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EL PASO CGP COMPANY

2010 GROUNDWATER, SOIL, AND AIR SAMPLING REPORT

JAQUEZ COM. C#1 AND JAQUEZ COM. E#1

November 2010

RCVD NOV 12'10 OIL CONS. DIV. DIST. 3

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LIST OF ACRONYMS

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and total xylenes

EPTPC El Paso Tennessee Pipeline Company

IDW Investigation-derived waste

mg/kg milligrams per kilogram

mg/L milligrams per liter

 μ g/L micrograms per liter

NMWQCC New Mexico Water Quality Control Commission

NMOCD New Mexico Oil Conservation Division

O&M operation and maintenance

ORC oxygen-releasing compound

PID photoionization detector

PSH phase-separated hydrocarbons

PVC polyvinyl chloride

SVE soil vapor extraction

TPH total petroleum hydrocarbons

yd³ cubic yards

1.0 INTRODUCTION

This report has been prepared on behalf of El Paso Tennessee Pipeline Company (EPTPC) to present the results of sampling activities performed at the Jaquez Com. C#1 and Jaquez Com. E#1 (Jaquez) meter station pit site (i.e., Jaquez Site) during June, August, and September 2010. The site is located in Township 29N, Range 9W, Section 6, in San Juan County, New Mexico, as shown in **Figure 1**, *Site Location*. The Jaquez Site is bisected by Citizens Ditch and is divided into the area north of Citizens Ditch and the area south of Citizens Ditch. **Figure 2**, *Site Layout*, presents a detailed map of the Jaquez Site.

In March 2010, EPTPC was notified that a new release had occurred from an operating gathering line where it crossed the southern embankment of Citizens Ditch. Following initial emergency response activities taken by the current operator, an on-site meeting was held between various stakeholders. As a result, EPTPC initiated the groundwater, soil, and air sampling activities documented in this report, in an effort to assess both new impacts associated with the recent release and residual impacts associated with the former EPNG pit.

Two phases of site assessment are presented in this report:

- 1. June 2010 Groundwater, Soil, and Air Sampling: this was a first phase investigation focusing on assessing current groundwater quality, vadose zone soils generally between the Citizens Ditch and the former El Paso excavations (see Section 2.0 for additional detail), and air quality.
- 2. August/September 2010 Direct Push Soil Delineation: this second phase investigation focused on defining the horizontal and vertical extents of petroleum hydrocarbon impacts, as well as the nature of the site impacts. The two key goals of this work were 1) to evaluate overall remediation targets and 2) assess impacts associated with the March 2010 release from the operator's gathering line.

This report is organized into six sections and appendices containing supporting documentation. Section 1.0 is this introduction. Section 2.0 presents the project background and the site activities conducted by El Paso prior to 2010. Section 3.0 presents and discusses the June 2010 site assessment activities. Section 4.0 presents and discusses the follow-up direct push soil sampling activities conducted in August/September 2010. Section 5.0 presents site conclusions and recommendations; and Section 6.0 documents the applicable literary references. Supporting documentation for the site assessment activities performed in June 2010 and August/September 2010 is provided in Appendices A through C.

2.0 PROJECT BACKGROUND AND PREVIOUS ACTIVITIES

This section presents a summary of previous investigations and remedial actions through 2005 (no activities were conducted between 2006 and 2010 pending a response to the 2005 annual report and closure request, submitted to the NMOCD in January 2006).

2.1 SUMMARY OF PREVIOUS INVESTIGATIONS

The Jaquez Site was identified in 1992 when the adjoining landowner expressed concern regarding potential hydrocarbon contamination in a garden area south of the two meter site locations. EPTPC, then El Paso Natural Gas Company, initiated a comprehensive soil and groundwater investigation of the meter sites and nearby garden area in March 1993, as directed by the New Mexico Oil Conservation Division (NMOCD). In June 1993, EPTPC submitted a remediation plan to NMOCD for excavation activities at areas both north and south of Citizens Ditch, and subsequently excavated hydrocarbon-contaminated soils in August and September 1993. Groundwater monitoring wells R-1 through R-5 (north of Citizens Ditch) and M-1 through M-5 (south of Citizens Ditch) were also installed and sampled.

In June 1999, the landowner encountered discolored soils while plowing in the garden area. As a result, EPTPC and NMOCD sampled the site and recommended additional soil and groundwater investigation. In November 1999, a test trench was dug across the field revealing a small area of residual contamination on the western side of the garden area. Additional investigations were conducted in December 1999 to further investigate allegations of a second pit location north of the Citizens Ditch. No evidence of an additional pit or impacted soils were found during that investigation.

In January 2000, additional downgradient monitoring wells were installed west of the site near the landowner residence, as requested by NMOCD and the landowner. In addition, a six-inch diameter irrigation well north of Citizens Ditch was sampled in February 2000. No BTEX was detected above analytical laboratory detection limits in these samples. Furthermore, in February 2000, six sediment samples were collected from the Citizens Ditch for hydrocarbon analyses during a brief closure of the conveyance. All sediment samples were below NMOCD standards. In July 2000, temporary monitoring wells TMW-1 and TMW-2 were installed and sampled near the fence line in the area south of Citizens Ditch. No detectable contamination was found in these samples. Surface water samples (above and below the site) from the Citizens Ditch were collected between June 2000 and January 2003. Sampling results did not show contaminants of concern above NMWQCC standards in surface water conveyed across the Jaquez Site by Citizens Ditch.

2.1 SUMMARY OF PREVIOUS REMEDIAL ACTIONS

Remedial activities have been ongoing since 1993 at the Jaquez Site. In addition to the excavation of contaminated soils mentioned above, passive and belt-type hydrocarbon skimmers were installed in two wells in the area north of Citizens Ditch to collect free-phase hydrocarbons from wells that indicated seasonal accumulations of free-product. By 1998, approximately 265 gallons of free-phase hydrocarbons were recovered from the

wells in the area north of Citizens Ditch. No free-phase hydrocarbons have been measured in any well since March 29, 2000. Dissolved phase hydrocarbon levels continued to decrease in 1999 and during 2000.

In January 2000, air sparging and vapor extraction activities were initiated on the north side of Citizens Ditch to address residual soil and dissolved-phase groundwater contamination in the former pit area. This aggressive remediation has considerably reduced hydrocarbon concentrations in the area north of Citizens Ditch to levels at or near the NMOCD remediation standards.

The area south of Citizens Ditch has been subjected to passive venting and nutrient amendments since 1998 in an effort to enhance biological degradation. Hydrocarbon concentrations in groundwater below the area south of Citizens Ditch exhibited a reducing trend over that time.

2.1 PROJECT CHRONOLOGY

A chronological summary of assessment and remediation activities at the Jaquez Site is provided below.

- 1992 Landowner expressed concern regarding potential hydrocarbon contamination in a garden area near the meter site location.
- March 1993 Comprehensive soil and groundwater investigation performed on meter site locations and nearby garden area.
- June 1993 EPNG submits a remedial plan to NMOCD.
- July 1993 NMOCD approves the remedial plan.
- August 1993 Remediation activities initiated.
- September 1993 Remediation activities completed.
- September 1993 Monitoring wells R-1 through R-5 and M-1 through M-5 were installed north and south of Citizens Ditch. Initial sampling for benzene, toluene, ethylbenzene, and total xylenes (BTEX) indicated monitoring wells R-1, R-2, R-4, M-3, and M-4 were above NMWQCC standards.
- October 1993 to October 1996 Phase separated hydrocarbons (PSH) were observed in monitoring wells R-1 and R-2 during the months of seasonally low groundwater levels (i.e., January through May). Passive skimmer systems were installed to remove the PSH during periods of PSH accumulation.
- November 1996 A pumping test was initiated to determine if PSH could be removed during high seasonal groundwater by depressing the water table in and around R-1 and R-2.
- December 1996 EPTPC injected approximately 500 gallons of urea nitrate solution into the passive vent system and installed magnesium peroxide socks in monitoring wells M-3 and M-4 to supply oxygen to enhance natural biodegradation of hydrocarbons in groundwater.

- January 1997 EPTPC installed a belt skimmer in well R-2 to remove PSH.
- February 1997 EPTPC installed a belt skimmer in well R-1 to remove PSH.
- November 1997 EPTPC installed two temporary monitoring wells inside the excavated area north of well R-1 to determine if PSH could be recovered during the high groundwater season.
- June 1997 The belt-skimmer PSH recovery system was shut down due to the seasonal reduction of product thickness related to local irrigation.
- January 1998 EPTPC restarted the belt-skimmer system in wells R-1 and R-2.
- April 1998 The belt-skimmer PSH recovery system was shut down due to the seasonal reduction of product thickness related to local irrigation.
- July 1998 EPTPC injected approximately 500 gallons of urea nitrate solution into the passive vent system and installed magnesium peroxide socks in monitoring wells M-3, M-4, R-3, and R-4 to supply oxygen to enhance natural biodegradation of hydrocarbons in groundwater.
- November 1998 EPTPC conducted an investigation of possible hydrocarbon seeps from groundwater into the surface water of an arroyo to the south of the property. No hydrocarbon seeps were found during this investigation.
- June 1999 EPTPC submitted a soil and groundwater remediation work plan to the NMOCD for air sparging in the area north of Citizens Ditch.
- June 1999 The landowner encountered discolored soils while plowing. EPTPC and NMOCD sampled the area of concern.
- August 1999 One air sparging well, one soil vapor extraction (SVE) point, and five monitoring points were installed and a SVE pilot test was performed north of Citizens Ditch.
- August 1999 EPTPC submitted soil sampling results and a work plan for additional soil and groundwater investigations, as requested by NMOCD.
- September 1999 NMOCD approved the soil and groundwater investigation work plan with modifications.
- October 1999 EPTPC submitted the SVE Pilot Test Report and a work plan for soil and groundwater remediation using air sparging to the NMOCD.
- November 1999 The landowner requested a test trench across the field. The test trench revealed a small area of residual contamination on the western side of the garden area.
- December 1999 A meeting with the landowner revealed a possible second pit location on the north side of Citizens Ditch. Four test trenches were excavated in the possible pit area. No evidences of a pit or impacted soils were found.
- January 2000 EPTPC submitted soil investigation results and amended the work plan for the soil and groundwater investigation.
- January 2000 EPTPC began air sparging remediation.

- January 2000 EPTPC installed two additional downgradient monitoring wells, as requested by the landowner and the NMOCD.
- February 2000 EPTPC sampled the existing six-inch irrigation well, as requested by the landowner and the NMOCD.
- February 2000 EPTPC sampled sediments in Citizens Ditch, as requested by the landowner.
- May 2000 New Mexico Air Quality Board advised on air permit requirements and notice of intent requirements for the remediation system effluent.
- June 2000 EPTPC collected a series of air samples from the effluent of the SVE system for calculating the total estimated emissions.
- June 2000 EPTPC sampled surface water from Citizens Ditch both upgradient and down gradient of the Jaquez Com E #1 and Com C #1 site.
- June 2000 EPTPC excavated approximately 204 cubic yards of soil from the northwestern corner of the garden area, and backfilled the excavation with aggregate rock topped with a mixture of clean soil and livestock manure.
- June 2000 EPTPC injected 70 gallons of urea nitrate mixed with 600 gallons of potable water into the passive vent system south of Citizens Ditch.
- July 2000 EPTPC installed two temporary groundwater monitoring wells in the garden area south of Citizens Ditch.
- August 2000 EPTPC sampled a seep that had developed at the toe of the Citizens Ditch embankment on the north side of the former cornfield.
- October 2000 EPTPC began an evaluation of the remediation system to ensure optimum performance and effectiveness.
- December 2000 EPTPC concluded the evaluation of the air sparging and SVE system and incorporated functional changes to the system.
- March 2001 EPTPC installed two new air sparging wells and one new SVE well in the northern portion of the site.
- September 2001 EPTPC injected aqueous urea nitrate into the passive vent system located on the southern side of Citizens Ditch.
- November 2002 EPTPC installed two new air sparging points SP-1 and SP-2, located on the south side of Citizens Ditch immediately north of monitoring well M-4.
- November 2002 EPTPC injected ORC into four injection locations immediately north of monitoring well M-4.
- December 2002 EPTPC abandoned temporary wells TMW-1 and TMW-2.
- December 2002 EPTPC installed one new monitor well M-7 at the approximate location of TMW-2.
- 2002 EPTPC conducted on-going groundwater and surface water monitoring in the areas north and south of Citizens Ditch.

- 2003 EPTPC evaluated the effectiveness of ORC injection near monitoring well M-4 in the area south of Citizens Ditch; conducted O&M activities associated with the air sparging and soil vapor extraction systems located in the area north of Citizens Ditch; and conducted on-going groundwater monitoring in the areas north and south of Citizens Ditch.
- April 2003 Remediation systems were temporarily suspended for performance monitoring, and were later resumed due to groundwater concentration rebound.
- February through May 2004 Remediation systems were shut down during this period, due to groundwater concentrations below closure criteria during the February sampling event.
- June through August 2004 Remediation systems were restarted in June, due to a rebound in benzene concentrations at two wells (R1 and R4) during the May sampling event.
- August through November 2004 Remediation systems were again shut down during this period, due to groundwater concentrations below closure criteria during the August sampling event.
- December 2004 The systems were restarted on December 7th, in response to benzene concentrations above standards in two wells (R1 and R4) during the November sampling event.
- January 2005 Remediation systems were shut down during the holidays, and then restarted on January 4, 2005. The vent blower was not operational, but the air sparging system was running.
- February 2005 The system was shut down on February 3, 2005.
- January 2006 The 2005 groundwater monitoring data indicated that the site groundwater had met the applicable NMWQCC standards for four consecutive quarters; therefore, closure was requested per El Paso's NMOCD-approved generic pit groundwater assessment and closure plan.

3.0 JUNE 2010 ASSESSMENT ACTIVITIES

Groundwater, soil, and air/vapor sampling activities were conducted on June 10-11, 2010. Specifically, the following work items were performed:

- Sampling of the 13 existing groundwater monitor wells.
- Conducted hand-auger soil borings at 12 locations. Screened the unsaturated zone soils for organic vapors and total petroleum hydrocarbons (TPH). Four (4) confirmatory soil samples were also collected in order to supplement and validate field TPH results.
- Screened the ambient air, the five (5) passive soil vents, and the 13 monitor well casings for organic vapors. Two (2) confirmatory air samples were also collected in order to supplement and validate the field screening results.

3.1 FIELD PROCEDURES

The following paragraphs present greater description of the June 2010 assessment work conducted at the Jaquez site. **Figure 1** shows the Jaquez site location. **Figure 2** depicts the site layout, including the groundwater monitor wells, passive vent wells, and soil boring locations.

Groundwater Sampling: On June 10, 2010, the 13 monitor wells (R-1, R-2, R-3, R-4, R-5, R-6, M-1, M-2, M-3, M-4, M-5, M-6, M-7) were sampled in accordance with the NMOCD guidance document entitled *Guidelines for Remediation of Leaks, Spills and Releases* (August 1993). Each well was purged of three (3) casing volumes of water, unless it first bailed dry, in which case sampling commenced immediately pending sufficient water recovery. Field parameters consisting of pH, temperature, and conductivity were measured and recorded after each well volume purged and at the time of sample collection.

The 13 groundwater samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by USEPA SW-846 Method 8260B. Analytical services were performed by Accutest Laboratories, Inc., Houston, Texas. Field sampling forms are included in **Appendix B**.

Soil Sampling and Screening: As depicted on Figures 2 and 4, soil screening was conducted at 12 locations primarily between Citizens Ditch and the two 1993 excavation areas. One soil boring, SB-12, was conducted within the documented footprint of the southern excavation. The soil boring locations were primarily intended to provide screening data for potentially impacted soils that were not excavated in August 1993 due to their proximity to Citizens ditch. As documented in previous reports, these soils adjacent to the ditch were instead remediated via a number of in-situ techniques, including passive venting, enhanced bioremediation via injection/emplacement of electron acceptors, air sparging, and soil vapor extraction. The soil boring locations

were reviewed with Mr. Carroll Crawford of the Bloomfield Irrigation District, who specified that borings be no closer than 3 to 4 feet from the water's edge.

Soil screening was conducted by advancing a manual soil sampler (i.e., a hand-auger) from ground surface to the apparent water table, even if perched (depths varied due to significant variations in ground surface topography). A representative sample from each 6-inch section of retrieved soil core was placed in a labeled Ziploc bag, placed in a cooler (out of the sun), and allowed to equilibrate for at least 10 minutes. The bag headspace vapors were then screened via a PID; and the bags were replaced into the cooler. The field team contacted the MWH project manager with the bag headspace results; at which time sample selections were made for field screening of TPH via a PetroFLAGTM test kit (USEPA SW-846 Draft Method 9074). Following these screening analyses, the field team again contacted the MWH project manager to select locations and depths for subsequent laboratory analysis. Confirmatory soil samples were containerized using the previously bagged and stored soil. The samples were submitted to Accutest Laboratories, Inc., Houston, Texas, for analysis of BTEX by USEPA SW-846 Method 8260B. In addition, the samples were analyzed for TPH-Gasoline Range Organics (GRO), TPH (C10-C28), and TPH (>C28-C40) via USEPA SW-846 Method 8015M. The locations of the confirmation samples are shown on Figure 5.

The locations of the soil borings were determined via a hand-held GPS unit. The soil borings were plugged with hydrated bentonite chips. Recovered soil cuttings were collected in a DOT-rated drum and transported off-site to a nearby permitted landfarm operated by Envirotech, Inc.

Ambient Air and Well Casing Vapor Screening: Ambient air and Organic vapor screening was conducted on June 11, 2010 during a slow walk around the El Paso monitoring and remediation well network. Screening utilized an organic vapor analyzer equipped with a 10.6 eV photoionization detector (PID). The probe tip was held at waist height and the display was monitored along the entire route. Screening was also conducted at the five (5) passive soil vent wells (locations shown on **Figure 2**). These wells had been capped in May 2010; and on June 10, 2010 the field team cut the risers off to approximately three feet above ground surface, in order to facilitate screening and sampling activities. The wells were capped overnight and allowed to equilibrate with the subsurface conditions. Screening was conducted on June 11, 2010 by removing the slip cap and immediately inserting the probe tip of PID. Field notes of these activities are included in **Appendix B**.

Three confirmatory air samples were collected in Tedlar[®] bags and submitted to the Accutest Laboratories, Inc. laboratory in Pensacola, Florida for analysis of BTEX and TPH (as equivalent pentane) via EPA Method TO-3. The locations of these samples are shown on **Figure 6**. The samples, which were collected using a portable air sampling pump, were as follows:

- Monitor well R-1 casing vapor
- Passive Vent Well #4

• Ambient air at a location between SB-6, SB-7, and Passive Vent Well #5 (westernmost well), adjacent to an on-site trailer (see **Figure 6**).

For the samples collected from Passive Vent Well #4 and R-1, each well was purged for three minutes at a rate of 6-liters per minute. Upon completion of this purge period, extracted soil vapor was pumped into a Tedlar[®] bag for transportation and submission to the laboratory.

3.2 DISCUSSION OF RESULTS

The results of the assessment activities are presented on **Tables 1, 2, 3, and 4** and **Figures 3, 4, 5, 6, and 7**. Laboratory analytical reports are included in **Appendix C**. A brief discussion of each assessment area is presented next:

1. <u>Groundwater</u>. The groundwater results are presented on **Table 1** and **Figure 3**. With the exception of the sample collected from Monitor Well M-4, all groundwater samples were non-detect for the BTEX constituents. The sample from Monitor Well M-4 exhibited a benzene concentration of 147 μ g/L, which exceeded the NMWQCC groundwater standard of 10 μ g/L. Xylenes were also detected at 139 μ g/L, which is well below the NMWQCC xylene standard of 620 μ g/L.

The groundwater at this site was last sampled in November 2005, at which time all results had remained below the NMWQCC groundwater standards for four (4) consecutive quarters. Monitor Well MW-4, in particular, had met the standards since November 2002, representing three full years of NMWQCC compliance by the time closure was requested in January 2006. As shown on **Table 2** and depicted on **Figure 7**, the June 2010 sample result from Monitor Well M-4 represents a sharp increase in both benzene and total xylenes. The cause of this spike appears to be the recent gathering line release. Soil screening in the release area (discussed next) indicated elevated PID readings at SB-7 and SB-8. The shallow soil is fairly coarsegrained, with little natural resistance against contaminant mass flux to groundwater (particularly when the groundwater is elevated in the Spring.) Monitor Well MW-4 is the nearest downgradient groundwater monitor well from the gathering line release area; and this is the only well displaying BTEX impacts.

2. <u>Soil</u>. The June 2010 soil screening and analytical results are presented on **Table 3** and **Figures 4 and 5**. Three clear areas of soil impact were identified during this investigation phase: SB-7, SB-8, and SB-12.

At SB-7, the soil sample at 1-foot below ground surface (bgs) exhibited a bag headspace PID reading of 106 ppmv. This shallow soil interval was also screened via a PetroFLAGTM test kit, with a result of 132 mg/kg, potentially exceeding the NMOCD standard of 100 mg/kg (as discussed later, the PetroFLAGTM results appear to be subject to a high bias, particularly when significant natural organic matter is present). The second soil sample from this boring was at a depth of 2 feet. The PID reading was significantly lower at 30.6 ppmv. Per the protocols used during the June assessment phase, the boring was terminated at 2 feet due to the presence of perched groundwater related to channel seepage.

The most elevated impacts, based on PID screening, were encountered at SB-8. The SB-8 sample from approximately 1-foot bgs registered a bag headspace vapor reading of 230 ppmv. The PID screening results gradually decreased with depth, yet were still 43.2 ppmv at the terminal depth of 4 feet bgs. Two of the samples from SB-8 were screened with the PetroFLAGTM TPH test kit. The results were 298 mg/kg and 208 mg/kg at the 1-foot and 4-foot depths, respectively. SB-8 was the nearest soil boring to the recent gathering line release.

The third soil boring to exhibit significant hydrocarbon impacts was SB-12. This boring was conducted within the understood footprint of the 1993 excavation and was intended to be a control point showing clean soil. However, an oily black staining was encountered at approximately 3 to 4 feet bgs, slightly above the saturated terminal depth of 4.75 feet bgs. This soil sample was field screened for TPH via the PetroFLAGTM test kit, and the result was 7,045 mg/kg. Based on the low PID readings, which ranged from 1.6 to 22.9 ppmv, the impacts appear to be comprised of heavier, low vapor pressure hydrocarbons. The observed impacts likely indicate re-mobilization of residual hydrocarbons from the north wall of the 1993 excavation. Additional delineation of this stained area was conducted in August-September 2010 and is discussed in Section 4.0.

In the remaining nine (9) June 2010 soil borings, field PID screening and visual observation indicated minimal to no soil impact. As summarized on Table 3, the PetroFLAGTM field TPH screening tests did, however, indicate potential hydrocarbon contamination above standards in samples SB-3 (5'), SB-9 (1' and 4'), SB-10 (1'), SB-11 (2.5'), with results ranging from 123 to 222 mg/kg of TPH. These field screening results were likely biased high, based on the lack of observable impact. As a safety measure, because these screening results exceeded the TPH standard of 100 mg/kg, soil from the SB-3 (5'), SB-9 (4'), SB-11 (2.5') samples was submitted for confirmatory analysis. The laboratory results indicated that BTEX was not present and TPH ranged from non-detect to 18.1 mg/kg. It is concluded that these PetroFLAGTM field TPH screening tests were indeed biased high, likely due to natural organic matter such as that observed in follow-up direct push soil borings conducted in August and September 2010. For example, GP-15, which was located near SB-11, noted roots and black organic staining present in the upper 2.5 feet (which was the total depth of the SB-11 boring). It is also noted that organic wastes were present on the ground surface near the ranch hand trailer and in the Jaquez Garden area. Natural (or emplaced) organic matter is a documented positive bias for the PetroFLAGTM test.

One limitation of the June 2010 soils delineation activities was that soil borings, which utilized a hand-auger, were terminated at the apparent water table. Subsequent review of the site conditions indicated that the water table elevation at the time of the field work was generally at the high end of its seasonal fluctuation range. Perched water was also present at shallow depths due to seepage from Citizens Ditch. Thus, with the exception of the impacts observed in SB-12 (located in the topographically low Garden area) much of the hydrocarbon smear zone was

not accessible for screening/sampling. This limitation led to a second soil sampling effort in August/September 2010, which is discussed in Section 4.0.

3. <u>Ambient Air and Well Casing Vapors</u>. Vapor screening and confirmation analytical results are presented on **Table 4** and depicted spatially on **Figure 6**. Ambient air screening did not indicate the presence hydrocarbon vapors in ambient air. This was confirmed via subsequent laboratory analysis of an ambient air sample, which was non-detect for BTEX and TPH.

Hydrocarbon vapors were detected in Passive Vent Wells #4 (0.4 ppmv) and #5 (8.9 ppmv) and in the Monitor Well R-1 casing (81.2 ppmv). Subsequent laboratory analyses of the confirmatory gas samples did not indicate the presence of either BTEX or TPH; though this negative result was likely due to the purging activities. It is reasonable to expect that vapors associated with proximal hydrocarbon impacts can accumulate when wells are closed (as these were), and there are evident hydrocarbon impacts both in the Passive Vent Well #4 and #5 and the R-1 areas.

3.3 INVESTIGATION DERIVED WASTE

Purged groundwater was transported by LTE to the El Paso Rio Vista facility for management. Excess recovered soil was placed into a DOT-rated drum and transported on June 11, 2010 to the Envirotech, Inc. landfarm facility. Other investigation derived waste (e.g., sampling gloves and disposable bailers) was managed off-site by LTE as a nonhazardous solid waste.

4.0 AUGUST-SEPTEMBER 2010 SOIL SAMPLING

This section describes the results of direct-push soil sampling activities conducted during August 26 – September 2, 2010 at the Jaquez site. Specifically, the following work items were performed:

- 20 direct push rig soil borings and one (1) hand-auger soil boring were advanced into groundwater, with several borings extended to the base of the hydrocarbon smear zone to provide vertical delineation. The soil cores were logged per the Unified Soil Classification System (USCS), and organic vapor screening was conducted over each foot of core.
- 23 soil samples were collected and analyzed for the site constituents of concern.
- GPS coordinates and approximate ground surface elevations were determined for the soil boring locations.

4.1 FIELD PROCEDURES

Soil boring activities were conducted at the locations shown on **Figure 8**. The soil borings were advanced by a direct push rig equipped with a Dual Tube soil sampling system. Each retrieved soil core was laid on a field truck tail gate for inspection and sampling. After cutting open each soil sample liner, a digital picture of the core was taken. The picture included depth tape markings and borehole identification. Each core was logged via the Unified Soil Classification System (USCS). During logging, portions of each foot of core were placed in individual small Ziploc bags and allowed to equilibrate for at least 5 minutes. The headspace vapor in each bag was then screened via an organic vapor analyzer equipped with a 10.6 eV photoionization detector (PID).

Based on the visual observations and the maximum PID screening results, samples from the impacted soil borings were be containerized and submitted to Accutest Laboratories, Inc., Houston, Texas for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) via EPA Method SW-846 8260B; and total petroleum hydrocarbons gasoline range organics (TPH-GRO) and diesel range organics (TPH-DRO) by EPA Method SW-846 8015 Modified. The soil samples were collected from fresh, undisturbed sections of the soil core (e.g., on the "bottom" side of the core). Per EPA Method SW-846 5035 protocol, the soil collected for analysis of volatile hydrocarbons was containerized in Encore TM samplers prior to subsequent laboratory preservation and extraction. Upon collection, the samples were immediately placed into ice-filled coolers for storage during the daytime.

