be the first to be affected by upgradient, non-treated groundwater.

Dinoseb and manganese were not detected above MTCA Method B and C groundwater criteria in any of the samples. Alkalinity, TOC, and total phosphorus were analyzed for remedial design purposes only, therefore are not compared to MTCA criteria. Alkalinity results ranged from 11,200 mg/l to 14,500 mg/l (as $CaCO_3$), TOC values ranged from 838 mg/l to 8,230 mg/l, and total phosphorus results ranged from 4.15 mg/l to 37 mg/l. The chain of custody and groundwater purge and sample forms for this sampling are located in Appendix E and Appendix G, respectively, and analytical laboratory reports are located in Appendix H.

Borings were also installed outside the pilot study area at locations approximately 10 feet and 15 feet west of the injection wells to determine the range of influence of the treatment. Groundwater samples were collected from these borings (SB-PS-003 and SB-PS-004) and analyzed for nitrates, nitrites, and ammonia.

In the groundwater samples from outside the pilot study area, nitrate-N was detected at levels above the MTCA Method B and C groundwater criteria. Nitrite-N was not detected. Ammonia-N was detected, but no MTCA Method B and C CULs have been developed. This information is summarized in Table 5-3, and the chain of custody is provided in Appendix E, the boring logs in Appendix F, and analytical laboratory reports in Appendix H.

After completion of air injection operations, a hydraulic probing unit was used to complete two soil borings within the treatment area (SB-PS-001 and SB-PS-002). The soil borings were installed according to the procedures outlined in the Phase II Work Plan. The borings were continuously sampled until a completion depth of approximately 18 feet bgs, with composite samples prepared for each 2-foot interval. The soil samples were analyzed by Merit Laboratories for nitrates, nitrites, ammonia, dinoseb, total phosphorus, and total organic carbon.

As shown in Table 5-4, detected constituents (nitrate-N and nitrite-N) were below MTCA Method B and C soil criteria. Ammonia-N was also detected, but no MTCA criteria have been developed. Dinoseb was not detected. For nitrate-N, saturated soils had lower concentrations than unsaturated soils, indicating that the pilot study, as implemented, was directed toward treatment of groundwater and saturated soils.

TOC and total phosphorus were analyzed for remedial design purposes only, therefore are not compared to MTCA criteria. TOC values ranged from 150 mg/kg to 4,400 mg/kg, and total phosphorus values ranged from 675 mg/kg to 996 mg/kg. The chain of custody is provided in Appendix E, the boring logs in Appendix F, and analytical laboratory reports are provided in Appendix H.

Approximate locations of the injection wells, soil borings, and sampling locations associated with the field pilot study are shown on Figure 5-1. When it has been determined that no further data collection will be required, the injection wells will be abandoned by overdrilling in accordance with WAC 173-160.

6.0 SUMMARY AND CONCLUSIONS

The following findings and conclusions can be drawn from the Phase II RI, treatability study, and pilot study results discussed in the preceding sections of this report:

Area 3 Soils

• Detected concentrations of TPH-Gx in Area 3 at a depth of 7.5 feet bgs were above MTCA Method B and C CULs.

Area 5 Soils

• Detected concentrations of COCs in subsurface soil in Area 5 did not exceed MTCA Method B and C CULs or other screening criteria.

Lagoon Water Samples

• Concentrations of ammonia-N were detected in the lagoon surface water and sediment samples. No detections of nitrate-N or nitrite-N were observed.

Groundwater

- Nitrate-N was detected in all newly installed monitoring wells at concentrations above the MTCA Method B criteria. The high concentrations observed in MW-8 and MW-12 are contained within the main nitrate-N source areas as defined in the Phase I RI. High concentrations of nitrate-N were also detected in MW-9, which is located off-site in a southeasterly direction. The nitrate-N concentrations detected at MW-10 and MW-11 are slightly over the MCTA Method B criteria and likely approach background concentrations.
- Concentration isopleths of nitrate-N developed from the vertical profile sampling show that source areas are primarily located in the southeastern portion of the Site (Area 1 and the southern section of Area 6).
- Ammonia-N was also detected at MW-8 and MW-12, within the source areas identified during the Phase I RI. Ammonia-N was not detected in MW-9, which suggests that the ammonia is being naturally attenuated and is not migrating off-site.
- 2,4-D was detected in MW-12 at concentrations slightly in excess of the MTCA Method B criteria.
- Arsenic concentrations in all five newly installed monitoring wells exceeded the MTCA Method A, B, and C criteria. However, the range of arsenic concentrations observed are fairly consistent across the Site and appear to be within normal background concentrations for arsenic;
- Exceedances of the MTCA Method B and C groundwater criteria were observed in the vertical profile borings for 2,4-D, ammonia-N, arsenic, dinoseb, nitrate-N, and nitrite-N.
- Detected concentrations of benzene in MW-10 exceeded MTCA Method A, B, and C groundwater criteria.

Treatability and Pilot Study

- The treatability study determined that the most effective treatment sequence was denitrification using acetate as an electron donor, followed by ammonia removal by aeration.
- The pilot study demonstrated that the injection of acetate was successful in lowering nitrate-N, nitrite-N, and dinoseb concentrations to below detectable limits in the groundwater at MW-4 within a ten-foot diameter for the duration of the monitoring period, and reduced concentrations in saturated soils.
- Groundwater collected from borings installed at locations 10 and 15 feet west of the pilot study area to determine the range of influence of the pilot study treatment had detections of nitrate-N at levels above the MTCA Method B and C groundwater criteria. Concentrations of ammonia-N were also detected.
- Nitrates appear to be toxic to the bacteria that convert ammonia to nitrates, thus inhibiting the nitrification process. Suitable remediation for ammonia would require denitrification in anaerobic conditions to remove nitrates, nitrification in aerobic conditions to remove ammonia, then a second round of denitrification in anaerobic conditions to remove remaining nitrates. This is not a feasible treatment alternative since the soils are currently void of nitrifying bacteria and the soil permeability restricts the ability to inoculate the Site.
- Subsurface aeration was not effective in removing ammonia-N concentrations from the groundwater. Although pH adjustment was able to deionize the ammonium ions to form ammonia gas, the ammonia gas was absorbed by the overlying soil column before reaching ground surface.

7.0 REFERENCES

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Washington State Department of Ecology. Clean-Up Levels and Risk Calculations under the Model Toxics Control Act Cleanup Regulation (CLARC) Version 3.1. November 2001.

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TABLES

Table 4-1: Area 3 Soil Results Against MTCA Method A Cleanup LevelsBee-Jay Scales SiteSunnyside, Washington

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MA_soil-ind (mg/kg)	Exceed Method A?
A3-SB-003, 7.5'-0	5/18/2004	NWTPH-Gx	650	mg/kg	20	100	Yes
A3-SB-004, 4.5'-1	5/25/2004	NWTPH-Gx	30	mg/kg	20	100	No
A3-SB-004, 7.5'-0	5/25/2004	NWTPH-Gx	280	mg/kg	20	100	Yes
A3-SB-004, 7.5'-1	5/25/2004	NWTPH-Gx	400	mg/kg	20	100	Yes
A3-SB-005, 7.5'-0	5/18/2004	NWTPH-Gx	1800	mg/kg	20	100	Yes
A3-SB-006, 7.5'-0	5/18/2004	NWTPH-Gx	360	mg/kg	20	100	Yes

Table 4-2: Area 3 Soil Results Against MTCA Method B and C Cleanup LevelsBee-Jay Scales SiteSunnyside, Washington

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MB_soil- std (mg/kg)	Exceed Method B?	MC_soil-std* (mg/kg)	Exceed Method C?
A3-SB-003, 7.5'-0	5/18/2004	NWTPH-Gx	650	mg/kg	20	29.95	Yes	121	Yes
A3-SB-004, 4.5'-1	5/25/2004	NWTPH-Gx	30	mg/kg	20	29.95	Yes	121	No
A3-SB-004, 7.5'-0	5/25/2004	NWTPH-Gx	280	mg/kg	20	29.95	Yes	121	Yes
A3-SB-004, 7.5'-1	5/25/2004	NWTPH-Gx	400	mg/kg	20	29.95	Yes	121	Yes
A3-SB-005, 7.5'-0	5/18/2004	NWTPH-Gx	1800	mg/kg	20	29.95	Yes	121	Yes
A3-SB-006, 7.5'-0	5/18/2004	NWTPH-Gx	360	mg/kg	20	29.95	Yes	121	Yes

* MTCA Method C CUL was calculated using the "Workbook for Calculating Cleanup Levels for Individual Hazardous Substances."

Table 4-3: Area 5 Soil Results Against MTCA Method A Cleanup Levels and Natural Background Soil Metals Concentrations Bee-Jay Scales Site Sunnyside, Washington

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MA_soil-ind* (mg/kg)	Exceed Method A?	Background (mg/kg)	Exceed Background?
A5-SB-001, 4.5'-0	5/19/2004	Iron	2290	mg/kg	1	0	NA	51500	No
A5-SB-001, 9'-0	5/19/2004	Iron	1780	mg/kg	1	0	NA	51500	No
A5-SB-002, 4.5'-0	5/19/2004	Iron	3190	mg/kg	1	0	NA	51500	No
A5-SB-002, 9'-0	5/19/2004	Iron	3150	mg/kg	1	0	NA	51500	No
A5-SB-003, 4.5'-0	5/19/2004	Iron	2280	mg/kg	1	0	NA	51500	No
A5-SB-003, 9'-0	5/19/2004	Iron	2000	mg/kg	1	0	NA	51500	No
A5-SB-004, 4.5'-0	5/19/2004	Iron	1960	mg/kg	1	0	NA	51500	No
A5-SB-004, 9'-0	5/19/2004	Iron	2180	mg/kg	1	0	NA	51500	No
A5-SB-005, 4.5'-0	5/19/2004	Iron	2310	mg/kg	1	0	NA	51500	No
A5-SB-005, 9'-0	5/19/2004	Iron	2520	mg/kg	1	0	NA	51500	No
A5-SB-006, 4.5'-0	5/19/2004	Iron	1830	mg/kg	1	0	NA	51500	No
A5-SB-006, 9'-0	5/19/2004	Iron	2300	mg/kg	1	0	NA	51500	No
A5-SB-007, 4.5'-0	5/19/2004	Iron	1680	mg/kg	1	0	NA	51500	No
A5-SB-007, 9'-0	5/19/2004	Iron	3000	mg/kg	1	0	NA	51500	No
A5-SB-008, 4.5'-0	5/18/2004	Iron	1050	mg/kg	1	0	NA	51500	No
A5-SB-008, 9'-0	5/18/2004	Iron	1860	mg/kg	1	0	NA	51500	No
A5-SB-009, 4.5'-0	5/18/2004	Iron	1760	mg/kg	1	0	NA	51500	No
A5-SB-009, 9'-0	5/18/2004	Iron	1970	mg/kg	1	0	NA	51500	No
A5-SB-010, 4.5'-0	5/18/2004	Iron	2730	mg/kg	1	0	NA	51500	No
A5-SB-010, 9'-0	5/18/2004	Iron	2020	mg/kg	1	0	NA	51500	No
A5-SB-001, 4.5'-0	5/19/2004	Nitrate-N	99	mg/kg	10	0	NA	NA	NA
A5-SB-001, 9'-0	5/19/2004	Nitrate-N	304	mg/kg	10	0	NA	NA	NA
A5-SB-002, 4.5'-0	5/19/2004	Nitrate-N	205	mg/kg	10	0	NA	NA	NA
A5-SB-002, 9'-0	5/19/2004	Nitrate-N	49	mg/kg	10	0	NA	NA	NA
A5-SB-003, 4.5'-0	5/19/2004	Nitrate-N	42.8	mg/kg	10	0	NA	NA	NA
A5-SB-003, 9'-0	5/19/2004	Nitrate-N	67.2	mg/kg	10	0	NA	NA	NA
A5-SB-004, 4.5'-0	5/19/2004	Nitrate-N	40.1	mg/kg	10	0	NA	NA	NA
A5-SB-004, 9'-0	5/19/2004	Nitrate-N	19	mg/kg	10	0	NA	NA	NA
A5-SB-005, 4.5'-0	5/19/2004	Nitrate-N	81	mg/kg	10	0	NA	NA	NA
A5-SB-006, 4.5'-0	5/19/2004	Nitrate-N	89.4	mg/kg	10	0	NA	NA	NA
A5-SB-007, 4.5'-0	5/19/2004	Nitrate-N	60.4	mg/kg	10	0	NA	NA	NA
A5-SB-008, 4.5'-0	5/18/2004	Nitrate-N	354	mg/kg	5	0	NA	NA	NA
A5-SB-008, 9'-0	5/18/2004	Nitrate-N	12.9	mg/kg	5	0	NA	NA	NA

Table 4-3: Area 5 Soil Results Against MTCA Method A Cleanup Levels and Natural Background Soil Metals Concentrations Bee-Jay Scales Site Sunnyside, Washington

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MA_soil-ind* (mg/kg)	Exceed Method A?	Background (mg/kg)	Exceed Background?
A5-SB-009, 4.5'-0	5/18/2004	Nitrate-N	23.6	mg/kg	5	0	NA	NA	NA
A5-SB-009, 9'-0	5/18/2004	Nitrate-N	57	mg/kg	5	0	NA	NA	NA
A5-SB-010, 4.5'-0	5/18/2004	Nitrate-N	450	mg/kg	5	0	NA	NA	NA
A5-SB-010, 9'-0	5/18/2004	Nitrate-N	146	mg/kg	5	0	NA	NA	NA
A5-SB-001, 4.5'-0	5/19/2004	Phosphate	2280	mg/kg	10	0	NA	NA	NA
A5-SB-001, 9'-0	5/19/2004	Phosphate	2590	mg/kg	10	0	NA	NA	NA
A5-SB-002, 4.5'-0	5/19/2004	Phosphate	2450	mg/kg	10	0	NA	NA	NA
A5-SB-002, 9'-0	5/19/2004	Phosphate	2830	mg/kg	10	0	NA	NA	NA
A5-SB-003, 4.5'-0	5/19/2004	Phosphate	2080	mg/kg	10	0	NA	NA	NA
A5-SB-003, 9'-0	5/19/2004	Phosphate	2220	mg/kg	10	0	NA	NA	NA
A5-SB-004, 4.5'-0	5/19/2004	Phosphate	2190	mg/kg	10	0	NA	NA	NA
A5-SB-004, 9'-0	5/19/2004	Phosphate	2120	mg/kg	10	0	NA	NA	NA
A5-SB-005, 4.5'-0	5/19/2004	Phosphate	1760	mg/kg	10	0	NA	NA	NA
A5-SB-005, 9'-0	5/19/2004	Phosphate	2250	mg/kg	10	0	NA	NA	NA
A5-SB-006, 4.5'-0	5/19/2004	Phosphate	1830	mg/kg	10	0	NA	NA	NA
A5-SB-006, 9'-0	5/19/2004	Phosphate	2060	mg/kg	10	0	NA	NA	NA
A5-SB-007, 4.5'-0	5/19/2004	Phosphate	1940	mg/kg	10	0	NA	NA	NA
A5-SB-007, 9'-0	5/19/2004	Phosphate	2510	mg/kg	10	0	NA	NA	NA
A5-SB-008, 4.5'-0	5/18/2004	Phosphate	1930	mg/kg	10	0	NA	NA	NA
A5-SB-008, 9'-0	5/18/2004	Phosphate	2290	mg/kg	10	0	NA	NA	NA
A5-SB-009, 4.5'-0	5/18/2004	Phosphate	1820	mg/kg	10	0	NA	NA	NA
A5-SB-009, 9'-0	5/18/2004	Phosphate	2110	mg/kg	10	0	NA	NA	NA
A5-SB-010, 4.5'-0	5/18/2004	Phosphate	1950	mg/kg	10	0	NA	NA	NA
A5-SB-010, 9'-0	5/18/2004	Phosphate	2120	mg/kg	10	0	NA	NA	NA
A5-SB-001, 4.5'-0	5/19/2004	Sulfate	144	mg/kg	100	0	NA	NA	NA
A5-SB-001, 9'-0	5/19/2004	Sulfate	176	mg/kg	100	0	NA	NA	NA
A5-SB-002, 4.5'-0	5/19/2004	Sulfate	244	mg/kg	100	0	NA	NA	NA
A5-SB-002, 9'-0	5/19/2004	Sulfate	104	mg/kg	100	0	NA	NA	NA
A5-SB-003, 4.5'-0	5/19/2004	Sulfate	155	mg/kg	100	0	NA	NA	NA
A5-SB-003, 9'-0	5/19/2004	Sulfate	124	mg/kg	100	0	NA	NA	NA
A5-SB-004, 4.5'-0	5/19/2004	Sulfate	426	mg/kg	100	0	NA	NA	NA
A5-SB-004, 9'-0	5/19/2004	Sulfate	137	mg/kg	100	0	NA	NA	NA
A5-SB-005, 4.5'-0	5/19/2004	Sulfate	171	mg/kg	100	0	NA	NA	NA

Table 4-3: Area 5 Soil Results Against MTCA Method A Cleanup Levels and Natural Background Soil Metals Concentrations Bee-Jay Scales Site Sunnyside, Washington

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MA_soil-ind* (mg/kg)	Exceed Method A?	Background (mg/kg)	Exceed Background?
A5-SB-006, 4.5'-0	5/19/2004	Sulfate	241	mg/kg	100	0	NA	NA	NA
A5-SB-006, 9'-0	5/19/2004	Sulfate	104	mg/kg	100	0	NA	NA	NA
A5-SB-007, 4.5'-0	5/19/2004	Sulfate	156	mg/kg	100	0	NA	NA	NA
A5-SB-007, 9'-0	5/19/2004	Sulfate	110	mg/kg	100	0	NA	NA	NA
A5-SB-008, 4.5'-0	5/18/2004	Sulfate	250	mg/kg	20	0	NA	NA	NA
A5-SB-008, 9'-0	5/18/2004	Sulfate	41	mg/kg	20	0	NA	NA	NA
A5-SB-009, 4.5'-0	5/18/2004	Sulfate	42	mg/kg	20	0	NA	NA	NA
A5-SB-009, 9'-0	5/18/2004	Sulfate	77	mg/kg	20	0	NA	NA	NA
A5-SB-010, 4.5'-0	5/18/2004	Sulfate	191	mg/kg	20	0	NA	NA	NA
A5-SB-010, 9'-0	5/18/2004	Sulfate	82	mg/kg	20	0	NA	NA	NA

NA = Not available.

* No MTCA Method A Cleanup Levels have been developed for iron, nitrate, phosphate, or sulfate.

Table 4-4: Area 5 Soil Results Against MTCA Method B and C Cleanup LevelsBee-Jay Scales SiteSunnyside, Washington

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MB_soil-std (mg/kg)	Exceed Method B?	MC_soil-std (mg/kg)	Exceed Method C?
A5-SB-001, 4.5'-0	5/19/2004	Nitrate-N	99	mg/kg	10	8000	No	350000	No
A5-SB-001, 9'-0	5/19/2004	Nitrate-N	304	mg/kg	10	8000	No	350000	No
A5-SB-002, 4.5'-0	5/19/2004	Nitrate-N	205	mg/kg	10	8000	No	350000	No
A5-SB-002, 9'-0	5/19/2004	Nitrate-N	49	mg/kg	10	8000	No	350000	No
A5-SB-003, 4.5'-0	5/19/2004	Nitrate-N	42.8	mg/kg	10	8000	No	350000	No
A5-SB-003, 9'-0	5/19/2004	Nitrate-N	67.2	mg/kg	10	8000	No	350000	No
A5-SB-004, 4.5'-0	5/19/2004	Nitrate-N	40.1	mg/kg	10	8000	No	350000	No
A5-SB-004, 9'-0	5/19/2004	Nitrate-N	19	mg/kg	10	8000	No	350000	No
A5-SB-005, 4.5'-0	5/19/2004	Nitrate-N	81	mg/kg	10	8000	No	350000	No
A5-SB-006, 4.5'-0	5/19/2004	Nitrate-N	89.4	mg/kg	10	8000	No	350000	No
A5-SB-007, 4.5'-0	5/19/2004	Nitrate-N	60.4	mg/kg	10	8000	No	350000	No
A5-SB-008, 4.5'-0	5/18/2004	Nitrate-N	354	mg/kg	5	8000	No	350000	No
A5-SB-008, 9'-0	5/18/2004	Nitrate-N	12.9	mg/kg	5	8000	No	350000	No
A5-SB-009, 4.5'-0	5/18/2004	Nitrate-N	23.6	mg/kg	5	8000	No	350000	No
A5-SB-009, 9'-0	5/18/2004	Nitrate-N	57	mg/kg	5	8000	No	350000	No
A5-SB-010, 4.5'-0	5/18/2004	Nitrate-N	450	mg/kg	5	8000	No	350000	No
A5-SB-010, 9'-0	5/18/2004	Nitrate-N	146	mg/kg	5	8000	No	350000	No

Table 4-5: Area 5 Soil SPLP ResultsBee-Jay Scales SiteSunnyside, Washington

Sample ID	Date	Analyte	Less than MDL	Analytical Results	Units	MDL	Qualifier
A5-SB-001, 4.5'-0	5/19/2004	Ammonia-N, SPLP	<	0.1	mg/L	0.1	U
A5-SB-001, 9'-0	5/19/2004	Ammonia-N, SPLP	<	0.1	mg/L	0.1	U
A5-SB-002, 4.5'-0	5/19/2004	Ammonia-N, SPLP		0.5	mg/L	0.1	
A5-SB-003, 9'-0	5/19/2004	Ammonia-N, SPLP	<	0.1	mg/L	0.1	U
A5-SB-005, 4.5'-0	5/19/2004	Ammonia-N, SPLP	<	0.1	mg/L	0.1	U
A5-SB-006, 4.5'-0	5/19/2004	Ammonia-N, SPLP	<	0.1	mg/L	0.1	U
A5-SB-007, 4.5'-0	5/19/2004	Ammonia-N, SPLP	<	0.1	mg/L	0.1	U
A5-SB-008, 4.5'-0	5/18/2004	Ammonia-N, SPLP	<	0.1	mg/L	0.1	U
A5-SB-010, 4.5'-0	5/25/2004	Ammonia-N, SPLP	<	0.1	mg/L	0.1	U
A5-SB-010, 9'-0	5/25/2004	Ammonia-N, SPLP	<	0.1	mg/L	0.1	U
A5-SB-001, 4.5'-0	5/19/2004	Iron, SPLP		0.09	mg/L	0.02	
A5-SB-001, 9'-0	5/19/2004	Iron, SPLP		0.05	mg/L	0.02	
A5-SB-002, 4.5'-0	5/19/2004	Iron, SPLP		0.58	mg/L	0.02	
A5-SB-003, 9'-0	5/19/2004	Iron, SPLP		2.06	mg/L	0.02	
A5-SB-005, 4.5'-0	5/19/2004	Iron, SPLP		0.14	mg/L	0.02	
A5-SB-006, 4.5'-0	5/19/2004	Iron, SPLP		0.22	mg/L	0.02	
A5-SB-007, 4.5'-0	5/19/2004	Iron, SPLP		0.31	mg/L	0.02	
A5-SB-008, 4.5'-0	5/18/2004	Iron, SPLP		1.71	mg/L	0.02	
A5-SB-010, 4.5'-0	5/25/2004	Iron, SPLP		0.11	mg/L	0.02	
A5-SB-010, 9'-0	5/25/2004	Iron, SPLP		0.85	mg/L	0.02	
A5-SB-001, 4.5'-0	5/19/2004	Nitrate-N, SPLP		10.5	mg/L	0.2	
A5-SB-001, 9'-0	5/19/2004	Nitrate-N, SPLP		11	mg/L	0.2	
A5-SB-002, 4.5'-0	5/19/2004	Nitrate-N, SPLP		9.7	mg/L	0.2	
A5-SB-003, 9'-0	5/19/2004	Nitrate-N, SPLP		2.8	mg/L	0.2	
A5-SB-005, 4.5'-0	5/19/2004	Nitrate-N, SPLP		5	mg/L	0.2	
A5-SB-006, 4.5'-0	5/19/2004	Nitrate-N, SPLP		4.2	mg/L	0.2	
A5-SB-007, 4.5'-0	5/19/2004	Nitrate-N, SPLP		4.6	mg/L	0.2	
A5-SB-008, 4.5'-0	5/18/2004	Nitrate-N, SPLP		14.7	mg/L	0.2	
A5-SB-010, 4.5'-0	5/25/2004	Nitrate-N, SPLP		10.3	mg/L	0.2	
A5-SB-010, 9'-0	5/25/2004	Nitrate-N, SPLP		1	mg/L	0.2	
A5-SB-001, 4.5'-0	5/19/2004	Nitrite-N, SPLP	<	0.2	mg/L	0.2	U
A5-SB-001, 9'-0	5/19/2004	Nitrite-N, SPLP	<	0.2	mg/L	0.2	U
A5-SB-002, 4.5'-0	5/19/2004	Nitrite-N, SPLP	<	0.2	mg/L	0.2	U
A5-SB-003, 9'-0	5/19/2004	Nitrite-N, SPLP	<	0.2	mg/L	0.2	U

Table 4-5: Area 5 Soil SPLP ResultsBee-Jay Scales SiteSunnyside, Washington

Sample ID	Date	Analyte	Less than MDL	Analytical Results	Units	MDL	Qualifier
A5-SB-005, 4.5'-0	5/19/2004	Nitrite-N, SPLP	<	0.2	mg/L	0.2	U
A5-SB-006, 4.5'-0	5/19/2004	Nitrite-N, SPLP	<	0.2	mg/L	0.2	U
A5-SB-007, 4.5'-0	5/19/2004	Nitrite-N, SPLP	<	0.2	mg/L	0.2	U
A5-SB-008, 4.5'-0	5/18/2004	Nitrite-N, SPLP	<	0.2	mg/L	0.2	U
A5-SB-010, 4.5'-0	5/25/2004	Nitrite-N, SPLP	<	0.2	mg/L	0.2	U
A5-SB-010, 9'-0	5/25/2004	Nitrite-N, SPLP	<	0.2	mg/L	0.2	U
A5-SB-001, 4.5'-0	5/19/2004	Phosphate, SPLP		0.6	mg/L	0.1	
A5-SB-001, 9'-0	5/19/2004	Phosphate, SPLP	<	0.1	mg/L	0.1	U
A5-SB-002, 4.5'-0	5/19/2004	Phosphate, SPLP		0.1	mg/L	0.1	
A5-SB-003, 9'-0	5/19/2004	Phosphate, SPLP		0.3	mg/L	0.1	
A5-SB-005, 4.5'-0	5/19/2004	Phosphate, SPLP		0.1	mg/L	0.1	
A5-SB-006, 4.5'-0	5/19/2004	Phosphate, SPLP	<	0.1	mg/L	0.1	U
A5-SB-007, 4.5'-0	5/19/2004	Phosphate, SPLP		0.6	mg/L	0.1	
A5-SB-008, 4.5'-0	5/18/2004	Phosphate, SPLP	<	0.1	mg/L	0.1	U
A5-SB-010, 4.5'-0	5/25/2004	Phosphate, SPLP		0.2	mg/L	0.1	
A5-SB-010, 9'-0	5/25/2004	Phosphate, SPLP		0.3	mg/L	0.1	
A5-SB-001, 4.5'-0	5/19/2004	Sulfate, SPLP		16	mg/L	1	
A5-SB-001, 9'-0	5/19/2004	Sulfate, SPLP		9	mg/L	1	
A5-SB-002, 4.5'-0	5/19/2004	Sulfate, SPLP		14	mg/L	1	
A5-SB-003, 9'-0	5/19/2004	Sulfate, SPLP		9	mg/L	1	
A5-SB-005, 4.5'-0	5/19/2004	Sulfate, SPLP		10	mg/L	1	
A5-SB-006, 4.5'-0	5/19/2004	Sulfate, SPLP		12	mg/L	1	
A5-SB-007, 4.5'-0	5/19/2004	Sulfate, SPLP		13	mg/L	1	
A5-SB-008, 4.5'-0	5/18/2004	Sulfate, SPLP		16	mg/L	1	
A5-SB-010, 4.5'-0	5/25/2004	Sulfate, SPLP		11	mg/L	1	
A5-SB-010, 9'-0	5/25/2004	Sulfate, SPLP		8	mg/L	1	

U = Compound was not detected.

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MA_gw* (mg/L)	Exceed Method A?
A6-VP-002, 20'-0	5/24/2004	2,4-D	1.3	mg/L	0.4	0	NA
A1-VP-001, 10'-0	5/20/2004	Alkalinity as CaCO3	206	mg/L	1	0	NA
A1-VP-001, 20'-0	5/20/2004	Alkalinity as CaCO3	164	mg/L	1	0	NA
A1-VP-003, 10'-0	5/21/2004	Alkalinity as CaCO3	884	mg/L	1	0	NA
A1-VP-003, 10'-1	5/21/2004	Alkalinity as CaCO3	908	mg/L	1	0	NA
A1-VP-003, 20'-0	5/21/2004	Alkalinity as CaCO3	282	mg/L	1	0	NA
A1-VP-003, 20'-1	5/21/2004	Alkalinity as CaCO3	268	mg/L	1	0	NA
A1-VP-004, 10'-0	5/21/2004	Alkalinity as CaCO3	938	mg/L	1	0	NA
A1-VP-004, 20'-0	5/21/2004	Alkalinity as CaCO3	238	mg/L	1	0	NA
A1-VP-005, 10'-0	5/21/2004	Alkalinity as CaCO3	284	mg/L	1	0	NA
A1-VP-005, 20'-0	5/21/2004	Alkalinity as CaCO3	228	mg/L	1	0	NA
A1-VP-007, 10'-0	5/20/2004	Alkalinity as CaCO3	257	mg/L	1	0	NA
A1-VP-007, 10'-1	5/20/2004	Alkalinity as CaCO3	254	mg/L	1	0	NA
A1-VP-007, 20'-0	5/20/2004	Alkalinity as CaCO3	248	mg/L	1	0	NA
A1-VP-007, 20'-1	5/20/2004	Alkalinity as CaCO3	238	mg/L	1	0	NA
A5-VP-001, 20'-0	5/20/2004	Alkalinity as CaCO3	252	mg/L	1	0	NA
A5-VP-002, 10'-0	5/19/2004	Alkalinity as CaCO3	227	mg/L	1	0	NA
A5-VP-002, 20'-0	5/20/2004	Alkalinity as CaCO3	258	mg/L	1	0	NA
A5-VP-003, 10'-0	5/19/2004	Alkalinity as CaCO3	218	mg/L	1	0	NA
A5-VP-003, 20'-0	5/20/2004	Alkalinity as CaCO3	244	mg/L	1	0	NA
A5-VP-004, 10'-0	5/19/2004	Alkalinity as CaCO3	292	mg/L	1	0	NA
A5-VP-004, 10'-1	5/19/2004	Alkalinity as CaCO3	284	mg/L	1	0	NA
A5-VP-004, 20'-0	5/19/2004	Alkalinity as CaCO3	236	mg/L	1	0	NA
A5-VP-004, 20'-1	5/19/2004	Alkalinity as CaCO3	232	mg/L	1	0	NA
A5-VP-005, 10'-0	5/19/2004	Alkalinity as CaCO3	255	mg/L	1	0	NA
A5-VP-005, 20'-0	5/19/2004	Alkalinity as CaCO3	229	mg/L	1	0	NA
A5-VP-006, 10'-0	5/19/2004	Alkalinity as CaCO3	256	mg/L	1	0	NA
A5-VP-006, 20'-0	5/19/2004	Alkalinity as CaCO3	240	mg/L	1	0	NA
A5-VP-007, 20'-0	5/19/2004	Alkalinity as CaCO3	226	mg/L	1	0	NA
A5-VP-008, 20'-0	5/20/2004	Alkalinity as CaCO3	378	mg/L	1	0	NA
A5-VP-009, 20'-0	5/20/2004	Alkalinity as CaCO3	252	mg/L	1	0	NA
A6-VP-001, 10'-0	5/24/2004	Alkalinity as CaCO3	192	mg/L	1	0	NA
A6-VP-001, 20'-0	5/24/2004	Alkalinity as CaCO3	206	mg/L	1	0	NA
A6-VP-002, 20'-0	5/24/2004	Alkalinity as CaCO3	580	mg/L	1	0	NA
A6-VP-003, 10'-0	5/24/2004	Alkalinity as CaCO3	366	mg/L	1	0	NA
A6-VP-003, 20'-0	5/24/2004	Alkalinity as CaCO3	2080	mg/L	1	0	NA
A6-VP-004, 20'-0	5/24/2004	Alkalinity as CaCO3	1500	mg/L	1	0	NA
A1-VP-001, 10'-0	5/20/2004	Ammonia-N	0.6	mg/L	0.1	0	NA
A1-VP-001, 20'-0	5/20/2004	Ammonia-N	0.6	mg/L	0.1	0	NA
A1-VP-003, 10'-0	5/21/2004	Ammonia-N	1090	mg/L	10	0	NA
A1-VP-003, 10'-1	5/21/2004	Ammonia-N	1060	mg/L	10	0	NA
A1-VP-003, 20'-0	5/21/2004	Ammonia-N	150	mg/L	10	0	NA
A1-VP-003, 20'-1	5/21/2004	Ammonia-N	160	mg/L	10	0	NA
A1-VP-004, 10'-0	5/21/2004	Ammonia-N	260	mg/L	10	0	NA
A1-VP-004, 20'-0	5/21/2004	Ammonia-N	29	mg/L	1	0	NA
A1-VP-005, 10'-0	5/21/2004	Ammonia-N	8.7	mg/L	0.1	0	NA
A1-VP-005, 20'-0	5/21/2004	Ammonia-N	1.5	mg/L	0.1	0	NA
A1-VP-007, 10'-0	5/20/2004	Ammonia-N	0.3	mg/L	0.1	0	NA
A1-VP-007, 10'-1	5/20/2004	Ammonia-N	0.2	mg/L	0.1	0	NA

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MA_gw* (mg/L)	Exceed Method A?
A5-VP-002, 10'-0	5/19/2004	Ammonia-N	6.9	mg/L	0.1	0	NA
A5-VP-002, 20'-0	5/20/2004	Ammonia-N	4.6	mg/L	0.1	0	NA
A5-VP-008, 20'-0	5/20/2004	Ammonia-N	130	mg/L	10	0	NA
A5-VP-009, 20'-0	5/20/2004	Ammonia-N	0.2	mg/L	0.1	0	NA
A6-VP-001, 10'-0	5/24/2004	Ammonia-N	0.4	mg/L	0.1	0	NA
A6-VP-002, 20'-0	5/24/2004	Ammonia-N	440	mg/L	10	0	NA
A6-VP-003, 10'-0	5/24/2004	Ammonia-N	60	mg/L	1	0	NA
A6-VP-003, 20'-0	5/24/2004	Ammonia-N	1750	mg/L	10	0	NA
A6-VP-004, 20'-0	5/24/2004	Ammonia-N	300	mg/L	10	0	NA
A1-VP-001, 10'-0	5/20/2004	Arsenic	0.015	mg/L	0.002	0.005	Yes
A1-VP-001, 20'-0	5/20/2004	Arsenic	0.017	mg/L	0.002	0.005	Yes
A1-VP-003, 10'-0	5/21/2004	Arsenic	0.047	mg/L	0.002	0.005	Yes
A1-VP-003, 10'-1	5/21/2004	Arsenic	0.047	mg/L	0.002	0.005	Yes
A1-VP-003, 20'-0	5/21/2004	Arsenic	0.057	mg/L	0.002	0.005	Yes
A1-VP-003, 20'-1	5/21/2004	Arsenic	0.059	mg/L	0.002	0.005	Yes
A1-VP-004, 10'-0	5/21/2004	Arsenic	0.042	mg/L	0.002	0.005	Yes
A1-VP-004, 20'-0	5/21/2004	Arsenic	0.011	mg/L	0.002	0.005	Yes
A1-VP-005, 10'-0	5/21/2004	Arsenic	0.024	mg/L	0.002	0.005	Yes
A1-VP-005, 20'-0	5/21/2004	Arsenic	0.015	mg/L	0.002	0.005	Yes
A1-VP-007, 10'-0	5/20/2004	Arsenic	0.018	mg/L	0.002	0.005	Yes
A1-VP-007, 10'-1	5/20/2004	Arsenic	0.016	mg/L	0.002	0.005	Yes
A1-VP-007, 20'-0	5/20/2004	Arsenic	0.017	mg/L	0.002	0.005	Yes
A1-VP-007, 20'-1	5/20/2004	Arsenic	0.02	mg/L	0.002	0.005	Yes
A5-VP-001, 20'-0	5/20/2004	Arsenic	0.017	mg/L	0.002	0.005	Yes
A5-VP-002, 10'-0	5/19/2004	Arsenic	0.012	mg/L	0.002	0.005	Yes
A5-VP-002, 20'-0	5/20/2004	Arsenic	0.018	mg/L	0.002	0.005	Yes
A5-VP-003, 10'-0	5/19/2004	Arsenic	0.004	mg/L	0.002	0.005	No
A5-VP-003, 20'-0	5/20/2004	Arsenic	0.014	mg/L	0.002	0.005	Yes
A5-VP-004, 10'-0	5/19/2004	Arsenic	0.017	mg/L	0.002	0.005	Yes
A5-VP-004, 10'-1	5/19/2004	Arsenic	0.018	mg/L	0.002	0.005	Yes
A5-VP-004, 20'-0	5/19/2004	Arsenic	0.043	mg/L	0.002	0.005	Yes
A5-VP-004, 20'-1	5/19/2004	Arsenic	0.048	mg/L	0.002	0.005	Yes
A5-VP-005, 10'-0	5/19/2004	Arsenic	0.049	mg/L	0.002	0.005	Yes
A5-VP-005, 20'-0	5/19/2004	Arsenic	0.034	mg/L	0.002	0.005	Yes
A5-VP-006, 10'-0	5/19/2004	Arsenic	0.013	mg/L	0.002	0.005	Yes
A5-VP-006, 20'-0	5/19/2004	Arsenic	0.033	mg/L	0.002	0.005	Yes
A5-VP-007, 20'-0	5/19/2004	Arsenic	0.02	mg/L	0.002	0.005	Yes
A5-VP-008, 20'-0	5/20/2004	Arsenic	0.028	mg/L	0.002	0.005	Yes
A5-VP-009, 20'-0	5/20/2004	Arsenic	0.022	mg/L	0.002	0.005	Yes
A6-VP-001, 10'-0	5/24/2004	Arsenic	0.027	mg/L	0.002	0.005	Yes
A6-VP-001, 20'-0	5/24/2004	Arsenic	0.018	mg/L	0.002	0.005	Yes
A6-VP-002, 20'-0	5/24/2004	Arsenic	0.025	mg/L	0.002	0.005	Yes
A6-VP-003, 10'-0	5/24/2004	Arsenic	0.018	mg/L	0.002	0.005	Yes
A6-VP-003, 20'-0	5/24/2004	Arsenic	0.087	mg/L	0.002	0.005	Yes
A6-VP-004, 20'-0	5/24/2004	Arsenic	0.034	mg/L	0.002	0.005	Yes
A1-VP-001, 10'-0	5/20/2004	Chloride	478	mg/L	1	0	NA
A1-VP-001, 20'-0	5/20/2004	Chloride	190	mg/L	1	0	NA
A1-VP-003, 10'-0	5/21/2004	Chloride	190	mg/L	1	0	NA
A1-VP-003, 10'-1	5/21/2004	Chloride	230	mg/L	1	0	NA

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MA_gw* (mg/L)	Exceed Method A?
A1-VP-003, 20'-0	5/21/2004	Chloride	57	mg/L	1	0	NA
A1-VP-003, 20'-1	5/21/2004	Chloride	56	mg/L	1	0	NA
A1-VP-004, 10'-0	5/21/2004	Chloride	210	mg/L	1	0	NA
A1-VP-004, 20'-0	5/21/2004	Chloride	100	mg/L	1	0	NA
A1-VP-005, 10'-0	5/21/2004	Chloride	324	mg/L	1	0	NA
A1-VP-005, 20'-0	5/21/2004	Chloride	108	mg/L	1	0	NA
A1-VP-007, 10'-0	5/20/2004	Chloride	366	mg/L	1	0	NA
A1-VP-007, 10'-1	5/20/2004	Chloride	369	mg/L	1	0	NA
A1-VP-007, 20'-0	5/20/2004	Chloride	52	mg/L	1	0	NA
A1-VP-007, 20'-1	5/20/2004	Chloride	51	mg/L	1	0	NA
A5-VP-001, 20'-0	5/20/2004	Chloride	86	mg/L	1	0	NA
A5-VP-002, 10'-0	5/19/2004	Chloride	265	mg/L	1	0	NA
A5-VP-002, 20'-0	5/20/2004	Chloride	19	mg/L	1	0	NA
A5-VP-003, 10'-0	5/19/2004	Chloride	230	mg/L	1	0	NA
A5-VP-003, 20'-0	5/20/2004	Chloride	48	mg/L	1	0	NA
A5-VP-004, 10'-0	5/19/2004	Chloride	148	mg/L	1	0	NA
A5-VP-004, 10'-1	5/19/2004	Chloride	149	mg/L	1	0	NA
A5-VP-004, 20'-0	5/19/2004	Chloride	56	mg/L	1	0	NA
A5-VP-004, 20'-1	5/19/2004	Chloride	57	mg/L	1	0	NA
A5-VP-005, 10'-0	5/19/2004	Chloride	80	mg/L	1	0	NA
A5-VP-005, 20'-0	5/19/2004	Chloride	30	mg/L	1	0	NA
A5-VP-006, 10'-0	5/19/2004	Chloride	177	mg/L	1	0	NA
A5-VP-006, 20'-0	5/19/2004	Chloride	34	mg/L	1	0	NA
A5-VP-007, 20'-0	5/19/2004	Chloride	67	mg/L	1	0	NA
A5-VP-008, 20'-0	5/20/2004	Chloride	41	mg/L	1	0	NA
A5-VP-009, 20'-0	5/20/2004	Chloride	49	mg/L	1	0	NA
A6-VP-001, 10'-0	5/24/2004	Chloride	175	mg/L	1	0	NA
A6-VP-001, 20'-0	5/24/2004	Chloride	60	mg/L	1	0	NA
A6-VP-002, 20'-0	5/24/2004	Chloride	196	mg/L	1	0	NA
A6-VP-003, 10'-0	5/24/2004	Chloride	340	mg/L	1	0	NA
A6-VP-003, 20'-0	5/24/2004	Chloride	410	mg/L	1	0	NA
A6-VP-004, 20'-0	5/24/2004	Chloride	1120	mg/L	1	0	NA
A1-VP-003, 10'-0	5/21/2004	Dinoseb	0.028	mg/L	0.003	0	NA
A1-VP-003, 10'-1	5/21/2004	Dinoseb	0.0096	mg/L	0.0006	0	NA
A1-VP-003, 20'-0	5/21/2004	Dinoseb	0.069	mg/L	0.006	0	NA
A1-VP-003, 20'-1	5/21/2004	Dinoseb	0.069	mg/L	0.003	0	NA
A6-VP-001, 10'-0	5/24/2004	Dinoseb	0.005	mg/L	0.0006	0	NA
A6-VP-002, 20'-0	5/24/2004	Dinoseb	1.4	mg/L	0.06	0	NA
A6-VP-003, 10'-0	5/24/2004	Dinoseb	0.031	mg/L	0.003	0	NA
A6-VP-003, 20'-0	5/24/2004	Dinoseb	1.4	mg/L	0.12	0	NA
A6-VP-004, 20'-0	5/24/2004	Dinoseb	3.7	mg/L	0.12	0	NA
A1-VP-001, 10'-0	5/20/2004	Iron	3.95	mg/L	0.02	0	NA
A1-VP-001, 20'-0	5/20/2004	Iron	8.61	mg/L	0.02	0	NA
A1-VP-003, 10'-0	5/21/2004	Iron	3.84	mg/L	0.02	0	NA
A1-VP-003, 10'-1	5/21/2004	Iron	1.57	mg/L	0.02	0	NA
A1-VP-003, 20'-0	5/21/2004	Iron	5.06	mg/L	0.02	0	NA
A1-VP-003, 20'-1	5/21/2004	Iron	4.32	mg/L	0.02	0	NA
A1-VP-003, 20'-2	5/21/2004	Iron	0.04	mg/L	0.02	0	NA
A1-VP-004, 10'-0	5/21/2004	Iron	1.69	mg/L	0.02	0	NA

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MA_gw* (mg/L)	Exceed Method A?
A1-VP-004, 20'-0	5/21/2004	Iron	5.67	mg/L	0.02	0	NA
A1-VP-005, 10'-0	5/21/2004	Iron	5.55	mg/L	0.02	0	NA
A1-VP-005, 20'-0	5/21/2004	Iron	6.45	mg/L	0.02	0	NA
A1-VP-007, 10'-0	5/20/2004	Iron	6.14	mg/L	0.02	0	NA
A1-VP-007, 10'-1	5/20/2004	Iron	7.08	mg/L	0.02	0	NA
A1-VP-007, 20'-0	5/20/2004	Iron	7.47	mg/L	0.02	0	NA
A1-VP-007, 20'-1	5/20/2004	Iron	2.69	mg/L	0.02	0	NA
A5-VP-001, 20'-0	5/20/2004	Iron	1.12	mg/L	0.02	0	NA
A5-VP-002, 10'-0	5/19/2004	Iron	6.68	mg/L	0.02	0	NA
A5-VP-002, 20'-0	5/20/2004	Iron	6.53	mg/L	0.02	0	NA
A5-VP-003, 10'-0	5/19/2004	Iron	2.08	mg/L	0.02	0	NA
A5-VP-003, 20'-0	5/20/2004	Iron	8.41	mg/L	0.02	0	NA
A5-VP-004, 10'-0	5/19/2004	Iron	4.29	mg/L	0.02	0	NA
A5-VP-004, 10'-1	5/19/2004	Iron	5.96	mg/L	0.02	0	NA
A5-VP-004, 20'-0	5/19/2004	Iron	3.12	mg/L	0.02	0	NA
A5-VP-004, 20'-1	5/19/2004	Iron	2.43	mg/L	0.02	0	NA
A5-VP-005, 10'-0	5/19/2004	Iron	5.29	mg/L	0.02	0	NA
A5-VP-005, 20'-0	5/19/2004	Iron	2.5	mg/L	0.02	0	NA
A5-VP-006, 10'-0	5/19/2004	Iron	12.5	mg/L	0.02	0	NA
A5-VP-006, 20'-0	5/19/2004	Iron	3.1	mg/L	0.02	0	NA
A5-VP-007, 20'-0	5/19/2004	Iron	6.42	mg/L	0.02	0	NA
A5-VP-008, 20'-0	5/20/2004	Iron	4.27	mg/L	0.02	0	NA
A5-VP-009, 20'-0	5/20/2004	Iron	1.15	mg/L	0.02	0	NA
A6-VP-001, 10'-0	5/24/2004	Iron	6.49	mg/L	0.02	0	NA
A6-VP-001, 20'-0	5/24/2004	Iron	5.01	mg/L	0.02	0	NA
A6-VP-002, 20'-0	5/24/2004	Iron	3.03	mg/L	0.02	0	NA
A6-VP-003, 10'-0	5/24/2004	Iron	6.96	mg/L	0.02	0	NA
A6-VP-003, 20'-0	5/24/2004	Iron	4.78	mg/L	0.02	0	NA
A6-VP-004, 20'-0	5/24/2004	Iron	11.2	mg/L	0.02	0	NA
A1-VP-001, 10'-0	5/20/2004	Nitrate-N	347	mg/L	0.2	0	NA
A1-VP-001, 20'-0	5/20/2004	Nitrate-N	712	mg/L	0.2	0	NA
A1-VP-003, 10'-0	5/21/2004	Nitrate-N	983	mg/L	0.2	0	NA
A1-VP-003, 10'-1	5/21/2004	Nitrate-N	1010	mg/L	0.2	0	NA
A1-VP-003, 20'-0	5/21/2004	Nitrate-N	256	mg/L	0.2	0	NA
A1-VP-003, 20'-1	5/21/2004	Nitrate-N	258	mg/L	0.2	0	NA
A1-VP-004, 10'-0	5/21/2004	Nitrate-N	59.5	mg/L	0.2	0	NA
A1-VP-004, 20'-0	5/21/2004	Nitrate-N	147	mg/L	0.2	0	NA
A1-VP-005, 10'-0	5/21/2004	Nitrate-N	206	mg/L	0.2	0	NA
A1-VP-005, 20'-0	5/21/2004	Nitrate-N	111	mg/L	0.2	0	NA
A1-VP-007, 10'-0	5/20/2004	Nitrate-N	176	mg/L	0.2	0	NA
A1-VP-007, 10'-1	5/20/2004	Nitrate-N	176	mg/L	0.2	0	NA
A1-VP-007, 20'-0	5/20/2004	Nitrate-N	113	mg/L	0.2	0	NA
A1-VP-007, 20'-1	5/20/2004	Nitrate-N	114	mg/L	0.2	0	NA
A5-VP-001, 20'-0	5/20/2004	Nitrate-N	5.2	mg/L	0.2	0	NA
A5-VP-002, 10'-0	5/19/2004	Nitrate-N	40.4	mg/L	0.2	0	NA
A5-VP-002, 20'-0	5/20/2004	Nitrate-N	39.2	mg/L	0.2	0	NA
A5-VP-003, 10'-0	5/19/2004	Nitrate-N	250	mg/L	0.2	0	NA
A5-VP-003, 20'-0	5/20/2004	Nitrate-N	22.9	mg/L	0.2	0	NA
A5-VP-004, 10'-0	5/19/2004	Nitrate-N	58	mg/L	0.2	0	NA

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MA_gw* (mg/L)	Exceed Method A?
A5-VP-004, 10'-1	5/19/2004	Nitrate-N	57.8	mg/L	0.2	0	NA
A5-VP-004, 20'-0	5/19/2004	Nitrate-N	59.6	mg/L	0.2	0	NA
A5-VP-004, 20'-1	5/19/2004	Nitrate-N	60.4	mg/L	0.2	0	NA
A5-VP-005, 10'-0	5/19/2004	Nitrate-N	45.8	mg/L	0.2	0	NA
A5-VP-005, 20'-0	5/19/2004	Nitrate-N	6.4	mg/L	0.2	0	NA
A5-VP-006, 10'-0	5/19/2004	Nitrate-N	26.6	mg/L	0.2	0	NA
A5-VP-006, 20'-0	5/19/2004	Nitrate-N	4.3	mg/L	0.2	0	NA
A5-VP-007, 20'-0	5/19/2004	Nitrate-N	3.9	mg/L	0.2	0	NA
A5-VP-008, 20'-0	5/20/2004	Nitrate-N	54.6	mg/L	0.2	0	NA
A5-VP-009, 20'-0	5/20/2004	Nitrate-N	6.8	mg/L	0.2	0	NA
A6-VP-001, 10'-0	5/24/2004	Nitrate-N	661	mg/L	0.2	0	NA
A6-VP-001, 20'-0	5/24/2004	Nitrate-N	46.1	mg/L	0.2	0	NA
A6-VP-002, 20'-0	5/24/2004	Nitrate-N	511	mg/L	0.2	0	NA
A6-VP-003, 10'-0	5/24/2004	Nitrate-N	64.5	mg/L	0.2	0	NA
A6-VP-003, 20'-0	5/24/2004	Nitrate-N	866	mg/L	0.2	0	NA
A6-VP-004, 20'-0	5/24/2004	Nitrate-N	2040	mg/L	0.2	0	NA
A1-VP-003, 10'-0	5/21/2004	Nitrite-N	34.6	mg/L	0.2	0	NA
A1-VP-003, 10'-1	5/21/2004	Nitrite-N	34.8	mg/L	0.2	0	NA
A6-VP-003, 20'-0	5/24/2004	Nitrite-N	38.7	mg/L	0.2	0	NA
A6-VP-004, 20'-0	5/24/2004	Nitrite-N	45.4	mg/L	0.2	0	NA
A1-VP-001, 10'-0	5/20/2004	рН	7.54	STD Units	0.01	0	NA
A1-VP-001, 20'-0	5/20/2004	рН	7.55	STD Units	0.01	0	NA
A1-VP-003, 10'-0	5/21/2004	рН	7.62	STD Units	0.01	0	NA
A1-VP-003, 10'-1	5/21/2004	рН	7.58	STD Units	0.01	0	NA
A1-VP-003, 20'-0	5/21/2004	рН	7.83	STD Units	0.01	0	NA
A1-VP-003, 20'-1	5/21/2004	рН	7.88	STD Units	0.01	0	NA
A1-VP-003, 20'-2	5/21/2004	pН	8.37	STD Units	0.01	0	NA
A1-VP-004, 10'-0	5/21/2004	рН	7.54	STD Units	0.01	0	NA
A1-VP-004, 20'-0	5/21/2004	pН	7.83	STD Units	0.01	0	NA
A1-VP-005, 10'-0	5/21/2004	pН	7.57	STD Units	0.01	0	NA
A1-VP-005, 20'-0	5/21/2004	pН	7.91	STD Units	0.01	0	NA
A1-VP-007, 10'-0	5/20/2004	pН	7.59	STD Units	0.01	0	NA
A1-VP-007, 10'-1	5/20/2004	pН	7.71	STD Units	0.01	0	NA
A1-VP-007, 20'-0	5/20/2004	pН	7.99	STD Units	0.01	0	NA
A1-VP-007, 20'-1	5/20/2004	pН	7.95	STD Units	0.01	0	NA
A1-VP-007, 20'-2	5/20/2004	pН	7.76	STD Units	0.01	0	NA
A5-VP-001, 20'-0	5/20/2004	рН	7.91	STD Units	0.01	0	NA
A5-VP-002, 10'-0	5/19/2004	рН	8.06	STD Units	0.01	0	NA
A5-VP-002, 20'-0	5/20/2004	рН	7.71	STD Units	0.01	0	NA
A5-VP-003, 10'-0	5/19/2004	рН	7.56	STD Units	0.01	0	NA
A5-VP-003, 20'-0	5/20/2004	рН	7.79	STD Units	0.01	0	NA
A5-VP-004, 10'-0	5/19/2004	рН	7.88	STD Units	0.01	0	NA
A5-VP-004, 10'-1	5/19/2004	pН	7.87	STD Units	0.01	0	NA
A5-VP-004, 20'-0	5/19/2004	рН	8.02	STD Units	0.01	0	NA
A5-VP-004, 20'-1	5/19/2004	рН	8.24	STD Units	0.01	0	NA
A5-VP-004, 20'-2	5/19/2004	рН	6.84	STD Units	0.01	0	NA
A5-VP-005, 10'-0	5/19/2004	рН	8.01	STD Units	0.01	0	NA
A5-VP-005, 20'-0	5/19/2004	рН	8.12	STD Units	0.01	0	NA
A5-VP-006, 10'-0	5/19/2004	pH	7.95	STD Units	0.01	0	NA

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MA_gw* (mg/L)	Exceed Method A?
A5-VP-006, 20'-0	5/19/2004	рН	8.23	STD Units	0.01	0	NA
A5-VP-007, 20'-0	5/19/2004	рН	8.29	STD Units	0.01	0	NA
A5-VP-008, 20'-0	5/20/2004	рН	8.04	STD Units	0.01	0	NA
A5-VP-009, 20'-0	5/20/2004	pН	7.95	STD Units	0.01	0	NA
A6-VP-001, 10'-0	5/24/2004	рН	7.56	STD Units	0.01	0	NA
A6-VP-001, 20'-0	5/24/2004	рН	8.01	STD Units	0.01	0	NA
A6-VP-002, 20'-0	5/24/2004	pН	7.6	STD Units	0.01	0	NA
A6-VP-002, 20'-1	5/24/2004	pН	5.9	STD Units	0.01	0	NA
A6-VP-003, 10'-0	5/24/2004	pН	7.73	STD Units	0.01	0	NA
A6-VP-003, 20'-0	5/24/2004	pН	8.53	STD Units	0.01	0	NA
A6-VP-004, 20'-0	5/24/2004	pН	6.56	STD Units	0.01	0	NA
A1-VP-001, 10'-0	5/20/2004	Phosphate	42	mg/L	1	0	NA
A1-VP-001, 20'-0	5/20/2004	Phosphate	22.3	mg/L	0.1	0	NA
A1-VP-003, 10'-0	5/21/2004	Phosphate	28.5	mg/L	0.1	0	NA
A1-VP-003, 10'-1	5/21/2004	Phosphate	26.6	mg/L	0.1	0	NA
A1-VP-003, 20'-0	5/21/2004	Phosphate	21.7	mg/L	0.1	0	NA
A1-VP-003, 20'-1	5/21/2004	Phosphate	29.7	mg/L	0.1	0	NA
A1-VP-004, 10'-0	5/21/2004	Phosphate	22.2	mg/L	0.1	0	NA
A1-VP-004, 20'-0	5/21/2004	Phosphate	3.9	mg/L	0.1	0	NA
A1-VP-005, 10'-0	5/21/2004	Phosphate	17.8	mg/L	0.1	0	NA
A1-VP-005, 20'-0	5/21/2004	Phosphate	6.3	mg/L	0.1	0	NA
A1-VP-007, 10'-0	5/20/2004	Phosphate	21.3	mg/L	0.1	0	NA
A1-VP-007, 10'-1	5/20/2004	Phosphate	17.7	mg/L	0.1	0	NA
A1-VP-007, 20'-0	5/20/2004	Phosphate	71	mg/L	1	0	NA
A1-VP-007, 20'-1	5/20/2004	Phosphate	63	mg/L	1	0	NA
A5-VP-001, 20'-0	5/20/2004	Phosphate	440	mg/L	10	0	NA
A5-VP-002, 10'-0	5/19/2004	Phosphate	4.4	mg/L	0.1	0	NA
A5-VP-002, 20'-0	5/20/2004	Phosphate	33	mg/L	1	0	NA
A5-VP-003, 10'-0	5/19/2004	Phosphate	1.1	mg/L	0.1	0	NA
A5-VP-003, 20'-0	5/20/2004	Phosphate	9.5	mg/L	0.1	0	NA
A5-VP-004, 10'-0	5/19/2004	Phosphate	35	mg/L	1	0	NA
A5-VP-004, 10'-1	5/19/2004	Phosphate	30	mg/L	1	0	NA
A5-VP-004, 20'-0	5/19/2004	Phosphate	47	mg/L	1	0	NA
A5-VP-004, 20'-1	5/19/2004	Phosphate	54	mg/L	1	0	NA
A5-VP-005, 10'-0	5/19/2004	Phosphate	11.7	mg/L	0.1	0	NA
A5-VP-005, 20'-0	5/19/2004	Phosphate	48	mg/L	1	0	NA
A5-VP-006, 10'-0	5/19/2004	Phosphate	3	mg/L	0.1	0	NA
A5-VP-006, 20'-0	5/19/2004	Phosphate	26	mg/L	1	0	NA
A5-VP-007, 20'-0	5/19/2004	Phosphate	15.6	mg/L	0.1	0	NA
A5-VP-008, 20'-0	5/20/2004	Phosphate	29.9	mg/L	0.1	0	NA
A5-VP-009, 20'-0	5/20/2004	Phosphate	99	mg/L	1	0	NA
A6-VP-001, 10'-0	5/24/2004	Phosphate	54	mg/L	1	0	NA
A6-VP-001, 20'-0	5/24/2004	Phosphate	16.5	mg/L	0.1	0	NA
A6-VP-002, 20'-0	5/24/2004	Phosphate	53	mg/L	1	0	NA
A6-VP-003, 10'-0	5/24/2004	Phosphate	17.2 mg/L		0.1	0	NA
A6-VP-003, 20'-0	5/24/2004	Phosphate	51	mg/L	1	0	NA
A6-VP-004, 20'-0	5/24/2004	Phosphate	49	mg/L	1	0	NA
A1-VP-001, 10'-0	5/20/2004	Sulfate	169	mg/L	1	0	NA
A1-VP-001, 20'-0	5/20/2004	Sulfate	277	mg/L	1	0	NA

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MA_gw* (mg/L)	Exceed Method A?
A1-VP-003, 10'-0	5/21/2004	Sulfate	110	mg/L	1	0	NA
A1-VP-003, 10'-1	5/21/2004	Sulfate	116	mg/L	1	0	NA
A1-VP-003, 20'-0	5/21/2004	Sulfate	204	mg/L	1	0	NA
A1-VP-003, 20'-1	5/21/2004	Sulfate	203	mg/L	1	0	NA
A1-VP-004, 10'-0	5/21/2004	Sulfate	250	mg/L	1	0	NA
A1-VP-004, 20'-0	5/21/2004	Sulfate	156	mg/L	1	0	NA
A1-VP-005, 10'-0	5/21/2004	Sulfate	224	mg/L	1	0	NA
A1-VP-005, 20'-0	5/21/2004	Sulfate	197	mg/L	1	0	NA
A1-VP-007, 10'-0	5/20/2004	Sulfate	211	mg/L	1	0	NA
A1-VP-007, 10'-1	5/20/2004	Sulfate	213	mg/L	1	0	NA
A1-VP-007, 20'-0	5/20/2004	Sulfate	122	mg/L	1	0	NA
A1-VP-007, 20'-1	5/20/2004	Sulfate	122	mg/L	1	0	NA
A5-VP-001, 20'-0	5/20/2004	Sulfate	42	mg/L	1	0	NA
A5-VP-002, 10'-0	5/19/2004	Sulfate	91	mg/L	1	0	NA
A5-VP-002, 20'-0	5/20/2004	Sulfate	52	mg/L	1	0	NA
A5-VP-003, 10'-0	5/19/2004	Sulfate	161	mg/L	1	0	NA
A5-VP-003, 20'-0	5/20/2004	Sulfate	54	mg/L	1	0	NA
A5-VP-004, 10'-0	5/19/2004	Sulfate	135	mg/L	1	0	NA
A5-VP-004, 10'-1	5/19/2004	Sulfate	136	mg/L	1	0	NA
A5-VP-004, 20'-0	5/19/2004	Sulfate	87	mg/L	1	0	NA
A5-VP-004, 20'-1	5/19/2004	Sulfate	86	mg/L	1	0	NA
A5-VP-005, 10'-0	5/19/2004	Sulfate	76	mg/L	1	0	NA
A5-VP-005, 20'-0	5/19/2004	Sulfate	43	mg/L	1	0	NA
A5-VP-006, 10'-0	5/19/2004	Sulfate	88	mg/L	1	0	NA
A5-VP-006, 20'-0	5/19/2004	Sulfate	45	mg/L	1	0	NA
A5-VP-007, 20'-0	5/19/2004	Sulfate	63	mg/L	1	0	NA
A5-VP-008, 20'-0	5/20/2004	Sulfate	90	mg/L	1	0	NA
A5-VP-009, 20'-0	5/20/2004	Sulfate	50	mg/L	1	0	NA
A6-VP-001, 10'-0	5/24/2004	Sulfate	226	mg/L	1	0	NA
A6-VP-001, 20'-0	5/24/2004	Sulfate	58	mg/L	1	0	NA
A6-VP-002, 20'-0	5/24/2004	Sulfate	869	mg/L	1	0	NA
A6-VP-003, 10'-0	5/24/2004	Sulfate	129	mg/L	1	0	NA
A6-VP-003, 20'-0	5/24/2004	Sulfate	846	mg/L	1	0	NA
A6-VP-004, 20'-0	5/24/2004	Sulfate	3010	mg/L	1	0	NA

NA = Not available.

* No MTCA Method A Cleanup Levels have been developed for 2,4-D, alkalinity as CaCO₃, ammonia-N, chloride, dinoseb, iron, nitrate-N, nitrite-N, pH, phosphate, or sulfate.

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MB_gw-std* (mg/L)	Exceed Method B?	MC_gw-std* (mg/L)	Exceed Method C?	GW Comments
A6-VP-002, 20'-0	5/24/2004	2,4-D	1.3	mg/L	0.4	0.16	Yes	0.35	Yes	
A1-VP-001, 10'-0	5/20/2004	Ammonia-N	0.6	mg/L	0.1	0	NA	0	NA	No CUL recommended for ammonia-N.
A1-VP-001, 20'-0	5/20/2004	Ammonia-N	0.6	mg/L	0.1	0	NA	0	NA	No CUL recommended for ammonia-N.
A1-VP-003, 10'-0	5/21/2004	Ammonia-N	1090	mg/L	10	0	NA	0	NA	No CUL recommended for ammonia-N.
A1-VP-003, 10'-1	5/21/2004	Ammonia-N	1060	mg/L	10	0	NA	0	NA	No CUL recommended for ammonia-N.
A1-VP-003, 20'-0	5/21/2004	Ammonia-N	150	mg/L	10	0	NA	0	NA	No CUL recommended for ammonia-N.
A1-VP-003, 20'-1	5/21/2004	Ammonia-N	160	mg/L	10	0	NA	0	NA	No CUL recommended for ammonia-N.
A1-VP-004, 10'-0	5/21/2004	Ammonia-N	260	mg/L	10	0	NA	0	NA	No CUL recommended for ammonia-N.
A1-VP-004, 20'-0	5/21/2004	Ammonia-N	29	mg/L	1	0	NA	0	NA	No CUL recommended for ammonia-N.
A1-VP-005, 10'-0	5/21/2004	Ammonia-N	8.7	mg/L	0.1	0	NA	0	NA	No CUL recommended for ammonia-N.
A1-VP-005, 20'-0	5/21/2004	Ammonia-N	1.5	mg/L	0.1	0	NA	0	NA	No CUL recommended for ammonia-N.
A1-VP-007, 10'-0	5/20/2004	Ammonia-N	0.3	mg/L	0.1	0	NA	0	NA	No CUL recommended for ammonia-N.
A1-VP-007, 10'-1	5/20/2004	Ammonia-N	0.2	mg/L	0.1	0	NA	0	NA	No CUL recommended for ammonia-N.
A5-VP-002, 10'-0	5/19/2004	Ammonia-N	6.9	mg/L	0.1	0	NA	0	NA	No CUL recommended for ammonia-N.
A5-VP-002, 20'-0	5/20/2004	Ammonia-N	4.6	mg/L	0.1	0	NA	0	NA	No CUL recommended for ammonia-N.
A5-VP-008, 20'-0	5/20/2004	Ammonia-N	130	mg/L	10	0	NA	0	NA	No CUL recommended for ammonia-N.
A5-VP-009, 20'-0	5/20/2004	Ammonia-N	0.2	mg/L	0.1	0	NA	0	NA	No CUL recommended for ammonia-N.
A6-VP-001, 10'-0	5/24/2004	Ammonia-N	0.4	mg/L	0.1	0	NA	0	NA	No CUL recommended for ammonia-N.
A6-VP-002, 20'-0	5/24/2004	Ammonia-N	440	mg/L	10	0	NA	0	NA	No CUL recommended for ammonia-N.
A6-VP-003, 10'-0	5/24/2004	Ammonia-N	60	mg/L	1	0	NA	0	NA	No CUL recommended for ammonia-N.
A6-VP-003, 20'-0	5/24/2004	Ammonia-N	1750	mg/L	10	0	NA	0	NA	No CUL recommended for ammonia-N.
A6-VP-004, 20'-0	5/24/2004	Ammonia-N	300	mg/L	10	0	NA	0	NA	No CUL recommended for ammonia-N.
A1-VP-001, 10'-0	5/20/2004	Arsenic	0.015	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-001, 20'-0	5/20/2004	Arsenic	0.017	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-003, 10'-0	5/21/2004	Arsenic	0.047	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-003, 10'-1	5/21/2004	Arsenic	0.047	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-003, 20'-0	5/21/2004	Arsenic	0.057	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-003, 20'-1	5/21/2004	Arsenic	0.059	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-004, 10'-0	5/21/2004	Arsenic	0.042	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-004, 20'-0	5/21/2004	Arsenic	0.011	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-005, 10'-0	5/21/2004	Arsenic	0.024	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-005, 20'-0	5/21/2004	Arsenic	0.015	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-007, 10'-0	5/20/2004	Arsenic	0.018	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-007, 10'-1	5/20/2004	Arsenic	0.016	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-007, 20'-0	5/20/2004	Arsenic	0.017	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-007, 20'-1	5/20/2004	Arsenic	0.02	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-001, 20'-0	5/20/2004	Arsenic	0.017	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-002, 10'-0	5/19/2004	Arsenic	0.012	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-002, 20'-0	5/20/2004	Arsenic	0.018	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-003, 10'-0	5/19/2004	Arsenic	0.004	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MB_gw-std* (mg/L)	Exceed Method B?	MC_gw-std* (mg/L)	Exceed Method C?	GW Comments
A5-VP-003, 20'-0	5/20/2004	Arsenic	0.014	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-004, 10'-0	5/19/2004	Arsenic	0.017	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-004, 10'-1	5/19/2004	Arsenic	0.018	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-004, 20'-0	5/19/2004	Arsenic	0.043	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-004, 20'-1	5/19/2004	Arsenic	0.048	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-005, 10'-0	5/19/2004	Arsenic	0.049	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-005, 20'-0	5/19/2004	Arsenic	0.034	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-006, 10'-0	5/19/2004	Arsenic	0.013	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-006, 20'-0	5/19/2004	Arsenic	0.033	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-007, 20'-0	5/19/2004	Arsenic	0.02	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-008, 20'-0	5/20/2004	Arsenic	0.028	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A5-VP-009, 20'-0	5/20/2004	Arsenic	0.022	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A6-VP-001, 10'-0	5/24/2004	Arsenic	0.027	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A6-VP-001, 20'-0	5/24/2004	Arsenic	0.018	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A6-VP-002, 20'-0	5/24/2004	Arsenic	0.025	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A6-VP-003, 10'-0	5/24/2004	Arsenic	0.018	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A6-VP-003, 20'-0	5/24/2004	Arsenic	0.087	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A6-VP-004, 20'-0	5/24/2004	Arsenic	0.034	mg/L	0.002	5.8333E-05	Yes	0.000583	Yes	
A1-VP-001, 10'-0	5/20/2004	Chloride	478	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
A1-VP-001, 20'-0	5/20/2004	Chloride	190	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-003, 10'-0	5/21/2004	Chloride	190	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-003, 10'-1	5/21/2004	Chloride	230	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-003, 20'-0	5/21/2004	Chloride	57	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-003, 20'-1	5/21/2004	Chloride	56	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-004, 10'-0	5/21/2004	Chloride	210	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-004, 20'-0	5/21/2004	Chloride	100	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-005, 10'-0	5/21/2004	Chloride	324	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
A1-VP-005, 20'-0	5/21/2004	Chloride	108	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-007, 10'-0	5/20/2004	Chloride	366	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
A1-VP-007, 10'-1	5/20/2004	Chloride	369	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
A1-VP-007, 20'-0	5/20/2004	Chloride	52	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-007, 20'-1	5/20/2004	Chloride	51	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-001, 20'-0	5/20/2004	Chloride	86	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-002, 10'-0	5/19/2004	Chloride	265	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
A5-VP-002, 20'-0	5/20/2004	Chloride	19	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-003, 10'-0	5/19/2004	Chloride	230	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-003, 20'-0	5/20/2004	Chloride	48	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-004, 10'-0	5/19/2004	Chloride	148	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-004, 10'-1	5/19/2004	Chloride	149	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-004, 20'-0	5/19/2004	Chloride	56	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MB_gw-std* (mg/L)	Exceed Method B?	MC_gw-std* (mg/L)	Exceed Method C?	GW Comments
A5-VP-004, 20'-1	5/19/2004	Chloride	57	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-005, 10'-0	5/19/2004	Chloride	80	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-005, 20'-0	5/19/2004	Chloride	30	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-006, 10'-0	5/19/2004	Chloride	177	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-006, 20'-0	5/19/2004	Chloride	34	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-007, 20'-0	5/19/2004	Chloride	67	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-008, 20'-0	5/20/2004	Chloride	41	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-009, 20'-0	5/20/2004	Chloride	49	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A6-VP-001, 10'-0	5/24/2004	Chloride	175	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A6-VP-001, 20'-0	5/24/2004	Chloride	60	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A6-VP-002, 20'-0	5/24/2004	Chloride	196	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A6-VP-003, 10'-0	5/24/2004	Chloride	340	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
A6-VP-003, 20'-0	5/24/2004	Chloride	410	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
A6-VP-004, 20'-0	5/24/2004	Chloride	1120	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
A1-VP-003, 10'-0	5/21/2004	Dinoseb	0.028	mg/L	0.003	0.016	Yes	0.035	No	
A1-VP-003, 10'-1	5/21/2004	Dinoseb	0.0096	mg/L	0.0006	0.016	No	0.035	No	
A1-VP-003, 20'-0	5/21/2004	Dinoseb	0.069	mg/L	0.006	0.016	Yes	0.035	Yes	
A1-VP-003, 20'-1	5/21/2004	Dinoseb	0.069	mg/L	0.003	0.016	Yes	0.035	Yes	
A6-VP-001, 10'-0	5/24/2004	Dinoseb	0.005	mg/L	0.0006	0.016	No	0.035	No	
A6-VP-002, 20'-0	5/24/2004	Dinoseb	1.4	mg/L	0.06	0.016	Yes	0.035	Yes	
A6-VP-003, 10'-0	5/24/2004	Dinoseb	0.031	mg/L	0.003	0.016	Yes	0.035	No	
A6-VP-003, 20'-0	5/24/2004	Dinoseb	1.4	mg/L	0.12	0.016	Yes	0.035	Yes	
A6-VP-004, 20'-0	5/24/2004	Dinoseb	3.7	mg/L	0.12	0.016	Yes	0.035	Yes	
A1-VP-001, 10'-0	5/20/2004	Iron	3.95	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-001, 20'-0	5/20/2004	Iron	8.61	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-003, 10'-0	5/21/2004	Iron	3.84	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-003, 10'-1	5/21/2004	Iron	1.57	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-003, 20'-0	5/21/2004	Iron	5.06	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-003, 20'-1	5/21/2004	Iron	4.32	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-003, 20'-2	5/21/2004	Iron	0.04	mg/L	0.02	0.3	No	0.3	No	WA State Board of Health Secondary MCL.
A1-VP-004, 10'-0	5/21/2004	Iron	1.69	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-004, 20'-0	5/21/2004	Iron	5.67	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-005, 10'-0	5/21/2004	Iron	5.55	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-005, 20'-0	5/21/2004	Iron	6.45	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-007, 10'-0	5/20/2004	Iron	6.14	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-007, 10'-1	5/20/2004	Iron	7.08	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-007, 20'-0	5/20/2004	Iron	7.47	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-007, 20'-1	5/20/2004	Iron	2.69	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-001, 20'-0	5/20/2004	Iron	1.12	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-002, 10'-0	5/19/2004	Iron	6.68	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MB_gw-std* (mg/L)	Exceed Method B?	MC_gw-std* (mg/L)	Exceed Method C?	GW Comments
A5-VP-002, 20'-0	5/20/2004	Iron	6.53	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-003, 10'-0	5/19/2004	Iron	2.08	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-003, 20'-0	5/20/2004	Iron	8.41	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-004, 10'-0	5/19/2004	Iron	4.29	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-004, 10'-1	5/19/2004	Iron	5.96	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-004, 20'-0	5/19/2004	Iron	3.12	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-004, 20'-1	5/19/2004	Iron	2.43	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-005, 10'-0	5/19/2004	Iron	5.29	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-005, 20'-0	5/19/2004	Iron	2.5	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-006, 10'-0	5/19/2004	Iron	12.5	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-006, 20'-0	5/19/2004	Iron	3.1	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-007, 20'-0	5/19/2004	Iron	6.42	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-008, 20'-0	5/20/2004	Iron	4.27	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A5-VP-009, 20'-0	5/20/2004	Iron	1.15	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A6-VP-001, 10'-0	5/24/2004	Iron	6.49	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A6-VP-001, 20'-0	5/24/2004	Iron	5.01	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A6-VP-002, 20'-0	5/24/2004	Iron	3.03	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A6-VP-003, 10'-0	5/24/2004	Iron	6.96	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A6-VP-003, 20'-0	5/24/2004	Iron	4.78	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A6-VP-004, 20'-0	5/24/2004	Iron	11.2	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
A1-VP-001, 10'-0	5/20/2004	Nitrate-N	347	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-001, 20'-0	5/20/2004	Nitrate-N	712	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-003, 10'-0	5/21/2004	Nitrate-N	983	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-003, 10'-1	5/21/2004	Nitrate-N	1010	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-003, 20'-0	5/21/2004	Nitrate-N	256	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-003, 20'-1	5/21/2004	Nitrate-N	258	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-004, 10'-0	5/21/2004	Nitrate-N	59.5	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-004, 20'-0	5/21/2004	Nitrate-N	147	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-005, 10'-0	5/21/2004	Nitrate-N	206	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-005, 20'-0	5/21/2004	Nitrate-N	111	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-007, 10'-0	5/20/2004	Nitrate-N	176	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-007, 10'-1	5/20/2004	Nitrate-N	176	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-007, 20'-0	5/20/2004	Nitrate-N	113	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-007, 20'-1	5/20/2004	Nitrate-N	114	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-001, 20'-0	5/20/2004	Nitrate-N	5.2	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-002, 10'-0	5/19/2004	Nitrate-N	40.4	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-002, 20'-0	5/20/2004	Nitrate-N	39.2	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-003, 10'-0	5/19/2004	Nitrate-N	250	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-003, 20'-0	5/20/2004	Nitrate-N	22.9	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-004, 10'-0	5/19/2004	Nitrate-N	58	mg/L	0.2	1.6	Yes	3.5	Yes	

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MB_gw-std* (mg/L)	Exceed Method B?	MC_gw-std* (mg/L)	Exceed Method C?	GW Comments
A5-VP-004, 10'-1	5/19/2004	Nitrate-N	57.8	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-004, 20'-0	5/19/2004	Nitrate-N	59.6	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-004, 20'-1	5/19/2004	Nitrate-N	60.4	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-005, 10'-0	5/19/2004	Nitrate-N	45.8	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-005, 20'-0	5/19/2004	Nitrate-N	6.4	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-006, 10'-0	5/19/2004	Nitrate-N	26.6	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-006, 20'-0	5/19/2004	Nitrate-N	4.3	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-007, 20'-0	5/19/2004	Nitrate-N	3.9	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-008, 20'-0	5/20/2004	Nitrate-N	54.6	mg/L	0.2	1.6	Yes	3.5	Yes	
A5-VP-009, 20'-0	5/20/2004	Nitrate-N	6.8	mg/L	0.2	1.6	Yes	3.5	Yes	
A6-VP-001, 10'-0	5/24/2004	Nitrate-N	661	mg/L	0.2	1.6	Yes	3.5	Yes	
A6-VP-001, 20'-0	5/24/2004	Nitrate-N	46.1	mg/L	0.2	1.6	Yes	3.5	Yes	
A6-VP-002, 20'-0	5/24/2004	Nitrate-N	511	mg/L	0.2	1.6	Yes	3.5	Yes	
A6-VP-003, 10'-0	5/24/2004	Nitrate-N	64.5	mg/L	0.2	1.6	Yes	3.5	Yes	
A6-VP-003, 20'-0	5/24/2004	Nitrate-N	866	mg/L	0.2	1.6	Yes	3.5	Yes	
A6-VP-004, 20'-0	5/24/2004	Nitrate-N	2040	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-003, 10'-0	5/21/2004	Nitrite-N	34.6	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-003, 10'-1	5/21/2004	Nitrite-N	34.8	mg/L	0.2	1.6	Yes	3.5	Yes	
A6-VP-003, 20'-0	5/24/2004	Nitrite-N	38.7	mg/L	0.2	1.6	Yes	3.5	Yes	
A6-VP-004, 20'-0	5/24/2004	Nitrite-N	45.4	mg/L	0.2	1.6	Yes	3.5	Yes	
A1-VP-001, 10'-0	5/20/2004	Phosphate	42	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-001, 20'-0	5/20/2004	Phosphate	22.3	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-003, 10'-0	5/21/2004	Phosphate	28.5	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-003, 10'-1	5/21/2004	Phosphate	26.6	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-003, 20'-0	5/21/2004	Phosphate	21.7	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-003, 20'-1	5/21/2004	Phosphate	29.7	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-004, 10'-0	5/21/2004	Phosphate	22.2	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-004, 20'-0	5/21/2004	Phosphate	3.9	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-005, 10'-0	5/21/2004	Phosphate	17.8	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-005, 20'-0	5/21/2004	Phosphate	6.3	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-007, 10'-0	5/20/2004	Phosphate	21.3	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-007, 10'-1	5/20/2004	Phosphate	17.7	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-007, 20'-0	5/20/2004	Phosphate	71	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-007, 20'-1	5/20/2004	Phosphate	63	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-001, 20'-0	5/20/2004	Phosphate	440	mg/L	10	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-002, 10'-0	5/19/2004	Phosphate	4.4	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-002, 20'-0	5/20/2004	Phosphate	33	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-003, 10'-0	5/19/2004	Phosphate	1.1	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-003, 20'-0	5/20/2004	Phosphate	9.5	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-004, 10'-0	5/19/2004	Phosphate	35	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MB_gw-std* (mg/L)	Exceed Method B?	MC_gw-std* (mg/L)	Exceed Method C?	GW Comments
A5-VP-004, 10'-1	5/19/2004	Phosphate	30	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-004, 20'-0	5/19/2004	Phosphate	47	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-004, 20'-1	5/19/2004	Phosphate	54	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-005, 10'-0	5/19/2004	Phosphate	11.7	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-005, 20'-0	5/19/2004	Phosphate	48	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-006, 10'-0	5/19/2004	Phosphate	3	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-006, 20'-0	5/19/2004	Phosphate	26	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-007, 20'-0	5/19/2004	Phosphate	15.6	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-008, 20'-0	5/20/2004	Phosphate	29.9	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A5-VP-009, 20'-0	5/20/2004	Phosphate	99	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A6-VP-001, 10'-0	5/24/2004	Phosphate	54	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A6-VP-001, 20'-0	5/24/2004	Phosphate	16.5	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A6-VP-002, 20'-0	5/24/2004	Phosphate	53	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A6-VP-003, 10'-0	5/24/2004	Phosphate	17.2	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
A6-VP-003, 20'-0	5/24/2004	Phosphate	51	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A6-VP-004, 20'-0	5/24/2004	Phosphate	49	mg/L	1	0	NA	0	NA	No CUL recommended for phosphate.
A1-VP-001, 10'-0	5/20/2004	Sulfate	169	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-001, 20'-0	5/20/2004	Sulfate	277	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
A1-VP-003, 10'-0	5/21/2004	Sulfate	110	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-003, 10'-1	5/21/2004	Sulfate	116	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-003, 20'-0	5/21/2004	Sulfate	204	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-003, 20'-1	5/21/2004	Sulfate	203	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-004, 10'-0	5/21/2004	Sulfate	250	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-004, 20'-0	5/21/2004	Sulfate	156	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-005, 10'-0	5/21/2004	Sulfate	224	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-005, 20'-0	5/21/2004	Sulfate	197	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-007, 10'-0	5/20/2004	Sulfate	211	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-007, 10'-1	5/20/2004	Sulfate	213	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-007, 20'-0	5/20/2004	Sulfate	122	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A1-VP-007, 20'-1	5/20/2004	Sulfate	122	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-001, 20'-0	5/20/2004	Sulfate	42	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-002, 10'-0	5/19/2004	Sulfate	91	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-002, 20'-0	5/20/2004	Sulfate	52	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-003, 10'-0	5/19/2004	Sulfate	161	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-003, 20'-0	5/20/2004	Sulfate	54	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-004, 10'-0	5/19/2004	Sulfate	135	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-004, 10'-1	5/19/2004	Sulfate	136	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-004, 20'-0	5/19/2004	Sulfate	87	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-004, 20'-1	5/19/2004	Sulfate	86	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-005, 10'-0	5/19/2004	Sulfate	76	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MB_gw-std* (mg/L)	Exceed Method B?	MC_gw-std* (mg/L)	Exceed Method C?	GW Comments
A5-VP-005, 20'-0	5/19/2004	Sulfate	43	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-006, 10'-0	5/19/2004	Sulfate	88	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-006, 20'-0	5/19/2004	Sulfate	45	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-007, 20'-0	5/19/2004	Sulfate	63	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-008, 20'-0	5/20/2004	Sulfate	90	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A5-VP-009, 20'-0	5/20/2004	Sulfate	50	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A6-VP-001, 10'-0	5/24/2004	Sulfate	226	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A6-VP-001, 20'-0	5/24/2004	Sulfate	58	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A6-VP-002, 20'-0	5/24/2004	Sulfate	869	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
A6-VP-003, 10'-0	5/24/2004	Sulfate	129	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
A6-VP-003, 20'-0	5/24/2004	Sulfate	846	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
A6-VP-004, 20'-0	5/24/2004	Sulfate	3010	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.