Particularly near the location of the recent release by the gathering line, additional shallow (i.e., vadose zone) soil samples were collected from the soil borings based on the PID results and visual observations. The intent was to demonstrate differences between newly released hydrocarbons and the historic impacts traditionally sourced from El Paso's former pit north of Citizens Ditch.

Field quality assurance / quality control (QA/QC) samples were also collected. One equipment rinse blank, one blind duplicate, one equipment rinse blank, one field blank, and one set of matrix spike/matrix spike duplicate samples were collected during the

sampling program. In addition, one trip blank was submitted with each sample cooler, for analysis of BTEX via EPA Method SW-846 8260B.

The sample coolers were properly packed with ice, relinquished per chain-of-custody protocol, and shipped overnight to the analytical laboratory. All samples were received within acceptable temperature limits at the time of laboratory check-in.

The locations of the soil borings were documented via a hand-held GPS unit. In addition, the relative ground surface elevations of the soil boring locations were approximated via a laser level, which was tied into the known elevations at select monitor wells.

At the conclusion of sampling, the direct push contractor plugged each soil boring with hydrated bentonite chips.

4.2 DISCUSSION OF RESULTS

The August-September 2010 soil sample analytical data are summarized on **Table 5** and depicted spatially on **Figure 9**. The laboratory reports are included in Appendix C. The soil borings logs are included as Appendix A. As a high-level summary, exceedances of applicable NMOCD TPH standard of 100 mg/kg were found in soil borings GP-3, GP-4, GP-7, GP-8, GP-11, GP-12, GP-13, GP-15, and the duplicate sample of GP-23. The greatest level of impact was found in the shallow (i.e., 4'-5' depth) sample collected at GP-15, which exhibited a TPH concentration of 5,807 mg/kg. GP-15 (4-5') also was the only sample to exceed the NMOCD BTEX standard of 50 mg/kg, with a sample result of 170.8 mg/kg BTEX.

Figures 10 through 16 depict maximum concentration isopleths maps for TPH-GRO (C6-C10); TPH-DRO (C10-C28); extended range TPH-DRO (>C28-C40); benzene, toluene, ethylbenzene, and total xylenes, respectively. Figures 17 and 18 together depict two site cross-sections drawn from the former El Paso pit area, through or near the gathering line release area, and terminating in the southern partially-vegetated "Garden"/Sheep area. These cross-sections include the PID screening results and help to show the vertical locations of volatile impacts with respect to the site hydrogeology and topography.

TPH-GRO and BTEX: TPH-GRO and BTEX were detected throughout the central region of the site, extending from the former El Paso pit area (e.g., GP-3 and GP-4) down into the Jaquez Garden area (xylenes detected at low levels in GP-23). However, the greatest concentrations were clearly found in the GP-13 and GP-15 region, immediately down-slope from the March 2010 release from the gathering line, as illustrated by **Figures 10, 13, 14, 15, and 16**. The impacts in GP-15, as documented both by the analytical data (i.e., the GP-15 4-5' sample) and by the PID screening data, are clearly above the water table and indicate a shallow soil impact quite distinct from the deeper, residual hydrocarbons. It is notable that the analytical data from soil borings GP-13 and GP-15, in particular, display both elevated BTEX concentrations and a complete distribution of the four BTEX components. The total BTEX in these two wells was as high as 170,766 ug/kg (GP-15 4-5') and 37,313 ug/kg (GP-13 8-9'), in stark contrast with the next highest BTEX

total of 13,669 ug/kg at GP-3. Similarly, and of singular importance, the elevated GP-13 (8-9') toluene concentration of 9,940 ug/kg stands in stark contrast to the site-wide toluene concentrations in soil, which are either low or non-detect. The detection of toluene in GP-15 (4-5'), though far less concentrated, is still significantly higher than the next highest result of 25 ug/kg at GP-3 (4-5'). Toluene is the quickest-attenuating BTEX component, and the presence of elevated toluene in the GP-13/GP-15 region indicates a more recent impact. Such an indication fits well with the June 2010 findings of shallow soil impacts in SB-7 and SB-8 (see Figure 4 and Table 3, and previous discussion in Section 3.0.). It appears that the shallow soils in this area, which have a high percentage of silt and sand content, provided relatively little resistance to the seepage of liquids into the embankment.

TPH-DRO: TPH-DRO (C10-C28) and extended range TPH-DRO (>C28-C40) were also found throughout the interior region of the site, but were more evenly distributed spatially than the TPH-GRO and BTEX impacts. The concentration isopleths are depicted on **Figures 11 and 12.** The highest concentrations of TPH-DRO were exhibited in soil boring GP-4, which had sample concentrations of 1,110 mg/kg (C10-C28) at the 13-14' depth interval and 299 mg/kg (>C28-C40) at the 16-17' depth interval.

In the area of the former pit, impacted soils were observed underneath the original 1993 excavation. Impacts such as those observed in GP-4 generally extended from the high water table down to approximately 17 feet bgs, or approximately 1 to 3 feet below the maximum achievable 1993 excavation depth of 16 feet (the record indicates that a 2-foot cap was installed over the final backfill to accommodate settling, and the degree of consolidation is unknown).

TPH DRO and extended range TPH-DRO was generally found in the residual hydrocarbon smear zone associated with the water table. The water table at the time of sampling is depicted on **Figures 17 and 18**. Based on the hydrograph of M-4 (Figure 7), and as corroborated by the deeper soil borings, the thickness of the residually-impacted zone is approximately 6 feet. It is noted that the impacted embankment soils also contain TPH DRO and that, based on the available production records online, the Jaquez Gas Com C#1 did produce both natural gas and oil/condensate until March 2010; however, no current analysis of the oil/condensate/produced water is available. The fluids are assumed to be similar to the fluids originally disposed in the former El Paso pit.

4.3 INVESTIGATION DERIVED WASTE

Recovered soil was collected in DOT-rated drums. Following profiling (in progress), these drums will be transported off-site to a Farmington-area landfarm operated by Envirotech, Inc. Other typical lightly soiled PPE (such as latex gloves) and other IDW (such as soil liners) were managed off-site by LT Environmental as municipal solid waste.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based upon the review of data collected at the Jaquez Site during 2010, the following conclusions can be drawn:

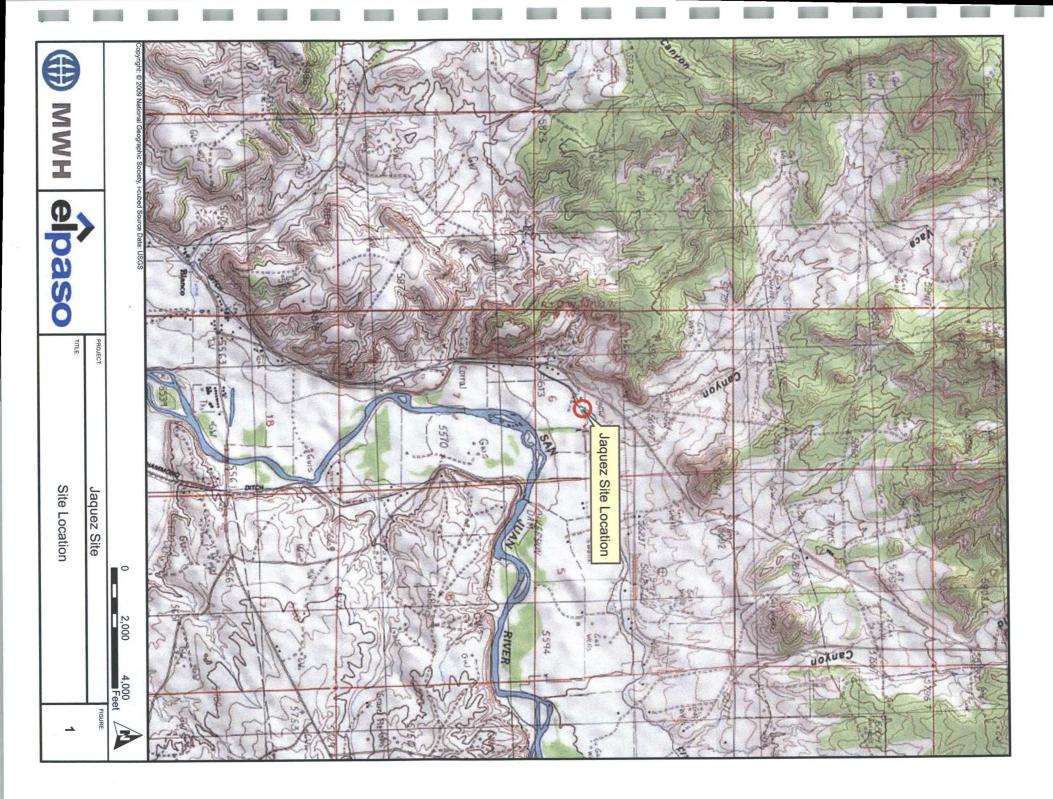
- Residual smear zone hydrocarbon impacts are present across the center of the site, extending from north of the GP-3 and GP-4 area down to a thin strip terminating near SB-12 in the Jaquez "Garden" area. The approximate impacted area, as outlined on **Figure 9**, is approximately 13,000 square feet.
- The impacts observed on the southern embankment of Citizens Ditch are of particular concern due to their relatively high concentrations, prominence of BTEX constituents, toluene content, and location. This area of concern is roughly bounded by Citizens Ditch to the north and includes soil borings SB-7, SB-8, GP-12, GP-13, and GP-15. The impacts exhibit signs of being relatively un-weathered and appear to be associated with the recent release from the operator's Jaquez Gas Com C#1 gathering line.
- BTEX concentrations in groundwater remain almost entirely below the NMWQCC standards. The benzene concentration in monitor well M-4, which had complied the NMWQCC groundwater standard for three (3) years prior to El Paso's 2006 closure request, has since spiked well above where it had stabilized. M-4 is located immediately downgradient of the impacted embankment soil area, and benzene is the most soluble and least biodegradable of the BTEX components. It appears that the concentration spike in this well is due to the recent release.

Based upon the review of data collected at the Jaquez Site during these assessment activities, the following recommendations are provided:

- More data are required regarding the recent release from the Jaquez Gas Com C#1 gathering line. Such information would include detailed delineation and/or confirmation data collected at and downhill from the area of the release. More information is also needed regarding the estimated volume and composition of the release.
- A meeting of all stakeholders is recommended to discuss the available data and potential future remedial options.

6.0 REFERENCES

- EPFS, 2006. Jaquez Com C #1 and Jaquez Com E #1 Final 2005 Annual and Closure Report. January 2006.
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- EPFS, 2001. Monthly Report for Jaquez Com C #1 and Jaquez Com E #1 Site. February 2001.
- EPFS, 2001. Jaquez Com C #1 and Jaquez Com E #1 Remediation System Evaluation. December 2000.
- EPNG, 1993. Jaquez Com. C#1 and Jaquez Com. E#1 Soil and Groundwater Remediation. September 1993.

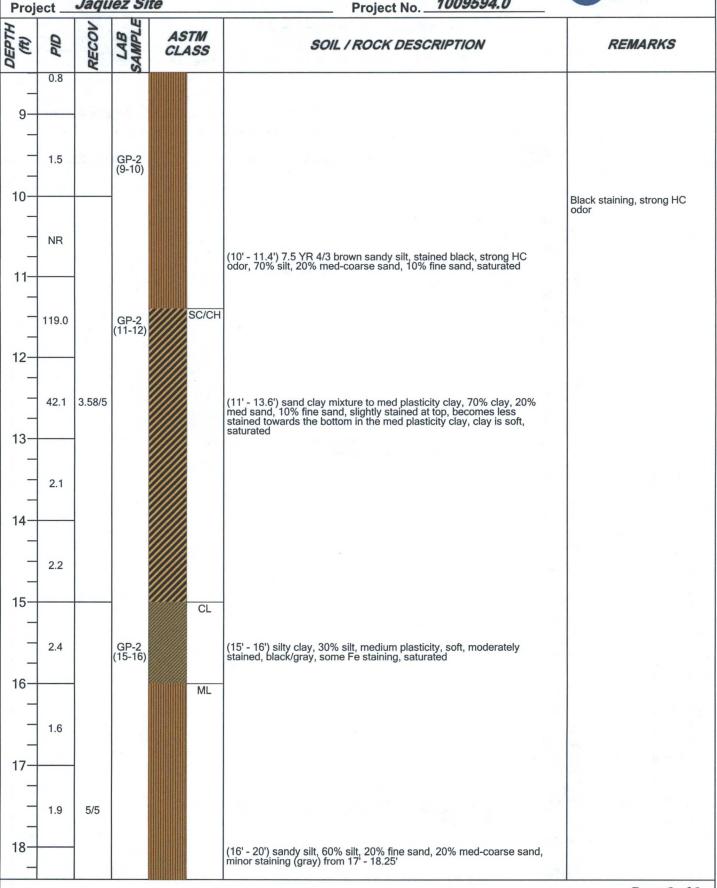


Borehole Log El Paso Corporation GP-2 Drilling Contractor Vironex, Inc. Drilled by G. Grenier Drill Rig Borehole ID_ Client _ 1009594.0 Project No. D. Heneman (LTE) Logged By 2092403.5 Northing August 26, 2010 Completion Date_ 2727399.0 Easting. Geoprobe 6600 20 Borehole Depth Surface Elev. (ft) 5597.7 Dual Tube Drilling Method_ Borehole Dia. DTP (bgs) 5' Dual Tube Continuous Sample Method Sample Interval DTW (bgs) 8.75' August 26, 2010 RECOV **ASTM** PID (H) SOIL / ROCK DESCRIPTION REMARKS CLASS ML (0' - 0.8') NR NR (0.8' - 1.2') 7.5 YR 3/4 dark brown, sandy soil, minor roots 0.0 2 0.0 4.2/5 (1.2' - 5') 7.5 YR 6/3 light brown sandy silt, 70% silt, 10% fine sand, 20% med grained sand, poorly sorted 0.0 0.0 Saturated at 8.75' NR 1.0 $(5^{\circ}$ - $10^{\circ})$ sandy silt, 70% silt, 10% fine, 20% med sand, minor staining, some gray staining and Fe staining associated with it, wet at 7.9', saturated at 8.75' 0.3 3.75/5

Client El Paso Corporation
Project Jaquez Site

Borehole ID *GP-2*Project No. 1009594.0





Client El Paso Corporation Borehole ID GP-2

Project Jaquez Site Project No. 1009594.0



				te	Project No. 1009594.0	
(ft)	PID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
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7						
+						
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8-						,

Borehole Log El Paso Corporation GP-3 Drilling Contractor Vironex, Inc. Drilled by G. Grenier Drill Rig Client Borehole ID_ 1009594.0 Project No. D. Heneman (LTE) Logged By. 2092430.1 Northing August 26, 2010 Completion Date 2727426.9 Easting Geoprobe 6600 20 Borehole Depth Surface Elev. (ft) 5598.5 Dual Tube Drilling Method Borehole Dia. DTP (bgs). 5' Dual Tube Continuous Sample Method Sample Interval DTW (bgs) 10' August 26, 2010 DEPTH RECO **ASTM** PID (F) SOIL / ROCK DESCRIPTION REMARKS **CLASS** ML (0' - 0.3') NR (0.3' - 0.5') top soil, dark yellowish brown, 10 YR 4/6, med sand gr, poorly sorted, 70% fine silt, 10% med sand, 20% fine sand, some minor roots 0.0 0.0 4.7/5 0.0 $(0.5^{\circ}$ - 5.0°) 7.5 YR 5/4 brown sandy silt, med to coarse to fine sand, poorly sorted, 70% fine silt, 10% med sand, 10% find sand 10% coarse; soli looks clean, no odor or stains 3 0.0 0.0 5 NR (5' - 6.5') NR 6 0.0 (6.5' - 7.1') 7.5 YR 5/4 brown sandy silt, poorly sorted, 10% med, 10% fine, 10% coarse sand, 70% fine silt 0.0 3.5/5 8

Client El Paso Corporation

Borehole ID *GP-3*Project No. 1009594.0



Project _	Jaqu	iez Si	te	Project No. 1009594.0	
(ft)	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
9 - 0.0		3,		(7.1' - 10') 7.5 YR 4/3 brown sandy silt, poorly sorted, 20% med coarse sand, 10% fine sand, 70% silt, minor Fe staining	
10 0.0			CL	(10' - 11.7') 7.5 YR 4/3 brown sandy silt to clayey sand, 70% silt, 20% med-coarse sand, 10% fine sand	Saturated at 10'
12 - 1.4 - 106.0	5/5			(11.7' - 15') sand clay mixture, 60% low plasticity clay, soft, 20% med-coarse sand, 20% find sand, minor silt; 12.4' - 15' heavily oil stained, strong HC odor	Heavily stained, strong HC odor 12.4' - 18.6'
761.0 15————————————————————————————————————		GP-3 (14-15)	ML	(15' - 15.5') sandy silt, saturated, 75% silt, 20% med-find sand, 5% coarse sand, heavily stained black, strong odor (15.5' - 16') sand-clay mixture, croxy (sic) med plasticity, sort, minor sand - med gr. (16' - 16.75') sand clay mixture, 60% clay, 20% med sand, 20% fine sand, heavily stained black, strong odor, clay med plasticity, soft	
17	5/5			(16.75' - 18.6') Fat clay, heavily stained black, very minor silt content	

Borehole Log Borehole ID GP-3 El Paso Corporation Jaquez Site Client 1009594.0 Project _ Project No. DEPTH (ft) RECOV **ASTM** DID SOIL / ROCK DESCRIPTION REMARKS CLASS 6.7 ML 19-(18.6' - 20') 7.5 YR 5/4 brown sandy silt, minor gray staining, saturated, 60% silt, 20% coarse sand, 10% med sand, 10% fine sand, poorly sorted 2.2 20-22-23-24-25-26-27 28-Page 3 of 3

Borehole Log Borehole ID GP-4 El Paso Corporation Drilling Contractor Vironex, Inc. Drilled by G. Grenia Client 1009594.0 Project No. _ D. Heneman (LTE) Logged By 2092448.0 Northing . August 26, 2010 Completion Date_ 2727448.2 Easting _ 20 Geoprobe 6600 Borehole Depth Surface Elev. (ft) 5598.4 Dual Tube Drilling Method_ Borehole Dia. DTP (bgs)_ Sample Method 5' Dual Tube Continuous Sample Interval August 26, 2010 DTW (bgs) 15' RECOV **ASTM** DID (F) SOIL / ROCK DESCRIPTION REMARKS CLASS (0' - 0.3') 7.5 YR strong brown sandy top soil, roots ML 0.0 0.0 0.0 5/5 $(0.3^{\circ}$ - $5^{\circ})$ 7.5 YR 5/3 brown sandy silt, 70% silt, 20% med sand, 10% fine, poorly sorted 0.0 0.0 NR (5' - 6.7') NR NR 3.3/5 2.0 8-

(6.7' - 10') 7.5 YR 5/4 brown, sandy silt CUS (sic), 70% silt, 20% med

Client El Paso Corporation

Borehole ID GP-4



Proje		Jaqu	iez Sit	te	Project No	
(ft)	DID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
	2.3		S		sand, 5% coarse, 5% fine, poorly sorted	
\exists					B000	
9						
٦	1.9					
10						7 1 1 1 1
	ND					
	NR					
11					(10' - 11.8') NR	* .
					·	1 3
4	NR					
4						
2	1.9				A	
\dashv						
\dashv	624.0	3.2/5				
\dashv					10.79	
13-						Heavily stained, strong HC odor 12.9' - 19.7'
\dashv						
\dashv	859.0		GP-4 (13-14)		(11.8' - 15') 7.5 YR 4/3 brown sandy silt, poorly sorted, 60% silt, 20% med sand, 10% coarse, 10% fine sand	
-			(13-14)			
14-						r ¹
						6
	662.0					
15-						
	91					Saturated at 15'
	108.0					
4	100.0					
6						
_					(15' - 17.2') sandy silt, poorly sorted, 60% silt, 20% med sand, 10% coarse, 10% fine sand	
4	1150.0		GP-4			
4			GP-4 (16-17)			
7						
\dashv			1000	CL	-	
4	33.1	5/5			(17.2' - 17.7') silty clay, 30% silt, low plasticity, soft	26.0
-				ML		
18						
\exists		*				
						Page 2 of 3

Client El Paso Corporation

Borehole ID GP-4

MWH

Jaquez Site 1009594.0 Project _ Project No. DEPTH (ft) ASTM SOIL / ROCK DESCRIPTION REMARKS CLASS 5.9 (17.7' - 20') sandy silt, poorly sorted, 60% silt, 20% med sand, 10% coarse, 10% fine sand 19-2.6 20-21-22-23-24-25-26-27-28-

Client El Paso Corporation Borehole ID GP-6
Project Jaquez Site Project No. 1009594.0



Project			Project No	The second secon
Drill Rig	Vironex, Inc. G. Grenier Geoprobe 6600 Dual Tube	Logged By Completion Date_ Borehole Depth Borehole Dia	D. Heneman (LTE) August 26, 2010 15' 2"	Northing
Sample Method	5' Dual Tube	Sample Interval	Continuous	DTP (bgs)

DEPTH Sa	DIA	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
- - 1-	NR			SM	(0' - 1.7') NR	
- - 2-	NR 0.0			ML	- (1.7' - 1.8') sandy top soil	
3-	0.0	3.3/5	,			
- 4- -	0.0					
5—	0.0					Saturated at 5'
6-	0.0				(1.8' - 10') 7.5 YR 5/6 strong brown sandy silt, 70% silt, 20% med sand, 10% fin sand, poorly sorted	
- 7- - -	0.0	5/5				
8 -						Page 1 of 2

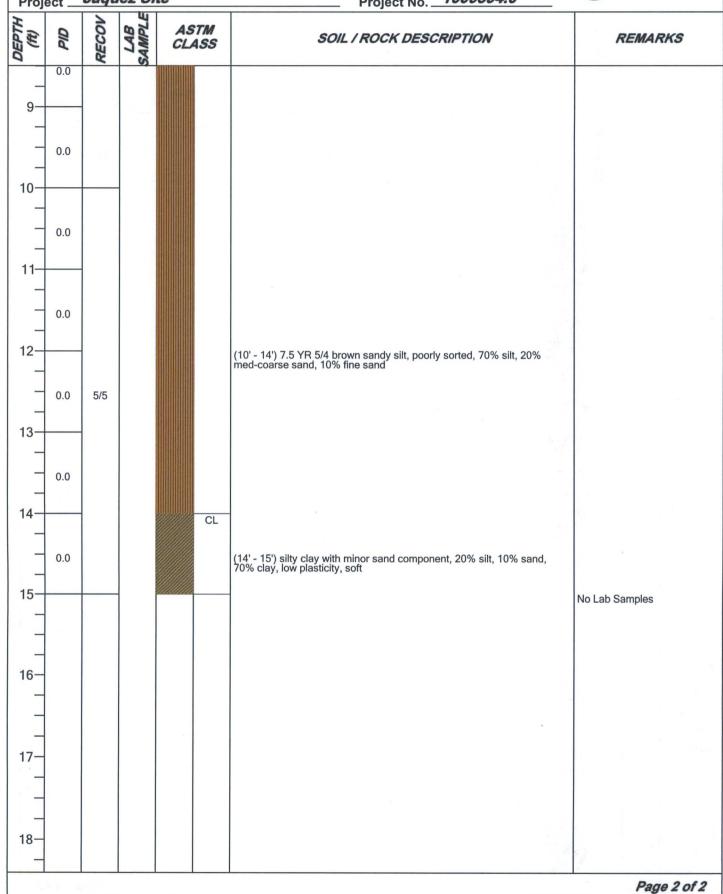
Client El Paso Corporation

Project Jaquez Site

Borehole ID GP-6

Project No. 1009594.0





Borehole Log El Paso Corporation GP-7 Drilling Contractor Vironex, Inc. Drilled by G. Grenie Borehole ID Client 1009594.0 Project No. _ D. Heneman (LTE) Logged By 2092399.6 Northing August 26, 2010 Completion Date_ 2727427.8 Easting _ Geoprobe 6600 20 Borehole Depth Surface Elev. (ft) 5597.7 Dual Tube Drilling Method Borehole Dia. DTP (bgs) 5' Dual Tube Continuous Sample Method_ Sample Interval August 26, 2010 DTW (bgs) 7.7' DEPTH (ft) RECOV **ASTM** DID SOIL / ROCK DESCRIPTION REMARKS CLASS SM (0' - 0.5') 7.5 YR 4/6 strong brown sandy top soil, minor roots, damp 0.0 ML 0.0 2 0.0 5/5 $(0.5^{\circ}$ - $5^{\circ})$ 7.5 YR 6/4 light brown sandy silt, poorly sorted, 60% silt, 20% med-coarse sand, 20% fine sand 3 0.0 0.0 5 0.0 6-1.1 (5' - 8.7') 7.5 YR 5/4 brown sandy silt, 50% silt, 30% med-coarse sand, poorly sorted, minor Fe staining, minor gray staining (8.25' - 8.7' more heavily stained) 1.6 5/5 Saturated at 7.7' 8 minor staining Page 1 of 3

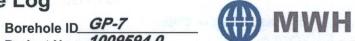
El Paso Corporation Jaquez Site

Borehole ID *GP-7*Project No. 1009594.0



DEPTH (ft)	Old	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
9-	559.0		GP-7 (8-9)	СН		· · · · · · · · · · · · · · · · · · ·
_	17.8				(8.7' - 10') fat clay, very tight, minor staining, color is a mix of brown/gray, high plasticity	
10— — — — 11—	NR			ML	(10' - 11.2') NR	
_ _ _	3.3	N				slightly stained gray 11.2' - 16.7'
2 - - -	1.4	3.8/5		CH	(11.2' - 12.75') 7.5 YR 6/4 light brown sandy silt, 80% silt, 10% med sand, 10% fine sand, poorly sorted, slightly stained gray	strong HC odor
3- - - - 14-	26.0				(12.75' - 14.75') fat clay, high plasticity, fairly soft, stained gray	
5-	38.9		GP-7 (14-15)	ML	(14.75' - 15') 7.5 YR 6/4 light brown sandy silt, 80% silt, 10% med sand, 10% fine sand, poorly sorted, mix of brown and light gray staining	
- 6-	3.0	[8] [8]	GP-7 (15-16)	CH/CL	(15' - 16') poorly sorted sandy silt, 60% silt, 20% coarse-med sand, 20% fine sand, gray staining	
- - - 7-	2.8			CL	(16' - 16.7') fat clay grading downward to silty clay (fat clay - high plasticity and soft; silty clay - med-low plasticity, soft), stained gray	
7- - - 8-	2.8	5/5			(16.7' - 18.5') silty clay, low to med plasticity, soft, 30% silt component	
18—	2.8	5/5			(16.7' - 18.5') silty clay, low to med plasticity, soft, 30% silt component	Page 2