NA = Not available.

* No MTCA Method B or C Cleanup Levels have been developed for ammonia-N or phosphate.

Sample ID	Date	Analyte	Analytical Results	Units	MDL	MA_gw* (mg/L)	Exceed Method A?
MW08-260504-0	5/26/2004	Alkalinity as CaCO3	228	mg/L	1	0	NA
MW08-260504-0	5/26/2004	Ammonia-N	5.6	mg/L	0.1	0	NA
MW08-260504-0	5/26/2004	Arsenic	0.01	mg/L	0.002	0.005	Yes
MW08-260504-0	5/26/2004	Chloride	162	mg/L	1	0	NA
MW08-260504-0	5/26/2004	Dinoseb	0.00067	mg/L	0.0006	0	NA
MW08-260504-0	5/26/2004	Iron	0.85	mg/L	0.02	0	NA
MW08-260504-0	5/26/2004	Nitrate-N	549	mg/L	0.2	0	NA
MW08-260504-0	5/26/2004	рН	7.44	STD Units	0.01	0	NA
MW08-260504-0	5/26/2004	Phosphate	0.6	mg/L	0.1	0	NA
MW08-260504-0	5/26/2004	Sulfate	272	mg/L	1	0	NA
MW9-251004-0	10/25/2004	Alkalinity as CaCO3	326	mg/L	1	0	NA
MW9-251004-0	10/25/2004	Ammonia-N	0.1	mg/L	0.1	0	NA
MW9-251004-0	10/25/2004	Arsenic	0.016	mg/L	0.002	0.005	Yes
MW9-251004-0	10/25/2004	Chloride	186	mg/L	1	0	NA
MW9-251004-0	10/25/2004	Dinoseb	0.0068	mg/L	0.0006	0	NA
MW9-251004-0	10/25/2004	Iron	11.9	mg/L	0.02	0	NA
MW9-251004-0	10/25/2004	Nitrate-N	1000	mg/L	0.2	0	NA
MW9-251004-0	10/25/2004	рН	7.46	STD Units	0.01	0	NA
MW9-251004-0	10/25/2004	Phosphate	11.9	mg/L	0.1	0	NA
MW9-251004-0	10/25/2004	Sulfate	477	mg/L	1	0	NA
MW10-251004-0	10/25/2004	1,2,4-Trimethylbenzene	0.031	mg/L	0.005	0	NA
MW10-251004-0	10/25/2004	1,3,5-Trimethylbenzene	0.028	mg/L	0.005	0	NA
MW10-251004-0	10/25/2004	Alkalinity as CaCO3	320	mg/L	1	0	NA
MW10-251004-0	10/25/2004	Arsenic	0.021	mg/L	0.002	0.005	Yes
MW10-251004-0	10/25/2004	Benzene	0.273	mg/L	0.005	0.005	Yes
MW10-251004-0	10/25/2004	Chloride	21	mg/L	1	0	NA
MW10-251004-0	10/25/2004	Ethylbenzene	0.078	mg/L	0.005	0.7	No
MW10-251004-0	10/25/2004	Iron	0.36	mg/L	0.02	0	NA
MW10-251004-0	10/25/2004	Nitrate-N	2.2	mg/L	0.2	0	NA
MW10-251004-0	10/25/2004	n-Propylbenzene	0.007	mg/L	0.005	0	NA
MW10-251004-0	10/25/2004	o-Xylene	0.03	mg/L	0.005	0	NA
MW10-251004-0	10/25/2004	p,m-Xylene	0.11	mg/L	0.01	0	NA
MW10-251004-0	10/25/2004	рН	8.14	STD Units	0.01	0	NA

MW10-251004-0	10/25/2004	Phosphate	0.5	mg/L	0.1	0	NA
MW10-251004-0	10/25/2004	Sulfate	33	mg/L	1	0	NA
MW10-251004-0	10/25/2004	Toluene	0.029	mg/L	0.005	1	No
MW11-251004-0	10/25/2004	Alkalinity as CaCO3	228	mg/L	1	0	NA
MW11-251004-0	10/25/2004	Arsenic	0.042	mg/L	0.002	0.005	Yes
MW11-251004-0	10/25/2004	Chloride	11	mg/L	1	0	NA
MW11-251004-0	10/25/2004	Iron	0.44	mg/L	0.02	0	NA
MW11-251004-0	10/25/2004	Nitrate-N	4.3	mg/L	0.2	0	NA
MW11-251004-0	10/25/2004	рН	8.12	STD Units	0.01	0	NA
MW11-251004-0	10/25/2004	Phosphate	0.6	mg/L	0.1	0	NA
MW11-251004-0	10/25/2004	Sulfate	49	mg/L	1	0	NA
MW12-251004-0	10/25/2004	2,4-D	0.47	mg/L	0.004	0	NA
MW12-251004-0	10/25/2004	Alkalinity as CaCO3	656	mg/L	1	0	NA
MW12-251004-0	10/25/2004	Ammonia-N	390	mg/L	10	0	NA
MW12-251004-0	10/25/2004	Arsenic	0.011	mg/L	0.002	0.005	Yes
MW12-251004-0	10/25/2004	Chloride	351	mg/L	1	0	NA
MW12-251004-0	10/25/2004	Iron	2.06	mg/L	0.02	0	NA
MW12-251004-0	10/25/2004	Nitrate-N	557	mg/L	0.2	0	NA
MW12-251004-0	10/25/2004	рН	7.58	STD Units	0.01	0	NA
MW12-251004-0	10/25/2004	Phosphate	1.2	mg/L	0.1	0	NA
MW12-251004-0	10/25/2004	Sulfate	711	mg/L	1	0	NA

NA = Not available.

* No MTCA Method A Cleanup Levels have been developed for 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 2,4-D, alkalinity as CaCO₃, ammonia-N, chloride, dinoseb, iron, n-propylbenzene, nitrate-N, nitrite-N, o-xylene, p,m-xylene, pH, phosphate, or sulfate.

Sample ID	Data	Apolyto	Analytical	Unite	МП	MB_gw-std*	Exceed	MC_gw-std*	Exceed	GW Commonts
Sample ID	Dale	Analyte	Results	Units	WIDL	(mg/L)	Method B?	(mg/L)	Method C?	Gw comments
MW08-260504-0	5/26/2004	Ammonia-N	5.6	mg/L	0.1	0	NA	0	NA	No CUL recommended for ammonia-N.
MW08-260504-0	5/26/2004	Arsenic	0.01	mg/L	0.002	5.83333E-05	Yes	0.000583	Yes	
MW08-260504-0	5/26/2004	Chloride	162	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
MW08-260504-0	5/26/2004	Dinoseb	0.00067	mg/L	0.0006	0.016	No	0.035	No	
MW08-260504-0	5/26/2004	Iron	0.85	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
MW08-260504-0	5/26/2004	Nitrate-N	549	mg/L	0.2	1.6	Yes	3.5	Yes	
MW08-260504-0	5/26/2004	Phosphate	0.6	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
MW08-260504-0	5/26/2004	Sulfate	272	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
MW9-251004-0	10/25/2004	Ammonia-N	0.1	mg/L	0.1	0	NA	0	NA	No CUL recommended for ammonia-N.
MW9-251004-0	10/25/2004	Arsenic	0.016	mg/L	0.002	5.83333E-05	Yes	0.000583	Yes	
MW9-251004-0	10/25/2004	Chloride	186	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
MW9-251004-0	10/25/2004	Dinoseb	0.0068	mg/L	0.0006	0.016	No	0.035	No	
MW9-251004-0	10/25/2004	Iron	11.9	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
MW9-251004-0	10/25/2004	Nitrate-N	1000	mg/L	0.2	1.6	Yes	3.5	Yes	
MW9-251004-0	10/25/2004	Phosphate	11.9	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
MW9-251004-0	10/25/2004	Sulfate	477	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
MW10-251004-0	10/25/2004	1,2,4-Trimethylbenzene	0.031	mg/L	0.005	0.4	No	0.875	No	Standard CUL was calculated.
MW10-251004-0	10/25/2004	1,3,5-Trimethylbenzene	0.028	mg/L	0.005	0.4	No	0.875	No	Standard CUL was calculated.
MW10-251004-0	10/25/2004	Arsenic	0.021	mg/L	0.002	5.83333E-05	Yes	0.000583	Yes	
MW10-251004-0	10/25/2004	Benzene	0.273	mg/L	0.005	0.000795455	Yes	0.00795	Yes	
MW10-251004-0	10/25/2004	Chloride	21	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
MW10-251004-0	10/25/2004	Ethylbenzene	0.078	mg/L	0.005	0.8	No	1.75	No	
MW10-251004-0	10/25/2004	Iron	0.36	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
MW10-251004-0	10/25/2004	Nitrate-N	2.2	mg/L	0.2	1.6	Yes	3.5	No	
MW10-251004-0	10/25/2004	n-Propylbenzene	0.007	mg/L	0.005	0	NA	0	NA	
MW10-251004-0	10/25/2004	o-Xylene	0.03	mg/L	0.005	16	No	35	No	
MW10-251004-0	10/25/2004	p,m-Xylene	0.11	mg/L	0.01	0	NA	35	No	
MW10-251004-0	10/25/2004	Phosphate	0.5	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
MW10-251004-0	10/25/2004	Sulfate	33	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
MW10-251004-0	10/25/2004	Toluene	0.029	mg/L	0.005	1.6	No	3.5	No	
MW11-251004-0	10/25/2004	Arsenic	0.042	mg/L	0.002	5.83333E-05	Yes	0.000583	Yes	
MW11-251004-0	10/25/2004	Chloride	11	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
MW11-251004-0	10/25/2004	Iron	0.44	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
MW11-251004-0	10/25/2004	Nitrate-N	4.3	mg/L	0.2	1.6	Yes	3.5	Yes	
MW11-251004-0	10/25/2004	Phosphate	0.6	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
MW11-251004-0	10/25/2004	Sulfate	49	mg/L	1	250	No	250	No	WA State Board of Health Secondary MCL.
MW12-251004-0	10/25/2004	2,4-D	0.47	mg/L	0.004	0.16	Yes	0.35	Yes	
MW12-251004-0	10/25/2004	Ammonia-N	390	mg/L	10	0	NA	0	NA	No CUL recommended for ammonia-N.
MW12-251004-0	10/25/2004	Arsenic	0.011	mg/L	0.002	5.83333E-05	Yes	0.000583	Yes	
MW12-251004-0	10/25/2004	Chloride	351	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.
MW12-251004-0	10/25/2004	Iron	2.06	mg/L	0.02	0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
MW12-251004-0	10/25/2004	Nitrate-N	557	mg/L	0.2	1.6	Yes	3.5	Yes	
MW12-251004-0	10/25/2004	Phosphate	1.2	mg/L	0.1	0	NA	0	NA	No CUL recommended for phosphate.
MW12-251004-0	10/25/2004	Sulfate	711	mg/L	1	250	Yes	250	Yes	WA State Board of Health Secondary MCL.

NA = Not available.

* No MTCA Method B or C Cleanup Levels have been developed for ammonia-N or phosphate.

Table 4-10: Lagoon Surface Water and Sediment Sampling ResultsBee-Jay Scales SiteSunnyside, Washington

Sample ID	Date	Analyte	Analytical Results	Units	MDL	Matrix
LAG-001-0	6/2/2004	Ammonia-N	9	mg/L	0.1	SW Sediment
LAG-001-1	6/2/2004	Ammonia-N	7.8	mg/L	0.1	SW Sediment
Sample ID	Date	Analyte	Analytical Results	Units	MDL	Matrix
SED-001-0	6/2/2004	Ammonia-N	760	mg/kg	10	Solid
SED-001-1	6/2/2004	Ammonia-N	1440	mg/kg	10	Solid

Table 4-11: Single Well Pump Test Results Bee-Jay Scales Site Sunnyside, Washington

Well	Test	Q (gpm)	∆(h _o -h _x) (feet)	T (ft ² /day)	K (cm/s)
	Drawdown1	1	1	35.0	4.12E-04
MW-1	Recovery1	1	Q Δ(h₀-hx) (feet) T gpm) (feet) (ff²/da 1 1 35.0 1 1 35.0 0.5 1 17.5 0.5 4.7 3.7 0.5 4.7 3.7 0.5 4.7 3.7 0.5 4.7 3.7 0.5 1.4 12.5 0.5 1.6 10.9 0.3 4.5 2.3 0.5 3.3 5.3 0.3 1.4 7.5 0.5 3.6 4.9 0.5 1.7 10.3 0.5 1.7 10.3 AVERA	35.0	4.12E-04
	Drawdown2	0.5	1	17.5	2.06E-04
M/M/ 3	Drawdown	0.5	4.7	3.7	4.38E-05
10100-3	Recovery	0.5	4	4.4	5.14E-05
	Drawdown	0.5	2.2	8.0	9.35E-05
10100-4	Recovery	0.5	0.7	25.0	2.94E-04
	Drawdown	0.5	1.4	12.5	1.47E-04
10100-5	Recovery	0.5	1.6	10.9	1.29E-04
MW 6	Drawdown	0.3	4.5	2.3	2.74E-05
10100-0	Recovery	0.5	3.3	5.3	6.24E-05
	Drawdown	0.3	3.5	3.0	3.53E-05
10100-7	Recovery	0.3	1.4	T (ft²/day) 35.0 35.0 17.5 3.7 4.4 8.0 25.0 12.5 10.9 2.3 5.3 3.0 7.5 4.9 10.3 AVERAGE	8.82E-05
	Drawdown	0.5	3.6	4.9	5.72E-05
1114-0	Recovery	0.5	1.7	10.3	1.21E-04
				AVERAGE	1.45E-04
			GEOMETR	IC AVERAGE	1.03E-04

Table 5-1: Summary of Weekly Pilot Study Monitoring Results Following DenitrificationBee-Jay Scales SiteSunnyside, Washington

Sample ID	Sample Date	Analyte	Less Than MDL	Result	Units	MDL	Qualifier
IW01-290704-0	7/29/2004	Alkalinity as CaCO3		12600	mg/L	1	
IW02-290704-0	7/29/2004	Alkalinity as CaCO3		11600	mg/L	1	
IW03-290704-0	7/29/2004	Alkalinity as CaCO3		11300	mg/L	1	
IW04-290704-0	7/29/2004	Alkalinity as CaCO3		11200	mg/L	1	
MW04-290704-0	7/29/2004	Alkalinity as CaCO3		7690	mg/L	1	
IW01-060804-0	8/6/2004	Alkalinity as CaCO3		10880	mg/L	1	
IW02-060804-0	8/6/2004	Alkalinity as CaCO3		10020	mg/L	1	
IW03-060804-0	8/6/2004	Alkalinity as CaCO3		9680	mg/L	1	
IW04-060804-0	8/6/2004	Alkalinity as CaCO3		10080	mg/L	1	
MW04-060804-0	8/6/2004	Alkalinity as CaCO3		7940	mg/L	1	
IW01-120804-0	8/12/2004	Alkalinity as CaCO3		11600	mg/L	1	
IW02-120804-0	8/12/2004	Alkalinity as CaCO3		12100	mg/L	1	
IW03-120804-0	8/12/2004	Alkalinity as CaCO3		9760	mg/L	1	
IW04-120804-0	8/12/2004	Alkalinity as CaCO3		10300	mg/L	1	
MW04-120804-0	8/12/2004	Alkalinity as CaCO3		7630	mg/L	1	
IW01-190804-0	8/19/2004	Alkalinity as CaCO3		10300	mg/L	1	
IW02-190804-0	8/19/2004	Alkalinity as CaCO3		10700	mg/L	1	
IW03-190804-0	8/19/2004	Alkalinity as CaCO3		10700	mg/L	1	
IW04-190804-0	8/19/2004	Alkalinity as CaCO3		9700	mg/L	1	
MW04-190804-0	8/19/2004	Alkalinity as CaCO3		6800	mg/L	1	
IW01-270804-0	8/27/2004	Alkalinity as CaCO3		9600	mg/L	1	
IW02-270804-0	8/27/2004	Alkalinity as CaCO3		10100	mg/L	1	
IW03-270804-0	8/27/2004	Alkalinity as CaCO3		9200	mg/L	1	
IW04-270804-0	8/27/2004	Alkalinity as CaCO3		10400	mg/L	1	
MW04-270804-0	8/27/2004	Alkalinity as CaCO3		6000	mg/L	1	
IW01-070904-0	9/7/2004	Alkalinity as CaCO3		11000	mg/L	1	
IW02-070904-0	9/7/2004	Alkalinity as CaCO3		10500	mg/L	1	
IW03-070904-0	9/7/2004	Alkalinity as CaCO3		10600	mg/L	1	
IW04-070904-0	9/7/2004	Alkalinity as CaCO3		11000	mg/L	1	
MW04-070904-0	9/7/2004	Alkalinity as CaCO3		6250	mg/L	1	
IW01-290704-0	7/29/2004	Ammonia-N		62	mg/L	1	
IW02-290704-0	7/29/2004	Ammonia-N		32	mg/L	1	
IW03-290704-0	7/29/2004	Ammonia-N		19.5	mg/L	0.1	
IW04-290704-0	7/29/2004	Ammonia-N		62	mg/L	1	
MW04-290704-0	7/29/2004	Ammonia-N		450	mg/L	10	
IW01-060804-0	8/6/2004	Ammonia-N		63	mg/L	1	
IW02-060804-0	8/6/2004	Ammonia-N		48	mg/L	1	
IW03-060804-0	8/6/2004	Ammonia-N		25	mg/L	1	
IW04-060804-0	8/6/2004	Ammonia-N		70	mg/L	1	
MW04-060804-0	8/6/2004	Ammonia-N		490	mg/L	1	
IW01-120804-0	8/12/2004	Ammonia-N		87	mg/L	1	
IW02-120804-0	8/12/2004	Ammonia-N		58	mg/L	1	
IW03-120804-0	8/12/2004	Ammonia-N		25	mg/L	1	
IW04-120804-0	8/12/2004	Ammonia-N		66	mg/L	1	
MW04-120804-0	8/12/2004	Ammonia-N		530	mg/L	10	
IW01-190804-0	8/19/2004	Ammonia-N		160	mg/L	10	
IW02-190804-0	8/19/2004	Ammonia-N		83	mg/L	1	
IW03-190804-0	8/19/2004	Ammonia-N		37	mg/L	1	
IW04-190804-0	8/19/2004	Ammonia-N		83	mg/L	1	
MW04-190804-0	8/19/2004	Ammonia-N		550	mg/L	10	
IW01-270804-0	8/27/2004	Ammonia-N		250	mg/L	10	
IW02-270804-0	8/27/2004	Ammonia-N		110	mg/L	10	
IW03-270804-0	8/27/2004	Ammonia-N		41	mg/L	1	
IW04-270804-0	8/27/2004	Ammonia-N		100	mg/L	10	
MW04-270804-0	8/27/2004	Ammonia-N		550	mg/L	10	
IW01-070904-0	9/7/2004	Ammonia-N		330	mg/L	10	
IW02-070904-0	9/7/2004	Ammonia-N		200	mg/L	10	
IW03-070904-0	9/7/2004	Ammonia-N		67	mg/L	1	
IW04-070904-0	9/7/2004	Ammonia-N		130	mg/L	10	
MW04-070904-0	9/7/2004	Ammonia-N		560	mg/L	10	
Table 5-1: Summary of Weekly Pilot Study Monitoring Results Following DenitrificationBee-Jay Scales SiteSunnyside, Washington

Sample ID	Sample Date	Analyte	Less Than MDL	Result	Units	MDL	Qualifier
IW01-070904-0	9/7/2004	Arsenic		0.124	mg/L	0.002	
IW02-070904-0	9/7/2004	Arsenic		0.071	mg/L	0.002	
IW03-070904-0	9/7/2004	Arsenic		0.046	mg/L	0.002	
IW04-070904-0	9/7/2004	Arsenic		0.061	mg/L	0.002	
MW04-070904-0	9/7/2004	Arsenic		0.069	mg/L	0.002	
IW01-070904-0	9/7/2004	Dinoseb	<	0.0006	mg/L	0.0006	U
IW02-070904-0	9/7/2004	Dinoseb	<	0.0006	mg/L	0.0006	U
IW03-070904-0	9/7/2004	Dinoseb	<	0.0006	mg/L	0.0006	U
IW04-070904-0	9/7/2004	Dinoseb	<	0.0006	mg/L	0.0006	U
MW04-070904-0	9/7/2004	Dinoseb	<	0.0006	mg/L	0.0006	U
IW01-070904-0	9/7/2004	Iron		2.29	mg/L	0.02	
IW02-070904-0	9/7/2004	Iron		1.27	mg/L	0.02	
IW03-070904-0	9/7/2004	Iron		1.84	mg/L	0.02	
IW04-070904-0	9/7/2004	Iron		0.73	mg/L	0.02	
MW04-070904-0	9/7/2004	Iron		4.59	mg/L	0.02	
IW01-070904-0	9/7/2004	Manganese		7.56	mg/L	0.005	
IW02-070904-0	9/7/2004	Manganese		3.61	mg/L	0.005	
IW03-070904-0	9/7/2004	Manganese		3.96	mg/L	0.005	
IW04-070904-0	9/7/2004	Manganese		2.99	mg/L	0.005	
MW04-070904-0	9/7/2004	Manganese		7.54	mg/L	0.005	
IW01-290704-0	7/29/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW02-290704-0	7/29/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW03-290704-0	7/29/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW04-290704-0	7/29/2004	Nitrate-N	<	0.2	mg/L	0.2	U
MW04-290704-0	7/29/2004	Nitrate-N		68.1	mg/L	0.2	
IW01-060804-0	8/6/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW02-060804-0	8/6/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW03-060804-0	8/6/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW04-060804-0	8/6/2004	Nitrate-N	<	0.2	mg/L	0.2	U
MW04-060804-0	8/6/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW01-120804-0	8/12/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW02-120804-0	8/12/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW03-120804-0	8/12/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW04-120804-0	8/12/2004	Nitrate-N	<	0.2	mg/L	0.2	U
MW04-120804-0	8/12/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW01-190804-0	8/19/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW02-190804-0	8/19/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW03-190804-0	8/19/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW04-190804-0	8/19/2004	Nitrate-N	<	0.2	mg/L	0.2	U
MW04-190804-0	8/19/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW01-270804-0	8/27/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW02-270804-0	8/27/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW03-270804-0	8/27/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW04-270804-0	8/27/2004	Nitrate-N	<	0.2	mg/L	0.2	U
MW04-270804-0	8/27/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW01-070904-0	9/7/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW02-070904-0	9/7/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW03-070904-0	9/7/2004	Nitrate-N	<	0.2	mg/L	0.2	U
IW04-070904-0	9/7/2004	Nitrate-N	<	0.2	mg/L	0.2	U
MW04-070904-0	9/7/2004	Nitrate-N	<	0.2	mg/L	0.2	U

Table 5-1: Summary of Weekly Pilot Study Monitoring Results Following DenitrificationBee-Jay Scales SiteSunnyside, Washington

Sample ID	Sample Date	Analyte	Less Than MDL	Result	Units	MDL	Qualifier
IW01-290704-0	7/29/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW02-290704-0	7/29/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW03-290704-0	7/29/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW04-290704-0	7/29/2004	Nitrite-N	<	0.2	mg/L	0.2	U
MW04-290704-0	7/29/2004	Nitrite-N		65.9	mg/L	0.2	
IW01-060804-0	8/6/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW02-060804-0	8/6/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW03-060804-0	8/6/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW04-060804-0	8/6/2004	Nitrite-N	<	0.2	mg/L	0.2	U
MW04-060804-0	8/6/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW01-120804-0	8/12/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW02-120804-0	8/12/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW03-120804-0	8/12/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW04-120804-0	8/12/2004	Nitrite-N	<	0.2	mg/L	0.2	U
MW04-120804-0	8/12/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW01-190804-0	8/19/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW02-190804-0	8/19/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW03-190804-0	8/19/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW04-190804-0	8/19/2004	Nitrite-N	<	0.2	mg/L	0.2	U
MW04-190804-0	8/19/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW01-270804-0	8/27/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW02-270804-0	8/27/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW03-270804-0	8/27/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW04-270804-0	8/27/2004	Nitrite-N	<	0.2	mg/L	0.2	U
MW04-270804-0	8/27/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW01-070904-0	9/7/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW02-070904-0	9/7/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW03-070904-0	9/7/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW04-070904-0	9/7/2004	Nitrite-N	<	0.2	mg/L	0.2	U
MW04-070904-0	9/7/2004	Nitrite-N	<	0.2	mg/L	0.2	U
IW01-290704-0	7/29/2004	TOC		15000	mg/L	1	
IW02-290704-0	7/29/2004	TOC		14000	mg/L	1	
IW03-290704-0	7/29/2004	TOC		13000	mg/L	1	
IW04-290704-0	7/29/2004	TOC		13000	mg/L	1	
MW04-290704-0	7/29/2004	TOC		8600	mg/L	1	
IW01-060804-0	8/6/2004	TOC		14000	mg/L	1	
IW02-060804-0	8/6/2004	TOC		14000	mg/L	1	
IW03-060804-0	8/6/2004	TOC		14000	mg/L	1	
IW04-060804-0	8/6/2004	TOC		13000	mg/L	1	
MW04-060804-0	8/6/2004	TOC		8400	mg/L	1	
IW01-120804-0	8/12/2004	TOC		15000	mg/L	1	
IW02-120804-0	8/12/2004	TOC		13000	mg/L	1	
IW03-120804-0	8/12/2004	TOC		14000	mg/L	1	
IW04-120804-0	8/12/2004	TOC		14000	mg/L	1	
MW04-120804-0	8/12/2004	TOC		8000	mg/L	1	
IW01-190804-0	8/19/2004	TOC		14000	mg/L	1	
IW02-190804-0	8/19/2004	TOC		8400	mg/L	1	
IW03-190804-0	8/19/2004	TOC		13000	mg/L	1	
IW04-190804-0	8/19/2004	TOC		13000	mg/L	1	
MW04-190804-0	8/19/2004	TOC		6200	mg/L	1	
IW01-270804-0	8/27/2004	TOC		13000	mg/L	1	
IW02-270804-0	8/27/2004	TOC		13000	mg/L	1	
IW03-270804-0	8/27/2004	TOC		14000	mg/L	1	
IW04-270804-0	8/27/2004	ТОС		13000	mg/L	1	
MW04-270804-0	8/27/2004	TOC		6100	mg/L	1	
IW01-070904-0	9/7/2004	TOC		11000	mg/L	1	
IW02-070904-0	9/7/2004	TOC		12000	mg/L	1	
IW03-070904-0	9/7/2004	ТОС		11000	mg/L	1	
IW04-070904-0	9/7/2004	ТОС		13000	mg/L	1	
MW04-070904-0	9/7/2004	ТОС		5500	mg/L	1	

Table 5-1: Summary of Weekly Pilot Study Monitoring Results Following DenitrificationBee-Jay Scales SiteSunnyside, Washington

Sample ID	Sample Date	Analyte	Less Than MDL	Result	Units	MDL	Qualifier
IW01-290704-0	7/29/2004	Total Phosphorus		19.6	mg/L	0.1	
IW02-290704-0	7/29/2004	Total Phosphorus		16.2	mg/L	0.1	
IW03-290704-0	7/29/2004	Total Phosphorus		15.2	mg/L	0.1	
IW04-290704-0	7/29/2004	Total Phosphorus		15.3	mg/L	0.1	
MW04-290704-0	7/29/2004	Total Phosphorus		5.3	mg/L	0.02	
IW01-060804-0	8/6/2004	Total Phosphorus		19	mg/L	0.1	
IW02-060804-0	8/6/2004	Total Phosphorus		14.8	mg/L	0.1	
IW03-060804-0	8/6/2004	Total Phosphorus		14	mg/L	0.1	
IW04-060804-0	8/6/2004	Total Phosphorus		14.6	mg/L	0.1	
MW04-060804-0	8/6/2004	Total Phosphorus		4.35	mg/L	0.02	
IW01-120804-0	8/12/2004	Total Phosphorus		16	mg/L	0.1	
IW02-120804-0	8/12/2004	Total Phosphorus		12.1	mg/L	0.1	
IW03-120804-0	8/12/2004	Total Phosphorus		12	mg/L	0.1	
IW04-120804-0	8/12/2004	Total Phosphorus		13.6	mg/L	0.1	
MW04-120804-0	8/12/2004	Total Phosphorus		4.2	mg/L	0.02	
IW01-190804-0	8/19/2004	Total Phosphorus		14.7	mg/L	0.1	
IW02-190804-0	8/19/2004	Total Phosphorus		11.4	mg/L	0.1	
IW03-190804-0	8/19/2004	Total Phosphorus		10.5	mg/L	0.1	
IW04-190804-0	8/19/2004	Total Phosphorus		14	mg/L	0.1	
MW04-190804-0	8/19/2004	Total Phosphorus		2.53	mg/L	0.02	
IW01-270804-0	8/27/2004	Total Phosphorus		14.4	mg/L	0.1	
IW02-270804-0	8/27/2004	Total Phosphorus		9.04	mg/L	0.02	
IW03-270804-0	8/27/2004	Total Phosphorus		10.2	mg/L	0.1	
IW04-270804-0	8/27/2004	Total Phosphorus		16.6	mg/L	0.1	
MW04-270804-0	8/27/2004	Total Phosphorus		2.06	mg/L	0.02	
IW01-070904-0	9/7/2004	Total Phosphorus		11.6	mg/L	0.1	
IW02-070904-0	9/7/2004	Total Phosphorus		6.52	mg/L	0.02	
IW03-070904-0	9/7/2004	Total Phosphorus		9.18	mg/L	0.02	
IW04-070904-0	9/7/2004	Total Phosphorus		10.6	mg/L	0.1	
MW04-070904-0	9/7/2004	Total Phosphorus		1.71	mg/L	0.02	

Table 5-2: Post-pilot Study Groundwater Results Against MTCA Method B and C Cleanup Levels Bee-Jay Scales Site Sunnyside, Washington

Sample ID	Date	Analyte	Less than MDL	Analytical Results	Units	MDL	Qualifier	MB_gw-std* (mg/L)	Exceed Method B?	MC_gw-std* (mg/L)	Exceed Method C?	GW Comments
MW04-011204-0	12/1/2004	Alkalinity as CaCO3		11200	mg/L	1		NA	NA	NA	NA	
IW01-011204-0	12/1/2004	Alkalinity as CaCO3		11900	mg/L	1		NA	NA	NA	NA	
IW02-011204-0	12/1/2004	Alkalinity as CaCO3		13300	mg/L	1		NA	NA	NA	NA	
IW03-011204-0	12/1/2004	Alkalinity as CaCO3		13300	mg/L	1		NA	NA	NA	NA	
IW04-011204-0	12/1/2004	Alkalinity as CaCO3		14500	mg/L	1		NA	NA	NA	NA	
MW04-011204-0	12/1/2004	Ammonia-N		460	mg/L	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
IW01-011204-0	12/1/2004	Ammonia-N		490	mg/L	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
IW02-011204-0	12/1/2004	Ammonia-N		450	mg/L	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
IW03-011204-0	12/1/2004	Ammonia-N		450	mg/L	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
IW04-011204-0	12/1/2004	Ammonia-N		600	mg/L	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
MW04-011204-0	12/1/2004	Arsenic		0.277	mg/L	0.002		5.8333E-05	Yes	0.000583	Yes	
IW01-011204-0	12/1/2004	Arsenic		3.59	mg/L	0.002		5.8333E-05	Yes	0.000583	Yes	
IW02-011204-0	12/1/2004	Arsenic		1.98	mg/L	0.002		5.8333E-05	Yes	0.000583	Yes	
IW03-011204-0	12/1/2004	Arsenic		1.86	mg/L	0.002		5.8333E-05	Yes	0.000583	Yes	
IW04-011204-0	12/1/2004	Arsenic		2.44	mg/L	0.002		5.8333E-05	Yes	0.000583	Yes	
MW04-011204-0	12/1/2004	Dinoseb		0.0026	mg/L	0.0006		0.016	No	0.035	No	
IW01-011204-0	12/1/2004	Dinoseb		0.0031	mg/L	0.0006		0.016	No	0.035	No	
IW02-011204-0	12/1/2004	Dinoseb	<	0.0006	mg/L	0.0006	U	0.016	No	0.035	No	
IW03-011204-0	12/1/2004	Dinoseb		0.0031	mg/L	0.0006		0.016	No	0.035	No	
IW04-011204-0	12/1/2004	Dinoseb		0.0014	mg/L	0.0006		0.016	No	0.035	No	
MW04-011204-0	12/1/2004	Iron		7.14	mg/L	0.02		0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
IW01-011204-0	12/1/2004	Iron		3.9	mg/L	0.02		0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
IW02-011204-0	12/1/2004	Iron		0.72	mg/L	0.02		0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
IW03-011204-0	12/1/2004	Iron		2.42	mg/L	0.02		0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
IW04-011204-0	12/1/2004	Iron		4.05	mg/L	0.02		0.3	Yes	0.3	Yes	WA State Board of Health Secondary MCL.
MW04-011204-0	12/1/2004	Manganese		0.275	mg/L	0.005		2.24	No	4.9	No	
IW01-011204-0	12/1/2004	Manganese		0.291	mg/L	0.005		2.24	No	4.9	No	
IW02-011204-0	12/1/2004	Manganese		0.234	mg/L	0.005		2.24	No	4.9	No	
IW03-011204-0	12/1/2004	Manganese		0.189	mg/L	0.005		2.24	No	4.9	No	
IW04-011204-0	12/1/2004	Manganese		0.379	mg/L	0.005		2.24	No	4.9	No	
MW04-011204-0	12/1/2004	Nitrate-N	<	0.2	mg/L	0.2	U	1.6	No	3.5	No	
IW01-011204-0	12/1/2004	Nitrate-N		159	mg/L	0.2		1.6	Yes	3.5	Yes	
IW02-011204-0	12/1/2004	Nitrate-N	<	0.2	mg/L	0.2	U	1.6	No	3.5	No	
IW03-011204-0	12/1/2004	Nitrate-N	<	0.2	mg/L	0.2	U	1.6	No	3.5	No	
IW04-011204-0	12/1/2004	Nitrate-N		0.4	mg/L	0.2		1.6	No	3.5	No	
MW04-011204-0	12/1/2004	Nitrite-N	<	0.2	mg/L	0.2	U	1.6	No	3.5	No	
IW01-011204-0	12/1/2004	Nitrite-N		10.1	mg/L	0.2		1.6	Yes	3.5	Yes	
IW02-011204-0	12/1/2004	Nitrite-N	<	0.2	mg/L	0.2	U	1.6	No	3.5	No	
IW03-011204-0	12/1/2004	Nitrite-N	<	0.2	mg/L	0.2	U	1.6	No	3.5	No	
IW04-011204-0	12/1/2004	Nitrite-N	<	0.2	mg/L	0.2	U	1.6	No	3.5	No	
MW04-011204-0	12/1/2004	TOC		838	mg/L	1		NA	NA	NA	NA	
IW01-011204-0	12/1/2004	TOC		2420	mg/L	1		NA	NA	NA	NA	
IW02-011204-0	12/1/2004	TOC		7560	mg/L	1		NA	NA	NA	NA	
IW03-011204-0	12/1/2004	TOC		8230	mg/L	1		NA	NA	NA	NA	
IW04-011204-0	12/1/2004	тос		5420	ma/L	1		NA	NA	NA	NA	
MW04-011204-0	12/1/2004	Total Phosphorus		4.15	ma/L	0.02		NA	NA	NA	NA	
IW01-011204-0	12/1/2004	Total Phosphorus	1	37	mg/L	1		NA	NA	NA	NA	
IW02-011204-0	12/1/2004	Total Phosphorus	1	23.2	ma/L	0.1		NA	NA	NA	NA	
IW03-011204-0	12/1/2004	Total Phosphorus		17.2	mg/L	0.1		NA	NA	NA	NA	
IW04-011204-0	12/1/2004	Total Phosphorus		30	mg/L	1		NA	NA	NA	NA	
												•

NA = Not available.

* No MTCA Method B or C Cleanup Levels have been developed for alkalinity as CaCO₃, ammonia-N, TOC, or total phosphorus.

Table 5-3: Post-pilot Study Groundwater Results from Borings Outside Pilot Study Area Against MTCA Method B and C Cleanup Levels Bee-Jay Scales Site Sunnyside, Washington

Sample ID	Date	Analyte	Less than MDL	Analytical Results	Units	MDL	Qualifier	MB_gw-std* (mg/L)	Exceed Method B?	MC_gw-std* (mg/L)	Exceed Method C?	GW Comments
SB-PS-003-0	12/1/2004	Ammonia-N		450	mg/L	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-004-0	12/1/2004	Ammonia-N		400	mg/L	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-003-0	12/1/2004	Nitrate-N		388	mg/L	0.2		1.6	Yes	3.5	Yes	
SB-PS-004-0	12/1/2004	Nitrate-N		317	mg/L	0.2		1.6	Yes	3.5	Yes	
SB-PS-003-0	12/1/2004	Nitrite-N	<	0.2	mg/L	0.2	U	1.6	No	3.5	No	
SB-PS-004-0	12/1/2004	Nitrite-N	<	0.2	mg/L	0.2	U	1.6	No	3.5	No	

NA = Not available.

* No MTCA Method B or C Cleanup Levels have been developed for ammonia-N.

Table 5-4: Post-pilot Study Soil Results Against MTCA Method B and C Cleanup Levels Bee-Jay Scales Site Sunnyside, Washington

Sample ID	Date	Analyte	Less than MDL	Analytical Results	Units	MDL	Qualifier	MB_soil-std* (mg/kg)	Exceed Method B?	MC_soil-std* (mg/kg)	Exceed Method C?	Soil Comments
SB-PS-001-0, 0-2'	12/1/2004	Ammonia-N	<	10	mg/kg	10	U	NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-001-0, 10-12'	12/1/2004	Ammonia-N		810	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-001-0, 12-14'	12/1/2004	Ammonia-N		1060	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-001-0, 14-16'	12/1/2004	Ammonia-N		760	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-001-0, 16-18'	12/1/2004	Ammonia-N		500	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-001-0, 2-4'	12/1/2004	Ammonia-N	<	10	mg/kg	10	U	NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-001-0, 4-6'	12/1/2004	Ammonia-N		80	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-001-0, 6-8'	12/1/2004	Ammonia-N		440	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-001-0, 8-10'	12/1/2004	Ammonia-N		700	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-002-0, 0-2'	12/1/2004	Ammonia-N	<	10	mg/kg	10	U	NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-002-0, 10-12'	12/1/2004	Ammonia-N		990	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-002-0, 12-14'	12/1/2004	Ammonia-N		1230	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-002-0, 14-16'	12/1/2004	Ammonia-N		870	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-002-0, 16-18'	12/1/2004	Ammonia-N		990	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-002-0, 2-4'	12/1/2004	Ammonia-N	<	10	mg/kg	10	U	NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-002-0, 4-6'	12/1/2004	Ammonia-N		100	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-002-0, 6-8'	12/1/2004	Ammonia-N		720	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-002-0, 8-10'	12/1/2004	Ammonia-N		820	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-002-1, 8-10'	12/1/2004	Ammonia-N		840	mg/kg	10		NA	NA	NA	NA	No CUL recommended for ammonia-N.
SB-PS-001-0, 0-2'	12/1/2004	Dinoseb	<	15	ug/kg	15	U	80000	No	3500000	No	
SB-PS-001-0, 10-12'	12/1/2004	Dinoseb	<	16	ug/kg	16	U	80000	No	3500000	No	
SB-PS-001-0, 12-14'	12/1/2004	Dinoseb	<	16	ug/kg	16	U	80000	No	3500000	No	
SB-PS-001-0, 14-16'	12/1/2004	Dinoseb	<	15	ug/kg	15	U	80000	No	3500000	No	
SB-PS-001-0, 16-18'	12/1/2004	Dinoseb	<	16	ug/kg	16	U	80000	No	3500000	No	
SB-PS-001-0, 2-4'	12/1/2004	Dinoseb	۷	15	ug/kg	15	U	80000	No	3500000	No	
SB-PS-001-0, 4-6'	12/1/2004	Dinoseb	<	15	ug/kg	15	U	80000	No	3500000	No	
SB-PS-001-0, 6-8'	12/1/2004	Dinoseb	<	15	ug/kg	15	U	80000	No	3500000	No	
SB-PS-001-0, 8-10'	12/1/2004	Dinoseb	<	15	ug/kg	15	U	80000	No	3500000	No	
SB-PS-002-0, 0-2'	12/1/2004	Dinoseb	<	14	ug/kg	14	U	80000	No	3500000	No	
SB-PS-002-0, 10-12'	12/1/2004	Dinoseb	<	15	ug/kg	15	U	80000	No	3500000	No	
SB-PS-002-0, 12-14'	12/1/2004	Dinoseb	<	16	ug/kg	16	U	80000	No	3500000	No	
SB-PS-002-0, 14-16'	12/1/2004	Dinoseb	<	15	ug/kg	15	U	80000	No	3500000	No	
SB-PS-002-0, 16-18'	12/1/2004	Dinoseb	<	15	ug/kg	15	U	80000	No	3500000	No	
SB-PS-002-0, 2-4'	12/1/2004	Dinoseb	۷	15	ug/kg	15	U	80000	No	3500000	No	
SB-PS-002-0, 4-6'	12/1/2004	Dinoseb	<	16	ug/kg	16	U	80000	No	3500000	No	
SB-PS-002-0, 6-8'	12/1/2004	Dinoseb	<	15	ug/kg	15	U	80000	No	3500000	No	
SB-PS-002-0, 8-10'	12/1/2004	Dinoseb	<	16	ug/kg	16	U	80000	No	3500000	No	
SB-PS-002-1, 8-10'	12/1/2004	Dinoseb	<	17	ug/kg	17	U	80000	No	3500000	No	
SB-PS-001-0, 0-2'	12/1/2004	Nitrate-N		980	mg/kg	30		8000	No	350000	No	
SB-PS-001-0, 10-12'	12/1/2004	Nitrate-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-001-0, 12-14'	12/1/2004	Nitrate-N	<	30	mg/kg	30	U	8000	No	350000	No	

Table 5-4: Post-pilot Study Soil Results Against MTCA Method B and C Cleanup Levels Bee-Jay Scales Site Sunnyside, Washington

Sample ID	Date	Analyte	Less than MDL	Analytical Results	Units	MDL	Qualifier	MB_soil-std* (mg/kg)	Exceed Method B?	MC_soil-std* (mg/kg)	Exceed Method C?	Soil Comments
SB-PS-001-0, 14-16'	12/1/2004	Nitrate-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-001-0, 16-18'	12/1/2004	Nitrate-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-001-0, 2-4'	12/1/2004	Nitrate-N		1860	mg/kg	30		8000	No	350000	No	
SB-PS-001-0, 4-6'	12/1/2004	Nitrate-N		190	mg/kg	30		8000	No	350000	No	
SB-PS-001-0, 6-8'	12/1/2004	Nitrate-N		37	mg/kg	30		8000	No	350000	No	
SB-PS-001-0, 8-10'	12/1/2004	Nitrate-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-002-0, 0-2'	12/1/2004	Nitrate-N		220	mg/kg	30		8000	No	350000	No	
SB-PS-002-0, 10-12'	12/1/2004	Nitrate-N		170	mg/kg	30		8000	No	350000	No	
SB-PS-002-0, 12-14'	12/1/2004	Nitrate-N		250	mg/kg	30		8000	No	350000	No	
SB-PS-002-0, 14-16'	12/1/2004	Nitrate-N		250	mg/kg	30		8000	No	350000	No	
SB-PS-002-0, 16-18'	12/1/2004	Nitrate-N		480	mg/kg	30		8000	No	350000	No	
SB-PS-002-0, 2-4'	12/1/2004	Nitrate-N		690	mg/kg	30		8000	No	350000	No	
SB-PS-002-0, 4-6'	12/1/2004	Nitrate-N		200	mg/kg	30		8000	No	350000	No	
SB-PS-002-0, 6-8'	12/1/2004	Nitrate-N		120	mg/kg	30		8000	No	350000	No	
SB-PS-002-0, 8-10'	12/1/2004	Nitrate-N		160	mg/kg	30		8000	No	350000	No	
SB-PS-002-1, 8-10'	12/1/2004	Nitrate-N		180	mg/kg	30		8000	No	350000	No	
SB-PS-001-0, 0-2'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-001-0, 10-12'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-001-0, 12-14'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-001-0, 14-16'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-001-0, 16-18'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-001-0, 2-4'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-001-0, 4-6'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-001-0, 6-8'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-001-0, 8-10'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-002-0, 0-2'	12/1/2004	Nitrite-N	>	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-002-0, 10-12'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-002-0, 12-14'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-002-0, 14-16'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-002-0, 16-18'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-002-0, 2-4'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-002-0, 4-6'	12/1/2004	Nitrite-N		31	mg/kg	30		8000	No	350000	No	
SB-PS-002-0, 6-8'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-002-0, 8-10'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-002-1, 8-10'	12/1/2004	Nitrite-N	<	30	mg/kg	30	U	8000	No	350000	No	
SB-PS-001-0, 0-2'	12/1/2004	TOC		1100	mg/kg	100		NA	NA	NA	NA	
SB-PS-001-0, 10-12'	12/1/2004	TOC		550	mg/kg	100		NA	NA	NA	NA	
SB-PS-001-0, 12-14'	12/1/2004	TOC		160	mg/kg	100		NA	NA	NA	NA	
SB-PS-001-0, 14-16'	12/1/2004	TOC		540	mg/kg	100		NA	NA	NA	NA	
SB-PS-001-0, 16-18'	12/1/2004	TOC		250	mg/kg	100		NA	NA	NA	NA	
SB-PS-001-0, 2-4'	12/1/2004	TOC		510	mg/kg	100		NA	NA	NA	NA	

Table 5-4: Post-pilot Study Soil Results Against MTCA Method B and C Cleanup Levels Bee-Jay Scales Site Sunnyside, Washington

Sample ID	Date	Analyte	Less than MDL	Analytical Results	Units	MDL	Qualifier	MB_soil-std* (mg/kg)	Exceed Method B?	MC_soil-std* (mg/kg)	Exceed Method C?	Soil Comments
SB-PS-001-0, 4-6'	12/1/2004	TOC		800	mg/kg	100		NA	NA	NA	NA	
SB-PS-001-0, 6-8'	12/1/2004	TOC		430	mg/kg	100		NA	NA	NA	NA	
SB-PS-001-0, 8-10'	12/1/2004	TOC		150	mg/kg	100		NA	NA	NA	NA	
SB-PS-002-0, 0-2'	12/1/2004	TOC		4400	mg/kg	100		NA	NA	NA	NA	
SB-PS-002-0, 10-12'	12/1/2004	TOC	<	130	mg/kg	130	U	NA	NA	NA	NA	
SB-PS-002-0, 12-14'	12/1/2004	TOC		460	mg/kg	100		NA	NA	NA	NA	
SB-PS-002-0, 14-16'	12/1/2004	TOC		250	mg/kg	100		NA	NA	NA	NA	
SB-PS-002-0, 16-18'	12/1/2004	TOC		350	mg/kg	100		NA	NA	NA	NA	
SB-PS-002-0, 2-4'	12/1/2004	TOC		1000	mg/kg	100		NA	NA	NA	NA	
SB-PS-002-0, 4-6'	12/1/2004	TOC		450	mg/kg	100		NA	NA	NA	NA	
SB-PS-002-0, 6-8'	12/1/2004	TOC	<	130	mg/kg	130	U	NA	NA	NA	NA	
SB-PS-002-0, 8-10'	12/1/2004	TOC		470	mg/kg	100		NA	NA	NA	NA	
SB-PS-002-1, 8-10'	12/1/2004	TOC		270	mg/kg	100		NA	NA	NA	NA	
SB-PS-001-0, 0-2'	12/1/2004	Total Phosphorus		828	mg/kg	1		NA	NA	NA	NA	
SB-PS-001-0, 10-12'	12/1/2004	Total Phosphorus		708	mg/kg	1		NA	NA	NA	NA	
SB-PS-001-0, 12-14'	12/1/2004	Total Phosphorus		688	mg/kg	1		NA	NA	NA	NA	
SB-PS-001-0, 14-16'	12/1/2004	Total Phosphorus		740	mg/kg	1		NA	NA	NA	NA	
SB-PS-001-0, 16-18'	12/1/2004	Total Phosphorus		735	mg/kg	1		NA	NA	NA	NA	
SB-PS-001-0, 2-4'	12/1/2004	Total Phosphorus		977	mg/kg	1		NA	NA	NA	NA	
SB-PS-001-0, 4-6'	12/1/2004	Total Phosphorus		910	mg/kg	1		NA	NA	NA	NA	
SB-PS-001-0, 6-8'	12/1/2004	Total Phosphorus		830	mg/kg	1		NA	NA	NA	NA	
SB-PS-001-0, 8-10'	12/1/2004	Total Phosphorus		704	mg/kg	1		NA	NA	NA	NA	
SB-PS-002-0, 0-2'	12/1/2004	Total Phosphorus		754	mg/kg	1		NA	NA	NA	NA	
SB-PS-002-0, 10-12'	12/1/2004	Total Phosphorus		756	mg/kg	1		NA	NA	NA	NA	
SB-PS-002-0, 12-14'	12/1/2004	Total Phosphorus		675	mg/kg	1		NA	NA	NA	NA	
SB-PS-002-0, 14-16'	12/1/2004	Total Phosphorus		790	mg/kg	1		NA	NA	NA	NA	
SB-PS-002-0, 16-18'	12/1/2004	Total Phosphorus		739	mg/kg	1		NA	NA	NA	NA	
SB-PS-002-0, 2-4'	12/1/2004	Total Phosphorus		996	mg/kg	1		NA	NA	NA	NA	
SB-PS-002-0, 4-6'	12/1/2004	Total Phosphorus		845	mg/kg	1		NA	NA	NA	NA	
SB-PS-002-0, 6-8'	12/1/2004	Total Phosphorus		715	mg/kg	1		NA	NA	NA	NA	
SB-PS-002-0, 8-10'	12/1/2004	Total Phosphorus		817	mg/kg	1		NA	NA	NA	NA	
SB-PS-002-1, 8-10'	12/1/2004	Total Phosphorus		769	mg/kg	1		NA	NA	NA	NA	

NA = Not available.

* No MTCA Method B or C Cleanup Levels have been developed for ammonia-N, TOC, or total phosphorus.

FIGURES



 $20030922.10174435 \ \ R:\CAD\Cad_Files\Projects\CHEVRON\sunnyside\SUNNYSIDE(M).dwg$

















	LEGEND	-
		RIGHT-OF-WAY LINE
	///////////////////////////////////////	BUILDING
		BUILDING OVERHANG
		CHAINLINK FENCE
	×	PHASE II SOIL BORING
//////	- 500	APPROXIMATE TPH-GX CONCENTRATION ISOPLETH AT 7.5' (MG/KG)
	ALL RESULTS SHO AND ARE SHOWN	OWN ARE FOR NWTPH-Gx, FOR EACH DEPTH INTERVAL.
	BOLD RESULTS E AND C CRITERIA.	XCEED MTCA METHOD B
	*EXCEEDS MTCA METHOD C.	METHOD B, BUT NOT MTCA
//////	<u> </u>	
		,
		Ŷ
		#JNON
	00	0
	SCALE	E: 1" = 20'
R: Jav Scales Site	FIG	URE 4-1
ay Jules Olle		
	IN AR	EA 3 SOIL









	RIGHT-OF-WAY LINE
///////////////////////////////////////	BUILDING
	BUILDING OVERHANG
	CHAINLINK FENCE







	LEGEND	
		RIGHT-OF-WAY LINE
	///////////////////////////////////////	BUILDING
		BUILDING OVERHANG
		CHAINLINK FENCE
	٠	PHASE II VERTICAL PROFILE BORING
	500	AMMONIA-N CONCENTRATION ISOPLETH (MG/L)
	32	AMMONIA-N CONCENTRATION (MG/L)
	NA	NOT APPLICABLE. NO DETECTED RESULT OR NO WATER WAS ENCOUNTERED AT THIS DEPTH.
	*	DUPLICATE SAMPLE RESULT
ск		
VA IEK		
	50	0 50 SCALE: 1" = 50'
_{तः} Jay Scales Site	AMMONIA VERTI GROU	FIGURE 4-7 A-N CONCENTRATIONS IN CAL PROFILE BORING NDWATER - 10' DEPTH

















MAXIMUM DETECTED GROUNDWATER CONCENTRATIONS - AMMONIA-N

SCALE: 1" = 50'

FIGURE 4-11

50



APPENDIX A PHASE II CHAINS OF CUSTODY

Phase II Remedial Investigation Report Chevron Environmental Management Company & BP America, Inc.

> 24CH.67201.00 May 17, 2005

	C.O.C. PAGE # OF	
	(5∞) 332-6333	L_8193
REPORT TO CHAIN OF CUS	STODY RECORD	INVOICE TO
CONTACT NAME Marisa Patterson		SAME
COMPANY Secor	COMPANY	
ADDRESS 2321 Club Merridian Dr. Suite E	ADDRESS	
CITY OKemos STATE ZIP CODE 48864	CITY	
PHONE NO. 517-349-9499 517-349-6863 P.O. NO.	PHONE NO. FAX NO. P.O. NO.	
E-MAIL ADDRESS QUOTE NO.	PRESERVATIVE CODE	
PROJECT NO. NAME 74(4, 6720) 01 Bre Jan Scales		HER $D = NaOH$
SAMPLER(S) - PLEASE PRINT NAME	BOTTLE	E = HCL TE F =
MERIT SAMPLE COLLECTION SAMPLE TAG # OF	RUSH PICK-UP APPROVED	BY:
LAB NO. VEAR: XOUT IDENTIFICATION-DESCRIPTION BOTTLES	ANALYSES	
7176.01 051804 920 A3-SB-003,0.5'-0 2		
02 935 A3-SB-003, 4.5'-0		
.03 950 A3-SB-003, 7.5'-0		
.04 920 AT A3-SB-005, 0.5-0		
,05 1020 MT A3-SB-005, 4.5-0		<u></u>
106 1025 MAS A3-SB-005, 7.5'-0		
,01 920 A3-SB-006, 0.5'-0		
,08 1000 A3-SB-006,4.5'-0		
,09 1010 A3-SB-006,7.5'-0		
10 1235 A5-SB-008, 4-5'-0		
, 11 1240 A5-SB-008, 9'-0		
,12 1250 145-88-009, 9.5-0		
15 / 1255 A5-58-089, 9-0		
14 1310 175-515-010 9.5-0		
SIGNATURE DATE 1904 TIME 1500	SIGNATURE DATE	
NECEIVED BY: DATE TIME	SIGNATURE Pourla Am 5-20	0-04 0930
RELINQUISHED BY: DATE TIME SIGNATURE	SEAL NO. SEAL INTACI INITIALS NOTES: TEMP. ON YES NO CHARACTERISTICS Ship	AHHIVAL <u>9</u>
RECEIVED BY: DATE TIME SIGNATURE	SEAL NO. SEAL INTACT INITIALS 7114.	

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	Laboratories, Inc.	

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C.O.C. PAGE # 2 OF 2

6-3081

CHAIN OF CUSTODY RECORD

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CONTACT NAME Marisa Patterson						
COMPANY SELOR			COMPANY			
ADDRESS 2321 Club Meandian DC	Sinte E		ADDRESS			
CITY Change of the contract of	STATE Z		CITY			STATE ZIP CODE
PHONE NO 12 David FAX NO. 2010	P.O. NO.	1000	PHONE NO.		FAX NO.	P.O. NO.
517-349-9749 517-349-6863	QUOTE NO.	· · · · ·			· · · · · · · · · · · · · · · · · · ·	
mpatterson@secor.com					GW 🗆	
PROJECT NO/NAME 24CH. G7201.01 Bee Jou	y Scales		REFRIGERAT			SLUDGE D OTHER $_$ $C = H_2 SO_4$ D = NaOH
SAMPLER(S) - PLEASE PRINT NAME			BOTTLE		RUSH ANALYS	SES DUE DATE F =
	TAG	# OF			RUSH PICK-UP	APPROVED BY:
LAB NO. DATE TIME IDENTIFICATION.	DESCRIPTION	BOTTLES	I MIL	**//		ANALYSES
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	DATE	TIME	RECEIVED AT M	ERIT BY: Panh	à M	
RELINQUISHED BY:	DATE	TIME	SEAL NO.	SEAL INTACT YES D		NOTES; TEMP. ON ARRIVAL
RECEIVED BY: SIGNATURE	DATE		SEAL NO.	SEAL INTACT YES D		
	EARE NOTE: SIGNING AC		EPTANCE OF TERMS	& CONDITIONS ON BEVE	RSE SIDE	

Merit 2680 East Lansing Dr., East I	_? 'rg, MI 48823 C.O.C. PAGE # OF
Laboratories, Inc. Phone (517) 332-0167 Fax	332-6333
REPORT TO CHAIN OF CUS	STODY RECORD INVOICE TO
CONTACT NAME Marisa Patterson	
COMPANY SECCY	COMPANY
ADDRESS 7321 Club Meridian Dr. Suite E	ADDRESS
CITY OKemps STATE ZIP CODE ML 48864	CITY STATE ZIP CODE
PHONE NO 517-349-9499 FAX NO. 517-349-6863 P.O. NO.	PHONE NO. FAX NO. P.O. NO.
E-MAIL ADDRESS QUOTE NO. QUOTE NO.	PRESERVATIVE CODE A = NONE
PROJECT NO, NAME 24CH.67201.01 Bee Day Scales	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $
SAMPLER(S) - PLEASE PRINT NAME MKE MCMANON	
MERIT SAMPLE COLLECTION SAMPLE TAG # OF LAB NO. DATE TIME IDENTIFICATION-DESCRIPTION BOTTLES	ANALYSES
720105-19-04 0905 AS-SB-001, 4.5'-0 3	SPLP Analysis for NO2 NO3, Ammonia 149
.02 0910 AS-SB-001, 9'-0	Sublicke Phosphones Iron
,03 1030 A5-58-002,4.5-0	
1040 A5-5B-003, 9'-0	
05 935 A5-5B-003 4.5-0	
06 940 A5-5B-003,9'-0	
107 1005 A5-58-004, 4.5'-0	
.08 1010 AS-SB-004, 9'-0	
.09 820 AS-SB-005, 45-0	
10 825 AS-SB-005, 9'-0	
11 720 AS-SB-006, 4.5-0	
12 725 AS-SB-006 9'-0	
13 750 AS-SB-007, 4.5'-0	
14 V 755 A55B-007, 9'-0 V	
RELINQUISHED BY: Muchael UIGlie Desampler DATE -20-04 TIME /100	RELINQUISHED BY: DATE TIME SIGNATURE
RECEIVED BY: SIGNATURE DATE TIME	RECEIVED AT MERIT BY: Paula Am DATE SIGNATURE TIME 1000
RELINQUISHED BY: DATE TIME	SEAL NO. SEAL INTACT INITIALS NOTES: TEMP. ON ARRIVAL 44 YES I NO I
RECEIVED BY: DATE TIME	SEAL NO. SEAL INTACT INITIALS YES I NO I

	t Longing Dr. East L	- MI 48823	C.O.C. PAGE #	OF
	517) 332-0167 Fax	(5+~) 332-6333		518192
REPORT TO	CHAIN OF CUS	STODY RECORD		INVOICE TO
CONTACT NAME Marisa Patterson				
COMPANY SECOR		COMPANY		
ADDRESS 2321 Club Meridian Dr. Suite	E	ADDRESS		
CITY OKemos STATE	I UNE LA	CITY		STATE ZIP CODE
PHONE NO. 517-349-9499 517-349-6863 P.O. NO.		PHONE NO.	FAX NO.	P.O. NO.
E-MAIL ADDRESS MOATTERSON @ Secor. Com QUOTE NO.		PRESERVATIVE COL	2/2/4/2/ ///	SAMPLE TYPE A = NONE
PROJECT NO, NAME 24(14.6720).01 Ree Jun Su	les	REFRIGERATE		$\begin{array}{c c c c c c c c c c c c c c c c c c c $
SAMPLER(S) - PLEASE PRINT NAME		BOTTLE	RUSH ANALYS	E = HCL SES □ DUE DATE F =
MERIT SAMPLE COLLECTION SAMPLE TAG	# OF	TYPE VY	RUSH PICK-UP	APPROVED BY:
LAB NO. DATE TIME IDENTIFICATION-DESCRIPTION	N BOTTLES	050 052 8	9 **	ANALYSES
1201.15 5-19-04 1345 A5-VP-002, 10'-0	7			
, (6 1335 A5-UP-003, 10'-0		 		· · · · · · · · · · · · · · · · · · ·
17 1315 A5-VP-004, 10'-0		│ >		
18 1300 A5-VP-005, 10'-0		│ > >		
,19 1245 A5-UP-006, 10'-0				
.20 1320 AS-UP-004, 10'-1				·····
121 1530 AS-VP-007, 20'-C	<u>></u>	╎ <mark>╴╪╾┾╴╪╍┾╸╪╸╪</mark> ╸		·
.22 1545 AS-UP-006, 20'-C	>			
-23 1555 AS-VP-005, 20-0	· · · · · · · · · · · · · · · · · · ·			
24 1610 AS-VP-009, 20-0				
127 1620 AS-VP-004, 20-1		- - - 		
.26 V 1700 AS-UP-004, 20-	2 V			
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SIGNATURE MALANE MALLER DATE	-04 1100 TIME	SIGNATURE RECEIVED AT MERIT BY	0	
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SIGNATURE		SEAL NO.		
SIGNATURE				

Morit 2680	East Lansing Dr., East L	. 'a. MI 48823	C.O.C. PAGE # (DF
	e (517) 332-0167 Fax	332-6333		⊾∡3062
REPORT TO	CHAIN OF CUS	STODY RECORD		INVOICE TO
CONTACT NAME Marcise Patterson	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	
COMPANY SPICE		COMPANY		<u> </u>
ADDRESS 7321 Club Mercidian DC Suit	οE	ADDRESS		· · · · · · · · · · · · · · · · · · ·
CITY OF and C	TATE ZIP CODE	CITY	· · ·	/ STATE ZIP CODE
PHONE NO. 7-349-949 FAX NO. 7-349-6867 P.O. NO.	10004	PHONE NO.	FAX NO.	P.O. NO.
E-MAIL ADDRESS	NO.			
PROJECT NO/NAME			GW SAM	$\begin{array}{ccc} \text{APLE TYPE} & \text{A = NONE} \\ \hline \text{OIL } & \text{SOIL } & \text{B = HNO}_3 \\ \hline \text{OIL } & \text{C = H.SO}_4 \end{array}$
SAMPLER(S), PLEASE PRINT NAME	ales	(Y/N)		DGE LI OTHER D = NaOH E = HCL
Mike McMahon		BOTTLE		DUE DATE F =
MERIT SAMPLE COLLECTION SAMPLE TAG LAB NO. DATE TIME IDENTIFICATION-DESCRIPT	# OF BOTTLES	O STATE O STA		NALYSES
17232.015-21-04 820 A1-VP-005, 10'-0) 7		· · · · · · · · · · · · · · · · · · ·	
,02 1 955 A1-11P-005 201-	0	>		
03 945 AI-UP-004, 10'-	0	s		
04 1055 AI-UP-004 20'-	0		· · · · · · · · · · · · · · · · · · ·	
05 1100 A1-118-003 10:	-0		· · · · · · · · · · · · · · · · · · ·	
06 1120 AI-UP-003.10'	-1		· · · · · · · · · · · · · · · · · · ·	
07 1220 AI-UP-003.20	-0	>	· · · · · · · · · · · · · · · · · · ·	
08 1720 A(-1/P-003,20	1-1			· · · · · · · · · · · · · · · · · · ·
199 V 1320 AI-UP-003 20'-	2 1			
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RECEIVED BY: DATE SIGNATURE	TIME	RECEIVED AT MERIT BY:	aula Str	DATE 5-24-04 TIME 1100
RELINQUISHED BY: DATE SIGNATURE	TIME	SEAL NO. SEAL YES		S: TEMP. ON ARRIVAL 8
RECEIVED BY: DATE SIGNATURE	TIME	SEAL NO. SEAL YES		

Merit 2680 East Lansing Dr., East L	c.o.c. PAGE # OF
Laboratories, Inc.	
REPORT TO CHAIN OF CUS	TODY RECORD INVOICE TO
CONTACT NAME Marisa Patterson	
COMPANY SPCOC	СОМРАНУ
ADDRESS 2321 GUID Meridian CIC Swite F	ADDRESS
CITY OL OWNERS	CITY STATE ZIP CODE
PHONE NO -340 -0400 FAXM92-340-6863 P.O. NO.	PHONE NO. P.O. NO.
E-MAIL ADDRESS MM DA HERSON SECOL. Com QUOTE NO.	PRESERVATIVE COD STANT A=NONE
PROJECT NO MALE RO VOLUS SCLUS 24CH CT20101	REFRIGERATE GW G WW D OIL D SOIL D B = HNO3 C = H2SO4 PRODUCT D SLUDGE D OTHER D = NaOH
SAMPLER(S), PLEASE PRINT NAME MICHAEL MCMAhon	BOTTLE BOTTLE RUSH ANALYSES DUE DATE F= HCL TYPE A PROVED BY:
MERIT SAMPLE COLLECTION SAMPLE TAG # OF JEAN JEAN JEAN JEAN JEAN JEAN JEAN JEAN	ANALYSES
17233015-20-04 1045 A5-VP-008, 201-0 7	
12 1 1140 A5-VP-003,20'-0	>
03 1145 AI-VP-001 101-0	
04 1345 AS-VP-001 20'-0	
15 1410 AS-VP-002, 20'-0	
1910 NS-1/P-009 20'-0	
67 1510 DI-UR-001 20'-0	
$\frac{101}{150}$ $\frac{1500}{1500}$ $\frac{1100}{100}$ $\frac{1000}{100}$ $\frac{1000}{100}$	
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12 V 1715 AI-UP-007,20-0	
SIGNATURE MUCHAO MYLLO PESAMPLER DATE 521-04 TIME 1300	HELINQUISHED BY: DATE TIME SIGNATURE
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RELINQUISHED BY: DATE TIME	SEAL NO. SEAL INTACT INITIALS NOTES: TEMP. ON ARRIVAL
RECEIVED BY: SIGNATURE DATE TIME	SEAL NO. SEAL INTACT INITIALS YES D NO D NO D

A Constant Laboratories, Inc. 2680 East Lansing D Phone (517) 332-016	Dr., East L 67 Fax (Le J, MI 48823 C.O.C. PAGE # OF (5)7 332-6333	613066
REPORT TO CHAIN C	OF CUS		
CONTADMARISA Patterson			
COMPANY SECOR			
ADDRESS 2321 Club Meridian dr. Suite	2E		
CITY OKEMOS STATE THE AND STATE	864		
PHONE NO. 517-349-9499 FAX NO. 517-349-6863 P.O. NO.		PHONE NO. FAX NO. F.O. IN	
E-MAIL ADDRESS MATTERSOND SECON. Com QUOTE NO.		PRESERVATIVE CODE SAMPLE TYP	
PROJECT NO, NAME CO LOL SCALOS 2404 CH. C 1201 OL			OTHER \Box D = NaOH
SAMPLER(S), PLEASE PRINT NAME		BOTTLE RUSH ANALYSES DUE	E = HCL F =
MEDIT SAMPLE COLLECTION SAMPLE TAG	# OF		/ED BY:
LAB NO. DATE TIME IDENTIFICATION-DESCRIPTION	BOTTLES	ANALYSES	
17270.015-25-04 0845 A3-3B-004,05'-0	2	NWTPH-GX	
02 0845 A3-58-004 0.5'-1	2	NWTPH-GX	
03 0850 A3-SB-004, 4.5'-0	2	NW TPH - G-X	
04 0850 A3-58-004, 4.5'-1	2	NW TPH-GX	
05 0855 A3-3B-004. 7.5'-0	2	NWTPH-Gx	
.06 0655 A3-58-004.2.5'-1	2	NWTPH-Gx	
07 1045 A5-SB-008, 4.5-0	ŀ	SPLP	
108 1050 AS-SB-008, 9'-0	1	SPLP	
109 1010 A5-SB-009, 45-0	1	SPLP	
10 1015 A5-38-009. 9-0	1	SPLP	
11 945 A5-58-010, 4.5-0		SPLP	
12 950 A5-58-010, 1'-0		SPLP	
RELINQUISHED BY: WI LOLA, OILIGIA SAMDIED DATE 75-04 TIME 2	300	RELINQUISHED BY: DAT	E TIME
RECEIVED BY: DATE TIME		RECEIVED AT MERIT BY: Pay Day DAT	E06-04 TIME 1120
RELINQUISHED BY: DATE TIME		SEAL NO. SEAL INTACT INITIALS NOTES: TEMP.	ON ARRIVAL
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Merit	2680 East Lansing D	r., East La	a, ,	, MI 4	8823	;		C.O.C	. PAGE #	OF	ا _ ر	N-3065
Laboratories, Inc.	Phone (517) 332-016		(517) 5									
REPORT TO	CHAIN C	F CUS	STOD	YR	ECC	ORD	 					
CONTACT NAME Marisa Patterson	·											
COMPANY SECOR			СОМРА									
ADDRESS Z3ZI Club Meridian dr.	SuiteE		ADDRE	:SS								
OTTY MKOMANS	MI 48	864	CITY							 т		
PHONE NO. 512349-9499 FAX NO. 517-349-6863	P.O. NO.		PHONE	NO.				FAX NO.				
E-MAIL ADDRESS	QUOTE NO.		PRE	SEBV		COD	Pa/st/2/2/	1.	~	SAMPLE	TYPE	A = NONE
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Michael McMahon				Ē	, M	S		F	RUSH PICK-UP		PROVED BY: _	
MERIT SAMPLE COLLECTION SAMPLE TO SA	AG SCRIPTION	# OF BOTTLES	05	<u>~</u>		<u>Sy</u>	y y			ANALY	SES	
1271015-24-04845 A6-VP-001,	10'-0	7	╢ _┹			>						
02 945 A6-UP-001,	20'-0					2						
03 1012 Ale-VP-003.	10'-0			┢╌┼╴					<u> </u>			
14 1130 Ab-VP-003	20'-0			++	╺┥╍┥	->						
05 1310 AG-UP-004.	20'-0			┿┿		->						
06 1445 AL-1/P-002	20'-0		+-	┾╍┾╸		_ >				<u> </u>		. <u> </u>
07 V 1455 A6-VP-002.	20'-1	4][┼╌┼		· •			<u> </u>			
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RELINQUISHED BY: Willel Mae KSAMPLER	DATE TIME	200	SIGN	IATURE	AT MER	IT BY:	P	0	Un		DATE DATE DATE	9 TIME /170
SIGNATURE			SIGN	IATURE			SEAL INTACT	4 -	INITIALS	NOTES:	TEMP. ON ARRIVA	NL4
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SIGNATURE					DMC 2	CONDI		SE SIDE		1		

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			Laboratories, Inc.				חפו		Γ	INVOICE TO
REPOR										ΛE
	larisa	Patte	180N			COMPANY			<u></u>	
SOMPANY S	ecor					ADDRESS				
ADDRESS 237	1 CI	1061	neridian di						STATE	
SITY BLO	mæ		· · · · · · · · · · · · · · · · · · ·	STATE	48864					
PHONE NO 2-30	49-94	99 -	AX NO. 517-349-6863	P.O. NO.	•	PHONE NO.	PAX I	·····		
E-MAIL ADDRESS	ent	RSC	en com	QUOTE NO.		PRESERVATIVE	CODE	77	SAMPLE TYPE	
PROJECT NO./NAME		Scale.	5 2464.67201	.0)		REFRIGERATE (Y/N)			W DOIL D LUDGE DOTHE	SOIL \Box $B = HNO_3$ $R = C = H_2SO_4$ D = NaOH
SAMPLERIS) - PLEA MICHAE		Tehon				BOTTLE		RUSH ANALYSE	S D DUE DATE	F=
MERIT LAB NO.	SAMPLE CO YEAR:		SAMPLE - IDENTIFICATION-D	TAG ESCRIPTION	# OF BOTTLES		///		ANALYSES	
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110.11.01	0.000	-1.0	1100.000000				mirrogen	ompoundy,	surfacte, 1/1	۱.,
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RELINQUISHED B	Y:			DATE	TIME	SEAL NO.		INITIALS	NOTES: TEMP. ON AR	RIVAL 4
SIGNATURE RECEIVED BY:				DATE	TIME	SEAL NO.		INITIALS	Shipp	
SIGNATURE			PLI	EASE NOTE: SIGNING A	ACKNOWLEDGES ACC	CEPTANCE OF TERMS & C	CONDITIONS ON REVERSE SIL	DE	· .	····

Amerit Laboratories Inc. 2680 East Lansing Dr., E Phone (517) 332-0167	ast L. g, MI 48823 Fax (517) 332-6333 C.O.C. PAGE # OF / D17782
	CUSTODY RECORD INVOICE TO
CONTACT NAME	
COMPANY ECTIER	COMPANY
ADDRESS	ADDRESS
2321 Club Meridian Dr Duite E	CITY STATE ZIP CODE
OKEMUS ME 4886	
5173499494 X 35 5:73496863	
E-MAIL ADDRESS MEATTERSON & SECOR COM	PRESERVATIVE CODE A A = NONE
	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
SAMPLER(S) - PLEASE PRINT NAME	E HOL
	TYPE TYPE BUSH PICK-UP T APPROVED BY:
MERIT SAMPLE COLLECTION SAMPLE TAG #	
LAB NO. DATE TIME IDENTIFICATION-DESCRIPTION	
7367.01612 2:00gm LAG 0010	
02 612 DIOURN LAG DOLL	X A A A A A A A A A A A A A A A A A A A
03 42 2450 SED.0010	K ROGE AN GE
NU 6/2 DUE FED OUL	X NPI
, UT I FILM SED CO IL	
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RECEIVED BY: DATE TIME	RECEIVED AT MERIT BY: Marine and DATE 4-04 TIME 1030
RELINQUISHED BY: DATE TIME	SEAL NO. SEAL INITIALS NOTES: TEMP. ON ARRIVAL
SIGNATURE RECEIVED BY: DATE TIME	SEAL NO. SEAL INTACT INITIALS
SIGNATURE	

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| <u></u> | Merit | |
| | Laboratories, Inc. | 1.00 |

2680 East Lansing Dr., East Lar ٦, MI 48823 Phone (517) 332-0167 Fax (L 332-6333 www.meritlabs.com

C.O.C. PAGE # _____ OF _____



CHAIN OF CUSTODY RECORD

BEPORT TO	CHAIN	OF (CU	STO	DD	/ RE	CO	RD												NVOIC	EIU
CONTACT NAME MARYLES DALLESSON				00	ONTAC	T NAME															
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PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

APPENDIX B PHASE II BORING LOGS

Phase II Remedial Investigation Report Chevron Environmental Management Company & BP America, Inc.

> 24CH.67201.00 May 17, 2005

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		••••		<u>†</u> †	· · · ·	1	brown loose dry silty sand	•••••	· · · · · · · · · · · · · · · · · · ·					
]	1.	++		4			<u> </u>					
		1:::	4-	11	1	1		•••••	+	{· {· · · ·	1. parton			
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		1	6 -	11				•••••	+	ph.J	f			
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			12	11	· • • • • •					1.5				
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			118	34:			TD		··· ~···	1.5	<u>.</u>			
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		:::	∷ ²	4	1.									
	• • • •		- 2	5-	÷†·		· · · · · · · · · · · · · · · · · · ·	 		 <i>.</i>	· · · · · · · · · · · · · ·			
		. .		26-					· · · - · · ·					
				, <u>,</u> †										
			· · ²	<u>`</u> {			•••••••••••••••••••••••••••••••••••••••	 			· · · · · · · · · · · · · ·			
·····	· · · • · · •			187					· · · · · · · ·					
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Reviewed By: _

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	Date Dril		lling Contractor	Project Name: Bee Jay Scales	IASA	uipment:	Boring	J9
ee "Legend to Lo pupling method, assifications and sting methods	ogs" for I laboratory	Boring Diam.(in.); 8	Surface Elev.(fl.):	Groundwater Depils (fl.):	Total Depth (fl.):	Drive wi.(lbs.):	L Dis)rop L(in.):
Depth, (ft.) Sample Interval				Description			FID (ppm)	SAMPLE
- - 5		Light Becom	brown 1 es claye	oose dry silly su y and moist at	S. 6'.	¢	bentonit chips	2
		Slight	- odo-r o	it le becomes	Stronger			41-
		beyor	vel '7'.				8	
								I THE REAL COM
	•		· · · ·		•		18	THEIMIT
20					•			
The substrata d samples obtain one predomination at the t	escriptions ed during d nt material time of dril	above are g rilling. Prec type to anot ling and may	eneralized repres lominant materia her could be diffi y not be represen	entations and based upon visual/n i types shown on the log may con erent than indicated. Descriptions tative of subsurface conditions at	nanual classifica tain different ma on this log appl other locations o	tion of cuti tterials and y only at th or times.	ings and, the chan he specifi	'or ge fri c
roject No. QC ^{Jale} 10-21	(CL1. (57201.C	00	Log c	f Boring/We	sheet	J9	

SE International Incorporated



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Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equ	upment:	Boring	Number
ee "Legend to Lo ampling method, dessifications and	bgs" for Bo Dian Dian	n.(in.); Elev.(fl.):	Groundwater Depth (fl.): 8.5	Total Depth (fl.):	Drive wt.(lbs.):		Drop
Depth. (ft.) Sample Interval			Description			PID (ppm)	SAMPLE
	Lie	jut brown	loose dry silly	shnel.	50	Concret	
5—	Bec	omes moist 8'. Slight	r at about 7.5' odor.	ad we	t- ber	n tonit	
	······································	· · · · · · · · · · · · · · · · · · ·	<u></u> .		····	7.5	
			· · · · · · · · · · · · · · · · · · ·				
15						F7.5-	111 [] 11-1
20						•	
		· .	·				
The substrata d amples obtained one predominant ocation at the t	escriptions aboved during drillin nt material type time of drilling a	e are generalized repre g. Predominant materi to another could be dif and may not be represen	sentations and based upon visual/m al types shown on the log may cont ferent than indicated. Descriptions ntative of subsurface conditions at c	anual classificat ain different ma on this log apply other locations of	ion of cutti terials and only at th times.	ngs and the char e specifi	/or ige fro ic
roject No. & " ^{Jate} 10-21-0	-1 C H. 67 04	201.00	Log o	f Boring/We	II: mi	י <u>ו</u> ארי	

APPENDIX C PHASE II GROUNDWATER PURGE AND SAMPLE FORMS

Phase II Remedial Investigation Report Chevron Environmental Management Company & BP America, Inc.

> 24CH.67201.00 May 17, 2005

	SECOR	GROU	NDWAT	ER PURGE	AND SAM	PLE FOR	М	
Project Name: <u>Bee</u>	Jay Scales		Project N	lo.: 24CH.672	201.01	We	Date 5-2	A - 110-1001 10'
Field Personnel: M	<u>[M</u>		5	S	tatic Water	Level:	II 110 <u>101 99 -</u>	AT VPOUL, IU
Water Level Meas	urement Metho	od: <u>SLO</u>	PE WAT	ER LEVEL N	NDICATOR	2		
Time Start Purge:	1130		Time En	d Purge:	1142	- Tin	ne Sampled	145
Measuring Point D	escription: <u>N</u>	orth Top	of Well (Casing				
Purge Method: Lov	w Flow Pump			Р	urge Depth:	<u>TD</u>		,
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Dept Water	h to · (ft)	Water Column (ft)	Multiplie	r for Casing (Circle	g Diameter (i)	n) Casing Volume (gal)
	10,3	7.0	2	3.3	0.16	4	6	0.53
Time	40			1135	1140	1143		
Volume Purged (g	al) ~-!·6	5						
Purge Rate (gpm)			< 1gpm	1	1.5	2		
Temperature (°C)		·		17.7	17.2	510.9		
Ph				7.3	7.4	9.3		
Specific Conductiv (µmhos)	vity (uncorrected	ed)		21460	4266	4201		
ORP								
Turbidity/Color				hrow	1 Brou			
Odor/Sheen				None	n nue	None		
Depth to Water Du	uring Purge (ft))				rune_		
Number of Casing	Volumes Rem	noved						
Dewatered?				L N	2 V	N		
Comments: 1	emp wel	И	4 - ·	· · · · · · · · · · · · · · · · · · ·				

SAMPLE DATA: Percent Recovery: <u>NA</u>

Depth to Water at Sampling (ft): NM

Sampling Equipment:_____

Comments:

Comments:

\ 1

Sample	No.of	Container	Preservative	Field	Analysis	Comments
No.	Containers	Туре		Filtration	Request (Method)	
AI-UP	001,10'			NO	and the second	
	7	Umri	pucy	NO	Secon	
PURGE V	VATER DISPO	SAL NOTES:		• • • • • • • • • • • • • • • • • • • •		
Total Disc	harge (gal): <u>~</u>	2	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments	:					
	WELI	L HEAD CON	DITIONS CHEC	CKLIST (Circl	e YES or NO -	if NO. add comments)
Well Securi	ty Devices OK (I	Bollards, Chris	ty Lid, Casing Lid	l and Lock)?:	YES N	0
Inside of W	ell Head and Out	ter Casing Dry	?: YES NO			
Well Casing	g?: YES N	0	<i>i</i>			

	SECOR	GROU	NDWAT	ER PURGE	AND SAM	IPLE FORM	5-7	A-0((,
Project Name: <u>Bee</u>	Jay Scales		Project N	No.: 24CH.672	201.01] Well	Date J L No.: MW- 1	ALUP	-com 070
Field Personnel: M	M		5	S	tatic Water	Level:		11.00	-001 @ 20
Water Level Meas	urement Metho	od: <u>SLOI</u>	PE WAT	<u>ER LEVEL I</u>	DICATO	R.			
Time Start Purge:	1450		Time En	d Purge:/	510	– Time	Sampled 1	510	
Measuring Point D	escription: N	orth Top	<u>of Well (</u>	Casing			<u>.</u>	<u> </u>	
Purge Method: Lov	<u>w Flow Pump</u>		•	Р	urge Depth	: <u>TD</u>			
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Deptl Water	n to (ft)	Water Column (ft)	Multiplie	er for Casing ((Circle)	Diameter (in) Ca	sing Volume (gal)
(TD-DTW)	20	7.34	{	1266	0.16	4 0.64	6 1.44	- z	-03
Time	•		1455	- 1500	1505	1509			1
Volume Purged (g	al) ~(1.3	2	3.5	5	6		····	
Purge Rate (gpm)			< 1gpn	n					
Temperature (°C)			16-1	the	15.9	15.9		<u> </u>	
Ph			7.4	7.2	7.3	4. Z		<u> </u>	
Specific Conductiv (µmhos)	vity (uncorrect	ed)	5.5	5 5.69	5.17	5.39			
ORP									
Turbidity/Color			broi	whym	ring	brown			<u>+</u>
Odor/Sheen			none	nom	None	none			
Depth to Water Du	uring Purge (ft)							<u>† – – – – – – – – – – – – – – – – – – –</u>
Number of Casing	Volumes Ren	noved							
Dewatered?			N N	N	N	N			+
Comments: TC	mp well		· ···	,,,,,	I	<u> </u>	I		<u> </u>
	•								

SAMPLE DATA: Percent Recovery: <u>NA</u>

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:_____

Comments:

N Z

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
AI-VA-U	01,701			NO		<u>an ann an Anna /u>
	7	Var	005	NO	See	
PURGE V	VATER DISPO	SAL NOTES:	••••••••••••••••••••••••••••••••••••••		•	· · · · · · · · · · · · · · · · · · ·
Total Disc	harge (gal):	Le	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments	S:				_	
Well Securi Inside of W Well Casing Comments:	WEL! ty Devices OK (ell Head and Ou g?: YES N	L HEAD CON Bollards, Chris ter Casing Dry IO	DITIONS CHEC ty Lid, Casing Lid ?: YES NO	CKLIST (Circl l and Lock)?:	e YES or NO YES N	if NO, add comments) IO

	Project Nat	ne: <u>Bee J</u>	<u>ay Scale</u> 1	<u>s</u>]	Project N	o.: <u>24CI</u>	<u>1.672</u>	<u>01.01</u>		Well	No.: <u>M</u>	<u>w-</u> A1	-VP-	003,10
	Votor Lorr	imer: <u>MA</u>	<u>1</u>	fath - 1				S'	tatic Water	Level:_					
	Time Stort	Durger		ietnod:	<u>SLOP</u>	<u>′ピ WAT</u>	<u>sk LEV</u>	<u>ו דד B</u> ו	NDICATOR	<u>_</u>	~.	~	. 114	1 -	
	Meesuring	Purge:		. North	- 1. T	I ime En	1 Purge:	[$\prod T$	<u> </u>	Time	Sampl	ed_[]	\underline{w}	
	Durge Meth	Point De	Elow D	: <u>Nort</u>	<u>n top (</u>	or well (asing	~	5.1						
	Fuige Meu			<u></u>	D 1			<u>Р</u>	urge Depth:	<u></u>					
	Calculation in befo purgin	ume n (Fill re g)	Depth (ft)	Depth Water	(ft)	Water Column	(ft)	Multiplie	r for Ca (Ci	ising E ircle)	Diamet	er (in)	Casi	ng Volun (gal)
			10.2	-	8.4	1.8	1.7	2	2 0.16		4	1	6 .44		28
	Time			.%		1110	111	4	1110	~- 4		I		L	
	Volume Pu	rged (gal)			.5	1	-	1.5						
	Purge Rate	(gpm)				< 1gpn	•								
	Temperatu	re (°C)				10.2	. 11	\cap	112						
	Ph	,				r. 0	1 7 6	กั	7.0	L					
	Specific Co (µmhos)	onductivi	ty (unco	rrected)	11.4	5 [1.3	<u> </u>	11.29				·		
	ORP														
	Turbidity/(Color				ŀ	norus	- 1-	nde						
	Odor/Shee	n	·			<u> </u>	N 0	-12	Nurray						
	Depth to W	/ater Dur	ing Purg	e (ft)					-2						
	Number of	Casing	/olumes	Remov	ved					:					
	Dewatered	?													
	Comments	: ter	NW	ell						L	l				
·	SAMPLE Percent Re Sampling I Comments	DATA: covery: Equipment:	<u>NA</u> nt:			- ·· .		E	epth to Wa	ter at Sa	umplin	g (ft):	<u>NM</u>		
	Sample No.	No. Conta	of ners	Cont. Ty	iiner pe	Prese	vative		Field iltration	Anal Requ (Metl	ysis test 10d)		C	ommen	its
A	I-VP-00	301	0'	<u> </u>	<u></u>	<u>en estento de la julio</u>	<u></u>	<u>, na san puér</u>	NO	reda di sida wa in	<u>a ngaga silan</u>	<u>18.84. 44</u>	<u>ant est</u>	<u> </u>	<u>. (</u>
'			2	-	VA	n'mre			NO		0.		CAC		<u></u>
	PURCEN	VATER	-7- DISPOS	AT. NO	7777 17777	1.007			I	·	Sr.	pe_			
	Total Disc	harge (ga	l): ~/	.5		Disposal System 7	Method Freat	: <u>On</u>	Site Drum		Drum	Desig	nation(s)/Volu	me:
	Comments														
	Wall Coover		WELL	HEAI	CON	DITION	IS CHE	CKL d and	IST (Circle	YES o	r NO	if N	O, add (comme	ents)
	SECOR	GROU	NDWATI	ER PURGE	AND SAM	PLE FORM		75-00	c <i>t</i>						
---	----------------------	----------------	------------------	----------------------	-----------------	--	--	---------	------------	---------------------					
Project Name: Bee	Jay Scales		Project N	o.: <u>24CH.672</u>	201.01	We	Date 5 ⁻	ν- Δι	n In IP	-003 2					
Field Personnel: M	<u>[M</u>			S	tatic Water	Level:		- /-, י	01						
Water Level Measure	urement Metho	od: <u>SLO</u>	PE WATE	<u>ER LEVEL N</u>	<u>NDICATOI</u>	<u>. </u>									
Time Start Purge:	1200	··	Time End	Purge:	rro	Tim	e Sampled	1 12	20						
Measuring Point D	escription: <u>N</u>	orth Top	of Well C	asing			•								
Purge Method: Lov	<u>w Flow Pump</u>		•	Р	urge Depth	: <u>TD</u>				•					
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Deptl Water	h to · (ft) (Water Column (ft)	Multiplie	er for Casing (Circle	, Diameter)	(in)	Cas	ing Volume (gal)					
V=(TO-DTW)					$\overline{2}$	4	6								
X.14	20	9.8	5	10.2	0.16	0.64	1.4	4	.	63					
Time			1207	5 1210	1215	1220									
Volume Purged (g	al) (5)		2	3	પ	5									
Purge Rate (gpm)			< 1gpm												
Temperature (°C)			19.7	17.2	16-1	16.4	······································								
Ph			7.3	1.3	7.2	7.2									
Specific Conductiv (µmhos)	vity (uncorrect	ed)	2208	2308	2392	2425									
ORP								†							
Turbidity/Color				-				+							
Odor/Sheen				-			<u> </u>	1							
Depth to Water Du	uring Purge (ft))						+							
Number of Casing	Volumes Ren	noved													
Dewatered?			N	N		AL									
Comments:	mp we	l[
SAMPLE DATA	:			<u> </u>											
Percent Recovery:	<u>NA</u>			Ľ	Pepth to Wa	ter at Sampl	ing (ft): <u>N</u>	M							
Sampling Equipme	ent:														

Comments:

 $\sum_{j=1}^{n}$

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)		Comments
AI-UP-C	103,20'			NO	1999 13 1999 1 2 1 1 1 2 1 1 1 2 1 1 1 1 1 1 1	1. <u>29. mar.</u>	<u>i ya kata ya kata ya kata ya kata ya kata kat</u>
	7	Variou	15	NO		se	Cor
PURGE V	VATER DISPO	SAL NOTES:	L		I	1	
Total Disc	harge (gal): 🗸	5.5	Disposal Method: System Treat	On Site Drum	Drum	Designa	ation(s)/Volume:
Comments	·						
Well Securit Inside of We Well Casing	WELI ty Devices OK (I ell Head and Out ?: YES N	L HEAD CON Bollards, Chris er Casing Dry O	DITIONS CHEC ty Lid, Casing Lic YES NO	CKLIST (Circl and Lock)?:	e YES or NO YES N	 if NO 10	, add comments)

Project Name: Bee	e Jay Scales		Project 1	No.: <u>24CH.67</u>	201.01	E Well	No.: MW- AI	- V10-00-1 10'
Field Personnel: N	ſM		5	S	tatic Water I	Level:	1 · ·	
Water Level Meas	urement Metho	od: SLOI	PE WAT	ER LEVEL I	NDICATOR			
Time Start Purge:	930		Time En	d Purge:	945	Time	Sampled 9	45
Measuring Point L	Description: No	orth Top	of Well	Casing		—	·	
Purge Method: Lo	w Flow Pump			P	urge Depth:	TD		
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	n to (ft)	Water Column (ft)	Multiplier	for Casing I (Circle)	Diameter (in)	Casing Volume (gal)
TATA	14.51	<u>,</u>	`	2	0	4	6	- 7
$- \times 16$	10.8	1.8	٤	2	0.16	0.64	1.44	0.48
Time			.5	1	1.5			11 <u></u>
Volume Purged (g	;al)		935	940	945			
Purge Rate (gpm)			< 1gpr	n				
Temperature (°C)			15.1	15.1	15.2			
Ph	·		7.7	72	7.2			
Specific Conducti (µmhos)	vity (uncorrect	ed)	3170	> 3475	3520			
ORP	·····							
Turbidity/Color			brow	n & sill	4			
Odor/Sheen			none	none	none			
Depth to Water D	uring Purge (ft) .						
Number of Casing	y Volumes Ren	noved				·		
Dewatered?			1)	N				
						l		

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:_____

Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field/ Filtration	Analysis Request	Comments
					(Method)	
At-VP-00	4,1000			NO		
	7	Various		NO	See	
PURGE V	WATER DISPO	SAL NOTES:				
Total Disc	harge (gal): ~	5	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments	3:			·	-	
	WEL	L HEAD CON	DITIONS CHEC	CKLIST (Circl	le YES or NO	if NO, add comments)
Well Securi	ty Devices OK (I	Bollards, Chris	ty Lid, Casing Lid	l and Lock)?:	YES N	ÍO
Inside of W	ell Head and Out	ter Casing Dry?	YES NO			
Well Casing	g?: YES N	10				
Comments:						

	SECOR	GROU	NDWA	TEF	R PURGE	AND SAM	PLE FORM	M	• •	~ · •	
Project Name: <u>Bee</u>	Jay Scales		Project	t No.	: 24CH.672	01.01	We	Date 5^{-2}		24	-004-201
Field Personnel: M	<u>M</u>		J		S1	atic Water	Level:	11 140 <u>191 99</u>			00-100
Water Level Measure	urement Metho	od: <u>SLOI</u>	<u>PE WA</u>	TER	LEVEL IN	DICATOR	, ,				
Time Start Purge:	1030		Time I	End P	Purge: /	050	- Tim	e Sampled	In	55	
Measuring Point D	escription: <u>N</u>	orth Top	<u>of Wel</u>	l Cas	sing				- 12		
Purge Method: Lov	<u>w Flow Pump</u>		•		P	urge Depth:	TD				
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Deptl Water	n to (ft)	Co	Water Plumn (ft)	Multiplie	r for Casing (Circle	g Diameter ()	(in)	Cas	ing Volume (gal)
V=(TO-DTW)	204	da			1.45	2	4	6			
(x. 3) x. 16	20.1	8,9	2	4	3-05	0.16	0.64	1.44	1	-	1.83
Time			2		4	6.5	7.5				
Volume Purged (g	al) ~9,5		103	34	1037	1044	1047				
Purge Rate (gpm)			< 1g	om							
Temperature (°C)			16.	ζ	16.1	15.8	15.6				
Ph			7.	١	71	1.1	7.1				
Specific Conductiv (µmhos)	vity (uncorrect	ed)	232	24	1963	1643	1633				
ORP									_ <u></u>		
Turbidity/Color			60	nur	Murky	DECOMING	More		;-		
Odor/Sheen			no	Gela	rorshe	n					
Depth to Water Du	uring Purge (ft)									
Number of Casing	Volumes Ren	noved	-								
Dewatered?			N		N	Y	N				
Comments: V(temp u)e(· · · · · · ·		·	└─── <i>{</i> -·····					
L											

SAMPLE DATA: Percent Recovery: <u>NA</u> Sampling Equipment:_____

Depth to Water at Sampling (ft): NM

Comments:

đ

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
AI-UP COLLON	7	VARIOUS	Various	NO		See coc
1,00	·······	-		NO		
PURGE W	VATER DISPO	SAL NOTES:	1	L		1
Total Discl	narge (gal): 🗻	9.5	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments	:					
Well Securit Inside of We Well Casing	WEL y Devices OK (ell Head and Ou ?: YES 1	L HEAD CON (Bollards, Chris Iter Casing Dry' NO	IDITIONS CHEC ity Lid, Casing Lid ?: YES NO	CKLIST (Circl and Lock)?:	e YES or NO YES N	if NO, add comments) IO

Project Name: Bee Jay Scales Project No.: $24CH.67201.01$ Well No.: $MW-41V$ Field Personnel: MM Static Water Level: Well No.: $MW-41V$ Water Level Measurement Method: SLOPE WATER LEVEL INDICATOR Time Sampled 8220 Measuring Point Description: North Top of Well Casing Purge Depth: TD Time Sampled 8220 Measuring Point Description: North Top of Well Casing Purge Depth: TD Multiplier for Casing Diameter (in) (Circle) 8.5 2 4 6 Well Volume Total Depth to Water (ft) Water Column (ft) Multiplier for Casing Diameter (in) (Circle) 1.44 Time 8.5 7 0.16 0.64 1.44 Time 810 812 815 9 9 Volume Purged (gal) .5 1 1.5 9 9 Purge Rate (gpm) 5 1 1.5 9 Ph 7.2 7.2 7.2 7.2 7.2 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 <	1P005 W
Static Water Level: Water Level Measurement Method: SLOPE WATER LEVEL INDICATOR Time Start Purge: 0745 Time End Purge: 220 Time Sampled 820 Measuring Point Description: North Top of Well Casing Purge Depth: TD Tome Sampled 820 Measuring Point Description: North Top of Well Casing Purge Depth: TD Multiplier for Casing Diameter (in) (Circle) 800 810 812 4 6 Well Volume Total Depth (ft) Depth to Water (ft) Water Column (ft) Multiplier for Casing Diameter (in) (Circle) $(Circle)$ <t< td=""><td></td></t<>	
Water Level Measurement Method: SLOPE WATER LEVEL INDICATOR Time Start Purge: 920 Time Sampled 820 Measuring Point Description: North Top of Well Casing Purge Method: Low Flow Pump Purge Depth: TD Well Volume Calculation (Fill in before purging) Total Depth (ft) Depth to Water (ft) Water Column (ft) Multiplier for Casing Diameter (in) (Circle) Multiplier for Casing Diameter (in) Volume Purged (gal) χ	-
Time Start Purge: 920 Time Sampled 820 Measuring Point Description: North Top of Well CasingPurge Depth: TDPurge Method: Low Flow PumpPurge Depth: TDWell Volume Calculation (Fill in before purging)Total Depth (ft)Depth to Water (ft)Water Column (ft)Multiplier for Casing Diameter (in) (Circle)Well Volume Calculation (Fill in before purging)Total Depth (ft)Depth to Water (ft)Water Column (ft)Multiplier for Casing Diameter (in) (Circle)Multiplier for Casing Diameter (in) (Circle)Well Volume purging)Total Depth (ft)Depth to Water (ft)Water Column (ft)Multiplier for Casing Diameter (in) (Circle)Multiplier for Casing Diameter (in) (Circle)Well Volume 	
Measuring Point Description: North Top of Well Casing Purge Method: Low Flow Pump Purge Method: Low Flow Pump Purge Depth: TD Well Volume Calculation (Fill in before purging) Total Depth (ft) Depth to Water (ft) Water Column (ft) Multiplier for Casing Diameter (in) (Circle) Multiplier for Casing Diameter (in) In before purging) In before In the fore In the fore <thin fore<="" th="" the=""> In the fore In the for</thin>	2
Purge Method: Low Flow Pump Purge Depth: TD Well Volume Calculation (Fill in before purging) Total Depth (ft) Depth to Water (ft) Water Column (ft) Multiplier for Casing Diameter (in) (Circle) Image: Column (ft) 1 Depth (ft) 0.9 0.16 0.64 1.44 1 0.16 0.64 1.44 1 5 1 1.5 1 Volume Purged (gal) 5 1 1.5 1 Purge Rate (gpm) < 15.1 14.2 1.5 14.1 Ph 7.2 7.2 14.1 -1.5 Specific Conductivity (uncorrected) 39.34 24.85 -1.44 ORP -7.2 7.2 7.2 27.2 -1.44 Turbidity/Color 59.34 24.85 -1.44 -1.44	
Well Volume Calculation (Fill in before purging)Total Depth (ft)Depth to Water (ft)Water Column (ft)Multiplier for Casing Diameter (in) (Circle)10.0 3.5 2 460.160.641.44Time 310 812 815 1 Volume Purged (gal) 5 1 1.5 1 Purge Rate (gpm) $< 1gpm$ 1 1 1 Temperature (°C) 15.1 14.7 14.1 14.1 Ph 7.2 7.2 7.2 22.5 Specific Conductivity (uncorrected) 3734 3133 2985 1 ORP 1 1 1 1 1 Turbidity/Color 12.5 1 12.5 1 12.5	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Casing Volume (gal)
10.0 8.5 7 0.16 0.64 1.44 Time 810 812 815 1 1.44 Volume Purged (gal) .5 1 1.5 1 1.5 Purge Rate (gpm) <1gpm	<u> </u>
Time 810 812 815 1 Volume Purged (gal) .5 1 1.5 1 Purge Rate (gpm) <1gpm	- 52
Volume Purged (gal) .5 1 1.5 Purge Rate (gpm) <1gpm	
Purge Rate (gpm) < 1gpm	
Temperature (°С) 15.1 14.2 14.1 Ph 7.2 7.2 7.2 7.2 7.2 Specific Conductivity (uncorrected) (µmhos) 3934 3133 2985 Image: Construction of the second	
Ph 7.2 <td></td>	
Specific Conductivity (uncorrected) (µmhos)393431332485ORPImage: Specific Conductivity (uncorrected) ORPImage: Specific Conductivity (uncorrected) Image: Specific Conductivity (uncorrected)39342485ORPImage: Specific Conductivity (uncorrected) Image: Specific Conductivity (uncorrected)Image: Specific Conductivity (uncorrected)1mage: Specific Conductivity (uncorrected)ORPImage: Specific Conductivity (uncorrected)Image: Specific Conductivity (uncorrected)Image: Specific Conductivity (uncorrected)Turbidity/ColorImage: Specific Conductivity (uncorrected)Image: Specific Conductivity (uncorrected)Image: Specific Conductivity (uncorrected)	
ORP Image: Color Image: Color Image: Color	
Turbidity/Color brown	
Odor/Sheen No or sheen	
Depth to Water During Purge (ft)	
Number of Casing Volumes Removed	
Dewatered?	
Comments: lemp well	

Depth to Water at Sampling (ft): NM

Sampling Equipment:_____

Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)		Comments
AI-UP-0	05 7	VM	·ous	NO		See	COL
Q10'		-		NO			
PURGE V Total Disc Comments	VATER DISPO	SAL NOTES: <u>1.5</u>	Disposal Method: System Treat	On Site Drum	Drum	Designati	ion(s)/Volume:
Well Securi Inside of W Well Casing Comments:	WELI ty Devices OK () ell Head and Out g?: YES N	L HEAD CON Bollards, Chris er Casing Dry O	DITIONS CHEC ty Lid, Casing Lid ?: YES NO	C KLIST (Circl and Lock)?:	e YES or NO YES N	if NO, a 10	add comments)

Project Name: Res	Jay Socios		Duciant	No - 040	11 (7001	0.1		Date	2-2	1-04	
Field Personnel: N	M		Project	No.: <u>24C</u>	H.6/201	. <u>01</u>	We v	ell No.: <u>M</u>	<u>W-</u>	ai-up	-005
Water Level Mean	<u>11V1</u> uromont Moti				Statio	c water	Level:				
Time Start Durge:		100: <u>51:01</u>	<u>15 WA</u>				<u><</u>	~ .		dEE	
Measuring Point F	Accrimtion: N	Jorth Ton	1 line E	Cooring	- 49	5	Tu	ne Sampl	ed	455	
Purge Method: Lo	w Flow Pum	<u>vorur rop</u>	<u>, ven</u>	Casing	Dura	o Donth	. TT				
Well Volume	Total	 	to	Woto	Purg		: <u>ID</u>	- D'			
Calculation (Fill in before	Depth (ft)	Water	(ft)	Column	(ft)	Autophe	(Circl	g Diamet e)	er (m)) Cas	ing Volume (gal)
TI-DT())						2	4		6		
X.16	20	9.4	5	10.5	-	0.16	0.64	1	.44	- 1 .	68
Time		. 9 7	93	0 q	35 9	140	942				
Volume Purged (g	al) ~	5. র্ড	2	3.	5	5	.5				· •
Purge Rate (gpm)			< 1gp	m						_	
Temperature (°C)			15.0	1 15	.5 1	5.4	15-1				
Ph	· · · · · · · · · · · · · · · · · · ·		7.2	- 7	. 1 . 7	7.2	7.2	<u> </u>			
Specific Conducti (µmhos)	vity (uncorred	cted)	2280	20	>17 1	650	1750				
ORP								1			
Turbidity/Color			bro	wh, n	mole	, tur	nicl				·····
Odor/Sheen			n	0 00	er or	- sh	en	1			
Depth to Water D	uring Purge (ft)									
Number of Casing	, Volumes Re	moved									
Dewatered?			ん	~	>	2	N	<u> </u>			
Comments:											··········
Sampling Equipm Comments:	: <u>NA</u> ent:				Dept	th to Wa	iter at Samp	oling (ft):	<u>NM</u>		
Sample N No. Con	o. of C tainers	ontainer Type	Pres	ervative	Fi Filtr	eld ation	Analysi: Request			Commer	nts
	<u></u>	<u>م المحصولية المحصولي</u>			i i an initian ann an tha		UVIEINOC	<u>ታ </u>			
VP-005, ?	F	Vani	jus	·····	N	0		S	re	coc	-
· / / / 1											

Total Discharge (gal): ~ 5.5

Disposal Method: <u>On Site Drum</u> System Treat_____ Drum Designation(s)/Volume:

Comments:

1

);;

WELL HEAD CONDITIONS CHECKLIST (Circle YES or NO -- if NO, add comments) Well Security Devices OK (Bollards, Christy Lid, Casing Lid and Lock)?: YES NO Inside of Well Head and Outer Casing Dry?: YES NO Well Casing?: YES NO Comments:

	SECOR	GROUI	NDWAT	ER PURGE .	AND SAM	PLE FORM	AI		
Project Name: Ree	Tay Scales		Droject N	. · 2404 672	01 01	337-1	Date 5-20	1.	
Field Personnel: M	M		FIOJECI N	0.: <u>240 f1.0/2</u>	<u>1.01.01</u> totic Weter I	we	ll No.: <u>MW-</u>	/11-0	p.007@10
Water Level Mean	urement Meth	. SI OI		וס את ניבועיבונוס	IDICATOR	_evei:			
Time Start Durges		50. <u>51.01</u>	Time For	<u>ID. I</u>			.	155	5
Time Start Purge:	1)))	 	I ime End	1 Purge: <u>(</u>	001	Tim	e Sampled	100	
Neasuring Point D	escription: <u>N</u>	orth Top	of Well C	asing		m D			
Fulge Method. Lo	w Flow Pullip			P	urge Depth:	<u>_1D</u>			
Calculation (Fill in before purging)	Total Depth (ft)	Water	ft)	Water Column (ft)	Multiplier	for Casing (Circle)	, Diameter (in)	1) Ca	ising Volume (gal)
					Ø	4	6		
(TD-DTW) X.16	10	64	7	3.53	0.16	0.64	1.44		0.56
Time	65		1315	40 1544	1549				
Volume Purged (g	al) -	~1.76	.5	1	1.5				
Purge Rate (gpm)			< 1gpm	1					
Temperature (°C)	··· ··· ··· ····		18.6	> 17-7_	16-6				
Ph			14	7.2	7.4				
Specific Conductiv (µmhos)	vity (uncorrect	ed)	2965	5 2870	3015				
ORP									
Turbidity/Color			br	wh to sitt	Y				
Odor/Sheen			Sh	een -	~~>				
Depth to Water Du	uring Purge (ft	;)							
Number of Casing	; Volumes Rer	noved							
Dewatered?			Y	Y	Ý				
Comments:	y well	•	`	`	· ·	L	Ll_		
	•								
	•••••••								

Depth to Water at Sampling (ft): NM

Sampling Equipment:

Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
1-40-007	7	VAVIOUS	Various	NO	Secoc	
10'-0	<u> </u>	† ·		NO		
Comments	:		System Treat		_	2 congration(0), * oranic
Well Securi Inside of Well Casing Comments:	WEL ty Devices OK (ell Head and Ou ?: YES 1	L HEAD CON (Bollards, Christer Casing Dry NO	NDITIONS CHEC sty Lid, Casing Lid ?: YES NO	CKLIST (Circl and Lock)?:	e YES or NO YES N	if NO, add comments) IO

DateDateDateDateDateColspan="2">DateColspan="2">DateColspan="2">DateColspan="2">DateColspan="2">Colspan="2">DateColspan="2">Colspan="2">DateColspan="2">Colspan="2">DateColspan="2">Colspan="2">Colspan="2">DateColspan="2">Colspan="2">Colspan="2">DateColspan="2">Colspan="2" Colspan="2" Co	Casing Volume (gal)
Field Personnel: \underline{MM} Static Water Level:	Casing Volume (gal)
Water Level Measurement Method: SLOPE WATER LEVEL INDICATORTime Start Purge:1630Time End Purge:1650Time Sampled1700Measuring Point Description:North Top of Well CasingPurge Depth:TDTome Sampled1700Well Volume Calculation (Fill in before purging)Total Depth (ft)Depth to Water (ft)Water Column (ft)Multiplier for Casing Diameter (in) 	Casing Volume (gal)
Time Start Purge: 1630 Time End Purge: 1650 Time Sampled 1700 Measuring Point Description: North Top of Well CasingPurge Depth: TDPurge Method: Low Flow PumpPurge Depth: TDWell Volume Calculation (Fill in before purging)Total 	Casing Volume (gal)
Measuring Point Description: North Top of Well Casing Purge Method: Low Flow Pump Purge Depth: TD Well Volume Total Depth to Water Multiplier for Casing Diameter (in) C Calculation (Fill in before purging) Depth (ft) Water (ft) Column (ft) Multiplier for Casing Diameter (in) C (fr- ØTw) Zo 8.21 11.774 0.16 0.64 1.44 Time Z.5 4 5 6 6 Volume Purged (gal) //635 1640 1.645 1.650 6 Purge Rate (gpm) <1gpm	Casing Volume (gal)
Purge Method:Low Flow PumpPurge Depth:TDWell Volume Calculation (Fill in before purging)Total Depth (ft)Depth to Water (ft)Water Column (ft)Multiplier for Casing Diameter (in) (Circle)C(To- OTw) X.16208.21 11.794 22 46Time2.54561Volume Purged (gal)16351640164516501Purge Rate (gpm)<12	Casing Volume (gal)
Well Volume Calculation (Fill in before purging)Total 	Casing Volume (gal)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1.89
Time 7.5 4 5 6 Volume Purged (gal) //635 1640 1645 1650 Purge Rate (gpm) <1gpm	
Volume Purged (gal) /635 /640 /645 /650 Purge Rate (gpm) < 1gpm	
Purge Rate (gpm) < 1gpm Tamperature (°C) (7,7,2,1,2,1,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2	
Temperature $(9C)$ $(172)(172)(172)$	
Ph 7.4 7.3 7.2 7.7	
Specific Conductivity (uncorrected) (µmhos) 1665 1411 1380 1312	
ORP	
Turbidity/Color brown & silty, brown cilly	
Odor/Sheen none none none	
Depth to Water During Purge (ft)	
Number of Casing Volumes Removed	
Dewatered?	
Comments: Temp well	

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:_____

Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
AI-VP	007,201	te sel como titudo con propiler	ele gride bilini i po delatite politici na jel	NO		
	7	VM	1005	NO	See	
PURGE V	VATER DISPO	SAL NOTES:	·····			······································
Total Disc	harge (gal): 🗻	6	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments						
Well Securi Inside of W Well Casing Comments:	WEL! ty Devices OK () ell Head and Out g?: YES N	L HEAD CON Bollards, Chris ter Casing Dry IO	DITIONS CHEC ty Lid, Casing Lid YES NO	CKLIST (Circl and Lock)?:	e YES or NO YES N	if NO, add comments) IO

	SECOR	GROU	NDWAT	TER PURGE	AND SAM	PLE FOR	M 5-	20-	oy	
Project Name: Bee	Jay Scales		Project 1	No.: <u>24CH.672</u>	01.01	We	ll No.: MW-	-Δ<	. VO.	(00) 2
Field Personnel: N	<u>IM</u>			St	atic Water	Level:	·	- 1-30	Vľ	00.70
Water Level Meas	urement Metho	od: <u>SLOI</u>	PE WAT	<u>ER LEVEL N</u>	DICATOR				_	
Time Start Purge:	1375		Time Er	nd Purge:	344	Tin	ne Sampled	134	5	
Measuring Point D	escription: <u>N</u>	orth Top	of Well	Casing	- ()	-				
Purge Method: Lo	<u>w Flow Pump</u>		•	P	urge Depth:	TD				
Well VolumeTotalDepCalculation (Fill in before purging)Depth (ft)Wate			h to · (ft)	Water Column (ft)	Multiplie	r for Casin; (Circle	g Diameter (e)	in)	Casir	ng Volume (gal)
	2 1		<u>, </u>		\bigcirc	4	6			
	2 0 19.		>	9.5	0.16	0.64	1.44		1.52	
Time				1330	1335	1340	1344			·
Volume Purged (g	al) ~ 4.7	5		2	3	4	5			
Purge Rate (gpm)			< 1gpr	n						
Temperature (°C)	·····			16.4	16.2	16.1	162			· · · · · · · · · · ·
Ph				7.3	7.2	7.2	22			
Specific Conductiv (µmhos)	vity (uncorrect	ed)		1086	915	908	899			
ORP			1							<u>.</u>
Turbidity/Color				brown	le cloud	4		·····		<u>·</u>
Odor/Sheen	1			none	none	none	none			
Depth to Water D	uring Purge (ft)								···- · · · · · · · ·
Number of Casing	, Volumes Ren	noved								
Dewatered?				N	л N	N	N			
Comments: Tr	AAMO 1414	1		· · · · · · · · · · · · · · · · · · ·			4I	·	I_	

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:_____ Comments:

•. ;

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
AS-1/P-	001.20'			NO		
	7	Variou	5	NO	Sie	
PURGE V	WATER DISPO	SAL NOTES:	······································	•	1	1
Total Disc	harge (gal): 🗡	5	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments	s:				_	
Well Securi Inside of W Well Casing Comments:	WEL! ty Devices OK () ell Head and Out g?: YES N	L HEAD CON Bollards, Chris ter Casing Dry ⁴ IO	IDITIONS CHEC ty Lid, Casing Lic ?: YES NO	CKLIST (Circl d and Lock)?:	le YES or NO YES N	if NO, add comments) IO

	SECOR	GROUI	NDWA	TER PUI	RGE .	AND SAM	PLE FOR	M	C_{i}	9 -9	04
Project Name: Bee	Jay Scales		Project	No.: <u>24Cl</u>	H.672	201.01	We	ell No.: MW	> / '-	14	۱۵
Field Personnel: M	M				S	tatic Water	Level:		٦P	15-1	P-002
Water Level Meas	urement Metho	od: <u>SLOI</u>	PE WA	TER LEV	<u>EL I</u>	NDICATOF	2				
Time Start Purge:	1220		Time E	nd Purge:		245	Tin	ne Sampled	-13	45	- olc
Measuring Point D	escription: No	orth Top	<u>of Well</u>	Casing					(j)	45	
Purge Method: Lor	<u>w Flow Pump</u>		•		P	urge Depth:	: <u>TD</u>				
Well Volume Calculation (Fill in before purging)	Depth Water	n to · (ft)	Water Column	(ft)	Multiplie	er for Casin (Circle	g Diameter e)	(in)	Cas	ing Volume (gal)	
(TD-DTW) X-16	10-7	9.2	-	1.5		0.16	4	6	4	0	.24
Time	fs			122	5	1230	1240	1245		·	···
Volume Purged (g	al)			.5	-	1+5	1.5	2		·	
Purge Rate (gpm)			< 1gp	m							
Temperature (°C)				14	.7	14.7	147	14.7			
Ph		•		7	.2	7.2	7.7	7.2			
Specific Conductiv (µmhos)	vity (uncorrect	ed)		23	v	1717	1659	16351			
ORP								<u> </u>			
Turbidity/Color	· · ·		1	ba	wn	Emerty	brunk	wrkey			
Odor/Sheen				n	<u></u>	Non	Moles	IA AN A			
Depth to Water Du	uring Purge (ft)					1-1-1-2				
Number of Casing	Volumes Ren	noved									
Dewatered?		<u> </u>	+		1	×	Y				
Comments: +0	h. a well		I	I		I		<u> </u>	I		

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:_____ Comments:

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Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)		Comments
AS-UP-	002.101	VM	1005	NO	See coc		<u> </u>
	2	-		NO			
PURGE V	WATER DISPO	SAL NOTES:		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	1 <u>_</u>	· · · · · · · · · · · · · · · · · · ·
Total Disc	harge (gal): 🗻	2	Disposal Method: System Treat	On Site Drum	Drum	Designat	ion(s)/Volume:
Comments	3:				_		
Well Securi Inside of W Well Casing Comments:	WEL! ity Devices OK (ell Head and Out g?: YES N	L HEAD CON Bollards, Chris ter Casing Dry IO	DITIONS CHEC ty Lid, Casing Lid ?: YES NO	CKLIST (Circl l and Lock)?:	e YES or NO YES N	 if NO, ; Ю	add comments)

	SECOR	GROU	NDWA	TEF	R PURGE	AND SAM	PLE FORN	1 Data	5-	20.	-04
Project Name: Bee	Jay Scales		Project	No.	: <u>24CH.672</u>	01.01	Wel	l No.: MW	-A.S	-VP.	-00-7 8A
Field Personnel: M	M				St	atic Water	Level:		_,,,	•••	
Water Level Meas	urement Metho	od: <u>SLOI</u>	PE WA	TER	LEVEL IN	DICATOR					
Time Start Purge:	1325		Time E	nd P	urge: 10	110	Tim	e Sampled	14	10	
Measuring Point D	escription: No	orth Top	of Well	l Cas	sing			-		·	
Purge Method: Lov	<u>w Flow Pump</u>				Ρι	irge Depth:	TD				
Well Volume Calculation (Fill in before purging)	Deptl Water	n to (ft)	Co	Water Jumn (ft)	Multiplie	r for Casing (Circle)	Diameter	(in)	Cas	ing Volume (gal)	
(TD-DTW) X.16	9.11		ŀ	୯. ୫ ୩	0.16	4	6	4		1.74	
Time			13	50	1355	1400	1405			l	· · · · · · · · · · · · · · · · · · ·
Volume Purged (g	al) ~5.9	5	1.	5	2.5	3.4	5				
Purge Rate (gpm)			< 1 gr	om							
Temperature (°C)			17.1	ч	17.2	17.1	11.5				
Ph			7.	3	7.3	7.3	7.2				
Specific Conductiv (µmhos)	vity (uncorrect	ed)	150	B	1461	1454	1300				
ORP									<u> </u>		
Turbidity/Color			bro	wn	how	brown	brown		<u>.</u>		
Odor/Sheen	· · · · · ·		Nov	<u> </u>	Non	Mone	none	······			
Depth to Water Du	uring Purge (ft)					100.1				
Number of Casing	Volumes Ren	noved	1.								
Dewatered?			4		4	N	N				
Comments: L	up well						······································				

Depth to Water at Sampling (ft): NM

Sampling Equipment:

Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
AS-VA-0	02.70'			NO		
	4	VATIO	u ^ر ج	NO	See cer	
PURGE V	VATER DISPO	SAL NOTES:				······································
Total Disc	harge (gal):	5.5	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments			····	· · · · · · · · · · · · · · · · · · ·		
Well Securi Inside of W Well Casing Comments:	WELI ty Devices OK (1 ell Head and Out g?: YES N	L HEAD CON Bollards, Christ ter Casing Dry?	DITIONS CHEC ty Lid, Casing Lid Y YES NO	CKLIST (Circl and Lock)?:	e YES or NO YES N	if NO, add comments) IO

	SECO	R GROUN	DWATE	R PURGE	AND SAM	PLE FORM		9-04
Project Name: Bee	Jay Scales	F	roject No	.: <u>24CH.67</u> 2	201.01	We	ll No.: MW-	ZRIN
Field Personnel: M	<u>IM</u>		-	S	tatic Water	Level:	<u></u>	AS-110-003
Water Level Meas	urement Met	hod: <u>SLOP</u>	E WATEI	<u>R LEVEL II</u>	NDICATOR			
Time Start Purge:	1210]	Time End	Purge:		Tim	e Sampled	EF.
Measuring Point D	escription:_]	North Top c	f Well Ca	sing				235
Purge Method: Lo	w Flow Pum	p		Р	urge Depth:	TD		
Well Volume Calculation (Fill in before purging)	e Total Depth to ill Depth (ft) Water (ft)		Depth to Water Water (ft) Column (Multiplie	r for Casing (Circle	g Diameter (in))	Casing Volume (gal)
		0.5		.	(2)	4	6	
	10.4	8.5		6.1	0.16	0.64	1.44	0.34
Time		*o		1215	1220	1225	1235	
Volume Purged (g	al)			1	1.5	2	2.5	
Purge Rate (gpm)			< 1gpm					
Temperature (°C)			15.7	15.0	15.0	15,0		
Ph				7.3	1.3	7.3	7.3	
Specific Conducti (µmhos)	Specific Conductivity (uncorrected) (µmhos)				3366	3270	3198	
ORP								
Turbidity/Color				clear	clear	clear	clear	
Odor/Sheen				n n h e	hoke	hour	None	
Depth to Water D	uring Purge (ft)		Jura		100	190792	
Number of Casing	y Volumes Re	emoved	•					
Dewatered?								
Comments:	imp we	(- L	1 <u></u>	L	
	•							
SAMPLE DATA Percent Recovery	: : <u>NA</u>			I	Depth to Wa	ter at Samp	ling (ft): <u>NM</u>	
Sampling Equipm Comments:	ent:							
	······		,,,	<u></u>				
Sample N No. Con	o. of tainers	Container Type	Preserv	/ative	Field Filtration	Analysis Request (Method)		Comments
AS-VP-003.	10'	Vari		ne state da <u>dan</u> .	NO	See co	<u>, and an </u>	an a

Total Discharge (gal): 2.5

Disposal Method: On Site Drum System Treat____

NO

Drum Designation(s)/Volume:

Comments:

WELL HEAD CONDITIONS CHECKLIST (Circle YES or NO -- if NO, add comments)Well Security Devices OK (Bollards, Christy Lid, Casing Lid and Lock)?:YES NOInside of Well Head and Outer Casing Dry?: YES NONO Well Casing?: YES NO . Comments:

	SECOR	GROU	NDWAT	ER PURGE	AND SAN	IPLE FOR	M 5-	20-0	рч	
Project Name: <u>Bee Ja</u>	y Scales		Project N	o.: <u>24CH.67</u> 2	<u>201.01</u>	We	Date ell No.: MW	- AS	5-VP-003	
Field Personnel: <u>MM</u>	[S	tatic Water	Level:		_ , , ~		
Water Level Measure	ement Metho	od: <u>SLOI</u>	PE WATE	ER LEVEL D	DICATO	<u>R</u>		— . —	-	
Time Start Purge:	1110		Time End	l Purge: 1	40	— Tiı	ne Sampled	11	40	
Measuring Point Des	cription: <u>N</u>	orth Top	of Well C	Casing			···· · ····			
Purge Method: Low	Flow Pump			P	urge Depth	n: <u>TD</u>				
Well Volume Calculation (Fill in before purging)	Deptl Water	h to (ft)	Water Column (ft)	Multipli	er for Casin (Circl	g Diameter e)	(in)	Casing Volume (gal)		
1=(TD-DTW)	/=(TD-DTW)		-		2	4	6			
x.5 20 8.		8-1	8	11.82	0.16	0.64	1.44		1.9	
Time				1120	1125	1130	1135	<u>#</u>		
Volume Purged (gal)	~ 600	-		2	3	4	5.5			
Purge Rate (gpm)			< 1gpm	L				<u> </u>		
Temperature (°C)				17.0	16.4	16.5	16.5			
Ph				7.2	1.3	7.2	7.2			
Specific Conductivit (µmhos)	y (uncorrect	ed)		1558	1349	1050	1000			
ORP							· · · · · · · · · · · · · · · · · · ·			
Turbidity/Color				brow	Awarka	brown/n	erles			
Odor/Sheen				hone	horas	(4.15)0	10.0%			
Depth to Water Duri	ng Purge (ft))	1				rome			
Number of Casing V	olumes Ren	noved				-				
Dewatered?	· · · · · · · · · · · · · · · · · · ·		1	ג ו	<u>، در ا</u>	2				
				I		· · · ·	<u> </u>	L		

Depth to Water at Sampling (ft): NM

Sampling Equipment:

Comments:

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Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)		Comments	
AS-UP-	003.70		<u></u>	NO	AND DURING STRUCTURE IN A CONTRACTOR	Alexandra (Construction)	<u> </u>	<u>aran beberahara</u> k
	7	Var	1005	NO	See			
PURGE V	VATER DISPO	SAL NOTES:				L		
Total Disc	harge (gal):	6.0	Disposal Method: System Treat	On Site Drum	Drum	Designat	ion(s)/Volume	:
Comments	s:				_			
Well Securi Inside of W Well Casing Comments:	WEL ty Devices OK (ell Head and Ou g?: YES N	L HEAD CON Bollards, Christ ter Casing Dry? IO	DITIONS CHEC ty Lid, Casing Lid YYES NO	CKLIST (Circl and Lock)?:	le YES or NO YES N	 if NO, 10	add comments	s)

	SECOR	GROUI	NDWA	TER	PURGE	AND SAM	PLE FORM	1			
Project Name: Bee	Jay Scales		Project	No.:	24CH.672	201.01	Wel	Date No · M	W_	Ü.	2.0
Field Personnel: M	<u>M</u>		J		Si	tatic Water	Level:	110 <u>141</u>	<u>. vv -</u>	n_[(0 4
Water Level Meas	urement Metho	od: <u>SLOI</u>	SLOPE WATER LEVEL INDICATOR							43-	VV-004,1C
Time Start Purge:	1205		Time E	nd P	urge:	1225	- Tim	e Sample	ed 13	15	
Measuring Point D	escription: No	orth Top	<u>of Well</u>	l Casi	ing			p -			
Purge Method: Lov	<u>w Flow Pump</u>				P	urge Depth:	<u>TD</u>				
Well Volume Calculation (Fill in before purging)	Depth Water	oth to Water er (ft) Column (ft)		Multiplier for Casing Diameter (in (Circle)			er (in)	Cas	ing Volume (gal)		
		_		· 0		2	4	6			
	10.7 7		2		25	0.16	0.64 1.44		.44	0.56	
Time	4a				1210	1215	1220			11	
Volume Purged (g	al)				1.5	2	25				
Purge Rate (gpm)			< 1gp	m ·					+-	·	
Temperature (°C)					15.7	15.1	15.1	······			
Ph					7.3	2.2	1.2				
Specific Conductiv (µmhos)	vity (uncorrect	ed)			2355	2339	2320				
ORP											
Turbidity/Color					brown	brown	brown	· · · · · · · · · · · · · · · · · · ·	- <u>+</u>		
Odor/Sheen					none	hove	11 010 4				
Depth to Water Du	uring Purge (ft)					mrut			,	
Number of Casing	Volumes Rem	noved	-							·······	
Dewatered?					<u>ل</u> ر	N	2				
Comments:	Mp wei	(۰								L
	•										

Depth to Water at Sampling (ft): NM

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Sampling Equipment:_____ Comments:

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Sample No. A5-VP-C	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
	7	Various	Various	NO	See coc	
	1	-		NO		
Total Disc Comments	harge (gal):_2	SAL NOTES: <u>5</u>	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Well Securi Inside of W Well Casing Comments:	WEL! ty Devices OK (ell Head and Ou g?: YES N	L HEAD CON Bollards, Christ ter Casing Dry? IO	DITIONS CHEC Ty Lid, Casing Lid YES NO	C KLIST (Circl and Lock)?:	e YES or NO YES N	if NO, add comments) 10

Project Name: <u>Bee</u>	Jay Scales		Project No.	: <u>24CH.672</u>	01.01	Wel	No.: <u>MW-</u>	15-VP00	4 20'
Field Personnel: <u>M</u>	<u>[M</u>			St	atic Water	Level:		· · · · · · · · · · · · · · · · · · ·	
Water Level Meas	urement Metho	od: <u>SLOI</u>	PE WATER	<u>LEVEL N</u>	DICATOR	- -			
Time Start Purge:	1350		Time End Purge: 1610 Time Sampled 161						
Measuring Point D	escription: No	orth Top	of Well Ca	sing					
Purge Method: Loy	w Flow Pump		<u> </u>	Pı	urge Depth: <u>TD</u>				
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	n to (ft) Co	Water olumn (ft)	Multiplier for Casing Diameter (in) (Circle)				ıg Volume (gal)
					\bigcirc	4	6		
(20-070) X.16	21.5	7.5	-	14	0.16	0.64	1.44	1.44	
Time			1355	1600	1605	1610			
Volume Purged (g	3	4	5	\$					
Purge Rate (gpm)			<1gpm						
Temperature (°C)			17.0	16.9	(7.0	17.1			
Ph			7.2	7.2	7.2	7.2			
Specific Conductiv (µmhos)	vity (uncorrect	ed)	1640	1593	1610	1585			
ORP			-						
Turbidity/Color			Murlay	brown	Morley	rown			
Odor/Sheen			none	hone	None	None			
Depth to Water Di	uring Purge (ft)							
Number of Casing	Volumes Ren	loved							
Dewatered?			2	2	N	ا لر			
Comments: +	ye well		• • • •			· · · · · · · · · · ·	·····		

Sampling Equipment:_____

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Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request	Comments
					(ivieniou)	
ASUROO	4.201			NO		
	7	VENIOUS	5	NO	Various	
PURGE	WATER DISPO	SAL NOTES:	J <u></u>			· · · · · · · · · · · · · · · · · · ·
Total Disc	charge (gal): 📥	7	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments	s:		· · · · · · · · · · · · · · · · · · ·			
Well Securi Inside of W Well Casing	WEL ity Devices OK (ell Head and Ou ?? YES N	L HEAD CON Bollards, Chris ter Casing Dry'	IDITIONS CHEC ty Lid, Casing Lid ?: YES NO	CKLIST (Circl and Lock)?:	e YES or NO YES N	if NO, add comments) O
Comments:						

	ie: Bee Jay Scale	<u>s</u>	Project	t No.	: <u>24CH.67</u> 2	201.01	We	ll No.: <u>MW-</u>	50	@10	
Field Persor	nel: <u>MM</u>				S	tatic Water	Level:		A5-1	ip-oc	
Water Level	Measurement N	fethod: <u>SL(</u>	<u>OPE WA</u>	TER	LEVEL R	DICATOR	<u> </u>		, V		
Time Start I	'urge:		Time H	End I	Purge:		Tin	ne Sampled	1300		
Measuring I	oint Description	: North To	<u>p of Wel</u>	ll Ca	sing				······		
Purge Methe	od: <u>Low Flow Pr</u>	<u>ımp</u>	•		P	urge Depth:	TD				
Well Volu Calculation in befor purging	me Total (Fill Depth (e)	ft) Dep Wat	oth to er (ft)	to Water (ft) Column (ft)		Multiplie	r for Casing (Circle	g Diameter (i)	in) Cas	n) Casing Volume (gal)	
	10.6	16:	81		3.8	2 0.16	4	6	0	.61	
Time	I		'	L	1155	12000	1.0		l	·	
Volume Pur	ged (gal)	*			100	100	2	100			
Durgo Doto					l	1.2	6	2.5			
Tuge Kale											
reinperatur	;(*C)				15.8	15.3	15.2	15.2			
Ph					7.3	7.2	7.2	7.2			
Specific Co (µmhos)	nductivity (uncon	rected)			2281	2076	1406	1401			
ORP											
Turbidity/C	olor				brown	brown	brown	brown			
Odor/Sheen					none	hone	None	NAMO			
Depth to W	ater During Purg	e (ft)									
Number of	Casing Volumes	Removed	-								
Dewatered?					2	د ا	L	• •			
SAMPLE I Percent Rec	DATA:	en				enth to Wat	ter at Samp	ling (ft): NIM			
	quipment:								<u>.</u>		
Sampling E Comments:											
Sampling E Comments: Sample No.	No. of Containers	Container Type	Pre	serva	tive F	Field iltration	Analysis Request (Method)		Comme	1 US	
Sampling E Comments: Sample No.	No. of Containers	Container Type	Pre	serva	ttive F	Field Iltration NO	Analysis Request (Method)		Comme	nts	
Sampling E Comments: Sample No.	No. of Containers	Container Type	Pre	serva	dive F	Field iltration NO NO	Analysis Request (Method)		Comme	nts	
Sampling E Comments: Sample No. Sample	No. of Containers	Container Type		serva 	rtive F	Field ilmation NO NO	Analysis Request (Method)		Comme	n ts	
Sampling E Comments: Sample No. VO-OOS PURGE W Total Disch	No. of Containers $\sqrt[4]{0'}$ ATER DISPOS arge (gal): <u>7. '</u>	Container Type Ver AL NOTE	Pre ()00 S: Dispos	serva > Sal M	tive F	Field Iltration NO NO Site Drum	Analysis Request (Method)	um Designati	Commer ion(s)/Volu	ume:	
Sampling E Comments: Sample No. Source W PURGE W Total Disch	No. of Containers D D ATER DISPOS arge (gal): <u>7. (</u>	Container Type Ver AL NOTE	Pre Cloue S: Dispos System	serva > Sal M n Tre	tive F (ethod: <u>On</u>	Field iltration NO NO Site Drum	Analysis Request (Method)	um Designati	Commer ion(s)/Volu	ume:	

Project Name: <u>Bee</u>	Jay Scales		Project 1	No.:	24CH.672	<u>01.01</u>	Wel	Date 5 l No.: <u>M</u>	<u>W-</u> AS	5 5-VP-1	105,201
Field Personnel: M	M				St	atic Water	Level:			<u>.</u>	
Water Level Measu	urement Metho	od: <u>SLOF</u>	PE WAI	<u>TER</u>	LEVEL IN	DICATOR	<u>-</u>				
Time Start Purge:_	1535		Time Er	nd Pı	urge: 155	55	Tim	e Sample	d_15	55	
Measuring Point D	escription: No	orth Top	of Well	Casi	ing						
Purge Method: Lov	w Flow Pump		Purge Depth: <u>TD</u>								
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	a to Water · (ft) Column (ft)			Multiplier for Casing Diameter (in) (Circle)				Casing Volume (gal)	
TD-DTW	-				2	4		6			
x.(6	20.5	7.	1 13.4		3.4	0.16	0.64	1.44		<u>`</u> ८.1५	
Time			1540	0	1545	1550	1555				
Volume Purged (g	al)		3		ч	5	6			_	
Purge Rate (gpm)			< 1 gp	m							
Temperature (°C)			17	.5	17.7	16.6	17.1				
Ph			7.	2	7.3	7.2	7.2				
Specific Conductiv (µmhos)	Specific Conductivity (uncorrected) (µmhos)			59	792	896	7.97				
ORP											
Turbidity/Color			brow	sn	brown	bown	brown				
Odor/Sheen			non	-	none	None	none				
Depth to Water Du	uring Purge (ft)									
Number of Casing	Volumes Ren	noved									
Dewatered?			N		N	ų	\sim				
Comments: Ker	mp well						· · · · · · · ·				
							·				
Percent Recovery:	NA				D	epth to Wa	ter at Sampl	ing (ft):]	<u>M</u>		
Sampling Equipm	ent:										• •

Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
AS-110-005	20'			NO		
	7	Various		NO	VENIOUS	
PURGE	WATER DISPO	SAL NOTES:	L ···			
Total Disc	charge (gal):	}	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comment	s:		·		_	
Well Securi	WEL	L HEAD CON Bollards, Chris	DITIONS CHEC	CKLIST (Circl and Lock)?:	le YES or NO YES N	if NO, add comments) IO
Inside of W	ell Head and Ou	ter Casing Dry	YES NO	,		
Well Casing	g?: YES N	10				
Comments:						

Field Personnel: MM Static Water Level:AS=v ρ -oole, Water Level Measurement Method: SLOPE MATER LEVEL INDICATOR Time Sampled [245] Time Ead Purge: Time Sampled [245] Measuring Point Description: North Top of Well Casing Purge Depth: TD Well Volume Depth to Calculation (Fill Depth (ft) Water (ft) Well Volume Depth to Well Volume Water (ft) Water Column (ft) Depth to Woll Volume Yell Y Time • 1150 Woll Volume (gal) 2.45 Yell Volume Purged (gal) 5 Yell Volume (CC) 16.0 Itime • 1150 Volume Purged (gal) 5 Yell Volume (CC) 16.0 Itime Purged (gal) 5 Yell Volume (CC) 16.0 Purge Rate (gpm) 4 Temperature (°C) 16.0 Phene Rate (gpm) 7.1 Turbidity/Color 10 Odor/Sheen 10 Measter Levery: NA 2.4 Sampling Requipment:	Project Name: <u>Bee Jay Scale</u>	<u>s</u>	Project	t No.	: <u>24CH.672</u>	01.01	We	lĺ No.: <u>MW</u>	<u> </u>	6@10
Water Level Measurement Method: SLOPE WATER LEVEL INDICATOR Time Star Purge: Time Sampled [245] Time Star Purge: Time Sampled [245] Time End Purge: Time Sampled [245] Weasuring Point Description: North Top of Well Casing Purge Depth: TD Well Volume Total Depth (ft) Depth (ft) Multiplier for Casing Diameter (in) Casing Volume (gal) TO-DTW Total Depth (ft) Water (ft) Multiplier for Casing Diameter (in) Casing Volume (gal) TO-DTW Total Depth (ft) Water (ft) Multiplier for Casing Diameter (in) Casing Volume (gal) To-DTW Total Total Depth (ft) Water (ft) Multiplier for Casing Diameter (in) Casing Volume (gal) Time Sampled (gal) Total Total Total Casing Volume (gal) Total Prege Dept: ft Total Total Total Casing Volume (gal) Total Casing Volume (gal) Time Sampled (gal) I Total Total Total Casing Volume (gal) Total Total Specific Conductivity (uncorrected) Z92 3 18/41 70.1 Total Total Total Odor/Sheen	Field Personnel: <u>MM</u>				St	atic Water	Level:		AS	-VP-006.
Time Start Purge: 145 Time End Purge: Time Sampled 1245 Measuring Point Description: North Top of Well Casing Purge Depth: TD Purge Depth: TD Well Volume Total Depth (ft) Depth (ft) Water (ft) Multiplier for Casing Diameter (in) (Circle) Casing Volum (gal) Cabulation (Fill in before purging) Total Total Time Start (ft) Casing Volum (ft) Multiplier for Casing Diameter (in) (gal) Casing Volum (gal) Time Depth (ft) Water (ft) Total Time Start (ft) Casing Volum (gal) Time IIISS 1200 (205) Cost Cost Cost Volume Purged (gal) .5 1 L 25 L 5 Purge Part (ft) Pu	Water Level Measurement M	ethod: SLO	PE WA	TER	LEVEL IN	DICATOR	<u>L</u>	_		/
Measuring Point Description: North Top of Well Casing Purge Depth: TD Purge Method: Low Flow Pump Purge Depth: TD Calculation (Fill in before purging) Depth (ft) Water (ft) Multiplier for Casing Diameter (in) (Circle) Casing Volum (gal) TD-DTW 10-1 1.55 2.45 2 4 6 Yolume Purged (gal) 1 1.25 1.06 1.44 Time 1150 1155 1/0.25 Yolume Purged (gal) Purge Rate (gpm) < ligpm	Time Start Purge: 1145		Time E	End P	Purge:		Tin	ne Sampled	124	15
Purge Method: Low Flow Pump Purge Depth: TD Well Volume Total Depth (ft) Depth (ft) Depth (ft) Depth (ft) Casing Volum (ft) Multiplier for Casing Diameter (in) Casing Volum (gal) TD-DTW Image	Measuring Point Description	<u>North Top</u>	of Wel	l Cas	sing					
Well Volume Calculation (Fill in before purging) Total Depth (ft) Depth (ft) Water (ft) Water Column (ft) Multiplier for Casing Diameter (in) (Circle) Casing Volum (gal) $TV - DTW$ Y.1(b $IO - IY.1(b$ $IO - IY.1(c)$ $IO - IIO -$	Purge Method: <u>Low Flow Pu</u>	mp			Pu	irge Depth:	TD			
TV-DTW 10-1 7.63 2.45 2 4 6 Time 11150 1155 1200 1265 144 ,4 Time 1150 1155 1200 1265 1 144 ,4 Purge Rate (gpm) <1gpm	Well Volume Total Calculation (Fill Depth (f in before purging)	t) Dept Water	h to r (ft)	Co	Water blumn (ft)	Multiplie	r for Casing (Circle	g Diameter)	(in)	Casing Volume (gal)
Time II 50 II 55 I 200 (205) Volume Purged (gal) .5 I I.25 I.5 Purge Rate (gpm) <1gpm	TD-DTW 10. K.16	7. 88435	65		2.45	2	4	6	4	.4
Volume Purged (gal) 1	Time v				1150	1155	1200	1205		
Purge Rate (gpm) < 1gpm	Volume Purged (gal)				5	1	125	15		
Temperature (°C) I (ω , ω	Purge Rate (gpm)		< 1g	pm			1.05	<u></u>		
Ph 7.4 7.1 7.1 7.1 Specific Conductivity (uncorrected) (umhos) 292.3 1849 1841 ORP 292.3 1849 1845 1841 ORP 970.6 1976 1841 1000 Odor/Sheen 1000 1976 1949 1845 1841 Depth to Water During Purge (ft) 1000 1000 1000 1000 1000 Number of Casing Volumes Removed 1000 1000 1000 1000 1000 1000 10000 10000 100000 $1000000000000000000000000000000000000$	Temperature (°C)		1		1100	11.0	15.0	157		
Secific Conductivity (uncorrected) 7.7 7.1	Ph			·	71	$\overline{)}$	71	5.7		
ORP Image: Construction of the second seco	Specific Conductivity (uncor (μmhos)	rected)			2923	7.1	1845	1841		
Turbidity/Color brun /mm ay/brown/amage Odor/Sheen //mm ay/brown/amage Depth to Water During Purge (ft) //mm ay/brown/amage Number of Casing Volumes Removed //mm ay/brown/amage Dewatered? y y Comments: Temp (met) SAMPLE DATA: Depth to Water at Sampling (ft): NM Sampling Equipment: Comments: Comments: End (ft): NM Sampling Equipment: Container Comments: Field Analysis Comments: Sample No. of Containers Type Preservative Field Analysis Comments Comments: End (Method) Mo Image: Comments Voluces NO Secord NO PURGE WATER DISPOSAL NOTES: Disposal Method: On Site Drum Total Discharge (gal): -/	ORP									
Odor/Sheen Norther Trees Trees Trees Trees Trees Trees Depth to Water During Purge (ft) Image: Strees Trees Image: Strees Trees Image: Strees Trees Number of Casing Volumes Removed Image: Strees Trees Image: Strees Trees Image: Strees Trees Dewatered? Image: Strees Trees Image: Strees Trees Image: Strees Trees Image: Strees Trees SAMPLE DATA: Percent Recovery: NA Depth to Water at Sampling (ft): NM Sampling Equipment: Image: Strees Trees Image: Strees Trees Image: Strees Trees Comments: Image: Strees Trees Image: Strees Trees Image: Strees Trees Image: Strees Trees Sample No. of Container Preservative Field Analysis Comments Sample No. of Containers Preservative Field Analysis Comments Sample No. of Containers Type Preservative Field Analysis Comments Sample No. of Container Type No No Sec.cor Comments PURGE WATER DISPOSAL NOTES: Disposal Method: On Site Drum Drum Designation(s)	Turbidity/Color				hau	n/mer	albra	an Inco		
Depth to Water During Purge (ft) Image: Construction of Casing Volumes Removed Image: Casing Volumes Removed Image: Casing Volumes Removed Remov	Odor/Sheen				her		11.0.0		م ا	
Number of Casing Volumes Removed y	Depth to Water During Purg	e (ft)								
Dewatered? Y Y Y Y J Comments:	Number of Casing Volumes	Removed								
Comments:	Dewatered?				V		- v			
SAMPLE DATA: Percent Recovery: NA Depth to Water at Sampling (ft): NM Sampling Equipment:	Comments: Tomo (1)	<u>.</u>			Y	1		~		l
Sample No. of Container Preservative Field Analysis Comments No. Containers Type Preservative Field Analysis Comments Vor Type Piltration Request (Method) Method) Vor NO NO NO Image: Comments Image: Comments Vor NO NO NO Image: Comments Image: Comments Image: Comments Vor NO NO NO Image: Comments Image: Comments <t< th=""><th>SAMPLE DATA: Percent Recovery: <u>NA</u> Sampling Equipment: Comments:</th><th></th><th></th><th></th><th>D</th><th>epth to Wa</th><th>ter at Samp</th><th>ling (ft): <u>N</u></th><th>M</th><th></th></t<>	SAMPLE DATA: Percent Recovery: <u>NA</u> Sampling Equipment: Comments:				D	epth to Wa	ter at Samp	ling (ft): <u>N</u>	M	
PURGE WATER DISPOSAL NOTES: Disposal Method: On Site Drum Drum Designation(s)/Volume:	Sample No. of No. Containers	Container Type	Pre	serva	itiye	Field iltration NO	Analysis Request (Method		Co	mments
PURGE WATER DISPOSAL NOTES: Total Discharge (gal): ^/.5 Disposal Method: On Site Drum Drum Designation(s)/Volume:	171	Vori	uus			NU	Sec	Je-		
Total Disposal Method. Off Site Diulit Disultation(s)/ Volume:	PURGE WATER DISPOS	AL NOTES	Disno	col N/	lethod: On t	Site Dram	 D#	um Degiona	tion(a)	Wolume
Comments:	Commente:	<u> </u>	Syster	n Tre	eat		Dr	un Desigus		

Well Casing?: YES NO Comments:_____

	SECOR	GROUI	NDWA	FER P	URGE	AND SAMP	LE FOR	M Date	5-19	1-20	 >	
Project Name: <u>Bee</u>	Jay Scales		Project	No.: <u>24</u>	1CH.672	<u>01.01</u>	We	ell No	.: <u>MW-</u>	A	5-01	2006,201
Field Personnel: <u>N</u>	<u>IM</u>				St	atic Water L	evel:					
Water Level Meas	urement Metho	od: <u>SLOF</u>	PE WAT	CER LE	EVEL IN	DICATOR						
Time Start Purge:	1525		Time Ei	nd Purg	ge:	<u>545</u>	Tir	ne Sa	mpled_	<u>(K</u>	15	
Measuring Point D	escription: No	orth Top	of Well	Casing	5)		
Purge Method: Lo	<u>w Flow Pump</u>				Pu	rge Depth:_	TD					
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	to Water (ft) Column (ft)		Multiplier	for Casin (Circle	g Dia e)	meter (in)	Cas	ing Volume (gal)	
TD-DTW			_		0	(2)	4		6			
Y.16	8.6	os 11.35		0.16	0.64	0.64 1.44		·				
Time			1530		1535	1554						
Volume Purged (g	al)		3		4	5						
Purge Rate (gpm)			< 1gp	m								
Temperature (°C)			16.	7	167	16.8						
Ph			7.	2	7.3	7.3						
Specific Conductiv (µmhos)	vity (uncorrect	ed)	123	5	1166	(180)						
ORP												
Turbidity/Color			brow	n 1	bown	brown						
Odor/Sheen			non	r n	un	none						
Depth to Water Di	uring Purge (ft)										
Number of Casing	, Volumes Ren	noved		1								
Dewatered?			2		と	と						
Comments: ter	mp well											
SAMPLE DATA	:				<u></u>		s					

Percent Recovery: <u>NA</u>

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:_____

Comments:

·...)