Client El Paso Corporation



	ect _		U.	te	Project No. 1009594.0	T
(ft)	DID	RECOV	SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
-	1.7			ML	- (%)	gray staining 18.5' - 19.4'
- 9-						
_					(18.5' - 20') 7.5 YR 6/4 light brown sandy silt, gray staining to 19.4'	
_	2.5				(18.5' - 20') 7.5 YR 6/4 light brown sandy silt, gray staining to 19.4', 60% silt, 30% med sand, 5% coarse, 5% fine sand, poorly sorted, Fe staining below 19.4'	
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Borehole Log El Paso Corporation GP-8 Drilling Contractor Vironex, Inc. Drilled by G. Grenier Drill Rig Client Borehole ID_ 1009594.0 Project No. D. Heneman (LTE) Logged By 2092428.2 August 26, 2010 20' Northing Completion Date_ 2727465.2 Easting. Geoprobe 6600 Borehole Depth_ Surface Elev. (ft) 5597.8 Dual Tube Drilling Method_ Borehole Dia. Samples DTP (bgs). Sample Method 5' Dual Tube Continuous Sample Interval DTW (bgs) 13' August 26, 2010 DEPTH RECOV SAMPLE **ASTM** DID (H) SOIL / ROCK DESCRIPTION REMARKS CLASS ML 0.0 0.0 2 (0' - 5') 7.5 YR 5/4 brown sandy silt, 80% silt, 10% med sand, 10% fine sand, poorly sorted, damp 0.0 5/5 3 0.2 0.0 5 СН NR 6 (5' - 7.2') NR NR gray staining could be due to reduction of organic material; presence of some minor roots 2.8/5 2.2 8

(7.2' - 9.2') fat clay, tight, high plasticity, stained gray, no odor

Client El Paso Corporation

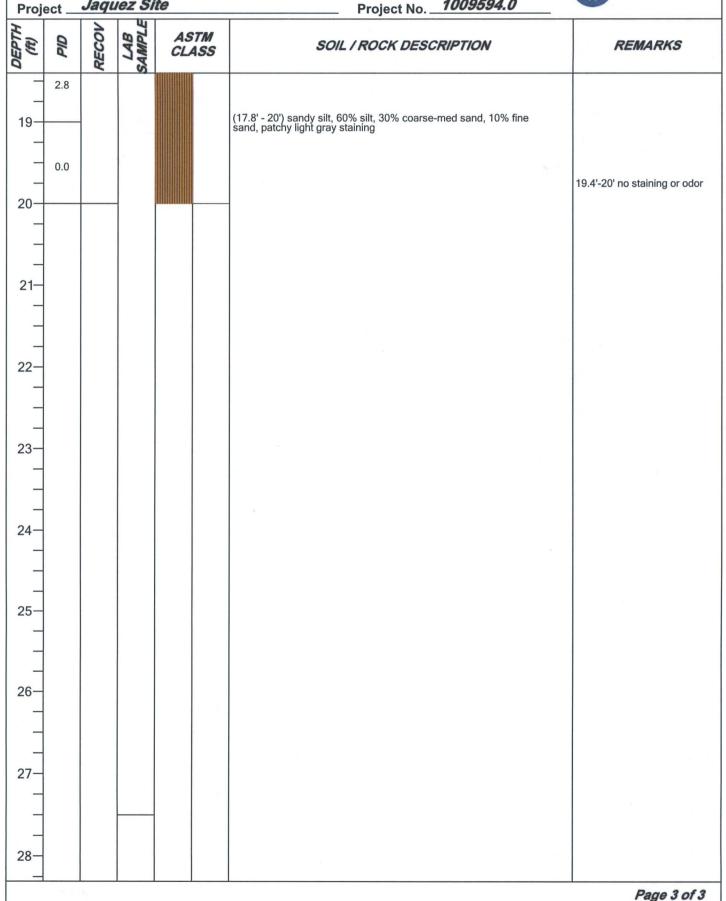
Borehole ID *GP-8*Project No. 1009594.0



Project	J	aqu	ez Si	te	Project No. 1009594.0	Water to tout
(ft)	2	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
9	.2		V)			- 19 A
6.	.7	181	GP-8 (9-10)	ML	(9.2' - 10') sandy silt, some black staining, 80% silt, 10% coarse-med sand, 10% fine sand.	black staining
N	R	*	ř.		(10' - 11') NR	
1—						Saturated at 11'
2—653 2—653	3.0				(11' - 12.4') sandy silt, 70% silt, 20% coarse, 10% med-fine sand, poorly sorted	heavily stained, strong HC odor
3-855	5.0	4/5	GP-8 (12-13)	CL	(12.4' - 15') silt/clay mixture, low plasticity, 50% silt, 50% clay, some gray staining, minor odor	some gray staining, minor odor, PID readings dropped in lower unstained clay
0.	3					
4	0					
5	_	ē.		ML		
2.	0				(15' - 15.9') sandy silt, 60% silt, 30% coarse-med sand, 10% fine sand, no staining or odor	
6						Stained black, HC odor 15.9 - 17.8'
11	.6				(15.9' - 17.8') sandy silt, 75% silt, 20% fine sand, 5% med sand, poorly sorted	p.
7	-	1.				
15	.8	5/5	GP-8 (17-18)			
8						
						Page 2 of 3

Client El Paso Corporation Borehole ID GP-8
Project Jaquez Site Project No. 1009594.0





Borehole Log Borehole ID GP-9 El Paso Corporation Drilling Contractor Vironex, Inc. Drilled by G. Grenia Client 1009594.0 Project No. D. Heneman (LTE) Logged By 2092464.8 Northing August 26, 2010 Completion Date 2727486.0 Easting Geoprobe 6600 15 Borehole Depth Surface Elev. (ft) 5597.4 Dual Tube Drilling Method Borehole Dia, Samples DTP (bgs) 5' Dual Tube Continuous Sample Method Sample Interval August 26, 2010 DTW (bgs) 9' DEPTH RECOV **ASTM** DID (F) SOIL / ROCK DESCRIPTION REMARKS CLASS SM NR (0' - 1.2') NR 1-(1.2' - 1.3') sandy top soil, minor roots ML 0.0 2 0.0 3.8/5 (1.3' - 4.4') 7.5 YR 5/6 sandy silt, 70% silt, 20% fine sand, 10% med-coarse sand, poorly sorted, dry 3 0.0 4 CL 0.0 (4.4' - 5') silty-sandy clay, low plasticity, 10% silt, 10% sand, 80% clay, hard, damp, minor roots 5 ML 0.0 (5' - 6.1') NR 6 0.0 (6.1' - 7.3') 7.5 YR 5/6 strong brown, poorly sorted sandy silt, 60% silt, 30% med-coarse sand, 10% fine 7. 0.0 3.9/5 8 $(7.3^{\circ}$ - $9^{\circ})$ 7.5 YR 5/6 strong brown, poorly sorted sandy silt, 80% silt, 20% med-fine sand Page 1 of 2

Client El Paso Corporation

Borehole ID GP-9

Project Jaquez Site

Project No. 1009594.0



(H)	DID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
ĭ	0.0	R	SA			
_	0.0					
9-				CL		Saturated at 9'
_						
-	0.0				(9' - 10') silty clay, 50% silt, 50% clay, low plasticity, soft	a *
4	0.0				(component of the state of the	
10-				CH		
-						
_	0.0					
-						=
11						
-						
-	0.0					
-						
12-						,
-					(10' - 14.2') 7.5 YR 4/4 brown fat sticky clay, high plasticity, very tight clay, saturated	
-	0.0	5/5	-			
\dashv						
13-						
-						
-	0.0				1	,
-						
14-					*	
-				ML	9	
\dashv	0.0				/14.01 4EN 7.E.VD 4/4 conducits 0E0/ cits 4E0/ cond fine conducits	
\dashv					(14.2' - 15') 7.5 YR 4/4 sandy silt, 85% silt, 15% med-fine sand, poorly sorted, saturated	
15—			-			No Lab Samples
\dashv						
-						
4					* 2	
16-						
-						
-						
					⁷ G0	12 a
17-						
\dashv						*
\dashv						
\dashv						
18-		8				
\dashv						

Borehole Log El Paso Corporation **GP-10** Drilling Contractor Vironex, Inc. Drilled by G. Grenier Drill Rig Borehole ID Client 1009594.0 Project No. A. Ager (LTE) Logged By 2092264.5 Northing September 01, 2010 Completion Date 2727395.4 Easting. Geoprobe 7822DT 15 Borehole Depth Surface Elev. (ft) 5595.7 Dual Tube Drilling Method Borehole Dia. DTP (bgs). 5' Dual Tube Continuous Sample Method_ Sample Interval DTW (bgs) 2.25' September 01, 2010 DEPTH (ft) RECON **ASTM** DID SOIL / ROCK DESCRIPTION REMARKS CLASS СН NR (0' - 0.75') NR 1.0 (0.75' - 1') 2.5 Y 5/3 light olive brown high plasticity clay, damp SW 1.7 2 Saturated at 2.25 - just N of standing water near garden area; also appears to be near edge of trailer pad - fill(?) assoc w/pad construction 4.25/5 1.2 3. (1' - 5') light olive brown poorly sorted coarse SAND, 60% coarse, 20% med, 20% fine, dry, roots, Fe staining 0.9 1.8 5 1.3 6 1.2 1.7 5/5

8

Client El Paso Corporation

Project Jaquez Site

Borehole ID GP-10

Project No. 1009594.0



Project _	Jaqu	ez Si	te	Project No	
(ft) PID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
9 - 1.2				(5' - 15') light olive brown coarse SAND saturated 60% coarse 30%	Saturated at 9'
0.6				(5' - 15') light olive brown coarse SAND, saturated, 60% coarse, 30% fines, 10% med, varying mineralogy, no structure	
12 1.8	5/5				
4 1.9	_				
5 - - - 6- -			0.000		No Lab Samples
7					
- 18- -		70			Page 2 of

Borehole Log El Paso Corporation **GP-11** Borehole ID_ Client _ Jaquez Site 1009594.0 Drilling Contractor Vironex, Inc. Drilled by G. Grenier Drill Rig Geoprobe 76 Project No. A. Ager (LTE) Logged By 2092306.3 Northing September 01, 2010 Completion Date 2727449.5 Easting _ Geoprobe 7822DT 15 Borehole Depth Surface Elev. (ft) 5595.7 Dual Tube Drilling Method_ Borehole Dia. Samples DTP (bgs) Sample Method 5' Dual Tube Continuous Sample Interval DTW (bgs) 10° September 01, 2010 DEPTH RECOV ASTM DID (tt) SOIL / ROCK DESCRIPTION REMARKS CLASS SW NR (0' - 1.5') NR NR 2.1 2 (1.5' - 3') 10 YR 6/3 pale brown coarse sand, poorly sorted, subrounded, damp, roots, organic staining, 70% coarse, 20% med, 10% fine, roots 0.2 3.5/5 3 SW 0.0 4 0.4 5 (3' - 7.5') 10 YR 5/5 brown med sand, damp, poorly sorted, 80% med, 10% coarse, 10% fines/silt, saturated 6' - 7.5' 0.9 6 Perched water table 6'

 $(7.5^{\circ}$ - $7.75^{\circ})$ dry 10 YR 5/5 brown silty sand, dry, 20%silt/fines, 80% med sand

(7.75' - 8.25') high plasticity brown clay

1.4

8.0

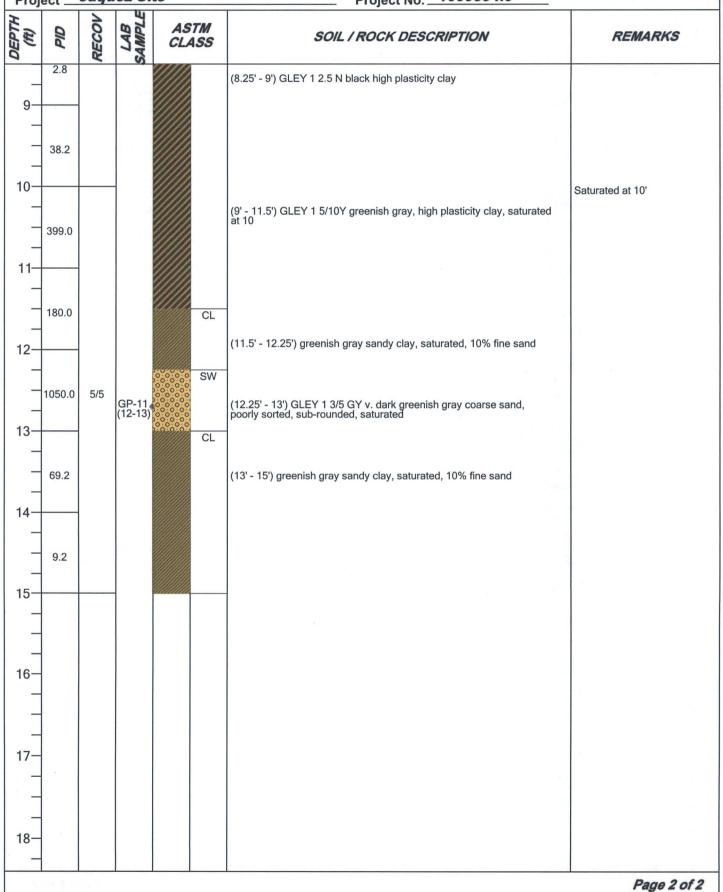
5/5

SM

СН

Client El Paso Corporation Borehole ID GP-11
Project Jaquez Site Project No. 1009594.0





Client El Paso Corporation Borehole ID GP-12
Project Jaquez Site Project No. 1009594.0



Project			Project No	7.0
Drilling Contracto Drilled by Drill Rig Drilling Method	G. Grenier Geoprobe 7822DT Dual Tube		AEI	Northing
Sample Method_	5' Dual Tube	Sample Interval	Continuous	DTP (bgs)

(4)	DID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
- - 1-	NR	TP S	- 5,	SM	(0' - 1') NR	
_ _ _ 2_	2.7				(1' - 2.25') 10 YR 3/3 dark brown silty sand, dry, 5% med, 80% fine, 15% silt, roots, black organic staining	
3-	12.1	4/5		SW	(2.25' 3.75') 2.5 Y 4/1 poorly sorted coarse sand, subrounded, 85% coarse, 5% med, 10 % fines	•
4-	0.8			SC	(3.75' - 4.25') dark gray clayey sand, dry, med-fine sand component,	
- - - -	4.1		-		(4.25' - 5') GLEY 4/10 Y dark greenish gray clayey sand, med-fine sand component, damp	No evidence of perched groundwater
5-	NR				(5' - 6') NR	
7-	1590.0	4/5		SW	(6' - 7.5') GLEY 2.5 N black clayey sand, damp, med sand content	
- 3- -			GP-12 (7-8)	CL	(7.5' - 8') GLEY 4/10 Y dark greenish gray coarse sand, poorly sorted, 80% coarse, 10% med, 10% fine	HC odor

Client El Paso Corporation Borehole ID GP-12
Project Jaquez Site Project No. 1009594.0



Proj	ect	Jaqu	iez Si	te	Project No. 1009594.0	
DEPTH (ft)	DID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
9	775.0				(8' - 10') GLEY 1 4/10 Y dark greenish gray wet sandy clay (10% fines) HC odor, low plasticity	Wet
- - - 11-	NR				(10' - 11') NR	
12-	45.0 114.0			SW	(11- 11.5') G:EY 1 5/5 GY greenish gray sand clay, 10% fines, wet (11.5' - 12') black coarse sand, saturated, poorly sorted	Saturated at 11.5' Strong HC odor; sheen on
13-	1620.0	4/5	GP-12 (12-13)	CH ML	(12' - 12.5') GLEY 1 4/N v. dark gray coarse sand as above (12.5' - 12.75') GLEY 1 5/5 GY greenish gray clay, high plasticity, wet (12.75' - 13.5') greenish gray sandy silt, saturated, poorly sorted, 5% coarse, 10% fine, 5% med	water
_ _ 14_ _	6.8			SW	(13.5' - 15') dark greenish gray med sand, poorly sorted, saturated, 30% coarse, 70% med	
15—	3.8				30 % Coarse, 70 % med	
16- -						
17— — —						
18- -	V 1 2					Page 2 of 2

Borehole Log Borehole ID GP-13 El Paso Corporation Client Jaquez Site 1009594.0 Project _ Project No. Drilling Contractor Vironex, Inc. A. Ager (LTE) Logged By 2092328.4 Northing September 01, 2010 G. Grenier Drilled by_ Completion Date_ 2727493.1 Easting Geoprobe 7822D7 15 Surface Elev. (ft) 5594.7 Drill Rig Borehole Depth Dual Tube 2" Drilling Method_ Borehole Dia. DTP (bgs) 5' Dual Tube Continuous Sample Method Sample Interval DTW (bgs) 10.5' September 01, 2010 DEPTH RECOV **ASTM** DID (F) SOIL / ROCK DESCRIPTION REMARKS CLASS NR (0' - 1.5') NR 1.0 2 (1.5' - 3') 7.5 YR 5/4 brown silty sand, dry, roots, Fe staining, near big 3.5/5 1.6 3. SW 1.1 4 (3' - 5') poorly sorted coarse sand, roots, wet, 60% coarse, 20% med, 20% fine, fining upward grades to 80% coarse at bottom 0.6 5 ML NR (5' - 7') NR (7' - 7.25') 7.5 YR 3/4 brown sandy silt, damp, 20% med sand, 10% fines CL 32.3 3.5/5 (7.25' - 8') GLEY 1 4/10Y dark greenish gray sandy clay, 10% fines, damp 8 CH

Client El Paso Corporation

Project Jaquez Site

Borehole ID *GP-13*Project No. 1009594.0



(tt)	ect _	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
_ 9–	1380.0		GP-13 (8-9)		(8' - 9.25') GLEY 1 5/10Y greenish gray, high plasticity clay, damp	
	65.0			SW	(9.25' - 9.5') greenish gray coarse sand, 80% coarse, 10% med, 10% fines, damp (9.5' - 10') GLEY 1 2.5/5 GY greenish black coarse sand as above, damp	
0 _ _	NR				(10' - 10.5') NR	Saturated at 10.5'
_ 1_	14.0				(10.5' - 11') 2.5 Y 5/2 grayish brown saturated coarse sand, poorly sorted, 80% coarse as above, sub-rounded	Caturated at 10.5
_	2.9				(11' - 11.5') GLEY 3/N v. dark gray (11.5' - 12') very coarse sand	
2- - - 3-	0.3	4.5/5		CH	(12' - 13.5') 2.5 Y 5/4 light olive gray high plasticity clay, damp	
- - -	0.2			SW		
4— — — —	0.7				(13.5' - 15') light olive gray poorly sorted coarse sand, fining upwards, saturated	
5— — —				0,0,0,0		
6- -						
- - 7-						
_						
8- 8-						

Borehole Log El Paso Corporation **GP-14** Borehole ID Client 1009594.0 Jaquez Site Drilling Contractor Vironex, Inc. Drilled by G. Grenier Drill Rig Geoprobe 75 **Project** Project No. A. Ager (LTE) Logged By 2092338.2 Northing September 01, 2010 Completion Date_ 2727515.9 Easting Geoprobe 7822D 15 Borehole Depth Surface Elev. (ft) 5593.3 Dual Tube Drilling Method Borehole Dia. Samples DTP (bgs). 5' Dual Tube Continuous Sample Method_ Sample Interval DTW (bgs) 13' September 01, 2010 RECOV ASTM DID (th) SOIL / ROCK DESCRIPTION REMARKS CLASS SM NR (0' - 2') NR 2-3/5 1.4 (2' - 3.25') 2.5 Y 4/3 olive brown silty sand, dry, 10% fines, 60% med, roots СН 1.6 (3.25' - 4.25') olive brown high plasticity clay, dry SW 1.6 (4.25' - 5') olive brown, poorly sorted sand, 80% coarse, 10% med, 10% fines, roots, black discoloration at 4.25' (<0.1' thick) 5 CL (5' - 6.25') NR NR 1.5 (6.25' - 7') 2.5 Y 5/3 light olive brown sandy clay, wet, 20% fines (7' - 7.75') same clay, 5% fines

3.75/5

SP/SC

1.6

8

Perched groundwater at 7.75'

Client El Paso Corporation

Project Jaquez Site

Borehole ID *GP-14*



Proj	ect	Jaqu	ez Si	ite	Project No	
DEPTH (ft)	DID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
9	2.3			CL	(7.75 9.25') coarsening upward sequence - coarse sand to clayey sand, saturated (9.25' - 10') GLEY 1 4/110 Y dark greenish gray low plasticity sandy clay, roots, 20% fines	
10— — — — 11—	NR				(10' - 11.5') NR	
12— - - -	1.8	3.5/5		CH	(11.5' - 11.75') sandy clay as above (11.75' - 12.25') 2.5 Y 6/2 light brownish gray, high plasticity clay, dry (12.25' - 13') sandy clay, wet	
13— — — — 14—	2.0			SW	(13' - 14') light brownish gray coarse sand, poorly sorted 60% coarse, 20% med, 20% fines, saturated	Saturated at 13'
15-	1.8	×			(14' - 15') light brownish gray, high plasticity clay, wet	No Lab Samples
16— — — — —						
18—						
					<u> </u>	Page 2 of 2

Client El Paso Corporation Borehole ID GP-15
Project Jaquez Site Project No. 1009594.0



Project Jaquez Site	Project No. 100959	94.0
Drilling Contractor Vironex, Inc. G. Grenier For Drill Rig Geoprobe 7822DT Drilling Method Dual Tube	Logged By A. Ager (LTE) Completion Date September 01, 2010 Borehole Depth 13.25' Borehole Dia 2"	Northing
Sample Method 5' Dual Tube	Sample Interval Continuous	DTP (bgs)
Z 2 4 5		

DEPTH Si	DID	RECOV	LAB SAMPLE	ASTI CLAS	55	SOIL / ROCK DESCRIPTION	REMARKS
1-	NR				CL	(0'- 2') NR	
2	1.3	3/5		S	C/CL	(2' - 2.5') 7.5 YR 3/3 dark brown clayey sand or sandy clay, 30% fine sand, poorly sorted, damp, roots, black organic staining	Slight HC odor
3	348.0	13				(2.5' - 3.75') GLEY 1 4/10 clayey sand or sandy clay, wet, 40% med sand, 10% fine sand, 50% clay	
5—	1740.0		GP-15 (4-5)		CL	(3.75' - 5') GLEY 1 4/10 dark greenish gray clayey sand or sandy clay, damp, 50% clay, 10% fin, 40% med sand poorly sorted, fining upwards	
6-	415.0					(5' - 6.5') GLEY 1 3/5 GY v. dark greenish gray sandy clay, 20% fine, low plasticity, damp, saturated 6.5' - 7.4'	
7-	78.0	5/5	-		СН	(7.4' - 7.6') GLEY 1 3/5 GY gray sandy clay (<5% sand), DRY	Perched water at 6.5' is likely from ditch (dry clay beneath)
8-	7.3	V.			SC	(7.6' - 8.3') GLEY 1 4/10 Y d. greenish gray clayey sand, 40% coarse, 20% med, 10% fine, 10% clay, damp	Page 4 of 2

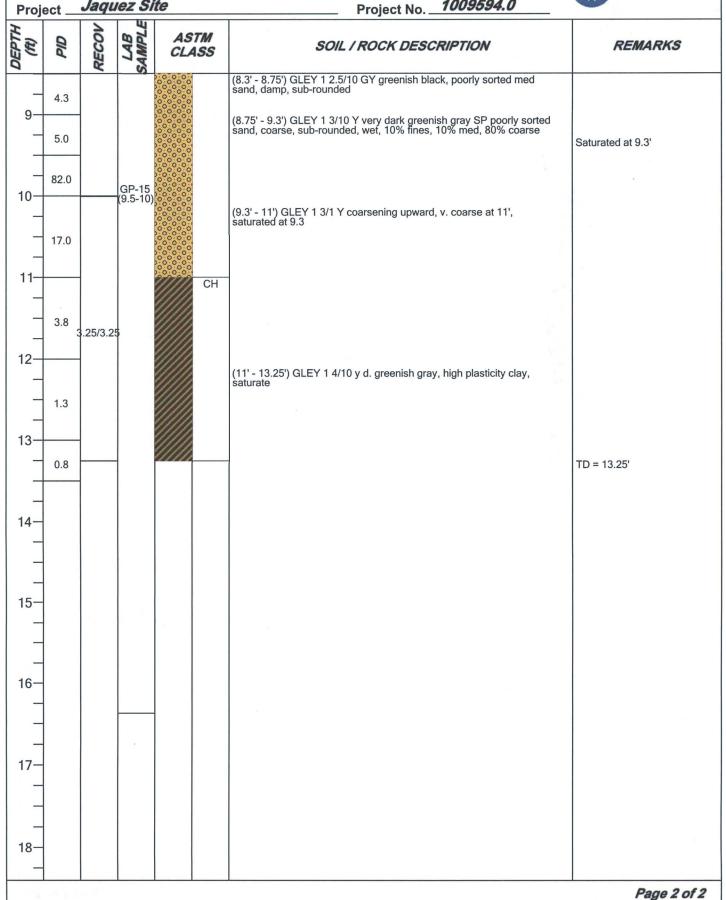
Client El Paso Corporation

Project Jaquez Site

Borehole ID GP-15

Project No. 1009594.0





Borehole Log MWH Borehole ID GP-16 El Paso Corporation Client Jaquez Site 1009594.0 Drilling Contractor Vironex, Inc. Drilled by G. Grenier Drill Rig Geoprobe 79 Project _ Project No. A. Ager (LTE) September 01, 2010 Logged By_ 2092315.8 Northing . Completion Date_ 2727505.1 Easting . Geoprobe 7822DT 15' Borehole Depth Surface Elev. (ft) 5591.7 2" Dual Tube Drilling Method_ Borehole Dia Sample Method_ DTP (bgs)_ 5' Dual Tube Continuous Sample Interval DTW (bgs) 5.25' September 01, 2010