Sample	No. of	Container	Preservative	Field	Analysis	Comments
No.	Containers	Туре		Filtration	Request	
					(Method)	
AS-UP-00	020'			NO		
				NO	800	
	- 7	Various			-cor	
PURGE V	VATER DISPO	SAL NOTES:				
Total Disc	harge (gal): 🖊	6	Disposal Method:	On Site Drum	Drum	Designation(s)/Volume:
101012100			System Treat			<u> </u>
Comments						
	WEL	L HEAD CON	DITIONS CHEC	KLIST (Circl	e YES or NO -	if NO. add comments)
Well Securi	ty Devices OK (Bollards, Chris	ty Lid. Casing Lid	and Lock)?:	YES N	0
Inside of W	ell Head and Ou	ter Casing Drv	YES NO			
Well Cacine						
	5. 110 IV					
Comments:						

S	ECOR GRO	UNDWA	TEF	R PURGE	AND SAM	PLE FORM	1 Data 5-19-0	<u>.</u> 14
Project Name: Bee Jay Sc.	ales	Project	t No.:	: <u>24CH.672</u>	01.01	Wel	1 No.: MW- V	PARIO
Field Personnel: <u>MM</u>				St	atic Water	Level:	Δ.s.	
Water Level Measuremen	t Method: <u>SL</u>	OPE WA	TER	LEVEL IN	DICATOR			
Time Start Purge:	>	Time H	End P	urge:	205	Tim	e Sampled	JA
Measuring Point Description	on: North T	op of Wel	l Cas	ing				
Purge Method: Low Flow	Pump			Pı	urge Depth:	TD		
Well VolumeToCalculation (FillDepthin beforepurging)	pth to ter (ft)	Co	Water lumn (ft)	Multiplie	r for Casing (Circle)	Diameter (in)	Casing Volume (gal)	
(TD-DTW) 10	.3 8	.8	3 1.5		2 4 0.16 0.64		6 1.44	.75
Time	·			1155	1200	1205		II
Volume Purged (gal)				,25	.4	.5		
Purge Rate (gpm)		< 1g	pm	•				
Temperature (°C)				16.8	16.1	16.1		
Ph								···
Specific Conductivity (un (µmhos)	corrected)			2665	1890	1780		
ORP						· ·		
Turbidity/Color	······			brown	murla	1		
Odor/Sheen				non				
Depth to Water During Pu	ırge (ft)							
Number of Casing Volum	es Removed							
Dewatered?	··· · · · · · · · · · · · · · · · · ·							
Comments: NO H2C	auci'l	for s	AWA	ple -	no	rechar	ge	······································
				•			·	

SAMPLE DATA:

Percent Recovery: NA

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:

Comments:

N 7

Sample No.	No. of Containers	Container. Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
NIA	a tay na pangan kana dan kana matana sa sa sa	n to the second state of the second states of the second states of		NO	<u>a ya kata wa sa ya wa ku ku ku ku ku</u>	<u>aan ah oo dhaan ah dhaan ah dhaan ah </u>
	·			NO		
PURGE V	WATER DISPO	SAL NOTES:	Dim and Mathad		D	
I otal Disc	narge (gai):	<u>,, </u>	System Treat		Drum	Designation(s)/Volume:
Comments					-	
	WEL	L HEAD CON	DITIONS CHEC	CKLIST (Circl	e YES or NO	if NO, add comments)
Well Securi	ty Devices OK ((Bollards, Chris	ty Lid, Casing Lic	l and Lock)?:	YES N	0
Inside of W	ell Head and Ou	iter Casing Dry	?: YES NO			
Well Casing	g?: YES 1	NO.				
Comments:				·		

	SECUR	GROUI		LK FUKGE	AND SAIVIE	LE FORM I	Date 5-19-2	0
Project Name: <u>Bee</u>	Jay Scales		Project N	o.: <u>24CH.67</u> 2	201.01	Well	No.: <u>MW-</u> AS	5-VP-007 ZU
Field Personnel: <u>M</u>	<u>[M</u>			S	tatic Water I	_evel:		
Water Level Meas	urement Metho	od: <u>SLOI</u>	PE WATE	ER LEVEL D	NDICATOR			
Time Start Purge:	1515		Time End	Purge: 1	530	Time	Sampled	530
Measuring Point D	escription: <u>N</u>	orth Top	of Well C	asing				
Purge Method: Lo	w Flow Pump			P	urge Depth:_	TD		
Well Volume Calculation (Fill in before purging)	Well Volume Total Depr Calculation (Fill Depth (ft) Wate in before purging)			Water Column (ft)	Multiplier for Casing (Circle		Diameter (in)	Casing Volume (gal)
TD-DTW)				a ∞	2	4	6	1~57
×.16	20	יז. טו	5	1.01	0.16	0.64	1.44	1.28
Time			1520	1525	1530			
Volume Purged (g	al)		3	ч	5			
Purge Rate (gpm)	<1gpm							
Temperature (°C)	18.8	17.4	(1.7					
Ph			7.3	7.2	7.2			
Specific Conductiv (µmhos)	vity (uncorrect	æd)	1118	1089	1124			
ORP								
Turbidity/Color		· · · ·						
Odor/Sheen				•				
Depth to Water D	uring Purge (ft	:)						
Number of Casing	, Volumes Ren	noved						
Dewatered?			N	N	2			
Comments: te	mp well						······································	
<u> </u>	•				<u> </u>		<u> </u>	· · · · · · · · · · · · · · · · · · ·
SAMPLE DATA Percent Recovery	: : <u>NA</u>		<u> </u>	 I	Depth to Wat	er at Samplin	ng (ft): <u>NM</u>	
Sampling Equipm	ent:							•
Comments:								

Sample	No. of	Container	Preservative	Field	Analysis	Comments
No.	Containers	Туре		Filtration	Request	
					(Method)	
AS-VP-00	7,20'			NO		
	7	Various		NO	see coc	
PURGE V	WATER DISPO	SAL NOTES:				
Total Disc	harge (gal):	5	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments	3:				_	•
	WEL	L HEAD CON	DITIONS CHEC	CKLIST (Circ	le YES or NO	if NO, add comments)
Well Securi	ty Devices OK (Bollards, Chris	ty Lid, Casing Lic	l and Lock)?:	YES N	10
Inside of W	ell Head and Ou	ter Casing Dry?	YES NO			
Well Casing	g?: YES N	10				
Comments:						

ield Personnel: <u>MM</u> /ater Level Measurement Method: <u>SLC</u> ime Start Purge: IQSS leasuring Point Description: <u>North Top</u> urge Method: <u>Low Flow Pump</u> Well Volume Total Depti alculation (Fill Depth (ft) Wate	PE WA Time E of Well	TER nd P Cas	St <u>LEVEL IN</u> urge: (ک	atic Water L IDICATOR	evel:		
Vater Level Measurement Method: SLC ime Start Purge: IQAS Ieasuring Point Description: North Top urge Method: Low Flow Pump Well Volume Total Deptical alculation (Fill Depth (ft) Wate	PE WA Time E of Well	TER nd P Cas	<u>LEVEL IN</u> urge: <u>ا</u> 0	<u>IDICATOR</u>			
ime Start Purge: IODS Ieasuring Point Description: <u>North Top</u> urge Method: <u>Low Flow Pump</u> Well Volume Total Depr alculation (Fill Depth (ft) Wate	Time E of Well	nd P Cas	urge: <u>(</u> 0				
Leasuring Point Description: North Top urge Method: Low Flow Pump Well Volume Total Deprivation alculation (Fill Depth (ft) Wate	of Well	Cas		40	Time	e Sampled (045
urge Method: <u>Low Flow Pump</u> Well Volume Total Depr alculation (Fill Depth (ft) Wate			ing				
Well VolumeTotalDep'alculation (FillDepth (ft)Wate			Pı	urge Depth:	<u>TD</u>		
in before purging)	th to r (ft)	Co	Water lumn (ft)	Multiplier	for Casing (Circle)	Diameter (in)	Casing Volume (gal)
				Ø	4	6	-
Ex. 16 2 20 17.7	2	x J.3		0.16	0.64	1.44	1.24
ime	103	0	1035	1040			
olume Purged (gal)	3		4	5			
urge Rate (gpm)	< 1gp	m					
emperature (°C)	18		17.5	16.8			
h	7.0	1	7.2	7.2			
pecific Conductivity (uncorrected) µmhos)	170	76	1249	1460			
)RP							
urbidity/Color							
)dor/Sheen							
Pepth to Water During Purge (ft)							
lumber of Casing Volumes Removed							
)ewatered?							
comments: temp well						······································	
				······································			

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:____

Comments:

) ==/

Sample No.	No. of Contamers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
					(inourod)	
AS-UP-C	05,20			NO		
	7	vorious		NO	see coc	
PURGE	WATER DISPO	SAL NOTES:				
Total Disc	charge (gal):	<u>5</u> D S	visposal Method: ystem Treat	On Site Drum	Drum	Designation(s)/Volume:
Comment	s:				-	
Well Secur Inside of W	WEL ity Devices OK (ell Head and Out	L HEAD COND Bollards, Christy ter Casing Dry?:	DITIONS CHEC Lid, Casing Lid YES NO	EKLIST (Circ) and Lock)?:	le YES or NO YES N	if NO, add comments) 10
Well Casin	g?: YES N	10				•
Comments:			· · · ·			

Project Name: <u>Bee</u>	e Jay Scales		Project 1	No.: <u>24CH.672</u>	201.01	Wel	l No.: <u>MW-</u>	AS-	VP-009,10'	
Field Personnel: <u>M</u>	<u>ſM</u>			St	tatic Water I	Level:			_	
Water Level Meas	urement Metho	od: <u>SLOI</u>	PE WAT	<u>ER LEVEL IN</u>	IDICATOR					
Time Start Purge:			Time En	d Purge:		Tim	e Sampled_	_NK	<u>+</u>	
Measuring Point D	Description: <u>N</u>	orth Top	of Well	Casing				·		
Purge Method: <u>Lo</u>	w Flow Pump			Pı	urge Depth:_	TD				
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	oth to Water Multiplier for er (ft) Column (ft)			for Casing (Circle)	for Casing Diameter (in) C (Circle)			
TD-D7W)					2	4	6			
¥.16	10.1	9.8	9	0.21	0.16	0.64	1.44		0.03	
Time	· · · · · · · · · · · · · · · · · · ·							<u>-</u> l		
Volume Purged (g	al)									
Purge Rate (gpm)			< 1gpr	n					-	
Temperature (°C)										
Ph										
Specific Conductiv (µmhos)	vity (uncorrect	ed)								
ORP										
Turbidity/Color										
Odor/Sheen										
Depth to Water Di	uring Purge (ft)								
Number of Casing	, Volumes Ren	noved								
Dewatered?										
Comments: no	t enough	Har	5 10	Samol	e	l				

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:_____

Comments:

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 $\frac{1}{2}$

Sample	No. of	Container	Preservative	Field	Analysis	Comments
No.	Containers	Туре		Filtration	Request	
					(Method)	
NIA			· ·	NO		
				NO		
PURGE V	WATER DISPO	SAL NOTES:				
Total Disc	harge (gal):		Disposal Method:	On Site Drum	Drum	Designation(s)/Volume:
			System Treat			
Comments	3:				_	
	WEL	L HEAD CON	DITIONS CHEC	CKLIST (Circ)	le YES or NO -	if NO. add comments)
Well Securi	ty Devices OK (Bollards, Chris	ty Lid, Casing Lid	and Lock)?:	YES N	0
Inside of W	ell Head and Out	ter Casing Dry?	YES NO	,		
Well Casing	g?: YES N	0				
Comments:	-					

				ENIUNGE	AND SAM	IPLE FORM	C 2.	ort
Project Name: Bee	Jay Scales		Project N	No.: 24CH.672	201.01	I Well	Date)-00 No · MW - A	C-110-100
Field Personnel: M	M		5	S	tatic Water	Level:	110 <u>mm-</u> 1	3.01.001
Water Level Measu	rement Metho	od: <u>SLOI</u>	<u>PE WAT</u>	<u>ER LEVEL N</u>	NDICATO	R		
Time Start Purge:	1420		Time En	d Purge:	440	 Time	Sampled 12	140
Measuring Point Do	escription: <u>N</u>	orth Top	of Well (Casing	• • • • • • • • • • • • • • • • • • • •			<u></u> _
Purge Method: Lov	v Flow Pump		•	Р	urge Depth	: <u>TD</u>		
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	n to (ft)	Water Column (ft)	Multiplie	er for Casing I (Circle)	Diameter (in)	Casing Volu (gal)
(TO-DTW)	-	0			2	4	6	
X-16	21	7.4	2	13.58	0.16	0.64	1.44	7.17
Time	42		1429	5 1430	1435	1440		*·····
Volume Purged (ga	ul) ~ 6.9		2	3.5	5	6		
Purge Rate (gpm)	<u></u>	··· _ ···	< 1gpn	n			····	
Temperature (°C)			18.4	1 18.2	18.1	17.9		
Ph			71	7.2	7.1	7.1		
Specific Conductiv (µmhos)	ity (uncorrect	ed)	1491	0 1318	843	820		
ORP								
Turbidity/Color			brow	merica	brown	murin		
Odor/Sheen			0.000	- MONO	Now	MADAO		
Depth to Water Du	ring Purge (ft))		- 10.0		1 mine		
Number of Casing	Volumes Ren	noved						
D. (10			N	-	N			

SAMPLE DATA: Percent Recovery: <u>NA</u> Sampling Equipment:_____

Depth to Water at Sampling (ft): NM

Comments:

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Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request	Comments
					(Method)	
AS-UP-	009,20'			NO		a <u>na na n</u>
	2	Vari	ους	NO	Sie	· · · · · · · · · · · · · · · · · · ·
PURGE V	VATER DISPO	SAL NOTES:	······································		······································	
Total Disc	harge (gal):_~_	7_	Disposal Method: System Treat	<u>On Site Drum</u>	Drum	Designation(s)/Volume:
Comments	8:	<u> </u>				
	WELJ	L HEAD CON	DITIONS CHEC	KLIST (Circ	- le YES or NO	if NO. add comments)
Well Securi	ty Devices OK (I	Bollards, Chris	ty Lid, Casing Lid	and Lock)?:	YES N	NO
Inside of W	ell Head and Out	er Casing Dry?	?: YES NO			
Well Casing	g?: YES N	0				
Comments:						

	SECOR	GROU	NDWA'	FER PUR	GE A	AND SAM	PLE FO	RM	5-24-04	4	
Project Name: <u>Bee</u>	Jay Scales		Project	No.: <u>24CH</u>	1.672	01.01	v	L Vell I	No.: MW- AL	-\ <i>\\P-(</i>	DOLPIO
Field Personnel: <u>M</u>	M				St	atic Water	Level:		<u></u> 70		reio
Water Level Measu	irement Metho	od: <u>SLO</u>	PE WAT	<u>TER LEVE</u>	<u>EL IN</u>	DICATOR			······································		
Time Start Purge:	830		Time Ei	nd Purge:	- 8	45	- T	ìme	Sampled &4	5	
Measuring Point D	escription: <u>N</u>	orth Top	of Well	Casing							
Purge Method: Lov	v Flow Pump		•		Pu	irge Depth:	TD				
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Deptl Water	h to · (ft)	Water Column ((ft)	Multiplie	r for Cas (Cire	ing E cle)	Diameter (in)	Casir	ig Volume (gal)
(TD-DTW)	10117	an a				2	4		6		
X.14	(0.90	Ţ.	43	3	ĺ	0.16	0.6	4	1.44		48
Time			835	- 840		845				• <u></u>	
Volume Purged (ga	ul)			1.5	5	2					
Purge Rate (gpm)			< 1gp	m			ž			-	· · · · · · · · · · · · · · · · · · ·
Temperature (°C)			13.8	13.	.4	13-3					
Ph			6.3	3 6.9	14	7.16			·		···
Specific Conductiv (µmhos)	ity (uncorrect	ed)	787	4 578	80	5664					<u></u>
ORP			219	210		220		-			
Turbidity/Color			brow	n k c	love	4	•	+	· · ·		
Odor/Sheen			non	e (A.D)	~	Now					
Depth to Water Du	ring Purge (ft)) .									
Number of Casing	Volumes Rem	noved	-								
Dewatered?			<u> </u>								
Comments: +	mp well		<u> </u>	I					<u></u>	ł	
		•	~						······		

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:

Comments:

Sample No.	No of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
AG-UP-0	01,101-0			NO	1999 - Congrad State - Constant - 18	<u>a ann an the state of the stat</u>
	7	Various		NO	see w	
PURGE V	VATER DISPO	SAL NOTES:			······	
Total Disc	harge (gal): <u>~</u>	2	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Well Securi Inside of We Well Casing Comments:	WEL ty Devices OK (ell Head and Out ?: YES N	L HEAD CON Bollards, Christ ter Casing Dry? IO	DITIONS CHEC ty Lid, Casing Lid : YES NO	KLIST (Circl and Lock)?:	e YES or NO YES N	if NO, add comments) IO

	SECOR	GROU	NDWA	ATE	R PURGE	AND SAM	PLE FOR	М	C-24-	०५	
Project Name: <u>Bee</u>	Jay Scales		Projec	t No.	.: <u>24CH.672</u>	201.01	We	Date ell No. · M	лw- А1	-1112	-001020
Field Personnel: <u>N</u>	<u>íM</u>		•		S	tatic Water	Level:		<u>an</u> _ /10	5 O I	
Water Level Meas	urement Metho	od: <u>SLO</u>	<u>PE WA</u>	TER	LEVEL	DICATOR	ξ		·	÷	
Time Start Purge:	925		Time I	End F	Purge:	940	- ⊤ir	ne Samn	led a l	15	
Measuring Point D	escription: No	orth Top	of We	ll Cas	sing	· · · · ·		in oump		<u> </u>	
Purge Method: Lo	w Flow Pump		•		P	urge Depth:	TD				
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Deptl Water	h to · (ft)	Ċo	Water olumn (ft)	Multiplie	er for Casin (Circle	g Diame e)	ter (in)	Cas	sing Volume (gal)
FTD-NTW)	0	<u></u>		÷	_	2	4		6		
X.16	20.91	7.9			13	0.16	0.64		1.44		2.08
Time			93	O	935	940	943			•	
Volume Purged (g	al)		3	•	4	5	65				
Purge Rate (gpm)			< 1g	pm							
Temperature (°C)			17	3	15.7	15.6	15.6				
Ph			7	72	7.91	7.91	7.91				
Specific Conductiv (µmhos)	vity (uncorrect	ed)	176	,3	1677	1303	1299				
ORP			250	>	245	240	240	·		~~~	
Turbidity/Color			brou	n	brown	brow	brown				<u></u>
Odor/Sheen		·	non	e	none	hon	non				· · · · · · · · · · · · · · · · · · ·
Depth to Water Du	uring Purge (ft))		·							
Number of Casing	Volumes Rem	noved									
Dewatered?			N		N	N	N				
Comments: T-	emporary	well	•		· · · · ·	۵		·			····
· · ·		·	·				······				

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:_____

Comments:

Somolo	NISSE	C. C	The second s	100 M 100		
No	Containers	Type	Preservative	Field Filtration	Analysis	Comments
	Containers	L J DO		I IIUAIUII	(Method)	
AGUP-0	01,20'	VWIOUS	Various	NO	See	
	•			NO		
PURGE V	VATER DISPO	SAL NOTES:				
Total Disc	harge (gal):	7	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments					-	
	WEL	L HEAD CON	DITIONS CHEC	KLIST (Circl	e YES or NO -	if NO. add comments)
Well Securi	ty Devices OK (Bollards, Chris	ty Lid, Casing Lid	and Lock)?:	YES N	O
Inside of W	ell Head and Ou	ter Casing Dry	YES NO			-
Well Casing	g?: YES N	10				
Comments:						

Field Personnel [.] M	ГМ			Si	tatic Water Le	evel:	14	over our en		
Water Level Meas	urement Meth	od SLOI	PE WA	TER LEVEL D	IDICATOR					
Time Start Purge:	aronnont moth	0u. <u>_bb01</u>	Time F	Ind Purge:	Time Sampled					
Measuring Point D	escription N	orth Top	of Wel	l Casing		_ 11110				
Purge Method: Lo	w Flow Pump	<u>onin 10p</u>	01 11 01	Pi	urge Depth: '	ГD				
Well Volume	Total	Depth	1 to	Water	Multiplier	for Casing D	iameter (in)	Casing Volur		
Calculation (Fill in before purging)	Depth (ft)	Water	(ft)	Column (ft)		(Circle)		(gal)		
	1	· ·			2	4	6			
	10	710			0.16	0.64	1.44			
Time	· · · · · · · · · · · · · · · · · · ·									
Volume Purged (g	al)									
Purge Rate (gpm)			< 1gr	m						
Temperature (°C)										
Ph										
Specific Conductiv (µmhos)	vity (uncorrect	ed)								
ORP										
Turbidity/Color										
Odor/Sheen										
Depth to Water Di	iring Purge (ft)								
Number of Casing	Volumes Ren	noved								
Dewatered?		······								
Comments: 13	40 n.	o hz	06	2101	II ,					
					···· ····					
SAMPLE DATA					<u> </u>					
Percent Recovery:	<u>NA</u>			D	epth to Water	r at Sampling	g (ft): <u>NM</u>			
Sampling Equipm	ent:									
Comments:				· ·						
·							·	······		
						· · · · · · · · · · · · · · · · · · ·				
Sample	nf Co	intainer	Pre	servative	Field	Analysis	C C	omments		

Comments: WELL HEAD CONDITIONS CHECKLIST (Circle YES or NO -- if NO, add comments) Well Security Devices OK (Bollards, Christy Lid, Casing Lid and Lock)?: YES NO Inside of Well Head and Outer Casing Dry?: YES NO Well Casing?: YES NO Comments:

Disposal Method: On Site Drum

System Treat_

PURGE WATER DISPOSAL NOTES:

Total Discharge (gal):

NO NO

Drum Designation(s)/Volume:

Project Name: Bee	Jav Scales	GRUUI	NDWA1 Project N	EK PURGE Jo.: 24CH.672	AND SAIVI 201.01	PLE FORM	Date 5- 2	24-0 V_ A	4	nor ac
Field Personnel: M	ſM			S	tatic Water	Level:		<u> </u>		
Water Level Meas	urement Meth	od: <u>SLOI</u>	PE WAT	<u>ER LEVEL N</u>	DICATOR	<u>}</u>		·		
Time Start Purge:	1420		Time En	d Purge: !	45	Tim	e Sampleo	114	45	
Measuring Point D	escription: <u>N</u>	orth Top	<u>of Well (</u>	Casing						
Purge Method: Log	w Flow Pump			P	urge Depth:	TD				
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	n to (ft)	Water Column (ft)	Multiplier for Casing Diameter (in) (Circle)				Casing Volume (gal)	
(π)				_	(2)	4	6			
Y.16	20	10.3	6	9.64	0.16	0.64	1.4	4	ļ, ļ,	.54
Time			1425	1430	1435	1440				
Volume Purged (gal)			2	3	4	5				
Purge Rate (gpm)			< 1gpn	ı						
Temperature (°C)			19.0	17.7	(7.3	17.2				
Ph			7.3	8 7.44	7.47	7.43				
Specific Conductiv (µmhos)	vity (uncorrect	ed)	7530	e 7208	7120	7074				
ORP			aay	185	146	140				
Turbidity/Color		<u></u>	lime	reen lim	teen 1	reen		1		
Odor/Sheen	······		pung	eret lize	sm.ll			1		
Depth to Water Di	uring Purge (ft)						<u>+</u>		
Number of Casing	Volumes Ren	noved								
Dewatered?			Y	Y	4	¥				
Comments:			•		t					· · · · · · · · · · · · · · · · · · ·
SAMPLE DATA Percent Recovery:	NA			Ē	Pepth to Wa	ter at Sampl	ing (ft): <u>N</u>	<u>M</u>		

Comments:

1

`\ 1

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
600-002,3	ຍ' -ວ	and and any of a loss strategy of a state	<u> </u>	NO		<u>ne provinske skriver i serie i serie i serie serie serie serie i serietije seriet</u>
-	7	VANOUS		NO	See	
PURGE V Total Disc	WATER DISPO harge (gal):	SAL NOTES:	Disposal Method: System Treat	<u>On Site Drum</u>	Drum	Designation(s)/Volume:
Comments	s:				_	
Well Securi	WEL ty Devices OK ()	L HEAD CON Bollards, Christ er Casing Dry?	DITIONS CHEC ty Lid, Casing Lid : YES NO	CKLIST (Circl and Lock)?:	le YES or NO · YES N	if NO, add comments) IO

	SECOR	GROU	NDWA	TE	R PURGE	AND SAM	PLE F	ORM				
Project Name: Bee	Jay Scales		Projec	t No.	: 24CH.672	201.01		[Well	Date 5.	24-0	94	3
Field Personnel: M	ÍM		jee		Si	tatic Water	Level [.]	W 011	140 <u>141 4</u>	<u> </u>	6 01	~004 @10
Water Level Meas	urement Metho	od: <u>SLO</u>	PE WA	TER	LEVEL D	DICATOR						
Time Start Purge:	955		Time I	End H	Purge: [010	-	Time	Sample	d 10	12	
Measuring Point D	escription: <u>N</u>	orth Top	of Wel	l Ca	sing				P	_ <u>,,,</u>		
Purge Method: Lo	<u>w Flow Pump</u>		•		P	urge Depth:	TD					
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Deptl Water	h to r (ft)	Co	Water olumn (ft)	Multiplie	r for C (C	asing I ircle)	Diameter	·(in)	Cas	ing Volume (gal)
(TD-DTW)						2		4	6	5	 	
4.16	0.0	9.4		6	9.9	0.16	().64	1.4	14	6	3.14
Time	ŝ ₀		100	b	1005	1010	··· • • • • • • • • • • • • • • • • • •				Щ	
Volume Purged (g	al)		.2	5	.35	.5						
Purge Rate (gpm)			< 1g	pm								
Temperature (°C)			15.	.3	14.5	14,5						
Ph			1.1	b	7.66	7.67				+		
Specific Conductiv (µmhos)	vity (uncorrect	ed)	279	37	2713	2616						
ORP			230	>	229	227						
Turbidity/Color										+		
Odor/Sheen									·			
Depth to Water Du	uring Purge (ft)			· · · · · · · · · · · · · · · · · · ·					+		
Number of Casing	Volumes Ren	noved	-						·····			
Dewatered?				1	Y	V				+		
Comments: ter	Morm	well	·· · ·		<u> </u>	······································		·		-l		L
·	• 1			<u> </u>								
SAMPLE DATA	:			·							····	
Percent Recovery:	<u>NA</u>				D	epth to Wat	ter at S	amplin	lg (ft): N	Μ		

Sampling Equipment:_____

Depth to Water at Sampling (ft): <u>NM</u>

Comments:

1

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
A6-UP OC	3,101			NO		
	7	Variou	5	NO	see	
PURGE V	VATER DISPO	SAL NOTES:				······································
Total Disc	harge (gal): 🗻	0.5	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments	:			<u></u>		
Well Securi Inside of We Well Casing Comments:	WEL: ty Devices OK (ell Head and Ou ?: YES N	L HEAD CON Bollards, Chris ter Casing Dry IO	DITIONS CHEC ty Lid, Casing Lid P: YES NO	CKLIST (Circl and Lock)?:	e YES or NO - YES N	if NO, add comments) O

	SECOR	GROU	NDWAT	ER PURGE	AND SAM	PLE FORM	[
Project Name: Bee	Jay Scales		Project N	lo.: 24CH.672	201.01] Well	Date 5-24-0 No · MW- A	4 3 6-4P-1014 20		
Field Personnel: M	I <u>M</u>		5	S	tatic Water 1	Level:	110 <u>101 10 -</u> 11 1	3 01 004,20		
Water Level Measu	urement Metho	od: <u>SLO</u>	PE WATI	<u>ER LEVEL N</u>	NDICATOR					
Time Start Purge:	1110		Time End	d Purge:	1130	Time	Sampled 113	o		
Measuring Point D	escription: <u>N</u>	orth Top	of Well C	Casing				<u> </u>		
Purge Method: Lov	<u>w Flow Pump</u>		•	Р	urge Depth:	TD				
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Deptl Water	h to (ft)	Water Column (ft)	Multiplier for Casing Diameter (in (Circle)			Casing Volume (gal)		
(TD-DTW)	(D-DTW) 20.7 9. X.16		-	U	0.16	4	6	1.76		
Time	'ime		1115	1120	1175	_1	!	I		
Volume Purged (ga	al)		3	- Y	55					
Purge Rate (gpm)			< 1gpm							
Temperature (°C)			16.3	16.2	16.1		······			
Ph	· · · · · · · · · · · · · · · · · · ·		8.6	5 8.64	8.64					
Specific Conductiv (µmhos)	vity (uncorrect	ed)	13.8	3 13.10	13.08					
ORP			118	124	122					
Turbidity/Color			brown	line	lime	· · · ·				
Odor/Sheen			stron	gfertilrer	oder					
Depth to Water Du	uring Purge (ft)		••			·			
Number of Casing	Volumes Ren	noved								
Dewatered?			Y		Y					
Comments: Te	mporan	well		; ,	· · · · · · · · · · · · · · · · · · ·		<u> </u>	<u> </u>		
								· · · · · · · · · · · · · · · · · · ·		

SAMPLE DATA:

Percent Recovery: NA

Depth to Water at Sampling (ft): NM

Sampling Equipment:

Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request	Comments
	and the second secon	an an an Arrange an Arrange an Arrange Arrange an Arrange an Arrange an Arrange an A			(Method)	
A6-UPO	03,20'-0			NO		regin No. 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 201
	7	Von	00~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	NO	Stee	
PURGE V	VATER DISPO	SAL NOTES:				
Total Disc	harge (gal): ~	6	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments	:					
Well Securi Inside of Well Casing Comments:	WELI ty Devices OK () ell Head and Out ?: YES N	L HEAD CON Bollards, Chris ter Casing Dry 10	DITIONS CHEC ty Lid, Casing Lid ?: YES NO	CKLIST (Circl and Lock)?:	e YES or NO YES N	if NO, add comments) O

Water Level Measur Time Start Purge: Measuring Point De Purge Method: Low Well Volume Calculation (Fill in before purging) Time Volume Purged (gal Purge Rate (gpm) Temperature (°C) Ph Specific Conductivit (µmhos) ORP Turbidity/Color Odor/Sheen	rement Metho escription: <u>No</u> <u>Flow Pump</u> Total Depth (ft) (02. 1)	od: <u>SLOF</u> orth Top Depth Water	PE WA Time E of Well h to (ft) 2 < 1gp	TER LEV End Purge: Casing Water Column	EL IN Pu r (ft)	IDICATOR urge Depth:_ Multiplier 2 0.16	TD for C (C	Time asing D fircle) 4	Samplec Diameter	ر ا (in)	Casing (g Volu gal)
Time Start Purge: Measuring Point De Purge Method: Low Well Volume Calculation (Fill in before purging) Time Volume Purged (gal Purge Rate (gpm) Temperature (°C) Ph Specific Conductivit (µmhos) ORP Turbidity/Color Odor/Sheen	scription: <u>Ne</u> Flow Pump Total Depth (ft) (0 - 2 I)	orth Top Depth Water	Time E of Well h to (ft) ,2.	End Purge: I Casing Water Column	Pu r (ft)	urge Depth:_ Multiplier	TD for C (C	Time asing D fircle) 4 0.64	Sampleo Diameter 6 1.4	ا م (in)	Casing	; Volu gal)
Measuring Point De Purge Method: Low Well Volume Calculation (Fill in before purging) Time Volume Purged (gal Purge Rate (gpm) Temperature (°C) Ph Specific Conductivit (µmhos) ORP Turbidity/Color Odor/Sheen	ty (uncorrect	Depth Water	of Well h to (ft) 2	U Casing Wate Column	Pu r (ft)	urge Depth:_ Multiplier 2 0.16	TD for C (C	asing D fircle) 4	Diameter	(in)	Casing (g Volu gal)
Purge Method: Low Well Volume Calculation (Fill in before purging) Time Volume Purged (gal Purge Rate (gpm) Temperature (°C) Ph Specific Conductivit (µmhos) ORP Turbidity/Color Odor/Sheen	Flow Pump Total Depth (ft) (0 - 2.	Depth Water	n to (ft) ,2 < 1gp	Water Column	Pu r (ft)	urge Depth: Multiplier	TD for C (C	asing D Fircle) 4 0.64	Piameter 6	(in) 4	Casing (; Volu gal)
Well Volume Calculation (Fill in before purging) Time Volume Purged (gal Purge Rate (gpm) Temperature (°C) Ph Specific Conductivit (µmhos) ORP Turbidity/Color Odor/Sheen	Total Depth (ft) (0 - 2 1) ty (uncorrect	Depth Water	n to (ft) .2.	Wate Column	r (ft)	Multiplier	for C (C	asing D Fircle) 4).64	9iameter 6 1.4	(in) 4	Casing (gal)
Calculation (Fill in before purging) Time Volume Purged (gal Purge Rate (gpm) Temperature (°C) Ph Specific Conductivi (µmhos) ORP Turbidity/Color Odor/Sheen	Depth (ft) (0 - 2 1) ty (uncorrect	Water	(ft) ,2 < 1gp	Column	(ft)	0.16	(C	4).64	6	4	(gal)
Time Volume Purged (gal Purge Rate (gpm) Temperature (°C) Ph Specific Conductivit (µmhos) ORP Turbidity/Color Odor/Sheen	(0 - 2)) ty (uncorrect	> Į0.	2 < 1gp			0.16	(4	6 1.4	14		
Time Volume Purged (gal Purge Rate (gpm) Temperature (°C) Ph Specific Conductivi (µmhos) ORP Turbidity/Color Odor/Sheen	ty (uncorrect	L	< 1 gp						<u> </u>		l	
Volume Purged (gal Purge Rate (gpm) Temperature (°C) Ph Specific Conductivi (µmhos) ORP Turbidity/Color Odor/Sheen	l) ty (uncorrect		< 1gp			4						
Purge Rate (gpm) Temperature (°C) Ph Specific Conductivi (µmhos) ORP Turbidity/Color Odor/Sheen	ty (uncorrect		< 1 gp	<u> </u>						<u> </u>		
Temperature (°C) Ph Specific Conductivi (µmhos) ORP Turbidity/Color Odor/Sheen	ty (uncorrect			m			·					
Ph Specific Conductivi (µmhos) ORP Turbidity/Color Odor/Sheen	ty (uncorrect		-						<u>_</u>			
Specific Conductivi (µmhos) ORP Turbidity/Color Odor/Sheen	ty (uncorrect											
ORP Turbidity/Color Odor/Sheen		ed)				F						. <u> </u>
Turbidity/Color Odor/Sheen			<u> </u>		_							
Odor/Sheen			<u> </u>							+		
									·,	+		
Depth to Water Dur	ing Purge (ft))	<u> </u>		,					<u> </u>		
Number of Casing V	Johnnes Rem						· <u> </u>		·			
Dereste 10		10 v cu	-							ļ		
Dewatered?				<u></u>								
Comments: 11-5	<u> </u>	(+20	<u>e</u> l	0,2						<u>-</u>		
SAMPLE DATA: Percent Recovery: Sampling Equipmer Comments:	<u>NA</u> nt:				D	epth to Wate	er at S	amplin	g (ft): <u>N</u>	M		
Sample No. No. Conta	of Co iners	ntainer Fype	Pres	ervative.	Fi	Field. Itration	Ana Req (Met	ysis uest hod)		C	omments	
NIN	<u>an a se na buiet a</u> sense a las	<u> </u>	<u>a an an an an an an</u>	antalan kalendar kal Kalendar kalendar kale	n Alignici.	NO	ante de la constante de la cons La constante de la constante de	an a	<u> Angelstein o</u> n d	<u></u>	12	nar 199 Sector
	·-					NO						
PURGE WATER 1	DISPOSAL	NOTES	<u> </u>		1					· <u> </u>		
Total Discharge (ga	l):	_	Dispos System	al Method 1 Treat	: <u>On S</u>	Site Drum		Drum	Designa	ation(s)/Volume	e:
Comments:	· · · ·											

·	SECOR	GROUI	NDWA	TEF	R PURGE A	AND SAME	LE FORM	Note 5711 -	
Project Name: <u>Bee</u>	Jay Scales		Project	No.	: <u>24CH.672</u>	<u>01.01</u>	Well	No.: <u>MW-</u>	byp-004 20'
Field Personnel: <u>N</u>	<u>1M</u>				St	atic Water L	level:		
Water Level Meas	urement Metho	od: <u>SLOI</u>	PE WA	TER	LEVEL IN	DICATOR			
Time Start Purge:	1225		Time E	nd P	urge: 124	12	Time	Sampled [310
Measuring Point D	Description: <u>N</u>	<u>orth Top</u>	of Well	Cas	ing				
Purge Method: Lo	w Flow Pump				Pu	irge Depth:_	TD		
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	h to Water r (ft) Column (ft)		Multiplier	for Casing I (Circle)	Diameter (in)	Casing Volume (gal)	
(TO DTW)		·				Ø	4	6	
X.16	X.16 W 11.		8.		.5	0.16	0.64	1.44	1.36
Time			123	ò	1235	1240			
Volume Purged (g	;al)		2	-	3.5	5			
Purge Rate (gpm)			< 1gr	m					
Temperature (°C)			ß	.0	17.3	6-85			
Ph			6.	37	6.35	6.38			
Specific Conducti (µmhos)	vity (uncorrect	ed)	19.1	85	(9.80	18.94			
ORP			225	5	,725	217			
Turbidity/Color			brive	n	gren	lime			
Odor/Sheen			fer	h'iz	er sone	1			
Depth to Water D	uring Purge (ft)							
Number of Casing	g Volumes Ren	noved							
Dewatered?			Y		Ý	У			
Comments: L	mp wel		· · ·					······	
SAMDIE DATA	•					<u>.</u>			

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:_____

Comments:

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		•				
Sample	No. of	Container	Preservative	Field	Analysis	Comments
No.	Containers	Туре		Filtration	(Method)	
AGUPOO	4,70'			NO		
	7	Varia	>	NO	Sie	· ·
PURGE	WATER DISPO	SAL NOTES:	.	· · · · · · · · · · · · · · · · · · ·	<u> </u>	
Total Disc	harge (gal): ~	5	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comment	s:				_	
	WEL	L HEAD CON	DITIONS CHEC	CKLIST (Circl	e YES or NO -	- if NO, add comments)
Well Securi	ity Devices OK (Bollards, Chris	ty Lid, Casing Lid	l and Lock)?:	YES N	0
Inside of W	ell Head and Ou	ter Casing Dry	YES NO			
Well Casing	g?: YES N	10				
Comments:	-		<u> </u>			

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Comments:

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	SE	COR	GROUI	NDWA	ATEI	R PURG	E AND SA	MP	LE FORM	1	< 26		
Project Name: Be	e Jay Scal	les		Projec	t No.	: <u>24CH.6</u>	7201.01		Wel	Date I No.:	MW-S	, 1	
Field Personnel: N	<u>1M</u>			•			Static Wat	er L	evel:		V	,	
Water Level Meas	urement	Metho	d: <u>SLOI</u>	<u>PE WA</u>	TER	LEVEL	INDICAT	<u>or</u>					
Time Start Purge:	850	>		Time]	End F	Purge:	905		Tim	e Sam	pled_	110	
Measuring Point I	Descriptic	on: <u>No</u> i	rth Top	of We	ll Cas	sing							
Purge Method: Lo	w Flow I	Pump					Purge Dep	th:_	TD				
Well Volume Calculation (Fill in before purging)	Tota Depth	al (ft)	Deptl Water	n to (ft)	Co	Water olumn (ft)	Multip	lier	for Casing (Circle)	Diam	eter (in) Ca	sing Volume (gal)
(TO-000)	17,		6.6	2		() 92	2	>	4		6		22
X.16	14.0	15		<u> </u>		0.07	0.16	5	0.64		1.44	- 1	,77
Тіте				84	10	845	85	5	905				
Volume Purged (g	gal)			2	-	3	4.5	•	5.5				
Purge Rate (gpm)				< 1g	pm								
Temperature (°C)		-		14.	4	14.5	- 15.0		14.8				
Ph				1:	35	7.50	7.65	•	7.48				1
Specific Conducti (µmhos)	vity (unc	orrecte	d)	52	28	5095	- 5208	3	5199				
ORP				15	8	130	149		142				
Turbidity/Color				clea	N	clear	clea	1	clear			·	
Odor/Sheen				nor	e.	none	none	,	none				
Depth to Water D	uring Pur	ge (ft)											
Number of Casing	g Volume	s Remo	oved		-								
Dewatered?				2		A)0	24	-	A)Q				
Comments: No	w we	e11.	ISt	Sam	ملع								
		<u></u>			•								
SAMPLE DATA				· · · · · · · · · · · · · · · · · · ·			· ·					·	
Percent Recovery	: <u>NA</u>						Depth to V	Vate	r at Sampl	ing (ft): <u>NM</u>		
Sampling Equipm	ent:												
Comments:													
											·		
Some Ni	0. of	Con	tainer	Dec		ofice	- Field	-13	Ampluit	1.4.5.1		0	
No. Con	tainers		уре		3CI V2	11176	Filtration		Request			Comme	IIIS
								- 17.	(Method)				
MW08-26050	4-0		·		<u></u>		NO					<u> </u>	
	7	U	WIN.	5			NO		See			•	
PURGE WATE	R DISPO	SALN	NOTES	<u>ا. </u>			· · · · · · · · ·		<u> </u>				······
Total Discharge (gal): ~	5.5		Dispo	sal M	1ethod: O	n Site Drut	n	Dru	m Des	ignatio	n(s)/Vol	lume:
Comments:				Syster	n Tre	eat							
	WEL	L HEA	D CON	DITI	ONS	CHECK	LIST (Cir	cle `	YES or NO) if	NO. ad	ld comm	nents)
Well Security Dev Inside of Well Hea Well Casing?:	ices OK (d-and Our (ES) N	Bollaro ter Cas 10	ds, Chris ing Dry	YES		ing Lid an NO	nd Lock)?:	(YES	NO	. ,		<i>,</i>

		SECUE	K GKUU	NDWAIE			D	nte-10-25-0	54	
	Project Name: <u>Be</u> Field Personnel: <u>M</u>	<u>re Jay Sc</u>	ales	Project No	ы: <u>дүсн. (</u> st	atic Water I	Level:	lo.: <u>MW-</u> 9		
•	Water Level Meas	urement Meth	iod: <u>SLO</u>	<u>PE WATE</u>	<u>r level I</u>	IDICATOR			· · · · ·	
/	Time Start Purge:	1345		Time End	Purge: [0	130	Time S	Sampled 19	55	
	Measuring Point I	Description: <u>N</u>	lorth Top	of Well Ci	asing		(TTD)			
	Purge Method:	eri pomp	2			irge Depth:	<u>ID</u>	ions of our Circl	Casin a Val	
	Well Volume Calculation	Total Depth (ft)	Water	h to r (ft) C	Water Column (ft)	Munpher	(Circle)		(gal)	ume
	あっしたり	.7.0	0.1		<u>a</u> <u>c</u>	Ø	4	6	1.52	
	×.16	1.4.9	8.9		٦.٦	0.16	0.64	1.44		
	Time	L		1400	1407	1418	1430			
	Volume Purged (ral)		2	3	4	5			
	Purge Rate (gpm)	· ·		<lpre>lgpm</lpre>						
	Temperature (°C)	<u> </u>		15.4	16.1	16.3	16.2		·····	
	Ph	·		7.108	1.48	7.33	7.28			
	Specific Conducti (umhos)	ivity (uncorrec	ted)	8498	6845	6547	6907	· .		
	ORP		·	111	110	104	98			-
	Turbidity/Color		<u></u>	It- brow	n It brown	Lt. brown	Hbrown			
	Odor/Sheen			slight	slight	slight	slight			
				· · · ·						
)										
		·								
						L				
	Dewatered?			<u></u>	N	<u> </u>	Y			<u> </u>
·	Comments:	eveloped u	Jell 10	<u>)-25-0</u>	y AM_		<u> </u>	<u> </u>		<u> </u>
	Myron LL	Manute	<u>r 10</u> 7	perame			· · · · · · · · · · · · · · · · · · ·			
	SAMPLE DATA	A:) Denth to Wa	iter at Samplir	er (ft): NM		
	Percent Recovery	y: <u>NA</u>			J		noi in Dampin			
•	Sampling Equipr	nent:								•
	Comments:									·
,	Sample No.	lo. of ntainers	lontainer Type	Prese	vative	Field Filtration	Analysis Request (Method)		Comments.	
				2000 - 2000		<u></u>		* <u>* *</u>		
	MW9 -	7		_			ya we) see		
						UN				
	PURGE WATE	R DISPOSA	L NOTE	S:			· · ·			
	Total Discharge	(gal): ~ 5		Disposal System	l Method: <u>6</u> Treat	<u>n sited</u>	Um Drur	n Designatio	n(s)/Volume:	
•	Comments:	<u></u>	<u> </u>				- 10 VEC 25 NC	if NO of	d commente)	
	Well Security Dev Inside of Well He Well Casing?:	WELL H vices OK (Bol ad and Outer (YES NO	EAD CC lards, Clu Casing Dr	INDITION risty Lid. C ry? YES	NS CHECK Casing Lid ar NO	d Lock)?:	TES IT NO	NO	u comments)	

	SECOR	GROUP	Υμγγ <u>Α</u>					Date //	1-25.	04		
Project Name: Be	e Jay Sca	us	Project	No.:	<u>2464.6</u>	<u> 1201 - 00</u>	2 Wel	1 No.: <u>M</u>	<u>w-</u> 10			
Field Personnel: M	<u>íM</u>			metro	St	atic water I	_ever:	_ ,	<u> </u>			
Water Level Meas	urement Metho	od: <u>SLOF</u>	<u>YE WA</u>	TER			Tim	e Samul	ed 117	2		
Time Start Purge:	1100		fime f	ma P	urge: <u>[]</u>	25	I IIII	ie Banipi	- <u>-</u>	<u> </u>		
Measuring Point D	Description: <u>No</u>	orth Top	ot Wei	I Cas	<u>ing</u>	man Dorothi	ΨD					
Purge Method:		Purge Depuis 1D										
Well Volume Calculation	Volume Total Deptil llation Depth (ft) Water		a to (ft) C		water lumn (ft)	(Circle)					(gal)	
<i>t</i>			<u> </u>			(2) 4		6				
(TP-DTW) × 0.16	18:34	7.3	5	10	0.99	0.16	0.64		.44	1.	76	
Time			1.5	-	2.5	3.5	4.5					
Volume Purged (g	gal)		1107		1115.	1122	1130		_			
Purge Rate (gpm)			<1g	pm			· · · · ·		_		· · ·	
Temperature (°C)			17.	ł	17.3	17.5	17.3					
Ph			7.3	8	7.41	7.46	7.50					
Specific Conductivity (uncorrected)				1.3 hs	740.1	745.0	<i>144.1</i>					
ORP			96		98	103	104					
Turbidity/Color			Mostly		Mosfly	Musting	mostly					
Odor/Sheen	· · · · · · · · · · · · · · · · · · ·		slight		slight	slight	slight	l				
											<u> </u>	
								ļ				
								+			-	
Dewatered?			N	N	N							
Comments:												
				. <u> </u>						_		
		·								<u>.</u>		
Percent Recovery	a: v: NA				I	Depth to Wa	ater at Sam	pling (ft)	: <u>NM</u>			
Percent Recover Sampling Equipt	y: <u>NA</u> nent: Myro	n L uh	ame	ter		Depth to Wa	ater at Sam	pung (It)	<u>IVIVI</u>			

Comments:

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Commonia			•			· · · · · · · · · · · · · · · · · · ·
Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments.
NAL MA	/^	Uninus	Various	NO	Scewe	n an
MUNIC		VARIOUS		NO		
PURGE V Total Disc	WATER DISPO	5.5 5.5	: Disposal Method: System Treat	on site dri	om Drum	Designation(s)/Volume:
Comment	5 :	·····			<u> </u>	
Well Securi Inside of W Well Casing	WEL ity Devices OK (ell Head and Ou g?: YES 1	L HEAD COI Bollards, Chri tter Casing Dry VO	NDITIONS CHE(sty Lid, Casing Lid ?: TES NO	CKLIST (Circ i and Lock)?:	le YES or NO	if NO, add comments) IO

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							B	ate 10-25	04
roject Nam	ie: Bee J	ay Sc	alus:	Project No	.: <i>ЗЦС</i> Н.(67201.00	Well1	No.: <u>MW-</u> 11	r
Field Person	mel: <u>MM</u>	I				Static Water I	_evel:		_
Water Level	Measureme	nt Metho	d: <u>SLOP</u>	<u>E WATE</u>	<u>R LEVEL I</u>	NDICATOR	Time	Compled 1/33	0
Fime Start F	Purge: <u>100</u>	0	 	Fime End	Purge: 1	005		Sampled 100	
Measuring F	Point Descrip	tion: <u>NC</u>	onin Top	oi well C	asm <u>e</u> . 1	Purge Denth:	TD		
Jurge Metho		otal	Denth		Water	Multiplier	for Casing I	Diameter (in)	Casing Volum
Calculati	on Dep	th (ft)	Water	(ft) C		(gal)			
TO-UTW) X.16)	24	7.20	`~	10.98	(2) 0.16	4	6 1.44	1.76
				1000	1015	1022	-1		ll
	and (col)			2	4	5			
Volume Pur				⇒ <lgpm< td=""><td></td><td>-</td><td></td><td></td><td></td></lgpm<>		-			
Tamparate	м («С.) (Rhm)			182	18.7	18.3			
				562	6.510	6.80			<u> </u>
	nduotinite . /	ncorrect			1210	6.251			
(µmhos)	nancusus (n		uj	611.4	601.0	us			
ORP				205	117	107			
Turbidity/C	lor			Mosty	nosty	mostry			
 Odor/Sheen				none	none	none			
		•							
<u></u>			<u> </u>						
				<u> </u>					
				·					
Dewatered!	?			N.	N	N			
		<u>L Ult</u>	ramete	r tos	held me	<u> </u>			· · · · · · · · · · · · · · · · · · ·
Comments:	Myron_								
Comments:	Myron_						<u> </u>		· ·
Comments:	DATA:	·				Depth to Wa	ter at Sampli	ng (ft); NM	·
SAMPLE Percent Re	DATA: covery: <u>NA</u>					Depth to Wa	ter at Sampli	ng (ft): <u>NM</u>	·,
Comments: SAMPLE Percent Re Sampling F	DATA: covery: <u>NA</u> Equipment:	·				Depth to Wa	ter at Sampli	ng (ft): <u>NM</u>	. <u></u>
Comments: SAMPLE Percent Re Sampling F Comments:	DATA: covery: <u>NA</u> Equipment: :					Depth to Wa	ter at Sampli	ng (ft): <u>NM</u>	
Comments: SAMPLE Percent Re Sampling F Comments: Sample	DATA: covery: <u>NA</u> Equipment: :	G	mamer	Prese	vative	Depth to Wa	ter at Sampli	ng (ft): <u>NM</u>	
Comments: SAMPLE Percent Re Sampling F Comments: Sample No,	DATA: covery: <u>NA</u> Equipment: : No.of	G	intamer Type	Prese	vative	Depth to Wa Field Filtration	ter at Sampli Analysis Request (Method)	ng (ft): <u>NM</u>	
Comments: SAMPLE Percent Re Sampling E Comments: Sample No,	DATA: covery: <u>NA</u> 3quipment: : No.of Container	G	ontamer Type	Prese	vative	Depth to Wa Field Filtration	ter at Sampli Analysis Request (Method)	ng (ft): <u>NM</u>	Comments.
SAMPLE Percent Re Sampling F Comments Sample No.	DATA: covery: <u>NA</u> Equipment: :	Gr Var	ontainer. Type	Prese	vative	Depth to Wa	ter at Sampli Analysis Réquest (Méthod)	ng (ft): <u>NM</u> S -e.e. (loinments.
Comments: SAMPLE Percent Re Sampling F Comments: Sample .No, Mu-11	DATA: covery: <u>NA</u> Equipment: : No. of Containers	Ci Vav	intaimer: Type (Jus	Prese Van 1	vative	Depth to Wa Field Filtration NO NO	ter at Sampli Analysis Request (Method)	ng (ft): <u>NM</u>	Comments.
Comments: SAMPLE Percent Res Sampling F Comments: Sample No, Mu-11 PURGE V	DATA: covery: <u>NA</u> Equipment: :	Vay Posal	intainer. Type (JUS	Var 1	vativė uus	Depth to Wa Field Filtration NO NO	ter at Sampli Analysis Request (Method)	ng (ft): <u>NM</u> S-e.c. (Comments.
Comments: SAMPLE Percent Re Sampling F Comments Sample No, Muj 1 PURGE V Total Disc	DATA: covery: <u>NA</u> Equipment: : No. of Container <i>LO</i> VATER DIS harge (gal): ^	Va/ POSAL - 5.5	intainer Type LUUS	V M I Disposal	vative	Depth to Wa Field Filtration NO NO	ter at Sampli Analysis Request (Method)	ng (ft): <u>NM</u>	Comments.
Comments: SAMPLE Percent Res Sampling F Comments: Sample No. Mu-y] PURGE V Total Disc	DATA: covery: <u>NA</u> Equipment: :	Vay Posal - 5.5	intamer Type Lus NOTES	V M I Disposal System	vative	Depth to Wa Field Filtration NO NO	ter at Sampli Analysis Request (Method)	ng (ft): <u>NM</u> S-ec C m Designation	:ت د_ (s)/Volume:
Comments: SAMPLE Percent Re Sampling F Comments: Sample No, Muy 1 PURGE V Total Disc Comments	DATA: covery: <u>NA</u> Equipment: :		intamer Type (dus NOTES	VAN 1 System	vative	Depth to Wa	ter at Sampli Analysis Request (Method) Um Dru e YES or NG	ng (ft): <u>NM</u> S- C C C m Designation D if NO, add	Comments.
Comments: SAMPLE Percent Re Sampling F Comments Sample No, ML-11 PURGE V Total Disc Comments	DATA: covery: <u>NA</u> 3quipment: :	POSAL - 5.5 ELL HI	intamer Type NOTES	Prese VAN I Disposal System	vative wative Method: Ireat VS CHECH asing Lid a	Depth to Wa Field Filtration NO NO NO Schedro KLIST (Circl and Lock)?:	ter at Sampli Analysis Request (Method) Um Dru le YES or NG	ng (ft): <u>NM</u> <u>S-<c (<="" u=""> m Designation D if NO, add NO</c></u>	coinments. co c (s)/Volume: d comments)
Comments: SAMPLE Percent Re- Sampling F Comments: Sample No, Muy I PURGE V Total Disc Comments Well Securi Inside of W	DATA: covery: <u>NA</u> Equipment: :	POSAL - 5.5 ELL HI K (Bollz Outer C NO	intainer. Type idus NOTES CAD CO ards, Chr asing Dr	V M I V M I Disposal System	vative ous Method: <u>c</u> Freat NS CHECH asing Lid a NO	Depth to Wa	ter at Sampli Andlysis Request (Method) Um Dru e YES or NO	ng (ft): <u>NM</u> <u>S-ec (</u> m Designation D if NO, add NO	Comments.
Comments: SAMPLE Percent Re Sampling F Comments Sample No. MU-11 PURGE V Total Disc Comments Well Securi Inside of W Well Casing Comments:	DATA: covery: <u>NA</u> Equipment: :	POSAL - 5.5 ELL HI K (Bolle Outer C NO	intamer Type NOTES NOTES CAD CO ards, Chri asing Dr	Prese VAN Disposal System NDITION isty Lid, C y? (TES)	vative wative wethod: Method: Freat NS CHECK casing Lid a NO	Depth to Wa	ter at Sampli Analysis Request (Method) um Dru le YES or NO YES	ng (ft): <u>NM</u> Sec C m Designation D if NO, add NO	Comments. Co C. (s)/Volume: I comments)

	SECOR	GROUN	DWA	TEF	PURGE 4	AND SAM	PLE	FORM	Date 10-5	6-0	4		
Project Name: 8-0	Jay Scal	les I	Project	No.:	24CH.E	7201.00	5	Well	No.: <u>MW</u>	<u>.</u> Mi	UI2		
Field Personnel: M	M				St	atic Water I	Level	l:					
Water Level Measu	urement Metho	od: <u>SLOF</u>	EWA	TER	LEVEL D	DICATOR	-			0.0			
Time Start Purge:_	0750		Time E	Ind P	urge:Ø	830	<u> </u>	Time	Sampled	83	5		
Measuring Point D	escription: <u>No</u>	orth Top	of Well	1 C <u>as</u>	ing								
Purge Method:					P۱	irge Depth:	TD						-
Well Volume Calculation	Total Depth (ft)	Depth Water	to (ft)	Water Multiplier for Casing Diameter (i Column (ft) (Circle)				(in)	Casing Volume (gal)				
FE ADD						2		4	6				
0.16	17.65	8.83	>	8	.82	0.16		0.64	1.4	4	1.71		
Time		<u> </u>	80	7	815	823	8:	30					
Volume Purged (g	al)		1.5	5	2.5	3.5	4	.5					
Purge Rate (gpm)			<1g	pm					· .				
Temperature (°C)			15.	3	15.6	16.2	16	.2					
Ph				36	7.37	7.34	7.	35					
Specific Conducti (µmhos)	825	757	7425	7393	7	434	<u> </u>			·.	_		
ORP			119		123	120	12	29				·.	
Turbidity/Color			Hgr	en-	It green	4.gr.	4	.gr					_
Odor/Sheen			51	II n	na or	ler_							·
			1										
<u>·</u>					1					1		<u> </u>	-
	· · ·				ļ		 		<u>_</u>				4
Dewatered?								l				<u> </u>	-
Comments:	aloped 11	.15.04	(a in	$\overline{\mathbf{N}}$								· · · ·	
- WEIL APV	cio pea 10			9									
SAMPLE DATA Percent Recovery	: <u>NA</u>	•			I	Depth to Wa	ater a	t Sampl	ing (ft): <u>N</u>	M			
Sampling Equipu	ent: Wyro	K L U	Itrav	wel	ter								
Comments:						·				· ·			
		y iga y ou .			AN ALL ALL AND	ាក់សាក	-	nalveie			loinme	nts	
Sample N	0: 01 itamers	ontainer Type		CSCIV	αцν σ]	Filtration	F	lequest					

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No.	Containers	Туре		Filtration	(Method)	
MULLA	1	VARIOUS	various	NO	See cuc	
1.10- 10				NO		
	i	·	· · · · · · · · · · · · · · · · · · ·			<u> </u>
PURGE	WATER DISP	DSAL NOTES:	:			
Total Disc	barge (gal): <u>~</u>	4.5_	Disposal Method: System Treat	on sitedru	m Drum	Designation(s)/Volume:
Comment	s: <u></u> .	<u></u>	·····	·	-	
Well Secur Inside of W Well Casin Comments:	WE ity Devices OK Vell Head and O g?: YES	L HEAD CON (Bollards, Chris uter Casing Dry NO	NDITIONS CHE sty Lid. Casing Lid ?	CKLIST (Circ and Lock)?:	He YES or NO	if NO, add comments) O

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APPENDIX D PHASE II ANALYTICAL LABORATORY REPORTS

Phase II Remedial Investigation Report Chevron Environmental Management Company & BP America, Inc.

> 24CH.67201.00 May 17, 2005





Propert ID: S17176.01(01) /erated on 06/01/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S17176.01-S17176.15 Project: 24CH.67201.01 Bee Jay Scales Submitted Date/Time: 05/20/2004 09:30 Sampled by: M. McMahon P.O. #:

Results relate only to items tested.

Report Notes

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL. Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak Laboratory Director

Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333



Sample ID: S17176.01
Je Tag: A3-SB-003, 0.5'-0
Collected Date/Time: 05/18/2004 09:20
Matrix: Soil
COC Reference: 018193

Sample Containers

# Туре	Preservative(s)	Ref	rigerated? Arri	val Temp. (C) Ti) Thermometer #			
2	4oz. Glass	None	Yes	4	3			
Ana	alysis	Res	<u>ults</u> Unit	s RD	L Method	Run Date	e/Time Ana	Ilvst CAS # Flags
Ino	rganics							
Tot	al Solids	86	%	1	160.3	05/21/04	11:10 JSF)
Org	nanics							
NW	/ /TPH-Gx	Not	detected mg/	kg 20	NWTP	H - Gx 05/28/04	I 22:33 JGI	ł



Sample ID: S17176.02
ple Tag: A3-SB-003, 4.5'-0
Collected Date/Time: 05/18/2004 09:35
Matrix: Soil
COC Reference: 018193

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Sample Containers

# Type		Preservative(s)		Refrigerated?	Arrival Temp.	(C) Thermom	ieter #		
2	4oz. Glass	None		Yes	4	3			
Ana	lysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flaos
Inoi	rganics								
Tota	al Solids		77	%	1	160.3	05/21/04 11:10	JSP	
Ora	anics								
NW	TPH-Gx		Not detected	mg/kg	20	NWTPH - Gx	05/28/04 23:38	JGH	

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Sample ID: S17176.03
Je Tag: A3-SB-003, 7.5'-0
Collected Date/Time: 05/18/2004 09:50
Matrix: Soil
COC Reference: 018193

Sample Containers

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# Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C) Thermom		neter #			
2	4oz. Glass	None		Yes	4	3			
Ana	llysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ino	rganics								<u>×</u> _
Tot	al Solids		75	%	1	160.3	05/21/04 11:10	JSP	
Ore	nanics								
NW	/TPH-Gx		650	mg/kg	20	NWTPH - Gx	05/29/04 02:55	JGH	



Sample ID: S17176.04
Je Tag: A3-SB-005, 0.5'-0
Collected Date/Time: 05/18/2004 09:20
Matrix: Soil
COC Reference: 018193

# Туре	Preservative(s)		Refrigerated?	Arrival Ter	np. (C) Thermon	Thermometer #			
2	4oz. Glass	None		Yes	4	3			
Ana	lysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Inoi	ganics								
Tota	l Solids		90	%	1	160.3	05/21/04 11:10	JSP	
Ora	anics								
NW	TPH-Gx		Not detected	mg/kg	20	NWTPH - Gx	05/29/04 00:11	JGH	



Sample ID: S17176.05
Je Tag: A3-SB-005, 4.5'-0
Collected Date/Time: 05/18/2004 10:20
Matrix: Soil
COC Reference: 018193

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (0	C) Thermom	eter #		
2	4oz. Glass	None		Yes	4	3			
Ana	lysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Inor	rganics								
Tota	al Solids		73	%	1	160.3	05/21/04 11:10	JSP	
Org	anics								
NW	TPH-Gx		Not detected	mg/kg	20	NWTPH - Gx	05/29/04 00:44	JGH	



Sample Containers

1.7

#	Туре	Preservative(s)	Refrigerated?		Arrival Temp. (C) Thermometer #			
2	4oz. Glass	None		Yes	4	3			
Analysis			Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ino	rganics						· · · · · · · · · · · · · · · · · · ·		
Tota	al Solids		78	%	1	160.3	05/21/04 11:10	JSP	
Org	anics								
NW	/TPH-Gx		1,800	mg/kg	20	NWTPH -	Gx 05/29/04 03:27	JGH	



Sample ID: S17176.07 ple Tag: A3-SB-006, 0.5'-0 Collected Date/Time: 05/18/2004 09:20 Matrix: Soil COC Reference: 018193

# Туре	Туре	Preservative(s)		Refrigerated?	Arrival Temp	o. (C) Thermo	meter #		
2	4oz. Glass	None		Yes	4	3			
Ana	lysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Inoi	rganics								
Tota	al Solids		91	%	1	160.3	05/21/04 11:10	JSP	
Org	anics								
NW	TPH-Gx		Not detected	mg/kg	20	NWTPH - Gx	05/29/04 01:16	JGH	



Sample ID: S17176.08 ble Tag: A3-SB-006, 4.5'-0 Collected Date/Time: 05/18/2004 10:00 Matrix: Soil COC Reference: 018193

Sample Containers

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# Туре	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C) Thermome	eter #	
2	4oz. Glass	None		Yes	4	3		
Ana	lysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS # Flags
Inor	rganics							
Tota	al Solids		74	%	1	160.3	05/21/04 11:10	JSP
Org	anics							
NW	TPH-Gx		Not detected	mg/kg	20	NWTPH - Gx	05/29/04 01:49	JGH



ample ID: S17176.09 , jle Tag: A3-SB-006, 7.5'-0 Collected Date/Time: 05/18/2004 10:10 Matrix: Soil COC Reference: 018193

# Type	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Thermom	eter #		
2 4oz. Glass	None	Yes	4	3			
Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Inorganics Total Solids	76	%	1	160.3	05/21/04 11:10	JSP	
Organics NWTPH-Gx	360	mg/kg	20	NWTPH - Gx	05/29/04 02:22	JGH	



L - _ `ample ID: S17176.10

E Tag: A5-SB-008, 4.5'-0 Collected Date/Time: 05/18/2004 12:35 Matrix: Soil

COC Reference: 018193

#	Туре	Preservative(s)		Refrigerated?	Arrival Te	np. (C) T	hermometer #		
2	4oz. Glass	None		Yes	4	3			
Ana	lysis		Results	Units	RDL	Method	I Run Date/Time	Analyst CAS #	Flags
Ext	raction / Prep.								
Me	al Digestion		Completed			3050B	05/24/04 13:15	MSH	
Me	al Digestion		Completed			3015A	07/30/04 13:30	MSH	
SP	LP Extraction								
% :	Solids		100			1312	07/28/04 18:00	IM	
Sai	nple Used g		100			1312	07/28/04 18:00	IM	
Fin	al Volume mL		2,000			1312	07/28/04 18:00	IM	
Fin	al Extract pH		8.9			1312	07/28/04 18:00	IM	
Inc	rganics								
Tot	al Solids		79	%	1	160.3	05/21/04 11:10	JSP	
Am	monia-N, SPLP		Not detected	mg/L	0.1	350.3	08/03/04 18:00	MJC	
Nit	rate-N, TCLP		14.7	mg/L	0.2	300.0	07/29/04 15:34	JDP	
Nit	rite-N		Not detected	mg/L	0.2	300.0	07/29/04 15:34	JDP	
	ə, SPLP		16	mg/L	1	300.0	07/29/04 15:34	JDP	
۲.	Jóhate, SPLP		Not detected	mg/L	0.1	365.2	08/02/04 15:00	MJC	
Am	imonia-N		Not detected	mg/kg	10	350.3	05/27/04 16:00	MJC	
Nit	rate-N		354	mg/kg	5.0	300.0	05/21/04 17:39	JDP	
Nit	rite-N		Not detected	mg/kg	5.0	300.0	05/21/04 16:12	JDP	
Su	lfate		250	mg/kg	20	300.0	05/21/04 16:12	JDP	
Ph	osphate		1,930	mg/kg	10	365.2	05/26/04 17:00	MJC	
Me	etals								
Iro	n, SPLP		1.71	mg/L	0.02	200.8	08/02/04 14:41	PER 7439-89-6	
lro	n		1,050	mg/kg	1.0	6020	05/26/04 18:01	PER 7439-89-6	



Sample ID: S17176.11 Je Tag: A5-SB-008, 9'-0 Collected Date/Time: 05/18/2004 12:40 Matrix: Soil COC Reference: 018193

Sample Containers

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#	Туре	Preservative(s)		Refrigerated?	Arrival Te	mp. (C)	Therm	ometer #		
2	4oz. Glass	None		Yes	4		3			
Ana	lysis		Results	Units	RDL	Met	hod	Run Date/Time	Analyst CAS #	Flags
Ext	traction / Prep.									<u>`</u>
Me	al Digestion		Completed			305	0B	05/24/04 13:15	MSH	
Ino	rganics									
Tot	al Solids		75	%	1	160	.3	05/21/04 11:10	JSP	
Am	monia-N		Not detected	mg/kg	10	350	.3	05/27/04 16:00	MJC	
Nitr	ate-N		12.9	mg/kg	5.0	300	.0	05/21/04 16:35	JDP	
Nitr	ite-N		Not detected	mg/kg	5.0	300	.0	05/21/04 16:35	JDP	
Sul	fate		41	mg/kg	20	300	.0	05/21/04 16:35	JDP	
Pho	osphate		2,290	mg/kg	10	365	.2	05/26/04 17:00	MJC	
Ме	tals									
Iror	ı		1,860	mg/kg	1.0	602	0	05/26/04 18:03	PER 7439-89-	6

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Sample ID: S17176.12
jle Tag: A5-SB-009, 4.5'-0
Collected Date/Time: 05/18/2004 12:50
Matrix: Soil
COC Reference: 018193

Sample Containers

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#	Туре	Preservative(s)		Refrigerated?	Arrival Te	mp. (C)	Therme	ometer #			
2	4oz. Glass	None		Yes	4		3				
Anal	ysis		Results	Units	RDL	Metl	hod	Run Date/Time	Analyst C	AS#	Fiags
Extr	action / Prep.										
Meta	l Digestion		Completed			3050	0B	05/24/04 13:15	MSH		
Inor	ganics										
Tota	l Solids		90	%	1	160	.3	05/21/04 11:10	JSP		
Amn	nonia-N		Not detected	mg/kg	10	350	.3	05/27/04 16:00	MJC		
Nitra	te-N		23.6	mg/kg	5.0	300	.0	05/21/04 16:47	JDP		
Nitrit	e-N		Not detected	mg/kg	5.0	300	.0	05/21/04 16:47	JDP		
Sulfa	ate		42	mg/kg	20	300	.0	05/21/04 16:47	JDP		
Phos	sphate		1,820	mg/kg	10	365	.2	05/26/04 17:00	MJC		
Meta	als										
Iron			1,760	mg/kg	1.0	602	0	05/26/04 18:05	PER 74	39-89-6	



Sample ID: S17176.13 Je Tag: A5-SB-009, 9'-0 Collected Date/Time: 05/18/2004 12:55 Matrix: Soil COC Reference: 018193

#	Туре	Preservative(s)		Refrigerated?	Arrival T	emp. (C)	Thern	nometer #			
2	4oz. Glass	None		Yes	4		3				
Ana	lysis		Results	Units	RDL	Met	thod	Run Date/Time	Analyst	CAS#	Flags
Ext	raction / Prep.				-						
Met	al Digestion		Completed			305	50B	05/24/04 13:15	MSH		
Ino	rganics										
Tota	al Solids		76	%	1	160).3	05/21/04 11:10	JSP		
Am	monia-N		Not detected	mg/kg	10	350).3	05/27/04 16:00	MJC		
Nitr	ate-N		57.0	mg/kg	5.0	300	0.0	05/21/04 16:58	JDP		
Nitr	ite-N		Not detected	mg/kg	5.0	· 300	0.0	05/21/04 16:58	JDP		
Suli	fate		77	mg/kg	20	300	0.0	05/21/04 16:58	JDP		
Pho	osphate		2,110	mg/kg	10	365	5.2	05/26/04 17:00	MJC		
Me	tals										
Iron	1		1,970	mg/kg	1.0	602	20	05/26/04 18:07	PER	7439-89-6	



Je Tag: A5-SB-010, 4.5'-0
Collected Date/Time: 05/18/2004 13:10
Matrix: Soil

.

COC Reference: 018193

# Type Preservativ	ve(s)	Refrigerated?	Arrival Ter	np. (C) Therm	ometer #		
2 4oz. Glass None		Yes	4	3			
Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Extraction / Prep.							
Metal Digestion	Completed			3050B	05/24/04 13:15	MSH	
Inorganics							
Total Solids	86	%	1	160.3	05/21/04 11:10	JSP	
Ammonia-N	Not detected	mg/kg	10	350.3	05/27/04 16:00	MJC	
Nitrate-N	450	mg/kg	5.0	300.0	05/21/04 18:14	JDP	
Nitrite-N	Not detected	mg/kg	5.0	300.0	05/21/04 17:10	JDP	
Sulfate	191	mg/kg	20	300.0	05/21/04 17:10	JDP	
Phosphate	1,950	mg/kg	10	365.2	05/26/04 17:00	MJC	
Metals							
Iron	2,730	mg/kg	1.0	6020	05/26/04 18:09	PER 7439-89-6	6



Sample ID: S17176.15 ble Tag: A5-SB-010, 9'-0 Collected Date/Time: 05/18/2004 13:15 Matrix: Soil COC Reference: 013081

# Туре	Preservative(s)	Refrigerated?	Arrival Temp. (C) Thermom	eter #	
2 4oz. Glass	None	Yes	4	3		
Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS # Flags
Extraction / Prep.						
Metal Digestion	Completed			3050B	05/24/04 13:15	MSH
Inorganics						
Total Solids	80	%	1	160.3	05/21/04 11:10	JSP
Ammonia-N	Not detected	mg/kg	10	350.3	05/27/04 16:00	MJC
Nitrate-N	146	mg/kg	5.0	300.0	05/21/04 18:25	JDP
Nitrite-N	Not detected	mg/kg	5.0	300.0	05/21/04 17:21	JDP
Sulfate	82	mg/kg	20	300.0	05/21/04 17:21	JDP
Phosphate	2,120	mg/kg	10	365.2	05/26/04 17:00	MJC
Metals						
Iron	2,020	mg/kg	1.0	6020	05/26/04 18:12	PER 7439-89-6

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AUG 0 2 2004

art ID: S17201.01(02) erated on 07/20/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S17201.01-S17201.26 Project: 24CH.67201.01 Bee Jay Scales Submitted Date/Time: 05/21/2004 10:00 Sampled by: Mike McMahon P.O. #:

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Report produced by

Phone: (517) 332-0167 FAX: (517) 332-6333



Sample ID: S17201.01 iple Tag: A5-SB-001, 4.5'-0 Collected Date/Time: 05/19/2004 09:05 Matrix: Soil COC Reference: 013080

#	Туре	Preservative(s)		Refrigerated?	Arrival Te	mp. (C)	Thermor	neter #			
1	32 oz Glass	None		Yes	4		3				
2	4oz. Glass	None		Yes	4		3				
Ana	lysis		Results	Units	RDL	Meth	od	Run Date/Time	Analy	st CAS#	Flaos
Ext	raction / Prep.								·		
Met	al Digestion		Completed			3050)B	05/24/04 13:15	MSH		
Met	al Digestion		Completed			3015	5A	07/15/04 15:00	MSH		
SPL	P Extraction										
% S	olids		100			1312	2	07/13/04 17:00	LBR		
San	nple Used g		100			1312	2	07/13/04 17:00	LBR		
Fina	ai Volume mL		2,000			1312	2	07/13/04 17:00	LBR		
Fina	al Extract pH		7.75			1312	2	07/13/04 17:00	LBR		
Ino	rganics										
Tota	al Solids		74	%	1	160.3	3	05/24/04 16:20	JSP		
Am	monia-N, SPLP		Not detected	mg/L	0.1	350.3	3	07/19/04 17:00	MJC		
Nitr	ate-N, TCLP		10.5	mg/L	0.2	300.0	0	07/19/04 13:17	JDP		
``	te-N		Not detected	mg/L	0.2	300.0	0	07/19/04 13:17	JDP		
านที่	fate, SPLP		16	mg/L	1	300.0	0	07/19/04 13:17	JDP		
Pho	sphate, SPLP		0.6	mg/L	0.1	365.	2	07/19/04 15:00	MJC		
Am	monia-N		Not detected	mg/kg	10	350.3	3	05/27/04 16:00	MJC		
Nitr	ate-N		99.0	mg/kg	10.0	300.	0	05/24/04 06:58	JDP		
Nitr	ite-N		Not detected	mg/kg	10.0	300.	0	05/24/04 06:58	JDP		
Suli	fate		144	mg/kg	100	300.0	0	05/24/04 06:58	JDP		
Pho	osphate		2,280	mg/kg	10	365.	2	05/27/04 13:00	MJC		
Me	tals										
Iron	, SPLP		0.09	mg/L	0.02	200.	8	07/15/04 18:22	PER	7439-89-6	
Iron	1		2,290	mg/kg	1.0	6020)	05/26/04 18:14	PER	7439-89-6	



Sample ID: S17201.02 ple Tag: A5-SB-001, 9'-0 Collected Date/Time: 05/19/2004 09:10 Matrix: Soil COC Reference: 013080

#	Туре	Preservative(s)	Refrigerated	d? Arrival Ter	mp. (C) Therm	iometer #		
1	32 oz Glass	None	Yes	4	3			
2	4oz. Glass	None	Yes	4	3			
Ana	lysis	Result	s Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ext	raction / Prep.							
Met	al Digestion	Comp	eted		3050B	05/24/04 13:15	MSH	
Met	al Digestion	Comp	leted		3015A	07/15/04 15:00	MSH	
SPI	P Extraction							
% \$	Solids	100			1312	07/13/04 17:00	LBR	
Sar	nple Used g	100			1312	07/13/04 17:00	LBR	
Fina	al Volume mL	2,000			1312	07/13/04 17:00	LBR	
Fina	al Extract pH	8.35			1312	07/13/04 17:00	LBR	
Ino	rganics							
Tot	al Solids	79	%	1	160.3	05/24/04 16:20	JSP	
Am	monia-N, SPLP	Not de	etected mg/L	0.1	350.3	07/19/04 17:00	MJC	
Nitr	ate-N, TCLP	11.0	mg/L	0.2	300.0	07/19/04 13:29	JDP	
	je-N	Not de	etected mg/L	0.2	300.0	07/19/04 13:29	JDP	
Jul	fate, SPLP	9	mg/L	1	300.0	07/19/04 13:29	JDP	
Pho	osphate, SPLP	Not de	etected mg/L	0.1	365.2	07/19/04 15:00	MJC	
Am	monia-N	Not de	etected mg/kg	10	350.3	05/27/04 16:00	MJC	
Niti	rate-N	304	mg/kg	10.0	300.0	05/24/04 07:21	JDP	
Niti	rite-N	Not de	etected mg/kg	10.0	300.0	05/24/04 07:21	JDP	
Sul	fate	176	mg/kg	100	300.0	05/24/04 07:21	JDP	
Phe	osphate	2,590	mg/kg	10	365.2	05/27/04 13:00	MJC	
Me	tals							
Iror	n, SPLP	0.05	mg/L	0.02	200.8	07/15/04 18:24	PER 7439-89-6	5
Iror	ı	1,780	mg/kg	1.0	6020	05/26/04 18:17	PER 7439-89-6	5



Sample ID: S17201.03 iple Tag: A5-SB-002, 4.5'-0 Collected Date/Time: 05/19/2004 10:30 Matrix: Soil COC Reference: 013080

#	Туре	Preservative(s)		Refrigerated?	Arrival Te	mp. (C)	Therm	ometer #			
1	32 oz Glass	None		Yes	4		3				
2	4oz. Glass	None		Yes	4		3				
Ana	lysis	Re	esults	Units	RDL	Met	thod	Run Date/Time	Analys	st CAS#	Flags
Ext	raction / Prep.										`
Met	al Digestion	Co	ompleted			305	50B	05/24/04 13:15	MSH		
Met	al Digestion	Co	ompleted			301	5A	07/15/04 15:00	MSH		
SPI	P Extraction										
% 5	Solids	10	00			131	2	07/13/04 12:00	LBR		
Sar	nple Used g	10	00			131	2	07/13/04 12:00	LBR		
Fina	al Volume mL	2,0	000			131	2	07/13/04 12:00	LBR		
Fina	al Extract pH	6.9	98			131	12	07/13/04 12:00	LBR		
Ino	rganics										
Tot	al Solids	79	Ð	%	1	160).3	05/24/04 16:20	JSP		
Am	monia-N, SPLP	0.9	5	mg/L	0.1	350	0.3	07/19/04 17:00	MJC		
Nitr	ate-N, TCLP	9.	7	mg/L	0.2	300	0.0	07/19/04 13:41	JDP		
	te-N	No	ot detected	mg/L	0.2	300	0.0	07/19/04 13:41	JDP		
านไ	fate, SPLP	14	4	mg/L	1	300	0.0	07/19/04 13:41	JDP		
Pho	osphate, SPLP	0.1	1	mg/L	0.1	365	5.2	07/19/04 15:00	MJC		
Am	monia-N	No	ot detected	mg/kg	10	350	0.3	05/27/04 16:00	MJC		
Nitr	ate-N	20	05	mg/kg	10.0	300	0.0	05/24/04 07:33	JDP		
Nitr	ite-N	Ne	ot detected	mg/kg	10.0	300	0.0	05/24/04 07:33	JDP		
Sul	fate	24	44	mg/kg	100	300	0.0	05/24/04 07:33	JDP		
Pho	osphate	2,	,450	mg/kg	10	365	5.2	05/27/04 13:00	MJC		
Me	tals										
Iror	n, SPLP	0.	.58	mg/L	0.02	200	D.8	07/15/04 18:25	PER	7439-89-6	;
Iror	ו	З,	,190	mg/kg	1.0	602	20	05/26/04 18:19	PER	7439-89-6	i



Sample ID: S17201.04 /ple Tag: A5-SB-002, 9'-0 Collected Date/Time: 05/19/2004 10:40 Matrix: Soil COC Reference: 013080

#	Туре	Preservative(s)		Refrigerated?	Arrival Te	mp. (C)	Therm	ometer #			
1	32 oz Glass	None		Yes	4		3				
2	4oz. Glass	None		Yes	4		3				
Ana	alysis		Results	Units	RDL	Met	hod	Run Date/Time	Analys	t CAS#	Flags
Ex	raction / Prep.										<u> </u>
Me	al Digestion		Completed			305	0B	05/24/04 13:15	MSH		
Ino	rganics										
Tot	al Solids		73	%	1	160	.3	05/24/04 16:20	JSP		
Am	monia-N		Not detected	mg/kg	10	350	.3	05/27/04 16:00	MJC		
Niti	rate-N		49.0	mg/kg	10.0	300	0.0	05/24/04 07:45	JDP		
Niti	rite-N		Not detected	mg/kg	10.0	300	0.0	05/24/04 07:45	JDP		
Su	fate		104	mg/kg	100	300	0.0	05/24/04 07:45	JDP		
Ph	osphate		2,830	mg/kg	10	365	5.2	05/27/04 13:00	MJC		
Me	tals										
Iroi	ı		3,150	mg/kg	1.0	602	20	05/26/04 18:22	PER	7439-89-6	



Sample ID: S17201.05 ple Tag: A5-SB-003, 4.5'-0 Collected Date/Time: 05/19/2004 09:35 Matrix: Soil COC Reference: 013080

#	Туре	Preservative(s)		Refrigerated?	Arrival Ter	np. (C)	Therm	ometer #		
1	32 oz Glass	None		Yes	4		3			
2	4oz. Glass	None		Yes	4		3			
Ana	alysis		Results	Units	RDL	Met	hod	Run Date/Time	Analyst CAS	# Flags
Ext	traction / Prep.									
Me	tal Digestion		Completed			305	OВ	05/24/04 13:15	MSH	
Ino	organics									
Tot	al Solids		79	%	1	160	.3	05/24/04 16:20	JSP	
Am	imonia-N		Not detected	mg/kg	10	350	.3	05/27/04 16:00	MJC	
Nita	rate-N		42.8	mg/kg	10.0	300	0.0	05/24/04 07:56	JDP	
Niti	rite-N		Not detected	mg/kg	10.0	300	.0	05/24/04 07:56	JDP	
Sul	lfate		155	mg/kg	100	300	0.0	05/24/04 07:56	JDP	
Ph	osphate		2,080	mg/kg	10	365	.2	05/27/04 13:00	MJC	
Ме	etals									
Iroi	n		2,280	mg/kg	1.0	602	20	05/26/04 18:39	PER 7439-8	9-6



I mple ID: S17201.06

#	Туре	Preservative(s)		Refrigerated?	Arrival Ter	np. (C)	Therm	ometer #			
1	32 oz Glass	None		Yes	4		3				
2	4oz. Glass	None		Yes	4		3				
Ana	lysis		Results	Units	RDL	Met	hod	Run Date/Time	Analys	t CAS#	Flags
Ext	raction / Prep.										
Met	al Digestion		Completed			305	бOB	05/24/04 13:15	MSH		
Met	al Digestion		Completed			301	5A	07/30/04 13:30	MSH		
SPI	_P Extraction										
% \$	Solids		100			131	2	07/28/04 18:00	I M		
Sar	nple Used g		100			131	2	07/28/04 18:00	ΙM		
Fina	al Volume mL		2,000			131	2	07/28/04 18:00	I M		
Fin	al Extract pH		8.3			131	2	07/28/04 18:00	I M		
Ino	rganics										
Tot	al Solids		77	%	1	160).3	05/24/04 16:20	JSP		
Am	monia-N, SPLP		Not detected	mg/L	0.1	350).3	08/03/04 18:00	MJC		
Ŋit	rate-N, TCLP		2.8	mg/L	0.2	300).0	07/29/04 15:45	JDP		
)•N		Not detected	mg/L	0.2	300	0.0	07/29/04 15:45	JDP		
Տա	rate, SPLP		9	mg/L	1	300	0.0	07/29/04 15:45	JDP		
Ph	osphate, SPLP		0.3	mg/Ł	0.1	365	5.2	08/02/04 15:00	MJC		
Am	monia-N		Not detected	mg/kg	10	350).3	05/27/04 16:00	MJC		
Nit	rate-N		67.2	mg/kg	10.0	300	0.0	05/24/04 08:08	JDP		
Nit	rite-N		Not detected	mg/kg `	10.0	300	0.0	05/24/04 08:08	JDP		
Su	lfate		124	mg/kg	100	300	0.0	05/24/04 08:08	JDP		
Ph	osphate		2,220	mg/kg	10	365	5.2	05/27/04 13:00	MJC		
Me	otals										
Iro	n, SPLP		2.06	mg/L	0.02	200	3.8	08/02/04 14:43	PER	7439-89-6	
Iro	n		2,000	mg/kg	1.0	602	20	05/26/04 18:42	PER	7439-89-6	



Sample ID: S17201.07 /ple Tag: A5-SB-004, 4.5'-0 Collected Date/Time: 05/19/2004 10:05 Matrix: Soil COC Reference: 013080

Sample Containers

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#	Туре	Preservative(s)		Refrigerated?	Arrival Ter	mp. (C)	Therm	ometer #		
1	32 oz Glass	None		Yes	4		3			
2	4oz. Glass	None		Yes	4		3			
Ana	alysis		Results	Units	RDL	Meth	od	Run Date/Time	Analyst CAS#	Flags
Ex	traction / Prep.									
Me	tal Digestion		Completed			3050	B	05/24/04 13:15	MSH	
Inc	organics									
Tot	al Solids		79	%	1	160.3	3	05/24/04 16:20	JSP	
Am	imonia-N		Not detected	mg/kg	10	350.3	3	05/27/04 16:00	MJC	
Nit	rate-N		40.1	mg/kg	10.0	300.0	0	05/24/04 08:44	JDP	
Nit	rite-N		Not detected	mg/kg	10.0	300.0	0	05/24/04 08:44	JDP	
Su	lfate		426	mg/kg	100	300.0	0	05/24/04 08:44	JDP	
Ph	osphate		2,190	mg/kg	10	365.:	2	05/27/04 13:00	MJC	
Me	stals									
iro	n		1,960	mg/kg	1.0	6020)	05/26/04 18:44	PER 7439-89-	6



Sample ID: S17201.08 ple Tag: A5-SB-004, 9'-0 Collected Date/Time: 05/19/2004 10:10 Matrix: Soil COC Reference: 013080

Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C) Thermom	neter #	
32 oz Glass	None		Yes	4	· 3		
4oz. Glass	None		Yes	4	3		
sis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS # Flags
ction / Prep.							
Digestion		Completed			3050B	05/24/04 13:15	MSH
anics							
Solids		78	%	1	160.3	05/24/04 16:20	JSP
onia-N		Not detected	mg/kg	10	350.3	05/27/04 16:00	MJC
e-N		19.0	mg/kg	10.0	300.0	05/24/04 08:55	JDP
e-N		Not detected	mg/kg	10.0	300.0	05/24/04 08:55	JDP
te		137	mg/kg	100	300.0	05/24/04 08:55	JDP
phate		2,120	mg/kg	10	365.2	05/27/04 13:00	MJC
ls							
		2,180	mg/kg	1.0	6020	05/26/04 18:46	PER 7439-89-6
	Type 32 oz Glass 4oz. Glass sis ction / Prep. Digestion anics Solids bonia-N e-N N N N N N N -	Type Preservative(s) 32 oz Glass None 4oz. Glass None sis Solids criton / Prep. Digestion Digestion Solids sonia-N Solids e-N Solids bite Solids	Type Preservative(s) 32 oz Glass None 32 oz Glass None 4oz. Glass None sis Results ction / Prep. Digestion Digestion Completed anics Solids Solids 78 onia-N Not detected e-N 19.0 Intervention Not detected ite 137 ohate 2,120 Its 2,180	Type Preservative(s) Refrigerated? 32 oz Glass None Yes 32 oz Glass None Yes 4oz. Glass None Yes sis Results Units ction / Prep. Digestion Completed Digestion 78 % solids 78 % onia-N Not detected mg/kg e-N 19.0 mg/kg e-N 137 mg/kg phate 2,120 mg/kg	TypePreservative(s)Refrigerated?Arrival Temp. (c32 oz GlassNoneYes44oz. GlassNoneYes4sisResultsUnitsRDLction / Prep.DigestionCompletedDigestion78%1solids78%1onia-NNot detectedmg/kg10e-N19.0mg/kg10.0tee137mg/kg100phate2,120mg/kg10ls2,180mg/kg1.0	TypePreservative(s)Refrigerated?Arrival Temp. (C)Thermon32 oz GlassNoneYes4334oz. GlassNoneYes43aloz. GlassNoneYes43sisResultsUnitsRDLMethodction / Prep.DigestionCompleted3050BanicsCompletedmg/kg10350.3solids78%1160.3onia-NNot detectedmg/kg10.0300.0e-N19.0mg/kg10.0300.0e-N137mg/kg100300.0ohate2,120mg/kg10365.2ls2,180mg/kg1.06020	Type Preservative(s) Refrigerate? Arrival Temp. (C) Thermometer # 32 oz Glass None Yes 4 3 4oz. Glass None Yes 4 3 sis Results Units RDL Method Run Date/Time ction / Prep. Digestion Completed 3050B 05/24/04 13:15 anics Solids 78 % 1 160.3 05/24/04 16:20 onia-N Not detected mg/kg 10.0 350.3 05/24/04 16:20 onia-N Not detected mg/kg 10.0 300.0 05/24/04 08:55 e-N 19.0 mg/kg 10.0 300.0 05/24/04 08:55 e 137 mg/kg 100 300.0 05/24/04 08:55 is 2,120 mg/kg 10 365.2 05/27/04 13:00



Sample ID: S17201.09 piple Tag: A5-SB-005, 4.5'-0 Collected Date/Time: 05/19/2004 08:20 Matrix: Soil COC Reference: 013080

#	Туре	Preservative(s)		Refrigerated?	Arrival Ter	np. (C)	Therm	ometer #			
1	32 oz Glass	None		Yes	4		3				
2	4oz. Glass	None		Yes	4		3				
Ana	Ilysis		Results	Units	RDL	Met	thod	Run Date/Time	Analys	t CAS#	Flags
Ext	raction / Prep.										
Met	al Digestion		Completed			305	50B	05/24/04 13:15	MSH		
Me	al Digestion		Completed			301	15A	07/15/04 15:00	MSH		
SP	LP Extraction										
% :	Solids		100			131	12	07/13/04 17:00	LBR		
Sai	nple Used g		100			131	12	07/13/04 17:00	LBR		
Fin	al Volume mL		2,000			131	12	07/13/04 17:00	LBR		
Fin	al Extract pH		9.07			131	12	07/13/04 17:00	LBR		
Inc	organics		,								
Tof	al Solids		80	%	1	160	0.3	05/24/04 16:20	JSP		
Am	monia-N, SPLP		Not detected	mg/L	0.1	350	0.3	07/19/04 17:00	MJC		
Nit	rate-N, TCLP		5.0	mg/L	0.2	300	0.0	07/19/04 13:52	JDP		
	jite-N		Not detected	mg/L	0.2	300	0.0	07/19/04 13:52	JDP		
งน์	lfate, SPLP		10	mg/L	1	300	0.0	07/19/04 13:52	JDP		
Ph	osphate, SPLP		0.1	mg/L	0.1	365	5.2	07/19/04 15:00	MJC		
An	nmonia-N		Not detected	mg/kg	10	350	0.3	05/27/04 16:00	MJC		
Nit	rate-N		81.0	mg/kg	10.0	300	0.0	05/24/04 09:07	JDP		
Nit	rite-N		Not detected	mg/kg	10.0	300	0.0	05/24/04 09:07	JDP		
Su	lfate		171	mg/kg	100	30(0.0	05/24/04 09:07	JDP		
Ph	osphate		1,760	mg/kg	10	36	5.2	05/27/04 13:00	MJC		
М	etals										
Iro	n, SPLP		0.14	mg/L	0.02	20	0.8	07/15/04 18:26	PER	7439-89-6	5
Iro	n		2,310	mg/kg	1.0	60:	20	05/26/04 18:49	PER	7439-89-6	5



Sample ID: S17201.10 ple Tag: A5-SB-005, 9'-0 Collected Date/Time: 05/19/2004 08:25 Matrix: Soil COC Reference: 013080

#	Туре	Preservative(s)	r	Refrigerated?	Arrival Temp. (C) Thermor	neter #		
1	32 oz Glass	None		Yes	4	3			
2	4oz. Glass	None		Yes	4	3			
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ext	raction / Prep.								
Met	al Digestion		Completed			3050B	05/24/04 13:15	MSH	
Ino	rganics								
Tot	al Solids		73	%	1	160.3	05/24/04 16:20	JSP	
Am	monia-N		Not detected	mg/kg	10	350.3	05/27/04 16:00	MJC	
Nitr	rate-N		Not detected	mg/kg	10.0	300.0	05/24/04 09:19	JDP	
Nitr	rite-N		Not detected	mg/kg	10.0	300.0	05/24/04 09:19	JDP	
Sul	fate		Not detected	mg/kg	100	300.0	05/24/04 09:19	JDP	
Pho	osphate		2,250	mg/kg	10	365.2	05/27/04 13:00	MJC	
Me	tals								
Iror	ı		2,520	mg/kg	1.0	6020	05/26/04 18:51	PER 7439-89-6	



Sample ID: S17201.11 Aple Tag: A5-SB-006, 4.5'-0 Collected Date/Time: 05/19/2004 07:20 Matrix: Soil COC Reference: 013080

#	Туре	Preservative(s)		Refrigerated?	Arrival Ter	np. (C)	Therm	ometer #			
1	32 oz Glass	None		Yes	4		3				
2	4oz. Glass	None		Yes	4		3				
Ana	lysis		Results	Units	RDL	Met	hod	Run Date/Time	Analys	st CAS#	Flags
Ext	raction / Prep.								·····		<u>×</u> _
Met	al Digestion		Completed			305	ов	05/24/04 13:15	MSH		
Met	al Digestion		Completed			301	5A	07/15/04 15:00	MSH		
SPI	LP Extraction										
% 5	Solids		100			131	2	07/13/04 17:00	LBR		
Sar	nple Used g		100			131	2	07/13/04 17:00	LBR		
Fin	al Volume mL		2,000			131	2	07/13/04 17:00	LBR		
Fin	al Extract pH		8.98			131	2	07/13/04 17:00	LBR		
Ino	rganics										
Tot	al Solids		84	%	1	160	.3	05/24/04 16:20	JSP		
Am	monia-N, SPLP		Not detected	mg/L	0.1	350	.3	07/19/04 17:00	MJC		
Niti	ate-N, TCLP		4.2	mg/L	0.2	300	0.0	07/19/04 14:04	JDP		
	iite-N		Not detected	mg/L	0.2	300	0.0	07/19/04 14:04	JDP		
, d	fate, SPLP		12	mg/L	1	300	0.0	07/19/04 14:04	JDP		
Pho	osphate, SPLP		Not detected	mg/L	0.1	365	5.2	07/19/04 19:00	MJC		
Am	monia-N		Not detected	mg/kg	10	350	.3	05/27/04 16:00	MJC		
Niti	rate-N		89.4	mg/kg	10.0	300	0.0	05/24/04 09:42	JDP		
Nit	rite-N		Not detected	mg/kg	10.0	300	0.0	05/24/04 09:42	JDP		
Su	fate		241	mg/kg	100	300	0.0	05/24/04 09:42	JDP		
Ph	osphate		1,830	mg/kg	10	365	5.2	05/27/04 13:00	MJC		
Me	tals										
Iroi	n, SPLP		0.22	mg/L	0.02	200).8	07/15/04 18:28	PER	7439-89-6	;
Iro	n		1,830	mg/kg	1.0	602	20	05/26/04 18:54	PER	7439-89-6	;



Sample ID: S17201.12 ple Tag: A5-SB-006, 9'-0 Collected Date/Time: 05/19/2004 07:25 Matrix: Soil COC Reference: 013080

#	Туре	Preservative(s)		Refrigerated?	Arrival Ter	np. (C)	Therm	ometer #			
1	32 oz Glass	None		Yes	4		3				
2	4oz. Glass	None		Yes	4		3				
Ana	alysis		Results	Units	RDL	Meth	hod	Run Date/Time	Analyst	CAS#	Flags
Ext	traction / Prep.										<u> </u>
Me	tal Digestion		Completed			3050	ОB	05/24/04 13:15	MSH		
Ino	organics										
Tot	al Solids		76	%	1	160.	.3	05/24/04 16:20	JSP		
Am	monia-N		Not detected	mg/kg	10	350.	.3	05/27/04 16:00	MJC		
Nitr	rate-N		Not detected	mg/kg	10.0	300.	.0	05/24/04 09:53	JDP		
Niti	rite-N		Not detected	mg/kg	10.0	300.	.0	05/24/04 09:53	JDP		
Sul	fate		104	mg/kg	100	300.	.0	05/24/04 09:53	JDP		
Phe	osphate		2,060	mg/kg	10	365.	.2	05/27/04 13:00	MJC		
Me	tals										
Iror	า		2,300	mg/kg	1.0	602	0	05/26/04 18:56	PER 7	439-89-6	



Sample ID: S17201.13 ple Tag: A5-SB-007, 4.5'-0 Collected Date/Time: 05/19/2004 07:50 Matrix: Soil COC Reference: 013080

#	Туре	Preservative(s)		Refrigerated?	Arrival Ter	mp. (C)	Therm	ometer #			
1	32 oz Glass	None		Yes	4		3				
2	4oz. Glass	None		Yes	4		3				
Ana	alysis		Results	Units	RDL	Met	thod	Run Date/Time	Analys	st CAS#	Flags
Ext	raction / Prep.									····	
Me	al Digestion		Completed			305	50B	05/24/04 13:15	MSH		
Me	al Digestion		Completed			301	5A	07/15/04 15:00	MSH		
SP	LP Extraction										
% \$	Solids		100			131	2	07/13/04 17:00	LBR		
Sar	nple Used g		100			131	2	07/13/04 17:00	LBR		
Fin	al Volume mL		2,000			131	2	07/13/04 17:00	LBR		
Fin	al Extract pH		7.00			131	12	07/13/04 17:00	LBR		
Inc	organics										
Tot	al Solids		82	%	1	160).3	05/24/04 16:20	JSP		
Am	monia-N, SPLP		Not detected	mg/L	0.1	350).3	07/19/04 17:00	MJC		
Nit	rate-N, TCLP		4.6	mg/L	0.2	300	0.0	07/19/04 14:16	JDP		
	te-N		Not detected	mg/L	0.2	300	0.0	07/19/04 14:16	JDP		
	rate, SPLP		13	mg/L	1	300	0.0	07/19/04 14:16	JDP		
Ph	osphate, SPLP		0.6	mg/L	0.1	365	5.2	07/19/04 19:00	MJC		
Am	imonia-N		Not detected	mg/kg	10	350).3	05/27/04 16:00	MJC		
Nit	rate-N		60.4	mg/kg	10.0	300	0.0	05/24/04 10:05	JDP		
Nit	rite-N		Not detected	mg/kg	10.0	300	0.0	05/24/04 10:05	JDP		
Su	lfate		156	mg/kg	100	300	0.0	05/24/04 10:05	JDP		
Ph	osphate		1,940	mg/kg	10	365	5.2	05/27/04 13:00	MJC		
Me	etals										
Iro	n, SPLP		0.31	mg/L	0.02	200	3 .8	07/15/04 18:29	PER	7439-89-6	
Iro	n		1,680	mg/kg	1.0	602	20	05/26/04 18:59	PER	7439-89-6	



Sample ID: S17201.14 ple Tag: A5-SB-007, 9'-0 Collected Date/Time: 05/19/2004 07:55 Matrix: Soil COC Reference: 013080

#	Туре	Preservative(s)		Refrigerated?	Arrival Terr	ıp. (C)	Therm	ometer #			
1	32 oz Glass	None		Yes	4		3				
2	4oz. Glass	None		Yes	4		3				
Ana	Ilysis		Results	Units	RDL	Met	hod	Run Date/Time	Analys	t CAS#	Flags
Ext	raction / Prep.										
Met	al Digestion		Completed			305	0B	05/24/04 13:15	MSH		
Ino	rganics										
Tot	al Solids		76	%	1	160	.3	05/24/04 16:20	JSP		
Am	monia-N		Not detected	mg/kg	10	350	.3	05/27/04 16:00	MJC		
Nitr	ate-N		Not detected	mg/kg	10.0	300	.0	05/24/04 10:17	JDP		
Nita	ite-N		Not detected	mg/kg	10.0	300	.0	05/24/04 10:17	JDP		
Sul	fate		110	mg/kg	100	300	.0	05/24/04 10:17	JDP		
Pho	osphate		2,510	mg/kg	10	365	.2	05/27/04 13:00	MJC		
Me	tals										
Iror	ı		3,000	mg/kg	1.0	602	0	05/26/04 19:01	PER	7439-89-6	



Sample ID: S17201.15 Aple Tag: A5-VP-002, 10'-0 Collected Date/Time: 05/19/2004 13:45 Matrix: Groundwater COC Reference: 018192

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Terr	p. (C) Th	ermometer #			
2	1 L Amber	None		Yes	4	3				
2	250ml Plastic	None		Yes	4	3				
1	DO Bottle	None		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
An	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Ex	traction / Prep.									
Me	tal Digestion		Completed			3015A	05/24/04 17:00	MSH		
Inc	organics									
pН			8.06	STD Units	0.01	150.1	05/21/04 22:26	LBR		
Alk	alinity as CaCO3		227	mg/L	1	310.1	05/25/04 11:10	JKB		
Am	nmonia-N		6.9	mg/L	0.1	350.3	05/24/04 16:00	MJC		
Ch	loride		265	mg/L	1	300.0	05/22/04 06:56	JDP		
Nit	rate-N		40.4	mg/L	0.2	300.0	05/22/04 06:56	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300.0	05/22/04 06:56	JDP		
Su	lfate		91	mg/L	1	300.0	05/22/04 06:45	JDP		
	polved Oxygen		9.57	mg/L	1		05/21/04 22:27	LBR		
	Jsphate		4.4	mg/L	0.1	365.2	05/26/04 13:00	MJC		
Me	etals									
Ar	senic		0.012	mg/L	0.002	200.8	05/27/04 20:19	PER	7440-38-2	
Iro	n		6.68	mg/L	0.02	200.8	05/27/04 20:19	PER	7439-89-6	
Or	rganics									
Cł	niorinated Herbicides									
Di	camba		Not detected	ug/L	2	8151	06/04/04 12:00	PCS		0
Di	noseb		Not detected	ug/L	0.6	8151	06/04/04 12:00	PCS		0
2,4	4 -D		Not detected	ug/L	4	8151	06/04/04 12:00	PCS		о
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/04/04 12:00	PCS		о
2,4	4,5-T		Not detected	ug/L	1	8151	06/04/04 12:00	PCS		0

O-Analysis performed by outside laboratory

.



Sample ID: S17201.16 ple Tag: A5-VP-003, 10'-0 Collected Date/Time: 05/19/2004 13:35 Matrix: Groundwater COC Reference: 018192

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Ten	np. (C) The	ermometer #			
2	1 L Amber	None		Yes	4	3				
2	250ml Plastic	None		Yes	4	3				
1	DO Bottle	None		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Ex	traction / Prep.									<u> </u>
Me	tal Digestion		Completed			3015A	05/24/04 17:00	MSH		
Inc	organics									
pН			7.56	STD Units	0.01	150.1	05/21/04 22:26	LBR		
Alk	alinity as CaCO3		218	mg/L	1	310.1	05/25/04 11:20	JKB		
Am	nmonia-N		Not detected	mg/L	0.1	350.3	05/24/04 16:00	MJC		
Ch	loride		230	mg/L	1	300.0	05/22/04 10:01	JDP		
Nit	rate-N		250	mg/L	0.2	300.0	05/22/04 10:13	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300.0	05/22/04 07:20	JDP		
Su	lfate		161	mg/L	1	300.0	05/22/04 07:20	JDP		
	solved Oxygen		9.04	mg/L	1		05/21/04 22:27	LBR		
	osphate		1.1	mg/L	0.1	365.2	05/26/04 16:00	MJC		
Me	etals									
Ars	senic		0.004	mg/L	0.002	200.8	05/27/04 20:21	PER	7440-38-2	
Iro	n		2.08	mg/L	0.02	200.8	05/27/04 20:21	PER 7	7439-89-6	
Or	rganics									
Ch	lorinated Herbicides									
Die	camba		Not detected	ug/L	2	8151	06/04/04 12:00	PCS		0
Di	noseb		Not detected	ug/L	0.6	8151	06/04/04 12:00	PCS		о
2,4	4-D		Not detected	ug/L	4	8151	06/04/04 12:00	PCS		0
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/04/04 12:00	PCS		о
2,4	4,5-T		Not detected	ug/L	1	8151	06/04/04 12:00	PCS		0

O-Analysis performed by outside laboratory



Sample ID: S17201.17 jple Tag: A5-VP-004, 10'-0 Collected Date/Time: 05/19/2004 13:15 Matrix: Groundwater COC Reference: 018192

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp	.(C) The	rmometer #		
2	1 L Amber	None		Yes	4	3			
2	250ml Plastic	None		Yes	4	3			
1	DO Bottle	None		Yes	4	3			
1	250ml Plastic	H2SO4		Yes	4	3			
1	125ml Plastic	HNO3		Yes	4	3			
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst C/	AS# Flags
Ext	traction / Prep.							- · · ·	<u> </u>
Me	tal Digestion		Completed			3015A、	05/24/04 17:00	MSH	
Ina	organics								
pН			7.88	STD Units	0.01	150.1	05/21/04 22:26	LBR	
Alk	alinity as CaCO3		292	mg/L	1	310.1	05/25/04 11:30	JKB	
Am	imonia-N		Not detected	mg/L	0.1	350.3	05/24/04 16:00	MJC	
Ch	loride		148	mg/L	1	300.0	05/22/04 07:31	JDP	
Nit	rate-N		58	mg/L	0.2	300.0	05/22/04 10:25	JDP	
Nit	rite-N		Not detected	mg/L	0.2	300.0	05/22/04 07:31	JDP	
Su	lfate		135	mg/L	1	300.0	05/22/04 07:31	JDP	
	solved Oxygen		9.27	mg/L	1		05/21/04 22:27	LBR	
	Jsphate		35	mg/L	1	365.2	05/26/04 16:00	MJC	
Me	otals								
Ars	senic		0.017	mg/L	0.002	200.8	05/27/04 20:24	PER 744	0-38-2
Iro	n		4.29	mg/L	0.02	200.8	05/27/04 20:24	PER 743	9-89-6
Or	ganics								
Ch	lorinated Herbicides								
Dic	camba		Not detected	ug/L	2	8151	06/04/04 12:00	PCS	0
Dir	noseb		Not detected	ug/L	0.6	8151	06/04/04 12:00	PCS	o
2,4	+D		Not detected	ug/L	4	8151	06/04/04 12:00	PCS	0
2,4	I,5-TP (Silvex)		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0
2,4	I,5-T		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0

O-Analysis performed by outside laboratory


' Sample ID: S17201.18 ple Tag: A5-VP-005, 10'-0 Collected Date/Time: 05/19/2004 13:00 Matrix: Groundwater COC Reference: 018192

Sample Containers

#	Туре	Preservative(s)	1	Refrigerated?	Arrival Tem	ıp. (C)	Thermo	meter #			
2	1 L Amber	None		Yes	4		3				
2	250ml Plastic	None		Yes	4		3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
An	alysis		Results	Units	RDL	Meth	od	Run Date/Time	Analyst	CAS#	Flags
Ex	traction / Prep.	• · · · • • • • • • • • • • • • • • • •									
Me	tal Digestion		Completed			3015	δA	05/24/04 17:00	MSH		
Inc	organics										
pН			8.01	STD Units	0.01	150.	1	05/21/04 22:26	LBR		
Alk	alinity as CaCO3		255	mg/L	1	310.	1	05/25/04 11:35	JKB		
Αn	nmonia-N		Not detected	mg/L	0.1	350.	3	05/24/04 16:00	MJC		
Ch	loride		80	mg/L	1	300.	0	05/22/04 07:43	JDP		
Nit	rate-N		45.8	mg/L	0.2	300.	0	05/22/04 10:36	JDP		
Nit	trite-N		Not detected	mg/L	0.2	300.	0	05/22/04 07:43	JDP		
Su	lfate		76	mg/L	1	300.	0	05/22/04 07:43	JDP		
	solved Oxygen		10.38	mg/L	1			05/21/04 22:27	LBR		
	Jsphate		11.7	mg/L	0.1	365.	2	05/26/04 16:00	MJC		
Me	etals										
Ar	senic		0.049	mg/L	0.002	200.	8	05/27/04 20:26	PER	7440-38-2	
lro	'n		5.29	mg/L	0.02	200.	8	05/27/04 20:26	PER	7439-89-6	
Or	rganics										
Cł	nlorinated Herbicides										
Di	camba		Not detected	ug/L	2	815	t i	06/04/04 12:00	PCS		0
Di	noseb		Not detected	ug/L	0.6	815	l	06/04/04 12:00	PCS		о
2,4	4-D		Not detected	ug/L	4	815	i	06/04/04 12:00	PCS		о
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	815 [,]	i	06/04/04 12:00	PCS		0
2,4	4,5-T		Not detected	ug/L	1	815 [,]	I	06/04/04 12:00	PCS		0



Sample ID: S17201.19 ple Tag: A5-VP-006, 10'-0 Collected Date/Time: 05/19/2004 12:45 Matrix: Groundwater COC Reference: 018192

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C) Therr	nometer #		
2	1 L Amber	None		Yes	4	3			
2	250ml Plastic	None		Yes	4	3			
1	DO Bottle	None		Yes	4	3			
1	250ml Plastic	H2SO4		Yes	4	3			
1	125ml Plastic	HNO3		Yes	4	3			
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ex	traction / Prep.								
Me	tal Digestion		Completed			3015A	05/24/04 17:00	MSH	
Inc	organics								
pН			7.95	STD Units	0.01	150.1	05/21/04 22:26	LBR	
Alk	alinity as CaCO3		256	mg/L	1	310.1	05/25/04 11:40	JKB	
Am	monia-N		Not detected	mg/L	0.1	350.3	05/24/04 16:00	MJC	
Ch	loride		177	mg/L	1	300.0	05/22/04 07:55	JDP	
Nit	rate-N		26.6	mg/L	0.2	300.0	05/22/04 07:55	JDP	
Nit	rite-N		Not detected	mg/L	0.2	300.0	05/22/04 07:55	JDP	
Su	Ifate		88	mg/L	1	300.0	05/22/04 07:55	JDP	
	plved Oxygen		8.55	mg/L	1		05/21/04 22:27	LBR	
۰.,	Jsphate		3.0	mg/L	0.1	365.2	05/26/04 16:00	MJC	
Me	etals								
Ar	senic		0.013	mg/L	0.002	200.8	05/27/04 20:28	PER 7440-38-2	2
Iro	n		12.5	mg/L	0.02	200.8	05/27/04 20:28	PER 7439-89-6	5
Oı	rganics								
Cł	niorinated Herbicides								
Di	camba		Not detected	ug/L	2	8151	06/04/04 12:00	PCS	0
Di	noseb		Not detected	ug/L	0.6	8151	06/04/04 12:00	PCS	0
2,4	4-D		Not detected	ug/L	4	8151	06/04/04 12:00	PCS	0
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0
2,	4,5-T		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0



Sample ID: S17201.20 Je Tag: A5-VP-004, 10'-1 Collected Date/Time: 05/19/2004 13:20 Matrix: Groundwater COC Reference: 018192

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Tem	o. (C) Therr	nometer #		
2	1 L Amber	None		Yes	4	3			
2	250ml Plastic	None		Yes	4	3			
1	DO Bottle	None		Yes	4	3			
1	250ml Plastic	H2SO4		Yes	4	3			
1	125ml Plastic	HNO3		Yes	4	3			
An	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ex	traction / Prep.								
Me	tal Digestion		Completed			3015A	05/24/04 17:00	MSH	
Inc	organics								
pН	1		7.87	STD Units	0.01	150.1	05/21/04 22:26	LBR	
All	alinity as CaCO3		284	mg/L	1	310.1	05/25/04 11:45	JKB	
An	nmonia-N		Not detected	mg/L	0.1	350.3	05/24/04 16:00	MJC	
Ch	loride		149	mg/L	1	300.0	05/22/04 08:06	JDP	
Nit	rate-N		57.8	mg/L	0.2	300.0	05/22/04 10:48	JDP	
Nit	rite-N		Not detected	mg/L	0.2	300.0	05/22/04 08:06	JDP	
Su	Ifate		136	mg/L	1	300.0	05/22/04 08:06	JDP	
•	vlved Oxygen ار		9.58	mg/L	1		05/21/04 22:27	LBR	
·	phate		30	mg/L	1	365.2	05/26/04 16:00	MJC	
M	etals								
Ar	senic		0.018	mg/L	0.002	200.8	05/27/04 20:30	PER 7440-38-2	2
Iro	n		5.96	mg/L	0.02	200.8	05/27/04 20:30	PER 7439-89-0	6
0	rganics	,							
Cł	nlorinated Herbicides								
Di	camba		Not detected	ug/L	2	8151	06/04/04 12:00	PCS	0
Di	noseb		Not detected	ug/L	0.6	8151	06/04/04 12:00	PCS	0
2,4	4-D		Not detected	ug/L	4	8151	06/04/04 12:00	PCS	0
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0
2,	4,5-T		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0



Sample ID: S17201.21 Je Tag: A5-VP-007, 20'-0 Collected Date/Time: 05/19/2004 15:30 Matrix: Groundwater COC Reference: 018192

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp	. (C)	Thermome	eter #			
2	1 L Amber	None		Yes	4		3				
2	250ml Plastic	None		Yes	4		3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
Ana	alysis		Results	Units	RDL	Meth	nod	Run Date/Time	Analys	tCAS#	Flags
Ext	traction / Prep.										
Me	tal Digestion		Completed			3015	5A	05/24/04 17:00	MSH		
Ino	rganics										
pН			8.29	STD Units	0.01	150.	1	05/21/04 22:26	LBR		
Alk	alinity as CaCO3		226	mg/L	1	310.	1	05/25/04 11:50	JKB		
Am	monia-N		Not detected	mg/L	0.1	350.3	3	05/24/04 16:00	MJC		
Ch	loride		67	mg/L	1	300.0	0	05/22/04 08:18	JDP		
Niti	rate-N		3.9	mg/L	0.2	300.	0	05/22/04 08:18	JDP		
Niti	rite-N		Not detected	mg/L	0.2	300.	0	05/22/04 08:18	JDP		
Su	lfate		63	mg/L	1	300.	0	05/22/04 08:18	JDP		
,	lved Oxygen		8.78	mg/L	1			05/21/04 22:27	LBR		
	. ^j phate		15.6	mg/L	0.1	365.	2	05/26/04 16:00	MJC		
Ме	etals										
Ars	senic		0.020	mg/L	0.002	200.	.8	05/27/04 20:32	PER	7440-38-2	
Iro	n		6.42	mg/L	0.02	200.	.8	05/27/04 20:32	PER	7439-89-6	
Or	ganics						•				
Ch	lorinated Herbicides										
Dic	camba		Not detected	ug/L	2	8151	1	06/04/04 12:00	PCS		0
Dir	noseb		Not detected	ug/L	0.6	8151	1	06/04/04 12:00	PCS		0
2,4	FD		Not detected	ug/L	4	8151	1	06/04/04 12:00	PCS		0
2,4	I,5-TP (Silvex)		Not detected	ug/L	1	8151	1	06/04/04 12:00	PCS		0
2,4	l,5-T		Not detected	ug/L	1	8151	1	06/04/04 12:00	PCS		0



1 ample ID: S17201.22

د de Tag: A5-VP-006, 20'-0 Collected Date/Time: 05/19/2004 15:45

Matrix: Groundwater

COC Reference: 018192

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C) The	rmometer #		
2	1 L Amber	None		Yes	4	3			
2	250ml Plastic	None		Yes	4	3			
1	DO Bottle	None		Yes	4	3			
1	250ml Plastic	H2SO4		Yes	4	3			
1	125ml Plastic	HNO3		Yes	4	3			
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ex	traction / Prep.								
Me	tal Digestion		Completed			3015A	05/24/04 17:00	MSH	
Inc	organics								
pН			8.23	STD Units	0.01	150.1	05/21/04 22:26	LBR	
Alk	alinity as CaCO3		240	mg/L	1	310.1	05/25/04 11:55	JKB	
Am	nmonia-N		Not detected	mg/L	0.1	350.3	05/24/04 16:00	MJC	
Ch	loride		34	mg/L	1	300.0	05/22/04 08:30	JDP	
Nit	rate-N		4.3	mg/L	0.2	300.0	05/22/04 08:30	JDP	
Nit	rite-N		Not detected	mg/L	0.2	300.0	05/22/04 08:30	JDP	
Su	lfate		45	mg/L	1	300.0	05/22/04 08:30	JDP	
-	Ved Oxygen		6.35	mg/L	1		05/21/04 22:27	LBR	
ł.	₃phate		26	mg/L	1	365.2	05/26/04 16:00	MJC	
Me	etals								
Ar	senic		0.033	mg/L	0.002	200.8	05/27/04 20:35	PER 7440-38-2	2
Iro	'n		3.10	mg/L	0.02	200.8	05/27/04 20:35	PER 7439-89-6	3
Or	rganics								
Cł	nlorinated Herbicides								
Di	camba		Not detected	ug/L	2	8151	06/04/04 12:00	PCS	0
Di	noseb		Not detected	ug/L	0.6	8151	06/04/04 12:00	PCS	0
2,4	4-D		Not detected	ug/L	4	8151	06/04/04 12:00	PCS	0
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0
2,4	4,5-T		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0



1 `ample ID: S17201.23

le Tag: A5-VP-005, 20'-0

Collected Date/Time: 05/19/2004 15:55 Matrix: Groundwater

COC Reference: 018192

Sample Containers

# Туре	Preserva	ative(s)	Refrigerated?	Arrival Tem	пр. (C)	Therm	ometer #			
2 1 L Amber	None		Yes	4		3				
2 250ml Plas	tic None		Yes	4		3				
1 DO Bottle	None		Yes	4		3				
1 250ml Plas	tic H2SO4		Yes	4		3				
1 125ml Plas	tic HNO3		Yes	4		3				
Analysis		Results	Units	RDL	Met	hod	Run Date/Time	Analyst	CAS#	Flags
Extraction / Pre	ep.		-							
Metal Digestion		Completed			301	5A	05/24/04 17:00	MSH		
Inorganics										
рН		8.12	STD Units	0.01	150).1	05/21/04 22:26	LBR		
Alkalinity as Ca	03	229	mg/L	1	310).1	05/25/04 12:00	JKB		
Ammonia-N		Not detected	mg/L	0.1	350).3	05/24/04 16:00	MJC		
Chloride		30	mg/L	1	300	0.0	05/22/04 08:41	JDP		
Nitrate-N		6.4	mg/L	0.2	300	0.0	05/22/04 08:41	JDP		
Nitrite-N		Not detected	mg/L	0.2	300	0.0	05/22/04 08:41	JDP		
Sulfate		43	mg/L	1	300).0	05/22/04 08:41	JDP		
lved Oxyg	en	8.25	mg/L	1			05/21/04 22:27	LBR		
₁ _∍phate		48	mg/L	1	365	5.2	05/26/04 16:00	MJC		
Metals										
Arsenic		0.034	mg/L	0.002	200).8	05/27/04 20:37	PER 7	440-38-2	
Iron		2.50	mg/L	0.02	200	0.8	05/27/04 20:37	PER 7	439-89-6	
Organics										
Chlorinated He	erbicides									
Dicamba		Not detected	ug/L	2	815	51	06/04/04 12:00	PCS		0
Dinoseb		Not detected	ug/L	0.6	815	51	06/04/04 12:00	PCS		0
2,4-D		Not detected	ug/L	4	815	51	06/04/04 12:00	PCS		0
2,4,5-TP (Silve	K)	Not detected	ug/L	1	815	51	06/04/04 12:00	PCS		0
2,4,5-T		Not detected	ug/L	1	815	51	06/04/04 12:00	PCS		0



ample ID: S17201.24

le Tag: A5-VP-004, 20'-0، ب

Collected Date/Time: 05/19/2004 16:10

Matrix: Groundwater

,

COC Reference: 018192

Sample Containers

#	Type	Preservative(s)		Refrigerated?	Arrival Temp. (C) Thern	nometer #			
2	1 L Amber	None		Yes	4	3				
2	250ml Plastic	None		Yes	4	3				
1	DO Bottle	None		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
An	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Ex	traction / Prep.									
Me	tal Digestion		Completed			3015A	05/24/04 17:00	MSH		
Ine	organics									
pН	l		8.02	STD Units	0.01	150.1	05/21/04 22:26	LBR		
All	kalinity as CaCO3		236	mg/L	1	310.1	05/25/04 12:05	JKB		
An	nmonia-N		Not detected	mg/L	0.1	350.3	05/24/04 16:00	MJC		
Cł	nloride		56	mg/L	1	300.0	05/22/04 08:53	JDP		
Ni	trate-N		59.6	mg/L	0.2	300.0	05/22/04 11:11	JDP		
Ni	trite-N		Not detected	mg/L	0.2	300.0	05/22/04 08:53	JDP		
Sı	lifate		87	mg/L	1	300.0	05/22/04 08:53	JDP		
_	bived Oxygen		8.74	mg/L	1		05/21/04 22:27	LBR		
F i	usphate		47	mg/L	1	365.2	05/26/04 16:00	MJC		
м	letals									
A	rsenic		0.043	mg/L	0.002	200.8	05/27/04 20:49	PER	7440-38-2	
Ire	on		3.12	mg/L	0.02	200.8	05/27/04 20:49	PER	7439-89-6	
o	organics									
С	hlorinated Herbicides									_
D	licamba		Not detected	ug/L	2	8151	06/04/04 12:00	PCS		0
D	vinoseb		Not detected	ug/L	0.6	8151	06/04/04 12:00	PCS		0
2	,4-D		Not detected	ug/L	4	8151	06/04/04 12:00	PCS		0
2	,4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/04/04 12:00	PCS		0
2	.4.5-T		Not detected	ug/L	1	8151	06/04/04 12:00	PCS		0



1 ample ID: S17201.25

ie Tag: A5-VP-004, 20'-1

Collected Date/Time: 05/19/2004 16:20

Matrix: Groundwater

COC Reference: 018192

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C) Thermo	meter #			
2	1 L Amber	None		Yes	4	3				
2	250ml Plastic	None		Yes	4	3				
1	DO Bottle	None		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
An	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Ex	traction / Prep.						-			
Me	tal Digestion		Completed			3015A	05/24/04 17:00	MSH		
Inc	organics									
рΗ			8.24	STD Units	0.01	150.1	05/21/04 22:26	LBR		
Alk	alinity as CaCO3		232	mg/L	1	310.1	05/25/04 12:10	JKB		
An	nmonia-N		Not detected	mg/L	0.1	350.3	05/24/04 16:00	MJC		
Ch	loride		57	mg/L	1	300.0	05/22/04 09:38	JDP		
Nit	rate-N		60.4	mg/L	0.2	300.0	05/22/04 11:27	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300.0	05/22/04 09:38	JDP		
Su	Ifate		86	mg/L	1	300.0	05/22/04 09:38	JDP		
	lved Oxygen		7.86	mg/L	1		05/21/04 22:27	LBR		
۱.	sphate		54	mg/L	1	365.2	05/26/04 16:00	MJC		
М	etals									
Ar	senic		0.048	mg/L	0.002	200.8	05/27/04 21:05	PER	7440-38-2	
Iro	n [°]		2.43	mg/L	0.02	200.8	05/27/04 21:05	PER	7439-89-6	
OI	rganics									
Cł	Ilorinated Herbicides									
Di	camba		Not detected	ug/L	2	8151	06/04/04 12:00	PCS		0
Di	noseb		Not detected	ug/L	0.6	8151	06/04/04 12:00	PCS		0
2,4	4-D		Not detected	ug/L	4	8151	06/04/04 12:00	PCS		0
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/04/04 12:00	PCS		0
2,4	4,5-T		Not detected	ug/L	1	8151	06/04/04 12:00	PCS		0



1 Sample ID: S17201.26

Collected Date/Time: 05/19/2004 17:00

Matrix: Groundwater

COC Reference: 018192

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp.	(C) T	hermometer #		
2	1 L Amber	None		Yes	4	3			
2	250ml Plastic	None		Yes	4	3			
1	DO Bottle	None		Yes	4	3			
1	250ml Plastic	H2SO4		Yes	4	3			
1	125ml Plastic	HNO3		Yes	4	3			
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ex	traction / Prep.								
Me	tal Digestion		Completed			3015A	05/24/04 17:00	MSH	
Ino	organics								
рΗ			6.84	STD Units	0.01	150.1	05/21/04 22:26	LBR	
Alk	alinity as CaCO3		Not detected	mg/L	1	310.1	05/25/04 12:15	JKB	
Am	imonia-N	•	Not detected	mg/L	0.1	350.3	05/24/04 16:00	MJC	
Ch	loride		Not detected	mg/L	1	300.0	05/22/04 11:39	JDP	
Nit	rate-N		Not detected	mg/L	0.2	300.0	05/22/04 09:50	JDP	
Nit	rite-N		Not detected	mg/L	0.2	300.0	05/22/04 09:50	JDP	
Su	lfate		Not detected	mg/L	1	300.0	05/22/04 11:39	JDP	
,	lved Oxygen		10.83	mg/L	1		05/21/04 22:27	LBR	
٠	phate		Not detected	mg/L	0.1	365.2	05/26/04 16:00	MJC	
Me	etals								
Ar	senic		Not detected	mg/L	0.002	200.8	05/27/04 21:08	PER 7440-38	-2
Iro	n		Not detected	mg/L	0.02	200.8	05/27/04 21:08	PER 7439-89	-6
Or	rganics								
Cł	nlorinated Herbicides								
Di	camba		Not detected	ug/L	2	8151	06/04/04 12:00	PCS	0
Di	noseb		Not detected	ug/L	0.6	8151	06/04/04 12:00	PCS	0
2,4	4-D		Not detected	ug/L	4	8151	06/04/04 12:00	PCS	0
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0
2,4	4,5-T		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0

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JUL 0 7 2004

Report ID: S17232.01(01) c ______ted on 06/16/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S17232.01-S17232.09 Project: 24CH.67201.01 Bee Jay Scales Submitted Date/Time: 05/24/2004 11:00 Sampled by: Mike McMahon P.O. #: Report produced by Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL. Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak Laboratory Director



Lab Sample ID: S17232.01 F Tag: A1-VP-005, 10'-0 C ded Date/Time: 05/21/2004 08:20 Matrix: Groundwater COC Reference: 013062

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Terr	пр. (C) -	Thermomete	<u>*r #</u>			
2	1 L Amber	None		Yes	4	;	3				
2	250ml Plastic	None		Yes	4	;	3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4	:	3				
1	125ml Plastic	HNO3		Yes	4	;	3				
An	alysis		Results	Units	RDL	Metho	od R	un Date/Time	Analyst	CAS #	Flags
Ex	traction / Prep.										
Me	tal Digestion		Completed			3015/	A 05	5/26/04 17:00	MSH		
Inc	organics										
pН			7.57	STD Units	0.01	150.1	0	5/24/04 21:36	LBR		
Alł	calinity as CaCO3		284	mg/L	1	310.1	i 0:	5/25/04 12:35	JKB		
An	nmonia-N		8.7	mg/L	0.1	350.3	3 0	5/24/04 16:00	MJC		
C۲	loride		324	mg/L	1	300.0	0 0	3/01/04 10:06	JDP		
Ni	irate-N		206	mg/L	0.2	300.0	0 0	6/01/04 12:31	JDP		
Ni	rite-N		Not detected	mg/L	0.2	300.0) 0	6/01/04 08:32	JDP		
Sı	Ifate		224	mg/L	1	300.0	0 0	6/01/04 08:32	JDP		
Di	≊olved Oxygen		7.62	mg/L	1		0	5/24/04 16:14	LBR		
	hate		17.8	mg/L	0.1	365.2	2 0	5/26/04 16:00	MJC		
М	etals										
Ar	senic		0.024	mg/L	0.002	200.8	B 0	6/07/04 14:29	PER	7440-38-2	:
Irc	n		5.55	mg/L	0.02	200.8	в 0	6/07/04 14:29	PER	7439-89-6	i
0	rganics										
C	nlorinated Herbicides										
Di	camba		Not detected	ug/L	2	8151	0	6/06/04 12:00	PCS		0
Di	noseb		Not detected	ug/L	0.6	8151	0	6/06/04 12:00	PCS		0
2,	4-D		Not detected	ug/L	4	8151	0	6/06/04 12:00	PCS		0
2,	4,5-TP (Silvex)		Not detected	ug/L	1	8151	0	6/06/04 12:00	PCS		0
2,	4,5-T		Not detected	ug/L	1	8151	I 0	6/06/04 12:00	PCS		0



Lab Sample ID: S17232.02 S Tag: A1-VP-005, 20'-0 Cc. Led Date/Time: 05/21/2004 09:55 Matrix: Groundwater COC Reference: 013062

Sample Containers

# Type	Preservative(s)	Refrigerated?	Arrival Ten	np. (C) The	rmometer #		
2 1 L Amber	None	Yes	4	3			
2 250ml Plastic	None	Yes	4	3			
1 DO Bottle	None	Yes	4	3			
1 250ml Plastic	H2\$O4	Yes	4	3			
1 125ml Plastic	HNO3	Yes	4	3			
Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Extraction / Prep.							
Metal Digestion	Completed			3015A	05/26/04 17:00	MSH	
Inorganics							
pН	7.91	STD Units	0.01	150.1	05/24/04 21:36	LBR	
Alkalinity as CaCO3	228	mg/L	1	310.1	05/25/04 12:40	JKB	
Ammonia-N	1.5	mg/L	0.1	350.3	05/25/04 17:00	MJC	
Chloride	108	mg/L	1	300.0	06/01/04 08:44	JDb	
Nitrate-N	111	mg/L	0.2	300.0	06/01/04 10:18	JDP	
Nitrite-N	Not detected	mg/L	0.2	300.0	06/01/04 08:44	JDP	
Sulfate	197	mg/L	1	300.0	06/01/04 08:44	JDP	
Dissolved Oxygen	6.92	mg/L	1		05/24/04 16:14	LBR	
F)nate	6.3	mg/L	0.1	365.2	05/28/04 13:00	MJC	
Metals							
Arsenic	0.015	mg/L	0.002	200.8	06/07/04 14:31	PER 7440-38	-2
Iron	6.45	mg/L	0.02	200.8	06/07/04 14:31	PER 7439-89	-6
Organics							
Chlorinated Herbicides							
Dicamba	Not detected	ug/L	2	8151	06/06/04 12:00	PCS	0
Dinoseb	Not detected	ug/L	0.6	8151	06/06/04 12:00	PCS	0
2,4-D	Not detected	ug/L	4	8151	06/06/04 12:00	PCS	0
2,4,5-TP (Silvex)	Not detected	ug/L	1	8151	06/06/04 12:00	PCS	0
2,4,5-T	Not detected	ug/L	1	8151	06/06/04 12:00	PCS	. 0



Lab Sample ID: S17232.03 5 Tag: A1-VP-004, 10'-0 Consected Date/Time: 05/21/2004 09:45 Matrix: Groundwater

COC Reference: 013062

Sample Containers

# Type		Preservative(s)	Refrigerated?	Arrival Ten	np. (C) Therm	ometer #		
2 1 L Amb	ber	None		Yes	4	3			
2 250ml F	Plastic	None		Yes	4	3			
1 DO Bott	tle	None		Yes	4	3			
1 250ml F	Plastic	H2SO4		Yes	4	3			
1 125ml F	Plastic	HNO3		Yes	4	3			
Analysis			Results	Units	RDL	Method	Run Date/Time	Analyst C	AS # Flags
Extraction /	Prep.	-							
Metal Digesti	ion		Completed			3015A	05/26/04 17:00	MSH	
Inorganics									
рН			7.54	STD Units	0.01	150.1	05/24/04 21:36	LBR	
Alkalinity as	CaCO3		938	mg/L	1	310.1	05/25/04 12:45	JKB	
Ammonia-N			260	mg/L	10	350.3	05/25/04 17:00	MJC	
Chloride			210	mg/L	1	300.0	06/01/04 10:30	JDP	
Nitrate-N			59.5	mg/L	0.2	300.0	06/01/04 10:30	JDP	
Nitrite-N			Not detected	mg/L	0.2	300.0	06/01/04 08:55	JDP	
Sulfate			250	mg/L	1	300.0	06/01/04 08:55	JDP	
P	xygen		8.15	mg/L	1		05/24/04 16:14	LBR	
bhate			22.2	mg/L	0.1	365.2	05/28/04 13:00	MJC	
Metals									
Arsenic			0.042	mg/L	0.002	200.8	06/07/04 14:34	PER 744	40-38-2
iron			1.69	mg/L	0.02	200.8	06/07/04 14:34	PER 74	39-89-6
Organics									
Chlorinated	l Herbicides								
Dicamba			Not detected	ug/L	2	8151	06/06/04 12:00	PCS	0
Dinoseb			Not detected	ug/L	0.6	8151	06/06/04 12:00	PCS	0
2,4-D			Not detected	ug/L	4	8151	06/06/04 12:00	PCS	0
2,4,5-TP (Si	ilvex)		Not detected	ug/L	1	8151	06/06/04 12:00	PCS	0
2,4,5-T			Not detected	ug/L	1	8151	06/06/04 12:00	PCS	0



Lab Sample ID: S17232.04 5 Tag: A1-VP-004, 20'-0 C Jed Date/Time: 05/21/2004 10:55 Matrix: Groundwater COC Reference: 013062

Sample Containers

#	Туре	Preservative(s)	ł	Refrigerated?	Arrival Terr	ıр. (С)	Therm	ometer #			
2	1 L Amber	None		Yes	4		3				
2	250ml Plastic	None		Yes	4		3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
An	alysis		Results	Units	RDL	Met	hod	Run Date/Time	Analyst	CAS#	Flags
Ex	traction / Prep.		-								
Me	tal Digestion		Completed			301	5A	05/26/04 17:00	MSH		
Inc	organics										
pН			7.83	STD Units	0.01	150.	.1	05/24/04 21:36	LBR		
Alk	alinity as CaCO3		238	mg/L	1	310.	.1	05/25/04 12:45	JKB		
An	nmonia-N		29	mg/L	1	350.	.3	05/25/04 17:00	MJC		
Ch	loride		100	mg/L	1	300.	.0	06/01/04 09:07	JDP		
Nit	rate-N		147	mg/L	0.2	300	.0	06/01/04 10:53	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300.	.0	06/01/04 09:07	JDP		
Su	lfate		156	mg/L	1	300	.0	06/01/04 09:07	JDP		
Di⊴	≌olved Oxygen		7.54	mg/L	1			05/24/04 16:14	LBR		
I I	hate		3.9	mg/L	0.1	365	.2	05/28/04 13:00	MJC		
Me	etals										
Ar	senic		0.011	mg/L	0.002	200	.8	06/07/04 14:36	PER	7440-38-2	
Iro	n		5.67	mg/L	0.02	200	.8	06/07/04 14:36	PER	7439-89-6	
Oı	rganics										
Cł	nlorinated Herbicides										
Di	camba		Not detected	ug/L	2	815	i1	06/06/04 12:00	PCS		0
Di	noseb		Not detected	ug/L	0.6	815	i1	06/06/04 12:00	PCS		0
2,4	4-D		Not detected	ug/L	4	815	51	06/06/04 12:00	PCS		0
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	815	51	06/06/04 12:00	PCS		0
2,4	4,5-T		Not detected	ug/L	1	815	51	06/06/04 12:00	PCS		0

O-Analysis performed by outside laboratory

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Lab Sample ID: \$17232.05 \$ Tag: A1-VP-003, 10'-0 Cc. __ded Date/Time: 05/21/2004 11:20 Matrix: Groundwater COC Reference: 013062

Sample Containers

#	Туре	Preservative(s))	Refrigerated?	Arrival Temp.	(C) Th	ermometer #			
2	1 L Amber	None		Yes	4	3				
2	250ml Plastic	None		Yes	4	3				
1	DO Bottle	None		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Ex	traction / Prep.									
Me	tal Digestion		Completed			3015A	05/26/04 17:00	MSH		
Inc	organics									
pН			7.62	STD Units	0.01	150.1	05/24/04 21:36	LBR		
Alk	alinity as CaCO3		884	mg/L	1	310.1	05/25/04 12:50	JKB		
Αm	imonia-N	,	1,090	mg/L	10	350.3	05/25/04 17:00	MJC		
Ch	loride		190	mg/L	1	300.0	06/01/04 11:16	JDP		
Nit	rate-N		983	mg/L	0.2	300.0	06/01/04 12:43	JDP		
Nit	rite-N		34.6	mg/L	0.2	300.0	06/01/04 11:16	JDP		
Su	lfate		110	mg/L	1	300.0	06/01/04 09:19	JDP		
Di≤	≌∽lved Oxygen		5.57	mg/L	1		05/24/04 16:14	LBR		
ł	hate		28.5	mg/L	0.1	365.2	05/28/04 13:00	MJC		
Me	etals									
Ar	senic		0.047	mg/L	0.002	200.8	06/07/04 14:38	PER 7	7440-38-2	
Iro	n		3.84	mg/L	0.02	200.8	06/07/04 14:38	PER 7	7439-89-6	
Or	ganics									
Cł	Iorinated Herbicides									
Die	camba		Not detected	ug/L	10	8151	06/09/04 12:00	PCS		0
Di	noseb		28	ug/L	3	8151	06/09/04 12:00	PCS		0
2,4	1-D		Not detected	ug/L	20	8151	06/09/04 12:00	PCS		0
2,4	1,5-TP (Silvex)		Not detected	ug/L	5	8151	06/09/04 12:00	PCS		0
2,4	4,5-T		Not detected	ug/L	5	8151	06/09/04 12:00	PCS		0

O-Analysis performed by outside laboratory

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Lab Sample ID: S17232.06 S Tag: A1-VP-003, 10'-1 Cu. ______ted Date/Time: 05/21/2004 11:20 Matrix: Groundwater COC Reference: 013062

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp.	(C) Thermo	ometer #			
2	1 L Amber	None		Yes	4	3				
2	250ml Plastic	None		Yes	4	3				
1	DO Bottle	None		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Ex	traction / Prep.									
Me	tal Digestion		Completed			3015A	05/26/04 17:00	MSH		
Inc	organics									
pН			7.58	STD Units	0.01	150.1	05/24/04 21:36	LBR		
Alk	alinity as CaCO3		908	mg/L	1	310.1	05/25/04 12:55	JKB		
Αm	nmonia-N		1,060	mg/L	10	350.3	05/25/04 17:00	MJC		
Ch	loride		230	mg/L	1	300.0	06/01/04 11:40	JDP		
Nit	rate-N		1,010	mg/L	0.2	300.0	06/01/04 12:54	JDP		
Nit	rite-N		34.8	mg/L	0.2	300.0	06/01/04 11:40	JDP		
Su	lfate		116	mg/L	1	300.0	06/01/04 09:30	JDP		
Dis	ာေလျved Oxygen		6.99	mg/L	1		05/24/04 16:14	LBR		
ł	hate		26.6	mg/L	0.1	365.2	05/28/04 13:00	MJC		
Ме	etals									
Ar	senic		0.047	mg/L	0.002	200.8	06/07/04 14:41	PER 7	7440-38-2	
Iro	n		1.57	mg/L	0.02	200.8	06/07/04 14:41	PER 7	7439-89-6	
Or	ganics									
Ch	Iorinated Herbicides									
Die	camba		Not detected	ug/L	2	8151	06/09/04 12:00	PCS		0
Dii	noseb		0.0096 PG	ug/L	0.6	8151	06/09/04 12:00	PCS		0
2,4	4-D		Not detected	ug/L	4	8151	06/09/04 12:00	PCS		0
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/09/04 12:00	PCS		0
2,4	4,5-T		Not detected	ug/L	1	8151	06/09/04 12:00	PCS		0

O-Analysis performed by outside laboratory



Lab Sample ID: S17232.07

ເຈົ້'e Tag: A1-VP-003, 20'-0

C _____led Date/Time: 05/21/2004 12:20

Matrix: Groundwater

COC Reference: 013062

Sample Containers

#	Туре	Preservative	(s)	Refrigerated?	Arrival Ter	np. (C)	Therm	ometer #			
2	1 L Amber	None		Yes	4		3				
2	250ml Plastic	None		Yes	4		3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
Ana	alysis		Results	Units	RDL	Met	thod	Run Date/Time	Analyst	CAS #	Flags
Ex	traction / Prep.										
Me	tal Digestion		Completed			301	5A	05/26/04 17:00	MSH		
Ino	organics										
pН			7.83	STD Units	0.01	150).1	05/24/04 21:36	LBR		
Aik	alinity as CaCO3		282	mg/L	1	310).1	05/25/04 13:00	JKB		
Am	imonia-N		150	mg/L	10	350).3	05/25/04 17:00	MJC		
Ch	loride		57	mg/L	1	300).0	06/01/04 09:42	JDP		
Nit	rate-N		256	mg/L	0.2	300).0	06/01/04 12:03	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300).0	06/01/04 09:42	JDP		
Su	lfate		204	mg/L	1	300	0.0	06/01/04 09:42	JDP		
Dis	solved Oxygen		8.2	mg/L	1			05/24/04 16:14	LBR		
ſ	hate		21.7	mg/L	0.1	365	5.2	05/28/04 13:00	MJC		
Ме	etals										
Ars	senic		0.057	mg/L	0.002	200).8	06/07/04 14:43	PER	7440-38-2	
Iro	n .		5.06	mg/L	0.02	200).8	06/07/04 14:43	PER	7439-89-6	
Or	ganics										
Ch	Iorinated Herbicides										
Dic	camba		Not detected	ug/L	20	815	51	06/09/04 12:00	PCS		0
Dir	noseb		69	ug/L	6	81 <i>5</i>	51	06/09/04 12:00	PCS		0
2,4	1-D		Not detected	ug/L	40	815	51	06/09/04 12:00	PCS		0
2,4	1,5-TP (Silvex)		Not detected	ug/L	10	815	51	06/09/04 12:00	PCS		0
2,4	1,5-T		Not detected	ug/L	10	815	51	06/09/04 12:00	PCS		0

O-Analysis performed by outside laboratory

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Lab Sample ID: S17232.08 Carag: A1-VP-003, 20'-1 Connoted Date/Time: 05/21/2004 12:20 Matrix: Groundwater COC Reference: 013062

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp.	(C) ·	Thermome	eter #			
2	1 L Amber	None		Yes	4		3				
2	250ml Plastic	None		Yes	4	:	3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
An	alysis		Results	Units	RDL	Meth	od	Run Date/Time	Analys	t CAS#	Flags
Ex	traction / Prep.										
Me	tal Digestion		Completed			3015	A	05/26/04 17:00	MSH		
Inc	organics										
pН			7.88	STD Units	0.01	150.1	1	05/24/04 21:36	LBR		
Alk	alinity as CaCO3		268	mg/L	1	310.1	1	05/25/04 14:10	JKB		
Αn	nmonia-N		160	mg/L	10	350.3	3	05/25/04 17:00	MJC		
Ch	loride		56	mg/L	1	300.0	C	06/01/04 13:35	JDP		
Nit	rate-N		258	mg/L	0.2	300.0	כ	06/01/04 16:18	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300.0	כ	06/01/04 13:35	JDP		
Su	lfate		203	mg/L	1	300.0	ס	06/01/04 13:35	JDP		
Dia	∽્lved Oxygen		7.13	mg/L	1			05/24/04 16:14	LBR		
	hate		29.7	mg/L	0.1	365.2	2	05/28/04 13:00	MJC		
Ме	etals										
Ar	senic		0.059	mg/L	0.002	200.8	В	06/07/04 14:46	PER	7440-38-2	
Iro	n		4.32	mg/L	0.02	200.8	В	06/07/04 14:46	PER	7439-89-6	
Oı	ganics										
Cł	nlorinated Herbicides										
Di	camba		Not detected	ug/L	10	8151		06/09/04 12:00	PCS		0
Di	noseb		69	ug/L	3	8151		06/09/04 12:00	PCS		0
2,4	4-D		Not detected	ug/L	20	8151		06/09/04 12:00	PCS		0
2,4	4,5-TP (Silvex)		Not detected	ug/L	5	8151		06/09/04 12:00	PCS		0
2,4	4,5-T		Not detected	ug/L	5	8151		06/09/04 12:00	PCS		0



Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Terr	p.(C) Th	nermometer #		
2	1 L Amber	None		Yes	4	3			
2	250ml Plastic	None		Yes	4	3			
1	DO Bottle	None		Yes	4	3			
1	250ml Plastic	H2SO4		Yes	4	3			
1	125ml Plastic	HNO3		Yes	4	3			
An	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS # Fla	gs
Ex	traction / Prep.								_
Me	tal Digestion		Completed			3015A	05/26/04 17:00	MSH	
Inc	organics								
pН			8.37	STD Units	0.01	150.1	05/24/04 21:36	LBR	
Alk	alinity as CaCO3		Not detected	mg/L	1	310.1	05/25/04 14:20	JKB	
Αn	nmonia-N		Not detected	mg/L	0.1	350.3	05/25/04 17:00	MJC	
Ch	loride		Not detected	mg/L	1	300.0	06/01/04 13:46	JDP	
Nit	rate-N		Not detected	mg/L	0.2	300.0	06/01/04 16:30	JDP	
Nit	rite-N		Not detected	mg/L	0.2	300.0	06/01/04 13:46	JDP	
Su	lfate		Not detected	mg/L	1	300.0	06/01/04 13:46	JDP	
D'n			9.24	mg/L	1		05/24/04 16:14	LBR	
i	hate		Not detected	mg/L	0.1	365.2	05/28/04 13:00	MJC	
Me	etals								
Ar	senic		Not detected	mg/L	0.002	200.8	06/07/04 14:48	PER 7440-38-2	
Iro	ท		0.04	mg/L	0.02	200.8	06/07/04 14:48	PER 7439-89-6	
Oı	rganics								
Cł	nlorinated Herbicides								
Di	camba		Not detected	ug/L	2	8151	06/06/04 12:00	PCS	0
Di	noseb		Not detected	ug/L	0.6	8151	06/06/04 12:00	PCS	0
2,4	4-D		Not detected	ug/L	4	8151	06/06/04 12:00	PCS	0
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/06/04 12:00	PCS	0
2,4	4,5-T		Not detected	ug/L	1	8151	06/06/04 12:00	PCS	0

O-Analysis performed by outside laboratory

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JUL 0 7 2004

Report ID: S17233.01(01) c ted on 06/16/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S17233.01-S17233.12 Project: Bee Jay Scales 24CH.67201.01 Submitted Date/Time: 05/24/2004 11:00 Sampled by: Mike McMahon P.O. #:

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL. Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak Laboratory Director

Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report to SECOR Project: Bee Jay Scales 24CH.67201.01



Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Tem	p. (C) The	ermometer #		
2	1 L Amber	None		Yes	4	3			
2	250ml Plastic	None		Yes	4	3			
1	DO Bottle	None		Yes	4	3			
1	250ml Plastic	H2SO4		Yes	4	3			
1	125ml Plastic	HNO3		Yes	4	3			
An	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ex	traction / Prep.								
Me	tal Digestion		Completed			3015A	05/26/04 17:00	MSH	
Inc	organics								
pН			8.04	STD Units	0.01	150.1	05/24/04 21:36	LBR	
Alk	alinity as CaCO3		378	mg/L	1	310.1	05/25/04 14:30	JKB	
An	nmonia-N		130	mg/L	10	350.3	05/25/04 17:00	MJC	
Ch	loride		41	mg/L	1	300.0	06/01/04 13:58	JDP	
Nit	rate-N		54.6	mg/L	0.2	300.0	06/01/04 16:53	JDP	
Nit	rite-N		Not detected	mg/L	0.2	300.0	06/01/04 13:58	JDP	
Su	lfate		90	mg/L	1	300.0	06/01/04 13:58	JDP	
D <u>i</u>	≕ວຸlved Oxygen		8.09	mg/L	1		05/24/04 16:14	LBR	
	hate		29.9	mg/L	0.1	365.2	05/28/04 13:00	MJC	
M	etals								
Ar	senic		0.028	mg/L	0.002	200.8	06/07/04 14:50	PER 7440-38	-2
ìrc	ท		4.27	mg/L	0.02	200.8	06/07/04 14:50	PER 7439-89	-6
0	rganics								
C	nlorinated Herbicides								
Di	camba		Not detected	ug/L	2	8151	06/04/04 12:00	PCS	0
Di	noseb		Not detected	ug/L	0.6	8151	06/04/04 12:00	PCS	0
2,	4-D		Not detected	ug/L	4	8151	06/04/04 12:00	PCS	0
2,	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0
2,	4,5-T		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0



Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Tem	р. (С) Т	hermometer #		
2	1 L Amber	None		Yes	4	3			
2	250ml Plastic	None		Yes	4	3	6		
1	DO Bottle	None		Yes	4	3			
1	250ml Plastic	H2SO4		Yes	4	3	•		
1	125ml Plastic	HNO3		Yes	4	3	•		
An	alysis		Results	Units	RDL	Metho	d Run Date/Time	Analyst CA	AS # Flags
Ex	traction / Prep.								
Me	tal Digestion		Completed			3015A	05/26/04 17:00	MSH	
Inc	organics								
pН			7.79	STD Units	0.01	150.1	05/24/04 21:36	LBR	
Alk	alinity as CaCO3		244	mg/L	1	310.1	05/25/04 14:35	JKB	
An	nmonia-N		Not detected	mg/L	0.1	350.3	05/25/04 17:00	MJC	
Ch	loride		48	mg/L	1	300.0	06/01/04 14:10	JDP	
Nit	rate-N		22.9	mg/L	0.2	300.0	06/01/04 14:10	JDP	
Nif	rite-N		Not detected	mg/L	0.2	300.0	06/01/04 14:10	JDP	
Su	lfate		54	mg/L	1	300.0	06/01/04 14:10	JDP	
Die	ecolved Oxygen		7.03	mg/L	1		05/24/04 16:14	LBR	
	hate		9.5	mg/L	0.1	365.2	05/28/04 17:00	MJC	
M	etals								
Ar	senic		0.014	mg/L	0.002	200.8	06/07/04 15:44	PER 744	0-38-2
Irc	n		8.41	mg/L	0.02	200.8	06/07/04 15:44	PER 743	9-89-6
0	rganics								
CI	nlorinated Herbicides								
Di	camba		Not detected	ug/L	2	8151	06/04/04 12:00	PCS	0
Di	noseb		Not detected	ug/L	0.6	8151	06/04/04 12:00	PCS	0
2,	4-D		Not detected	ug/L	4	8151	06/04/04 12:00	PCS	0
2,	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0
2,	4,5-T		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0



Lab Sample ID: S17233.03 5 Tag: A1-VP-001, 10'-0 C._____ded Date/Time: 05/20/2004 11:45 Matrix: Groundwater COC Reference: 013063

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Tem	p. (C)	Thermometer	r#			
2	1 L Amber	None		Yes	4	:	3	—			
2	250ml Plastic	None		Yes	4	:	3				
1	DO Bottle	None		Yes	4	:	3				
1	250ml Plastic	H2SO4		Yes	4	:	3				
1	125ml Plastic	HNO3		Yes	4		3				
An	alysis		Results	Units	RDL	Methe	od Ru	in Date/Time	Analyst	CAS #	Flags
Ex	traction / Prep.										
Me	tal Digestion		Completed			3015	A 05	/26/04 17:00	MSH		
Inc	organics										
pН			7.54	STD Units	0.01	150.1	1 05	/24/04 21:36	LBR		
All	alinity as CaCO3		206	mg/L	1	310.1	1 05	/25/04 14:40	JKB		
An	nmonia-N		0.6	mg/L	0.1	350.3	3 05	/25/04 17:00	MJC		
Ch	loride		478	mg/L	1	300.0	0 06	/01/04 17:28	JDP		
Ni	trate-N		347	mg/L	0.2	300.0	0 06	/01/04 17:17	JDP		
Ni	trite-N		Not detected	mg/L	0.2	300.0	0 06	3/01/04 14:21	JDP		
Su	Ifate		169	mg/L	1	300.0	0 06	5/01/04 14:21	JDP		
Di	≌olved Oxygen		8.41	mg/L	1		05	5/24/04 16:14	LBR		
•	hate		42	mg/L	1	365.2	2 05	5/28/04 17:00	MJC		
M	etals										
Ar	senic		0.015	mg/L	0.002	200.8	8 06	3/07/04 15:46	PER	7440-38-2	2
Irc	n		3.95	mg/L	0.02	200.8	8 06	3/07/04 15:46	PER	7439-89-6	;
0	rganics										
C	hlorinated Herbicides										
Di	camba		Not detected	ug/L	2	8151	I 06	3/04/04 12:00	PCS		0
Di	noseb		Not detected	ug/L	0.6	8151	1 06	3/04/04 12:00	PCS		0
2,	4-D		Not detected	ug/L	4	8151	1 06	3/04/04 12:00	PCS		0
2,	4,5-TP (Silvex)		Not detected	ug/L	1	8151	1 06	3/04/04 12:00	PCS		0
2,	4,5-T		Not detected	ug/L	1	8151	1 06	3/04/04 12:00	PCS		0



Lab Sample ID: S17233.04 E Tag: A5-VP-001, 20'-0 C ded Date/Time: 05/20/2004 13:45 Matrix: Groundwater COC Reference: 013063

Sample Containers

#	Туре	Preservative	e(s)	Refrigerated?	Arrival Terr	<u>ір. (C) Т</u>	Thermometer #		
2	1 L Amber	None		Yes	4	3	3		
2	250ml Plastic	None		Yes	4	3	3		
1	DO Bottle	None		Yes	4	3	3		
1	250ml Plastic	H2SO4		Yes	4	3	3		
1	125ml Plastic	HNO3		Yes	4	3	3		
An	alysis		Results	Units	RDL	Methc	d Run Date/Time	Analyst CAS #	Flags
Ex	traction / Prep.								
Me	etal Digestion		Completed			3015A	A 05/26/04 17:00	MSH	
Inc	organics								
pН	l		7.91	STD Units	0.01	150.1	05/24/04 21:36	LBR	
All	calinity as CaCO3		252	mg/L	1	310.1	05/25/04 14:45	JKB	
An	nmonia-N		Not detected	mg/L	0.1	350.3	05/25/04 17:00	MJC	
Ch	loride		86	mg/L	1	300.0	06/01/04 14:33	JDP	
Ni	trate-N		5.2	mg/L	0.2	300.0	06/01/04 14:33	JDP	
Ni	trite-N		Not detected	mg/L	0.2	300.0	06/01/04 14:33	JDP	
Su	lifate		42	mg/L	1	300.0	06/01/04 14:33	JDP	
Di	seolved Oxygen		7.61	mg/L	1		05/24/04 16:14	LBR	
	hate		440	mg/L	10	365.2	05/28/04 17:00	MJC	
М	etals								
Ar	senic		0.017	mg/L	0.002	200.8	3 06/07/04 15:50	PER 7440-38-	-2
Irc	n		1.12	mg/L	0.02	200.8	6 06/07/04 15:50	PER 7439-89-	-6
0	rganics								
C	hlorinated Herbicides								
Di	icamba		Not detected	ug/L	2	8151	06/04/04 12:00	PCS	0
Di	inoseb		Not detected	ug/L	0.6	8151	06/04/04 12:00	PCS	0
2,	4-D		Not detected	ug/L	4	8151	06/04/04 12:00	PCS	0
2,	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0
2,	4,5-T		Not detected	ug/L	1	8151	06/04/04 12:00	PCS	0



Sample Containers

#	Туре	Preservative	(s)	Refrigerated?	Arrival Ten	np. (C)	Therm	ometer #			
2	1 L Amber	None		Yes	4		3				
2	250ml Plastic	None		Yes	4		3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
An	alysis		Results	Units	RDL	Met	hod	Run Date/Time	Analyst	CAS #	Flags
Ex	traction / Prep.										
Me	tal Digestion		Completed			301	5A	05/26/04 17:00	MSH		
Inc	organics										
pН			7.71	STD Units	0.01	150	.1	05/24/04 21:36	LBR		
Alk	alinity as CaCO3		258	mg/L	1	310	.1	05/25/04 14:50	JKB		
An	nmonia-N		4.6	mg/L	0.1	350	.3	05/25/04 17:00	MJC		
Ch	loride		19	mg/L	1	300	.0	06/01/04 14:45	JDP		
Nit	rate-N		39.2	mg/L	0.2	300	.0	06/01/04 17:40	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300	.0	06/01/04 14:45	JDP		
Su	lfate		52	mg/L	1	300	.0	06/01/04 14:45	JDP		
D^{i_2}	🛶 įved Oxygen		6.86	mg/L	1			05/24/04 16:14	LBR		
ι	hate		33	mg/L	1	365	.2	05/28/04 17:00	MJC		
M	etals										
Ar	senic		0.018	mg/L	0.002	200	.8	06/07/04 15:52	PER	7440-38-2	
irc	n		6.53	mg/L	0.02	200).8	06/07/04 15:52	PER	7439-89-6	
0	rganics										
CI	nlorinated Herbicides										
Di	camba		Not detected	ug/L	2	815	51	06/05/04 12:00	PCS		0
Di	noseb		Not detected	ug/L	0.6	815	51	06/05/04 12:00	PCS		0
2,	4-D		Not detected	ug/L	4	815	51	06/05/04 12:00	PCS		0
2,	4,5-TP (Silvex)		Not detected	ug/L	1	815	51	06/05/04 12:00	PCS		0
2,	4,5-T		Not detected	ug/L	1	815	51	06/05/04 12:00	PCS		0



.