ML 1.7 1.6 3.5/5 1.6 3.5/5 2.1 (0'-1.5) NR (1.5'-2.5') 7.5 YR 4/4 brown sandy silt, poorly sorted, damp, 80% silt (2.5'-3.25') GLEY 1 4/10 Y dark greenish gray sandy clay, 20% fines, damp, black organic staining (3.25'-4') coarse sand, poorly sorted, 80% coarse, 10% med, 10% fines, Fe staining in bands (4'-4.5') black coarse sand as above, damp Alternating coarse to fine sand units 4.5'-9.5' (4.5'-6.5') black med sand, poorly sorted, occ silt, saturated at 5.25' Saturated at 5.25'	. 2	4	J (aga)	
ML 1.7 1.6 3.5/5 1.6 3.5/5 2.1 (0'-1.5) NR (1.5'-2.5') 7.5 YR 4/4 brown sandy silt, poorly sorted, damp, 80% silt (2.5'-3.25') GLEY 1 4/10 Y dark greenish gray sandy clay, 20% fines, damp, black organic staining (3.25'-4') coarse sand, poorly sorted, 80% coarse, 10% med, 10% fines, Fe staining in bands (4'-4.5') black coarse sand as above, damp Alternating coarse to fine sand units 4.5'-9.5' (4.5'-6.5') black med sand, poorly sorted, occ silt, saturated at 5.25' Saturated at 5.25'	(ft) PID RECOV	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
2	_ _ _ NR	ML	(0' - 1.5') NR	
2.1 (2.5 - 3.25') GLEY 1 4/10 Y dark greenish gray sandy clay, 20% fines, damp, black organic staining SW (3.25' - 4') coarse sand, poorly sorted, 80% coarse, 10% med, 10% fines, Fe staining in bands (4' - 4.5') black coarse sand as above, damp Alternating coarse to fine sand units 4.5' - 9.5' (4.5' - 6.5') black med sand, poorly sorted, occ silt, saturated at 5.25' (4.5' - 6.5') black med sand, poorly sorted, occ silt, saturated at 5.25'	2		(1.5' - 2.5') 7.5 YR 4/4 brown sandy silt, poorly sorted, damp, 80% silt	
(3.25' - 4') coarse sand, poorly sorted, 80% coarse, 10% med, 10% fines, Fe staining in bands (4' - 4.5') black coarse sand as above, damp Alternating coarse to fine sand units 4.5' - 9.5' (4.5' - 6.5') black med sand, poorly sorted, occ silt, saturated at 5.25' (6.5' - 7.25') v. coarse sand, black, saturated	-		(2.5' - 3.25') GLEY 1 4/10 Y dark greenish gray sandy clay, 20% fines, damp, black organic staining	
Saturated at 5.25' (4.5' - 6.5') black med sand, poorly sorted, occ silt, saturated at 5.25' 3.8 (6.5' - 7.25') v. coarse sand, black, saturated	-			
6	5—		(4.5' - 6.5') black med sand, poorly sorted, acc silt, saturated at 5.25'	
7 (6.5' - 7.25') v. coarse sand, black, saturated	6———		(4.5 - 0.5) Black filed Safid, poorly Softed, dec Sik, Sakurated at 6.25	
(7.25' - 8') gray fine sand, 80% fines, 10% coarse, 10% med, saturated	-			

Client El Paso Corporation Borehole ID GP-16
Project Jaquez Site Project No. 1009594.0



	ect _	Jaqu	iez Si	te	Project No. 1009594.0	
(ft)	DID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
9-	2.0		<u> </u>		(8' - 9.5') GLEY 1 3/10 Y very dark greenish gray coarse sand	
10	2.1			CL	(9.5' - 10') greenish gray low plasticity sandy clay, 20% fine sand content, damp	
- 11- -	NR				(10' - 12') NR (water filled)	
2	2.7	3/5		SW	(12' - 12.75') 2/5 Y 6/4 light yellowish brown, high plasticity, clay, no fines, damp	
4	1.6				(12.75' - 14') light yellowish brown med sand, poorly sorted, wet, 40% fines grading up to v. coarse sand at 13.5'	
5	1.7			CH	(14' - 15') light yellowish brown high plasticity clay, damp	No. Lab Consulta
-						No Lab Samples
6-		٠				
7— — —						
18— —		1				Page 2 of 2

Borehole Log Borehole ID GP-18 El Paso Corporation Drilling Contractor Vironex, Inc. Drilled by G. Grenie Client 1009594.0 Project No. A. Ager (LTE) Logged By 2092262.4 Northing September 01, 2010 Completion Date 2727441.9 Easting. Geoprobe 7822D7 15' Borehole Depth Surface Elev. (ft) 5591.9 Dual Tube 2" **Drilling Method** Borehole Dia. Samples DTP (bgs). 5' Dual Tube Continuous Sample Method_ Sample Interval DTW (bgs) 6.75' September 01, 2010 DEPTH RECOV ASTM DID (ft) SOIL / ROCK DESCRIPTION REMARKS CLASS SM NR (0' - 2') NR 2 (2' - 3') 2.5 Y 5/3 light olive brown silty sand, dry, roots, 30% coarse sand, 10% med, 10% fines 3/5 2.0 3 (3' - 3.5') light olive brown, silty sand, dry, roots, no coarse component, 60% fine, 10% med, large root at 3.5' 1.3 SW (3.5' - 4.25') 2.5 Y 4/2 dark grayish brown, very coarse, poorly sorted, subangular, 80% coarse, 10% med, 10% fine, wet 2.2 (4.25' - 5') 2.5 Y 6/4 light yellowish brown coarse sand, poorly sorted, 60% coarse, 20% fines, 20% med, roots, wet 5 NR (5' - 6') NR 6 (6' - 6.5') very coarse sand, poorly sorted, subangular 2.0 Saturated at 6.75 2.0 4/5 8

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Client El Paso Corporation

Project Jaquez Site

Borehole ID GP-18

Project No. 1009594.0



Proje		Jaqu	iez Si	ite	Project No. 1009594.0	
DEPTH (ft)	DID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
_	1.5		V	0000		
9-			-			
-				00000		
-	2.5			0000		*
10						
-						
-	2.0					
				0000	(6.5' - 15') 2.5 Y 5/3 light olive brown, coarse sand, poorly sorted, 60% coarse, 20% fines, 20% med	
11				00000		
	2.5					
\dashv	2.0			00000		
12-						
				00000		
	1.4	5/5		0000		
13-	-			00000		
\exists		-		0000		
	1.8			00000		
14				00000		-
-				0 0 0 0		1
\exists	1.4			00000		
15				0.0.0.0		
'						No Lab Samples
\dashv						
-						
16-						
4						
4						
17-						
			9			
18-						
_						4
						Page 2 of 2

Borehole Log Borehole ID GP-23 El Paso Corporation Drilling Contractor Vironex, Inc. Drilled by G. Grenier Drill Rig Client 1009594.0 Project No. A. Ager (LTE) Logged By 2092222.7 Northing September 02, 2010 Completion Date 2727492.4 Easting Geoprobe 7822D 15 Borehole Depth Surface Elev. (ft) 5587.2 Dual Tube Drilling Method Borehole Dia DTP (bgs). 5' Dual Tube Continuous Sample Method Sample Interval September 02, 2010 DTW (bgs) 8.5' DEPTH RECOV **ASTM** PID E SOIL / ROCK DESCRIPTION REMARKS CLASS SM NR (0' - 0.75') NR 0.0 (0.75' - 1.2') 7.5 YR 4/4 brown silty sand, 60% sand, mainly coarse component, roots, damp ML 0.0 (1.2' - 2.0') brown, sandy silt, 20% sand, no coarse component, all fine, damp 2 4.25'/5' 0.2 (2' - 3') dry, more roots, white staining, near roots 0.0 (3' - 4') damp again CL 0.0 (4' - 5') brown sandy clay, med to fine content (30%), damp SW NR (5' - 6') NR 6 Likely fill material (6' - 6.125') 2.5 Y 5/2 grayish brown, poorly sorted med sand, 80% med, 20% fines, subangular, damp 215.0 **GP-23** (6-7); GP-23 6.7' to 7.5' is saturated (6-7) Blind **Duplicate** (6.25' - 7.5') GLEY 1 3/N v. dark gray, fining upward sand, primarily coarse content, damp , 6.75' - 7.5' saturated 48.6 4'/5' 8 (7.5' - 8.5') GLEY 1 4/N dark gray, coarse sand as above, damp

Client El Paso Corporation Borehole ID GP-23
Project Jaquez Site Project No. 1009594.0



	0	0	B	ASTM	0011 / 5001/ 55005/5500	DEM 540
(ft)	DID	RECOV	LAB	CLASS	SOIL / ROCK DESCRIPTION	REMARKS
•	0.0		S	00000		Saturated at 8.5'
$\overline{}$						
9-						
				00000		4
	0.0					B*
10-					(8.5' - 11.5') eaturated coarse sand dark gray 80% coarse 10%	
_					(8.5' - 11.5') saturated, coarse sand, dark gray, 80% coarse, 10% med, 10% fines, 8.5' saturated	
4	4.0					
\dashv				0 0 0 0		
11		-				
\dashv				00000		
-	0.0			SM	-	1
-						2
12-						x
7						
٦	0.0	5'/5'				
13-						7.2
	0.0				(11.5' - 15') alternating dark gray to black layers of coarse sand to silty sand, saturated	
_	0.0					
14-						
-						
4	0.0					
-						
15-			1		-	
-						
\dashv				,,		
16				<		
16-						
17-				100		
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_						
18-						* *
			×		No.	

Client El Paso Corporation
Project Jaquez Site

Borehole ID *GP-24*Project No. 1009594.0



Drilling Contractor Vironex, Inc.

G. Grenier

Drill Rig Geoprobe 7822DT

Drilling Method Dual Tube

Logged By

Completion Date
Borehole Depth
Borehole Dia

A. Ager (LTE)

September 02, 2010

15'

Borehole Dia

2"

Northing 2092240.2
Easting 2727509.8
Surface Elev. (ft) 5585.3

Sample Method 5' Dual Tube

Sample Interval Continuous

# Sa		2	LE	ACTM		
DEPTH (ft)	DID	RECOV	LAB SAMPL	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
- 1- - - 2-	NR	2.25'/5'	,	SM	(0' - 2.75') NR	
3- - - 4- -	0.0			CL	(2.75' - 4') 7.5 YR 4/3 brown silty sand, occasional (<5%) coarse sand, roots, damp, 60% fines (4' - 5') brown, high plasticity sandy clay, damp, 10% fines	
5— — — — 6—	NR 1.1			SW	(5' - 5.5') NR (5.5' - 6') 2.5 Y 6/3 light yellowish brown, 60% coarse, 20% med, 20% fines, black organic lens at 5.75' (2" wide) subangular, wet	Likely fill material
- - 7-	0.6				(6' - 6.75') coarse sand as above except color = GLEY 1 5/5 GY greenish gray, wet	
8-	0.1	4.5'/5'			(6.75' - 8.25') 2/4 Y 5/2 grayish brown, saturated, poorly sorted coarse sand, 80% coarse, 10% med, 10% fines, subangular	

Client El Paso Corporation Borehole ID GP-24
Project Jaquez Site Project No. 1009594.0



(H)	DID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
-	0.0	-	S		(8.25'- 8.75') color change to GLEY 1 3/N very dark grey	~
9					(8.75' - 9.5') GLEY 1 5/10 Y greenish gray, poorly sorted, med sand, no coarse content, 80% med, 10% fines, 10% silt, saturated	
0	1.2				(9.5' - 10') GLEY 1 3/N v. dark gray med sand, saturated	
_	1.1			SP/SM		
1-						
_	1.1					· ,
2					(10' - 13.75') GLEY 1 3/N v. dark gray alternating (thinly banded) coarse sands and silty sands, saturated	
_	0.3	5'/5'				
3-						
	0.0			SW	(13.5' - 14') GLEY 1 2.5/N black coarse sand, poorly sorted, 60% coarse, 20% med, 20% fine, v. coarse at base, saturated	
_	0.0					
5-	5.5			0.000	(14' - 15') 2.5 Y 5/2 grayish brown coarse sand, 80% coarse, 20% med, 20% fine, saturated	No Lab Samples
_						
- 3-						
						n h
7-			100			
8-	-					

Client El Paso Corporation
Project Jaquez Site

Borehole ID *GP-25*Project No. 1009594.0



Drilling Contractor Vironex, Inc.

Drilled by G. Grenier

Drill Rig Geoprobe 7822DT

Drilling Method Dual Tube

Logged By A. Ager (LTE)
Completion Date September 02, 2010
Borehole Depth 10'
Borehole Dia 2"

Sample Method 5' Dual Tube

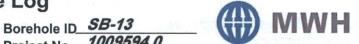
Sample Interval Continuous

DTP (bgs) ______ DTW (bgs) 6.25' September 02, 2010

San San	iple Me	ethod	5 Dua	Tube	Sample Interval	OTW (bgs) <u>6.25</u>	' September 02, 2010
DEPTH (ft)	DID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION		REMARKS
_				ML			
_							
- 1-						*	
_	NR				(0' - 2') NR		
-							
_ 2_					(CL 0.05D 0.5 V.5/0.154b = 15 - 15 - 15 - 15 - 15 - 15 - 15 - 15		
_					(2' - 2.25') 2.5 Y 5/3 light olive brown sandy silt, saturated		
-	1.0	3'/5'					
3-					(2.25' - 2.5') light olive brown conducilt roots down mod s	and	
-					(2.25' - 3.5') light olive brown sandy silt, roots, damp, med s component (30% sand)	dilu	
-	0.4	3					
4-					(3.5' - 4.5') 2.5 Y 3/1 v. dark gray sandy silt, damp		
_					(,,,,		
	1.1			SW	4.51.50.75.450.00000000000000000000000000000	4 900/	
5-					(4.5' - 5') 7.5 Y 5/2 grayish brown coarse sand, poorly sorte coarse, 10% med, 10% fine, damp	a, 80%	
-	NR				(5' - 5.5') NR		
	0.5			SW/SM			
6-	0.0						
						Sa	turated at 6.25'
	0.6						
7-						Je	d called to stop @ 7' but
-						dri	d called to stop @ 7' but ly 3 more feet to push so ller provided full core
	20.5	4.5'/5'	GP-25 (7-8)		(5.5' - 10') alternating poorly sorted coarse sands and thin (2") bands	
8-		(MS-MSE samples also		(5.5' - 10') alternating poorly sorted coarse sands and thin (of silty sand, grayish brown, saturated at 6.25'	_ / 501103	
		(collected here)				
							Page 1 of 2

Borehole Log El Paso Corporation Jaquez Site Borehole ID GP-25 Client 1009594.0 Project _ Project No. DEPTH (ft) ASTM DID SOIL / ROCK DESCRIPTION REMARKS CLASS 0.5 9-0.4 10-12-13-14-15-16-17 18-Page 2 of 2

Client El Paso Corporation



Project Jaquez Site	Project No	94.0
Drilling Contractor LT Environmental, Inc. Drilled by A. Ager Drill Rig - Drilling Method Hand Auger	Logged By A. Ager (LTE) Completion Date September 01, 2010 Borehole Depth 8' Borehole Dia. 2"	Northing
Sample Method Grab	Sample Interval <i>Continuous</i>	DTP (bgs)

DEPTH Sa	DID	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
DE	4	RE	SAN	ML ML		
- - 1- - -	0.0			WIL	(0' - 2') Brown 7.5 YR 4/3 fine sandy silt, poorly sorted, 10% fine sand, 90% silt, damp, roots	
2- - - 3-	0.0			SW	(2' - 3') strong brown 7.5 YR 5/6 very fine sandy silt, well sorted/mod, 15% fine sand, 85% silt, damp	
4-	0.5	8'/8'			(3' - 4') brown 7.5 YR 4/4 fine-med sand, moderately sorted, 40% fine sand, 60% med sand, damp, possible organic/reduction zones	
- 5-	1.3				(4' - 5') brown 7.5 YR 4/4 same as above, possible organic concentration	
6-	0.9	*				Saturated at 5.83'
7— 7—	0.7	N.			(5' - 8') brown 7.5 YR 5/3 fine sands, mod sorted, saturated, possible organics, 80% fine, 20% med sand-silt; saturated at 5.83'	
8-	0.4			0.000000000000000000000000000000000000		Page 1 of 1



LT Environmental Inc. 2243 Main Ave, Ste 3 Durango, Colorado 81301 T 970.385.1096

Project Name: Jaquez Date: 6/10/2010

Project Manager: Julie Linn, RG

Client: MWH

Site Name: Jaquez

		Depth to Product	Depth to Water	Product Thickness	Volume of Product	
Well	Time	(ft)	(ft)	(ft)	Removed	Comments
R4	8:57 AM	-	11.36	-	-	Sample BTEX
R6	9:31 AM	-	9.43	-	-	Sample BTEX
R1	9:55 AM	-	12.22	-	-	Sample BTEX
R2	10:39 AM	-	10.94		-	Sample BTEX
R3	11:03 AM	-	11.83	-	-	Sample BTEX
R5	11:37 AM	-	14.74	-	-	Sample BTEX
M7	12:16 PM		2.9	-	-	Sample BTEX
M1	12:41 PM	-	2.98	A-1 2 -	-	Sample BTEX
M3	1:01 PM	-	2.63	_	-	Sample BTEX
M4	1:49 PM	-	1.5	-	-	Sample BTEX
M5	1:50 PM	-	2.77	-	_	Sample BTEX
M2	1:53 PM	-	2.99	-	-	Sample BTEX
M6	4:18 PM	-	6.04	-	-	Sample BTEX

Comments

Depth to water measured from top of PVC casing

R1: Fuel Odor

Signature:

julie C

Date: 6/17/2010





Client: Project Manager:	Julie Linn, F			ler's Name:	6/10/2010 Julie Linn,	RG		12:38
Measuring Point: Well Diameter:	4"		to Water: al Depth: n Height:	15.37	ft		to Product: : Thickness:	0 ft 0 ft
	✓ Bottom Va	alve Bailer	Double	igal Pump Check Valve Ba	iler oilization of In			er
Callfau fa af u		Call		Water Volun			Valores	a ha samanad
Gal/ft x ft of w 12.39 x 0.6		Galle 8.05		Oun	ices			to be removed 1.15 gal
12.55 X 0.0.	5	0.03	7. 3					F.13 gai
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac.	Comments/Flow Rate
12:45	7.00	224	70.5				1.25	clear
	6.87	225	66.7				2.5	orangish particles
	6.83	226	63.0				3.75	greyish particles
	6.80	227	58.6				5	greyish particles
12:56	7.05	221	56.3				9	bailing dry
Final:			nell .					
Final: 12:56	7.05	221	53.2				9	bailing dry
	7.05	221	53.2				9	bailing dry
12:56		221		Conductivity M	leter 🗹 Te	mperature Met		
12:56 COMMENTS:	✓ pH Meter			Conductivity M	deter ☑ Te	mperature Met		
12:56 COMMENTS: Instrumentation:	☑ pH Meter Rio Vista		nitor 🔽	Conductivity M		mperature Met		
12:56 COMMENTS: Instrumentation: Water Disposal:	☑ pH Meter Rio Vista	□ DO Mo	nitor ✓		12:56	-	er 🗌 Oth	





Project Name:	laguez			Location:	laguez		Well No:	M2
Client:					6/10/2010			15:32
Project Manager:		26	Camp	ler's Name:			· Illile.	15.52
Project Manager:	Julie Linn, i	10	Samp	iler's ivame:	Julie Linn,	KG		
Measuring Point: Well Diameter:			to Water: al Depth:				to Product: Thickness:	
	Wa	ater Colum	n Height:	11.89	ft	10		
Sampling Method:	Submersib	ole Pump	Centrifu	ugal Pump	Peristaltic Pu	mp Othe	er	
	✓ Bottom Va	lve Bailer	Double	Check Valve Ba	iler			
Critorio				. 🗆				
Criteria:	✓ 3 to 5 Cas	ing Volumes	of Water Re	moval 🗹 Stab	oilization of In	dicator Parame	eters Othe	er
				Water Volun	ne in Well			
Gal/ft x ft of w	/ater	Gall		Oun			Volume t	o be removed
11.89x 0.6	5	7.72	2x 3	- 24		erales of	23	8.16 gal
	also D-					M2 40 700	a second	and the San San San
Time	рН	SC	Temp	ORP	D.O.	Turbidity	Vol Evac.	Comments/Flow Date
(military)	(su)	(us)	(°F)	(millivolts)	(mg/L)	(NTU)	gal	Comments/Flow Rate
15:32	7.10	264	61.0				1.25	clear
	6.80	275	54.3				2.5	slight orange flecks/clear
	6.74	285	52.0				3.75	slight orange flecks/clear
- Carling and	6.66	288	51.3				5	slight orange flecks/clear
	6.64	299	51.1				10	slight orange flecks/clear
	6.64	315	50.7				15	slight orange flecks/clear
1 - 4	6.65	321	50.7			100	20	slight orange flecks/clear
15:48	6.68	331	50.4				23	slight orange flecks/clear
- American								
2-1					7.			
Final:								
15:48	6.68	331	50.4				23	slight orange flecks/clear
								Harris Company of the
COMMENTS:								
Instrumentation:	✓ pH Meter	☐ DO Mo	nitor 🗸	Conductivity M	leter 🗸 Te	mperature Met	er Oth	er
						A.		
Water Disposal:	Rio Vista							
Sample ID:	M2		Sa	imple Time:	15:48			
Analysis Requested:	✓ BTEX Other	VOCs	Alkalii	nity TDS	Cations	Anions	Nitrate [Nitrite Metals
Trip Blank:	Ye	S				Dunlic:	ate Sample:	No





Project Name: _ Client:			7	Location: <u>Jaquez</u> Well No: <u>M3</u> Date: 6/10/2010 Time: 13:01					
Project Manager:		RG	Samp	ler's Name:					
Measuring Point: Well Diameter:	4"		o Water: al Depth: n Height:	15.06	ft	Depth Product	to Product: Thickness:	ft ft	
	☑ Bottom Va	lve Bailer	Double	ugal Pump	iler ilization of In			er	
and a second and				Water Volun	ne in Well				
Gal/ft x ft of water Gall				Oun	ces			o be removed	
12.43 x 0.65	5	8.07	'x 3				24	.21 gal	
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate	
13:07	7.28	222	70.2		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1.25	clear	
77777	7.14	237	64.6		1	1 / 10	2.5	very slightly cloudy	
	6.89	277	59.5				3.75	very slightly cloudy	
1 10 10 10 10	6.83	314	57.4			J	5	very slightly cloudy	
13:29	6.74	350	56.5		3		10	very slightly cloudy	
- Idanista	6.74	352	56.7	1			15	very slightly cloudy	
	6.73	346	56.7				20	very slightly cloudy	
produced on	6.72	352	56.8				24	very slightly cloudy	
Final:									
13:29	6.72	352	56.8				24	very slightly cloudy	
COMMENTS:									
Instrumentation:	✓ pH Meter	DO Mo	nitor _	Conductivity M	eter 🗸 Te	mperature Met	er Othe	er	
Water Disposal:	Rio Vista								
Sample ID:	M4		Sa	mple Time:	13:29				
Analysis Requested:	✓ BTEX ☐ Other	VOCs	Alkalir	nity TDS	Cations	Anions	Nitrate	Nitrite Metals	
Trip Blank:	Ye	S				Duplica	ate Sample:	No	





	-				(A) 73			
Project Name: Client: Project Manager:	MWH	RG	Samp	Location: Date:	6/10/2010		Well No:	M4 14:41
Measuring Point: Well Diameter:	4"	Tot	al Depth:	1.5 15.37 13.87	ft	Depth Product	to Product:	0 ft 0 ft
Sampling Method: Criteria:	☑ Bottom Va	alve Bailer	☐ Double	ugal Pump Check Valve Ba	iler			er
				Water Volun	ne in Well	1.4		
Gal/ft x ft of water Gall				Oun			Volume t	o be removed
			2x 3					'.06 gal
								0
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac.	Comments/Flow Rate
14:41	7.56	437	85.8				1.25	clear
	7.57	439	76.8				2.5	clear
1 1	7.48	449	68.5				3.75	clear
	7.25	500	64.6				5	clear
	7.34	481	56.5	 			10	2 gal/dark grey
14:53	7.43	462	54.9				12.5	bailing dry
14.55	7.43	402	34.3	 			12.5	balling dry
				-				
0								
Live and								
and the second								
Final:								
14:53	7.43	462	54.9	Lauren (12.5	bailing dry
COMMENTS:			10					
Instrumentation: Water Disposal:		□ DO Mo	nitor 🔽	Conductivity M	leter 🗸 Te	mperature Met	er 🗌 Othe	er
Sample ID:			Sa	mple Time:	14:53			
Analysis Requested:	✓ BTEX	VOCs	Alkalir	nity TDS	Cations	Anions	☐ Nitrate ☐	Nitrite Metals
Trin Blank	Ye	95				Dunlica	te Sample	No



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			-						
Project Name: Jaquez Client: MWH Project Manager: Julie Linn, RG			Samp	Location: Date: ler's Name:	6/10/2010		Well No: M5 Time: 15:02		
Measuring Point: Well Diameter:	4"		to Water: al Depth: n Height:	15.04	ft	Depth Product	to Product: Thickness:	0 ft	
Sampling Method: Criteria:	✓ Bottom Va	alve Bailer	Double	ugal Pump Check Valve Ba	iler oilization of In			er	
				Water Volun	ne in Well				
Gal/ft x ft of water Ga		Gall	lons Ounces			Volume to be removed			
12.27 x 0.6	5	7.98	8x 3			23.94 ga			
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate	
15:02	7.51	241	69.8				1.25	clear	
	6.90	300	61.5				2.5	slighly gray	
	6.82	325	56.8				3.75	slightly gray	
* · · · · · · · · · · · · · · · · · · ·	6.77	312	54.5				5	slightly gray	
1 1 1 1	6.73	297	52.9				10	more clear	
	6.68	361	52.5	0			15	more clear	
	6.72	379	51.8				20	more dark grey	
15:20	6.76	386	52.7				24	more clear	
			može.						
-									
Final:	6.76	200	F2.7				24	more clear	
15:20	6.76	386	52.7				24	more clear	
COMMENTS:									
Instrumentation:		□ DO Mo	nitor 🔽	Conductivity M	leter ☑ Te	mperature Met	er 🗌 Oth	er	
Sample ID: M5			Sample Time: 15:20						
Analysis Requested:	✓ BTEX	☐ VOCs	Alkali	nity TDS	Cations	Anions	Nitrate [Nitrite Metals	
Trip Blank: Yes			Duplicate Sample: No						





Project Name: Jaquez Client: MWH Project Manager: Julie Linn, RG			Location: Jaquez Date: 6/10/2010 Sampler's Name: Julie Linn, RG				Well No: M6 Time: 16:18		
Measuring Point:TOCDepth to Water:6.04 ftDepth to Product:0 ftWell Diameter:4"Total Depth:8.6 ftProduct Thickness:0 ftWater Column Height:2.56 ft									
Sampling Method: Criteria:	☑ Bottom Va	lve Bailer	☐ Double	gal Pump Check Valve Ba	ailer bilization of In			<u>er</u>	
				Water Volur					
			ons Ounces			Volume to be removed			
2.56 x 0.65	0	1.66	ix 3			4.98 gal			
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac.	Comments/Flow Rate	
16:21	6.95	1673	62.2				0.52	slighty grey	
16:32	6.97 7.03	1844 1942	59.9 59.0				0.79 1.05	slighty grey w/fuel odor slighty grey w/fuel odor	
Final:									
16:32	7.03	1942	59				1.05	slighty grey w/fuel odor	
COMMENTS:	Roots								
Instrumentation:									
Water Disposal:	Rio Vista								
Sample ID: M6 Sample Time: 16:32									
Analysis Requested:	✓ BTEX	VOCs	Alkalin	ity TDS	Cations	Anions	Nitrate [Nitrite Metals	
Trip Blank: Yes Duplicate S						ate Sample:	No		