COC Reference: 013063

Sample Containers

#	Туре	Preservative	(s)	Refrigerated?	Arrival Ten	<u>ıр. (С)</u>	Thermometer #				
2	1 L Amber	None		Yes	4		3				
2	250ml Plastic	None		Yes	4	:	3				
1	DO Bottle	None		Yes	4	:	3				
1	250ml Plastic	H2SO4		Yes	4	;	3				
1	125ml Plastic	HNO3		Yes	4	:	3				
Ana	alysis		Results	Units	RDL	Metho	od Run	Date/Time	Analys	t CAS#	Flags
Ex	traction / Prep.										
Me	tal Digestion		Completed			3015/	A 05/20	6/04 17:00	MSH		
Inc	organics										
pН			7.95	STD Units	0.01	150.1	05/24	4/04 21:36	LBR		
Alk	alinity as CaCO3		252	mg/L	1	310.1	05/2	5/04 14:55	JKB		
Аπ	nmonia-N		0.2	mg/L	0.1	350.3	3 05/2	5/04 17:00	MJC		
Ch	loride		49	mg/L	1	300.0) 06/0	1/04 14:56	JDP		
Nit	rate-N		6.8	mg/L	0.2	300.0	06/0	1/04 14:56	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300.0	06/0	1/04 14:56	JDP		
Su	lfate		50	mg/L	1	300.0	06/0	1/04 14:56	JDP		
Die	≌olved Oxygen		7.91	mg/L	1		05/2	4/04 16:14	LBR		
	hate		99	mg/L	1	365.2	2 05/2	8/04 17:00	MJC		
Me	etals										
Ar	senic		0.022	mg/L	0.002	200.8	3 06/0	7/04 15:55	PER	7440-38-2	2
Iro	'n		1.15	mg/L	0.02	200.8	3 06/0	7/04 15:55	PER	7439-89-6	5
Or	rganics										
Cł	nlorinated Herbicides										
Di	camba		Not detected	ug/L	2	8151	06/0	5/04 12:00	PCS		0
Di	noseb		Not detected	ug/L	0.6	8151	06/0	5/04 12:00	PCS		0
2,4	4-D		Not detected	ug/L	4	8151	06/0	5/04 12:00	PCS		0
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/0	5/04 12:00	PCS		0
2,4	4,5-T		Not detected	ug/L	1	8151	06/0	5/04 12:00	PCS		0



Lab Sample ID: S17233.07

ະ 👌 Tag: A1-VP-001, 20'-0

Matrix: Groundwater

COC Reference: 013063

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C)) Thermometer #				
2	1 L Amber	None		Yes	4		3				
2	250ml Plastic	None		Yes	4		3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
An	alysis		Results	Units	RDL	Met	hod	Run Date/Time	Analys	t CAS#	Flags
Ex	traction / Prep.										
Me	tal Digestion		Completed			301	5A	05/26/04 17:00	MSH		
Inc	organics										
·рН			7.55	STD Units	0.01	150	.1	05/24/04 21:36	LBR		
All	alinity as CaCO3		164	mg/L	1	310	.1	05/25/04 15:00	JKB		
An	nmonia-N		0.6	mg/L	0.1	350	.3	05/25/04 17:00	MJC		
Ch	loride		190	mg/L	1	300	.0	06/01/04 15:08	JDP		
Ni	trate-N		712	mg/L	0.2	300	0.0	06/01/04 17:52	JDP		
Ni	trite-N		Not detected	mg/L	0.2	300	.0	06/01/04 15:08	JDP		
Su	lfate		277	mg/L	1	300	0.0	06/01/04 15:08	JDP		
Di	seolved Oxygen		7.68	mg/L	1			05/24/04 16:14	LBR		
	hate		22.3	mg/L	0.1	365	5.2	05/28/04 17:00	MJC		
M	etals										
Ar	senic		0.017	mg/L	0.002	200).8	06/07/04 15:57	PER	7440-38-2	2
Irc	n		8.61	mg/L	0.02	200).8	06/07/04 15:57	PER	7439-89-6	5
0	rganics										
C	hlorinated Herbicides										
Di	camba		Not detected	ug/L.	2	815	51	06/05/04 12:00	PCS		0
Di	noseb		Not detected	ug/L	0.6	815	51	06/05/04 12:00	PCS		0
2,	4-D		Not detected	ug/L	4	815	51	06/05/04 12:00	PCS		0
2,	4,5-TP (Silvex)		Not detected	ug/L	1	815	51	06/05/04 12:00	PCS		0
2,	4,5 - T		Not detected	ug/L	1	815	51	06/05/04 12:00	PCS		0



Sample Containers

# Туре		Preservative(s)		Refrigerated?	Arrival Temp. (C)		Therm	ometer #			
2	1 L Amber	None		Yes	4		3				
2	250ml Plastic	None		Yes	4		3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
Analysis		Results	Units	RDL	Met	hod	Run Date/Time	Analysi	CAS #	Flags	
Ex	ctraction / Prep.										
Me	etal Digestion		Completed			301	5A	05/26/04 17:00	MSH		
In	organics										
p٢	4		7.59	STD Units	0.01	150).1	05/24/04 21:36	LBR		
Al	kalinity as CaCO3		257	mg/L	1	310).1	05/25/04 15:05	JKB		
Ar	nmonia-N		0.3	mg/L	0.1	350).3	05/25/04 17:00	MJC		
Cł	nloride		366	mg/L	1	300).0	06/01/04 18:03	JDP		
Ni	trate-N		176	mg/L	0.2	300).0	06/01/04 18:03	JDP		
Ni	trite-N		Not detected	mg/L	0.2	300).0	06/01/04 15:20	JDP		
S	ulfate		211	mg/L	1	300).0	06/01/04 15:20	JDP		
D	ien lved Oxygen		8.56	mg/L	1			05/24/04 16:14	LBR		
۰,	hate		21.3	mg/L	0.1	365	5.2	05/28/04 17:00	MJC		
М	letals										
Α	rsenic		0.018	mg/L	0.002	200	0.8	06/07/04 15:59	PER	7440-38-2	2
ir	on		6.14	mg/L	0.02	200	0.8	06/07/04 15:59	PER	7439-89-6	;
0	Irganics										
С	hlorinated Herbicides										
D	licamba		Not detected	ug/L	2	815	51	06/05/04 12:00	PCS		0
D	inoseb		Not detected	ug/L	0.6	815	51	06/05/04 12:00	PCS		0
2	,4-D		Not detected	ug/L	4	815	51	06/05/04 12:00	PCS		0
2	,4,5-TP (Silvex)		Not detected	ug/L	1	815	51	06/05/04 12:00	PCS		0
2	,4,5-T		Not detected	ug/L	1 ·	815	51	06/05/04 12:00	PCS		0



Lab Sample ID: S17233.09

€ → Tag: A1-VP-007, 10'-1 C. ded Date/Time: 05/20/2004 16:00

Matrix: Groundwater

COC Reference: 013063

Sample Containers

# Type	Preservative(s)	Refrigerated?	Arrival Ten	np. (C) Thern	nometer #		
2 1 L Amber	None	Yes	4	3			
2 250ml Plastic	None	Yes	4	3			
1 DO Bottle	None	Yes	4	3			
1 250ml Plastic	H2SO4	Yes	4	3			
1 125ml Plastic	HNO3	Yes	4	3			
Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Extraction / Prep.							
Metal Digestion	Completed			3015A	05/26/04 17:00	MSH	
Inorganics							
рН	7.71	STD Units	0.01	150.1	05/24/04 21:36	LBR	
Alkalinity as CaCO3	254	mg/L	1	310.1	05/25/04 15:10	JKB	
Ammonia-N	0.2	mg/L	0.1	350.3	05/25/04 17:00	MJC	
Chloride	369	mg/L	1	300.0	06/01/04 18:27	JDP	
Nitrate-N	176	mg/L	0.2	300.0	06/01/04 18:27	JDP	
Nitrite-N	Not detected	l mg/L	0.2	300.0	06/01/04 15:31	JDP	
Sulfate	213	mg/L	1	300.0	06/01/04 15:31	JDP	
Dissolved Oxygen	8.45	mg/L	1		05/24/04 16:14	LBR	
I hate	17.7	mg/L	0.1	365.2	05/28/04 17:00	MJC	
Metals							
Arsenic	0.016	mg/L	0.002	200.8	06/07/04 16:02	PER 7440-38-	2
Iron	7.08	mg/L	0.02	200.8	06/07/04 16:02	PER 7439-89-	6
Organics							
Chlorinated Herbicides							
Dicamba	Not detected	i ug/L	2	8151	06/05/04 12:00	PCS	0
Dinoseb	Not detected	d ug/L	0.6	8151	06/05/04 12:00	PCS	0
2,4-D	Not detected	d ug/L	4	8151	06/05/04 12:00	PCS	0
2,4,5-TP (Silvex)	Not detected	i ug/L	1	8151	06/05/04 12:00	PCS	0
2,4,5-T	Not detected	i ug/L	1	8151	06/05/04 12:00	PCS	0



Lab Sample ID: S17233.10 E Tag: A1-VP-007, 20'-0 C Jude Date/Time: 05/20/2004 17:00 Matrix: Groundwater COC Reference: 013063

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Tem	ıр. (С)	Therm	ometer #			
2	1 L Amber	None		Yes	4		3	,			
2	250ml Plastic	None		Yes	4		3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
An	alysis		Results	Units	RDL	Met	hod	Run Date/Time	Analyst	CAS #	Flags
Ex	traction / Prep.		-						•		
Me	tal Digestion		Completed			301	5A	05/26/04 17:00	MSH		
Ine	organics										
pН	l		7.99	STD Units	0.01	150	.1	05/24/04 21:36	LBR		
All	alinity as CaCO3		248	mg/L	1	310	.1	05/25/04 15:20	JKB		
An	nmonia-N		Not detected	mg/L	0.1	350	.3	05/25/04 17:00	MJC		
Ch	loride		52	mg/L	1	300	.0	06/01/04 15:43	JDP		
Nit	trate-N		113	mg/L	0.2	300	.0	06/01/04 18:38	JDP		
Ni	trite-N		Not detected	mg/L	0.2	300	.0	06/01/04 15:43	JDP		
Su	lfate		122	mg/L	1	300	0.0	06/01/04 15:43	JDP		
Di	⇔ຸlved Oxygen		6.46	mg/L	1			05/24/04 16:14	LBR		
	hate		71	mg/L	1	365	5.2	05/28/04 17:00	MJC		
M	etals										
Ar	senic		0.017	mg/L	0.002	200).8	06/07/04 16:04	PER	7440-38-2	2
irc	n		7.47	mg/L	0.02	200).8	06/07/04 16:04	PER	7439-89-6	5
0	rganics										
C	hlorinated Herbicides										
Di	camba		Not detected	ug/L	2	815	51	06/05/04 12:00	PCS		0
D	noseb		Not detected	ug/L	0.6	815	51	06/05/04 12:00	PCS		0
2,	4-D		Not detected	ug/L	4	815	51	06/05/04 12:00	PCS		0
2,	4,5-TP (Silvex)		Not detected	ug/L	1	815	51	06/05/04 12:00	PCS		0
2,	4,5-T		Not detected	ug/L	1	815	51	06/05/04 12:00	PCS		0



Lab Sample ID: S17233.11 Caracted Date/Time: 05/20/2004 17:05 Matrix: Groundwater COC Reference: 013063

Sample Containers

#	Туре	Preservative(s))	Refrigerated?	Arrival Temp.	(C) Therm	ometer #		
2	1 L Amber	None		Yes	4	3			
2	250ml Plastic	None		Yes	4	3			
1	DO Bottle	None		Yes	4	3			
1	250ml Plastic	H2SO4		Yes	4	3			
1	125ml Plastic	HNO3		Yes	4	3			
An	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ex	traction / Prep.								
Me	tal Digestion		Completed			3015A	05/26/04 17:00	MSH	
Inc	organics								
pН			7.95	STD Units	0.01	150.1	05/24/04 21:36	LBR	
Alk	alinity as CaCO3		238	mg/L	1	310.1	05/25/04 15:30	JKB	
An	nmonia-N		Not detected	mg/L	0.1	350.3	05/25/04 17:00	MJC	
Ch	loride		51	mg/L	1	300.0	06/01/04 18:50	JDP	
Nit	rate-N		114	mg/L	0.2	300.0	06/01/04 19:34	JDP	
Nit	rite-N		Not detected	mg/L	0.2	300.0	06/01/04 18:50	JDP	
Su	lfate		122	mg/L	1	300.0	06/01/04 18:50	JDP	
Di	≌olved Oxygen		7.26	mg/L	1		05/24/04 16:14	LBR	
	hate		63	mg/L	1	365.2	05/28/04 17:00	MJC	
Me	etals								
Ar	senic		0.020	mg/L	0.002	200.8	06/07/04 16:07	PER 7440-38-2	2
Irc	n		2.69	mg/L	0.02	200.8	06/07/04 16:07	PER 7439-89-6	5
Oı	rganics								
Cł	lorinated Herbicides								
Di	camba		Not detected	ug/L	2	8151	06/05/04 12:00	PCS	0
Di	noseb		Not detected	ug/L	0.6	8151	06/05/04 12:00	PCS	0
2,4	4-D		Not detected	ug/L	4	8151	06/05/04 12:00	PCS	0
2,4	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/05/04 12:00	PCS	0
2,4	4,5-T		Not detected	ug/L	1	8151	06/05/04 12:00	PCS	0



Lab Sample ID: S17233.12

ະ `'e Tag: A1-VP-007, 20'-2

Matrix: Groundwater

COC Reference: 013063

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Ten	np. (C) Therm	nometer #		
2	1 L Amber	None		Yes	4	3			
2	250ml Plastic	None		Yes	4	3			
1	DO Bottle	None		Yes	4	3			
1	250ml Plastic	H2SO4		Yes	4	3			
1	125ml Plastic	HNO3		Yes	4	3			
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS	# Flags
Ex	traction / Prep.								
Me	tal Digestion		Completed			3015A	05/26/04 17:00	MSH	
Inc	organics								
pН			7.76	STD Units	0.01	150.1	05/24/04 21:36	LBR	
Alk	alinity as CaCO3		Not detected	mg/L	1	310.1	05/25/04 15:35	JKB	
An	nmonia-N		Not detected	mg/L	0.1	350.3	05/25/04 17:00	MJC	
Ch	loride		Not detected	mg/L	1	300.0	06/01/04 19:02	JDP	
Nit	rate-N		Not detected	mg/L	0.2	300.0	06/01/04 19:02	JDP	
Nit	rite-N		Not detected	mg/L	0.2	300.0	06/01/04 19:02	JDP	
Su	Ifate		Not detected	mg/L	1	300.0	06/01/04 19:02	JDP	
Dis	solved Oxygen		7.12	mg/L	1		05/24/04 16:14	LBR	
	hate		Not detected	mg/L	0.1	365.2	05/28/04 17:00	MJC	
Ме	etals								
Ar	senic		Not detected	mg/L	0.002	200.8	06/07/04 17:10	PER 7440-3	8-2
Iro	n		Not detected	mg/L	0.02	200.8	06/07/04 17:10	PER 7439-8	9-6
Oı	rganics								
Cł	nlorinated Herbicides								
Di	camba		Not detected	ug/L	2	8151	06/05/04 12:00	PCS	0
Di	noseb		Not detected	ug/L	0.6	8151	06/05/04 12:00	PCS	0
2,4	4-D		Not detected	ug/L	4	8151	06/05/04 12:00	PCS	0
2,	4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/05/04 12:00	PCS	0
2,	4,5-T		Not detected	ug/L	1	8151	06/05/04 12:00	PCS	0



F t ID: S17270.01(03) ated on 07/20/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S17270.01-S17270.12 Project: Bee Jay Scales 24CH.67201.01 Submitted Date/Time: 05/26/2004 11:20 Sampled by: Michael McMahon P.O. #:

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL. Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak

Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

1


ample ID: S17270.01

_____ple Tag: A3-SB-004, 0.5'-0

Collected Date/Time: 05/25/2004 08:45

Matrix: Soil

COC Reference: 013066

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (0	C) Thermom	eter #		
2	4oz. Glass	None	one		4	3			
Ana	Analysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS#	Flags
Org NW	anics TPH-Gx		Not detected	ug/kg	20,000	NWTPH - Gx	06/05/04 03:05	JGH	



' Sample ID: S17270.02 Je Tag: A3-SB-004, 0.5'-1 Collected Date/Time: 05/25/2004 08:45 Matrix: Soil COC Reference: 013066

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp.	(C) Thermom	eter #		
2	4oz. Glass	None		Yes	4	3	3		
Ana	Analysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Org	anics								
NW	TPH-Gx		Not detected	ug/kg	20,000	NWTPH - Gx	06/05/04 03:38	JGH	



ample ID: S17270.03

د. .باe Tag: A3-SB-004, 4.5'-0

Collected Date/Time: 05/25/2004 08:50

Matrix: Soil

COC Reference: 013066

#	Туре	Preservative(s)		i) Refrigerated?		C) Thermom	eter #		
2	4oz. Glass	None		Yes	4	3			
Ana	lysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Org	anics								
NW	TPH-Gx		Not detected	ug/kg	20,000	NWTPH - Gx	06/05/04 04:11	JGH	



' ample ID: S17270.04

e Tag: A3-SB-004, 4.5'-1 ار

Collected Date/Time: 05/25/2004 08:50

Matrix: Soil

COC Reference: 013066

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (0) Thermometer #			
2	4oz. Glass	None		Yes	4	3	3		
Ana	ysis	F	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Org	anics								
NW	TPH-Gx	3	30,000	ug/kg	20,000	NWTPH - Gx	06/05/04 04:44	JGH	



ample ID: S17270.05

le Tag: A3-SB-004, 7.5'-0،

Collected Date/Time: 05/25/2004 08:55

Matrix: Soil

COC Reference: 013066

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. () Thermometer #			
2	4oz. Glass	None		Yes	4	3			
Ana	lysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Org	anics								
NW	TPH-Gx		280,000	ug/kg	20,000	NWTPH - Gx	06/05/04 05:16	JGH	



ample ID: S17270.06

Matrix: Soil

COC Reference: 013066

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp.	(C) Thermom	ieter #		
2	4oz. Glass	None		Yes	4	3	3		
Ana	lysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Org	anics								
NW	TPH-Gx		400,000	ug/kg	20,000	NWTPH - Gx	06/05/04 05:49	JGH	



mple ID: S17270.07 Scorple Tag: A5-SB-008, 4.5'-0 Collected Date/Time: 05/25/2004 10:45 Matrix: Soil COC Reference: 013066

#	Туре	Preservative(s)	Refrigerated	? Arrival Temp. (C) Therm	Thermometer #				
1	1 L Amber	None	Yes	4	3					
Ana	alvsis	Resu	Its Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags		



' `ample ID: S17270.08

e Tag: A5-SB-008, 9'-0 أنه

Collected Date/Time: 05/25/2004 10:50

Matrix: Soil

COC Reference: 013066

# Type		Preservative(s)		Refrigerated? Arrival Temp. (C)) Thermom	eter #		
1	1 L Amber	None		Yes	4	3			
An	alysis		Results	Units	RDL	Method	Run Date/Time	Analvst CAS #	Flags



I mple ID: S17270.09 Sa...ple Tag: A5-SB-009, 4.5'-0 Collected Date/Time: 05/25/2004 10:10 Matrix: Soil COC Reference: 013066

#	Туре	Preservative(s)		Refrigerated?	Arrival Terr	np. (C) Thermo) Thermometer #		
1	32 oz Glass	None		Yes	4	3			
An	alvsis	1	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags



ample ID: S17270.10 Sample Tag: A5-SB-009, 9'-0 Collected Date/Time: 05/25/2004 10:15 Matrix: Soil COC Reference: 013066

#	Туре	Preservative(Preservative(s)		Arrival Temp	o. (C) Thern	nometer #		
1	1 L Amber	None		Yes	4	3			
Ana	livsis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags



`ample ID: S17270.11 1

le Tag: A5-SB-010, 4.5'-0 • Collected Date/Time: 05/25/2004 09:45

Matrix: Soil

COC Reference: 013066

# Туре	Preservative(s)	Refrigerated?	Arrival Ter	np. (C) Therm	ometer #		
1 32 oz Glass	None	Yes	4	3			
Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Extraction / Prep.							
Metal Digestion	Completed			3015A	07/15/04 15:00	MSH	
SPLP Extraction							
% Solids	100			1312	07/13/04 17:00	LBR	
Sample Used g	100			1312	07/13/04 17:00	LBR	
Final Volume mL	2,000			1312	07/13/04 17:00	LBR	
Final Extract pH	8.97			1312	07/13/04 17:00	LBR	
Inorganics							
Ammonia-N, SPLP	Not detected	mg/L	0.1	350.3	07/19/04 17:00	MJC	
Nitrate-N, TCLP	10.3	mg/L	0.2	300.0	07/19/04 14:27	JDP	
Nitrite-N	Not detected	mg/L	0.2	300.0	07/19/04 14:27	JDP	
Sulfate, SPLP	11	mg/L	1	300.0	07/19/04 14:27	JDP	
Phosphate, SPLP	0.2	mg/L	0.1	365.2	07/19/04 19:00	MJC	
Iron, SPLP	0.11	mg/L	0.02	200.8	07/15/04 18:31	PER 7439-89-6	6



ample ID: S17270.12

e Tag: A5-SB-010, 9'-0 أم

Collected Date/Time: 05/25/2004 09:50

Matrix: Soil

COC Reference: 013066

# Туре	Preservative(s)	Refrigerated?	Refrigerated? Arrival Temp. (C			emp. (C) Thermometer #			
1 32 oz Glass	None	Yes	4		3				
Analysis	Results	Units	RDL	Meth	nod	Run Date/Time	Analyst	CAS#	Flags
Extraction / Prep.									
Metal Digestion	Completed			3015	5A	07/15/04 15:00	MSH		
SPLP Extraction									
% Solids	100			1312	2	07/13/04 12:00	LBR		
Sample Used g	100			1312	2	07/13/04 12:00	LBR		
Final Volume mL	2,000			1312	2	07/13/04 12:00	LBR		
Final Extract pH	9.08			1312	2	07/13/04 12:00	LBR		
Inorganics									
Ammonia-N, SPLP	Not detected	mg/L	0.1	350.	.3	07/19/04 17:00	MJC		
Nitrate-N, TCLP	1.0	mg/L	0.2	300	.0	07/19/04 14:39	JDP		
Nitrite-N	Not detected	mg/L	0.2	300	.0	07/19/04 14:39	JDP		
Sulfate, SPLP	8	mg/L	1	300	.0	07/19/04 14:39	JDP		
Phosphate, SPLP	0.3	mg/L	0.1	365	.2	07/19/04 19:00	MJC		
Iron, SPLP	0.85	mg/L	0.02	200	.8	07/15/04 18:32	PER	7439-89-6	;



JUL 0 7 2004

Report ID: S17271.01(01) C 1ted on 06/17/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S17271.01-S17271.07 Project: Bee Jay Scales 24CH.67201.01 Submitted Date/Time: 05/26/2004 11:20 Sampled by: Mike McMahon P.O. #: Report produced by Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL. Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak Laboratory Director



Lab Sample ID: S17271.01 5 7 ag: A6-VP-001, 10'-0 Cu....cted Date/Time: 05/24/2004 08:45 Matrix: Groundwater COC Reference: 013065

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Ten	np. (C)	Thermo	ometer #			
2	1 L Amber	None	-	Yes	4		3				
2	250ml Plastic	None		Yes	4		3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
Ana	alysis		Results	Units	RDL	Met	nod_	Run Date/Time	Analys	t CAS#	Flags
Ex	traction / Prep.										
Me	tal Digestion		Completed			301	5A	05/26/04 17:00	MSH		
Ino	organics										
pН			7.56	STD Units	0.01	150	.1	05/26/04 20:35	LBR		
Alk	alinity as CaCO3		192	mg/L	1	310	.1	06/01/04 14:50	JKB		
Am	imonia-N		0.4	mg/L	0.1	350	.3	06/01/04 18:00	MJC		
Ch	loride		175	mg/L	1	300	.0	06/03/04 09:34	JDP		
Nit	rate-N		661	mg/L	0.2	300	.0	06/03/04 09:46	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300	.0	06/03/04 08:31	JDP		
Su	lfate		226	mg/L	1	300	.0	06/03/04 08:31	JDP		
Dig	equed Oxygen		8.98	mg/L	1			05/26/04 20:30	LBR		
١	hate		54	mg/L	1	365	.2	05/31/04 15:00	MJC		
Ме	etals										
Ars	senic		0.027	mg/L	0.002	200	.8	06/07/04 16:39	PER	7440-38-2	!
Iro	n		6.49	mg/L	0.02	200	.8	06/07/04 16:39	PER	7439-89-6	;
Or	ganics										
Ch	Iorinated Herbicides										
Die	camba		Not detected	ug/L	2	815	1	06/09/04 12:00	PCS		0
Dir	noseb		5	ug/L	0.6	815	1	06/09/04 12:00	PCS		0
2,4	4-D		Not detected	ug/L	4	815	1	06/09/04 12:00	PCS		0
2,4	1,5-TP (Silvex)		Not detected	ug/L	1	815	1	06/09/04 12:00	PCS		0
2,4	4,5-T		Not detected	ug/L	1	815	1	06/09/04 12:00	PCS		0



Lab Sample ID: S17271.02 Current of the second sec

Sample Containers

#	Туре	Preservative	(s)	Refrigerated?	Arrival Ten	ιр. (C)	Thermo	ometer #			
2	1 L Amber	None		Yes	4		3				
2	250ml Plastic	None		Yes	4		3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
An	alysis		Results	Units	RDL	Meti	hod	Run Date/Time	Analys	t CAS#	Flags
Ex	traction / Prep.										
Me	tal Digestion		Completed			301	5A	05/26/04 17:00	MSH		
Inc	organics										
pН			8.01	STD Units	0.01	150	.1	05/26/04 20:35	LBR		
Alł	alinity as CaCO3		206	mg/L	1	310.	.1	06/01/04 15:00	JKB		
An	nmonia-N		Not detected	mg/L	0.1	350	.3	06/01/04 18:00	MJC		
Ch	loride		60	mg/L	1	300	.0	06/03/04 08:42	JDP		
Nit	rate-N		46.1	mg/Ľ	0.2	300	.0	06/03/04 09:58	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300	.0	06/03/04 08:42	JDP		
Su	lfate		58	mg/L	1	300	.0	06/03/04 08:42	JDP		
D	≃્રlved Oxygen		8.09	mg/L	1			05/26/04 20:30	LBR		
	hate		16.5	mg/L	0.1	365	.2	05/31/04 15:00	MJC		
M	etals										
Ar	senic		0.018	mg/L	0.002	200	.8	06/07/04 16:41	PER	7440-38-2	2
Irc	n		5.01	mg/L	0.02	200	.8	06/07/04 16:41	PER	7439-89-6	;
0	rganics										
CI	nlorinated Herbicides										
Di	camba		Not detected	ug/L	2	815	1	06/09/04 12:00	PCS		0
Di	noseb		Not detected	ug/L	0.6	815	51	06/09/04 12:00	PCS		0
2,	4-D		Not detected	ug/L	4	815	51	06/09/04 12:00	PCS		0
2,	4,5-TP (Silvex)		Not detected	ug/L	1	815	51	06/09/04 12:00	PCS		0
2,	4,5-T		Not detected	ug/L	1	815	51	06/09/04 12:00	PCS		0



Lab Sample ID: S17271.03 5 9 Tag: A6-VP-003, 10'-0

Matrix: Groundwater

COC Reference: 013065

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Ten	np. (C)	Thermo	meter #			
2	1 L Amber	None		Yes	4		3				
2	250ml Plastic	None		Yes	4		3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
Ana	alysis		Results	Units	RDL	Meth	od	Run Date/Time	Analys	t CAS#	Flags
Ex	traction / Prep.	· · ·									
Me	tal Digestion		Completed			3015	iΑ	05/26/04 17:00	MSH		
Inc	organics										
pН			7.73	STD Units	0.01	150.1	1	05/26/04 20:35	LBR		
Alk	alinity as CaCO3		366	mg/L	1	310.1	1	06/01/04 15:10	JKB		
Αm	nmonia-N		60	mg/L	1	350.3	3	06/01/04 18:00	MJC		
Ch	loride		340	mg/L	1	300.0	0	06/03/04 10:09	JDP		
Nit	rate-N		64.5	mg/L	0.2	300.0	0	06/03/04 10:09	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300.0	0	06/03/04 08:54	JDP		
Su	lfate		129	mg/L	1	300.	0	06/03/04 08:54	JDP		
D <u>i</u> ≤	≌olved Oxygen		9.88	mg/L	1			05/26/04 20:30	LBR		
	hate		17.2	mg/L	0.1	365.	2	05/31/04 15:00	MJC		
Ме	etals										
Ar	senic		0.018	mg/L	0.002	200.	8	06/07/04 16:43	PER	7440-38-2	
lro	n		6.96	mg/L	0.02	200.	8	06/07/04 16:43	PER	7439-89-6	1
Or	rganics										
Cł	nlorinated Herbicides										
Di	camba		Not detected	ug/L	10	8151	1	06/11/04 12:00	PCS		0
Di	noseb		31	ug/L	3	815 ⁻	1	06/11/04 12:00	PCS		0
2,4	4-D		Not detected	ug/L	20	8151	1	06/11/04 12:00	PCS		0
2,4	4,5-TP (Silvex)		Not detected	ug/L	5	8151	1	06/11/04 12:00	PCS		0
2,4	4,5-T		Not detected	ug/L	5	8151	1	06/11/04 12:00	PCS		0



Lab Sample ID: S17271.04 5 Tag: A6-VP-003, 20'-0 Co...cted Date/Time: 05/24/2004 11:30 Matrix: Groundwater COC Reference: 013065

Sample Containers

#	Туре	Preservative(s	s)	Refrigerated?	Arrival Temp.	(C)]	Thermometer #			
2	1 L Amber	None		Yes	4	3	3			
2	250ml Plastic	None		Yes	4	3	3			
1	DO Bottle	None		Yes	4	3	3			
1	250ml Plastic	H2SO4		Yes	4	3	3			
1	125ml Plastic	HNO3		Yes	4	3	3			
An	alysis		Results	Units	RDL	Metho	od Run Date/Time	Analyst	CAS#	Flags
Ex	traction / Prep.									
Me	etal Digestion		Completed			3015/	A 05/26/04 17:00	MSH		
In	organics									
p⊦	i		8.53	STD Units	0.01	150.1	05/26/04 20:35	LBR		
All	calinity as CaCO3		2,080	mg/L	1	310.1	06/01/04 15:15	JKB		
Ar	nmonia-N		1,750	mg/L	10	350.3	06/01/04 18:00	MJC		
Cł	loride		410	mg/L	1	300.0	06/03/04 09:06	JDP		
Ni	trate-N		866	mg/L	0.2	300.0	06/03/04 10:21	JDP		
Ni	trite-N		38.7	mg/L	0.2	300.0	06/03/04 09:06	JDP		
Sı	Ifate		846	mg/L	1	300.0	06/03/04 09:06	JDP		
D			7.99	mg/L	1		05/26/04 20:30	LBR		
٢	hate		51	mg/L	1	365.2	2 05/31/04 15:00	MJC		
М	etals									
A	senic		0.087	mg/L	0.002	200.8	3 06/07/04 16:46	PER	7440-38-2	
Ire	n		4.78	mg/L	0.02	200.8	3 06/07/04 16:46	PER	7439-89-6	
0	rganics									
С	hlorinated Herbicides									
D	icamba		Not detected	ug/L	400	8151	06/11/04 12:00	PCS		0
D	inoseb		1,400	ug/L	120	8151	06/11/04 12:00	PCS		0
2,	4-D		Not detected	ug/L	800	8151	06/11/04 12:00	PCS		0
2	4,5-TP (Silvex)		Not detected	ug/L	200	8151	06/11/04 12:00	PCS		·0
2	4,5-T		Not detected	ug/L	200	8151	06/11/04 12:00	PCS		0



Lab Sample ID: S17271.05 5 9 Tag: A6-VP-004, 20'-0 Cc 3 ded Date/Time: 05/24/2004 13:10 Matrix: Groundwater

COC Reference: 013065

Sample Containers

#	Туре	Preservative((S)	Refrigerated?	Arrival Tem	р. (С) Т	hermometer #		
2	1 L Amber	None		Yes	4	3	}		
2	250ml Plastic	None		Yes	4	3	}		
1	DO Bottle	None		Yes	4	3	3		
1	250ml Plastic	H2SO4		Yes	4	3	}		
1	125ml Plastic	HNO3		Yes	4	3	3		
An	alysis		Results	Units	RDL	Metho	d Run Date/Time	Analyst CAS #	Flags
Ex	traction / Prep.								
Me	tal Digestion		Completed			3015A	05/26/04 17:00	MSH	
Inc	organics								
pН	l		6.56	STD Units	0.01	150.1	05/26/04 20:35	LBR	
Ail	alinity as CaCO3		1,500	mg/L	1	310.1	06/01/04 15:20	JKB	
An	nmonia-N		300	mg/L	10	350.3	06/01/04 18:00	MJC	
Ch	loride		1,120	mg/L	1	300.0	06/03/04 11:52	JDP	
Nif	trate-N		2,040	mg/L	0.2	300.0	06/03/04 13:17	JDP	
Nit	trite-N		45.4	mg/L	0.2	300.0	06/03/04 10:48	JDP	
Su	Ifate		3,010	mg/L	1	300.0	06/03/04 12:04	JDP	
Di	en Oxygen		6.11	mg/L	1		05/26/04 20:30	LBR	
	hate		49	mg/L	1	365.2	05/31/04 15:00	MJC	
М	etals								
Ar	senic		0.034	mg/L	0.002	200.8	06/07/04 16:49	PER 7440-38	-2
Irc	on		11.2	mg/L	0.02	200.8	06/07/04 16:49	PER 7439-89	-6
0	rganics								
CI	hlorinated Herbicides								
Di	camba		Not detected	ug/L	400	8151	06/11/04 12:00	PCS	0
Di	noseb		3,700	ug/L	120	8151	06/11/04 12:00	PCS	0
2,	4-D		Not detected	ug/L	800	8151	06/11/04 12:00	PCS	0
2,	4,5-TP (Silvex)		Not detected	ug/L	200	8151	06/11/04 12:00	PCS	0
2,	4,5-T		Not detected	ug/L	200	8151	06/11/04 12:00	PCS	0



Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Temp	. (C)	Thermome	eter #			
2	1 L Amber	None		Yes	4		3				
2	250ml Plastic	None		Yes	4		3				
1	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
An	alysis		Results	Units	RDL	Meth	od	Run Date/Time	Analys	CAS#	Flags
Ex	traction / Prep.										
Me	tal Digestion		Completed			3015	A	05/26/04 17:00	MSH		
Inc	organics										
pН			7.6	STD Units	0.01	150.1	1	05/26/04 20:35	LBR		
Alk	alinity as CaCO3		580	mg/L	1	310.1	1	06/01/04 15:25	JKB		
An	nmonia-N		440	mg/L	10	350.3	3	06/01/04 18:00	MJC		
Ch	loride		196	mg/L	1	300.0	C	06/03/04 10:59	JDP		
Nit	rate-N		511	mg/L	0.2	300.0	D	06/03/04 12:16	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300.0	0	06/03/04 10:59	JDP		
Su	lfate		869	mg/L	1	300.0	D	06/03/04 10:59	JDP		
Di	≌્રlved Oxygen		7.84	mg/L	1			05/26/04 20:30	LBR		
	hate		53	mg/L	1	365.2	2	05/31/04 15:00	MJC		、
М	etals										
Ar	senic		0.025	mg/L	0.002	200.	8	06/07/04 16:52	PER	7440-38 <mark>-2</mark>	
Iro	n		3.03	mg/L	0.02	200.8	8	06/07/04 16:52	PER	7439-89-6	
Oi	rganics										
Cł	Iorinated Herbicides										
Di	camba		Not detected	ug/L	200	8151	l	06/11/04 12:00	PCS		0
Di	noseb		1,400	ug/L	60	8151	I	06/11/04 12:00	PCS		0
2,4	4-D		1,300	ug/L	400	8151	l	06/11/04 12:00	PCS		0
2,4	4,5-TP (Silvex)		Not detected	ug/L	100	8151	ſ	06/11/04 12:00	PCS		0
2,4	4,5-T		Not detected	ug/L	100	8151	l	06/11/04 12:00	PCS		0



Lab Sample ID: S17271.07

e Tag: A6-VP-002, 20'-1

Matrix: Groundwater

COC Reference: 013065

Sample Containers

#	Туре	Preservative	(s)	Refrigerated?	Arrival Tem	p. (C)	Therm	ometer #			
2	1 L Amber	None		Yes	4		3				
1	250ml Plastic	None		Yes	4		3				
2	DO Bottle	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
Ana	alysis		Results	Units	RDL	Met	hod	Run Date/Time	Analys	st CAS #	Flags
Ex	traction / Prep.										
Ме	tal Digestion		Completed			301	5A	05/26/04 17:00	MSH		
Inc	organics										
pН			5.9	STD Units	0.01	150	.1	05/26/04 20:35	LBR		
Alk	alinity as CaCO3		Not detected	mg/L	2	310	.1	06/01/04 15:30	JKB		
Aπ	monia-N		Not detected	mg/L	0.1	350	.3	06/01/04 18:00	MJC		
Ch	loride		Not detected	mg/L	1	300	.0	06/03/04 11:11	JDP		
Nit	rate-N		Not detected	mg/L	0.2	300	.0	06/03/04 12:27	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300	0.0	06/03/04 12:27	JDP		
Su	lfate		Not detected	mg/L	1	300	0.0	06/03/04 11:11	JDP		
Die	≌olved Oxygen		9.3	mg/L	1			05/26/04 20:30	LBR		
	hate		Not detected	mg/L	0.1	365	5.2	05/31/04 15:00	MJC		
Ме	etals										
Ar	senic		Not detected	mg/L	0.002	200).8	06/07/04 17:06	PER	7440-38-2	
Iro	n		Not detected	mg/L	0.02	200).8	06/07/04 17:06	PER	7439-89-6	;
Or	ganics										
Cł	Ilorinated Herbicides										
Die	camba		Not detected	ug/L	2	815	51	06/09/04 12:00	PCS		0
Di	noseb		Not detected	ug/L	0.6	815	51	06/09/04 12:00	PCS		0
2,4	1-D		Not detected	ug/L	4	815	51	06/09/04 12:00	PCS		0
2,4	1,5-TP (Silvex)		Not detected	ug/L	1	815	51	06/09/04 12:00	PCS		0
2,4	1,5-T		Not detected	ug/L	1	815	51	06/09/04 12:00	PCS		0

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JUL 1 2 2004

ort ID: S17291.01(02)

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S17291.01 Project: Bee Jay Scales 24CH.67201.01 Submitted Date/Time: 05/27/2004 09:30 Sampled by: Michael McMahon P.O. #: Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak



Sample ID: S17291.01 ...ple Tag: MW08-260504-0 Collected Date/Time: 05/26/2004 09:10 Matrix: Groundwater COC Reference: 013069

Sample Containers

# Type	Preservative(s)		Refrigerated?	Arrival Temp.	(C) 1	Thermometer #				
2 1 L Amber	None		Yes	4	З	3				
3 DO Bottles	None		Yes	4	з	3				
1 125ml Plastic	ниоз		Yes	4	з	3				
1 250ml Plastic	H2SO4		Yes	4	3	3				
Analysis		Results	Units	RDL	Metho	d Run I	Date/Time	Analys	t CAS#	Flags
Extraction / Prep.										
Metal Digestion		Completed			3015A	06/03	/04 16:45	MSH		
Inorganics										
рН		7.44	STD Units	0.01	150.1	05/27	/04 23:49	LBR		
Alkalinity as CaCO3		228	mg/L	1	310.1	06/01	/04 15:35	JKB		
Ammonia-N		5.6	mg/L	0.1	350.3	06/01	/04 18:00	MJC		
Chloride		162	mg/L	1	300.0	05/28	/04 10:31	JDP		
Nitrate-N		549	mg/L	0.2	300.0	05/28	/04 12:21	JDP		
Nitrite-N		Not detected	mg/L	0.2	300.0	05/28	/04 10:31	JDP		
Sulfate		272	mg/L	1	300.0	05/28	/04 10:31	JDP		
Dissolved Oxygen		7.38	mg/L	1		05/27	/04 20:00	LBR		
sphate		0.6	mg/L	0.1	365.2	05/31	/04 15:00	MJC		
Metals										
Arsenic		0.010	mg/L	0.002	200.8	06/07	//04 16:34	PER	7440-38-2	
iron		0.85	mg/L	0.02	200.8	06/07	//04 16:34	PER	7439-89-6	
Organics										
Chlorinated Herbicides										
Dicamba		Not detected	ug/L	2	8151	06/18	8/04 12:00	SUB		01
Dinoseb		0.67	ug/L	0.6	8151	06/18	8/04 12:00	SUB		01
2,4-D		Not detected	ug/L	4	8151	06/18	3/04 12:00	SUB		01
2,4,5-TP (Silvex)		Not detected	ug/L	1	8151	06/18	3/04 12:00	SUB		01
2,4,5-T		Not detected	ug/L	1	8151	06/18	3/04 12:00	SUB		01

O-Analysis performed by outside laboratory 1-* Analyzed outside of holding time

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Report ID: S17387.01(01) C ted on 06/16/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S17387.01-S17387.04 Project: LAG/SED Submitted Date/Time: 06/04/2004 10:30 Sampled by: Unknown P.O. #:

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL. Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak Laboratory Director



Lab Sample ID: S17387.01

C. sted Date/Time: 06/02/2004 14:00

Matrix: SW Sediment

COC Reference: 017782

# Туре		Preservative(s)	s)	Refrigerated?	Arrival Temp.	(C) T	hermometer #			
1	250ml Plastic	None		Yes	6	3				
Ana	lysis		Results	Units	RDL	Metho	d Run Date/	/Time	Analyst CAS #	Flags
Ino	rganics									
Am	monia-N		9.0	mg/L	0.1	350.3	06/10/04 ⁻	18:00	MJC	
Nitr	ate-N		Not detected	mg/L	0.2	300.0	06/08/04 2	23:13	JDP	
Nitr	ite-N		Not detected	mg/L	0.2	300.0	06/08/04 2	23:13	JDP	



Lab Sample ID: S17387.02

e Tag: LAG 0011 و

C. _____ted Date/Time: 06/02/2004 14:00 Matrix: SW Sediment

COC Reference: 017782

# Туре	Туре	Preservative(s)	(s) R	Refrigerated?	Arrival Temp. ((C) Tł	nermometer #		
1	250ml Plastic	None		Yes	6	3			
Ana	lysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Inor	rganics								
Amr	nonia-N		7.8	mg/L	0.1	350.3	06/10/04 18:00	MJC	
Nitra	ate-N		Not detected	mg/L	0.2	300.0	06/08/04 23:25	JDP	
Nitri	te-N		Not detected	mg/L	0.2	300.0	06/08/04 23:25	JDP	



Lab Sample ID: S17387.03 S = Tag: SED 0010 C. ded Date/Time: 06/02/2004 14:15 Matrix: Solid COC Reference: 017782

# Туре		Preservative(s)	Refrigerated?	Arrival T	emp. (C) Then	mometer #		
1	32 oz Glass	None	Yes	6	3			
Ana	lysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ino	rganics							
Tot	al Solids	16	%	1	160.3	06/08/04 19:13	LBR	
Am	monia-N	760	mg/kg	10	350.3	06/15/04 19:00	MJC	
Nitr	ate-N	Not detected	mg/kg	500	300.0	06/08/04 21:33	JDP	
Nitr	ite-N	Not detected	mg/kg	500	300.0	06/08/04 21:45	JDP	



# Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Th	ermometer #			
1	32 oz Glass	None	Yes	6	3			
Ana	alysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ino	rganics							
Tot	al Solids	9	%	1	160.3	06/08/04 19:13	LBR	
Am	imonia-N	1,440	mg/kg	10	350.3	06/15/04 19:00	MJC	
Nit	rate-N	Not detected	mg/kg	500	300.0	06/08/04 21:33	JDP	
Nit	rite-N	Not detected	mg/kg	500	300.0	06/08/04 21:45	JDP	

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DEC 0 9 2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S19496.01-S19496.04 Project: 24CH.67201.00 Bee Jay Scales Submitted Date/Time: 10/27/2004 10:45 Sampled by: Michael McMahon P.O. #:

Report Notes Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL. Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshak

Violetta F. Murshak ratory Director

Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333



1 Sample ID: S19496.01

Le Tag: MW11-251004-O Collected Date/Time: 10/25/2004 10:30 Matrix: Groundwater COC Reference: 022721

Sample Containers

#	Туре	Preservative(s))	Refrigerated?	Arrival Temp. ((C) Thermo	meter #			
3	1 L Amber	None		Yes	4	3				
1	L Plastic	None		Yes	4	3				
2	500ml Plastic	None		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				•
2	40 ml Glass	HCL		Yes	4	3				
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analv	st CAS#	Flads
Ext	traction / Prep.									
Me	tal Digestion		Completed			3015A	10/28/04 12:00	PER		
ΡN	A Extraction		Completed			3510C	10/29/04 12:45	PL		
Ino	rganics									
pН			8.12	STD Units	0.01	150.1	10/28/04 11:17	VJH		
Alk	alinity as CaCO3		228	mg/L	1	310.1	11/04/04 14:30	JKB		
Am	monia-N		Not detected	mg/L	0.1	350.3	11/08/04 18:00	MJC	7664-41-7	
Ch	oride		11	mg/L	1	300.0	10/27/04 16:00	JDP	16887-00-6	
Nit	rate-N		4.3	mg/L	0.2	300.0	10/27/04 16:00	JDP		
'	N		Not detected	mg/L	0.2	300.0	10/27/04 16:00	JDP		
C.,	Phosphorus		0.17	mg/L	0.02	365.2	10/27/04 14:00	MJC		
Sul	fate		49	mg/L	1	300.0	10/27/04 16:00	JDP	14808-79-8	
Dis	solved Oxygen		8.93	mg/L	1	360.1	10/27/04 19:12	LBR		
Ph	osphate		0.6	mg/L	0.1	365.2	11/15/04 16:00	MJC		
Me	tals									
Ars	senic		0.042	mg/L	0.002	200.8	10/29/04 13:46	PER	7440-38-2	
Irot	1		0.44	mg/L	0.02	200.8	11/01/04 13:09	PER	7439-89-6	
Or	ganics									
Die	sel		Not detected	ug/L	100	SV-8015M	11/01/04 18:24	ARH	68334-30-5	
Ga	soline		Not detected	ug/L	200	Vol-8015M	11/02/04 22:07	JGH	8006-61-9	
Ch	lorinated Herbicides									
Dic	amba		Not detected	ug/L	2	8151	11/09/04 12:00	STL		o
Din	ioseb		Not detected	ug/L	0.6	8151	11/09/04 12:00	STL		ō
2,4	-D		Not detected	ug/L	4	8151	11/09/04 12:00	STL		0
2,4	,5-TP (Silvex)		Not detected	ug/L	1	8151	11/09/04 12:00	STL		0
2,4	,5-T		Not detected	ug/L	1	8151	11/09/04 12:00	STL		0
Vo	latile Organics									
Bei	nzene		Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	71-43-2	
Bro	modichloromethane		Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	75-27-4	
Bro	moform		Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	75-25-2	
P	rmethane		Not detected	ug/L	5	8260B	11/05/04 19:25	JGH	74-83-9	
I	ibenzene		Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	104-51-8	
sec	-Butylbenzene		Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	135-98-8	
	-			-						



I ample ID: S19496.01 (continued)

د e Tag: MW11-251004-0

Analysis	Results	Units	RDL	Method	Run Date/Time	Analy	st CAS#	Flags
Organics (continued)								
Volatile Organics (continued)								
tert-Butylbenzene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	108-90-7	
Chloroethane	Not detected	ug/L	5	8260B	11/05/04 19:25	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	67-66-3	
Chloromethane	Not detected	ug/L	5	8260B	11/05/04 19:25	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	10061-01-5	5
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	10061-02-6	5
Ethylbenzene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	100-41-4	-
Isopropylbenzene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	98-82-8	
ropyltoluene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	99-87-6	
Meanylene chloride	Not detected	ug/L	5	8260B	11/05/04 19:25	JGH	75-09-2	
Naphthalene	Not detected	ug/L	5	8260B	11/05/04 19:25	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	⁻ 1	8260B	11/05/04 19:25	JGH	108-67-8	
Vinyi chloride	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	2	8260B	11/05/04 19:25	JGH	106-42-3	
Acetone	Not detected	ug/L	30	8260B	11/05/04 19:25	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	30	8260B	11/05/04 19:25	JGH	78-93-3	
Carbon disulfide	Not detected	ua/L	5	8260B	11/05/04 19:25	JGH	75-15-0	
2-Hexanone	Not detected	ua/L	50	8260B	11/05/04 19:25	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ua/L	50	8260B	11/05/04 19:25	JGH	108_10_1	
tert-Methyl butyl ether (MTBE)	Not detected	ua/L	5	8260B	11/05/04 19:25	JGH	1634-04-4	
1.1.1.2-Tetrachloroethane	Not detected	ua/L	1	8260B	11/05/04 19:25	IGH	630-20-6	
1.2.3-Trichlorobenzene	Not detected	ua/l	5	8260B	11/05/04 19:25	ICH	87-61-6	
1.2.3-Trichloropropane	Not detected	ug/l	5 1	8260B	11/05/04 10:25	101	06-18-4	
	Not detected	ua/l	5	8260B	11/05/04 10:25		120-10-4	
bromo-3-chloropropane	Not detected	ua/l	5	8260B	11/05/04 10:25		06.12 9	
1 2-Dibromoethane	Not detected	ug/L	1	8260B	11/05/04 10:25	JGH	106 02 4	
1 4-Dichloro-2-butene	Not detected	ug/L	5	82600	11/05/04 19.20	JGH	100-93-4	
	Not detected	uy/L	υ,	02000	11/05/04 19:25	JGH	104-41-0	



Le' Cample ID: S19496.01 (continued)

٤ 🚽 Tag: MW11-251004-O

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Organics (continued)							
Volatile Organics (continued)							
2-Methylnaphthalene	Not detected	ug/L	5	8260B	11/05/04 19:25	JGH 91-57-6	
Acrylonitrile	Not detected	ug/L	5	8260B	11/05/04 19:25	JGH 107-13-1	
Bromobenzene	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH 108-86-1	
Bromochloromethane	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH 74-97-5	
Dibromomethane	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH 74-95-3	
Dichlorodifluoromethane	Not detected	ug/L	5	8260B	11/05/04 19:25	JGH 75-71-8	
Diethyl ether	Not detected	ug/L	5	8260B	11/05/04 19:25	JGH 60-29-7	
Hexachloroethane	Not detected	ug/L	5	8260B	11/05/04 19:25	JGH 67-72-1	
Methyl iodide	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH 74-88-4	
Tetrahydrofuran	Not detected	ug/L	100	8260B	11/05/04 19:25	JGH 109-99-9	
Trichlorofluoromethane	Not detected	ug/L	1	8260B	11/05/04 19:25	JGH 75-69-4	



I `ample ID: S19496.02

ie Tag: MW10-251004-O Collected Date/Time: 10/25/2004 11:35 Matrix: Groundwater

COC Reference: 022721

Sample Containers

#	Туре	Preservative(s	i)	Refrigerated?	Arrival Temp	o. (C) Thermor	neter #			
3	1 L Amber	None		Yes	4	3				
1	L Plastic	None		Yes	4	3				
2	500ml Plastic	None		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				
2	40 ml Glass	HCL		Yes	4	3				
Ana	llysis		Results	Units	RDL	Method	Run Date/Time	Analy	st CAS#	Flags
Ext	raction / Prep.									
Met	al Digestion		Completed			3015A	10/28/04 12:00	PER		
PN	A Extraction		Completed			3510C	10/29/04 12:45	PL		
Ino	rganics									
pН			8.14	STD Units	0.01	150.1	10/28/04 11:17	VJH		
Alk	alinity as CaCO3		320	mg/L	1	310.1	11/04/04 14:40	JKB		
Am	monia-N		Not detected	mg/L	0.1	350.3	11/08/04 18:00	MJC	7664-41-7	
Chl	oride		21	mg/L	1	300.0	10/27/04 16:12	JDP	16887-00-6	5
N <u>itr</u>	ate-N		2.2	mg/L	0.2	300.0	10/27/04 16:12	JDP		
	}•N		Not detected	mg/L	0.2	300.0	10/27/04 16:12	JDP		
Ċ.,	no Phosphorus		0.16	mg/L	0.02	365.2	10/27/04 14:00	MJC		
Sul	fate		33	mg/L	1	300.0	10/27/04 16:12	JDP	14808-79-8	3
Dis	solved Oxygen		8.54	mg/L	1	360.1	10/27/04 19:12	LBR		
Pho	osphate		0.5	mg/L	0.1	365.2	11/15/04 16:00	MJC		
Me	tals									
Ars	enic		0.021	mg/L	0.002	200.8	10/29/04 13:48	PER	7440-38-2	
Iror	ו		0.36	mg/L	0.02	200.8	11/01/04 13:11	PER	7439-89-6	
Org	ganics									
Die	sel		Not detected	ug/L	100	SV-8015M	11/01/04 18:46	ARH	68334-30-5	j
Ga	soline		1,300	ug/L	200	Vol-8015M	11/02/04 22:40	JGH	8006-61-9	
Ch	lorinated Herbicides									
Dic	amba		Not detected	ug/L	2	8151	11/09/04 12:00	STL		0
Din	ioseb		Not detected	ug/L	0.6	8151	11/09/04 12:00	STL		0
2,4	-D		Not detected	ug/L	4	8151	11/09/04 12:00	STL		0
2,4	,5-TP (Silvex)		Not detected	ug/L	1	8151	11/09/04 12:00	STL		0
2,4	,5-T		Not detected	ug/L	1	8151	11/09/04 12:00	STL		0
Vo	latile Organics									
Ber	nzene		273	ug/L	5	8260B	11/03/04 17:56	JGH	71-43-2	Y
Bro	modichloromethane		Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	75-27-4	Ŷ
Bro	moform		Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	75-25-2	Ý
٣	omethane		Not detected	ug/L	30	8260B	11/03/04 17:56	JGH	74-83-9	· Y
1.	//Ibenzene		Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	104-51-8	· Y
				•						•

O-Analysis performed by outside laboratory

Y-Elevated reporting limit due to high target concentration


1 `ample ID: S19496.02 (continued)

e Tag: MW10-251004-0

Analysis	Results	Units	RDL	Method	Run Date/Time	Analy	st CAS#	Flags
Organics (continued)								- lage
Volatile Organics (continued)								
sec-Butylbenzene	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	135-98-8	v
tert-Butylbenzene	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	98-06-6	v
Carbon tetrachloride	Not detected	ug/L	5	8260B	11/03/04 17:56	IGH	56-23-5	v
Chlorobenzene	Not detected	ua/L	5	8260B	11/03/04 17:56	ICH.	108.00.7	v
Chloroethane	Not detected	ug/L	30	8260B	11/03/04 17:56	ICH	75 00 3	v
Chloroform	Not detected	ua/L	5	8260B	11/03/04 17:56	101	67 66 3	r V
Chloromethane	Not detected	ua/L	30	8260B	11/03/04 17:56		74 97 2	ı V
Dibromochloromethane	Not detected	ua/L	5	8260B	11/03/04 17:56		124 49 4	ı V
1,2-Dichlorobenzene	Not detected	ua/L	5	8260B	11/03/04 17:56		05 50 1	1 . V
1,3-Dichlorobenzene	Not detected	ua/L	5	8260B	11/03/04 17:56		53-30-1	v v
1,4-Dichlorobenzene	Not detected	ug/L	5	8260B	11/03/04 17:56		041-70-1 106 46 7	r V
1.1-Dichloroethane	Not detected	ua/l	5	8260B	11/03/04 17:56	JGH	75 24 2	Ŷ
1.2-Dichloroethane	Not detected	ug/l	5	8260B	11/03/04 17:56		10-34-3	ř
1.1-Dichloroethene	Not detected	ug/L	5	8260B	11/03/04 17.50	JGH	107-06-2	Y
cis-1.2-Dichloroethene	Not detected	ug/L	5	8260B	11/03/04 17.50	JGH	/5-35-4	Y
trans-1 2-Dichloroethene	Not detected	ug/L	5	0200D	11/03/04 17:56	JGH	156-59-2	Y
1 2-Dichloropronane	Not detected	ug/L	5	0200B	11/03/04 17:56	JGH	156-60-5	Ŷ
cis-1 3-Dichloropropene	Not detected	ug/L	5	0200B	11/03/04 17:56	JGH	78-87-5	Y
trans-1 3-Dichloropropene	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	10061-01-5	Ŷ
Ethylbenzene		ug/L	5	8200B	11/03/04 17:56	JGH	10061-02-6	Ŷ
	70 Natidata stad	ug/L	5	8260B	11/03/04 17:56	JGH	100-41-4	Y
	Not detected	ug/L	5	82608	11/03/04 17:56	JGH	98-82-8	Y
P-isopropyroldene	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	99-87-6	Y
Nerbibless	Not detected	ug/L	30	8260B	11/03/04 17:56	JGH	75-09-2	Y
naprinalene	Not detected	ug/L	30	8260B	11/03/04 17:56	JGH	91-20-3	Y
n-Propyidenzene	1	ug/L	5	8260B	11/03/04 17:56	JGH	103-65-1	Y
Styrene	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	100-42-5	Y
1,1,2,2-1 etrachloroethane	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	79-34-5	Y
	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	127-18-4	Y
loluene	29	ug/L	5	8260B	11/03/04 17:56	JGH	108-88-3	Y
1,1,1-Trichloroethane	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	71-55-6	Y
1,1,2-Trichloroethane	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	79-00-5	Y
Trichloroethene	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	79-01-6	Y
1,2,4-Trimethylbenzene	31	ug/L	5	8260B	11/03/04 17:56	JGH	95-63-6	Y
1,3,5-Trimethylbenzene	28	ug/L	5	8260B	11/03/04 17:56	JGH	108-67-8	Y
Vinyl chloride	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH	75-01-4	Y
o-Xylene	30	ug/L	5	8260B	11/03/04 17:56	JGH	95-47-6	Y
p,m-Xylene	110	ug/L	10	8260B	11/03/04 17:56	JGH	106-42-3	Y
Acetone	Not detected	ug/L	100	8260B	11/03/04 17:56	JGH	67-64-1	Y
2-Butanone (MEK)	Not detected	ug/L	100	8260B	11/03/04 17:56	JGH	78-93-3	Y
Carbon disulfide	Not detected	ug/L	30	8260B	11/03/04 17:56	JGH	75-15-0	Ŷ
2-Hexanone	Not detected	ug/L	300	8260B	11/03/04 17:56	JGH	591-78-6	Ŷ
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	300	8260B	11/03/04 17:56	JGH	108-10-1	· Y
tert-Methyl butyl ether (MTBE)	Not detected	ua/L	30	8260B	11/03/04 17:56	JGH	1634-04-4	v
1,1,1,2-Tetrachloroethane	Not detected	ug/L	5	8260B	11/03/04 17:56	101	630-20-6	v
1,2,3-Trichlorobenzene	Not detected	ua/L	30	8260B	11/03/04 17:56		87-61.6	v
1 Trichloropropane	Not detected	- <u>-</u>	5	8260B	11/03/04 17:56		06 19 4	T V
1, (richlorobenzene	Not detected	ug/l	30	8260B	11/03/04 17:56		120-10-4	T V
1.2-Dibromo-3-chloropropage	Not detected		30	82608	11/02/04 17:56		120-02-1	T V
	NOT DETECTED	ug/ L	00	02000	11/03/04 17:50	JGH	90-12-0	Y

Y-Elevated reporting limit due to high target concentration



Language ID: S19496.02 (continued)

د الف Tag: MW10-251004-O

Analysis	Results	Units	RDL	Method	Rup Date/Time	Apalvet CAS #	Flogo
Organics (continued)						Analyst CAS #	Flays
Volatile Organics (continued)							
1,2-Dibromoethane	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH 106-93-4	v
1,4-Dichloro-2-butene	Not detected	ug/L	30	8260B	11/03/04 17:56	JGH 764-41-0	, v
2-Methylnaphthalene	Not detected	ug/L	30	8260B	11/03/04 17:56	JGH 91-57-6	v
Acrylonitrile	Not detected	ug/L	30	8260B	11/03/04 17:56	JGH 107-13-1	v
Bromobenzene	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH 108-86-1	v
Bromochloromethane	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH 74-97-5	v
Dibromomethane	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH 74-95-3	v
Dichlorodifluoromethane	Not detected	ug/L	30	8260B	11/03/04 17:56	JGH 75-71-8	v v
Diethyl ether	Not detected	ug/L	30	8260B	11/03/04 17:56	JGH 60-29-7	Ý
Hexachloroethane	Not detected	ug/L	30	8260B	11/03/04 17:56	JGH 67-72-1	Ý
Methyl iodide	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH 74-88-4	v
Tetrahydrofuran	Not detected	ug/L	500	8260B	11/03/04 17:56	.iGH 109-99-9	v
Trichlorofluoromethane	Not detected	ug/L	5	8260B	11/03/04 17:56	JGH 75-69-4	Ý

Y-Elevated reporting limit due to high target concentration



Sample ID: S19496.03 Tag: MW9-251004-O Collected Date/Time: 10/25/2004 14:30 Matrix: Groundwater COC Reference: 022721

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Ter	np.(C) T	hermometer #			
2	1 L Amber	None		Yes	4	3				
1	L Plastic	None		Yes	4	3				
2	500ml Plastic	None		Yes	4	3	I			
1	125ml Plastic	HNO3		Yes	4	3	1			
1	250ml Plastic	H2SO4		Yes	4	3				
Ana	alysis		Results	Units	RDL	Methor	d Run Date/Time	Analys	# 2A0 #	Elage
Ext	traction / Prep.							Analys		Flays
Met	tal Digestion		Completed			3015A	10/28/04 12:00	PER		
Ino	rganics									
pН			7.46	STD Units	0.01	150.1	10/28/04 11:17	V.IH		
Alka	alinity as CaCO3		326	mg/L	1	310.1	11/04/04 14:45	JKB		
Am	monia-N		0.1	mg/L	0.1	350.3	11/08/04 18:00	MJC	7664-41-7	
Chl	oride		186	mg/L	1	300.0	10/27/04 16:49	JDP	16887-00-6	;
Nitr	ate-N		1,000	mg/L	0.2	300.0	10/27/04 17:49	JDP		
Nitr	ite-N		Not detected	mg/L	0.2	300.0	10/27/04 16:24	JDP		
Ort	ho Phosphorus		0.76	mg/L	0.02	365.2	10/27/04 14:00	MJC		
1)		477	mg/L	1	300.0	10/27/04 16:49	JDP	14808-79-8	
Di	Jived Oxygen		8.87	mg/L	1	360.1	10/27/04 19:12	LBR		
Pho	osphate		11.9	mg/L	0.1	365.2	11/15/04 16:00	MJC		
Me	tals									
Ars	enic		0.016	mg/L	0.002	200.8	10/29/04 13:50	PER	7440-38-2	
Iron	1		11.9	mg/L	0.02	200.8	11/01/04 13:13	PER	7439-89-6	
Org	anics									
Chl	orinated Herbicides									
Dica	amba		Not detected	ug/L	2	8151	11/09/04 12:00	STI		0
Din	oseb		6.8	ug/L	0.6	8151	11/09/04 12:00	STI		ñ
2,4-	D		Not detected	ug/L	4	8151	11/09/04 12:00	STL		n n
2,4,	5-TP (Silvex)		Not detected	ug/L	1	8151	11/09/04 12:00	STL		õ
2,4,	5-T		Not detected	ug/L	1	8151	11/09/04 12:00	STL		ō

O-Analysis performed by outside laboratory



ample ID: S19496.04

Le Tag: MW12-251004-O Collected Date/Time: 10/25/2004 08:35 Matrix: Groundwater

COC Reference: 022721

Sample Containers

#	Туре	Preservative(s))	Refrigerated?	Arrival Temp. (C) T	hermometer #			
2	1 L Amber	None		Yes	4	3				
1	L Plastic	None		Yes	4	3				
2	500ml Plastic	None		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analys	t CAS#	Flags
Ext	traction / Prep.				-					يفتعميهم
Met	tal Digestion		Completed			3015A	10/28/04 12:00	PER		
Ino	organics									
pН			7.58	STD Units	0.01	150.1	10/28/04 11:17	VJH		
Aik	alinity as CaCO3		656	mg/L	1	310.1	11/04/04 14:50	JKB		
Am	imonia-N		390	mg/L	10	350.3	11/08/04 18:00	MJC	7664-41-7	
Chl	loride		351	mg/L	1	300.0	10/27/04 18:01	JDP	16887-00-6	
Nitr	rate-N		557	mg/L	0.2	300.0	10/27/04 18:24	JDP		
Niti	rite-N		Not detected	mg/L	0.2	300.0	10/27/04 16:35	JDP		
Ort	ho Phosphorus		0.18	mg/L	0.02	365.2	10/27/04 14:00	MJC		
-	e		711	mg/L	1	300.0	10/27/04 18:01	JDP	14808-79-8	
Ŀь	solved Oxygen		8.88	mg/L	1	360.1	10/27/04 19:12	LBR		
Pho	osphate		1.2	mg/L	0.1	365.2	11/15/04 16:00	MJC		
Me	otals									
Ars	senic		0.011	mg/L	0.002	200.8	10/29/04 13:51	PER	7440-38-2	
Iror	n		2.06	mg/L	0.02	200.8	11/01/04 13:15	PER	7439-89-6	
Or	ganics									
Ch	lorinated Herbicides									
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O-Analysis performed by outside laboratory

APPENDIX E PILOT STUDY CHAINS OF CUSTODY

Phase II Remedial Investigation Report Chevron Environmental Management Company & BP America, Inc.

> 24CH.67201.00 May 17, 2005

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*Matrix Key: AQ = Aqueous AR = Air SO = Soił WA = Waste OT = Other **Container: A = Amber C = Clear Glass

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*Matrix Key: AQ = Aqueous AR = Air SO = Soil WA = Waste OT = Other

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2680 East Lansing Dr., East Lans' MI 48823 Phone (517) 332-0167 Fax (51) 2-6333

C.O.C. PAGE # 2 OF 2

015/37 12 REPORT TO **CHAIN OF CUSTODY RECORD** /03/04 INVOICE TO MILINE itterson CONTACT NAME NASA E SECOR COMPANY 11: Club Meridian Dr., Suite E ADDRESS دي: STATE ZIP CODE CITY STATE ZIP CODE 10 VO WOS FAX NO. 517-349-6663 P.D. NO. PHONE NO. FAX NO. P.O. NO. FAX 49-9499 ALL ADDRESS QUOTE NO. Ferson C. Serar. Com ĊΠ PRESERVATIVE CODE SAMPLE TYPE A = NONE 17 DJECT NO INAME GWIN WW 🗆 👘 OIL 🖂 SOILO $8 \approx HNO_{*}$ REFRIGERATE Bee-Jay 4CH-67201.00.0011 Sa PRODUCT C=H.SO. 349 SLUDGE CYINE D = NaOH PLER(S) - PLEASE PRINT NAME E = HCL like McMehon BOTTLE RUSH ANALYSES DUE DATE F-88 TYPE SAMPLE COLLECTION RUSH PICK-UP APPROVED BY: MERIT ā SAMPLE TAG 1.20 # OF YEAR: LAB NO. IDENTIFICATION-DESCRIPTION BOTTLES ANALYSES: DATE TIME .14 1500 SB-PS-002-0.8-10 12/11/04 2 Nitrates nitrites ammonia dinoses, total phosobrons TDC. .15 1500 Z 1211/64 -702-0.10-12! X ŧť. .16 1500 12/1/0-002-0,12-14" Ż. E a s. SECOR 17 500 002-0 Z 14-16 ۲, 18 1500 -002-0,16-19 2 1104 ΞÍ LANSING 19 225 SB-13-003-0 2 y Nitrates, minites ammonia .20 SB-PS-004-0 1335 211104 2 1£ .21 1500 -002-1,8-10' SB-Nitrates nitrites, annonica, dinoseb, total phosphorous, TOC 2 NOUISHED BY: DATE TIME **RELINCUISHED BY:** DATE TIME IATURE CI SAMPLER SIGNATURE EIVED BY: DATE TIME RECEIVED AT MERIT BY: THE 2:00 DATE **IATURE** Take SIGNATURE m 04 NOUISHED BY: DATE TIME SEAL NO. SEAL INTACT INITIALS NOTES: TEMP. ON ARRIVAL ATURE YÉSCI NOD EIVED BY: DATE TIME SEAL NO. SEAL INTACT INITTALS

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APPENDIX F PILOT STUDY BORING LOGS

Phase II Remedial Investigation Report Chevron Environmental Management Company & BP America, Inc.

> 24CH.67201.00 May 17, 2005

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APPENDIX G PILOT STUDY GROUNDWATER PURGE AND SAMPLE FORMS

Phase II Remedial Investigation Report Chevron Environmental Management Company & BP America, Inc.

> 24CH.67201.00 May 17, 2005

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	Volume Purged (gal) (~4.2) Purge Rate (gpm)			1	Z		3	4			
F			< I gpi	m							
1	Temperature (°C)			17.	1 110	3	16.1	15.10		<u></u>	
I	Ph			7.1	6 7.4	<u>.</u> 11	126	120		<u> </u>	
S (Specific Conductiv (µmhos)	rity (uncorrecto	ed)	10.0	7 93	331	9409	9485			
7	ORP			244	21	8	227	120			
7	Furbidity/Color			<u> </u>		<u> </u>	<u>^_1</u>	~~~			
7	Odor/Sheen			Line	The	"h.	Line	<u>, , , , , , , , , , , , , , , , , , , </u>			
τ	Depth to Water Du	ring Purge (ft)		<u> </u>	au -	<u>5</u> M	eilt he	Pb. Saell	<u> </u>		
י	Number of Casing	Volumes Rem	oved.	-							
I	Dewatered?			N	2		N	N			
	Comments:						L				
-											

Sampling Equipment:

Comments: MW64-070704-0

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
	12	VANIOUS	VOIDUS	NO		see coc
				NO		
PURGE V	VATER DISPO	SAL NOTES	:			<u> </u>
Total Disc	harge (gal): <u>~ (</u>	4.25	Disposal Method: System Treat	<u>On Site Drum</u>	Drum	Designation(s)/Volume:
Comments						

Project Name: <u>Bee</u>	Jay Scales]	Projeci	t No.:	24CH.672	<u>01.01</u>		Well N	10.:M	44	ĺ	
Field Personnel: M	M				St	atic Water]	Leve	l:				
Water Level Measu	irement Metho	od: <u>SLOP</u>	PE WA	TER	LEVEL IN	DICATOR	<u>t</u>					
Time Start Purge:_	1038	·	Time I	End P	urge:	111le		Time S	Sampled		7	
Measuring Point D	escription: <u>No</u>	orth Top	of Wel	l Cas	ing							
Purge Method: <u>Lo</u> v	w Flow Pump				Pu	irge Depth:	<u></u> TD					
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depti Water	1 to (ft)	Co	Water lunın (ft)	Multiplie	r for	Casing D (Circle)	iameter	(in)	Casi	ng Volum (gal)
reB,		d at	1			2		4	6			
TD-DTW).5	17.39	8.20	-1	9.	. 5	0.16		0.64	1.4	4	۱.۰	16
Time			10	48	1100	1108	11	15				
Volume Purged (g	al)		1.	5	2.5	3.5	4	۔ ج		ŀ		
Purge Rate (gpm)			< 1g	pn								
Temperature (°C)			20	.8	20.2	20.3	10	1.9				
Ph			8.	30	8.12	8.04	8	.01				
Specific Conducti (µmhos)	vity (uncorrect	ed)	22,5	82	23.29	23.44	23	, .68				
ORP			7	9	128	105	1	3				
Turbidity/Color			Lim	e een	Lime	Line	Li	ne				
Odor/Sheen			ne	Abia	hone	perpere	nei	Vicide				
Depth to Water D	uring Purge (fi)	1.2									
Number of Casing	y Volumes Ren	noved								1		
Dewatered?			N					3		-		
Comments: D	TW take	1 for	OVE	tup)	
	· · · · ·	-	r						·			
SAMPLE DATA												
Percent Recovery	: <u>NA</u>				Ţ	Depth to Wa	ater a	t Samplin	g (ft): <u>N</u>	M		
Sampling Equipm	nent:											
Comments:												
<u></u>												
		_							1			
Sample N	o.of C	ontainer	Pr	eserv	ative	Field	· · A	malysis		C	omme	RIS.

		plashic				
MWOH	2	1.750ml	hom_	NO	Scecor	
				NO		
1					l	

PURGE WATER DISPOSAL NOTES:

Total Discharge (gal): ~ 4.6

Disposal Method: On Site Drum System Treat_____ Drum Designation(s)/Volume: _____

- -

Comments:__

WELL HEAD CONDITIONS CHECKLIST (Circle YES or NO -- if NO, add comments)

Well Security Devices OK (Bollards, Christy Lid, Casing Lid and Lock)?:	YÉS	NO		
Inside of well read and Onici Casing Dify: 120 100				
Well Casing?: YES NO				
Comments:				

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Project Name: <u>Be</u>	e Jay Scales]	Project	t No.:	: <u>24CH.67</u> 2	201.01	Well	No.: IWI	
Field Personnel: <u>N</u>	<u>MM</u>				S	tatic Water I	Level:		
Water Level Meas	surement Meth	od: <u>SLOP</u>	<u>'E WA</u>	<u>.TER</u>	<u>LEVEL II</u>				741-
Time Start Purge:	1150		Time H	End P	'urge:	1/105	Time	e Sampled 1	
Measuring Point I	Description:_N	orth Top	of Wel	ll Cas	sing T	.	**		
Purge Method: Lc	w Flow Pump	; 			۲ 	urge Deptn:	<u>_TD</u>		
Well Volume Calculation (Fill in before	Total Depth (ft)	Depth Water	ı to (fî)	Co	Water olumn (ft) ⁵	Multiplie	r for Casing (Circle)	Diameter (11)	Casing Volum (gal)
purging)		+		 		$\left \frac{1}{2} \right\rangle$	4	6	
(TD-DTW)5	18-54	8.7	۱	6	7.83	0.16	0.64	1.44	- 1.57
Time		1	119	I 3	1149	1156	1205		
Volume Purged (gal)		1.5	5	2.5	3.5	4.5		
Purge Rate (gpm))		< 1g	pm	<u> </u>	1			
Temperature (°C))		22.4	5	21.5	20.8	20.7		
Ph			8.1	L(o	8.26	8.29	8.32		
Specific Conduct (µmhos)	ivity (uncorrec	:ted)	33	.01	33.24	33.08	33.27		
ORP			15	3	96	72	88		
Turbidity/Color			mur	rky	light	et muria	Slightel	ur l	
Odor/Sheen			Acr	5 and	herbiene	e hissiel	histicite		1
Depth to Water I	Juring Purge (f	£)							
Number of Casir	ig Volumes Re	moved	1						
Dewatered?	· ·		1 2			~	N		·
Comments: D Water bei	the mease	weel F	tores	- gr	00nd 50 + 4'	rfnee.	· · · · · · · · · · · · · · · · · · ·		
SAMPLE DATA Percent Recover Sampling Equip	A: y: <u>NA</u> ment:]	Depth to Wa	ner at Sampl	ing (ft): <u>NM</u>	
Sample 1	No. of C	ontainer	Pr	csérv	ative	Field	Analysis		Comments
No. Co	ntainers	Турс		••		Filtration	Request		
	pli	ishi					(Method)		·
Iwol	2 1:	250 m	HZ:	24		NO		See ce	»c
				<u> </u>		NO			

PURGE WATER DISPOSAL NOTES:

Total Discharge (gal): ~ 5

Disposal Method: <u>On Site Drum</u> System Treat_____ Drum Designation(s)/Volume:

Comments:

	W	ELL HEA	D CONDITI	ONS CHECI	KLIST (Circle	YES or l	10 if N	O, add co	mments)
Well Security D	evices O	K (Bollard	ls, Christy Lid	l, Casing Lid :	and Lock)?:	YES	NO		
Inside of Well F	Iead and	Outer Cas	ing Dry?: YES	S NO					
Well Casing?:	YES	NO							
Commente									

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Project Name: <u>Bee</u>	Jay Scales	F	roject N	lo.:	24CH.6720	01.01	Well	No.: 1	w.2		
Field Personnel: <u>M</u>	M				Sta	tic Water L	.evel:			_	
Water Level Mcass	irement Metho	d: <u>SLOP</u>	E WAT	ER !	LEVEL IN	DICATOR				•	
Time Start Purge:_	1215	1	fiine En	d Pu	игде: <u> </u>	59 1255	Time	Sampled	125	1	
Measuring Point D	escription: No	orth Top o	of Well (Casi	ng						
Purge Method: Lov	w Flow Pump				Pu	rge Depth:	<u>TD</u>				
Well Volume Calculation (Fill in before	Total Depth (ft)	Depth Water	to (ft)	Col	Water umn (ft)	Multiplier for Casing Diameter (in) (Circle)				Casing Volume (gal)	
purging			_			2	4	6			
(D-DIW).5	18.69	1 8.49		10		0.16	0.64	1.4	4	1.63	
Time			1221	٥	1234	1241	1249				
Volume Purged (g	'olume Purged (gal)				2.5	3.5	4.5		<u> </u>		
Purge Rate (gpm)	urge Rate (gpm)			n							
Temperature (°C)			21.2	3	21.0	20.9	21.1				
Ph			8-5	6	8-56	8.55	8.55				
Specific Conducti (µmhos)	vity (uncorrect	ed)	32.2	የት	32,13	32.41	32.50				
ORP			70	-	78	75	74				
Turbidity/Color			MOST	23	mostly	Mostly	mosty				
Odor/Sheen			None	ملت	horse	hone	hore octar				
Depth to Water D	uring Purge (f	t)									
Number of Casing	g Volumes Rei	noved									
Dewatered?		<u></u>	N		N	N	マ				
Comments:	DTW -	taken	from	- 9	round a	<i>urface</i>	•				

Sampling Equipment:

Comments:

Sample No.	No. of Containers	Container Type plashie	Preservative	Field Filtration	Analysis Request (Method)	Comments
TWOZ	2	1-2500m	HISON	NO	Secon	
+				NO		
l otai Disc Comment	s:	<u></u>	System Treat			
Well Secur Inside of W Well Casin	WEL ity Devices OK (Vell Head and Ou g?: YES N	L HEAD CON Bollards, Chris ter Casing Dry 10	NDITIONS CHEC sty Lid, Casing Lic ?: YES NO	CKLIST (Circ and Lock)?:	le YES or NO - YES N	– if NO, add comments) O

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Project Name: <u>Bee</u>	Jay Scales	I	Project No	.: <u>24CH.672</u>	01.01	Well	10.: ±W.	3			
Field Personnel: <u>M</u> l	M			St	atic Water	Level:	_evel:				
Water Level Measu	rement Metho	d: <u>SLOP</u>	<u>e wate</u> i	<u>r levei. In</u>	DICATO	<u>R</u>					
Time Start Purge:	1305		Fime End	Purge: 14	,५७	Time :	Sampled <u>13</u>	91			
Measuring Point De	escription: <u>No</u>	orth Top (of Well Ca	asing							
Purge Method: Lov	v Flow Pump			Pi	irge Depth	: <u>_TD</u>					
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	(ft) C	Water Column (ft)	Multipli	er for Casing D (Circle))iameter (in)) Casing Volu (gal)			
r=-88/	~ ~ ~	~ ~			\bigcirc	4	6				
TP-DTW).5	18.65	8.4	4	9.91	0.16	0.64	1.44	1.5+			
Time			1315	1322	1329	1336					
Volume Purged (ga	al)		1.5	25	3.5	4.5					
Purge Rate (gpm)	-		< 1gpm								
Temperature (°C)	Temperature (°C)		22.4	22.0	21.6	21.6					
Ph			8.43	8.43	8.41	8.39					
Specific Conductivity (uncorrected) (µmhos)			29.90	1 30.01	30.24	30.07					
ORP		70	80	81	87						
Turbidity/Color			Mostly	Mestly clear	clean	rushi char					
Odor/Sheen			none	r herb. None	hore None	noni					
Depth to Water Di	uring Purge (fi	t)									
Number of Casing	, Volumes Rei	noved									
Dewatered?			N	<u>ل</u> ا	2	2					
Comments: D Slight fe SAMPLE DATA Percent Recovery Sampling Equipm	Tw tale 110w hint_c :: : <u>NA</u> nent:	en fr fter 3.	sjal	round so	Depth to W	Jater at Sampli	ng (ft): <u>NM</u>				
			Prese	rvative	Field	Analysis		Comments			

Co	пm	ents	:
			1.10

	W)	ELL HE	AD CONDITIONS CHECKLIST (Circle	e YES or N	NO if NO, add comments)
Well Security De	vices O	K (Bolla	rds, Christy Lid, Casing Lid and Lock)?:	YES	NO	
Inside of Well He	ead and	Outer Ca	ising Dry?: YES NO			
Well Casing?:	YES	NO				
Comments:						

Proiect Name: Ber	Jay Scales	J	Project	t No.:	: <u>24CH.67</u>	201.01		Well No	O.: TWE	้่า	
Field Personnel: N	4M				ș	Static Water J	Leve	l:		۱	
Water Level Meas	urement Meth	od: SLOP	<u>'E WA</u>	TER	<u>LEVEL</u>)	NDICATOR	2				
Time Start Purge:	1343		Time F	End P	'urge:	1403		Time S	ampled_14	104	
Measuring Point I	Description:_N	orth Top (of Wel	il <u>Cas</u>	sing						
Purge Method: Lo	w Flow Pump]	Purge Depth:	TD				
Well Volume Calculation (Fill in before	Total Depth (ft)	Depth Water	to (ft)	Co	Water Juinn (ft)	Multiplier	r for (Casing Dis (Circle)	ameter (in)	Casing (1	; Volum gal)
purging)				-		10	Τ	4	6		
TD-07W).5	16-1	\$.7	5	7	.35	0.16	1	0.64	1.44	8,60	-]
Time		·	131	48	1353	1401					
Volume Purged (zal)			<u> </u>	2	3.5					<u></u>
Purge Rate (gpm)	, <u>, , , , , , , , , , , , , , , , , , </u>		< 1g	,pm							
Temperature (°C)	··		27.5	8	22.6	22.0					
Ph			8.0	16	8.43	8.42					
Specific Conducti (umhos)	ivity (uncorrec	ted)	28.	24	28.79	29.59					
ORP	<u></u>		51		64	76	[
Turbidity/Color			Slig	ntelly	AL SLAVE	sught velige					
Odor/Sheen	<u></u>	<u></u>	her	rbiu	the here	inde	-				
Denth to Water I	During Purge (!	A)	+			1					
Number of Casin	g Volumes Re	moved		<u> </u>							
Dewatered?		<u></u>			~	<u></u>					
Comments:	tw tak	en tro	in c	200	and su	africe	<u> </u>	<u>_</u>		·····	
				J						,	
SAMPLE DAT	A:					- 					
Percent Recovery	y: <u>NA</u>					Depth to Wa	iter a	t Sampling.	; (ft): <u>NM</u>		
Sampling Equipr	nent:										
Comments:	n bottom	· ·F w	22.11	<u> </u>							
						Field		-alizia		Comment	
Sample r No. Co	ntainers	ontainer Type	F IT	SELA	ative	Filtration	F	Request		Comments	
		•	. · · · ·			· · · · · · · · · · · · · · · · · · ·	1)	Aethod)	1.		
" ·		Incly .					1		• • •	•	

PURGE WATER DISPOSAL NOTES:

Total Discharge (gal): ~ \$3.15

Disposal Mcthod: <u>On Site Drum</u> System Treat_____

NO

Drum Designation(s)/Volume:

Comments:__

 WELL HEAD CONDITIONS CHECKLIST (Circle YES or NO -- if NO, add comments)

 Well Security Devices OK (Bollards, Christy Lid, Casing Lid and Lock)?:
 YES NO

 Inside of Well Head and Outer Casing Dry?: YES NO
 NO

 Well Casing?:
 YES NO

 Comments:
 YES NO

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SECOR 001

Ø 003

Project Name: <u>Bee</u>	Jay Scales	F	Project No.	24CH.6720	1.01	Well ?	No.: MWC	24
Field Personnel: <u>M</u>	M			Sta	tic Water I	Level:		
Water Level Measu	rement Metho	od: <u>SLOP</u>	<u>e water</u>	LEVEL IN	DICATOR	2		
Time Start Purge:_	924		fime End F	Purge: 9	57	Time	Sampled 10	
Measuring Point D	escription: <u>N</u>	orth Top (of Well Cas	sing				
Purge Method: Lor	w Flow Pump			Pu	rge Depth:	<u>TD</u>		
Well Volume Calculation (Fill	Depth Water	to (ft) Co	Water olumn (ft)	Multiplie	r for Casing D (Circle)	Diameter (in)	Casing Volume (gal)	
in before					•			
purging)					2	4	6	
, TD-DTW)0.5	17.41	8.3	3 6	1.03	0,16	0.64	1.44	1.95
Time			937	944	950	957		
Volume Purged (g	jal)	_	1.5	2.5	3.5	4.5		
Purge Rate (gpm)			< lgpm					
Temperature (°C)			20.1	20.1	20.3	20.4		
Ph			8.11	8.15	8.14	8.18		
Specific Conducti (umhos)	vity (uncorrec	ted)	21.66	21.94 MS	22.18	22.74 ms		
ORP		_	71	77	95	83		
Turbidity/Color			Slight	rocolor	cloudy	Cloudy		
Odor/Sheen								
Depth to Water D	ouring Purge (f	t)						
Number of Casin	g Volunies Re	moved						
Dewatered?	Dewatered?				N	N		
Comments:		-						

SAMPLE DATA: Percent Recovery: <u>NA</u>

Depth to Water at Sampling (ft): NM

Sampling Equipment:_____

Comments:

Comments:

Sample No.	No. of Containers	Container Type plushic	Preservative	Ficld Filtration	Analysis Request (Method)		Comments	· · · ·
DALJOH	2	1.250 ML	HISOY	NO	See cou			
MW04		1 300 110		NO				
PURGE Total Dis	charge (gal):_~	<u>4.5</u>	: Disposal Method: System Treat	On Site Drum	Drum	Designa	ntion(s)/Volume:	
Commen	ts:				-			
Well Secur Inside of V Well Casir	WEL rity Devices OK (Vell Head and Ou ng?: YES 1	L HEAD CO (Bollards, Chri uter Casing Dry NO	NDITIONS CHE(sty Lid, Casing Lic y?: YES NO	CKLIST (Circ d and Lock)?:	ie yes of NO Yes d	II NO 10	, ada comments)	

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MON 10:28 F)N 10:28 FAX 4253721650				ECOR 001	Ł	÷	$\rightarrow \rightarrow$ LANS	ING		Ø.
	SECOR	GROUN	DWA	TER	PURGE A	AND SAM	PLE FORM	Inte land	AUC	_04	
- Project Name: Bee	Jay Scales	I	Project	No.:	24CH.672	01.01	Well]	No.: T	ر م	1	
ield Personnel: <u>N</u>	IM				St	atic Water	Level:			_	
Water Level Meas	urement Metho	od: <u>SLOP</u>	<u>e wa</u>	TER.	LEVEL IN	IDICATOR	<u>L</u>			_	
ime Start Purge:	1021		Time E	nd P	urge:	1054	Time	Sampled_	104	54	
Measuring Point T	escription: <u>No</u>	<u>orth Top (</u>	of Well	l Cas	ing						
urge Method: Lo	w Flow Pump					urge Depth:	<u>TD</u>				
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	to (ft)	Co	Water lumn (ft)	Multiplie	r for Casing I (Circle)	Diameter (.m)	Casıı	ig Volume (gal)
r 8 0/		22				2	4	6		1	
[D-DTW)0.5	18.55	8.80	0	1	.69	0.16	0.64	1.44	1	[-]	יע גע
Time		· · · · · · · · · · · · · · · · · · ·	103	30	1038	1043	1052				
Volume Purged (p	gal)		1.5	-	2.5	3.5	4.5				
Purge Rate (gpm)			< 1 g	pm							
Temperature (°C)		<u>.</u>	20	.2.	20.7	204	19.8				
Ph			8.2	9	8.28	8.33	8.35				<u>-</u>
Specific Conducti (µmhos)	ivity (uncorrect	ted)	33.	16 m5	32.97 MS	33.07 ms	33.08				
ORP			98		81	83	77				
Turbidity/Color			Sligh	14	Same	same	becomes			_	
Odor/Sheen		_									
Depth to Water D)uring Purge (f	t)									
Number of Casin	g Volumes Rei	noved									
			1		N/				1		

SAMPLE DATA:

Percent Recovery: NA

Depth to Water at Sampling (ft): NM

Sampling Equipment:____

Comments:

Sample No.	No. of Containers	Container Type	Prescrvative	Field Filtration	Analysis Request (Method)		Comments	
± 1001	2	1-250 mi	172501	NO	Sector			
1000			- provide	NO				
Total Disc Comments	harge (gal):_~	5	Disposal Method: System Treat	On Site Drum	Drum	Designat	tion(s)/Volume: _	
Well Securi Inside of W Well Casing Comments:	WEL ty Devices OK (ell Head and Ou g?: YES N	L HEAD COM Bollards, Christer Casing Dry	NDITIONS CHE(sty Lid, Casing Lid ?: YES NO	C KLIST (C ircl 1 and Lock)?:	k YES or NO YES I	il no, 10	add comments)	

SECOR 001

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Project Name: Bee	Jay Scales	I	Project	No.:	24CH.6720	01.01	We	ll No		ڊ <u>ت</u>		
Field Personnel: M	M				Sta	atic Water I	Level:				_	
Water Level Measu	rement Metho	d: <u>SLOP</u>	<u>E WA</u> 1	<u>rer</u>	LEVEL IN	DICATOR	•					
Time Start Purge:	1103		Time Ei	nd P	urge: <u>í</u>	140	Ti	ne S	ampled_	114	10	
Measuring Point D	escription: No	orth Top o	of Well	Cas	ing							
Purge Method: Lov	<u>v Flow Pump</u>				Pu	irge Depth:	TD				_	
Well Volume Calculation (Fill in before	Depth Water	h to Water (ft) Column (ft)			Multiplie	r for Casin (Circl	g Di e)	ameter ((in)	Casing Volume (gal)		
purging)						2	4		6			
TD-07W) 0.5	8.85	9.85		1.85	0.16	6 0.64		1.44	1	{	.58	
Time	1116		1124	1130	1137							
Volume Purged (g		1.5	;	2.5	3.5	4.5						
Purge Rate (gpm)			< 1gp	m			:					
Temperature (°C)			19.	ð	19.4	19.2	19.1					
Ph			8.48	3	8.49	8.51	8.53					
Specific Conductiv (µmhos)	vity (uncorrect	ed)	31.6	29	31.64 MS	31.90	32.10 ms		_			
ORP			68		77	77	79					
Turbidity/Color		-	Most	4	same	sume	clear					
Odor/Sheen												
Depth to Water D	uring Purge (fi)										
Number of Casing	g Volumes Rer	noved					:					
Dewatered?			N		N	N	1					
Comments:	w from e	rnd su	xfnce		· · · · · · · · · · · · · · · · · · ·							
SAMPLE DATA	.: • NA					enth to Wa	iter at Sam	oling				

Comments:

Comments:__

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Field Analysis Comments Prescrvative Container Sample No. of Filtration Request Containers Type No. (Method) . • ushic 112509 - 250 mc NO Sec (uc twoz 2 None NO PURGE WATER DISPOSAL NOTES: Total Discharge (gal): ~ 5 Drum Designation(s)/Volume: Disposal Method: On Site Drum System Treat_ Comments: WELL HEAD CONDITIONS CHECKLIST (Circle YES or NO -- if NO, add comments) Well Security Devices OK (Bollards, Christy Lid, Casing Lid and Lock)?: YES NO Inside of Well Head and Outer Casing Dry?: YES NO NO Well Casing?: YES

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SECOR 001

→→→ LANSING

Ø 006

Project Name: Bee	Jay Scales	ŀ	Project	No.:	24CH.672(Sta	<u>)1.01</u> atje Water 1	Well } .evel:	No.: 50	دى		
Vieter Level Maan	urement Metho	di st op	OPE WATER LEVEL INDICATOR								
Time Start Durge:		u. <u> </u>	Time Red Durge: 17.28 Time Sampled 1230								
Measuring Point D	escription: No	orth Top o	of Wel] Cas	ing	<u> </u>		• -			
Purge Method: Lo	w Flow Pump		_		Pu	arge Depth:_	TD				
Well Volume Calculation (Fill in before	Total Depth (ft)	Depth Water	to (ft)	Co	Water lumn (ft)	Multiplier	for Casing I (Circle)	Dianieter (in)	Cas	ing Vol (gal)
purging)						2	4	6			
TD-DTw)0.5	18.65	8.89		9	,76	0.16	0.64	1.44	•	۱	,50
Time			12	03	1211	1219	1226	12282			
Volume Purged (g	gal)	-	1.5	Ţ	2.5	3.5	9.5				
Purge Rate (gpm)			< 1g	pm							
Temperature (°C)			19	.4	19.2	19.1	18.8				
Ph			8.5	6	1.53	8.52	8.52				
Specific Conducti (µmhos)	vity (uncorrect	ed)	31	.02 Ms	30.96	30.86	30.76				
ORP		-	7	4	121	123	121				
Turbidity/Color			ma	75H4	lear	clear	mostly				
Odor/Sheen											
Depth to Water D	uring Purge (fl	;)									
Number of Casin	g Volumes Rer	noved									
Dewatered?			1	Ņ	7	N	N				
		en la c	. cho								

SAMPLE DATA: Percent Recovery: <u>NA</u>

Depth to Water at Sampling (ft): NM

Sampling Equipment:_____

Comments:

Comments:_

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Sample No	No, of Containers	Container Type	Preservative	Field Filtration	Analysis Rcquest (Method)	Comments
+141051	2	1-250 MI	HI SON	NO	See Coc	
Luca		11 70 01		NO		
PURGE Total Disc	WATER DISPO charge (gal): ~ .	SAL NOTES	: Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comment	is:				-	
Well Secur Inside of W Well Casin	WEL ty Devices OK (Vell Head and Ou 197: YES)	L HEAD CO (Bollards, Chri Iter Casing Dry NO	NDITIONS CHEC sty Lid, Casing Lic /7: YES NO	CKLIST (Circi i and Lock)?:	le YES or NO YES I	if NO, add comments) 10

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SECOR 001

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- <u></u>	SECOR	GROUN	DWA'	TER	PURGE A	IND SAMP.	LE FORM Di	ate 6 AUC	<u>~</u>	
Project Name: <u>Bee</u>	Jay Scales	F	roject	No.:	24CH.6720	<u>01.01</u>	Well N	io.: けて	4	
Field Personnel: M	M				Ste	ntic Water L	evel:			
Water Level Measu	rement Metho	od: <u>SLOP</u>	<u>F. WA'</u>	TER	<u>LEVEL IN</u>	DICATOR				
Time Start Purge:_	1238_	1	lime E	nd P	urge:	307	Time S	Sampled <u>]3</u>	<u>08</u>	
Measuring Point D	escription: <u>N</u>	orth Top o	of Well	l Cas	ing					
Purge Method: Loy	w Flow Pump				Pu	rge Depth:	TD			
Well Volume Calculation (Fill in before purging)	Depth Water	to (ft)	Co	Water lumn (ft)	Multiplier	for Casing D (Circle)	liameter (in)	Casing Volume (gal)		
F - 6 - 2,		9				- O	4 6			
(0-DTW) 0.5	(e-DTW) 0.5 16.10 8.9					0.16	0.64	1.44	1.15	
Time			122	59	1257	1304				
Volume Purged (g	;al)		1.5	5	2.5	3.5				
Purge Rate (gpm)			< 1g	pm						
Temperature (°C)			11.6		19.4	19.2				
Ph			8.	3(8.34	8.35				
Specific Conducti (µmhos)	vity (uncorrect	ted)	30.44		31.03	31.26 ms				
ORP			7	9	76	71				
Turbidiry/Color			Clov	dy	Mosty	er				
Odor/Sheen										
Depth to Water D	uring Purge (f	t)								
Number of Casing	moved									
Dewatered?		N	J	N	N					
Comments: DT studge_in	w measure	well	<u>- 9</u> 10	und	Sucface					

SAMPLE DATA:

Percent Recovery: <u>NA</u>

Depth to Water at Sampling (ft): NM

Sampling Equipment:

Comments:

Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments			
14104	2	- 250 MI	1725-1	NO	See coc				
10004		SUDMI	TIONE	NO					
PURGE V Total Disc	vater DISPC harge (gal): <u>~</u>	DSAL NOTES 3.75	: Disposal Method System Treat	: <u>On Site Drum</u>	Drum	Designation(s)/Volume:			
Comments					- 1. VPC NO	if NO add commonte)			
	WEI	L HEAD CO	NDITIONS CHE	CKLISI (CIFC					
Well Securi	ty Devices OK	(Bollards, Chri	STY LID, Casing LI	a and LOCK)?.	125 1				
Inside of W	ell Head and O	iter Casing Dry	r?; yes no						
Well Casing	g?: YES]	NO							
	Project Name: Bee	Jav Scales	I	Project N	lo.: 24CH.672	01.01	Well N	io: MWH	,
---	---	---------------------	-----------------	----------------	----------------------	-------------	----------------------------	--------------	-----------------------
	Field Personnel: M	M		-	St	atic Water	Level:		
1	Water Level Measu	rement Metho	od: <u>SLOP</u>	<u>e wati</u>	<u>ER LEVEL IN</u>	DICATO	2		_
	Time Start Purge:	923		Time End	d Purge:	957	Time S	Sampled 95	<u>8</u>
	Measuring Point D	escription: No	orth Top (of Well (Casing				
	Purge Method: Lov	v Flow Pump		Purge Depth			<u>TD</u>		
	Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	1 to (ft)	Water Column (ft)	Multiplie	r for Casing D (Circle)	iameter (in)	Casing Volum (gal)
	r - 8 - 8	·····				(2)	4	6	1
	(TD-DTW)0.5	(7.41	8.30	1	9.02	0,16	0.64	1.44	1.99
	Time		I	934	941	948	956		
	Volume Purged (g	l.5	2.5	3.5	4.5				
	Purge Rate (gpm)	Purge Rate (gpm)							
	Temperature (°C)			21.0	20.8	20.8	21.0		
	Ph			7.99	7.97	7.98	7.97		
	Specific Conductiv (µmbos)	vity (uncorrec	ted)	21.22 MS	21.29 MS	21.43 ms	21.77 MS		
	ORP			60	58	- 69	-61		
	Turbidity/Color			Shight Murk	l citor	Mosty	nosty clear		
)	Odor/Sheen								
/	Depth to Water D	uring Purge (f	t)						
	Number of Casing	g Volumes Re	moved						
	Dewatered?	· .		N	N	N	N		

Comments:

Sample No	No. of Containers	Container Type plashic	Preservative	Field Filtration	Analysis Request (Method)	Comments
Wanned	2.	250 MI	H2507	NO	See con	
101001		- 700 100		NO		
Total Disc	charge (gal): s:	4.5	Disposal Method: System Treat	<u>On Site Drum</u>	Drum	Designation(s)/Volume:
Well Secur Inside of W Well Casin Comments:	WEL ity Devices OK ('ell Head and Ou g?: YES)	L HEAD CO (Bollards, Chri iter Casing Dr NO	NDITIONS CHEC sty Lid, Casing Lid ??: YES NO	CKLIST (Circ and Lock)?:	le YES or NO YES I	if NO, add comments) NO

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004

Project Name: Bee	Jay Scales	F	roject	t No.:	24CH.672	01.01	Well	No.: 101	00	
Field Personnel: M	M				St	atic Water I	Level:			
Water Level Meas	arement Metho	od: <u>SLOP</u>	<u>e wa</u>	TER	LEVEL IN	DICATOR				
Time Start Purge:_	1006	1	lime I	End P	urge: 1	544	Time	Sampled 10°	15	
Measuring Point D	escription: N	orth Top c	of Wel	ll <u>Cas</u>	sing					
Purge Method: Lov	w Flow Pump				Pı	irge Depth:	TD			
Well Volume Calculation (Fill in before purging)	Well Volume Total Dept Calculation (Fill Depth (ft) Water in before purging)		i to Water (ft) Column (ft)			Multiplic	r for Casing I (Circle)	Diameter (in)	Casing Volum (gal)	
							4	6		
TO-DTW C.5	-DTW)0.5 18.55		0	ſ	9.7 0.16		0.64	1.44	.5>	
Time	<u> </u>	L	101	7	1025	103य	1042			
Volume Purged (g	;al)		1.5	,	2.5	3.5	4.5			
Purge Rate (gpm)			< 1g	pm						
Temperature (°C)			19.1	ት	20.6	20.4	20.5			
Ph			8.1	6	8.17	8.21	8.24			
Specific Conducti (unahos)	vity (uncorrec	ted)	32.8	2 M5	33.03 MS	32.76	32.86 MS			
ORP			8		50	49	78			
Turbidity/Color			Most	Ч	Mosky	Mostly	Riosky			
Odor/Sheen	·····									
Depth to Water D	uring Purge (f	 t)								
Number of Casin	g Volumes Re	moved								
Dewatered?		·····	N		~	~				
Comments: NTV	~ from	around	Sui	ifac						
		0								
SAMPLE DATA	 X:		_			,,,	· · · · · · · · · · · · · · · · · · ·			
Percent Recovery	7: <u>NA</u>				J	Depth to Wa	iter at Sampl	ing (ft): <u>NM</u>		
Sampling Equip	nent:									
Comments:										
							· · · · · · · · · · · · · · · · · · ·			
					un direction in the	Field	Anahuria		Commente	
I Samole I N	NO.0I .1 C	OILIGIUEL	r _	「こうらし」		TIME .	le cumbaia	Г., •		

.