Project Name: <u>Jaquez</u> Client: MWH			Location: Jaquez Date: 6/10/2010				Well No: M-7 Time: 12:13		
Project Manager: Julie Linn, RG				Sampler's Name: Julie Linn, RG				12.13	
								1	
		Fac. Way-			30.00 (0.00)				
Measuring Point:			to Water:			Depth	to Product:	ft	
Well Diameter:			al Depth:			Product	Thickness:	ft	
	VV	ater Colum	n Height:	13.27	π				
Sampling Method:	Submersit	ole Pump	Centrifu	ıgal Pump	Peristaltic Pu	mp Othe	e <u>r</u>		
	✓ Bottom Va		Double	Check Valve Ba	niler				
Criteria:	✓ 3 to 5 Cas	sing Volumes	of Water Re	moval 🗹 Stat	oilization of In	dicator Parame	eters Othe	er	
				Water Volur	ne in Well				
Gal/ft x ft of w	vater	Gall		Ounces			Volume to be removed		
			2x 3			6.4			
DU LE COLUMN									
Time	рН	SC	Temp	ORP	D.O.	Turbidity	Vol Evac.	6 /5 - 5 - 6	
(military)	(su)	(us)	(°F)	(millivolts)	(mg/L)	(NTU)	gal	Comments/Flow Rate	
12:16	7.12	314	66.0			7	0.26	slightly orange & cloudy	
	7.09	320	62.6	-		7	0.53	slightly orange & cloudy	
	7.06	322	58.1	1 1 1 = 1			0.79	slightly orange & cloudy	
	7.02	326	55.8			-	1.05	grey & cloudy	
	7.08	321	53.2				2	gray & cloudy	
12:16	7.09	323	52.7				2.5	NA	
	7.01	318	52.5				3	NA	
	7.03	320	52.0				4	NA NA	
	7.01	317	52.5		1.		5 6	NA NA	
	7.04	317 317	52.2 51.4				6.5	NA NA	
	7.02	517	31.4				0.5	NA NA	
Final:									
12:16	7.02	317	51.4				6.5	NA	
		are charges a	-			1-1-277			
COMMENTS:									
Instrumentation:	✓ pH Meter	☐ DO Mo	nitor _	Conductivity N	1eter ☑ Te	mperature Met	er Oth	er	
Water Disposal:	Rio Vista								
Sample ID:	M7		Sa	mple Time:	12:16				
Analysis Requested:	✓ BTEX	VOCs	Alkalin	nity TDS	Cations	Anions	☐ Nitrate [Nitrite Metals	
	Other								
Trip Blank:	Trip Blank: Yes Duplicate Sample: No								
TTIP DIGITA.	16					Dupilce	acc builible.	110	





Project Name: Client: Project Manager:	MWH	RG	Samp	Location: Date: ler's Name:	6/10/2010		Well No: Time:	
Measuring Point: Well Diameter:	4"		to Water: al Depth: n Height:	25.1	ft	Depth Product	to Product: Thickness:	0 ft 0 ft
Sampling Method: Criteria:	✓ Bottom Va	lve Bailer	Double	ugal Pump ☐ Check Valve Ba moval ☑ Stab	iler			er
				Water Volun	ne in Well			
	Gal/ft x ft of water Gal				ces	1.	Volume t	o be removed
12.88 x .6	5	8.37	7x 3				25	5.11 gal
						The second second		
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate
10:00	6.78	898	56.7			7.20	1	fuel smell
20,00	6.90	1180	54.0		-		2.25	fuel smell
	6.88	1118	52.7				3.5	fuel smell
	6.81	1033	52.2		1	7	4.75	fuel smell, gray
	6.83	969	52.2				7.75	fuel smell, gray
	6.78	789	52.2				9	fuel smell, gray
	6.81	768	52.2				12.25	fuel smell, gray
F	6.78	579	52.3				14	fuel smell, gray
4	6.75	494	52.2				15	fuel smell, gray
1	6.77	444	53.1				20	less fuel smell, clear
	6.78	441	52.3				23	less fuel smell, clear
10:25	6.31	433	54.5				25	less fuel smell, clear
Final:								
10:25	6.31	433	54.5				27	less fuel smell, clear
COMMENTS: Instrumentation:	pH Meter	when oper		ing. 6/11/10		space in wel		
Water Disposal:	Rio Vista							
Sample ID:	R1		Sa	mple Time:	10:26	_		
Analysis Requested:	✓ BTEX	VOCs	Alkalir	nity TDS	Cations	Anions	Nitrate [Nitrite Metals
Trip Blank: Yes						Duplica	ate Sample:	No

COMPLIANCE / ENGINEERING / REMEDIATION



LT Environmental Inc. 2243 Main Ave, Ste 3 Durango, Colorado 81301 T 970.385.1096

THE RESERVE AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PER	-	7	-					
Project Name	. laquez			Location:	laguez		Well No:	R_2
				_				
	t: MWH		R		6/10/2010		Time:	10:35
Project Manager	r: Julie Linn, I	RG	Samp	ler's Name:	Julie Linn,	RG		5. January 1. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.
						-		
Measuring Point Well Diameter	r: 4"	Depth t Tot ater Colum	al Depth:	22.11	ft		to Product: t Thickness:	0 ft 0 ft
Sampling Method	Submersib	alve Bailer	Double	ugal Pump Check Valve Ba	iler		Ø.	
1 1 1 1 1 1 1 1 -		ang volunes	-			dicator rurum	cers 🗆 oure	
0.10	that set			Water Volun				
Gal/ft x ft of		Gall		Oun	ces			o be removed
11.17 x .6	65	7.26	ix 3				21	78 gal
	1	no year to		1 1 1 1 1 1 1 1				
Time	pН	SC	Temp	ORP	D.O.	Turbidity	Vol Evac.	Comments/Flow Rate
(military)	(su)	(us)	(°F)	(millivolts)	(mg/L)	(NTU)	gal	comments/riow nate
10:39	6.92	1377	56.3			to the part of the	1.25	clear
P Wayner	6.93	1435	52.7			7 7	2.5	slightly cloudy
	6.95	1500	51.3				3.75	slightly cloudy
	6.95	1523	51.3		-	-	5.73	fuel odor
	6.98	1433	54.3				10	fuel odor
	7.09	1047	54.5	-			13	starting to bail dry
10:58	7.22	938	53.4	-	+		13.5	starting to bail dry
10.36	7.22	330	33.4			1 1 1 1 1 1	13.3	Starting to ball ally
		-		-		- 1	77 7 7	
A 150 T	- 1-	- 4			1000	21 2 - 100		
	100	Ayú.			_			
	1	-/-/-		 	-	1 1 1 1		
Final:								
	722	938	E2 /				13.5	starting to bail dry
10:58	7.22	930	53.4		· — Promi		15.5	Starting to ball dry
COMMENTS:		4 4 1			117		* 4	
Instrumentation	I: ✓ pH Meter	☐ DO Mo	nitor 🖸	Conductivity M	leter 🗸 Te	emperature Met	er Othe	er
Water Disposal	l: Rio Vista							
Sample ID): <u>R2</u>		Sa	mple Time:	10:58	_		
Analysis Requested	BTEX Other	VOCs	Alkalii	nity TDS	Cations	Anions	☐ Nitrate ☐	Nitrite Metals
Trin Blank	. Vo	ac .				Dunlier	ate Sample:	No
Trip Blank	:: <u>Y</u> e	:5				Duplica	are sample:	INU





Project Name:				Location:			Well No:			
Client:	MWH			Date:	6/10/2010		Time:	11:02		
Project Manager:	Julie Linn, F	RG	Samp	ler's Name:	Julie Linn,	RG		X		
								The state of the s		
Measuring Point:	TOC	Depth t	o Water	11.83	ft	Denth	to Product:	0 ft		
Well Diameter:			al Depth:			Product	Thickness:	0 ft 0 ft		
Well blattleter.		iter Colum				Troduct	t mickiness.			
	vvc	iter colum	ii i icigiic.	10.55	10					
Sampling Method:	Submersib	le Pump	Centrifu	ugal Pump	Peristaltic Pu	ımp 🗌 Othe	er			
	✓ Bottom Va	lve Bailer	Double	Check Valve Ba	iler					
Criteria:	✓ 3 to 5 Cas	ing Volumes	of Water Re	moval 🗹 Stab	ilization of In	dicator Parame	eters Othe	er		
				Water Volun	ne in Well					
Gal/ft x ft of w		Gall	ons	Oun	ces		Volume t	Volume to be removed		
10.35 x .65 6.73x 3			3x 3	1	100		20).19 gal		
				To the second		A STATE OF THE STA		ACTION OF THE PARTITION		
Time	рН	SC	Temp	ORP	D.O.	Turbidity	Vol Evac.			
(military)	(su)	(us)	(°F)	(millivolts)	(mg/L)	(NTU)		Comments/Flow Rate		
11:07	6.86	527	57.9	1	, ,		gal 1.25	clear		
11.07	9.94	565	54.0		1		2.5	clear		
	6.95	598	52.5				3.75	clear		
	6.97	614	51.8		-		5	clear		
	6.95	551	53.1				10	clear		
	7.01	411	52.2				15	clear		
	7.03	331	53.2		×		20	clear		
11:27	7.11	333	51.7				23	clear		
11.27	7122	555	32.7				23			
1.			1-							
Final:				1400						
11:27	7.11	333	51.7			1000	23	clear		
COMMENTS:										
Instrumentation:	✓ pH Meter	DO Mo	nitor _	Conductivity M	leter 🔽 Te	mperature Met	ter Oth	er		
Water Disposal:	Rio Vista									
Sample ID:	R3		Sa	mple Time:	11:27					
34			30			-				
Analysis Requested:	✓ BTEX	VOCs	Alkalir	nity TDS	Cations	Anions	□ Nitrato □	Nitrite Metals		
,	_	vocs	L. Aikdiii	, 🔲 103		LI MITOLIS				
	Other .									
Trip Blank:	Ye	S				Duplica	ate Sample:	No		





Project Name: Client: Project Manager:	MWH	RG	Samp	Location: Date: oler's Name:	6/10/2010		Well No: Time:	
Measuring Point: Well Diameter:	4"	Depth 1 Tot ater Colum	al Depth:	22.23	ft	Depth Produc	to Product: t Thickness:	0 ft 0 ft
Sampling Method: Criteria:	✓ Bottom Va	alve Bailer	Double	ugal Pump Check Valve Ba	iler oilization of In		-	er
				Water Volun				
			ons	Oun	ces			o be removed
10.87 x .65	5	7.06	5x 3				21	18 ga
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac.	Comments/Flow Rate
				,	V 0, 1	, , , ,	gal	aloan
9:00	6.84	317	57.4				1.25	clear
	6.84	355	55.2				2.5	slightly tan
	6.96	342	53.6				3.75	slightly tan
	7.03	402	53.1				5	greyish
	7.18	399	53.6				10	grey-black
	7.27	517	54.9				12.5	grey-black
	7.31	540	53.4				13.5	clear
0.00	7.26	541	55.9				15	clear
9:23	7.29	545	53.8				15.25	Clear
			-					
				16				
Final:	7.20	EAA	EE O				10	clear
9:23	7.29	544	55.8				18	on April 1990
COMMENTS:			7			23 (44)		
Instrumentation:	✓ pH Meter	☐ DO Mo	onitor 🗔	Conductivity M	leter 🗹 Te	emperature Mel	ter Othe	er
Water Disposal:	Rio Vista							
Sample ID:	R4		. Sa	ample Time:	9:23	-		
Analysis Requested:	✓ BTEX Other		Alkali	nity TDS	Cations	Anions	Nitrate	Nitrite Metals
Trip Blank:	Ye	es				Duplic	ate Sample:	No





Project Name: Client:				Location:			Well No:	
Project Manager:		RG	Samn	Date: 6/10/2010 oler's Name: Julie Linn, RG			Time: 11:35	
, reject managen	Tune zinni,							
Measuring Point: Well Diameter:	TOC 4"	Depth t	to Water:	14.74 24.5	ft ft	Depth Product	to Product: t Thickness:	0 ft
	Wa	iter Colum	n Height:	9.76	ft			
Sampling Method:				ugal Pump		mp Othe	er	
	✓ Bottom Va	ilve Bailer	☐ Double	Check Valve Ba	iller			
Criteria:	✓ 3 to 5 Cas	ing Volumes	of Water Re	emoval 🗹 Stat	oilization of In	dicator Parame	eters Othe	er
					le de la company			
- 1				Water Volun				
Gal/ft x ft of v		Gall		Oun	ices			o be removed
9.76 x .65		6.34	1X 3	And the second			19	9.02 gal
								10. 6
Time	рН	SC	Temp	ORP	D.O.	Turbidity	Vol Evac.	Comments/Flow Rate
(military)	(su)	(us)	(°F)	(millivolts)	(mg/L)	(NTU)	gal	and the second
11:37	7.60	434	61.9				1.25	clear
	7.58	449	58.6				2.5	slightly cloudy
1	7.28	450	57.7				3.75	slightly cloudy
	7.42	451	58.8				5	slightly cloudy
	7.56	500	57.9	-			10	slightly cloudy
11:56	7.63	573	59.9				13.5	bailing dry
7 .								
Final:								
11:56	7.63	573	59.9				13.5	bailing dry
11.50	7.03	3/3	33.3				13.5	
COMMENTS:								
Instrumentation:	✓ pH Meter	☐ DO Mo	onitor	Conductivity M	1eter ☑ Te	mperature Met	er Oth	er
Water Disposal:	Rio Vista							
Sample ID:	R5		Sa	mple Time:	11:56			
Analysis Requested:	✓ BTEX	☐ VOCs	Alkalii	nity TDS	Cations	Anions	Nitrate	Nitrite Metals
	Other							
								3.3
Trip Blank:	Ye	S				Duplica	ate Sample:	No

COMPLIANCE / ENGINEERING / REMEDIATION



LT Environmental Inc. 2243 Main Ave, Ste 3 Durango, Colorado 81301 T 970.385.1096

			-					
Project Name: Client: Project Manager:	MWH	RG	Samp	Location: Date: ler's Name:	6/10/2010		Well No:	
Measuring Point: Well Diameter:	4"	Tot	al Depth:	9.43 13.57 4.14	ft	Depth Product	to Product: t Thickness:	0 ft 0 ft
Sampling Method: Criteria:	✓ Bottom Va	alve Bailer	☐ Double	igal Pump Check Valve Ba	iler			r
		a ional ap		Water Volun	ne in Well	5		The state of the s
Gal/ft x ft of w	vater	Galle	ons	Oun	ces		Volume t	o be removed
4.14 x .65		2.69	9x 3				8.	07 ga
The Property of the Park of th								A CONTRACTOR OF THE CONTRACTOR
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate
9:37	6.87	262	60.6			A B	0.528	dirty
	6.81	288	60.1				1.056	dirty
	6.80	301	58.6			10.7	1.585	dirty
	6.76	298	57.9				2.113	dirty
0.45	6.74	298	58.3				2	dirty
9:45	6.77	275	58.5				4	bailing dry
Final: 9:45	6.77	275	58.5				4	bailing dry
COMMENTS:								
Instrumentation: Water Disposal:		□ DO Mo	nitor 🗸	Conductivity M	leter 🗸 Te	mperature Met	ter Othe	er
Bioposuii								
Sample ID:	R6		Sa	mple Time:	9:45	-		
Analysis Requested:	✓ BTEX Other	VOCs	Alkalir	nity TDS	Cations	Anions	Nitrate	Nitrite Metals
Trip Blank:	Ye	es				Duplica	ate Sample:	No

0736	Set up on TD 22 DTW 11.	R4:	150	"will= 0.69 diameter)	5 6
0900	PH 6.84 6.96 7.03 7.18 7.27 5 7.31 7.26 7.29		(md(us) 317 jus 355 342 402 399 jus 517 540 541 545	7,250 gas 3,75	Clear skightly fair grayish gray-plan Clear Clear
0	923 Colla	d Sar	nple from RI	+	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
0931	on Site Botton DIW	26 8 well 99.43	14" well di 13.57 370c pro	ametr) B Toc no	fe-Roots name

	0937	DH.	Templof	1	1/0/00	T Comme
		6,87	60.6	505 (0)4(h	The state of the s	d) Comment
1		6,81	60.1	Z88 505		
		6.80	58.6	30/	4 lites	
		6.76	57.9	- 298	6lits 8 litus	
		6.74	58.3	298	2 gallons	<u> </u>
1	0945	6.77	58.5	275	4 gollow	Bailing
	0945	~ N				DRY
2	Chi	Sample	R6			
	0952	on sik	R1 (-	1" mul die 10' BT	ameter)	
lace !		TD U	vell 25.	10 BT	OC PIC	
	0955	DTW	12.22'	B7	OC PVC	
	1000	pH 6.78	Jemp of 56.7	Cond (us)	Vol purgad	Comment.
	1000	6.90	54.0	898	Igallon	fuel smill
		6.88	52.7	1116	2:25 gol	
		6.81	52.2	1033	3.50 gul	L _i
		6.83	52,2	969	4.7500	11 . grey
		6.78	52.2	789	7.25 gul 9.00 gal	"1 grey
			52.2	768	12.25 200	", gray
		6.81	52.3	579	12.25 gal 14.00 gal 15.00 gal	
		6175	52.2	494	15.00 me	LL W
		6.71	52.2	444	20.00 dal	fire smell
		6.78	52.3	441	23.00 802	" Clearer
		6.31	5415	433	25.00 gas	11
	11001				25.00 gas 27.00 gas	
4	1026	Collect s	ample R		0	
			1			

46		
1035	on site R.2: (4" well diameter)	113
1039	Bottom your 22.11 BTOX PVC	
	DIW 10.99 15100 PV	11:
	eff cond(us) Temp (°F) Volume Comments 6.92 137 56.3 1.25 gal clear	
	6.92 1377 56.3 1.25 gal clear	
	6.93 1435 52,7 2,50 gol slightly way	,
	6.95 1500 51.3 3,75 get slight 6.95 15.23 51.3 5,00 get fuel odor	
	6.95 15.23 51.3 5,00 que foel odor 6.98 1433 54.3 10.00 que	
	7.09 1047 54.5 13.00 gal styring	
	7.09 1047 54.5 13.00 gal \$ tops 7.22 938 53.4 13.5 gal Bail	
1058	Sample RZ	
106	on site R3 (4" well diameter)	
	Botton 41 1 101 100 101 10 70 101	16
1103	Bottom y well 122.18' BTOR PR DTW 91,83' BTOR PVC	12
		14
THE COLUMN	pH cond (us) Temp(°F) Volume (gol) Comments	
1107	6.86 527 57.9 1.25 flear	
	6.94 565 54,0 2.50 deal	
	6.95 598 52.5 3.75 deal	
	6.97 614 51.8 5.0	
	6.95 551 53.1 10.0 7.01 411 52.2 15:00	
	7.01 411 52.2 15:00 7.03 331 53.2 20.0 V	
	711 333 51.7 23.0	
1127	Sample R3	
Ø.		1-58

- R					•
Slephty Schooler Chouchy Man	2000 6 2000 6 20	118 118 128 128 128 128 128 128 128 128	4:15 2:05 0:05 0:05 2:05 2:05 1:85 9:29 0:00 (1.)dwnL	20.7 20.7 20.7 20.7 20.7 20.7 20.7 20.7	
. (mna	mett die	"6 stour) "F1.81 J	E M Jayor B	HIS W	9 171 E121 3
Clear Clear Slighty Cloudy Jawing Dailing duy	2,5 god 2,5 god 3,00,2 2,00 god 2,00,2	Agus .	6.65 8.85 7.86 7.86 7.86	29.7 24.7 82.7 82.7	
	219 219	1,05,42	Hey b		L. 211
Lb . 07	160 "S	(4" mea	ह्य भ	is no	SE11 x

48		
1238	Sample M7	
1240	on site M1 (4" and)	13
1241	DTW 2.98' BTOC PVC	1
1245	pH Templor Cond (us) Volume (3) Comments 7.00 70.5 224 1.25 clear (0.87 66.7 225 2.5 grange igh 6.83 63.0 226 3.75 grey ish 6.80 58.6 227 5 gollow Particles 7.05 56.3 221 9 gallows Bailing Dec	,
1256	Sample m1	
130/	on site m3 (4" well) TD 15.06' BTOX PVC DTW 2.63' BTOX PVC	
307	OH Temp(°F) Cond (us) Volum (gal) Conserted 7.28 70.2 222 1.25 class 1.25 cla	
1329	Sample M3	

		49	
	1321	Call ashley- aux is water strage - tank bull	
1		Call ashley- out of water Storage - tank full Troy calls- can dump purge H20 at 1430	
1			
	1349	M4: TO 15,37 DTW 1.50 BTOC PVC	
	1350	M5: TD 15.04 DTW 2.77' BTOC PVC	
	1353	M2: TO 14.88 DTW Z.99' BTOLPVC	
	111111	1. 11 11 11 10 2	
	1441	on site m4 (4" well Diameter)	
		1.56 85.8 437 1.25 clear	
		77 760 439 26	
	+	7.48 68.5 449 3.75	
		706 (111 500 50	
		7.34 56.5 481 10.0 gal 12gal-ga	re
		7.34 56.5 481 10.0 gol 12gol gr 7.43 54.9 462 12,5 gol bailing dr	4
			0
	1453	sample m4	
\dashv	1502	at M5 (4" well Diameter)	
1			
		PH Temp conductivity (ms) volume (gas) consumers 7.51 69.8 241 1.25 clear 6.90 61.5 300 2.50	5
		690 (a) 5 300 2.50 J.	
1		6.82 56.8 325 3.75 Slighty	
		6.77 54.5 312 5.0 and gray	
		10.73 72.9 27/ 10.0 gol. more cle	ar
		6.68 52.5 301 15.0 gc 1	ch.
		6.72 51.8 379 20.0 gal more gre	4
		6.76 52.7 386 24.0 gal more cle	ar_
	1520	sample m5	
			ALC: THE REAL PROPERTY.

50				
1532	at M2 (4" u	ce diam	etr)	
	7.10 61.0 6.80 54.3 6.74 52.0 6.66 51.3 6.64 51.1	275 285 288 299 315	7.25 2.50 3.75 5.0 gallos /0.0 gallos	Slight orang flecks/mostly clear
	6.65 50.7	32/	15.0 gallons 20.0 gallons 23.0 gallons	
1548	Sample m 2 Cut off passive	vert prope	structups to ~	3 allove ground
1621	at M6 (4" we DTW 6.04" 1 TD 8.60" B	3 TOC PVC		
	pH Temp(0F) (6.95 62.2 6.97 59.9 7.03 59.0	Cond (µg) 1673 1844 1942	3 pites 4 lites	Slightly grey rshight dd feel odor foots
1632	sample m6			
1646	Iv Jaguer			
1725	arrive @ office	e 1502:	34	

Ø

52 6/11/10 Jaquez Soil Sampling Cont.

1056 Set up on SB-2 Soil Sample

1058 Sample SB-2 @ 1' PID Oppm

1059 11 11 @ 2' PID O.D ppm sextunt

SB-2 location 36° 45' 00.860" N 107° 49' 06.120"W 1105 Setup on SB-4 Soil Sample 1107 sample SB-4 @ 1'; PID 0.0 1113 " " 2' " 0.0 1115 " " " 3' PID 0.0 Saturated 1200 Set up on SB-5 Soil Sample 36° 44' 59.607" N 107° 49' 06.974" W 1202 Sample 505@ 1' PID: 0.0 1206 Sample SB-5@ 2' PID 0.0 saturated 1208 Set up on SB-6 Soil Sample 36°44'59.452"N 107°49' 06.842"W 1211 Sample SB-6 @ 1' PID 19,2 ppm 1215 11 11 " 2' PID 0,0 ppm 1228 Set up on SB-7. Soil Sample 1228 Sample SB-7@ 1 PID 106 ppm 1230 Sample SB-7@ 18" PID 30.6 ppm saturated 1000troin 36°44159.847" N 107°49'06.522"W

<u> </u>		
	6/11/10 Jaquez Soil Sampling	53
1234	Set up on SB-8 soil sample	, , , , , ,
	36° 45' 00.161" N	
	107° 49' 06, 089' W	
		-,4
- 1237		
	18"	
PARTY CONTINUES IN THE PROPERTY OF THE PROPERTY OF THE PARTY OF THE PA	2' 31.2 11	N.
	30" 815 "	
	3' 592 PPM	1.4.
		•
Company of the Compan	110 7111	saturated
	10 01 pp.	y rece
1300	Set us = SR-9 sall sands	
	100 to 36° 45' 00.572 N	
	107° 49' 05.672 W/	
	Depth PTD (con)	
1363	18.4	
THE RESIDENCE OF THE PROPERTY	2'	
	3' 85	
	41 2º scit	urated
10.00		
1331	Setupon SB-10 soil sample	Y
(0.5)	location 36° 45' 00, 291"N	
	107° 49' 05. 609" W	14, 2001.
1334	200	
1337	21 6.9	
1341	3 83 504 115	ted
.0 [1) Jan 10 10 10 10 10 10 10 10 10 10 10 10 10	
	1248 1250 1360 1363 1367 1368 1312	1274 Set up on SB-8 soil sample 36° 45' 00.161" N. 107° 49' 06.089" W Depth PID 1237 12" 230 PPM 1239 18" 71.2" 1241 2' 31.2" 1242 30" 81 5 " 1245 3' 592 PPM 1248 40" 49" 45,2 " 1250 48-51" 43.2 PPM 1300 Set up on SB-9 soil sample 10cation 36° 45' 00.572 N 107° 49' 05.672 W Depth PID (PPM) 1308 3' 85 1312 4' 2.2 soit 1331 Set up on SB-10 soil sample 10cation 36° 45' 00.291" N 107° 49' 05.609" W Depth PID (PPM) 1337 2' 0.9

54	6/11/10 Jaquez Soil Sampling Cont.
1350	
	Set upon SB-11 soil sample location 36° 44' 59.946" N
	107° 491 05.999" W
1355	Depth PID ppm 1' 4.6 ppm
1402	2' 610
1405	32" 15.2
1418	Set up on SB-12 soll sample
	To cation 36° 44' 59.380" N
	101-47 05.027 W
1411	Depth PIQ (ppm) 22,-
1426	2' 17.2
1431	
1436	4'
1440	56"-57" 8.1
	Fill in all soil sampling holes w/ Bentonite
	and DI water
1125	tate authorit are sounds
	take ambient our sample
1632	take air sample @ Passive well #4 offer purging air for 3 minutes @ 6 1. tess per minute
	orfter purging air for 3 minutes @ 6 /tex
	per minute
1652	take air sample a well R-1 atter
	take air sample @ well R-1 efter purglag for 3 minutes @ 6 liters/min.

	6/11/10 Jaquez continued	
		55
	Petro Flag results	
	Sample IB Weight(g) &	leading (ppm)
		132
		298
1		208
•		222
		60
	10 11 00	27
		37 156
		145
	30 12 / /0,1	143
	* RF2 2 for all samples	
	Soils sample sent to labi	
	5B-3-5 Sample for 80	015, TVPH,
*	SB-3-5 Sample for 80 SB-6-1 TEPH (8015), BTEX 8021
2	38-7-9	
	SB-11-32	
, N		
	all of the remains soil from	i the
	above 7 samples was lett	7
	above 4 samples was left outside refrigirator @ John residence par John Jaguez	Jague
	residence per John Jaguez	
1829	IV Japuez SHE	
	Japan 2710	
1906	arrive @ office 150286	



2243 Main Avenue, Suite 3 Durango, Colorado 81301 T 970.385.1096 / F 970.385.1873

July 9, 2010

Mr. Jed Smith, PE Senior Chemical Engineer MWH 1801 California Street, Suite 2900 Denver, Colorado 80202

Subject: Supplemental Information for Jaquez Site

Mr. Smith:

Per your request, this letter is to provide to you the supplemental information relating to the site investigation activities conducted on June 10 and 11, 2010 at the Jaquez Site in Blanco, New Mexico.

In an e-mail dated July 9, 2010, you requested the following information that was not included in the field notebook. The responses to your questions are in italics.

1. I didn't see the notes about the screening of the passive vent wells. I wrote down 0,0,0.4,8.9,0 (running from east to west) while you were out there, but I need those results documented in the notes.

Response: The passive vent wells were screened using the Photoionization Detector (PID) with a 10.5eV lamp. Working from east to west, the PID values read at the top of each passive vent well within 10 seconds of removal of the well cap were 0 ppm, 0 ppm, 0.4 ppm, 8.9 ppm, and 0 ppm.

2. I didn't see any notes regarding the ambient air screening in the south end. I see the ambient air sample collected at 1625; and there was one note on Pg. 51 regarding the north end having no ambient air PID detections.

Response: The ambient air screening was conducted on the south side of the canal prior to beginning soil sampling on the south side of the canal. This ambient air screening was conducted by holding the PID at waist height and walking around the site slowly, observing any readings on the PID. The entire south side of the canal was walked, including near the groundwater monitor wells and passive vent wells. No readings above 0.0 ppm were observed on the PID.

3. I didn't see documentation regarding the locations or routes used for ambient air screening. I think we discussed walking around to all the wells, as an example route. I just need to document where we screened ambient air. If you screened along a route that connected all the monitor wells, then a statement to that effect would probably be fine.

Response: This ambient air screening on both the north and south sides of the canal was conducted by holding the PID at waist height and walking around the area slowly, observing any



readings on the PID. The entire north and south sides of the canal were walked, including near the groundwater monitor wells, passive vent wells, pipelines, and other well stick-ups. No readings above 0.0 ppm were observed on the PID on either the north or south side of the canal.

Additionally, in a phone call today, you requested the location of the ambient air. This sample was collected on the south side of the canal, approximately half way between the western-most passive vent well and the canal, slightly to the west of a line between these two locations. Lastly, the PetroFlag sampling kit was calibrated the day of the sampling (at approximately 10 a.m.), per the manufacturer's specifications.

If you have any additional questions or comments regarding this project, do not hesitate to contact me at (970) 385-1096 or via email at <u>jlinn@ltenv.com</u>.

Sincerely,

Julie Linn, RG Project Geologist

Julie (

Copy: Ashley Ager

Sample ID	Sample Location	Sample Depth (feet below ground surface)	Date Sampled	Time Sampled	PID (ppm)	Sample Location Lat/long	Notes	PetroFlag Results (parts per million) (If no result is listed, sample was not analyzed)	
SB1-1	SB-1	1	6/11/2010	9:27 AM	0	36° 45' 01.478"N; 107° 49' 05.851"W			
SB1-2		2	6/11/2010	9:31 AM	1.1				
SB1-3		3	6/11/2010	9:37 AM	0.8				
SB1-4		4	6/11/2010	9:42 AM	0				
SB1-5		5	6/11/2010	9:52 AM	0				
SB1-6		6	6/11/2010	9:57 AM	0		Saturated		
SB2-1	SB-2	1	6/11/2010	10:58 AM	0	36° 45' 00.860"N; 107° 49' 06.120"W			
SB2-2		2	6/11/2010	10:59 AM	0		Saturated		
SB3-1	SB-3	1	6/11/2010	10:17 AM	0	36° 45' 00.694"N; 107° 49' 06.499"W			
SB3-2		2	6/11/2010	10:19 AM	13.2	· · · · · · · · · · · · · · · · · · ·			
SB3-3		3	6/11/2010	10:23 AM	11.9				
SB3-4		4	6/11/2010	10:27 AM	0.1				
SB3-5		5	6/11/2010	10:28 AM	10.8			123	Yes
SB3-6		6	6/11/2010	10:33 AM	0.5		Saturated		
SB4-1	SB-4	1	6/11/2010	11:07 AM	0	36° 45' 00.046"N; 107° 49' 07.326"W			
SB4-2		2	6/11/2010	11:13 AM	0				
SB4-3		3	6/11/2010	11:15 AM	0		Saturated		
SB5-1	SB-5	1	6/11/2010	12:02 PM	0	36° 44' 59.046"N; 107° 49' 06.974"W	İ	ĺ	
SB5-2	3D-3	2	6/11/2010	12:06 PM	0	30 11 33.010 11, 107 13 00.371 11	Saturated		
	CD 6			12:11 PM		36° 44' 59.452"N; 107° 49' 06.842"W	1		Yes
SB6-1 SB6-2	SB-6	2	6/11/2010 6/11/2010	12:11 PM	19.2	30 44 39.432 N, 107 49 00.842 W	Saturated		168
		 				250 444 50 0 4510 1 4050 4010 5 500 1111	Saturated	100	
SB7-1	SB-7	1	6/11/2010	12:28 PM	106	36° 44' 59.847"N; 107° 49' 06.522"W	G 1	132	
SB7-2		2	6/11/2010	12:30 PM	30.6		Saturated		
SB8-1	SB-8	1	6/11/2010	12:37 PM	230	36° 44' 00.161"N; 107° 49' 06.089"W		298	
SB8-2		1.5	6/11/2010	12:39 PM	71.2				
SB8-3		2	6/11/2010	12:41 PM	31.2				
SB8-2.5		2.5	6/11/2010	12:43 PM	81.5				
SB8-3		3	6/11/2010	12:45 PM	59.2				
SB8-3.5		3.5	6/11/2010	12:48 PM	45.2		C-44-1	200	
SB8-4		4	6/11/2010	12:50 PM	43.2		Saturated	208	
SB9-1	SB-9	1	6/11/2010	1:03 PM	18.4	36° 45' 00.572"N; 107° 49' 05.672"W		222	
SB9-2		2	6/11/2010	1:07 PM	0.8				
SB9-3		3	6/11/2010	1:08 PM	8.5		Catal	160	V
SB9-4		4	6/11/2010	1:12 PM	2		Saturated	160	Yes
SB10-1	SB-10	1	6/11/2010	1:34 PM	20	36° 45' 00.291"N; 107° 49' 05.609"W		207	
SB10-2		2	6/11/2010	1:37 PM	6.9				
SB10-3		3	6/11/2010	1:41 PM	8.3		Saturated		
SB11-1	SB-11	1		1:55 PM	4.6	36° 44' 59.946"N; 107° 49' 05.999"W			
SB11-2		2	6/11/2010	2:02 PM	6				
SB11-3		2.5	6/11/2010	2:05 PM	15.2		Saturated	137	Yes
SB12-1	SB-12	1	6/11/2010	1:08 PM	22.9	36° 44' 59.380"N; 107° 49' 05.029"W		456	
SB12-2		2	6/11/2010	1:08 PM	17.2				
SB12-3		3	6/11/2010	1:08 PM	6.1				
SB12-4		4	6/11/2010	1:08 PM	1.6			7045	
SB12-4.75		4.75	6/11/2010	1:08 PM	8.1	2	Saturated		



07/07/10



Technical Report for

EL PASO CORPORATION

MWHCOD: San Juan River Basin Program

Jaquez Site

Accutest Job Number: F74410

Sampling Date: 06/11/10

Report to:

MWH

jed.smith@mwhglobal.com

ATTN: Jed Smith

Total number of pages in report: 14





Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories. Test results relate only to samples analyzed.

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Harry Behzadi, Ph.D.

Laboratory Director

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Sample Summary

EL PASO CORPORATION

Job No:

F74410

MWHCOD: San Juan River Basin Program Project No: Jaquez Site

Sample Number	Collected Date	Time By	Received	Matri		Client Sample ID
F74410-1	06/11/10	16:32 JL	06/15/10	AIR	Air	PASSIVE 4
F74410-2	06/11/10	16:52 JL	06/15/10	AIR	Air	R1
F74410-3	06/11/10	16:25 JL	06/15/10	AIR	Air	AMBIENT





Section 2

Sample Results

Report of Analysis



Report of Analysis

Page 1 of 1

Client Sample ID: PASSIVE 4

Lab Sample ID: F74410-1 Date Sampled: 06/11/10

Matrix: AIR - Air Date Received: 06/15/10

Method: EPA TO-3 Percent Solids: n/a

Project: MWHCOD: San Juan River Basin Program

Analytical Batch File ID DF Analyzed By Prep Date Prep Batch Run #1 a HH035760.D 1 06/15/10 NJ n/a n/a **GHH1674** Run #2

Initial Volume Run #1 0.50 ml

Run #2

Purgeable Aromatics

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
71-43-2	78.11	Benzene	ND	0.50	0.11	ppmv	ND	1.6	mg/m3
108-88-3	92.14	Toluene	ND	0.50	0.10	ppmv	ND	1.9	mg/m3
100-41-4	106.2	Ethylbenzene	ND	0.50	0.10	ppmv	ND	2.2	mg/m3
1330-20-7	106.2	Xylenes (total)	ND	1.5	0.30	ppmv	ND	6.5	mg/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.50	0.15	ppmv	ND	1.8	mg/m3
	72	TPH as Equiv Pentane	ND	5.0	1.0	ppmv	ND	15	mg/m3
		-							

 CAS No.
 Surrogate Recoveries
 Run# 1
 Run# 2
 Limits

 460-00-4
 4-Bromofluorobenzene
 95%
 58-132%

 460-00-4
 4-Bromofluorobenzene
 83%
 58-132%

(a) Sample analyzed beyond hold time; reported results are considered minimum values.

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Client Sample ID: R1

Lab Sample ID:

F74410-2

AIR - Air

EPA TO-3

MWHCOD: San Juan River Basin Program

Date Sampled: 06/11/10

Date Received: 06/15/10

Percent Solids: n/a

File ID DF Analyzed By Prep Date Prep Batch Analytical Batch Run #1 a HH035761.D 06/15/10 NJ n/a n/a **GHH1674** 1

Run #2

Matrix:

Method:

Project:

Initial Volume

Run #1 0.50 ml

Run #2

Purgeable Aromatics

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
71-43-2 108-88-3 100-41-4 1330-20-7 1634-04-4	78.11 92.14 106.2 106.2 88.15	Benzene Toluene Ethylbenzene Xylenes (total) Methyl Tert Butyl Ether TPH as Equiv Pentane	ND ND ND ND ND ND	0.50 0.50 0.50 1.5 0.50 5.0	0.11 0.10 0.10 0.30 0.15 1.0	ppmv ppmv ppmv ppmv ppmv	ND ND ND	1.6 1.9 2.2 6.5 1.8	mg/m3 mg/m3 mg/m3 mg/m3 mg/m3
		1				11			0

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	95%		58-132%
460-00-4	4-Bromofluorobenzene	76%		58-132%

(a) Sample analyzed beyond hold time; reported results are considered minimum values.

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID: AMBIENT

Lab Sample ID:

F74410-3

Date Sampled:

06/11/10

Matrix:

AIR - Air

Date Received: 06/15/10

Method:

EPA TO-3

Percent Solids: n/a

Project:

MWHCOD: San Juan River Basin Program

Run #1 a

File ID HH035763.D DF 1

Analyzed 06/15/10

By NJ Prep Date n/a

Prep Batch n/a

Analytical Batch GHH1674

Run #2

Initial Volume

Run #1

0.50 ml

Run #2

Purgeable Aromatics

CAS No.	$\mathbf{M}\mathbf{W}$	Compound	Result	RL	MDL	Units Q	Result	RL	Units
71-43-2 108-88-3 100-41-4 1330-20-7 1634-04-4	78.11 92.14 106.2 106.2 88.15 72	Benzene Toluene Ethylbenzene Xylenes (total) Methyl Tert Butyl Ether TPH as Equiv Pentane	ND ND ND ND ND ND	0.50 0.50 0.50 1.5 0.50 5.0	0.11 0.10 0.10 0.30 0.15 1.0	ppmv ppmv ppmv ppmv ppmv	ND ND ND ND ND ND	1.6 1.9 2.2 6.5 1.8	mg/m3 mg/m3 mg/m3 mg/m3 mg/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		58-132%
460-00-4	4-Bromofluorobenzene	78%		58-132%

(a) Sample analyzed beyond hold time; reported results are considered minimum values.

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound





Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- · Chain of Custody



ACCUTEST.		· · · · · · · · · · · · · · · · · · ·	CHAI	rwin Dr, Si	te 150 Ho	uston	TX 77	7036	Υ				FED-EX T	racking #	74	141	0	Bottle Ord	der Control		_ 0	F
Laboratories			TEL. 71	3-271-470 www.i	0 FAX:		271-47	70					Accutest C	luota #				Accufest .	Job #			.,
Client / Reporting Information	Project Name:		Project	Informa	itlon	0000		, A.	46.	464					Re	ques	ted	Anal	yses	-	_	Matrix Codes
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F74410: Chain of Custody Page 1 of 2

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RECEIVED WATER TRIP BLANK RECEIVED SOIL TRIP BLANK MISC. INFORMATION NUMBER OF ENCORES? NUMBER OF 5035 FIELD KITS? NUMBER OR LAB FILTERED METALS? SUMMARY OF COMMENTS: NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS SAMPLE CONTAINER(S) RECEIVED BROKEN % SOLIDS JAR NOT RECEIVED 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S RESIDUAL CHLORINE PRESENT (APPICABLE TO EVA 600 SERIES OR NORTH CAROLINA ORGANICS)	CUSTODY SEAL NOT PRESENT OR NOT INTACT CHAIN OF CUSTODY NOT RECEIVED (COC) ANALYSIS REQUESTED IS UNCLEAR OR MISSING SAMPLE DATES OR TIMES UNCLEAR OR MISSING TEMPERATURE CRITERIA NOT MET WET ICE PRESENT TRIP BLANK INFORMATION TRIP BLANK PROVIDED TRIP BLANK NOT PROVIDED TRIP BLANK NOT ON COC TRIP BLANK INTACT TRIP BLANK INTACT TRIP BLANK NOT INTACT RECEIVED WATER TRIP BLANK RECEIVED SOIL TRIP BLANK RECEIVED SOIL TRIP BLANK MISC. INFORMATION NUMBER OF 5035 FIELD KITS? NUMBER OR LAB FILTERED METALS?	IR THERM ID NA CORR FACTOR WA OBSERVED TEMPS: CORRECTED TEMPS: SAMPLE INFORMATION SAMPLE LABELS PRESENT ON ALL BOTTLES INCORRECT NUMBER OF CONTAINERS USED SAMPLE RECEIVED IMPROPERLY PRESERVED INSUFFICIENT VOLUME FOR ANALYSIS DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL ID'S ON COC DO NOT MATCH LABEL VOC VIALS HAVE HEADSPACE (MACRO BUBBLES) BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS SAMPLE CONTAINER(S) RECEIVED BROKEN % SOLIDS JAR NOT RECEIVED 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S RESIDUAL CHLORINE PRESENT

F74410: Chain of Custody Page 2 of 2

10 of 14 **ACCUTEST.**



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Page 1 of 1

Method Blank Summary

Job Number: F74410

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCOD: San Juan River Basin Program

Sample GHH1674-MB	File ID HH035759	DF D1	Analyzed 06/15/10	By NJ	Prep Date n/a	Prep Batch n/a	Analytical Batch GHH1674
							-

The QC reported here applies to the following samples:

Method: EPA TO-3

F74410-1, F74410-2, F74410-3

CAS No.	Compound	Result	RL	Units Q	Result	RL	Units
1634-04-4 71-43-2 108-88-3 100-41-4 1330-20-7	Methyl Tert Butyl Ether Benzene Toluene Ethylbenzene Xylenes (total) TPH as Equiv Pentane	ND ND ND ND ND	0.50 0.50 0.50 0.50 1.5 5.0	ppmv ppmv ppmv ppmv ppmv	ND ND ND ND ND ND	1.8 1.6 1.9 2.2 6.5 15	mg/m3 mg/m3 mg/m3 mg/m3 mg/m3
CAS No.	Surrogate Recoveries		Limits	S			
460-00-4 460-00-4	4-Bromofluorobenzene 4-Bromofluorobenzene	97% 72%	58-132 58-132				



Page 1 of 1

Blank Spike Summary Job Number: F74410

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCOD: San Juan River Basin Program

Sample	File ID DF	Analyzed 06/15/10	By	Prep Date	Prep Batch	Analytical Batch
GHH1674-BS	HH035758.D1		NJ	n/a	n/a	GHH1674

The QC reported here applies to the following samples:

Method: EPA TO-3

F74410-1, F74410-2, F74410-3

1634-04-4 Methyl Tert Butyl Ether 10 9.7 97 65-106 71-43-2 Benzene 10 9.9 99 66-114 108-88-3 Toluene 10 9.7 97 60-123 100-41-4 Ethylbergers 10 9.6 96 62-100	CAS No.	Compound	Spike ppmv	BSP ppmv	BSP %	Limits
108-88-3 Toluene 10 9.7 97 60-123						
20 00 00 100						
100 41 4 Ethylhograps 10 0 C 0C C2 100	108-88-3	2 0240	10	9.7	97	60-123
100-41-4 Ethylpenzene 10 9.6 96 62-109	100-41-4	Ethylbenzene	10	9.6	96	62-109
1330-20-7 Xylenes (total) 30 28.5 95 62-111	1330-20-7	Xylenes (total)	30	28.5	95	62-111
TPH as Equiv Pentane 135 126 93 62-111		TPH as Equiv Pentane	135	126	93	62-111
CAS No. Surrogate Recoveries BSP Limits	CAS No.	Surrogate Recoveries	BSP	Lim	its	
460-00-4 4-Bromofluorobenzene 97% 58-132%	460-00-4	4-Bromofluorobenzene	97%	58-1	32%	
460-00-4 4-Bromofluorobenzene 85% 58-132%	460-00-4	4-Bromofluorobenzene	85%	58-1	32%	



Page 1 of 1

Duplicate Summary Job Number: F74410

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCOD: San Juan River Basin Program

Sample	File ID DF	Analyzed 06/15/10 06/15/10	By	Prep Date	Prep Batch	Analytical Batch
F74410-2DUP	HH035762.D1		NJ	n/a	n/a	GHH1674
F74410-2 a	HH035761.D1		NJ	n/a	n/a	GHH1674

The QC reported here applies to the following samples:

Method: EPA TO-3

F74410-1, F74410-2, F74410-3

CAS No.	Compound	F74410-2 ppmv Q	DUP ppmv Q	RPD	Limits
1634-04-4 71-43-2 108-88-3 100-41-4 1330-20-7	Methyl Tert Butyl Ether Benzene Toluene Ethylbenzene Xylenes (total) TPH as Equiv Pentane	ND ND ND ND ND ND	ND ND ND ND ND ND	nc nc nc nc nc	13 10 12 13 13
CAS No. 460-00-4 460-00-4	Surrogate Recoveries 4-Bromofluorobenzene 4-Bromofluorobenzene	DUP 95% 72%	F74410-2 95% 76%	Limits 58-1329 58-1329	

⁽a) Sample analyzed beyond hold time; reported results are considered minimum values.





11/02/10





Technical Report for

EL PASO CORPORATION

MWHCODE: San Juan River Basin Program

Jaquez Sites

Accutest Job Number: T54504

Sampling Date: 06/10/10

Report to:

MWH

jed.smith@mwhglobal.com

ATTN: Jed Smith

Total number of pages in report: 30



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro Laboratory Director

Client Service contact: Georgia Jones 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103)

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Sample Summary

EL PASO CORPORATION

Job No:

T54504

MWHCODE: San Juan River Basin Program Project No: Jaquez Sites

Sample Number	Collected Date	Time By	Received	Matr Code		Client Sample ID
T54504-1	06/10/10	09:23 JL	06/15/10	AQ	Ground Water	R4
T54504-2	06/10/10	09:45 JL	06/15/10	AQ	Ground Water	R6
T54504-3	06/10/10	10:26 JL	06/15/10	AQ	Ground Water	R1
T54504-4	06/10/10	10:58 JL	06/15/10	AQ	Ground Water	R2
T54504-5	06/10/10	11:27 JL	06/15/10	AQ	Ground Water	R3
T54504-6	06/10/10	11:56 JL	06/15/10	AQ	Ground Water	R5
T54504-7	06/10/10	12:38 JL	06/15/10	AQ	Ground Water	M7
T54504-8	06/10/10	12:56 JL	06/15/10	AQ	Ground Water	M1
T54504-9	06/10/10	13:29 JL	06/15/10	AQ	Ground Water	M3
T54504-10	06/10/10	14:53 JL	06/15/10	AQ	Ground Water	M4
T54504-11	06/10/10	15:20 JL	06/15/10	AQ	Ground Water	M5
T54504-12	06/10/10	15:48 JL	06/15/10	AQ	Ground Water	M2
T54504-13	06/10/10	16:32 JL	06/15/10	AQ	Ground Water	M6

Sample Summary (continued)

EL PASO CORPORATION

Job No:

T54504

MWHCODE: San Juan River Basin Program Project No: Jaquez Sites

Sample	Collected			Matr	ix	Client	
Sample Number	Date	Time By	Received	Code	Туре	Sample ID	
T54504-14	06/10/10	17:00 JL	06/15/10	AQ	Trip Blank Water	TRIP BLANK	



SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EL PASO CORPORATION

Job No

T54504

Site:

MWHCODE: San Juan River Basin Program

Report Date

7/7/2010 1:40:37 PM

13 Sample(s) and 1 Trip Blank(s) were collected on 06/10/2010 and were received at Accutest on 06/15/2010 properly preserved, at 4.1 Deg. C and intact. These Samples received an Accutest job number of T54504. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ

Batch ID: VC451

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T54504-1MS, T54504-1MSD were used as the QC samples indicated.

Matrix AQ

Batch ID: VF3896

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T54504-12MS, T54504-12MSD were used as the QC samples indicated.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used



Sample Results	
Report of Analysis	

Client Sample ID:

R4

Lab Sample ID: T54504-1

AQ - Ground Water

Date Sampled:

Matrix:

Date Received:

06/10/10 06/15/10

Method:

SW846 8260B

Percent Solids: n/a

Project:

MWHCODE: San Juan River Basin Program

DF

1

File ID C0010070.D

Analyzed 06/18/10

By RR Prep Date n/a

Prep Batch n/a

Analytical Batch VC451

Run #1 Run #2

Purge Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	
95-47-6	o-Xylene	ND	2.0	ug/l	
	m,p-Xylene	ND	4.0	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its
1868-53-7	Dibromofluoromethane	112%		79-1	22%
17060-07-0	1,2-Dichloroethane-D4	108%		75-1	21%
2037-26-5	Toluene-D8	105%		87-1	19%
460-00-4	4-Bromofluorobenzene	88%		80-1	33%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



By

RR

Page 1 of 1

Client Sample ID: R6

Lab Sample ID: T54504-2

Matrix: Method: AQ - Ground Water

DF

1

SW846 8260B

Date Sampled: 06/10/10

Date Received:

06/15/10

Percent Solids: n/a

Prep Date

n/a

Project:

MWHCODE: San Juan River Basin Program

Analyzed

06/18/10

Analytical Batch Prep Batch

n/a

VC451

Run #1 Run #2

Purge Volume

C0010082.D

Run #1

5.0 ml

File ID

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units Q
71-43-2 108-88-3 100-41-4	Benzene Toluene Ethylbenzene	ND ND ND	2.0 2.0 2.0	ug/l ug/l ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
95-47-6	o-Xylene	ND	2.0	ug/l
	m,p-Xylene	ND	4.0	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		79-122%
17060-07-0	1,2-Dichloroethane-D4	107%		75-121%
2037-26-5	Toluene-D8	103%		87-119%
460-00-4	4-Bromofluorobenzene	88%		80-133%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

RR

Client Sample ID: R1

Lab Sample ID:

T54504-3

AQ - Ground Water

Date Sampled:

Prep Date

n/a

06/10/10

Date Received:

06/15/10

Matrix: Method:

SW846 8260B

Percent Solids: n/a

Project:

DF

1

MWHCODE: San Juan River Basin Program

Analyzed

06/18/10

Analytical Batch Prep Batch

n/a

VC451

Run #1 Run #2

Purge Volume

Run #1

5.0 ml

File ID

C0010083.D

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units Q
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6	Benzene Toluene Ethylbenzene Xylene (total) o-Xylene m,p-Xylene	ND ND ND ND ND ND	2.0 2.0 2.0 6.0 2.0 4.0	ug/l ug/l ug/l ug/l ug/l ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	110% 109% 103% 87%		79-122% 75-121% 87-119% 80-133%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: R2

Lab Sample ID:

T54504-4

AQ - Ground Water

DF

1

Date Sampled: 06/10/10

Prep Date

n/a

Matrix:

Date Received:

06/15/10

Method:

SW846 8260B

Percent Solids: n/a

Project:

MWHCODE: San Juan River Basin Program

Analyzed

06/18/10

Prep Batch

Analytical Batch

Run #1 Run #2 C0010084.D

File ID

RR

By

n/a

VC451

Purge Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	ND	2.0	ug/l
108-88-3	Toluene	ND	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
95-47-6	o-Xylene	ND	2.0	ug/l
	m,p-Xylene	ND	4.0	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		79-122%
17060-07-0	1,2-Dichloroethane-D4	110%		75-121%
2037-26-5	Toluene-D8	102%		87-119%
460-00-4	4-Bromofluorobenzene	89%		80-133%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

RR

Page 1 of 1

Client Sample ID:

R3

Lab Sample ID: T54504-5

Matrix: Method: AQ - Ground Water

DF

1

SW846 8260B

Date Sampled: Date Received:

06/10/10

06/15/10

n/a

Percent Solids: n/a

Project:

MWHCODE: San Juan River Basin Program

Analyzed

06/18/10

Prep Date

Prep Batch

Analytical Batch

VC451 n/a

Run #1 Run #2

Purge Volume

Run #1

5.0 ml

File ID

C0010085.D

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL -	Units Q
71-43-2	Benzene	ND	2.0	ug/l
108-88-3	Toluene	ND	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
95-47-6	o-Xylene	ND	2.0	ug/l
	m,p-Xylene	ND	4.0	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		79-122%
17060-07-0	1,2-Dichloroethane-D4	108%		75-121%
2037-26-5	Toluene-D8	103%		87-119%
460-00-4	4-Bromofluorobenzene	89%		80-133%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: R5

Lab Sample ID: T54504-6

Matrix:

AQ - Ground Water

SW846 8260B

Date Sampled: Date Received:

06/10/10

06/15/10

Percent Solids: n/a

Method: Project:

MWHCODE: San Juan River Basin Program

File ID Run #1

DF C0010086.D 1

Analyzed 06/18/10

Prep Date By RR n/a

Prep Batch

Analytical Batch

n/a VC451

Run #2

Purge Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	ND	2.0	ug/l
108-88-3	Toluene	ND	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
95-47-6	o-Xylene	ND	2.0	ug/l
	m,p-Xylene	ND	4.0	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		79-122%
17060-07-0	1,2-Dichloroethane-D4	110%		75-121%
2037-26-5	Toluene-D8	104%		87-119%
460-00-4	4-Bromofluorobenzene	89%		80-133%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

RR

Client Sample ID: M7

Lab Sample ID:

Matrix:

T54504-7

AQ - Ground Water

DF

1

C0010087.D

SW846 8260B

Date Sampled: Date Received:

Prep Date

n/a

06/10/10

06/15/10

Percent Solids: n/a

Method: Project:

MWHCODE: San Juan River Basin Program

Analyzed

06/18/10

Prep Batch

Analytical Batch

VC451 n/a

Run #1 Run #2

Purge Volume

Run #1

5.0 ml

File ID

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	
95-47-6	o-Xylene	ND	2.0	ug/l	
	m,p-Xylene	ND	4.0	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts
1868-53-7	Dibromofluoromethane	112%		79-12	22%
17060-07-0	1,2-Dichloroethane-D4	110%		75-12	21%
2037-26-5	Toluene-D8	104%		87-11	19%
460-00-4	4-Bromofluorobenzene	88%		80-13	33%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: M1