NO

NO

WELL HEAD CONDITIONS CHECKLIST (Circle YES or NO -- if NO, add comments)

Disposal Method: On Site Drum

NO

See Coic

YÊS

NO

Drum Designation(s)/Volume:

plashi

250 MI

570 m

Well Security Devices OK (Bollards, Christy Lid, Casing Lid and Lock)?:

2

Total Discharge (gal): ~ 5

PURGE WATER DISPOSAL NOTES:

Inside of Well Head and Outer Casing Dry?: YES

YES

NO

TWON

Comments:

Well Casing?:

Comments:_

172504

non

System Treat_

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SECOR 001

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Project Name: <u>Bee</u> Field Personnel: M	<u>Jay Scales</u> M	ł	Project N	No.: <u>24CH.672</u> Si	<u>01.01</u> tatic Water	Well 1 Level:	No.: Curz	_		
Water Level Measu	rement Metho	od: SLOP	E WAT	ER LEVEL N	DICATOR					
Time Start Purge:	1052		Time En	d Purge:	1126	Time	Sampled 117	26		
Measuring Point D	escription: No	orth Top	of Well	Casing	-					
Purge Method: Lov	v Flow Pump			Р	urge Depth:	<u>. TD</u>				
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	(ft)	Water Column (ft)	Water Multiplier for Casing Diameter (in) Column (ft) (Circle)					
pe. BB)				_	(2)	4	6			
(TD-DTW)0.5 18.70		8.80	۱	9.81	0.16	0.64	1.44	1.57		
Time			1103	1103 1110 1117 1124						
Volume Purged (ga Purge Rate (gpm)	al)		1.5	2.5	3.5	4.5				
			< 1 gpr	n						
Temperature (°C)			21.0	20.4	20.4	20.6				
Ph			8.3	3 8.37	8.39	841				
Specific Conductiv (µmhos)	vity (uncorrec	ted)	31.65	31.25 5 MG	31.43	31.56				
ORP			44	63	70	77				
Turbidity/Color			clean	2 Crew	cieor	clear				
Odor/Sheen										
Depth to Water D	uring Purge (f	t)								
Number of Casing	g Volumes Re	moved								
Dewatered?			N	N	N	N				
Commonto: No	a) (color co	no of Sui	free	<u></u>			· · · · · ·			

Sampling Equipment:_____

Comments:

Sample No.	No. of Containers	Container Type plashic	Preservative	Field Filtration	Analysis Request (Method)	Comments
7W07.	7	ZEUMI	Hizso-1	NO	See con	
				NO	· · · · · · · · · · · · · · · · · · ·	
Total Disc Comment	charge (gal): ~ /	5	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Well Secur Inside of W Well Casin Comments	WEL ity Devices OK (7ell Head and Ou g?: YES N	L HEAD CON Bollards, Chris ter Casing Dry IO	NDITIONS CHEC sty Lid, Casing Lic ?: YES NO	CKLIST (Circl] and Lock)?:	e YES or NO YES N	if NO, add comments) IO

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			, ,				Đ	ate <mark>2 A</mark> ⊍	6-04	
Project Nam	ne: <u>Bee</u>	Jay Scales) I	Project No	o.: <u>24CH.672</u>	<u>01.01</u>	Well N	No.: IW3	•	
ield Persor	nnel: <u>M</u>	M			St	atic Water I	Level:			
Water Leve	l Measu	irement M	ethod: <u>SLOP</u>	<u>e wate</u>	<u>r level IN</u>	DICATOR	:	,		
fime Start I	Purge:	1134		l'ime End	Purge:	10	Time :	Sampled 12	<u></u>	
Measuring	Point D	escription:	North Top	of Well C	asing					
Purge Meth	od: Lov	v <u>Flow</u> Pu	mp		P	irge Depth:	TD			
Well Volu	ume	Total	Depth	to	Water	Multiplie	r for Casing D	Diameter (in)	Casing Volum	
Calculation in befor purging	ı (Fill re g)	Depth (f	t) Water	(ft) (Column (ft)		(Circle)		(gal)	
· · · ·				_	1.0	(2)	4	6		
(0-0rw))0.5	18.65	8.86		4.8	0.16	0.64	1.44	(.2.4	
Time				1144	1152	1159	1207			
Volume Pu	irged (gi	al)	_	1.5	7.5	3.5	4.5			
Purge Rate	(gpm)			1gpm		[ļ			
Temperatu	re (°C)			21.4	20.9	21.4	21.1			
Ph				8.46	8.49	8.49	8.48			
Specific C	onducti	vity (uncor	rected)	21 27	31.17	31.22	2094			
(µmhos)			_	51.7C	ms	wes	ms			
ORP				55	73	71	72			
Turbidity/(Color			Slight	Slight	Slight clouds	SUISK			
Odor/Shee				1		1				
Depth to V		uring Durg	e (ft)				++			
Берш ю у							<u> </u>			
Number of	F Casing	y Volumes	Kemoyed			<u> </u>	<u> </u>			
Dewaterco	1?			N	2	4	<u>لر</u>			
SAMPLE Percent R		• • • • • • • • • • • • • • • • • • •	<u>~ grnd</u>	5.(№	<u> </u>	Depthi to Wa	ater at Sampli	ng (ft): <u>NM</u>		
Sampling Comment	Equipm s:									
							(A		Comments	
Sample	. N	o. of	Container	Prese	rvative	Field	Analysis			
Sample No.	N Con	o. of tainers	Container Type	Prese	rvative	Field Filtration	Analysis Request		· · · ·	
Sample No.	N Con	o. of itainers	Container Typo plashe	Prese	rvative	Field Filtration	Analysis Request (Method)			
Sample No.	N Con	o. of tainers	Container Typo plashic 250 ml	Prese H2S	rvative ~	Field Filtration NO	Analysis Request (Method) Sercoc			
Sample No. Tuxs	N Cor	o. of tainers	Container Type plashi 250 ml 520 ml	Prese Hzs		Field Filtration NO NO	Analysis Request (Method) Seccoc			
Sample No.		o. of tainers	Container Type plashin 250 ml 520 ml	Prese HZS puv	rvativë 언	Field Filtration NO NO	Analysis Request (Method) Seccoc			
Sample No. Iuss PURGE Total Dis	N Cor 2 WATE charge	o. of tainers R DISPO (gal):_~ =	Container Type plashin 250 ml 520 ml SAL NOTES	Prese HZS put S: Disposa System	rvativě 멋 l Method: <u>Or</u> Trcat	Field Filtration NO NO	Analysis Request (Method) Seccoc	n Designation	ı(s)/Volume:	
Sample No. Two5 PURGE Total Dis Commen	N Cor 2 WATE charge (o. of tainers R DISPO (gal):_~ 2	Container Type plashic 250 ml 520 ml SAL NOTES	Prese HzS Puy S: Disposa System	rvativě <u>vy</u> l Method: <u>Or</u> Trcat	Field Filtration NO NO	Analysis Request (Method) Sercoc	n Designation	ı(s)/Volume:	

Comments:___

SECOR 001

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007

Project Name	e: <u>Be</u> e J	ay Scales		Project N	No.: <u>24CH.6</u>	7201.01	Well	No.: Iwc	4			
Field Person	nel: MN	1		-		Static Water	Level:					
Water Level	Measur	- rement Me	thod: <u>SLO</u>	PE WAT	<u>ER LEVEL</u>	INDICATOR	2					
Time Start Pi	urge:	1217		Time En	d Purge:	1244	Time	Sampled 12	45			
Measuring Po	oint De	scription:_	North Top	of Well (Casing							
Purge Metho	d: <u>Low</u>	Flow Pun	<u>1p</u>			Purge Dopth:	TD	ID				
Well Volur Calculation (in before	me (Fill	Total Depth (ft)	Dept) Wate	th to r (ft)	Water Column (ft)	Multiplie	r for Casing I (Circle)	Diameter (in)	Casing Volu (gal)			
P. 6	′ -			·····		2	4	6				
TO-DTW)	0.5	16.10	8.9	2	7.18	0.16	0.64	1.44	1.15			
Time				1226	1235	1242						
Volume Purg	ged (ga	l)		1.5	2,5	3.5						
Purge Rate ((gpm)			< 1gpr	m							
Temperature	: (°C)			22.6	22.0	22.3						
Ph				8.13	\$ 8.21	8.24						
Specific Cor (µmhos)	nductiv	ity (uncorr	rected)	31.81 ma	31.85	31.67						
ORP Turbidity/Color Odor/Sheen				49	61	70						
		Mostle	1 peoste	Morty								
Depth to W	ater Du	ring Purge	(ft)	-								
- · r · · ·												
Number of (Casing	Volumes I	Removed									
Number of (Casing	Volumes I	Removed	N	N	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						
Number of (Dewatered? Comments:	Casing	Volumes I	Removed	N Sulfac	N	N						
Number of (Dewatered? Comments:	Casing Dru	Volumes I	- sind	N Sulfar	N	N						
Number of a Dewatered? Comments: SAMPLE I Percent Rec Sampling E Comments:	Casing DTu Adge U DATA: Covery: Equipme	Volumes I	Sind	N Sulfere	~	Depth to Wa	ater at Sampli	ing (ft): <u>NM</u>				
Number of Dewatered? Comments: S lu SAMPLE I Percent Rec Sampling E Comments:	Casing DTU Adge U DATA: covery: Equipme	Volumes I	Removed			Depth to Wa	ater at Sampli	ing (ft): <u>NM</u>	Comments			
Number of i Dewatered? Comments: S lu SAMPLE I Percent Rec Sampling E Comments: Sample No.	Casing DTU Adge U DATA: covery: Equipme No Cont	Volumes I <u>J Grow</u> <u>NA</u> ent: p. of ainers	Container Type	N Selfere II	لم servative	Depth to Wa	ator at Sampli Analysis Request (Method)	ing (ft): <u>NM</u>	Comments			
Number of 1 Dewatered? Comments: Sample I Percent Rec Sampling E Comments: Sample No.	Casing DTU Adge U DATA: covery: Cquipme No Cont	Volumes I <u>Volumes I</u> <u>NA</u> ent: p. of ainers	Container Type plash 250 ml	N Suffice II Pres H25	servative	Depth to Wa	Analysis Request (Method) See cut	ing (ft): <u>NM</u>	Comments			
Number of a Dewatered? Comments: Shu SAMPLE I Percent Rec Sampling E Comments: Sample No.	Casing DTu Adge (DATA: covery: Equipme No Cont Z	Volumes I	Container Type plash 500 ml	Pres HZS	servative	Depth to Wa	Analysis Request (Method) See Cou	ing (ft): <u>NM</u>	Comments			
Number of I Dewatered? Comments: Slu SAMPLE I Percent Rec Sampling E Comments: Sample No.	Casing DTU Adge U DATA: covery: Equipme No Cont	Volumes I	Container Type plash 500 ml	N Suffere II Pres Hzsi -ror	servative	Depth to Wa	Analysis Request (Method) See cuc	ing (ft): <u>NM</u>	Comments			
Number of a Dewatered? Comments: SAMPLE I Percent Rec Sampling E Comments: Sample No. Twoy PURGE W Total Discl	Casing DTU Adge (DATA: covery: Cquipme No Cont VATER harge (g	Volumes H	Container Type plash 500 ml	Pres Hzsi CS: Dispos System	Servative	Depth to Wa Depth to Wa Field Filtration NO NO	ater at Sampli Analysis Request (Method) Sec coc Dru	ing (ft): <u>NM</u>	Comments			
Number of i Dewatered? Comments: SAMPLE I Percent Rec Sampling E Comments: Sample No. Twoy PURGE W Total Discl Comments	Casing DTU Adge U DATA: covery: Equipme No Cont VATEF harge (g	Volumes I Volumes I NA ent: D. of ainers C DISPOS gal): ~ 3. 7	Container Type plash 500 ml	N Sufface It Pres Hzso S: Dispos System	servative	Depth to Wa Depth to Wa Field Filtration NO NO Dn Site Drum	Analysis Request (Method) See cou	ing (ft): <u>NM</u>	Comments			

3.6

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Comments:

Project Name: Bee Jay Scales		Project	t No	· 24CH 672	01 01	 Well :		9-A	1604
Field Personnel: MM		110jee		. <u>24011.072</u> Si	atic Water	Level:		νW	०५
Water Level Measurement Met	hod: SLO	PE WA	TER	LEVEL	IDICATOR	 {			
Time Start Purge: 1048		Time H	End F	Purge:/	122	Time	Sample	a // Z	22
Measuring Point Description:_	North Top	of Wel	l Cas	sing			-		
Purge Method: Low Flow Purn	D			P	urge Dopth	: <u>TD</u>			
Well Volume Total Calculation (Fill Depth (ft) in before purging)	Dept Water	h to (ft)	Co	Water olumn (ft)	Multiplie	er for Casing I (Circle)	Casing Vo (gal)		
(D-DTW)0.5 17.41	8.41		d	1.0	0.16	4 6 0.64 1.44		i 14	ા.ધય
Time		1659		1107	1114	1121			
Volume Purged (gal)		1.5	-	2.5	3.5	4.5			
Purge Rate (gpm)		< 1g	pm						
Temperature (°C)		21.	٩	22.1	22.9	23.1			
Ph		7.7	7	7.77	7.75	7.80			
Specific Conductivity (uncorre (µmhos)	ected)	20.	07 55	20.20	20.32	20.64			
ORP		- 3	1	-67	-66	- 85			
Turbidity/Color		Bligh Nur	ky	slight Mucky	Slight Minky	Slight Murky			
Odor/Sheen									
Depth to Water During Purge	(ft)								
Number of Casing Volumes R	emoved								
Dewatered?		1		+				1	

4.5

SAMPLE DATA:

Percent Recovery: NA

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:_____

Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments	••••
MUNDER	2	2 SUMI	HUSON	NO	seecor		
				NO			
Total Disc Comments	harge (gal): <u>~ 4</u> s:	SAL NOTES:	: Disposal Method: System Treat	<u>On Site Drum</u>	Drum	Designation(s)/Volume:	
Well Securi Inside of W Well Casing Comments:	WEL ity Devices OK (fell Head and Ou g?: YES N	L HEAD CON Bollards, Chris Iter Casing Dry NO	NDITIONS CHEC sty Lid, Casing Lid 7: YES NO	CKLIST (Circl and Lock)?:	le YES or NO YES I	if NO, add comments) NO	

SECOR 001

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005

Project Name: Bee	Jay Scales]	Project	No.:	: <u>24CH.672</u>	01.01	Well]	No.: ᆍ	w!	1		
Field Personnel: M	ÍМ	•			St	tatic Water	Level:			_		
Water Level Meas	urement Moth	od: <u>SLOF</u>	<u>e wa</u>	TER	LEVEL D	DICATOR	<u>L</u>					
Time Start Purge:_	1130		Time I	End F	urge:[203	Time	Sampled	120	<u>94</u>		
Measuring Point D	escription: <u>N</u>	orth Top	of Wel	1 Cas	ing							
Purge Method: Lo	w Flow Pump				Р	urge Depth:	<u>TD</u>					
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	Pepth to Water Multiplier for Casing Diameter Vater (ft) Column (ft) (Circle)					Diameter	(in)	n) Casing Vol (gal)		
^		8				2	4	6				
TD-Drw)0.5	D-Drw)0.5 18.55 8.		9.6		.64	0.16	0.64	1.4	4	1.54		
Time			114	1	1148	1155	1202					
Volume Purged (g	;al)		1.5	5	25	3.5	4.5					
Purge Rate (gpm)	· · · · · · ·		< 1g	pm								
Temperature (°C)			22.	ما.	22.4	22.4	22.2					
Ph			7.4	17	7.98	8.01	8.05					
Specific Conducti (µmhos)	vity (uncorrect	ted)	31.4	35	32.56	32.55	32.31 ne					
ORP			Lie	3	60	70	73					
Turbidity/Color			51.56	ut Jicu	Slight	Slight	Slight					
Odor/Sheen												
Depth to Water D	uring Purge (fl	t)										
Number of Casing	y Volumes Rer	noved	1									
Dewatered?												
Comments: DT	w From	gend	SUF	fac	k		······································	· · · · · · · · · · · · · · · · · · ·				
		<u> </u>						·				

Sampling Equipment:____

Comments:

Field Preservative: Analysis Comments Sample No. of Container Filtration Request No. Containers : Туре 1 1 (Method) 6. S¹ Ξ. . . lashi Hisoy ZSUM1 NO See cer twol 7 none NÖ PURGE WATER DISPOSAL NOTES: Total Discharge (gal):_~ 5 Disposal Method: On Site Drum Drum Designation(s)/Volume: System Treat_ Comments: WELL HEAD CONDITIONS CHECKLIST (Circle YES or NO - if NO, add comments) Well Security Devices OK (Bollards, Christy Lid, Casing Lid and Lock)?: YES NO Inside of Well Head and Outer Casing Dry?: YES NO Well Casing?: YES NO

Comments:	

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SECOR 001

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	SECOR	GROUN	NDWA'	TEF	R PURGE	AND SAM	[P]	LE FORM	`	14	ndh i	L 17	
Project Name: <u>Bee</u>	Jay Scales		Project	No.	: <u>24CH.672</u>	01.01		Well	Date- No.:		- ۲۱۵		7
Field Personnel: M	M				St	tatic Water	Lo	evel:				_	
Water Level Measure	urement Metho	od: <u>SLOI</u>	PE WA	<u>rer</u>	LEVEL IN	DICATO	<u>२</u>						
Time Start Purge:	1214		Time E	nd P	urge:	248		_ Time	San	npled	121	49	
Measuring Point D	escription: <u>N</u>	orth Top	of Well	Cas	ling								
Purge Method: Lov	w Flow Pump				P	urge Depth	:	<u>rd</u>					
Well Volume Calculation (Fill in before purging)	Well Volume Total Dep Calculation (Fill Depth (ft) Wat in before purging)				h to Water Multiplier f (ft) Column (ft)				Dian	neter	(in)	Cas	ing Volume (gal)
Fre Br		~				2		4		6			
(TD-DTW)0.5	18.70	8.89		9	.8)	0.16		0.64		J.4	4	1.	57
Time			122	5	1232	1239		1246					
Volume Purged (g	al)		1.5		7.5	3.5		4.5					
Purge Rate (gpm)			< lgpm										
Temperature (°C)			24.3		24.8	22.6	ľ	21.3					
Ph			8.10	0	8.18	8.22		8.25					
Specific Conductiv (µmbos)	vity (uncorrect	ed)	31.59		31.23 hs	31-13	1	51.27 ms					
ORP			53	-	60	51	T	65					
Turbidity/Color			clear	-	clea	clear		clear					
Odor/Sheen													
Depth to Water D	uring Purge (ft)					T						
Number of Casing	y Volumes Rer	noved						<u></u>					
Dewatered?			N		N	N		N					
Comments: DT	N from e	rnd	Surf	(ce	•								
SAMPLE DATA Percent Recovery Sampling Equipm	: : <u>NA</u> ent:				Ľ	Depth to Wa	ite	r at Sampli	ng (f	t): <u>N</u>	<u>M</u>		
Comments:													

Sample No.	No. of Containers	Container Type	Preservative	Field. Filtration	Analysis Request (Method)	Comments
tuz.	2	250ml	172504	NO	Secon	
				ŇÔ		
Total Disc Comment	charge (gal):	5	Disposal Method System Treat	<u>On Site Drum</u>	Drum	Designation(s)/Volume:
Well Secur Inside of W Well Casin Comments:	WEL ity Devices OK (/ell Head and Ou g?: YES M	L HEAD CON Bollards, Chris iter Casing Dry NO	IDITIONS CHE ty Lid, Casing Li ?: YES NO	CKLIST (Circ) d and Lock)?:	e YES or NO - YES N	if NO, add comments) O

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SECOR 001

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	Jay Scales		Projec	t No.	: <u>24CH.6</u> 2	<u>7201.01</u>		Well N	lo.: + .	12		
ield Personnel: <u>M</u>	M		-			Static Water	Le	vel:		دي رو 		
Water Level Meast	rement Meth	od: <u>SLOF</u>	<u>'E WA</u>	TER	LEVEL	INDICATO	<u>R</u>					
fime Start Purge:	1255		Time I	End P	urge:	1372		Time S	Sampled_	1333	_	
Acasuring Point D	escription: <u>N</u>	orth Top	of Wel	ll Cas	sing							
urge Method: Lov	v Flow Pump					Purge Depth	1: <u>1</u>	<u>D</u>				
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	to (ft)	Co	Water Jumn (ft)	Multipli	er f	for Casing D (Circle)	iameter (in)	Casing V (ga	Volume 1)
						2		4	6			
D-DTW)as	18.65	8.88	3	9	.77	0.16		0.64	1.44		1.56	
Time		L	130	" "1	1316	1323		330		U		
Volume Purged (ga	al)						1					
Purge Rate (gpm)			< 1g	pm								
Femperature (°C)			23.	8	22.3	22.4	Z	عا ١.				
Ph			8.4	11	8.49	8.47	8	5.47				
Specific Conductiv (µmhos)	vity (uncorrec	ted)	31.5	7	31.49 WS	31.31	3	1.13 ~~				
ORP			56)	65	86	T	85				
Turbidity/Color			Slig	At Kur	Slight	Sight	3	ilight Kurkr				
Odor/Sheen												
Depth to Water Di	ring Purge (f	t)		<u> </u>								
Number of Casing	Volumes Re	moved										
Dewatered?			N				╈	N				
Comments: OTV	u from	srud	JIF.						I		1	
SAMPLE DATA Percent Recovery: Sampling Equipm Comments:	: <u>NA</u> ent:					Depth to W	ate	r at Samplinį	g (fi): <u>NN</u>	<u>1</u>		
Sample No. Cont	o. of C tainers	ontainer Type	Pr	eserv	ative	Field Filtration		Analysis Request (Method)	· · ·	Сог	nments	• • • •
	2	iusaz iumi	1+2	Sary		NO	· ·	See		<u>.</u>		
1405 2	· 5	MMI	n	بممن		NO						_
	DISTOCAT	NOTES	<u> </u>									

Comments: WELL HEAD CONDITIONS CHECKLIST (Circle YES or NO – if NO, add comments) Well Security Devices OK (Bollards, Christy Lid, Casing Lid and Lock)?: YES NO Inside of Well Head and Outer Casing Dry?: YES NO Well Casing?: YES NO

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Comments:	

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SECOR 001

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Project Name: Bee	Jay Scales]	Project	No.	: <u>24CH.672</u>	01.01	Well M	No.: ±	14	
Field Personnel: M	M				St	atic Water L	evel:			-
Water Level Measu	urement Metho	od: <u>SLOF</u>	<u>E WA</u>	TER	LEVEL D	<u>IDICATOR</u>				
Time Start Purge:_	1341		Time E	ind F	Purge: 10	407	Time	Sampled_	140	8
Measuring Point D	escription: <u>No</u>	orth Top	of Wel	<u>1 Cas</u>	sing					
Purge Method: Lov	w Flow Pump				P	urge Depth:_	<u>TD</u>			
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depth Water	n to (ft)	Co	Water blumn (ft)	Multiplier	for Casing D (Circle))iameter (in)	Casing Vol (gal)
<u> </u>		คิด				Q	4	6		
TID UTW) OF	16.10	6.7	1	,	2.19	0.16	0.64	1.44		1.15
Time			135	1	1358	1405				
Volume Purged (g	al)		1.5		2.5	3.5				
Purge Rate (gpm)			< 1g	pm						
Temperature (°C)			23.	7	23.5	23.9				
Ph			8.12		8.18	8.16				
Specific Conducti (unitos)	vity (uncorrect	ed)	31.7	4	31.85	31.64 hq				
ORP			37		75	97				
Turbidity/Color	<u>. </u>		24.5	শ	mostly	Mosty				
Odor/Shcen			1							
Depth to Water D	uring Purge (fi	;)	1		1					
Number of Casing	g Volumes Rer	noved	1							
Dewatered?			N		N	N				
Comments: Dr. Sludge in	W from batters	gend st wel	su (Fe	. CA						
SAMPLE DATA Percent Recovery	: : <u>NA</u>				I	Depth to Wat	er at Samplin	ıg (ft): <u>NN</u>	Ā	

Sample	No. of	Container	Preservative	Field	Analysis	Comments
No.	Containers	Туре		Filtration	Request	
		plashic			(Method)	
LWOY	2	250mi Suomi	rome	NO	See con	
				NO		
Total Disc Comment	charge (gal): ~ 3	3.75	Disposal Method: System Treat	On Site Drum	Drum)	Designation(s)/Volume:
Well Secur	WEL ity Devices OK (L HEAD CON Bollards, Chris	DITIONS CHE ty Lid, Casing Lic	C KLIST (Circl I and Lock)?:	e YES or NO - YES NO	- if NO, add comments) O
Inside of W	Vell Head and Ou	ter Casing Dry	YES NO			
well Casin	g/: 165 r	NU				

Project Name: <u>Bee</u>	Jay Scales		Project	No.:	24CH.672	201.01	Wel	l No.:	MU.	4	
Field Personnel: <u>M</u>	M				S	tatic Water	Level:			'	
Water Level Meas	urement Meth	od: <u>SLO</u>	PE WAT	TER	LEVEL N	NDICATO	<u>2</u>				
Time Start Purge:	615		Time E	nd P	urge:	52	Tim	e Samp	led 6	<u>53</u>	
Measuring Point D	escription: <u>N</u>	orth Top	of Well	Cas	ing						
Purge Method: Lo	w Flow Pump				P	urge Depth	: <u>TD</u>				
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depti Water	h to (ft)	Co	Water luinn (ft)	Multiplie	er for Casing (Circle)	Diamo	ter (jn)	Ca	sing Volum (gal)
(10-07W)	17 A	0		a	25	2	4		6		
0.5 EH	17.91	0.16		-1	. 23	0.16	0.64	-	1.44	- 1	.4B
Time			627	7	635	643	651			·	
Volume Purged (g	al)		1.5		7.5	3.5	4.5				-
Purge Rate (gpm)	<i></i>		< 1gp	m							
Temperature (°C)			19.8	;	(9.7	19.8	19.6				
Ph			7.6	3	7.64	7.63	7.67				
Specific Conductiv (µmhos)	vity (uncorrect	ed)	18.9	6	19.18	19.23	1931 ms				
ORP			75		40	23	7	<u>-</u>			-
Turbidity/Color			Most	5	Mostly	Mosty	mostly				-
Odor/Sheen							Lun				
Depth to Water Du	ring Purge (ft)) .				-					
Number of Casing	Volumes Ren	noved						·			<u> -</u>
Dewatered?			N		N	と	N				
Comments:						L ., <u>.</u>				-	1

Percent Recovery: NA

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:____

Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments.
MWOY	2	250 mi	HESOY None	NO	Seecon	
				NO		
PURGE	WATER DISPO	SAL NOTES	;			
Total Disc	harge (gal): 🗡	5	Disposal Method:	<u>On Site Drum</u>	Drum 1	Designation(s)/Volume:
Comment	s:			<u> </u>	_	
	WEL	L HEAD COM	VITIONS CHEC	WI IST (Cirol		

WELL HEAD CONDITIONS CHECKLIST (Circle YES or NO -- if NO, add comments) Well Security Devices OK (Bollards, Christy Lid, Casing Lid and Lock)?: YES NO Inside of Well Head and Outer Casing Dry?: YES NO Well Casing?: YES NO Comments:

		V GROU	·····			מואס ערוה	I LE FUN	171 Dee	. 8.	77-0		
Project Name: <u>Bee</u>	Jay Scales		Project	t No.	: <u>24CH.67</u> 2	201.01	w	ell No	e	ω ₁		
Field Personnel: M	<u>IM</u>				S	tatic Water	Level:					
Water Level Meas	urement Meth	od: <u>SLO</u>	<u>PE WA</u>	TER	LEVEL D	NDICATO	<u> </u>					
Time Start Purge:	706		Time I	End H	Purge: 70	43	Ti	me Sa	mplec	74	4	
Measuring Point D	escription: <u>N</u>	orth Top	of Wel	l Ca	sing							
Purge Method: Lo	w Flow Pump				Р	urge Dopth:	TD					
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Dept Water	h to r (ft)	Co	Water Dumn (ft)	Multiplie	r for Casin (Circl	ig Dia c)	meter	(in)	Cas	ing Volume (gal)
(TO-DTW)(15		0,1	-		я <u>а</u>	2	4		6			
0.5 Ette	18.55	5.0	,		[.~]	0.16	0.64		1.4	4	ł	.58
Time			71	8	726	734	742				·	
Volume Purged (g	al)		1.5	•	7.5	35	41.5			·		
Purge Rate (gpm)			< 1 gr	m				1		-		
Temperature (°C)			19.	0	19.0	18.9	182					-
Ph			7	78	7.82	7.83	7.87					
Specific Conductiv (µmhos)	ity (uncorrect	ed)	31.7	4	31.89 ms	31.97	32.00				,	
ORP			17	-	35	34	40				-	
Turbidity/Color			31.51	ht	Slight	Slight	Slight	1				
Odor/Sheen							<u>C-190(1</u>	┦───				
Depth to Water Du	ring Purge (ft))							··			
Number of Casing	Volumes Rem	noved										
Dewatered?			N		N	2	N					
Comments: DTU	w from a	end ci	(Faxe					1		I		L

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment:

Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
Iω	2	2 JUMI SUOMI	HLSOY	NO	see coc	
				NO	-	
Total Disc Comments	WATER DISPO	SAL NOTES:	Disposal Method System Treat	<u>On Site Drum</u>	Drum	Designation(s)/Volume:
Well Securi Inside of W Well Casing Comments:	WEL ty Devices OK (ell Head and Our g?: YES N	L HEAD CON Bollards, Chris ter Casing Dry 10	DITIONS CHE(ity Lid, Casing Lic ?: YES NO	CKLIST (Circl and Lock)?:	e YES or NO - YES NO	- if NO, add comments) O

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Project Name: Bee	<u>: Jay Scales</u>		Project 1	No.: <u>24CH.67</u>	<u>201.01</u>	Wel	$1 \text{ No.: } \pm \infty 7$	
Field Personnel: <u>N</u>	<u>1M</u>			S	itatic Water	Level:		-
Water Level Meas	urement Metho	od: <u>SLO</u>	<u>PE WAT</u>	ER LEVEL I	NDICATO	<u>R</u>		
Time Start Purge:	802		Time En	d Purge: <u>8</u>	39	Tim	e Sampled \mathcal{B}'	40
Measuring Point D	escription: No	orth Top	of Well	Casing				
Purge Method: Lo	w Flow Pump			F	urge Depth	: <u>TD</u>		
Well Volume Calculation (Fill in before purging)	Total Depth (ft)	Depti Water	h to r (ft)	Water Column (ft)	Multiplie	er for Casing (Circle)	Diameter (in)	Casing Volum (gal)
fr. nr.)		2.	_		2	4	6	
0.5	18.70	6.65		10.05	0.16	0.64	1.44	1.60
Time			814	822	830	838		<u>"</u>
Volume Purged (g	al)		1.5	2.5	3.5	4.5		
Purge Rate (gpm)			< I gpm	n				
Temperature (°C)	, <u></u> _		18.7	- 18.7	18.4	18.4		
Ph			9.97	801	8.06	8.10		
Specific Conductiv (µ1nhos)	vity (uncorrecto	ed)	30.50 M	20.63 5 MS	30.71 ms	3036		
ORP			36	41	44	46		
Turbidity/Color			Clean	r clear	clear	clear		
Odor/Sheen								
Depth to Water Du	uring Purge (ft)							
Number of Casing	Volumes Rem	oved						
Dewatered?			ν	4	N	N		·
Comments: DTu	U from a	rnd Cu	chau	·· · · · · · · · · · · · · · · · · · ·	L			i

SAMPLE DATA:

Percent Recovery: NA

Depth to Water at Sampling (ft): NM

Sampling Equipment:_____

Comments:

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request	Comments
		plastic			(Method)	
EW2	2	250 mi soomi	HISFI	NO	See cor	<u> </u>
ĺ				NO		
PURGE V	VATER DISPO	SAL NOTES	:			
Fotal Disc]	harge (gal):_~	5	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments	l			<u> </u>		
	WEL	L HEAD CON	NDITIONS CHEC	KLIST (Circl	- le YES or NO .	- if NO wild commonto)
/ell Securit	y Devices OK (Bollards, Chris	sty Lid, Casing Lid	and Lock)?;	YES N	O
iside of Wo	ll Head and Out	ter Casing Dry	?: YES NO			

лу Well Casing?: YES NO Comments:

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Project Name: Bee	Jav Scales		Project 7	No.: 24CH 67	201 01	W-I	$\frac{1}{1} N_0 + \frac{1}{1} N_0 + $	- 04	
Field Personnel: M	M		110,0001	10 <u>24011.07</u>	tatic Water	I evel		.>	
Water Level Meas	urement Metho	od: SLO	PE WAT	ER LEVEL I		S	····		
Time Start Purge:	917		Time En	d Purge 4	152	<u></u> Tim	e Sampled	153	
Measuring Point D	escription: No	orth Top	of Well	Casing	· · · · · · · · · · · · · · · · · · ·		e bampied	123	
Purge Method: I.or	w Flow Pump			P	urge Depth	: <u>TD</u>			
Well VolumeTotalDeptCalculation (FillDepth (ft)Watc:in beforepurging)			h to Water r (ft) Column (f		Multiplie) Casing Vo (gal)	Jume		
FORDEW AS IN A					2	4	6		
(0-010)	18.65 8.6			10.00	0.16	0.64	1.44	- 1.6	
Time			928	935	943	951			
Volume Purged (g	al)		1.5	2.5	35	4.5			
Purge Rate (gpm)			< 1gpn	n					
Temperature (°C)	·. · · ·		19.2	19.4	19.3	19.5			
Ph			8.30	8.35	8.40	8.42			
Specific Conductiv (umhos)	vity (uncorrect	ed)	31.07	+ 3).25	31.35 ms	31.54 ms			
ORP			63	43	35	26			
Turbidity/Color	····		Nosth	BANDSHA	Mosty	Mostly			
Odor/Sheen					- CHE-	year			
Depth to Water Du	ring Purge (ft)	}	1						
Number of Casing	Volumes Rem	noved	1						
Dewatered?			N	N	40	N			
Comments: DT	w fron-	acad	< 1 (Fau	<u></u>		<u>'¥</u>			

SAMPLE DATA:

Percent Recovery: NA

Depth to Water at Sampling (ft): NM

Sampling Equipment:

Comments:

Sample No.	No. of Containers	Container Type Plashe	Preservative	Field Filtration	Analysis Request (Method)	Comments
גאב	2	zoumi	Hesig	NO	S-ee cor	
			,	NO		
PURGE	WATER DISPO	SAL NOTES:	J	l		
Total Disc	harge (gal): ~ 5	5	Disposal Method: System Treat	<u>On Site Drum</u>	Drum	Designation(s)/Volume:
Comments	S:			·	-	
Nell Securi	WEL ty Devices OK (<mark>L HEAD CO</mark> N Bollards, Chris	DITIONS CHEC ty Lid, Casing Lid	KLIST (Circl and Lock)?:	e YES or NO YES N	- if NO, add comments) O
nside of W Well Casing	ell Head and Out ?: YES N	ter Casing Dry's IO	YES NO	·		-

Well Casing?: Comments:

Project Name <u>: Bee</u> Field Personnel: <u>M</u> Water Level Meas	<u>: Jay Scales</u> I <u>M</u> urement Meth	od: SLOI	Projec PE WA	t No.	.: <u>24CH.67</u> S R LEVEL D	201.01 tatic Water NDICATO	Le	Wel	Date	8.27 <u>MW-</u>	.04 .E1	ყ _	
Time Start Purge:	1000		Time I	End I	Purge: 1(ንዲና	<u>.</u>	Tim	e San	mled	102	1.	
Measuring Point D	escription: N	orth Top	of We	ll Ca	sing					iprod		<u>to</u>	
Purge Method: Lov	w Flow Pump				P	urge Depth	:_]	<u>[D</u>					
Well VolumeTotalDeptCalculation (FillDepth (ft)Waterin beforepurging)			n to (ft)	Co	Water olumn (ft)	Multiplie	er f	for Casing (Circle)	; Diam)	ieter (i	n)	Cas	ing Volume (gal)
6. NTUNE		Ô,				0		4		6			
([7.51	0.6	۲ چ	Y	.४५	0.16	0.64			1.44		1.41	
Time		101	2	1019	1027	Γ	1034			U			
Volume Purged (ga	al)		1.7	5	7.5	3.5		4.5		-+			
Purge Rate (gpm)			< 1g	pm			-		·				
Temperature (°C)			21.0		21.1	21.3	20.8				-		
Ph			7.9	8	8.08	808	8 8.14						
Specific Conductiv (µmhos)	vity (uncorrect	ed)	31.2	0	31.57	31.55	14.	31.61					
ORP	<u> </u>		17		27	12		74					
Turbidity/Color			mos	Hq.	mersty	clear		1000					
Odor/Sheen	······		010		Loca			la			<u>-</u>		
Depth to Water Du	ring Purge (ft))					_						
Number of Casing	Volumes Rem	loved											
Dewatered?	Dewatered?				2	A 1		~					
Comments: DTU Sludge in	2 from a bottom i	cad s.	11 11	<u>.</u>						_			

SAMPLE DATA:

Percent Recovery: NA

Depth to Water at Sampling (ft): NM

Sampling Equipment:

Comments:

Sample No.	Sample No. of Container No. Containers Type		Preservative	Field Filtration	Analysis Request (Method)	Comments		
IWC	2	270ml	none	NO	ser we	<u></u>		
				NO				
Total Disc. Comments	hargc (gal):	<u>8~4,5</u>	Disposal Method: System Treat	<u>On Site Drum</u>	Drum De	signation(s)/Volume:		
Well Securit Inside of Wa Well Casing Comments:	WEL ty Devices OK (ell Head and Ou ?: YES N	L HEAD CON Bollards, Chris ter Casing Dry' 10	DITIONS CHEC ty Lid, Casing Lid ?: YES NO	KLIST (Circ and Lock)?:	- le YES or NO if YES NO	NO, add comments)		

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Project Name:	See Jay Sci	alis P	roject N	lo.: 2	<u> 2464- 6</u>	<u>7201</u>	Well]	No.: <u>MW-</u>	4		
Field Personnel	<u>MM</u>				Sta	tic water L	Jevel			_	
Water Level Me	asurement Met	hod: <u>SLOP</u>	<u>e wat</u>	<u>ER I</u>	<u>LEVEL IN</u>	DICATOR	Time	Sampled	95	8	
Time Start Purg	e: 922	1	ime En	d Pu	irge:	[)	I IIIIC	oampioa_			
Measuring Poin	t Description:	North Top o	f Well	Casi	ng Du	Domthe	TT				
Purge Method:					טץ.	rge Deput.	<u> </u>	Diameter	(in)	Casing Volu	
Well Volume Calculation	Total Depth (ft)	Depth Water	to (ft)	Col	Water umn (ft)	Mumphe	(Circle)	(m)	(gal)		
						0	4	6			
10-0100	17.41	8.2	3		.18	0.16	0.64	1.4	4	(.47	
Time	l		935		PPE 941	948	955		ļ		
Volume Purge	d (gal)		1.5		2.5	3.5	4.5		<u> </u>		
Purge Rate (or	m)		< 1gp	m							
Tamparature (<u>ייי</u> ירו		19	6	19.9	19.8	19.9				
Temperature (()		7.3	3	7.48	7.49	7.52		1		
Pn Specific Cond	Ph Specific Conductivity (uncorrected)					17.60	17.63 MS				
(pillies)						- 57	- 75				
UNI Turbidity/Col					Slight	Slight	slight				
Turbialty/Col	Turbidity/Color										
Odor/Sheen		<u></u>	+			+	+		1		
					1						
								<u> </u>	_		
Dewstered?			N		N	N	2				
Comments:											
commonits						÷					
SAMPLE D	ATA:							12 (22)		- <u> </u>	
Percent Reco	overy: <u>NA</u>	en i ulb	ra wala L	~		Depth to W	ater at Samp	oiing (π): <u>I</u>	<u>NIVI</u>		
Sampling Ec Comments:											
Sample	Ne of	Container	Pr	eser	vative	Field	Analysi	S		Comments	
No.	Containers	Туре				Filtration	Request				
							Livietiiod	ア () 			
UAL 14	4	plastic F		see	COC	NO	Seecou	-		<u>. </u>	
						NO					
PURCEW	ATER DISPO	SAL NOTE	 S:								
Total Disch	arge (gal): ~5	-	Disp	osal	Method:		D	rum Desig	gnatio	n(s)/Volume: _	
10111 D1001			Syst	em 🛛	Freat						
Comments:					JS CUFCI	CLIST (Cir		NO if N	10, a d	ld comments)	
Well Securit	WEL y Devices OK (L HEAD C Bollards, Cl tor Casing F	nristy L	id, C ES	asing Lid a	and Lock)?	YES	NO	_ ,		

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	SECO	R GROUN	DWA	TER	PURGE A	ND SAMP	LE FORM	ate 79	sept of	4
roject Name: L-c	e Jay Sci	Les P	roject	No.:	2414.67	1201	_ Well I	No.: <u>MW-</u>	Imi	
ield Personnel: M	IM				Sta	tic Water L	evel:			
Vater Level Meas	urement Me	thod: <u>SLOP</u>	<u>e wa</u>	TER I	LEVEL IN	DICATOR				
ime Start Purge:	1011	7	ime I	End Pu	irge:	046	Time	Sampled_	1047	
leasuring Point I	Description:_	North Top c	f Wel	<u>l Casi</u>	ng					
urge Method:	_				Pu	rge Depth:_	TD			
Well Volume Calculation	Total Depth (ft)) Depth Water	to (ft)	Col	Water umn (ft)	Multiplier	for Casing I (Circle)	Diameter ((in) C	casing Volume (gal)
-						-(2)	4	6		- •
10-0700	18.58	8.69		1	.89	0.16	0.64	1.44	1	1.58
 Time		. <u>l</u>	162	2	1029	1037	1044			
Volume Purged (oal)		1.	5	2.5	3.5	4.5			
Volume 1 alged (<u> </u>		< 1	zpm						
Purge Kate (gpin))		21	1	20.8	22.4	20.3			
)		1.7	9	7.77	7.77	7.79			
Specific Conduct	tivity (uncor	rected)	27.	89	28.40	29.41 ms	29.77 MS			
ORP			7	-	24	42	46			
Turbidity/Color			Mo	etty	Mostly clear	Slight			<u> </u>	
Odor/Sheen										
								<u></u>		
			1							
	·		+		<u> </u>					
Deventaged			+-	.1		N	N		+	
Dewatered?	TILL From				e - Ma	rked or	PVL			
Comments		<u> </u>							<u> </u>	
SAMPLE DAT Percent Recove Sampling Equij Comments:	FA: ery: <u>NA</u> pment: #	fon L u	1tra	met	er	Depth to W	ater at Samp	ling (ft): <u>h</u>	<u>1M</u>	
		Container		Preser	vative	 Field	Analysis		Cor	nments
No.	ontainers	Туре				Filtration	Request (Method))		
	<u> </u>	plastic &				NO	Seeco	C		
±w1	<u> </u>	amber				NO				
PURGE WAT	TER DISPO	SAL NOTE	S:							17.1
Total Discharg	ge (gal):	5	Di Sy	sposal stem T	Method:		Di	rum Desig	nation(s)	
Comments:									י דרי ט	(ammante)
Well Security I	WEL Devices OK (Head and Ou	L HEAD C Bollards, Cl iter Casing I	ONDI wisty Dry?: Y	(TIO N Lid, C /ES	IS CHECK asing Lid a NO	LIST (Cir and Lock)?:	cle YES or I YES	NO II N NO	U, ada c	omments)
Well Casing?: Comments:	YES 1	10	-		-					

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	SECO	R GROUN	DWA'	TER	PURGE A	ND SAMF	LE FORM	ate 7	Sep	+ 04
roject Name: <u>B</u>	ee Joy S	cales P	roject	No.:	2404.9 Sta	57201 atic Water I	Well [.evel:	No.: <u>MW</u>	tu	<u>_</u> د.
eld Personnel: r	<u>vlivi</u>	thad SI OP	F WA1	FFR	LEVEL IN	DICATOR	-			-
ater Level Mea	surement Me	шоц. <u>эрог</u>	<u>ime F</u>	nd Pi	urge' 1	129	Time	Sampled	1130	•
me Start Purge:		 North Top (f Well	Casi	no	<u> </u>	<u> </u>	• •		
leasuring Point.	Description:_	North Top C		0431	ш <u>ь</u> Рі	rge Depth:	TD			
urge Method:		Donth	to		Water	Multiplie	for Casing	Diameter	(in)	Casing Volume
Well Volume Calculation	culation Depth (ft) Water		(ft)	Co	lumn (ft)	1.200.0	(Circle)			(gal)
TD-DTW			2	12	0.02	I	4	6		1.10
-	18.70	0.0	ť	10		0.16	0.64	1.4	4	
Гime			1107		U14	1121	1128			
Volume Purged	(gal)		.5		2.5	3.5	4.5			
Purge Rate (gnm	<u>, , , , , , , , , , , , , , , , , , , </u>		<1g	pm						
Temperature (°C	2)		21.2		21.4	20.8	20.5			
	<u> </u>		122	9	7.80	7.86	7.90			
Specific Conductivity (uncorrected)			29.1	3	29.37 ms	29.32	29.56 WS			
ORP					43	43	43			
Turbidity/Color			clea	ex -	clear	clear	clear			
Odor/Sheen			+							
Dewatered?			N		ر.	N				
SAMPLE DA Percent Recove	TA: ery: <u>NA</u>	- ground		<u>.</u>		Depth to W	Vater at Samp	ling (ft):]	<u>NM</u>	
Sampling Equi	ipment: Mu									
Sample No.	No. of Containers	Container Type	P	reser	vative	Field Filtration	Analysi Reques (Method)		onments
	<u>ີ</u> ປ	plastic &				NO	sac	L		
IWC		amon				NO				
PURGE WA	TER DISPO	SAL NOTE	S:				~		motion	(c)/Volume
Total Dischar	ge (gal):	5	Disj Sys	posal tem 7	Method: [reat		U	um Desig	nauon	
Comments:						21 IST /0%-		NO if N	O ad	d comments)
Well Security I Inside of Well Well Casing?: Comments:	WEL Devices OK (Head and Ou YES 1	L HEAD C Bollards, Ch tter Casing D 10	ONDI' aristy L Dry?: Y	Lid, C ES	asing Lid a	and Lock)?:	YES	NO	,	

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roject Name: <u>B</u>	e Jay Sc	ales I	Project	No.:	34164.67	1201	_ Well	No.: <u>M</u>	<u>W-</u> ±.	w 3		
ield Personnel: <u>M</u>	<u>м</u> .				Sta	tic Water L	.evel:					
ater Level Meas	urement Meth	nod: <u>SLOP</u>	<u>E WA</u> 1	ER	LEVEL INI	DICATOR				~		
ime Start Purge:_	1138		lime Ei	nd Pi	urge: <u>'</u>	112	Time	Sample	ed 171	<u>></u>		
leasuring Point D	escription:_1	North Top	of Well	Casi	ing	1	-					
urge Method:			n	_	Pu	rge Depth:_	TD			<u></u>		
Well Volume Calculation	Total Depth (ft)	Depth Water	to (ft)	Water Column (ft)		Multiplier	for Casing (Circle)	Diamet	er (in)	in) Casing Volu (gal)		
						(2)	4	1	6			
TD-DTW	18.65	8.75	, ,		9.9	0.16	0.64	1	.44	1.58		
			115	2	1156	#1204	1210					
Volume Purged (gal)		15		2.5	3.5	4.5					
Purge Rate (gpm)			< 1 gr	m								
Temperature (°C)	· · · · · · · · · · · · · · · · · · ·		22	5	21.6	21.7	21.0					
Ph			81	6	8.16	8.24	8.25					
Specific Conductivity (uncorrected) (umhos)			30.1	46	30.86	31.20 mg	31.36					
ORP					33	32	32					
Turbidity/Color				et a	slight	Slight	Slogut					
Odor/Sheen			0.00		- (10044		1					
		·····	+									
			-									
Dewatered?			N		N	N	N					
Comments: D	The from	ground	Surfi	nce -	- markec	s on puc	-					
		<u> </u>										
SAMPLE DAT Percent Recover Sampling Equip Comments:	A: y: <u>NA</u> ment: IUI r	UN L U	Itram	r.te	I	Depth to Wa	ater at Samp	ling (ft)): <u>NM</u>			
Sample No. Co	No of mtainers	Container Type	Pr	éserv	vative	Field Filtration	Analysis Request (Method)		Comme	nts	
	1	Instic ¥		<u>1</u>	<u> </u>	NO	see cou					
IWJ		#Ambac	•			NO						
PURGE WAT	ER DISPOS	AL NOTE	S:					-				
Total Discharge	e (gal): ~5		Disp Syste	osal em T	Method: `reat		Di	rum Des	Signatio	n(s)/Voli	ume:	
Comments:					S CHECK	LIST (Circ	– le YES or ¹	NO if	NO. ar	ld comm	nents)	
Well Security D Inside of Well H	WELL evices OK (B lead and Oute	ollards, Ch r Casing D	risty Li ry?: YE	d, Ca	asing Lid an NO	id Lock)?:	YES	NO	_ ,		,	

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oject Name:_ <u>B</u>	e Jay Sc	alls P	roject No.:	<u>240+-6</u> Sta	tic Water L	wenn .evel:	10., <u>1vi w-</u>	09
eld Personnel: <u>Ml</u>	<u>M</u>			TEVEL INI				
ater Level Measu	rement Meth	nod: <u>SLOP</u>	WATER			Time S	Sampled 125	Le
ime Start Purge:	224	I	Ime Enu P	urge. <u>1</u>			·····[···· <u>·</u>	
leasuring Point De	escription:_1	North Top C	<u>i well Cas</u>	<u>ing</u> Du	rae Denth	ТD		
urge Method:				Fu	Multiplier	for Casing D	iameter (in)	Casing Volume
Well Volume Calculation	Total Depth (ft)	Depth Water	to (ft) Co	water olumn (ft)	Muttiplier	(Circle)		(gal)
					2	4	6	
το-στω	17.55	8.84	1 8	3.71	0.16	0.64	1.44	1.39
Time			1234	1240	1247	1254		
Volume Purged (g	al)		15	2.5	3.5	4.5		
Purge Rate (gpm)			<1gpm					
Temperature (°C)			21.7	21.9	21.5	20.6		
Ph			296	7.96	8.03	8.03		
Specific Conducti (µmhos)	vity (uncorre	ected)	30. 33 mg	30.72 ms	30.91 ms	31.08 ms		
ORP			27	43	49	54		
Turbidity/Color			Mostly	Mosty	Mostly	Moster		
Odor/Sheen			0					
Odol/Sheen								
			+		1	1		
Dewatered?			N	N	N	N		
Comments: D	TW from	m man	1 SURFA	u- Mar	ked on	PVC.		
SHIL Some	Sludge	in bot	tom of	well				
SAMPLE DAT	<u> </u>				<u></u>			
Percent Recover	y: <u>NA</u>				Depth to W	ater at Sampl	ing (ff): <u>NM</u>	
Sampling Equip	ment: M	ron L ul	tramete	~				
Comments:								
					A 199 (15)	Ameliain		Comments
Sample	No. of	Container	Prese	rvative	Filtration	Request		Commona
No. C	ontainers	туре				(Method))	
		DIASTE	<u> </u>		NO	Set Cor	_	
IW4	4	amber			NO			
PURGE WAT	ER DISPOS	SAL NOTI	ES:					
Total Discharg	e (gal):_~4	.5	Disposa System	al Method: Treat		Dr	um Designati	on(s)/volume:
Comments:							اں ; 10 ;	add comments)
••••••	_		ONDITIO	NS CHECK	KLIST (Ci	rcie x ES or l	ν υ 11 INU, 2	aud comments)
	WEL	L HEAD C	ONDITIO	Octor Till	and Lock 12	YES	NO	

	SECOI	R GROU	INDW/	ATE	IR PURGE	AND SAM	P	LE FOR	М				
Project Name: <u>Be</u>	e Jay Scales		Projec	t No	o.: 24CH.67	7201.01		We	Date 11 No	e: 14 . M	N- 04	4 4	
Field Personnel: 1	MM		2		S	Static Water	r La	evel:		•• <u>••</u>		1	
Water Level Meas	urement Meth	od; <u>SLO</u>	PE WA	TE	<u>r level i</u>	NDICATO	R						
Time Start Purge:	930		Time]	Bnd	Purge: 1	208		_ Tin	ne San	mpled	100	99	
Measuring Point D	Description: <u>N</u>	orth Top	op of Well Casing									<u> </u>	
Purge Method: Lo	w Flow Pump	<u>!</u>			P	urge Depth	:]	<u>r</u> D ,					
Well Volume Calculation (Fill in before purging)	Dept Water	h to r (ft)	с	Water olumn (ft)	Multiplier for Casing Diameter (in) (Circle)				Casing Volume (gal)				
(TD-DTW)	8.2	5	l	1.16	2 0.16		4 0.64		6 1.4	4	١,	47	
Time			94	1	948	9.55	Γ	003			,		
Volume Purged (g	al)		1.5	-	2.5	3.5	Γ	4.5					······································
Purge Rate (gpm)			<1g	m			\square						
Temperature (°C)			16.	9	16.9	11.8	\square						
РЪ			9.9	5	9.97	9.98	9	99		_	L		
Specific Conductiv (µmhos)	vity (uncorrecto	ed)	16.2	0 MS	15.98	16.46	l	6.50			<u>-</u> -		
ORP			-14	5	-2-129	-128		127	*		·		
Turbidity/Color			hron	2ħ	hrown	fellow	4	ellow					
Odor/Sheen	~~					010077	\square			-			
Depth to Water Du	1												
Number of Casing	oved												
Dewatered?		- N			- N		~						
Comments:	Comments:				······································		L			l	<u> </u>		·

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment: por i- pump & ultraneter Comments:

Sample No.	No. of Containers	Container i i Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
MWOY	6	VAVIOUS	· · ·	NO	See coc	
				NO		
Total Disc Comments	s:	5	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Well Securi Inside of W Well Casing Comments:	WEL ty Devices OK (ell Head and Ou s?: YES N -	L HEAD CON Bollards, Christ ter Casing Dry? IO	DITIONS CHEC by Lid, Casing Lid : YES NO	KLIST (Circl and Lock)?:	e YES or NO YES N	– if NO, add comments) IO

SECOR GROUNDWATER PURGE AND SAMPLE FORM Date: 1 DEC 04												
Project Name: <u>Be</u>	e Jay Scales		Projec	t No.	.: <u>24CH.67</u>	<u>201.01</u>	Wel	11 No.: <u>MV</u>	V-I	ωo	1	
Field Personnel: <u>N</u>	<u>им</u>				S	tatic Water	Level:					
Water Level Meas	urement Metho	od: <u>SLO</u>	PE WA	TEF	LEVEL I	DICATOR	<u>L</u>					
Time Start Purge:	1015		Time End Purge: 10 49 Time Sampled 10 50							50		
Measuring Point D	escription: <u>N</u>	orth Top	<u>of We</u> l	1 Ca	sing							
Purge Method: Lo	w Flow Pump		Purge Depth: TD									
Well Volume Calculation (Fill in before purging)	Deptl Water	1 to Water (ft) Column (ft)		Multiplie	r for Casing (Circle)	r Casing Diameter (in) (Circle)			ing Volume (gal)			
(TO-DTW)	D,				Ð	4	6					
- 0.5	8.6	l		19+	·0.16	0.64	1.4	44		ما		
Time			1028	3	1034	1040	1046					
Volume Purged (g	al)		1.5	-	2.5	3.5	4.5	,				
Purge Rate (gpm)			< 1 g	pm								
Temperature (°C)			14.	O	15.9	14.2	16.3					
Ph			12.	łι	12.62	12.63	12.58					
Specific Conductiv (umbos)	vity (uncorrect	ed)	Z1.4	13	20.30 Mi	21.90 MS	22.75 MS					
ORP			- 12	2	- 104	-103	- 101					
Turbidity/Color			brou	NN	brown	YELLOW	yellow/ brown					
Odor/Sheen		_	÷	•								
Depth to Water Di	Depth to Water During Purge (ft)											
Number of Casing	noved											
Dewatered?	Dewatered?				N	N	N					
Comments:										~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment: <u>peri</u>-pump & ultrameter Comments:

• .

		•			•	
Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
IWOI	6	various		NO	See coc	
				. NO		
Total Disc Comment	charge (gal): <u>~</u> s: <u>1016c h.o.</u>	5 5 	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Well Secur Inside of W Well Casin Comments:	WEL) ity Devices OK ('ell Head and Ou g?: YES N	L HEAD CON Bollards, Chris ter Casing Dry? IO	DITIONS CHEC ty Lid, Casing Lid YES NO	CKLIST (Circl and Lock)?:	le YES or NO - · YES N	~ if NO, add comments) O

SECOR	GROUND	WATER PURGE A	ND SAMPLE FORM

Project Name: Bee	e Jay Scales]	Project No.: <u>24CH.67201.01</u>					Date: 10EC04 Well No.: <u>MW-</u> IN02				
Field Personnel: N	íM				St	atic Water I	Level:					-
Water Level Measu	arement Metho	od: <u>SLOP</u>	E WA	TER	LEVEL IN	DICATOR						
Time Start Purge:_	1053		Гime Е	nd P	urge: 1	20	Т	ime S	Sampled	117	.0	
Measuring Point D	escription: No	orth Top (of Well	Cas	sing	-						
Purge Method: Low Flow Pump Purge Depth: TD												
Well Volume Calculation (Fill in before purging)	Depth Water	h to Water (ft) Column (ft)		Multiplie	r for Casi (Circ	ng D le)	iameter	(in)	Casing Volume (gal)			
(FO-DTID)		.	,			Ø	4		6		- 1.61	
0.5	8.60	-	ŧ	0.00	0.16	0.6	4	1.4	4			
Time		1100	106		112	1118		1				
Volume Purged (g	al)		1.5	5	2.5	3.5	4.5					
Purge Rate (gpm)			< 1 gr	m								•
Temperature (°C)			14.	6	14.4	16.7	16.B					
Ph			12.	27	12.12	12.14	12.13					
Specific Conductiv (µmhos)	vity (uncorrect	ed)	25.5	56 115	26.77	27.81 MS	28.31 m	•				
ORP			- 9	2	- 82	-72	~ 82					
Turbidity/Color			Sligh	low	Slight	Slight	51.94	1				
Odor/Sheen	•			• •		1	1					
Depth to Water Di)											
Number of Casing Volumes Removed												
Dewatered?		رر ر		N	2	N						
Comments:												

Depth to Water at Sampling (ft): \underline{NM}

Sampling Equipment: peri-pump & ultrameter Comments:

		•			•	
Sample No.	No, of Containers	Container Type	Preservative	Field Filtration	Analysis Request	Comments
					. (Method)	
twoz	. 6	Various		NO	see cor	· ·
				NO		
PURGE V Total Disc Comments	WATER DISPO harge (gal): <u>~</u> :: <u>101000108</u>	SAL NOTES: <u>5</u>	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Well Securi Inside of W Well Casing Comments:	WEL ty Devices OK (ell Head and Ou g?: YES N	L HEAD CON Bollards, Chris ter Casing Dry' 10	DITIONS CHEC ty Lid, Casing Lid ?: YES NO	EKLIST (Circl and Lock)?:	le YES or NO YES N	– if NO, add comments) IO

	SECO	R GROU	NDWA'	TEI	R PURGE	AND SAM	1 P]	LE FORM	inta 1	Dec	oч	<i>.</i> .
Project Name: Be	<u>e Jay Scales</u>		Project	No.	: <u>24CH.6</u>	<u>7201.01</u>		Well	No.: <u>M</u>	<u>n- x</u>	wo	3
Field Personnel: M	νM		-			Static Water	L	evel:				-
Water Level Meas	urement Meth	10d: <u>SLOI</u>	PE WAT	rer	LEVEL	NDICATO	R					
Time Start Purge;	1140		Time E	nd F	Purge: \	209		Time	Sampled	112	.10	
Measuring Point I	Description: N	North Top	of Well	Cas	sing			-	•			
Purge Method: Lo	w Flow Pum	<u>p</u>			j	Purge Depth	n: [TD				
Well Volume	Total	Deptl	i to	to Water		Multipli	er	for Casing D)iameter	(in)	Cas	ing Volume
Calculation (Fill in before purging)	Depth (ft)	Water	(ft)	Column (ft)			(Circle)				(gal)	
						0		4	6			
(10-010)	18.65	8.6	5 1		6.0	0.16	0.16 0.64		1.44			.60
Time	•		115	3	1159	1206						
Volume Purged (g	Volume Purged (gal)					4	Γ					
Purge Rate (gpm)		< 1 gp	m			1		••••				
Temperature (°C)			15	ζ	11-1-	11.5	\dagger			+		
Ph			17.0	20	17.87	17.91	╈			-	• • • • • •	
Specific Conducti	vity (uncorrec	ted)	1 6.		10,00	20.0	╈					
(umbos)			29.3	.] ~5	52.20 Mas	22.94 MS						
ORP			-80		- 76	- 85	T					
Turbidity/Color			Sligh	F	Slight	Slight						······································
Odor/Sheen			- 420			<u>- y - 102</u>	Ĩ		<u>.</u>	1		· · · · ·
Depth to Water D	uring Purge (f	 ft)					T					
Number of Casing	g Volumes Re	moved										
Dewatered?			と		2	3			•			
Comments:										·		
				···-								
SAMPLE DATA Percent Recovery Sampling Equipm Comments:	: : <u>ΝΑ</u> :ent: <u>φε</u> τί~ 1	pump b	iutr	R W	ret-er	Depth to Wa	ate	r at Samplin	g (ft): <u>N</u>	<u>M</u>		
Sample N No. Con	o, of tainers	ontainer Type	Pres	erva	ative	Field Filtration		Analysis Request (Method)		C	omine	its
IW03 VA	Vi	Arious				NO .	5	ee coc				
		•	1			NO						
PIIRCE WATE	A PORSIG S	NOTES	•		I		L		<u> </u>			<u> </u>
Total Discharge (gal): ~ 5		Dispos System	al M Tre	fethod: <u>Or</u>	<u>i Site Drum</u>		Dnim	Design	ation(s	s)/Volu	ıme:
Comments: 10	rection u	vell					-					
Well Security Devi Inside of Well Hea Well Casing?: Y	U WELL HI ces OK (Boll: d and Outer C ZES NO	EAD COI ards, Chris Casing Dry	NDITIO sty Lid, ?: YES	NS Ċas	CHECK ing Lid an NO	LIST (Circ) d Lock)?:	ie y	YES or NO YES N	- if NO IO	, add	comm	ents)

Comments:

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SECOR GROUNDWATER PURGE AND SAMPLE FORM												
Project Name: Be	e Jay Scales		Project	t No.	: <u>24CH.67</u>	<u>201.01</u>	W	Dati ell No	e: 1 00	20	ч 	4
Field Personnel: <u>N</u>	<u>/M</u>				St	tatic Water	Level:					-
Water Level Meas	urement Metho	od; <u>SLOI</u>	PE WA	TER	LEVEL IN	DICATOR	<u>.</u>					
Time Start Purge:_	1230		Time End Purge: 1300 Time Sampled 130						301	D		
Measuring Point D	escription: N	orth Top	of Wel	<u>1 Cas</u>	sing							
Purge Method: Lo	w Flow Pump				P	urge Depth:	<u>TD</u>					
Well Volume	Deptl	to	~	Water	Multiplie	r for Casir	ng Dia	meter (in)	Cas	ing Volume	
in before	water	(II)	Cc	numn (IT)	· (Circle)						(gal)	
purging)							•					
(m-n-w)	070			2 9 (.	2	4		6				
0.5	8. +*		<u>ک</u>	5.40	0.16 0.64		1.44			l	.4	
Time		123	3	1240	1246	1253						
Volume Purged (g	al)		1		2	3	4					
Purge Rate (gpm)			<1g	m								
Temperature (°C)			15.	ھا	14.79	16.4	16.9					
Ph			12.	86	12.79	12.92	12.93					
Specific Conductiv (pumbes)	vity (uncorrect	eð)	23.5	14	28.01 MS	30.61 MS	30.88 MS					
ORP			-6	1	- 7.5	-78	- 73	1				
Turbidity/Color			600	wh	Slight	Slight	Slight	ω.			-	•
Odor/Sheen					1	1						
Depth to Water Du	Depth to Water During Purge (ft)											
Number of Casing	noved											
Dewatered?	Dewatered?				N	. N	N					
Comments:								<u></u>				

Depth to Water at Sampling (ft): <u>NM</u>

Sampling Equipment: <u>pcr</u>i-pump & clime met ar Comments:

Sample No.	No/of Containers	Container Type	Preservative	Field Filtration	Analysis Request (Method)	Comments
IW04	6	timeters		NO	Secon	
				NO		
PURGE V	WATER DISPO	SAL NOTES:	L			
Total Disc	harge (gal): <u>~</u>	4.5	Disposal Method: System Treat	On Site Drum	Drum	Designation(s)/Volume:
Comments	5:	• •				
Well Securi nside of W Well Casing Comments:	WEL ty Devices OK (ell Head and Ou g?: YES N IN CCLOSY ()	L HEAD CON Bollards, Chris ter Casing Dry' 10 No	DITIONS CHEC ty Lid, Casing Lid): YES NO	CKLIST (Circl and Lock)?:	le YES or NO - YES N	– if NO, add comments) O

APPENDIX H PILOT STUDY ANALYTICAL LABORATORY REPORTS

Phase II Remedial Investigation Report Chevron Environmental Management Company & BP America, Inc.

> 24CH.67201.00 May 17, 2005



port ID: S17902.01(02) Generated on 03/31/2005

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S17902.01 Project: Bee Jay Scales 24CH.67201.01 Submitted Date/Time: 07/09/2004 09:30 Sampled by: Michael McMahon P.O. #:

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshak

Violetta F. Murshak Laboratory Director

Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333



p Sample ID: S17902.01 Sample Tag: MW04-070704-0 Collected Date/Time: 07/07/2004 16:45 Matrix: Groundwater COC Reference: 017772

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C)	Thermom	neter #			
5	1 L Amber	None		Yes	2	3				
1	32 oz Glass	None		Yes	2	3				
2	250ml Plastic	H2SO4		Yes	2	3				
1	250ml Plastic	None		Yes	2	3				
1	125ml Plastic	HNO3		Yes	2	3				
2	40 ml Glass	HCL		Yes	2	3				
Ana	lysis		Results	Units	RDL	Method	Run Date/Time	Analys	t CAS #	Flags
Ext	traction / Prep.									
Met	al Digestion		Completed			3015A	07/19/04 12:00	MSH		
Ino	rganics									
Alka	alinity as CaCO3		490	mg/L	1	310.1	07/12/04 16:20	JKB		
Am	monia-N		780	mg/L	10	350.3	07/13/04 19:00	MJC	7664-41-7	
Nitr	ate-N		962	mg/L	0.2	300.0	07/15/04 13:39	JDP		
Nitr	ite-N		6.7	mg/L	0.2	300.0	07/15/04 13:09	JDP		
то	0		10	mg/L	1	415.1	07/19/04 12:00	JTW		0
Tota	al Phosphorus		0.10	mg/L	0.02	365.2	07/15/04 13:00	MJC	7723-14-0T	
e	tals									
Ars	enic, Dissolved		0.007	mg/L	0.002	200.8	07/28/04 15:00	PER	7440-38-2	
Iron	, Dissolved		0.70	mg/L	0.02	200.8	07/28/04 15:00	PER	7439-89-6	
Mai	nganese, Dissolved		0.377	mg/L	0.005	200.8	07/28/04 15:00	PER	7439-96-5	
Orț	ganics									
Ch	lorinated Herbicides									
Dic	amba		Not detected	ug/L	2	8151	07/15/04 12:00	STL		01
Din	oseb		320	ug/L	0.6	8151	07/15/04 12:00	STL		01
2,4	-D		Not detected	ug/L	4	8151	07/15/04 12:00	STL		01
2,4,	5-TP (Silvex)		Not detected	ug/L	1	8151	07/15/04 12:00	STL.		01
2,4,	5-T		Not detected	ug/L	1	8151	07/15/04 12:00	STL		01
Oti	her Misc.									
Sub	contracting Shipped (Replicate	01)	Completed				07/12/04 15:30	PCS		

O-Analysis performed by outside laboratory

1-* The recoveries for the LCS/LCSD in batch 4196048 were low and outside of acceptance criteria.