Lab Sample ID: T54504-8

Matrix:

AQ - Ground Water

Method:

SW846 8260B

Date Sampled: Date Received:

06/10/10 06/15/10

Percent Solids: n/a

Project:

MWHCODE: San Juan River Basin Program

File ID Run #1

C0010088.D

DF

Analyzed By 06/18/10 RR Prep Date n/a

Prep Batch n/a

Analytical Batch

VC451

Run #2

Purge Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	ND	2.0	ug/l
108-88-3	Toluene	ND	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
95-47-6	o-Xylene	ND	2.0	ug/l
	m,p-Xylene	ND	4.0	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		79-122%
17060-07-0	1,2-Dichloroethane-D4	110%		75-121%
2037-26-5	Toluene-D8	103%		87-119%
460-00-4	4-Bromofluorobenzene	85%		80-133%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

RR

Client Sample ID: M3

Lab Sample ID:

T54504-9

AQ - Ground Water

Date Sampled: Date Received: 06/15/10

06/10/10

Matrix: Method:

SW846 8260B

DF

1

Prep Date

n/a

Project:

Percent Solids: n/a

MWHCODE: San Juan River Basin Program

Analyzed

06/18/10

Prep Batch n/a

Analytical Batch VC451

Run #1

Run #2

Purge Volume

Run #1

5.0 ml

File ID

C0010089.D

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units Q
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6	Benzene Toluene Ethylbenzene Xylene (total) o-Xylene m,p-Xylene	ND ND ND ND ND ND	2.0 2.0 2.0 6.0 2.0 4.0	ug/l ug/l ug/l ug/l ug/l ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	112% 109% 103% 90%		79-122% 75-121% 87-119% 80-133%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: M4

Lab Sample ID: T54504-10

Matrix:

AQ - Ground Water

SW846 8260B

Date Sampled:

06/10/10 06/15/10

Date Received:

Percent Solids:

n/a

Method: Project:

MWHCODE: San Juan River Basin Program

Analytical Batch

File ID DF Prep Date Analyzed By Prep Batch VC451 Run #1 C0010090.D 06/18/10 RR n/a 1 n/a VF3896 Run #2 F026598.D 5 06/21/10 RR n/a n/a

Purge Volume

Run #1 5.0 ml

Run #2

5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	147 a	10	ug/l
108-88-3	Toluene	ND	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	139	6.0	ug/l
95-47-6	o-Xylene	ND	2.0	ug/l
	m,p-Xylene	139	4.0	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%	84%	79-122%
17060-07-0	1,2-Dichloroethane-D4	106%	80%	75-121%
2037-26-5	Toluene-D8	106%	91%	87-119%
460-00-4	4-Bromofluorobenzene	86%	111%	80-133%

(a) Result is from Run# 2

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

RR

Page 1 of 1

Client Sample ID: M5

Lab Sample ID: T54504-11

AQ - Ground Water

Date Sampled:

06/10/10

Matrix:

Date Received: 06/15/10

Method:

SW846 8260B

1

Percent Solids: n/a

Project:

MWHCODE: San Juan River Basin Program

Prep Batch Analytical Batch

Run #1 Run #2

DF Analyzed By

06/21/10

Prep Date

n/a

VF3896 n/a

Run #1

Purge Volume 5.0 ml

File ID

F026599.D

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	ND	2.0	ug/l
108-88-3	Toluene	ND	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
95-47-6	o-Xylene	ND	2.0	ug/l
	m,p-Xylene	ND	4.0	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		79-122%
17060-07-0	1,2-Dichloroethane-D4	81%		75-121%
2037-26-5	Toluene-D8	90%		87-119%
460-00-4	4-Bromofluorobenzene	111%		80-133%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: M2

Lab Sample ID:

T54504-12

Date Sampled:

06/10/10

Matrix:

AQ - Ground Water

Date Received:

06/15/10

Method:

SW846 8260B

Percent Solids: n/a

Project:

MWHCODE: San Juan River Basin Program

Prep Batch

Analytical Batch

Run #1

File ID F026593.D DF Analyzed 06/21/10 1

By RR Prep Date n/a

n/a

VF3896

Run #2

Purge Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	ND	2.0	ug/l
108-88-3	Toluene	ND	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
95-47-6	o-Xylene	ND	2.0	ug/l
	m,p-Xylene	ND	4.0	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		79-122%
17060-07-0	1,2-Dichloroethane-D4	81%		75-121%
2037-26-5	Toluene-D8	91%		87-119%
460-00-4	4-Bromofluorobenzene	111%		80-133%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

RR

Page 1 of 1

Client Sample ID:

M6

T54504-13

Date Sampled: 06/10/10

Lab Sample ID: Matrix:

AQ - Ground Water

Date Received: 06/15/10

Method:

SW846 8260B

Percent Solids: n/a

Project:

DF

1

MWHCODE: San Juan River Basin Program

Analyzed

06/21/10

Prep Date

n/a

Prep Batch n/a

Analytical Batch VF3896

Run #1 Run #2

Run #1

Purge Volume 5.0 ml

File ID

F026600.D

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	ND	2.0	ug/l
108-88-3	Toluene	ND	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
95-47-6	o-Xylene	ND	2.0	ug/l
	m,p-Xylene	ND	4.0	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		79-122%
17060-07-0	1,2-Dichloroethane-D4	80%		75-121%
2037-26-5	Toluene-D8	91%		87-119%
460-00-4	4-Bromofluorobenzene	112%		80-133%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: Lab Sample ID:

TRIP BLANK

T54504-14

Date Sampled: 06/10/10

Matrix:

AQ - Trip Blank Water

Date Received:

Prep Date

n/a

06/15/10

Method: Project:

SW846 8260B

Percent Solids: n/a

MWHCODE: San Juan River Basin Program

File ID Run #1 C0010069.D DF Analyzed 1 06/18/10

By RR Prep Batch

n/a

Analytical Batch VC451

Run #2

Purge Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	ND	2.0	ug/l
108-88-3	Toluene	ND	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
95-47-6	o-Xylene	ND	2.0	ug/l
	m,p-Xylene	ND	4.0	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		79-122%
17060-07-0	1,2-Dichloroethane-D4	111%		75-121%
2037-26-5	Toluene-D8	102%		87-119%
460-00-4	4-Bromofluorobenzene	92%		80-133%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody





CHAIN OF CUSTODY

Laboratories									FI	ED-EX	Tracking t	,			Battle Orde	r Control #		1 090
10165 Harwin, Suite 150 - Houst	on, TX 77036	- 713-271	-4700 f	ax:	713-	271	-477	70	^	ccutest	Quote #	Levino City Ch.			Accutest Jo	T-5	45	104
Client / Reporting Information	NOTE THE REPORT ASSESSED.	discount De	ect Informa	tlan	经验 系统	Active High	Threes.	-	Period A	273 et 140 273 et 140	AL ANTH			Dagues	ted Anal	WAS	de la companiona	Matrix Codes
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MWH		Manager 1																GW - Ground Water
Project Contact E-Mail	Bill to				Involce	Attn.			\neg					1 1				WW - Wastewater
Jed Smith jed.smith@mwhgloba		Pipeline		lan	Yana		12							1 1				SO - Soll
Address	Address	· ipaiire		1011	rana	giour								1 1				SL - Sludge
1801 California Street, Suite 2900	P.O. B	ox 2511												1 1				01-01
City State	Zip City			Stat	0			Zlp										LIQ - Liquid
Denver CO	80202 Housto	n		TX				7725	2					ΙI				SOL - Other Solid
Phone No. Fax	No. Phone N	D.					Fax	No.										
303-291-2276	713 42	0-736																
Samplers's Name Julie Linn, RG	Client Po	rchase Order#								EX/8021								
Accutest	Collect	ion		N	umber	of pre	serve	d bott	les	88								
Sample # Field ID / Point of Collection		_	# of		NaOH	H2SO4	WCOR.	MEOH	NONE	вте								LAB USE ONLY
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4 R2		1058	GW 3	X						X								
5 R3		1127	GW 3	Х		П				X								
6 R5		1156	GW 3	х						X								
7 M7		1230	GW 3	X						X								
8 M 1		125%	GW 3	X						X								
9 m 3		1329	GW 3	X						X								
10 m 4	1	1452	GW 3	X				\Box		Z								
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T54504: Chain of Custody Page 1 of 2

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CHAIN OF CUSTODY

ACCUTEST.												FED-EX	Tracking				Bottle On	der Control			Page Zof 2
10165 Harwin, Suite 150 - Ho	ouston, TX	77036 -	713-27	1-470	00 fa	x: ′	713-	-271	1-47	770		Accutes	t Quota #				Accutest	Job #	54	50	4
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AWH																					GW - Ground Water
roject Contact E-M	all	Bill to					Involc	e Attn.				1									WW - Wastewater
ed Smith jed.smith@mwh	global.com	EPNG P	ipeline			lan	Yana	agisa	wa									- 1			SD - Soil
ddress		Address										1									SL - Sludge
801 California Street, Suite 2900		P.O. Box	2511																		01 - 01
Ity State	Zip	City				State	9				Zip	1									LIQ - Liquid
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implers's Name		Client Purc	hase Order#									27				1			1 1		
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T54504: Chain of Custody Page 2 of 2



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T54504

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample VC451-MB	File ID C0010068.	DF D 1	Analyzed 06/18/10	-	Prep Date n/a	Prep Batch n/a	Analytical Batch VC451
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The QC reported here applies to the following samples:

Method: SW846 8260B

T54504-1, T54504-2, T54504-3, T54504-4, T54504-5, T54504-6, T54504-7, T54504-8, T54504-9, T54504-10, T54504-

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	
	m,p-Xylene	ND	4.0	ug/l	
95-47-6	o-Xylene	ND	2.0	ug/l	
CAS No.	Surrogate Recoveries		Limits		
1868-53-7	Dibromofluoromethane	110%	79-1229	%	
17060-07-0	1,2-Dichloroethane-D4	109%	75-1219	%	
2037-26-5	Toluene-D8	103%	87-1199	%	
460-00-4	4-Bromofluorobenzene	88%	80-1339	%	



Method Blank Summary

Job Number:

T54504

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample VF3896-MB	File ID F026585.D	DF 1	Analyzed 06/21/10	By RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VF3896

The QC reported here applies to the following samples:

Method: SW846 8260B

T54504-10, T54504-11, T54504-12, T54504-13

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	ND	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
108-88-3	Toluene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
	m,p-Xylene	ND	4.0	ug/l
95-47-6	o-Xylene	ND	2.0	ug/l
CAS No.	Surrogate Recoveries		Limits	
1868-53-7	Dibromofluoromethane	86%	79-122	%
17060-07-0	1,2-Dichloroethane-D4	82%	75-121	%
2037-26-5	Toluene-D8	94%	87-119	%
460-00-4	4-Bromofluorobenzene	113%	80-133	%

Blank Spike Summary Job Number: T54504

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID DF	Analyzed 06/18/10	By	Prep Date	Prep Batch	Analytical Batch
VC451-BS	C0010066.D 1		RR	n/a	n/a	VC451

The QC reported here applies to the following samples:

Method: SW846 8260B

 $T54504-1,\ T54504-2,\ T54504-3,\ T54504-4,\ T54504-5,\ T54504-6,\ T54504-7,\ T54504-8,\ T54504-9,\ T54504-10,\ T$

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	26.3	105	76-118
100-41-4	Ethylbenzene	25	24.1	96	75-112
108-88-3	Toluene	25	25.1	100	77-114
1330-20-7	Xylene (total)	75	72.0	96	75-111
	m,p-Xylene	50	48.3	97	75-112
95-47-6	o-Xylene	25	23.7	95	74-110
CAS No.	Surrogate Recoveries	BSP	Lin	nits	
1868-53-7	Dibromofluoromethane	109%	79-	-122%	
17060-07-0	1,2-Dichloroethane-D4	109%	75-	121%	
2037-26-5	Toluene-D8	105%	87-	119%	
460-00-4	4-Bromofluorobenzene	90%	80-	133%	



Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID	DF	Analyzed 06/21/10	By	Prep Date	Prep Batch	Analytical Batch
VF3896-BS	F026583.D	1		RR	n/a	n/a	VF3896

The QC reported here applies to the following samples:

Method: SW846 8260B

T54504-10, T54504-11, T54504-12, T54504-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	20.5	82	76-118
100-41-4	Ethylbenzene	25	20.5	82	75-112
108-88-3	Toluene	25	20.6	82	77-114
1330-20-7	Xylene (total)	75	62.6	83	75-111
	m,p-Xylene	50	41.9	84	75-112
95-47-6	o-Xylene	25	20.7	83	74-110
CAS No.	Surrogate Recoveries	BSP	Lin	nits	
1868-53-7	Dibromofluoromethane	84%	79-1	122%	
17060-07-0	1,2-Dichloroethane-D4	83%	75-	121%	
2037-26-5	Toluene-D8	91%	87-	119%	
460-00-4	4-Bromofluorobenzene	110%	80-	133%	



Method: SW846 8260B

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T54504

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample T54504-1MS T54504-1MSD T54504-1	File ID C0010071.D C0010072.D C0010070.D	1	Analyzed 06/18/10 06/18/10 06/18/10	By RR RR RR	Prep Date n/a n/a n/a	Prep Batch n/a n/a n/a	Analytical Batch VC451 VC451 VC451

The QC reported here applies to the following samples:

 $T54504-1,\ T54504-2,\ T54504-3,\ T54504-4,\ T54504-5,\ T54504-6,\ T54504-7,\ T54504-8,\ T54504-9,\ T54504-10,\ T$

CAS No.	Compound	T54504-1 ug/l Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	25	24.4	98	23.8	95	2	76-118/16
100-41-4	Ethylbenzene	ND	25	22.4	90	21.6	86	4	75-112/12
108-88-3	Toluene	ND	25	23.2	93	22.5	90	3	77-114/12
1330-20-7	Xylene (total)	ND	75	67.0	89	64.5	86	4	75-111/12
	m,p-Xylene	ND	50	45.1	90	43.4	87	4	75-112/12
95-47-6	o-Xylene	ND	25	22.0	88	21.1	84	4	74-110/11
CAS No.	Surrogate Recoveries	MS	MSD	T54	504-1	Limits			
1868-53-7	Dibromofluoromethane	109%	108%	1129	%	79-122%)		
17060-07-0	1,2-Dichloroethane-D4	106%	104%	1089	%	75-121%)		
2037-26-5	Toluene-D8	104%	103%	1059	%	87-119%)		
460-00-4	4-Bromofluorobenzene	90%	89%	88%)	80-133%)		

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T54504

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample File ID DF T54504-12MS F026594.D 1 T54504-12MSD F026596.D 1 T54504-12 F026593.D 1	Analyzed By	Prep Date	Prep Batch	Analytical Batch
	06/21/10 RR	n/a	n/a	VF3896
	06/21/10 RR	n/a	n/a	VF3896
	06/21/10 RR	n/a	n/a	VF3896

The QC reported here applies to the following samples:

Method: SW846 8260B

T54504-10, T54504-11, T54504-12, T54504-13

CAS No.	Compound	T54504-12 ug/l Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	25	19.9	80	19.2	77	4	76-118/16
100-41-4	Ethylbenzene	ND	25	19.9	80	19.2	77	4	75-112/12
108-88-3	Toluene	ND	25	20.0	80	19.5	78	3	77-114/12
1330-20-7	Xylene (total)	ND	75	60.9	81	58.8	78	4	75-111/12
	m,p-Xylene	ND	50	40.5	81	39.1	78	4	75-112/12
95-47-6	o-Xylene	ND	25	20.4	82	19.7	79	3	74-110/11
CAS No.	Surrogate Recoveries	MS	MSD	T54	504-12	Limits			
1868-53-7	Dibromofluoromethane	83%	82%	84%)	79-122%			
17060-07-0	1,2-Dichloroethane-D4	82%	81%	81%)	75-121%			
2037-26-5	Toluene-D8	89%	90%	91%)	87-119%			
460-00-4	4-Bromofluorobenzene	108%	106%	1119	%	80-133%	•		



07/07/10



Technical Report for

EL PASO CORPORATION

MWHCODE: San Juan River Basin Program

Jaquez Site

Accutest Job Number: T54517

Sampling Date: 06/11/10

Report to:

MWH

jed.smith@mwhglobal.com

ATTN: Jed Smith

Total number of pages in report: 35





Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul Canevaro Laboratory Director

Paul K Carrevaro

Client Service contact: Georgia Jones 713-271-4700

Certifications: TX (T104704220-09C-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700)

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Sample Summary

EL PASO CORPORATION

Job No:

T54517

MWHCODE: San Juan River Basin Program Project No: Jaquez Site

Sample Number	Collected Date	Time By	Received	Matri		Client Sample ID
T54517-1	06/11/10	10:28 JL	06/15/10	SO	Soil	SB 3-5
T54517-2	06/11/10	13:12 JL	06/15/10	SO	Soil	SB 9-4
T54517-3	06/11/10	14:05 JL	06/15/10	SO	Soil	SB 11-32
T54517-4	06/11/10	12:11 JL	06/15/10	SO	Soil	SB 6-1

Soil samples reported on a dry weight basis unless otherwise indicated on result page.





SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:

EL PASO CORPORATION

Job No

T54517

Site:

MWHCODE: San Juan River Basin Program

Report Date

7/7/2010 1:41:46 PM

4 Sample(s) were collected on 06/11/2010 and were received at Accutest on 06/15/2010 properly preserved, at 2.4 Deg. C and intact. These Samples received an Accutest job number of T54517. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix SO

Batch ID: VM1069

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T54357-6MS, T54357-6MSD were used as the QC samples indicated.

Matrix SO

Batch ID: VY2544

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T54623-4MS, T54623-4MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015

Matrix SO

Batch ID: GEE2855

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T54517-2MS, T54517-2MSD were used as the QC samples indicated.

Extractables by GC By Method SW846 8015 M

Matrix SO

Batch ID: OP15183

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM 2540 G

Matrix SO

Batch ID: GN23517

Sample(s) T54412-8DUP were used as the QC samples for Solids, Percent.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used



Sample Results

Report of Analysis



Client Sample ID:

Lab Sample ID:

SB 3-5 T54517-1

Matrix: Method: SO - Soil

File ID

SW846 8260B

Date Sampled:

06/11/10

Date Received:

06/15/10

Project:

Percent Solids: 87.2

MWHCODE: San Juan River Basin Program

Prep Date

Prep Batch

Analytical Batch

Run #1

Y0040687.D

Analyzed 06/18/10

By FI

n/a

n/a

VY2544

Run #2

Initial Weight

5.68 g

Final Volume 5.0 ml

DF

1

Run #1 Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	4.0	0.71	ug/kg	
108-88-3	Toluene	ND	4.0	0.96	ug/kg	
100-41-4	Ethylbenzene	ND	4.0	0.91	ug/kg	
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg	
95-47-6	o-Xylene	ND	4.0	0.65	ug/kg	
	m,p-Xylene	ND	8.1	1.5	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	76%		70-1	21%	
2037-26-5	Toluene-D8	78%		76-1	32%	
460-00-4	4-Bromofluorobenzene	91%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	57%		57-1	22%	

MDL - Method Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID:

SB 3-5 T54517-1

Lab Sample ID: Matrix:

SO - Soil

SW846 8015

Date Sampled:

06/11/10 06/15/10

Date Received: Percent Solids: 87.2

Method: Project:

MWHCODE: San Juan River Basin Program

DF 1

Analyzed 06/17/10

By LB Prep Date

Prep Batch

Analytical Batch

Run #1 Run #2

EE055801.D

Final Volume

n/a

n/a

GEE2855

Initial Weight

File ID

5.81 g

5.0 ml

Methanol Aliquot 100 ul

Run #1 Run #2

CAS No.

Compound

Result

RL

MDL Units Q

TPH-GRO (C6-C10)

ND

5.7

mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

0.34

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

108% 89%

46-127% 44-120%

ND = Not detected

RL = Reporting Limit E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

EM

Page 1 of 1

Client Sample ID: Lab Sample ID:

SB 3-5 T54517-1

Date Sampled:

SO - Soil

Date Received:

06/19/10

06/11/10

Matrix: Method:

SW846 8015 M SW846 3550B

06/15/10

OP15183

Percent Solids: 87.2

Project:

MWHCODE: San Juan River Basin Program

Analyzed

06/29/10

Prep Date

Prep Batch

Analytical Batch **GIF1044**

Run #1 Run #2

Initial Weight

Final Volume

DF

1

Run #1

30.3 g

File ID

IF199058.D

1.0 ml

Run #2

CAS No. Compound Result

RL MDL

3.8

3.8

Units

Q

TPH (C10-C28)

TPH (> C28-C40)

ND

3.1

mg/kg mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

2.5

Limits

84-15-1

o-Terphenyl

60%

ND

33-115%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

By

FI

Page 1 of 1

Client Sample ID: Lab Sample ID:

SB 9-4

T54517-2 SO - Soil

Date Sampled:

06/11/10

Matrix:

SW846 8260B

Date Received:

06/15/10

Method:

DF

1

Percent Solids: 82.2

Prep Date

n/a

Project:

MWHCODE: San Juan River Basin Program

Analyzed

06/16/10

Prep Batch

n/a

Analytical Batch VM1069

Run #1 Run #2

Initial Weight

M0026382.D

Final Volume

Run #1

5.22 g

File ID

5.0 ml

Run #2

Purgeable Aromatics

CAS 1	No.	Compound	Result	RL	MDL	Units	Q
71-43-	-2	Benzene	ND	4.7	0.81	ug/kg	
108-88	3-3	Toluene	ND	4.7	1.1	ug/kg	
100-41	1-4	Ethylbenzene	ND	4.7	1.1	ug/kg	
1330-2	20-7	Xylene (total)	ND	14	2.4	ug/kg	
95-47-	-6	o-Xylene	ND	4.7	0.75	ug/kg	
		m,p-Xylene	ND	9.3	1.7	ug/kg	
CAS	No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
1868-5	53-7	Dibromofluoromethane	107%		70-1	21%	
2037-2	26-5	Toluene-D8	105%		76-1	32%	
460-00)-4	4-Bromofluorobenzene	114%		73-1	65%	
17060	-07-0	1,2-Dichloroethane-D4	94%		57-1	22%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: Lab Sample ID:

SB 9-4

T54517-2

Date Sampled:

06/11/10

Matrix:

SO - Soil

Date Received:

06/15/10

Method:

SW846 8015

Percent Solids:

Prep Date

n/a

MDL

82.2

Project:

MWHCODE: San Juan River Basin Program

Analytical Batch Prep Batch

Run #1

File ID EE055802.D Analyzed 06/17/10

LB

n/a

GEE2855

Run #2

Initial Weight

Final Volume

Methanol Aliquot

By

Run #1

5.24 g

5.0 ml

DF

1

100 ul

Run #2

CAS No. Compound

Result

RL

Units

Q

TPH-GRO (C6-C10)

ND

6.9

0.41 mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

107% 90%

46-127% 44-120%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

E = Indicates value exceeds calibration range

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

Page 1 of 1

Client Sample ID: SB 9-4 Lab Sample ID:

T54517-2

Matrix:

SO - Soil

Date Sampled: Date Received:

06/11/10

SW846 8015 M SW846 3550B

DF

1

06/15/10

Method:

Percent Solids:

Project:

MWHCODE: San Juan River Basin Program

Analyzed

06/29/10

82.2

Prep Date

06/19/10

Prep Batch

Analytical Batch

OP15183

GIB1044

Run #1 Run #2

Initial Weight

IF199059.D

30.2 g

File ID

Final Volume 1.0 ml

Run #1 Run #2

RL

By

EM

MDL

Units

Q

CAS No. Compound Result

ND

ND

4.0

4.0

3.3 2.7

mg/kg mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

TPH (C10-C28)

TPH (> C28-C40)

50%

33-115%

ND = Not detectedRL = Reporting Limit

E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: Lab Sample ID:

SB 11-32

Matrix:

T54517-3

SO - Soil

Date Sampled:

06/11/10

Date Received:

06/15/10

SW846 8260B

Percent Solids:

80.4

Method: Project:

MWHCODE: San Juan River Basin Program

Prep Batch

Analytical Batch

Run #1

File ID M0026383.D DF 1

By Analyzed 06/16/10 FI

Prep Date n/a

n/a

VM1069

Run #2

Initial Weight

5.02 g

Final Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	5.0	0.87	ug/kg	
108-88-3	Toluene	ND	5.0	1.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	1.1	ug/kg	
1330-20-7	Xylene (total)	ND	15	2.6	ug/kg	
95-47-6	o-Xylene	ND	5.0	0.79	ug/kg	
	m,p-Xylene	ND	9.9	1.8	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
1868-53-7	Dibromofluoromethane	109%		70-1	21%	
2037-26-5	Toluene-D8	99%		76-1	32%	
460-00-4	4-Bromofluorobenzene	124%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	98%		57-1	22%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: SB 11-32 Lab Sample ID:

Matrix: Method:

Project:

T54517-3

SO - Soil

SW846 8015

Date Sampled:

06/11/10 Date Received: 06/15/10

Percent Solids:

80.4

Analytical Batch File ID DF Prep Date Prep Batch Analyzed By EE055803.D 06/17/10 LB Run #1 1

Run #2

Initial Weight

Final Volume

MWHCODE: San Juan River Basin Program

n/a

n/a

GEE2855

5.28 g

5.0 ml

Methanol Aliquot 100 ul

Run #1 Run #2

CAS No. Compound Result

RL

MDL

0.43

Units

mg/kg

Q

TPH-GRO (C6-C10)

ND

7.1

CAS No. Surrogate Recoveries Run#1

Run#2 Limits

46-127%

460-00-4 4-Bromofluorobenzene 98-08-8 aaa-Trifluorotoluene

107% 88%

44-120%

ND = Not detected RL = Reporting Limit

E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: SB 11-32

Lab Sample ID:

T54517-3

Matrix: Method: SO - Soil

SW846 8015 M SW846 3550B

Date Sampled: Date Received:

06/11/10 06/15/10

Percent Solids: 80.4

Project: MWHCODE: San Juan River Basin Program

> File ID IF199060.D

DF 1

Analyzed By 06/29/10 EM Prep Date 06/19/10

Prep Batch OP15183

Analytical Batch GIF1044

Run #1 Run #2

> Initial Weight 30.3 g

Final Volume 1.0 ml

Run #1 Run #2

CAS No.