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AUG 2 5 2004

Phone: (517) 332-0167 FAX: (517) 332-6333

Report produced by

2680 East Lansing Drive

East Lansing, MI 48823

Merit Laboratories

rt ID: S17915.01(01)

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S17915.01-S17915.02 Project: 24CH.67201.00 Bee Jay Scales Submitted Date/Time: 07/12/2004 09:50 Sampled by: Michael McMahon P.O. #:

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak oratory Director



ample ID: S17915.01 Sample Tag: IW 1 Collected Date/Time: 07/08/2004 Matrix: Soil COC Reference: 017774

Sample Containers

# Type		Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Therm	ometer #		
# 7	Metal Cylinders	None	Yes	4	3			
An	alysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Inc	organics							
То	tal Solids	82	%	1	160.3	07/15/04 7:04	LBR	
An	nmonia-N	80	mg/kg	10	350.3	07/13/04 19:00	MJC	
·Nit	rate-N	332	mg/kg	20	300.0	07/15/04 11:23	JDP	
Nil	rite-N	Not detected	mg/kg	20	300.0	07/15/04 11:23	JDP	
тс	DC	450	mg/kg	100	415.1	08/02/04 12:00	STL	0
Total Phosphorus 780			mg/kg	10	365.2	07/15/04 10:00	MJC	
0	rganics							
CI	nlorinated Herbicides						0.T.	~
Di	camba	Not detected	ug/kg	50	8150	08/06/04 12:00	SIL	01
Dinoseb		Not detected	ug/kg	20	8150	08/06/04 12:00	STL	01
2,4-D		Not detected	ug/kg	200	8150	08/06/04 12:00	STL	01
2.4.5-TP (Silvex)		Not detected	ug/kg	50	8150	08/06/04 12:00	STL	01
	^{-^} 5-T (and salts and esters)	Not detected	l ug/kg	50	8150	08/06/04 12:00	STL	01
0	ther / Misc.							
S	ubcontracting Shipped (Replic	cate 01) Completed				07/21/04 15:00	PCS	

O-Analysis performed by outside laboratory

1-*The LCS associtated with batch 4204254 was recovered low and outside of criteria. All samples in the batch were re-extracted outside of holding time.



ample ID: S17915.02 Collected Date/Time: 07/08/2004 Matrix: Soil COC Reference: 017774

Sample Containers

# Type	Preservative(s)		Refrigerated?	Arrival Ter	np. (C) Thern	nometer #		
7 Metal Cylinders	None		Yes	4	3			
Analysis	Re	sults	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Inorganics								
Total Solids	73		%	1	160.3	07/15/04 7:04	LBR	
Ammonia-N	1,2	260	mg/kg	10	350.3	07/13/04 19:00	MJC	
Nitrate-N	239	9	m g/kg	20	300.0	07/15/04 11:35	JDP	
Nitrite-N	No	t detected	mg/kg	20	300.0	07/15/04 11:35	JDP	
тос	44	0	mg/kg	100	415.1	08/02/04 12:00	STL	0
Total Phosphorus	76	0	mg/kg	10	365.2	07/15/04 10:00	MJC	
Organics								
Chlorinated Herbicides								
Dicamba	No	ot detected	ug/kg	50	8150	08/06/04 12:00	STL	01
Dinoseb	Na	ot detected	ug/kg	20	8150	08/06/04 12:00	STL	01
2,4-D	No	ot detected	ug/kg	200	8150	08/06/04 12:00	STL	01
2,4,5-TP (Silvex)	No	ot detected	ug/kg	50	8150	08/06/04 12:00	STL	01
5-T (and salts and esters	s) No	ot detected	ug/kg	50	8150	08/06/04 12:00	STL	01
Other / Misc.								
Subcontracting Shipped (Re	eplicate 01) Co	ompleted				07/21/04 15:00	PCS	

O-Analysis performed by outside laboratory

1-*The LCS associtated with batch 4204254 was recovered low and outside of criteria. All samples in the batch were re-extracted outside of holding time.

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F vt ID: S18191.01(01) /ated on 08/16/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S18191.01-S18191.05 Project: 24CH.67201.00 BeeJay Scales Submitted Date/Time: 07/30/2004 10:30 Sampled by: Michael McMahon P.O. #:

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak



Report produced by Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333



ample ID: S18191.01

به ple Tag: MW04-290704-0

Collected Date/Time: 07/29/2004 11:17

Matrix: Groundwater

COC Reference: 023494

Sample Containers

#	Type Preservative(s)			Refrigerated?		Arrival Temp. (C)		ometer #		
1	250ml Plastic	H2SO4		Yes	4		3			
1	500ml Plastic	None		Yes	4		3			
Analysis			Results	Units	RDL	Met	hod	Run Date/Time	Analyst CAS #	Flags
Inor	rganics									
Alka	linity as CaCO3		7,690	mg/L	1	310).1	08/02/04 13:55	JKB	
Amr	mo nia-N		450	mg/L	10	350).3	08/03/04 18:00	MJC	
Nitra	ate-N		68.1	mg/L	0.2	300	0.0	07/30/04 17:28	JDP	
Nitri	ite-N		65.9	mg/L	0.2	300).0	07/30/04 17:28	JDP	
TO	C		8,600	mg/L	1	415	5.1	08/11/04 12:00	Fiber	0
Tota	al Phosphorus		5.30	mg/L	0.02	365	5.2	08/02/04 18:00	MJC	

O-Analysis performed by outside laboratory



Sample ID: S18191.02 je Tag: IW01-290704-0 Collected Date/Time: 07/29/2004 12:06 Matrix: Groundwater COC Reference: 023494

Sample Containers

# Type Preservative(s))	Refrigerated?	Arrival Temp. (C)		Thermometer #				
1	250ml Plastic	H2SO4		Yes	4		3			
1	500ml Plastic	None		Yes	4		3			
Ana	Ilysis		Results	Units	RDL	Me	thod	Run Date/Time	Analyst CAS #	Flags
Ino	rganics									
Alk	alinity as CaCO3		12,600	mg/L	1	310	D.1	08/02/04 14:00	JKB	
Am	monia-N		62	mg/L	1	350).3	08/03/04 18:00	MJC	
Nitr	ate-N		Not detected	mg/L	0.2	300	0.0	07/30/04 16:04	JDP	
Nitr	ite-N		Not detected	mg/L	0.2	300	0.0	07/30/04 16:04	JDP	
то	c		15,000	mg/L	1	415	5.1	08/11/04 12:00	Fiber	0
Tot	al Phosphorus		19.6	mg/L	0.1	365	5.2	08/02/04 18:00	MJC	

O-Analysis performed by outside laboratory


in Sample ID: S18191.03 Je Tag: IW02-290704-0 Collected Date/Time: 07/29/2004 12:59 Matrix: Groundwater COC Reference: 023494

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C) Th	ermometer #		
1	250ml Plastic	H2SO4		Yes	4	3			
1	500ml Plastic	None		Yes	4	3			
Ana	lysis	Resu	ults	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ino	rganics								
Alka	alinity as CaCO3	11,60	00	mg/L	1	310.1	08/02/04 14:05	JKB	
Am	monia-N	32		mg/L	1	350.3	08/03/04 18:00	MJC	
Nitr	ate-N	Not c	detected	mg/L	0.2	300.0	07/30/04 16:16	JDP	
Nitr	ite-N	Not c	detected	mg/L	0.2	300.0	07/30/04 16:16	JDP	
TO	C	14,00	00	mg/L	1	415.1	08/11/04 12:00	Fiber	0
Tot	al Phosphorus	16.2		mg/L	0.1	365.2	08/02/04 18:00	MJC	



ample ID: S18191.04

Collected Date/Time: 07/29/2004 13:41

Matrix: Groundwater

COC Reference: 023494

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C) Thermor	neter #		
1	250ml Plastic	H2SO4		Yes	4	3			
1	500ml Plastic	None		Yes	4	3			
Anal	ysis		Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Inor	ganics								
Alka	linity as CaCO3		11,300	mg/L	1	310.1	08/02/04 14:10	JKB	
Amr	nonia-N		19.5	mg/L	0.1	350.3	08/03/04 18:00	MJC	
Nitra	ate-N		Not detected	mg/L	0.2	300.0	07/30/04 16:27	JDP	
Nitri	te-N		Not detected	mg/L	0.2	300.0	07/30/04 16:27	JDP	
тос)		13,000	mg/L	1	415.1	08/11/04 12:00	Fiber	0
Tota	I Phosphorus		15.2	mg/L	0.1	365.2	08/02/04 18:00	MJC	



Sample ID: S18191.05 Comple Tag: IW04-290704-0 Collected Date/Time: 07/29/2004 14:04 Matrix: Groundwater COC Reference: 023494

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp	. (C)	Thermome	eter #		
1	250ml Plastic	H2SO4		Yes	4		3			
1	500ml Plastic	None		Yes	4		3			
Ana	lysis	Re	esults	Units	RDL	Meti	hod	Run Date/Time	Analyst CAS #	Flags
Ino	rganics									
Aika	alinity as CaCO3	11	,200	mg/L	1	310	.1	08/02/04 14:15	JKB	
Am	monia-N	62	2	mg/L	1	350	.3	08/03/04 18:00	MJC	
Nitr	ate-N	Na	ot detected	mg/L	0.2	300	.0	07/30/04 16:39	JDP	
Nitr	ite-N	No	ot detected	mg/L	0.2	300	.0	07/30/04 16:39	JDP	
то	С	13	3,000	mg/L	1	415	.1	08/11/04 12:00	Fiber	
Tot	al Phosphorus	15	5.3	mg/L	0.1	365	.2	08/02/04 18:00	MJC	



ort ID: S18306.01(01)

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S18306.01-S18306.05 Project: BeeJay Scales 24CH-67201 Submitted Date/Time: 08/10/2004 08:00 Sampled by: M. McMahon P.O. #: Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak



Sample ID: S18306.01 ...ple Tag: MW04-060804-0 Collected Date/Time: 08/06/2004 10:00 Matrix: Groundwater COC Reference: 023496

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. ((C) 1	Thermometer	#		
1	250ml Plastic	H2SO4		Yes	8		3	—		
1	500ml Plastic	None		Yes	8	3	3			
Ana	lysis		Results	Units	RDL	Metho	d Ru	n Date/Time	Analyst CAS #	Flags
Ino	rganics									
Aika	alinity as CaCO3		7,940	mg/L	1	310.1	08/	/11/04 14:50	JKB	
Am	monia-N		490	mg/L	1	350.3	08/	/10/04 12:00	MJC	
Nitr	ate-N		Not detected	mg/L	0.2	300.0	08/	/12/04 08:14	JDP	
Nitr	ite-N		Not detected	mg/L	0.2	300.0	08/	/12/04 08:14	JDP	
TO	C		8,400	mg/L	1	415.1	08/	16/04 12:00	Fiber	
Tota	al Phosphorus		4.35	mg/L	0.02	365.2	08/	18/04 15:00	MJC	



#	Туре	Preservative(s)	i i	Refrigerated?	Arrival Tem	ıр. (С)	Therm	ometer #		
1	250ml Plastic	H2SO4		Yes	8		3			
1	500ml Plastic	None		Yes	8		3			
Ana	alysis		Results	Units	RDL	Me	thod	Run Date/Time	Analyst CAS #	Flags
Ino	rganics									<u> </u>
Alk	alinity as CaCO3		10,880	mg/L	1	310). 1	08/11/04 15:00	JKB	
Am	monia-N		63	mg/L	1	350).3	08/10/04 12:00	MJC	
Nitr	ate-N		Not detected	mg/L	0.2	300	0.0	08/12/04 08:26	JDP	
Nitr	ite-N		Not detected	mg/L	0.2	300	0.0	08/12/04 08:26	JDP	
то	С		14,000	mg/L	1	415	5.1	08/16/04 12:00	Fiber	
Tot	al Phosphorus		19.0	mg/L	0.1	365	5.2	08/18/04 15:00	MJC	



Sample ID: S18306.03 hple Tag: IW02-060804-0 Collected Date/Time: 08/06/2004 11:40 Matrix: Groundwater COC Reference: 023496

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C) The	ermometer #		
1	250ml Plastic	H2SO4		Yes	8	3			
1	500ml Plastic	None		Yes	8	3			
Ana	lysis	R	esults	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Inol	rganics								
Aika	linity as CaCO3	10	0,020	mg/L	1	310.1	08/11/04 15:05	JKB	
Amı	monia-N	48	8	mg/L	1	350.3	08/10/04 12:00	MJC	
Nitra	ate-N	N	lot detected	mg/L	0.2	300.0	08/12/04 08:38	JDP	
Nitri	te-N	N	lot detected	mg/L	0.2	300.0	08/12/04 08:38	JDP	
TO		14	4,000	mg/L	1	415.1	08/16/04 12:00	Fiber	
Tota	al Phosphorus	14	4.8	mg/L	0.1	365.2	08/18/04 15:00	MJC	



Sample ID: S18306.04 .nple Tag: IW03-060804-0 Collected Date/Time: 08/06/2004 12:30 Matrix: Groundwater COC Reference: 023496

Sample Containers

)

#	# Type Preservative(Refrigerated?	Arrival Temp	. (C) Therr	nometer #		
1	250ml Plastic	H2SO4	Yes	8	3			
1	500ml Plastic	None	Yes	8	3			
Ana	lysis	Results	s Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ino	rganics							
Alka	alinity as CaCO3	9,680	mg/L	1	310.1	08/11/04 15:10	JKB	
Am	monia-N	25	mg/L	1	350.3	08/10/04 12:00	MJC	
Nitr	ate-N	Not det	ected mg/L	0.2	300.0	08/12/04 08:49	JDP	
Nitr	ite-N	Not del	ected mg/L	0.2	300.0	08/12/04 08:49	JDP	
то	с	14,000	mg/L	1	415.1	08/16/04 12:00	Fiber	
Tot	al Phosphorus	14.0	mg/L	0.1	365.2	08/18/04 15:00	MJC	



Sample ID: S18306.05 ...ple Tag: IW04-060804-0 Collected Date/Time: 08/06/2004 13:08 Matrix: Groundwater COC Reference: 023496

#	Туре	Preservative(s)	Refrigerated?	Arrival Temp. (С) Т	hermometer #		
1	250ml Plastic	H2SO4		Yes	8	3			
1	500ml Plastic	None		Yes	8	3	i		
Ana	lysis		Results	Units	RDL	Metho	d Run Date/Time	Analyst CAS #	Flags
Ino	rganics		-						
Aika	alinity as CaCO3		10,080	mg/L	1	310.1	08/11/04 15:15	JKB	
Am	monia-N		70	mg/L	1	350.3	08/10/04 12:00	MJC	
Nitr	ate-N		Not detected	mg/L	0.2	300.0	08/12/04 09:01	JDP	
Nitr	ite-N		Not detected	mg/L	0.2	300.0	08/12/04 09:01	JDP	
то	с		13,000	mg/L	1	415.1	08/16/04 12:00	Fiber	
Tot	al Phosphorus		14.6	mg/L	0.1	365.2	08/18/04 15:00	MJC	

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ort ID: S18368.01(01) erated on 08/23/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S18368.01-S18368.05 Project: 24CH.67201.00.0013 Bee Jay Scales Submitted Date/Time: 08/13/2004 09:45 Sampled by: M. McMahon P.O. #:

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak

Report to SECOR Project: 24CH.67201.00.0013 Bee Jay Scales

Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333



Sample ID: S18368.01 ple Tag: MW04-120804-0 Collected Date/Time: 08/12/2004 09:58 Matrix: Groundwater COC Reference: 023497

#	Туре	Preservative(5)	Refrigerated?	Arrival Tem	ıр. (С)	Thermo	meter #		
1	500ml Plastic	None		Yes	4		3			
1	250ml Plastic	H2SO4		Yes	4		3			
Ana	lysis		Results	Units	RDL	Met	hod	Run Date/Time	Analyst CAS #	Flags
Ino	rganics									
Alk	alinity as CaCO3		7,630	mg/L	1	310).1	08/16/04 11:25	JKB	
Am	monia-N		530	mg/L	10	350).3	08/17/04 17:00	MJC	
Nitr	ate-N		Not detected	mg/L	0.2	300	0.0	08/13/04 12:50	JDP	
Nitr	ite-N		Not detected	mg/L	0.2	300).0	08/13/04 12:50	JDP	
то	С		8,000	mg/L	1	415	5.1	08/16/04 12:00	Fiber	
Tot	al Phosphorus		4.20	mg/L	0.02	365	5.2	08/18/04 15:00	MJC	



Sample ID: S18368.02 ple Tag: IW01-120804-0 Collected Date/Time: 08/12/2004 10:45 Matrix: Groundwater COC Reference: 023497

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) ·	Thermometer #			
1	500ml Plastic	None	Yes	4		3			
1	250ml Plastic	H2SO4	Yes	4	:	3			
Ana	lysis	Results	Units	RDL	Metho	d Run Date	/Time	Analyst CAS #	Flags
Ino	rganics		· · · · · ·	·					
Alka	alinity as CaCO3	11,600	mg/L	1	310.1	08/16/04	11:35	JKB	
Am	monia-N	87	mg/L	1	350.3	08/17/04	17:00	MJC	
Nitr	ate-N	Not detecte	ed mg/L	0.2	300.0	08/13/04	13:02	JDP	
Nitr	ite-N	Not detecte	ed mg/L	0.2	300.0	08/13/04	13:02	JDP	
TO	C	15,000	mg/L	1	415.1	08/16/04	12:00	Fiber	
Tot	al Phosphorus	16.0	mg/L	0.1	365.2	08/18/04	15:00	MJC	



#	Туре	Preservative(s)		Refrigerated?	Arrival Temp	o. (C)	Thermom	eter #		
1	500ml Plastic	None		Yes	4		3			
1	250ml Plastic	H2SO4		Yes	4		3			
Ana	lysis		Results	Units	RDL	Met	hod	Run Date/Time	Analyst CAS #	Flags
Ino	rganics		• • • • •							
Alka	alinity as CaCO3		12,100	mg/L	1	310	.1	08/16/04 11:40	JKB	
Am	monia-N		58	mg/L	1	350	.3	08/17/04 17:00	MJC	
Nitr	ate-N		Not detected	mg/L	0.2	300	0.0	08/13/04 13:13	JDP	
Nitr	ite-N		Not detected	mg/L	0.2	300	0.0	08/13/04 13:13	JDP	
TO	C		13,000	mg/L	1	415	5.1	08/16/04 12:00	Fiber	
Tot	al Phosphorus		12.1	mg/L	0.1	365	5.2	08/18/04 15:00	MJC	



Sample ID: S18368.04 .nple Tag: IW03-120804-0 Collected Date/Time: 08/12/2004 12:11 Matrix: Groundwater COC Reference: 023497

#	# Type Preservative(s		Refr	igerated?	Arrival Temp. (C)		Thermometer #			
1	500ml Plastic	None	Yes		4		3			
1	250ml Plastic	H2SO4	Yes		4		3			
Ana	Ilysis	Resu	ults Unit	S	RDL	Met	hod	Run Date/Time	Analyst CAS #	Flags
Ino	rganics									
Alka	alinity as CaCO3	9,760	0 mg/	L	1	310	.1	08/16/04 11:45	JKB	
Am	monia-N	25	mg/	L	1	350	.3	08/17/04 17:00	MJC	
Nitr	ate-N	Not c	detected mg/	L	0.2	300	.0	08/13/04 13:25	JDP	
Nitr	ite-N	Not c	detected mg/	L	0.2	300	.0	08/13/04 13:25	JDP	
то	С	14,00	00 mg/	L	1	415	.1	08/16/04 12:00	Fiber	
Tot	al Phosphorus	12.0	mg/	L	0.1	365	.2	08/18/04 15:00	MJC	



Sample ID: S18368.05 ple Tag: IW04-120804-0 Collected Date/Time: 08/12/2004 12:45 Matrix: Groundwater COC Reference: 023497

#	Type Preservative(s))	Refrigerated?	1? Arrival Temp. (C)		hermometer #		
1	500ml Plastic	None		Yes	4	3	;		
1	250ml Plastic	H2SO4		Yes	4	3	\$		
Ana	lysis		Results	Units	RDL	Metho	d Run Date/Time	Analyst CAS #	Flags
Ino	rganics								
Alka	alinity as CaCO3		10,300	mg/L	1	310.1	08/16/04 11:55	JKB	
Am	monia-N		66	mg/L	1	350.3	08/17/04 17:00	MJC	
Nitr	ate-N		Not detected	mg/L	0.2	300.0	08/13/04 13:37	JDP	
Nitr	ite-N		Not detected	mg/L	0.2	300.0	08/13/04 13:37	JDP	
то	C		14,000	mg/L	1	415.1	08/16/04 12:00	Fiber	
Tot	al Phosphorus		13.6	mg/L	0.1	365.2	08/18/04 15:00	MJC	

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rt ID: S18474.01(01)

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S18474.01-S18474.05 Project: 24CH.67201.00.0013 Bee Jay Scales Submitted Date/Time: 08/23/2004 09:00 Sampled by: M. McMahon P.O. #: Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

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Violetta F. Murshah

Violetta F. Murshak • voratory Director



Sample ID: S18474.01 ple Tag: MW04-190804-0 Collected Date/Time: 08/19/2004 11:22 Matrix: Groundwater COC Reference: 023498

Sample Containers

#	Type Preservative(s)			Refrigerated?	Arrival Temp. (C) '	Thermomet	er#		
1	500ml Plastic	None		Yes	4	;	3			
1	250ml Plastic	H2SO4		Yes	4	:	3			
Anal	ysis		Results	Units	RDL	Metho	l bc	Run Date/Time	Analyst CAS #	Flags
Inor	ganics									<u> </u>
Alka	linity as CaCO3		6,800	mg/L	1	310.1	(08/26/04 16:45	JKB	
Amr	nonia-N		550	mg/L	10	350.3	3 (08/26/04 18:00	MJC	
Nitra	ate-N		Not detected	mg/L	0.2	300.0) (08/23/04 15:26	JDP	
Nitri	te-N		Not detected	mg/L	0.2	300,0) (08/23/04 15:26	JDP	
тос	;		6,200	mg/L	1	415.1		08/26/04 12:00	JTW	0
Tota	l Phosphorus		2.53	mg/L	0.02	365.2	2 (08/23/04 19:00	MJC	



Sample ID: S18474.02 /ple Tag: IW01-190804-0 Collected Date/Time: 08/19/2004 12:04 Matrix: Groundwater COC Reference: 023498

Sample Containers

#	t Type Preservative(s)	Refrigerated?	? Arrival Temp. (C)		Thermo	ometer #		
1	500ml Plastic	None		Yes	4		3			
1	250ml Plastic	H2SO4		Yes	4		3			
Ana	lysis		Results	Units	RDL	Met	hod	Run Date/Time	Analvst CAS #	Flags
Inol	rganics									
Alka	linity as CaCO3		10,300	mg/L	1	310).1	08/26/04 16:50	JKB	
Am	monia-N		160	mg/L	10	350	.3	08/26/04 18:00	MJC	
Nitra	ate-N		Not detected	mg/L	0.2	300).0	08/23/04 15:37	JDP	
Nitri	ite-N		Not detected	mg/L	0.2	300).0	08/23/04 15:37	JDP	
то	0		14,000	mg/L	1	415	5.1	08/26/04 12:00	JTW	о
Tota	al Phosphorus		14.7	mg/L	0.1	365	5.2	08/23/04 19:00	MJC	



Sample ID: S18474.03 ble Tag: IW02-190804-0 Collected Date/Time: 08/19/2004 12:49 Matrix: Groundwater COC Reference: 023498

Sample Containers

#	# Type Preservati	Preservative(s)	Refrigerated?	? Arrival Temp. (C)		Thermo	ometer #		
1	500ml Plastic	None	Yes	4		3			
1	250ml Plastic	H2SO4	Yes	4		3			
Ana	lysis	Results	Units	RDL	Meth	nod	Run Date/Time	Analyst CAS #	Flads
Inol	rganics	- · · · · · · · · · · · · · · · · · · ·							
Alka	linity as CaCO3	10,700	mg/L	1	310.	1	08/26/04 16:55	ЈКВ	
Ami	nonia-N	83	mg/L	1	350.	3	08/26/04 18:00	MJC	
Nitra	ate-N	Not detec	ted mg/L	0.2	300.	0	08/23/04 15:49	JDP	
Nitri	te-N	Not detec	ted mg/L	0.2	300.	0	08/23/04 15:49	JDP	
то	C	8,400	mg/L	1	415.	1	08/26/04 12:00	JTW	o
Tota	al Phosphorus	11.4	mg/L	0.1	365.	2	08/23/04 19:00	MJC	_



Sample ID: S18474.04 ple Tag: IW03-190804-0 Collected Date/Time: 08/19/2004 13:33 Matrix: Groundwater COC Reference: 023498

Sample Containers

#	Type Preservative			Refrigerated?	ted? Arrival Temp. (C)		Thermomet	er#		
1	500ml Plastic	None		Yes	4		3			
1	250ml Plastic	H2SO4		Yes	4	:	3			
Anal	ysis		Results	Units	RDL	Metho	od F	Run Date/Time	Analyst CAS #	Flags
Inor	ganics									
Alka	linity as CaCO3		10,700	mg/L	1	310.1	(08/26/04 17:00	JKB	
Amr	nonia-N		37	mg/L	1	350.3	3 (08/26/04 18:00	MJC	
Nitra	ate-N		Not detected	mg/L	0.2	300.0) (08/23/04 16:01	JDP	
Nitri	te-N		Not detected	mg/L	0.2	300.0) (08/23/04 16:01	JDP	
тос	2		13,000	mg/L	1	415.1	1 (08/26/04 12:00	WTL	0
Tota	al Phosphorus		10.5	mg/L	0.1	365.2	2 (08/23/04 19:00	MJC	

Merit Laboratories, Inc.

Sample ID: S18474.05 ple Tag: IW04-190804-0 Collected Date/Time: 08/19/2004 14:08 Matrix: Groundwater COC Reference: 023498

Sample Containers

# Туре		Preservative(s)	<u> </u>	Refrigerated?	ed? Arrival Temp. (C)		hermometer #	<u>.</u>		
1	500ml Plastic	None		Yes	4	3	1			
1	250ml Plastic	H2SO4		Yes	4	3	5			
Ana	lysis	Resu	ults	Units	RDL	Metho	d Run	Date/Time	Analyst CAS #	Flags
Inor	ganics	-								
Alka	linity as CaCO3	9,70	0	mg/L	1	310.1	08/2	26/04 17:05	JKB	
Amr	nonia-N	83		mg/L	1	350.3	08/2	26/04 18:00	MJC	
Nitra	ate-N	Not	detected	mg/L	0.2	300.0	08/2	23/04 16:12	JDP	
Nitri	te-N	Not	detected	mg/L	0.2	300.0	08/2	23/04 16:12	JDP	
то	C	13,0	000	mg/L	1	415.1	08/2	26/04 12:00	JTW	0
Tota	al Phosphorus	14.0)	mg/L	0.1	365.2	08/2	23/04 19:00	MJC	



SEP 1 6 2004

ort ID: S18591.01(01) arated on 09/08/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S18591.01-S18591.05 Project: 24CH.67201.00 Task #0013 Submitted Date/Time: 08/30/2004 09:00 Sampled by: M. McMahon P.O. #: Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

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Violetta F. Murshah

Violetta F. Murshak



Sample ID: S18591.01 ple Tag: MW04-270804-0 Collected Date/Time: 08/27/2004 06:53 Matrix: Groundwater COC Reference:

Sample Containers

#	Type Preservative(s)			Refrigerated?	Arrival Temp. (0	C) '	Thermome	ter #		
1	250ml Plastic	H2SO4		Yes	1		3			
1	500ml Plastic	None		Yes	1	:	3			
Analy	/sis		Results	Units	RDL	Metho	bd	Run Date/Time	Analyst CAS #	Flags
Inorg	<i>yanics</i>								•	<u>`</u>
Alkal	inity as CaCO3		6,000	mg/L	1	310.1		09/03/04 16:35	JKB	
Amm	ionia-N		550	mg/L	10	350.3	6	09/06/04 20:00	MJC	
Nitra	te-N		Not detected	mg/L	0.2	300.0)	09/02/04 07:47	JDP	
Nitrit	e-N		Not detected	mg/L	0.2	300.0)	09/02/04 07:47	JDP	
тос			6,100	mg/L	1	415.1		09/01/04 12:00	JTW	0
Tota	Phosphorus		2.06	mg/L	0.02	365.2	2	09/01/04 20:00	MJC	



Sample ID: S18591.02 //pie Tag: IW01-270804-0 Collected Date/Time: 08/27/2004 07:44 Matrix: Groundwater COC Reference:

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	ted? Arrival Temp.		nermometer #		
1	250ml Plastic	H2SO4	Yes	1	3			
1	500ml Plastic	None	Yes	1	3			
Ana	lysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ino	rganics	· · · · · · ·						
Aika	alinity as CaCO3	9,600	mg/L	1	310.1	09/03/04 16:40	JKB	
Am	monia-N	250	mg/L	10	350.3	09/06/04 20:00	MJC	
Nitr	ate-N	Not detected	mg/L	0.2	300.0	09/02/04 08:11	JDP	
Nitr	ite-N	Not detected	mg/L	0.2	300.0	09/02/04 08:11	JDP	
то	C	13,000	mg/L	1	415.1	09/01/04 12:00	JTW	0
Tot	al Phosphorus	14.4	mg/L	0.1	365.2	09/01/04 20:00	MJC	



Sample ID: S18591.03 ple Tag: IW02-270804-0 Collected Date/Time: 08/27/2004 08:40 Matrix: Groundwater COC Reference:

Sample Containers

#	Type Preservative(s	Preservative(s)	Refrigerated?	Arrival Tem	p. (C)	Therm	ometer #		
1	250ml Plastic	H2SO4	Yes	1		3			
1	500ml Plastic	None	Yes	1		3			
Ana	lysis	Results	Units	RDL	Met	hođ	Run Date/Time	Analyst CAS #	Flaos
Ino	rganics	······	· · · · · ·						
Alka	alinity as CaCO3	10,100	mg/L	1	310	.1	09/03/04 16:45	JKB	
Am	monia-N	110	mg/L	10	350	.3	09/06/04 20:00	MJC	
Nitr	ate-N	Not detected	mg/L	0.2	300	.0	09/02/04 08:22	JDP	
Nitr	ite-N	Not detected	mg/L	0.2	300	.0	09/02/04 08:22	JDP	
TO	C	13,000	mg/L	1	415	.1	09/01/04 12:00	JTW	0
Tota	al Phosphorus	9.04	mg/L	0.02	365	.2	09/01/04 20:00	MJC	

O-Analysis performed by outside laboratory

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Sample ID: S18591.04 hple Tag: IW03-270804-0 Collected Date/Time: 08/27/2004 09:53 Matrix: Groundwater COC Reference:

Sample Containers

#	Type Preservative(s)			Refrigerated?	Arrival Temp. ((C)	Thermomete	er #		
1	250ml Plastic	H2SO4		Yes	1		3	—		
1	500ml Plastic	None		Yes	1		3			
Ana	lysis		Results	Units	RDL	Meth	od R	un Date/Time	Analyst CAS #	Flags
Ino	rganics									
Alka	alinity as CaCO3		9,200	mg/L	1	310.1	1 0	9/03/04 16:50	JKB	
Am	monia-N		41	mg/L	1	350.3	3 0	9/06/04 20:00	MJC	
Nitr	ate-N		Not detected	mg/L	0.2	300.0	0 0	9/02/04 08:34	JDP	
Nitr	ite-N		Not detected	mg/L	0.2	300.0	0 0	9/02/04 08:34	JDP	
то	C		14,000	mg/L	1	415.1	1 0	9/01/04 12:00	JTW	0
Tot	al Phosphorus		10.2	mg/L	0.1	365.2	2 0	9/01/04 20:00	MJC	



Sample ID: S18591.05 ple Tag: IW04-270804-0 Collected Date/Time: 08/27/2004 10:36 Matrix: Groundwater COC Reference:

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	ed? Arrival Temp. (C)		Therm	ometer #		
1	250ml Plastic	H2SO4	Yes	1		3			
1	500ml Plastic	None	Yes	1		3			
Ana	lysis	Results	Units	RDL	Met	hod	Run Date/Time	Analyst CAS #	Flags
Inoi	rganics								
Alka	linity as CaCO3	10,400	mg/L	1	310).1	09/03/04 16:55	JKB	
Amı	monia-N	100	mg/L	10	350).3	09/06/04 20:00	MJC	
Nitra	ate-N	Not detected	l mg/L	0.2	300	0.0	09/02/04 08:46	JDP	
Nitri	ite-N	Not detected	mg/L	0.2	300	0.0	09/02/04 08:46	JDP	
TO	C	13,000	mg/L	1	415	5.1	09/01/04 12:00	JTW	0
Tota	al Phosphorus	16.6	mg/L	0.1	365	5.2	09/01/04 20:00	MJC	

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rt ID: S18727.01(01) arated on 10/21/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S18727.01-S18727.05 Project: 24CH.67201.00.0013 Bee Jay Scales Submitted Date/Time: 09/08/2004 09:50 Sampled by: Unknown P.O. #: Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Notes

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Violetta F. Murshah

Violetta F. Murshak ' ``oratory Director



Sample ID: S18727.01 ple Tag: MW04-070904-0 Collected Date/Time: 09/07/2004 09:58 Matrix: Groundwater COC Reference: 05904

Sample Containers

# Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C	;) Thermome	ter#			
1 500ml Plastic	None		Yes	4	3				
1 250ml Plastic	H2SO4		Yes	4	3				
1 125ml Plastic	HNO3		Yes	4	3				
2 1 L Amber	None		Yes	4	3				
Analysis	F	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Extraction / Prep.									
Metal Digestion	C	Completed			3015A	09/17/04 13:30	MSH		
Inorganics									
Alkalinity as CaCO3	6	5,250	mg/L	1	310.1	09/10/04 11:55	JKB		
Ammonia-N	Ę	560	mg/L	10	350.3	09/14/04 17:00	MJC	7664-41-7	
Nitrate-N	1	Not detected	mg/L	0.2	300.0	09/09/04 10:31	JDP		
Nitrite-N	1	Not detected	mg/L	0.2	300.0	09/09/04 10:31	JDP		
тос	Ę	5, 500	mg/L	1	415.1	09/10/04 12:00	Fiber		
Total Phosphorus		1.71	mg/L	0.02	365.2	09/13/04 15:00	MJC	7723-14-0T	
Metals									
nic	(0.069	mg/L	0.002	200.8	09/20/04 16:38	PER	7440-38-2	
.d	•	4.59	mg/L	0.02	200.8	09/20/04 16:38	SLS	7439-89-6	
Manganese		7.54	mg/L	0.005	200.8	09/20/04 16:38	SLS	7439-96-5	
Organics									
Dinoseb		Not detected	ug/L	0.6	8151	09/28/04 12:00	STL		0
Other / Misc.									
Subcontracting Shipped (Repl	icate 01)	Completed				09/20/04 16:00	PCS		



Sample ID: S18727.02 ple Tag: IW01-070904-0 Collected Date/Time: 09/07/2004 10:47 Matrix: Groundwater COC Reference: 05904

Sample Containers

# Туре	Preservative(s)	R	efrigerated?	Arrival Temp. (C) Thermome	er #			
1 500ml Plastic	None	Y	es	4	3				
1 250ml Plastic	H2SO4	Y	es	4	3				
1 125ml Plastic	HNO3	Y	es	4	3				
1 1 L Amber	None	Y	es	4	3				
Analysis	Resul	its U	Inits	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Extraction / Prep.									
Metal Digestion	Comp	pleted			3015A	09/17/04 13:30	MSH		
Inorganics									
Alkalinity as CaCO3	11,00)0 m	ng/L	1	310.1	09/10/04 12:00	JKB		
Ammonia-N	330	rr	ng/L	10	350.3	09/14/04 17:00	MJC 7	664-41-7	
Nitrate-N	Not d	letected m	ng/L	0.2	300.0	09/09/04 10:42	JDP		
Nitrite-N	Not d	letected m	ng/L	0.2	300.0	09/09/04 10:42	JDP		
тос	11,00	00 m	ng/L	1	415.1	09/10/04 12:00	Fiber		
Total Phosphorus	11.6	m	ng/L	0.1	365.2	09/13/04 15:00	MJC 7	723-14-0T	
Metals									
nic	0.124	4 n	ng/L	0.002	200.8	09/20/04 16:40	PER 7	440-38-2	
	2.29	m	ng/L	0.02	200.8	09/20/04 16:40	SLS 7	439-89-6	
Manganese	7.56	п	ng/L	0.005	200.8	09/20/04 16:40	SLS 7	439-96-5	
Organics									
Dinoseb	Not d	letected u	ıg/L	0.6	8151	09/26/04 12:00	STL		0
Other / Misc.									
Subcontracting Shipped (Replic	cate 01) Com	pleted				09/08/04 16:00	PCS		



Sample ID: S18727.03 Je Tag: IW02-070904-0 Collected Date/Time: 09/07/2004 11:30 Matrix: Groundwater COC Reference: 05904

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C) Thermom	neter #			
1	500ml Plastic	None		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
1	1 L Amber	None		Yes	4	3				
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analysi	CAS#	Flags
Ex	traction / Prep.		· · · · ·							
Me	tal Digestion		Completed			3015A	09/17/04 13:30	MSH		
Inc	organics									
Alk	alinity as CaCO3		10,500	mg/L	1	310.1	09/10/04 12:10	JKB		
Am	imonia-N		200	mg/L	10	350.3	09/14/04 17:00	MJC	7664-41-7	
Nit	rate-N		Not detected	mg/L	0.2	300.0	09/09/04 10:54	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300.0	09/09/04 10:54	JDP		
тс	C		12,000	mg/L	1	415.1	09/10/04 12:00	Fiber		
To	tal Phosphorus		6.52	mg/L	0.02	365.2	09/13/04 15:00	MJC	7723-14-0 T	
Me	etals									
	nic		0.071	mg/L	0.002	200.8	09/20/04 16:42	PER	7440-38-2	
	.2		1.27	mg/L	0.02	200.8	09/20/04 16:42	SLS	7439-89-6	
Ma	inganese		3.61	mg/L	0.005	200.8	09/20/04 16:42	SLS	7439-96-5	
Or	rganics					·				
Dii	noseb		Not detected	ug/L	0.6	8151	09/26/04 12:00	STL		0
01	her / Misc.									
Su	bcontracting Shipped (Replic	ate 01)	Completed				09/08/04 16:00	PCS		


Sample ID: S18727.04 Confiple Tag: IW03-070904-0 Collected Date/Time: 09/07/2004 12:13 Matrix: Groundwater COC Reference: 05904

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C	C) <u>Thermome</u>	eter #			
1	500ml Plastic	None		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
2	1 L Amber	None		Yes	4	3				
Ana	lysis		Results	Units	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Ext	raction / Prep.									
Me	al Digestion		Completed			3015A	09/17/04 13:30	MSH		
Ino	rganics									
Alk	alinity as CaCO3		10,600	mg/L	1	310.1	09/10/04 12:15	JKB		
Am	monia-N		67	mg/L	1	350.3	09/14/04 17:00	MJC	7664-41-7	
Niti	rate-N		Not detected	mg/L	0.2	300.0	09/09/04 11:06	JDP		
Nit	rite-N		Not detected	mg/L	0.2	300.0	09/09/04 11:06	JDP		
то	с		11,000	mg/L	1	415.1	09/10/04 12:00	Fiber		
To	al Phosphorus		9.18	mg/L	0.02	365.2	09/13/04 15:00	MJC	7723-14-0T	
Me	tals									
	Inic		0.046	mg/L	0.002	200.8	09/20/04 16:45	PER	7440-38-2	
нø	n		1.84	mg/L	0.02	200.8	09/20/04 16:45	SLS	7439-89-6	
Ma	Inganese		3.96	mg/L	0.005	200.8	09/20/04 16:45	SLS	7439-96-5	
Or	ganics									
Di	noseb		Not detected	ug/L	0.6	8151	09/28/04 12:00	STL		0
01	her / Misc.									
St	bcontracting Shipped (Repl	licate 01)	Completed				09/20/04 16:00	PCS		



' Sample ID: S18727.05 Je Tag: IW04-070904-0 Collected Date/Time: 09/07/2004 12:56 Matrix: Groundwater COC Reference: 05904

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp. (C) Thermome	eter #			
1	500ml Plastic	None		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
2	1 L Amber	None		Yes	4	3				
Ana	lysis		Results	Units	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Ext	raction / Prep.									
Me	al Digestion		Completed			3015A	09/17/04 13:30	MSH		
Ino	rganics									
Alk	alinity as CaCO3		11,000	mg/L	1	310.1	09/10/04 12:20	JKB		
Am	monia-N		130	mg/L	10	350.3	09/14/04 17:00	MJC	7664-41-7	
Niti	rate-N		Not detected	mg/L	0.2	300.0	09/09/04 11:18	JDP		
Nita	ite-N		Not detected	mg/L	0.2	300.0	09/09/04 11:18	JDP		
то	с		13,000	mg/L	1	415.1	09/10/04 12:00	Fiber		
Tot	al Phosphorus		10.6	mg/L	0.1	365.2	09/13/04 15:00	MJC	7723-14-0T	
Me	tals									
<u></u>	nic		0.061	mg/L	0.002	200.8	09/20/04 16:47	PER	7440-38-2	
)		0.73	mg/L	0.02	200.8	09/20/04 16:47	SLS	7439-89-6	
Ma	nganese		2.99	mg/L	0.005	200.8	09/20/04 16:47	SLS	7439-96-5	
Or	ganics									
Dir	noseb		Not detected	ug/L	0.6	8151	09/28/04 12:00	STL		0
Ot	her / Misc.									
Su	bcontracting Shipped (Repli	cate 01)	Completed				09/20/04 16:00	PCS		



ort ID: S20047.01(01) erated on 12/23/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S20047.01-S20047.05 Project: 24CH.67201.00.0013 Bee Jay Scales Submitted Date/Time: 12/03/2004 10:15 Sampled by: Michael McMahon P.O. #:

Report Notes

Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

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Violetta F. Murshah

Violetta F. Murshak

Report produced by

Merit Laboratories 2680 East Lansing Drive East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333



Sample ID: S20047.01 jple Tag: MW04-011204-0 Collected Date/Time: 12/01/2004 10:09 Matrix: Groundwater COC Reference: 026173

Sample Containers

Туре	Preservative(s)	Refrigerated?	Arrival Tem	p. (C) 1	Thermometer #			
500ml Plastic	None		Yes	4	3	3			
250ml Plastic	H2SO4		Yes	4	3	3			
125ml Plastic	HNO3		Yes	4	З	3			
1 L Amber	None		Yes	4	З	3			
125ml Amber	H2SO4		Yes	4	3	3			
llysis		Results	Units	RDL	Metho	d Run Date/Time	Analyst	CAS #	Flags
raction / Prep.									
al Digestion		Completed			3015A	12/14/04 14:00	SLS		
rganics									
alinity as CaCO3		11,200	mg/L	1	310.1	12/15/04 12:20	JKB		
monia-N		460	mg/L	10	350.3	12/10/04 22:00	MJC	7664-41-7	
ate-N		Not detected	mg/L	0.2	300.0	12/06/04 10:35	JDP		
ite-N		Not detected	mg/L	0.2	300.0	12/06/04 10:35	JDP		
С		838	mg/L	1.0	415.1	12/10/04 09:30	JDP		
al Phosphorus		4.15	mg/L	0.02	365.2	12/06/04 21:00	MJC	7723-14-0T	-
als									
enic		0.277	mg/L	0.002	200.8	12/14/04 17:59	SLS	7440-38-2	
1		7.14	mg/L	0.02	200.8	12/14/04 15:48	SLS	7439-89-6	
nganese		0.275	mg/L	0.005	200.8	12/14/04 15:48	SLS	7439-96-5	
ganics									
oseb		2.6	ug/L	0.6	8151	12/21/04 12:00	STL		01
	Type 500ml Plastic 250ml Plastic 125ml Plastic 1 L Amber 125ml Am	TypePreservative(s500ml PlasticNone250ml PlasticH2SO4125ml PlasticHNO31 L AmberNone125ml AmberH2SO4IlysisIteration / Prep.al DigestionIterationrganicsalinity as CaCO3monia-Nate-Nate-Nite-NCal PhosphorusalinicIterationmganeseganicsosebSet	TypePreservative(s)500ml PlasticNone250ml PlasticH2SO4125ml PlasticHNO31 L AmberNone125ml AmberH2SO4125ml AmberH2SO4Resultsraction / Prep.al DigestionCompletedrganicsalinity as CaCO311,200monia-N460ate-NNot detectedite-NNot detectedC838al Phosphorus4.15alinic0.277nic0.275anics0.275ganics0.275ganics2.6	TypePreservative(s)Refrigerated?500ml PlasticNoneYes250ml PlasticH2SO4Yes125ml PlasticHNO3Yes1 L AmberNoneYes125ml AmberH2SO4Yes125ml AmberResultsUnitsraction / Prep.Allogomg/Lal DigestionCompletedmg/Late-NNot detectedmg/LC838mg/Lal Phosphorus4.15mg/Lal Phosphorus0.277mg/Langanese0.275mg/Lganics2.6ug/L	Type Preservative(s) Refrigerated? Arrival Tem 500ml Plastic None Yes 4 250ml Plastic H2SO4 Yes 4 125ml Plastic HNO3 Yes 4 125ml Plastic HNO3 Yes 4 1L Amber None Yes 4 125ml Amber H2SO4 Yes 4 Introvints Results Units RDL rate-N Kot detected mg/L 0.2 C 838 mg/L 1.0	Type Preservative(s) Refrigerated? Arrival Temp. (C) T 500ml Plastic None Yes 4 3 250ml Plastic H2SO4 Yes 4 3 125ml Plastic HNO3 Yes 4 3 125ml Plastic HNO3 Yes 4 3 125ml Plastic HNO3 Yes 4 3 125ml Amber None Yes 4 3 125ml Amber H2SO4 Yes 4 3 alingistion Completed Yes 4 3 al Digestion Completed mg/L 1 310.1 monia-N 460 mg/L 0.2 300.0 ite-N Not detected mg/L 0.2 300.0 C <	Type Preservative(s) Refrigerated? Arrival Temp. (C) Thermometer # 500ml Plastic None Yes 4 3 250ml Plastic H2SO4 Yes 4 3 125ml Plastic HNO3 Yes 4 3 125ml Plastic HNO3 Yes 4 3 125ml Plastic HNO3 Yes 4 3 125ml Plastic HO3 Yes 4 3 125ml Amber None Yes 4 3 125ml Amber H2SO4 Yes 4 3 ilysis Results Units RDL Method Run Date/Time raction / Prep. al Digestion Completed 3015A 12/14/04 14:00 rganics 11,200 mg/L 1 310.1 12/15/04 12:20 monia-N 460 mg/L 0.2 300.0 12/06/04 10:35 C 838 mg/L 0.2 300.0 12/06/04 10:35	Type Preservative(s) Refrigerated? Arrival Temp. (C) Thermometer # 500ml Plastic None Yes 4 3 250ml Plastic H2SO4 Yes 4 3 125ml Plastic HNO3 Yes 4 3 125ml Plastic HNO3 Yes 4 3 125ml Amber None Yes 4 3 125ml Amber H2SO4 Yes 3015A 12/14/04 14:00 SLS reaction / Prep. 3015A 12/14/04 12:20 JKB MIC	Type Preservative(s) Refrigerated? Arrival Temp. (C) Thermometer # 500ml Plastic None Yes 4 3 250ml Plastic H2SO4 Yes 4 3 125ml Plastic HN03 Yes 4 3 125ml Plastic HN03 Yes 4 3 125ml Plastic HN03 Yes 4 3 125ml Plastic H2SO4 Yes 4 3 125ml Amber H2SO4 Yes 4 3 ilysis Results Units RDL Method Run Date/Time Analyst_CAS # raction / Prep. al Digestion Completed 3015A 12/14/04 14:00 SLS rganics athily as CaCO3 11,200 mg/L 1 310.1 12/16/04 12:20 JKB rganes Not detected mg/L 0.2 300.0 12/06/04 10:35 JDP C 838 mg/L 1.0 415.1 12/10/04 09:30 JDP

O-Analysis performed by outside laboratory 1-*The percent difference between the original and confirmation analyses is greater than 40%



Sample ID: S20047.02 jele Tag: IW01-011204-0 Collected Date/Time: 12/01/2004 10:50 Matrix: Groundwater COC Reference: 026173

Sample Containers

#	Туре	Preservative((s)	Refrigerated?	Arrival Ten	np.(C) Th	nermometer #			
1	500ml Plastic	None		Yes	4	3				
1	250ml Plastic	H2SO4		Yes	4	3				
1	125ml Plastic	HNO3		Yes	4	3				
2	1 L Amber	None		Yes	4	3				
1	125ml Amber	H2SO4		Yes	4	3				
Ana	alysis		Results	Units	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Ext	traction / Prep.									
Me	tal Digestion		Completed			3015A	12/14/04 14:00	SLS		
Ino	organics									
Alk	alinity as CaCO3		11,900	mg/L	1	310.1	12/15/04 12:30	JKB		
Am	imonia-N		490	mg/L	10	350.3	12/10/04 22:00	MJC	7664-41-7	
Niti	rate-N		159	mg/L	0.2	300.0	12/06/04 13:59	JDP		
Niti	rite-N		10.1	mg/L	0.2	300.0	12/06/04 13:07	JDP		
то	C		2,420	mg/L	1.0	415.1	12/10/04 10:00	JDP		
Tot	al Phosphorus		37	mg/L	1	365.2	12/06/04 21:00	MJC	7723-14-01	Г
حد مر										
	ic		3.59	mg/L	0.002	200.8	12/14/04 18:01	SLS	7440-38-2	
Iror	n		3.90	mg/L	0.02	200.8	12/14/04 15:51	SLS	7439-89-6	
Ma	nganese		0.291	mg/L	0.005	200.8	12/14/04 15:51	SLS	7439-96-5	
Or	ganics									
Dir	noseb		3.1	ug/L	0.6	8151	12/21/04 12:00	STL		01

O-Analysis performed by outside laboratory 1-*The percent difference between the original and confirmation analyses is greater than 40%



Şample ID: S20047.03 ple Tag: IW02-011204-0 Collected Date/Time: 12/01/2004 11:20 Matrix: Groundwater COC Reference: 026173

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Ten	np. (C)	Therm	ometer #			
1	500ml Plastic	None	····	Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
2	1 L Amber	None		Yes	4		3				
1	125ml Amber	H2SO4		Yes	4		3				
Ana	alysis		Results	Units	RDL	Meth	nod	Run Date/Time	Analyst	CAS#	Flags
Ext	raction / Prep.								······································		<u> </u>
Met	al Digestion		Completed			3015	5A	12/14/04 14:00	SLS		
Ino	rganics										
Alka	alinity as CaCO3		13,300	mg/L	1	310.	1	12/15/04 12:35	JKB		
Am	monia-N		450	mg/L	10	350.	3	12/10/04 22:00	MJC	7664-41-7	
Nitr	ate-N		Not detected	mg/L	0.2	300.	0	12/06/04 10:59	JDP		
Nitr	ite-N		Not detected	mg/L	0.2	300.	0	12/06/04 10:59	JDP		
ТО	С		7,560	mg/L	1.0	415.	1	12/10/04 10:30	JDP		
Tot	al Phosphorus		23.2	mg/L	0.1	365.	2	12/06/04 21:00	MJC	7723-14-0T	•
	∖ls										
	nic		1.98	mg/L	0.002	200.	8	12/14/04 18:03	SLS	7440-38-2	
Iror	1		0.72	mg/L	0.02	200.	8	12/14/04 15:53	SLS	7439-89-6	
Ma	nganese		0.234	mg/L	0.005	200.	.8	12/14/04 15:53	SLS	7439-96-5	
Org	ganics										
Din	loseb		Not detected	ug/L	0.6	8151	1	12/21/04 12:00	STL		01

O-Analysis performed by outside laboratory 1-*The difference between the original and confirmation analyses is greater than 40%



Sample ID: S20047.04 ple Tag: IW03-011204-0 Collected Date/Time: 12/01/2004 12:10 Matrix: Groundwater COC Reference: 026173

Sample Containers

#	Туре	Preservative((s)	Refrigerated?	Arrival Ten	np. (C)	Therm	ometer #			
1	500ml Plastic	None		Yes	4	<u></u>	3				
1	250ml Plastic	H2SO4		Yes	4		3				
1	125ml Plastic	HNO3		Yes	4		3				
2	1 L Amber	None		Yes	4		3				
1	125ml Amber	H2SO4		Yes	4		3				
Ana	lysis		Results	Units	RDL	Metł	hod	Run Date/Time	Analyst	CAS#	Flags
Ext	raction / Prep.										
Met	al Digestion		Completed			3018	5A	12/14/04 14:00	SLS		
Ino	rganics										
Alka	alinity as CaCO3		13,300	mg/L	1	310.	.1	12/15/04 12:40	JKB		
Am	monia-N		450	mg/L	10	350.	.3	12/10/04 22:00	MJC	7664-41-7	
Nitr	ate-N		Not detected	mg/L	0.2	300.	.0	12/06/04 11:10	JDP		
Nitr	ite-N		Not detected	mg/L	0.2	300,	.0	12/06/04 11:10	JDP		
то	с		8,230	mg/L	1.0	415,	.1	12/10/04 10:45	JDP		
Tot	al Phosphorus		17.2	mg/L	0.1	365.	.2	12/06/04 21:00	MJC	7723-14-0T	
~~	ʻals										
	Inic		1.86	mg/L	0.002	200.	.8	12/14/04 18:05	SIS	7440-38-2	
Iror	ł		2.42	ma/L	0.02	200	8	12/14/04 15:55	SI S	7/130-80-6	
Mai	nganese		0.189	mg/L	0.005	200.	.8	12/14/04 15:55	SLS	7439-96-5	
Org	ganics										
Din	oseb		3.1	ug/L	0.6	8151	1	12/21/04 12:00	STL		01
	USED		3.1	ug/L	0.6	8151	1	12/21/04 12:00	STL		

O-Analysis performed by outside laboratory 1-*The difference between the original and confirmation analyses is greater than 40%



Sample Containers

Flags
<u>v</u>
-7
-0T
-2
-6
-5
01

O-Analysis performed by outside laboratory 1-*The percent difference between the original and confirmation analyses is greater than 40%

- - A



- F 1D: S20048.01(01)
- /ated on 12/21/2004

Report to

Attention: Ms. Marisa Patterson SECOR 2321 Club Meridian Dr. #E Okemos, MI 48864-4505 MSA# 94023

Phone: 517-349-9499 FAX: 517-349-6863

Report Summary

Lab Sample ID(s): S20048.01-S20048.21 Project: 24CH.67201.00.0013 Bee-Jay Scales Submitted Date/Time: 12/03/2004 12:00 Sampled by: Mike McMahon P.O. #:

Report Notes Results relate only to items tested.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL. Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshah

Violetta F. Murshak Laboratory Director

Report produced by

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Phone: (517) 332-0167 FAX: (517) 332-6333



`ample ID: S20048.01

le Tag: SB-PS-001-0, 0-2

Collected Date/Time: 12/01/2004 14:15

Matrix: Soil

COC Reference: 013736

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C)	Thermomet	er#			
2	4oz. Glass	None	Yes	4		3				
Ana	alysis	Results	Units	RDL	Meth	d bc	Run Date/Time	Analyst	CAS#	Flags
Inc	rganics									
Tot	al Solids	82	%	1	160.3	}	12/08/04 17:00	PCS		
Am	monia-N	Not detected	mg/kg	10	350.3	3	12/09/04 19:00	MJC	7664-41-7	
Nit	rate-N	980	mg/kg	30	300.0) '	12/14/04 09:33	JDP		
Nit	rite-N	Not detected	mg/kg	30	300.0) ·	12/14/04 08:54	JDP		
то	С	1,100	mg/kg	100	415.1		12/18/04 12:00	STL		0
Tot	al Phosphorus	828	mg/kg	1	365.2	2	12/21/04 11:00	MJC	7723-14-01	Г
Or	ganics									
Dir	loseb	Not detected	ug/kg	15	8151	A	12/18/04 12:00	STL		0
Ot	her / Misc.									
Su	bcontracting Shipped (Replica	ate 01) Completed					12/03/04 16:00	PCS		



` `ample ID: S20048.02 ↓ Je Tag: SB-PS-001-0, 2-4' Collected Date/Time: 12/01/2004 14:15 Matrix: Soil COC Reference: 013736

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Therm	ometer #			
2	4oz. Glass	None	Yes	4	3				
An	alysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Inc	organics								
Tot	al Solids	74	%	1	160.3	12/08/04 17:00	PCS		
Am	imonia-N	Not detecte	d mg/kg	10	350.3	12/09/04 19:00	MJC 7	664-41-7	
Nit	rate-N	1,860	mg/kg	30	300.0	12/14/04 12:00	JDP		
Nit	rite-N	Not detecte	d mg/kg	30	300.0	12/14/04 09:06	JDP		
тс	C	510	mg/kg	100	415.1	12/18/04 12:00	STL		0
To	tal Phosphorus	977	mg/kg	1	365.2	12/21/04 11:00	MJC 7	723-14-0T	-
Or	ganics								
Dir	noseb	Not detecte	d ug/kg	15	8151A	12/18/04 12:00	STL		о
Ot	her / Misc.								
Su	bcontracting Shipped (Replic	cate 01) Completed				12/03/04 16:00	PCS		



ample ID: S20048.03 Je Tag: SB-PS-001-0, 4-6' Collected Date/Time: 12/01/2004 14:15 Matrix: Soil COC Reference: 013736

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C)	Thermometer #			
2	4oz. Glass	None	Yes	4	:	3			
Ana	alysis	Results	Units	RDL	Metho	d Run Date/Time	Analysi	CAS#	Flags
Ino	rganics								
Tot	al Solids	77	%	1	160.3	12/08/04 17:00	PCS		
Am	monia-N	80	mg/kg	10	350,3	12/09/04 19:00	MJC	7664-41-7	
Nitı	rate-N	190	mg/kg	30	300.0	12/14/04 10:24	JDP		
Niti	rite-N	Not detected	mg/kg	30	300.0	12/14/04 10:24	JDP		
то	С	800	mg/kg	100	415.1	12/18/04 12:00	STL		0
Tot	al Phosphorus	910	mg/kg	1	365.2	12/21/04 11:00	MJC	7723-14-0	г
Or	ganics								
Dir	ioseb	Not detected	ug/kg	15	8151/	A 12/18/04 12:00	STL		0
Ot	her / Misc.								
Su	bcontracting Shipped (Replica	ate 01) Completed				12/03/04 16:00	PCS		



ample ID: S20048.04

le Tag: SB-PS-001-0, 6-8' أَمُ

Collected Date/Time: 12/01/2004 14:15

Matrix: Soil

COC Reference: 013736

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Therm	iometer #		
2	4oz. Glass	None	Yes	4	3			
Ana	Ilysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS i	Flags
Ino	rganics							
Tot	al Solids	80	%	1	160.3	12/08/04 17:00	PCS	
Am	monia-N	440	mg/kg	10	350.3	12/09/04 19:00	MJC 7664-4	1-7
Nit	ate-N	37	mg/kg	30	300.0	12/14/04 12:23	JDP	
Niti	ite-N	Not detected	mg/kg	30	300.0	12/14/04 12:23	JDP	
то	с	430	mg/kg	100	415.1	12/18/04 12:00	STL	0
To	al Phosphorus	830	mg/kg	1	365.2	12/21/04 11:00	MJC 7723-1	4-0T
Or	ganics							
Dir	loseb	Not detected	ug/kg	15	8151A	12/18/04 12:00	STL	0
Ot	her / Misc.							
Su	bcontracting Shipped (Replica	ate 01) Completed				12/03/04 16:00	PCS	



ample ID: S20048.05

Collected Date/Time: 12/01/2004 14:15

Matrix: Soil

COC Reference: 013736

Sample Containers

#	Туре Р	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Therm	ometer #			
2	4oz. Glass	None	Yes	4	3				
Ana	alysis	Results	Units	RÐL	Method	Run Date/Time	Analyst	CAS#	Flags
Inc	organics								
Tot	al Solids	76	%	1	160.3	12/08/04 17:00	PCS		
Am	nmonia-N	700	mg/kg	10	350.3	12/09/04 19:00	MJC	7664-41-7	
Nit	rate-N	Not detected	mg/kg	30	300.0	12/14/04 12:35	JDP		
Nit	rite-N	Not detected	mg/kg	30	300.0	12/14/04 12:35	JDP		
то	C	150	mg/kg	100	415.1	12/18/04 12:00	STL		0
To	tal Phosphorus	704	mg/kg	1	365.2	12/21/04 11:00	MJC .	7723-14-01	Г
Or	ganics								
Dir	noseb	Not detected	ug/kg	15	8151A	12/18/04 12:00	STL		0
Ot	her / Misc.								
Su	bcontracting Shipped (Replica	te 01) Completed				12/03/04 16:00	PCS		



Sample ID: S20048.06 ple Tag: SB-PS-001-0, 10-12' Collected Date/Time: 12/01/2004 14:15 Matrix: Soil COC Reference: 013736

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) -	Thermometer #			
2	4oz. Glass	None	Yes	4	:	3			
Ana	alysis	Results	Units	RDL	Metho	d Run Date/Time	Analys	t CAS#	Flags
Ino	rganics					·····			
Tot	al Solids	76	%	1	160.3	12/08/04 17:00	PCS		
Am	imonia-N	810	mg/kg	10	350.3	12/09/04 19:00	MJC	7664-41-7	
Niti	rate-N	Not detected	mg/kg	30	300.0	12/14/04 12:47	JDP		
Niti	rite-N	Not detected	mg/kg	30	300.0	12/14/04 12:47	JDP		
то	C	550	mg/kg	100	415.1	12/18/04 12:00	STL		0
To	al Phosphorus	708	mg/kg	1	365.2	12/21/04 11:00	MJC	7723-14-0	Г
Or	ganics								
Dir	noseb	Not detected	ug/kg	16	8151/	A 12/18/04 12:00	STL		0
Ot	her / Misc.								
Su	bcontracting Shipped (Replica	ate 01) Completed				12/03/04 16:00	PCS		



Sample ID: S20048.07 ple Tag: SB-PS-001-0, 12-14' Collected Date/Time: 12/01/2004 14:15 Matrix: Soil COC Reference: 013736

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Therm	iometer #		
2	4oz. Glass	None	Yes	4	3			
An	alysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Inc	organics							
To	al Solids	76	%	1	160.3	12/08/04 17:00	PCS	
An	monia-N	1,060	mg/kg	10	350.3	12/09/04 19:00	MJC 7664-41-7	,
Nit	rate-N	Not detected	mg/kg	30	300.0	12/14/04 12:58	JDP	
Nit	rite-N	Not detected	mg/kg	30	300.0	12/14/04 12:58	JDP	
тс	C	160	mg/kg	100	415.1	12/18/04 12:00	STL	0
То	tal Phosphorus	688	mg/kg	1	365.2	12/21/04 11:00	MJC 7723-14-0	T
Or	ganics							
Dir	loseb	Not detected	ug/kg	16	8151A	12/18/04 12:00	STL	0
Ot	her / Misc.							
Su	bcontracting Shipped (Replica	ate 01) Completed				12/03/04 16:00	PCS	



ample ID: S20048.08 ...ple Tag: SB-PS-001-0, 14-16' Collected Date/Time: 12/01/2004 14:15 Matrix: Soil COC Reference: 013736

Sample Containers

#	Туре Р	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) T	hermometer #			
2	4oz. Glass	None	Yes	4	3				
Ana	alysis	Results	Units	RDL	Method	Run Date/Time	Analysi	CAS#	Flags
Ino	rganics								
Tot	al Solids	78	%	1	160.3	12/08/04 17:00	PCS		
Am	monia-N	760	mg/kg	10	350.3	12/09/04 19:00	MJC	7664-41-7	
Nit	rate-N	Not detected	mg/kg	30	300.0	12/14/04 13:10	JDP		
Nit	rite-N	Not detected	mg/kg	30	300.0	12/14/04 13:10	JDP		
то	с	540	mg/kg	100	415.1	12/18/04 12:00	STL		0
To	al Phosphorus	740	mg/kg	1	365.2	12/21/04 11:00	MJC	7723-14-0	Г
Or	ganics								
Dir	noseb	Not detected	ug/kg	15	8151A	12/18/04 12:00	STL		0
Ot	her / Misc.								
Su	bcontracting Shipped (Replica	te 01) Completed				12/03/04 16:00	PCS		



Sample ID: S20048.09 , ple Tag: SB-PS-001-0, 16-18' Collected Date/Time: 12/01/2004 14:15 Matrix: Soil COC Reference: 013736

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Ther	mometer #		
2	4oz. Glass	None	Yes	4	3			
Ana	llysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS	# Flags
Ino	rganics							
Tot	al Solids	77	%	1	160.3	12/08/04 17:00	PCS	
Am	monia-N	500	mg/kg	10	350.3	12/09/04 19:00	MJC 7664-4	1-7
Nitr	ate-N	Not detected	mg/kg	30	300.0	12/14/04 13:22	JDP	
Niti	ite-N	Not detected	mg/kg	30	300.0	12/14/04 13:22	JDP	
то	с	250	mg/kg	100	415.1	12/18/04 12:00	STL	0
Tot	al Phosphorus	735	mg/kg	1	365.2	12/21/04 11:00	MJC 7723-1	4-0T
Or	ganics							
Din	oseb	Not detected	ug/kg	16	8151A	12/18/04 12:00	STL	0
Oti	her / Misc.							
Su	ocontracting Shipped (Replica	ate 01) Completed				12/03/04 16:00	PCS	



Sample ID: S20048.10 ...ple Tag: SB-PS-002-0, 0-2' Collected Date/Time: 12/01/2004 15:00 Matrix: Soil COC Reference: 013736

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Therm	ometer #			
2	4oz. Glass	None	Yes	4	3				
An	alysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Inc	organics								
To	tal Solids	85	%	1	160.3	12/08/04 17:00	PCS		
Am	imonia-N	Not detecte	d mg/kg	10	350.3	12/09/04 19:00	MJC	7664-41-7	
Nit	rate-N	220	mg/kg	30	300.0	12/14/04 14:09	JDP		
Nit	rite-N	Not detecte	d mg/kg	30	300.0	12/14/04 14:09	JDP		
тс	00	4,400	mg/kg	100	415.1	12/18/04 12:00	STL		0
To	tal Phosphorus	754	mg/kg	1	365.2	12/21/04 11:00	MJC	7723-14-01	Γ
Or	ganics								
Di	noseb	Not detecte	d ug/kg	14	8151A	12/18/04 12:00	STL		0
Of	her / Misc.								
Su	bcontracting Shipped (Replic	cate 01) Completed				12/03/04 16:00	PCS		



Sample ID: S20048.11 de Tag: SB-PS-002-0, 2-4' Collected Date/Time: 12/01/2004 15:00 Matrix: Soil COC Reference: 013736

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Ter	mp. (C) Therm	ometer #		
2	4oz. Glass	None	Yes	4	3			
Ana	ilysis	Results	Units	RDL	Method	Run Date/Time	Analvst CAS #	Flaos
Ino	rganics							
Tota	al Solids	80	%	1	160.3	12/08/04 17:00	PCS	
Am	monia-N	Not detected	mg/kg	10	350.3	12/09/04 19:00	MJC 7664-41-7	
Nitr	ate-N	690	mg/kg	30	300.0	12/14/04 15:46	JDP	
Nitr	ite-N	Not detected	mg/kg	30	300.0	12/14/04 14:20	JDP	
то	C	1,000	mg/kg	100	415.1	12/18/04 12:00	STL	0
Tot	al Phosphorus	996	mg/kg	1	365.2	12/21/04 11:00	MJC 7723-14-0T	-
Org	yanics							
Din	oseb	Not detected	ug/kg	15	8151A	12/18/04 12:00	STL	0
Oth	ner / Misc.							
Sub	pcontracting Shipped (Replica	ate 01) Completed				12/03/04 16:00	PCS	



Sample ID: S20048.12 je Tag: SB-PS-002-0, 4-6' Collected Date/Time: 12/01/2004 15:00 Matrix: Soil COC Reference: 013736

Sample Containers

# Type Preservat		Preservative(s)	Refrigerated?	ted? Arrival Temp. (C) Thermomet		ometer #			
2	4oz. Glass	None	Yes	4	3				
An	alysis	Results	Units	RDL	Method	Run Date/Time	Analyst C	CAS#	Flags
Inc	organics								
Tof	tal Solids	80	%	1	160.3	12/08/04 17:00	PCS		
Am	nmonia-N	100	mg/kg	10	350.3	12/09/04 19:00	MJC 76	64-41-7	
Nit	rate-N	200	mg/kg	30	300.0	12/14/04 14:32	JDP		
Nit	rite-N	31	mg/kg	30	300.0	12/14/04 14:32	JDP		
тс)C	450	mg/kg	100	415.1	12/18/04 12:00	STL		0
То	tal Phosphorus	845	mg/kg	1	365.2	12/21/04 11:00	MJC 77	'23-14-0T	•
Or	ganics								
Dir	noseb	Not detected	ug/kg	16	8151A	12/18/04 12:00	STL		0
Ot	her / Misc.								
Su	bcontracting Shipped (Replica	ate 01) Completed				12/03/04 16:00	PCS		



`ample ID: S20048.13 Je Tag: SB-PS-002-0, 6-8' Collected Date/Time: 12/01/2004 15:00 Matrix: Soil COC Reference: 013736

Sample Containers

#	Туре	Preservative(s)		Refrigerated?	Arrival Temp.	(C) Therm	nometer #			
2	4oz. Glass	None		Yes	4	3				
Ana	lysis	Res	sults	Units	RDL	Method	Run Date/Time	Analyst	CAS#	Flags
Ino	rganics									
Tota	al Solids	76		%	1	160.3	12/08/04 17:00	PCS		
Am	monia-N	720)	mg/kg	10	350.3	12/09/04 19:00	MJC 7	7664-41-7	
Nitr	ate-N	120)	mg/kg	30	300.0	12/14/04 14:44	JDP		
Nitr	ite-N	Not	detected	mg/kg	30	300.0	12/14/04 14:44	JDP		
ΤO	C	Not	detected	mg/kg	130	415.1	12/18/04 12:00	STL		0
Tot	al Phosphorus	715	5	mg/kg	1	365.2	12/21/04 11:00	MJC 7	7723-14-0T	
Org	Ja nics									
Din	oseb	Not	t detected	ug/kg	15	8151A	12/18/04 12:00	STL		0
Otl	ner / Misc.									
Sul	ocontracting Shipped (Replic	cate 01) Cor	mpleted				12/03/04 16:00	PCS		



Sample ID: S20048.14 ple Tag: SB-PS-002-0, 8-10' Collected Date/Time: 12/01/2004 15:00 Matrix: Soil COC Reference: 013737

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. <u>(C)</u> Thern	nometer #		
2	4oz. Glass	None	Yes	4	3			
Ana	ysis	Results	Units	RDL	Method	Run Date/Time	Analyst C	AS# Flags
Inor	rganics							
Tota	I Solids	77	%	1	160.3	12/08/04 17:00	PCS	
Amr	nonia-N	820	mg/kg	10	350.3	12/09/04 19:00	MJC 76	64-41-7
Nitra	ate-N	160	mg/kg	30	300.0	12/14/04 16:10	JDP	
Nitri	te-N	Not detected	d mg/kg	30	300.0	12/14/04 16:10	JDP	
то	2	470	mg/kg	100	415.1	12/18/04 12:00	STL	0
Tota	al Phosphorus	817	mg/kg	1	365.2	12/21/04 11:00	MJC 77	23-14-0T
Org	anics							
Din	oseb	Not detecte	d ug/kg	16	8151A	12/18/04 12:00	STL	0
Oth	er / Misc.							
Sub	contracting Shipped (Replic	cate 01) Completed				12/03/04 16:00	PCS	



Sample ID: S20048.15 ple Tag: SB-PS-002-0, 10-12' Collected Date/Time: 12/01/2004 15:00 Matrix: Soil COC Reference: 013737

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C)	Therm	ometer #			
2	4oz. Glass	None	Yes	4		3				
Ana	lysis	Results	Units	RDL	Meth	nod	Run Date/Time	Analyst	CAS#	Flags
Ino	rganics									
Tot	al Solids	76	%	1	160.	3	12/08/04 17:00	PCS		
Am	monia-N	990	mg/kg	10	350.	3	12/09/04 19:00	MJC 7	7664-41-7	
Nitr	ate-N	170	mg/kg	30	300.	0	12/14/04 16:21	JDP		
Nitr	ite-N	Not detected	mg/kg	30	300.	0	12/14/04 16:21	JDP		
то	с	Not detected	mg/kg	130	415.	.1	12/18/04 12:00	STL		0
Tot	al Phosphorus	756	mg/kg	1	365.	2	12/21/04 11:00	MJC	7723-14-01	Г
Or	ganics									
Din	oseb	Not detected	ug/kg	15	815 [,]	1A	12/18/04 12:00	STL		0
Oti	her / Misc.									
Sul	bcontracting Shipped (Replica	ate 01) Completed					12/03/04 16:00	PCS		



Sample ID: S20048.16 ...ple Tag: SB-PS-002-0, 12-14' Collected Date/Time: 12/01/2004 15:00 Matrix: Soil COC Reference: 013737

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Therm	ometer #		
2	4oz. Glass	None	Yes	4	3			
Ana	lysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ino	rganics							
Tot	al Solids	76	%	1	160.3	12/08/04 17:00	PCS	
Am	monia-N	1,230	mg/kg	10	350.3	12/09/04 19:00	MJC 7664-41-7	
Nitr	ate-N	250	mg/kg	30	300.0	12/14/04 16:33	JDP	
Nitr	ite-N	Not detected	mg/kg	30	300.0	12/14/04 16:33	JDP	
то	с	460	mg/kg	100	415.1	12/18/04 12:00	STL	0
Tot	al Phosphorus	675	mg/kg	1	365.2	12/21/04 11:00	MJC 7723-14-0	Г
Org	ganics							
Din	oseb	Not detected	ug/kg	16	8151A	12/18/04 12:00	STL	0
Oti	her / Misc.							
Su	ocontracting Shipped (Replica	ate 01) Completed				12/03/04 16:00	PCS	



Sample ID: S20048.17 .ple Tag: SB-PS-002-0, 14-16' Collected Date/Time: 12/01/2004 15:00 Matrix: Soil COC Reference: 013737

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Therm	ometer #		
2	4oz. Glass	None	Yes	4	3			
Ana	lysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ino	rganics				_			
Tot	al Solids	80	%	1	160.3	12/08/04 17:00	PCS	
Am	monia-N	870	mg/kg	10	350.3	12/09/04 19:00	MJC 7664-41-	7
Nitr	ate-N	250	mg/kg	30	300.0	12/14/04 16:45	JDP	
Nitr	ite-N	Not detecte	d mg/kg	30	300.0	12/14/04 16:45	JDP	
то	C	250	mg/kg	100	415.1	12/18/04 12:00	STL	о
Tot	al Phosphorus	790	mg/kg	1	365.2	12/21/04 11:00	MJC 7723-14-	от
Org	<i>janics</i>							
Din	oseb	Not detecte	ed ug/kg	15	8151A	12/18/04 12:00	STL	0
Otl	ner / Misc.				·			
Sul	contracting Shipped (Replic	cate 01) Completed				12/03/04 16:00	PCS	



' Sample ID: S20048.18 Je Tag: SB-PS-002-0, 16-18' Collected Date/Time: 12/01/2004 15:00 Matrix: Soil COC Reference: 013737

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Therm			
2	4oz. Glass	None	Yes	4	3			
Ana	lysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flags
Ino	rganics					· · · · · · · · · · · · · · · · · · ·		
Tot	al Solids	77	%	1	160.3	12/08/04 17:00	PCS	
Am	monia-N	990	mg/kg	10	350.3	12/09/04 19:00	MJC 7664-41-7	
Nitr	ate-N	480	mg/kg	30	300.0	12/14/04 16:56	JDP	
Nitr	ite-N	Not detected	mg/kg	30	300.0	12/14/04 16:56	JDP	
то	C	350	mg/kg	100	415.1	12/18/04 12:00	STL	0
Tot	al Phosphorus	739	mg/kg	1	365.2	12/21/04 11:00	MJC 7723-14-0	т
Org	ganics							
Din	oseb	Not detected	ug/kg	15	8151A	12/18/04 12:00	STL	0
Oti	her / Misc.							
Su	ocontracting Shipped (Replica	te 01) Completed				12/03/04 16:00	PCS	



Sample ID: S20048.19 ,ple Tag: SB-PS-003-0 Collected Date/Time: 12/01/2004 12:25 Matrix: Groundwater COC Reference: 013737

Sample Containers

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#	Туре	Preservative(s	Preservative(s)		Arrival Temp. (C)		Therm	ometer #			
1	500ml Plastic	None		Yes	4		3				
1	250ml Plastic	H2SO4		Yes	4		3				
Ana	alysis		Results	Units	RDL	Met	hod	Run Date/Time	Analvst	CAS#	Flags
Ino	rganics										
Am	monia-N		450	mg/L	10	350	.3	12/10/04 22:00	MJC 3	7664-41-7	
Nitr	ate-N		388	mg/L	0.2	300	.0	12/14/04 17:49	JDP		
Nitr	ite-N		Not detected	mg/L	0.2	300	0.0	12/14/04 13:45	JDP		



Sample ID: S20048.20 ple Tag: SB-PS-004-0 Collected Date/Time: 12/01/2004 13:35 Matrix: Groundwater COC Reference: 013737

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Temp. (C)		Thermometer #				
1	500ml Plastic	None	Yes	4	• • • •	3				
1	250ml Plastic	H2SO4	Yes	4		3				
Analysis		Results	Units	RDL	Met	ethod	Run Date/Time	Analyst	CAS#	Flags
Ino	rganics								0/(0 //	1 1490
Am	monia-N	400	mg/L	10	350	0.3	12/10/04 22:00	MJC 3	7664-41-7	
Nitr	rate-N	317	mg/L	0.2	300	0.0	12/14/04 18:01	JDP		
Nitr	rite-N	Not detecte	ed mg/L	0.2	300	0.0	12/14/04 13:57	JDP		



Sample ID: S20048.21 ple Tag: SB-PS-002-1, 8-10' Collected Date/Time: 12/01/2004 15:00 Matrix: Soil COC Reference: 013737

Sample Containers

#	Туре	Preservative(s)	Refrigerated?	Arrival Te	mp. (C) Therm	ometer #		
2	4oz. Glass	None	Yes	4	3			
Ana	Ilysis	Results	Units	RDL	Method	Run Date/Time	Analyst CAS #	Flads
Ino	rganics							
Tot	al Solids	74	%	1	160.3	12/08/04 17:00	PCS	
Am	monia-N	840	mg/kg	10	350.3	12/09/04 19:00	MJC 7664-41-7	
Nitr	ate-N	180	mg/kg	30	300.0	12/14/04 17:08	JDP	
Nitr	ite-N	Not detected	d mg/kg	30	300.0	12/14/04 17:08	JDP	
то	C	270	mg/kg	100	415.1	12/18/04 12:00	STL	0
Tot	al Phosphorus	769	mg/kg	1	365.2	12/21/04 11:00	MJC 7723-14-0	т
Org	anics							
Din	oseb	Not detected	d ug/kg	17	8151A	12/18/04 12:00	STL	о
Oth	ner / Misc.							
Sub	contracting Shipped (Replic	cate 01) Completed				12/03/04 16:00	PCS	

O-Analysis performed by outside laboratory

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APPENDIX I PILOT STUDY PHOTOGRAPHS

Phase II Remedial Investigation Report Chevron Environmental Management Company & BP America, Inc.

> 24CH.67201.00 May 17, 2005



Injection wells IW-1 through IW-4 installed around MW-4.



Berm constructed around injection wells.



Manifold for delivery of sodium acetate solution to injection wells.



Stainless steel tank for mixing of sodium acetate, disodium phosphate, and water.



Pilot study mixing and injection system.



Addition of sodium acetate to solution.


Addition of disodium phosphate to solution.



Mixing of injection solution.



Air injection system.



Air injection manifold.



5-HP air compressor and generator setup.



Ammonia test kits for groundwater collected from MW-4 and IW-1 through IW-4.