Compound

Result

RL

MDL 3.4

2.7

Units Q

mg/kg

mg/kg

TPH (C10-C28) TPH (> C28-C40)

Surrogate Recoveries

9.06 9.05

Run#1

4.1 Run# 2

4.1

Limits

CAS No. 84-15-1

o-Terphenyl

57%

33-115%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit E = Indicates value exceeds calibration range J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: SB 6-1 Lab Sample ID:

T54517-4

Matrix:

SO - Soil

Method: Project:

SW846 8260B

MWHCODE: San Juan River Basin Prog

Date Sampled:

06/11/10

Date Received: 06/15/10 Percent Solids: 91.9

gram	

100	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch	
Run #1	M0026384.D	1	06/16/10	FI	n/a	n/a	VM1069	

Run #2

Initial Weight

Final Volume

Run #1 5.53 g

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	3.9	0.69	ug/kg	
108-88-3	Toluene	ND	3.9	0.93	ug/kg	
100-41-4	Ethylbenzene	ND	3.9	0.89	ug/kg	
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg	
95-47-6	o-Xylene	ND	3.9	0.63	ug/kg	
	m,p-Xylene	ND	7.9	1.4	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
1868-53-7	Dibromofluoromethane	109%		70-1	21%	
2037-26-5	Toluene-D8	106%		76-1	32%	
460-00-4	4-Bromofluorobenzene	117%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	101%		57-1	22%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B \,=\, Indicates \; analyte \; found \; in \; associated \; method \; blank \;$



Page 1 of 1

Client Sample ID: SB 6-1

Lab Sample ID: T54517-4 Matrix:

SO - Soil

SW846 8015

MWHCODE: San Juan River Basin Program

Date Sampled: 06/11/10

Date Received: 06/15/10

Percent Solids: 91.9

Analytical Batch Prep Batch

Run #1 Run #2

Method:

Project:

File ID EE055804.D DF Analyzed 06/17/10 1

By LB Prep Date n/a

n/a

GEE2855

Initial Weight

Final Volume 5.0 ml

Methanol Aliquot 100 ul

Run #1 Run #2

CAS No.

Compound

5.35 g

Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

ND

5.5

0.33

mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run#2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

109% 90%

46-127% 44-120%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit E = Indicates value exceeds calibration range J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID:

SB 6-1

Lab Sample ID:

T54517-4

SO - Soil

SW846 8015 M SW846 3550B

Date Sampled: Date Received:

06/11/10 06/15/10

Percent Solids:

91.9

Method: Project:

Matrix:

MWHCODE: San Juan River Basin Program

Analyzed

06/29/10

Analytical Batch

Prep Batch OP15183 **GIB1044**

Run #1 Run #2

Initial Weight

File ID

30.5 g

IF199061.D

Final Volume

Run #1

1.0 ml

DF

1

Run #2

CAS No. Compound Result

RL

By

EM

MDL

Prep Date

06/19/10

Units

Q

TPH (C10-C28) TPH (> C28-C40)

8.60 3.6 7.08 3.6 2.9 2.4

mg/kg mg/kg

CAS No. Surrogate Recoveries Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

65%

33-115%

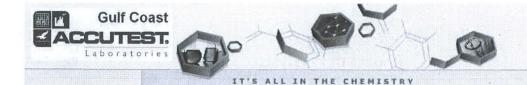
ND = Not detected

RL = Reporting Limit E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody



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CHAIN OF CUSTODY

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T54517: Chain of Custody Page 1 of 3

1.7

SAMPLE INSPECTION FORM

Accutest Job Number: T54517	Client: MWH	Date/Time Received: 6-15-10 1300
# of Coolers Received: The		Temperature Adjustment Factor: + 0.4 °C
Cooler Temps: #1: 2.4 °C #2:		#6: #7: #8:
Method of Delivery: FEDEX UPS Airbill Numbers: 9680	Accutest Courier Greyhoung	d Delivery Other
Custody seal missing or not intact Temperature criteria not met Wet ice received in cooler CHAIN OF CUSTODY Chain of Custody not received Sample D/T unclear or missing Analyses unclear or missing COC not properly executed Summary of Discrepancies:	SAMPLE INFORMATION Sample containers received broken VOC vials have headspace Sample labels missing or illegible ID on COC does not match label(s) D/T on COC does not match label(s) Sample/Bottles revd but no analysis on C Sample listed on COC, but not received Bottles missing for requested analysis Insufficient volume for analysis Sample received improperly preserved	TRIP BLANK INFORMATION Trip Blank on COC but not received Trip Blank received but not on COC Trip Blank not intact Received Water Trip Blank Received Soil TB COC Number of Encores? Number of 5035 kits? Number of lab-filtered metals?
TECHNICIAN SIGNATURE/DATE:	RIFIED BY: CORRECTIVE AC	6/15/10
Client Representative Notified:		Date:
By Accutest Representative: Client Instructions:		Via: Phone Email

T54517: Chain of Custody Page 2 of 3

SAMPLE RECEIPT LOG

JOB#: T54517 DATE/TIME RECEIVED: 6-15-10 1300

CLIENT: MWH INITIALS: DRA

										279701
COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	F	PH
	1	5B3-5	6-11-10 1028	50	402	1	2-76	0 2 3 4	.<2	>12
1	1	5B 3-5	1028		1	2	VR	5 6 7 8	<2	>12
	2	SB 9-4	1312			1	2-76	5 6 7 8	<2	>12
und and	2	589-4	1312	They is admitted as a strong strong account to	- Albanian - Confer of State State - Confer of S	2	VIR	1) 2 3 4 5 6 7 8	<2	>12
	3	5B 11-32	1405			1	2-76	0 2 3 4	<2	>12
	3	SB 11-32	1405			2	VR	0 2 3 4	<2	>12
	4	5B 6-1	1211			1	276	O 2 3 4 5 6 7 8	. <2	>12
V	4	5B 6-1	1211		1	à	VR	O 2 3 4	<2	>12
		000	7011				VIC	1 2 3 4	<2	200
								1 2 3 4	-Q2	>12
		*						5 6 7 8	<2	>12
								5 6 7 8 1 2 3 4	<2	>12
								5 6 7 8 1 2 3 4	<2	>12
				. 1				5 6 7 8 1 2 3 4	<2	>12
			1 1 1 1	10				5 6 7 8 1 2 3 4	<2	>12
			10 6					5 6 7 8 1 2 3 4	<2	>12
		*,	DIA					5 6 7 8	<2	>12
								5 6 7 8		
								5 6 7 8	<2	>12
								5 6 7 8	<2	>12
								5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
						331		5 6 7 8	<2	>12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other
LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

T54517: Chain of Custody Page 3 of 3





GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Method Blank Summary

Job Number: T54517

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

VM1069-MB M0026370.D1 06/16/10 FI n/a n/a VM1069	Sample VM1069-MB	File ID M0026370	DF).D 1	Analyzed 06/16/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VM1069
--------------------------------------------------	---------------------	---------------------	-------------	-------------------	----------	------------------	-------------------	----------------------------

The QC reported here applies to the following samples:

Method: SW846 8260B

T54517-2, T54517-3, T54517-4

CAS No.	Compound	Result	RL	MDL	Units Q
71-43-2	Benzene	ND	4.0	0.70	ug/kg
100-41-4	Ethylbenzene	ND	4.0	0.90	ug/kg
108-88-3	Toluene	ND	4.0	0.95	ug/kg
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg
	m,p-Xylene	ND	8.0	1.5	ug/kg
95-47-6	o-Xylene	ND	4.0	0.64	ug/kg
CAS No.	Surrogate Recoveries		Limits		
1868-53-7	Dibromofluoromethane	103%	70-121	%	
2037-26-5	Toluene-D8	106%	76-132	%	
460-00-4	4-Bromofluorobenzene	111%	73-165	%	
17060-07-0	1,2-Dichloroethane-D4	98%	57-122	%	



Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID	DF	Analyzed 06/18/10	By	Prep Date	Prep Batch	Analytical Batch
VY2544-MB	Y0040677.D	1		FI	n/a	n/a	VY2544

The QC reported here applies to the following samples:

Method: SW846 8260B

T54517-1

CAS No.	Compound		Result	RL	MDL	Units	Q
71-43-2	Benzene		ND	4.0	0.70	ug/kg	
100-41-4	Ethylbenzene		ND	4.0	0.90	ug/kg	
108-88-3	Toluene		ND	4.0	0.95	ug/kg	
1330-20-7	Xylene (total)		ND	12	2.1	ug/kg	
	m,p-Xylene		ND	8.0	1.5	ug/kg	
95-47-6	o-Xylene		ND	4.0	0.64	ug/kg	
CAS No.	Surrogate Recoverie	g		Limits			
CAS No.	Sui i ogate Recoverie	8		Limits			
1868-53-7	Dibromofluorometha	ne	79%	70-121	%		
2037-26-5	Toluene-D8		81%	76-132	%		
460-00-4	4-Bromofluorobenzen	ie	90%	73-165	%		
17060-07-0	1,2-Dichloroethane-D	14	59%	57-122	%		



Blank Spike Summary Job Number: T54517

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample VM1069-BS	File ID M0026368	DF 3.D 1	Analyzed 06/16/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VM1069
---------------------	---------------------	-------------	-------------------	----------	---------------	-------------------	----------------------------

The QC reported here applies to the following samples:

Method: SW846 8260B

T54517-2, T54517-3, T54517-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	46.3	93	70-114
100-41-4	Ethylbenzene	50	42.6	85	60-119
108-88-3	Toluene	50	42.5	85	68-115
1330-20-7	Xylene (total)	150	121	81	61-115
	m,p-Xylene	100	80.7	81	60-115
95-47-6	o-Xylene	50	40.5	81	63-114
CAS No.	Surrogate Recoveries	BSP	Lim	its	
1868-53-7	Dibromofluoromethane	108%	70-1	21%	
2037-26-5	Toluene-D8	106%	76-1	32%	
460-00-4	4-Bromofluorobenzene	116%	73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	97%	57-1	22%	



Blank Spike Summary Job Number: T54517

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID DF	Analyzed 06/18/10	By	Prep Date	Prep Batch	Analytical Batch
VY2544-BS	Y0040675.D 1		FI	n/a	n/a	VY2544
-						

The QC reported here applies to the following samples:

Method: SW846 8260B

T54517-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits	
71-43-2	Benzene	50	37.5	75	70-114	
100-41-4	Ethylbenzene	50	36.8	74	60-119	
108-88-3	Toluene	50	36.0	72	68-115	
1330-20-7	Xylene (total)	150	115	77	61-115	
	m,p-Xylene	100	76.4	76	60-115	
95-47-6	o-Xylene	50	38.7	77	63-114	
CAS No.	Surrogate Recoveries	BSP	Lin	nits		
1868-53-7	Dibromofluoromethane	79%	70-	121%		
2037-26-5	Toluene-D8	87%	76-	132%		
460-00-4	4-Bromofluorobenzene	97%	73-	165%		
17060-07-0	1,2-Dichloroethane-D4	62%	57-	122%		



Matrix Spike/Matrix Spike Duplicate Summary Job Number: T54517

Account:

ELPASOX EL PASO CORPORATION

Project: MWHCODE: San Juan River Basin Program

Sample File ID DF Analyzed By Prep Date Prep Batch Analytical Batch T54357-6MS M0026377.D 1 06/16/10 FI n/a n/a VM1069 T54357-6MSD M0026378.D 1 06/16/10 FI n/a n/a VM1069 T54357-6 M0026376.D 1 06/16/10 FI n/a n/a VM1069

The QC reported here applies to the following samples:

Method: SW846 8260B

T54517-2, T54517-3, T54517-4

			~ "						
		T54357-6	Spike	MS	MS	MSD	MSD		Limits
CAS No.	Compound	ug/kg Q	ug/kg	ug/kg	%	ug/kg	%	RPD	Rec/RPD
71-43-2	Benzene	4.0 U	57.1	56.3	99	48.7	94	14	70-114/38
100-41-4	Ethylbenzene	4.0 U	57.1	51.8	91	45.0	87	14	60-119/40
108-88-3	Toluene	4.0 U	57.1	52.3	92	45.2	87	15	68-115/38
1330-20-7	Xylene (total)	12 U	171	148	86	127	82	15	61-115/39
	m,p-Xylene	8.1 U	114	99.1	87	84.8	82	16	60-115/40
95-47-6	o-Xylene	4.0 U	57.1	48.6	85	42.3	82	14	63-114/37
							以还在2000 000000000000000000000000000000000	I INTERIOR NO.	
CAS No.	Surrogate Recoveries	MS	MSD	T54	357-6	Limits			
CILD ITO.	Sull ogute Recoveries	WID	MIDD	137	337-0	Limits			
1868-53-7	Dibromofluoromethane	104%	103%	111	0/_	70-121%	<u>.</u>		
2037-26-5	Toluene-D8	107%	106%	99%	ó	76-132%)		
460-00-4	4-Bromofluorobenzene	116%	115%	109	%	73-165%	ó		
17060-07-0	1,2-Dichloroethane-D4	94%	92%	106	%	57-122%	ó		

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T54517

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample T54623-4MS T54623-4MSD T54623-4	File ID Y0040679.D Y0040680.D Y0040678.D	1	Analyzed 06/18/10 06/18/10 06/18/10	By FI FI FI	Prep Date n/a n/a n/a	Prep Batch n/a n/a n/a	Analytical Batch VY2544 VY2544 VY2544

The QC reported here applies to the following samples:

Method: SW846 8260B

T54517-1

		T54623-	-4	Spike	MS	MS	MSD	MSD		Limits
CAS No.	Compound	ug/kg	Q	ug/kg	ug/kg	%	ug/kg	%	RPD	Rec/RPD
71-43-2	Benzene	150 U		1830	1500	82	1490	81	1	70-114/38
100-41-4	Ethylbenzene	150 U		1830	1410	77	1410	77	0	60-119/40
108-88-3	Toluene	150 U		1830	1390	76	1390	76	0	68-115/38
1330-20-7	Xylene (total)	440 U		5490	4450	81	4450	81	0	61-115/39
	m,p-Xylene	290 U		3660	2940	80	2940	80	0	60-115/40
95-47-6	o-Xylene	150 U		1830	1510	82	1510	82	0	63-114/37
CAS No.	Surrogate Recoveries	MS		MSD	T54	4623-4	Limits			
1868-53-7	Dibromofluoromethane	80%		80%	819	%	70-1219	%		
2037-26-5	Toluene-D8	79%		80%	829	%	76-1329	%		
460-00-4	4-Bromofluorobenzene	91%		87%	899	%	73-1659	6		
17060-07-0	1,2-Dichloroethane-D4	61%		60%	60%	%	57-1229	%		



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Method Blank Summary

Job Number:

T54517

Account: Project:

ELPASOX EL PASO CORPORATION MWHCODE: San Juan River Basin Program

Sample GEE2855-MB File ID

EE055800.D 1

DF

Analyzed 06/17/10

By LB Prep Date

n/a

Prep Batch

Analytical Batch

n/a

GEE2855

The QC reported here applies to the following samples:

Method: SW846 8015

T54517-1, T54517-2, T54517-3, T54517-4

CAS No. Compound

Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

ND

5.0

0.30

mg/kg

CAS No.

Surrogate Recoveries

Limits

460-00-4 98-08-8 4-Bromofluorobenzene aaa-Trifluorotoluene

108% 89%

46-127% 44-120%

Blank Spike Summary

Job Number:

T54517

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	
Sample	

File ID

DF

Analyzed

By

Prep Date

Prep Batch

Analytical Batch

Page 1 of 1

GEE2855-BS

EE055797.D 1

06/17/10

LB

n/a

n/a

GEE2855

The QC reported here applies to the following samples:

Method: SW846 8015

T54517-1, T54517-2, T54517-3, T54517-4

CAS No. Compound Spike **BSP**

BSP mg/kg mg/kg %

Limits

TPH-GRO (C6-C10)

0.4

0.345 86 78-115

CAS No. Surrogate Recoveries **BSP**

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

111% 96%

46-127% 44-120%

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T54517

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Comento						
Sample	File ID DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T54517-2MS	EE055805.D 1	06/17/10	LB	n/a	n/a	GEE2855
T54517-2MSD	EE055806.D 1	06/17/10	LB	n/a	n/a	GEE2855
T54517-2	EE055802.D 1	06/17/10	LB	n/a	n/a	GEE2855

The QC reported here applies to the following samples:

Method: SW846 8015

T54517-1, T54517-2, T54517-3, T54517-4

CAS No.	Compound	T54517-2 mg/kg Q	Spike mg/kg	MS MS mg/kg %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND	27.5	23.4 85	24.1	87	3	78-115/14
CAS No.	Surrogate Recoveries	MS	MSD	T54517-2	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	115% 86%	114% 92%	107% 90%	46-1279 44-1209	_		



GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Method Blank Summary

Job Number: T54517

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID	DF	Analyzed	By	Prep Date 06/19/10	Prep Batch	Analytical Batch
OP15183-MB	IF199055.D	1	06/29/10	EM		OP15183	GIB1044

The QC reported here applies to the following samples:

Method: SW846 8015 M

T54517-1, T54517-2, T54517-3, T54517-4

CAS No.	Compound	Result	RL	MDL	Units Q
	TPH (C10-C28) TPH (>C28-C40)	ND ND	3.3 3.3	2.7 2.2	mg/kg mg/kg
CAS No.	Surrogate Recoveries		Limits		
84-15-1	o-Terphenyl	55%	33-115	%	



Blank Spike/Blank Spike Duplicate Summary

Job Number: T54517

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample OP15183-BS OP15183-BSD	File ID IF199056.D IF199057.D	Analyzed 06/29/10 06/29/10	By EM EM	Prep Date 06/19/10 06/19/10	Prep Batch OP15183 OP15183	Analytical Batch GIF1044 GIB1044

The QC reported here applies to the following samples:

Method: SW846 8015 M

T54517-1, T54517-2, T54517-3, T54517-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	BSD mg/kg	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	33	16.4	50	14.9	45	10	45-107/30
CAS No.	Surrogate Recoveries	BSP	BSI)	Limits			
84-15-1	o-Terphenyl	56%	559	6	33-1159	6		





09/13/10



Technical Report for

EL PASO CORPORATION

MWHCODE: San Juan River Basin Program

Jaquez Site

Accutest Job Number: T58817

Sampling Date: 08/26/10

Report to:

MWH

jed.smith@mwhglobal.com

ATTN: Jed Smith

Total number of pages in report: 85





Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevara

T58817

Paul Canevaro Laboratory Director

Client Service contact: Georgia Jones 713-271-4700

Certifications: TX (T104704220-09C-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700)

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Sample Summary

EL PASO CORPORATION

Job No:

T58817

MWHCODE: San Juan River Basin Program Project No: Jaquez Site

Sample Number	Collected Date	Time By	Received	Matri		Client Sample ID
T58817-1	08/26/10	09:45 DH	08/27/10	SO	Soil	GP-7-15'-16'
T58817-2	08/26/10	09:10 DH	08/27/10	SO	Soil	GP-7 8'-9'
T58817-3	08/26/10	09:25 DH	08/27/10	SO	Soil	GP-7 14'-16'
T58817-4	08/26/10	13:10 DH	08/27/10	SO	Soil	GP-8 9'-10'
T58817-5	08/26/10	14:30 DH	08/27/10	SO	Soil	GP-8 12'-13'
T58817-6	08/26/10	15:00 DH	08/27/10	SO	Soil	GP-8 17'-18'
T58817-7	08/26/10	12:40 DH	08/27/10	SO	Soil	GP-4 8'-9'
T58817-8	08/26/10	13:20 DH	08/27/10	SO	Soil	GP-4 16'-17'
T58817-9	08/26/10	10:25 DH	08/27/10	SO	Soil	GP-4 13'-14'
T58817-10	08/26/10	08:10 DH	08/27/10	SO	Soil	GP-3 15'-16'
T58817-11	08/26/10	08:00 DH	08/27/10	SO	Soil	GP-3 14'-15'
T58817-12	08/26/10	16:00 DH	08/27/10	SO	Soil	GP-2 11'-12'
T58817-13	08/26/10	16:10 DH	08/27/10	SO	Soil	GP-2 (0-5')

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



Sample Summary (continued)

EL PASO CORPORATION

Job No:

T58817

MWHCODE: San Juan River Basin Program Project No: Jaquez Site

Sample	Collected			Matr	ix	Client	
Sample Number	Date	Time By	Received	Code	Type	Sample ID	
T58817-14	08/26/10	07:00 DH	08/27/10	SO	Trip Blank Soil	260810TB02	



SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:

EL PASO CORPORATION

Job No

T58817

Site:

MWHCODE: San Juan River Basin Program

Report Date

9/8/2010 8:11:06 AM

13 Sample(s), 1 Trip Blank(s) were collected on 08/26/2010 and were received at Accutest on 08/27/2010 properly preserved, at 5.4 Deg. C and intact. These Samples received an Accutest job number of T58817. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix SO

Batch ID: VY2593

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T58706-1MS, T58706-1MSD were used as the QC samples indicated.
- RPD(s) for MSD for o-Xylene, Toluene are outside control limits for sample T58706-1MSD. Probable cause due to sample homogeneity.
- T58817-11 for Toluene-D8: Outside control limits due to matrix interference. Confirmed by reanalysis.
- T58817-11 for 4-Bromofluorobenzene: Outside control limits due to matrix interference. Confirmed by reanalysis.
- T58817-11 for 1,2-Dichloroethane-D4: Outside control limits due to matrix interference. Confirmed by reanalysis.
- T58817-8 for 4-Bromofluorobenzene: Outside control limits due to matrix interference. Confirmed by reanalysis.

Matrix SO

Batch ID: VY2594

- All samples were analyzed within the recommended method holding time.
- Sample(s) T58817-13MS, T58817-13MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for m,p-Xylene, Xylene (total) are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for m,p-Xylene are outside control limits. Probable cause due to matrix interference.
- RPD(s) for MSD for m,p-Xylene are outside control limits for sample T58817-13MSD. Probable cause due to sample homogeneity.

Matrix SO

Batch ID: VY2595

- All samples were analyzed within the recommended method holding time.
- Sample(s) T58706-10MS, T58706-10MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for Toluene are outside control limits. Probable cause due to matrix interference.
- T58706-10MS for Toluene-D8: Outside control limits due to matrix interference. Confirmed by MS/MSD.

Volatiles by GC By Method SW846 8015

Matrix AQ

Batch ID: GHH53

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix SO

Batch ID: GBB100

- All samples were analyzed within the recommended method holding time.
- Sample(s) T59027-1MS, T59027-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- T58817-13: Confirmation run for surrogate recoveries.

Matrix SO

Batch ID: GBB96

- All samples were analyzed within the recommended method holding time.
- Sample(s) T58836-4MS, T58836-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- T58817-13 for 4-Bromofluorobenzene: Outside control limits due to matrix interference. Confirmed by reanalysis.
- T58817-10 for 4-Bromofluorobenzene: Outside control limits due to matrix interference. Confirmed by reanalysis.
- T58817-5 for 4-Bromofluorobenzene: Outside control limits due to matrix interference. Confirmed by reanalysis.
- T58817-13 for aaa-Trifluorotoluene: Outside control limits due to matrix interference. Confirmed by reanalysis.
- T58817-10 for aaa-Trifluorotoluene: Outside control limits due to matrix interference. Confirmed by reanalysis.

Matrix SO

Batch ID: GBB97

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T58817-1MS, T58817-1MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for TPH-GRO (C6-C10) are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for TPH-GRO (C6-C10) are outside control limits. Probable cause due to matrix interference.

Matrix SO

Batch ID: GBB99

- All samples were analyzed within the recommended method holding time.
- Sample(s) T58920-5AMS, T58920-5AMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix SO

Batch ID: GHH53

Sample(s) T59026-4MS, T59026-4MSD were used as the QC samples indicated.

Extractables by GC By Method SW846 8015 M

Matrix SO

Batch ID: OP15844

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) T58817-7MS, T58817-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- T58817-5 for o-Terphenyl: Outside control limits due to dilution.
- T58817-9 for o-Terphenyl: Outside control limits due to dilution.

Wet Chemistry By Method SM 2540 G

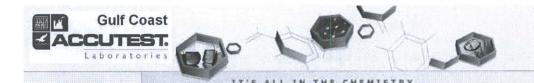
Matrix SO

Batch ID: GN25049

Sample(s) T58817-1DUP were used as the QC samples for Solids, Percent.

6 of 85

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used



Sample Results

Report of Analysis



By

FI

Client Sample ID: GP-7-15'-16' Lab Sample ID:

Matrix:

T58817-1

SO - Soil SW846 8260B Date Sampled: Date Received:

08/26/10

08/27/10

Percent Solids: 83.2

Method: Project:

MWHCODE: San Juan River Basin Program

Analyzed

Prep Date

Prep Batch

Analytical Batch

Run #1 Run #2

File ID

08/30/10

n/a

n/a

VY2593

Initial Weight

Y0041718.D

Final Volume

Run #1

5.22 g

5.0 ml

DF

1

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene	2.8 ND ND ND ND	4.6 4.6 4.6 14 9.2	0.80 1.1 1.0 2.4 1.7	ug/kg ug/kg ug/kg ug/kg ug/kg	J
95-47-6	o-Xylene	ND	4.6	0.74	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	88%		70-1	21%	
2037-26-5	Toluene-D8	90%	76-132%			
460-00-4	4-Bromofluorobenzene	103%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	74%		57-1	22%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: GP-7-15'-16'

Lab Sample ID:

T58817-1

SO - Soil

Date Sampled:

08/26/10

Matrix: Method:

File ID

Date Received:

08/27/10

SW846 8015

DF

1

Percent Solids: 83.2

Project:

MWHCODE: San Juan River Basin Program

Analyzed

08/30/10

n/a

Prep Date

Prep Batch

Analytical Batch

Run #1 Run #2

Initial Weight

BB0001640.D

Final Volume

By

AT

n/a

GBB97

5.57 g

Compound

5.0 ml

Methanol Aliquot

Run #1 Run #2

CAS No.

100 ul

Result

MDL

0.38

Units

Q

TPH-GRO (C6-C10)

3.25

6.4

RL

mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

46-127%

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

93% 106%

44-120%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

Client Sample ID: GP-7-15'-16' Lab Sample ID:

Matrix:

T58817-1

SO - Soil

SW846 8015 M SW846 3550B

Date Sampled:

Prep Date

08/30/10

08/26/10 08/27/10

Date Received: Percent Solids: 83.2

Method: Project:

MWHCODE: San Juan River Basin Program

Analyzed

09/04/10

OP15844

Prep Batch Analytical Batch

GIB1088

Run #1 Run #2

Initial Weight

30.1 g

File ID

IF201032.D

Final Volume

1.0 ml

DF

1

Run #1 Run #2

CAS No. Compound Result

RL

By

HD

MDL Units Q

TPH (C10-C28) TPH (>C28-C40)

18.1 4.0 13.4 4.0

3.3 2.6

mg/kg mg/kg

CAS No. Surrogate Recoveries

Run#1

Run#2

Limits

84-15-1 o-Terphenyl 85%

33-115%

ND = Not detected

RL = Reporting LimitE = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: GP-7 8'-9' Lab Sample ID:

File ID

Matrix: Method: T58817-2 SO - Soil

SW846 8260B

Date Sampled: Date Received: 08/27/10

Prep Date

n/a

08/26/10

Percent Solids: 82.4

Project:

DF

1

MWHCODE: San Juan River Basin Program

Analyzed

08/31/10

Prep Batch

n/a

Analytical Batch VY2594

Run #1 a Run #2

> Initial Weight 5.11 g

Y0041742.D

Final Volume 5.0 ml

Methanol Aliquot

Ву

FI

Report of Analysis

100 ul

Run #1 Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3 100-41-4	Benzene Toluene Ethylbenzene	ND ND ND	280 280 280	49 66 63	ug/kg ug/kg ug/kg	
1330-20-7	330-20-7 Xylene (total) m,p-Xylene		840 560	150 100	ug/kg ug/kg	
95-47-6	o-Xylene	ND	280	45	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
1868-53-7	Dibromofluoromethane	88%		70-121%		
2037-26-5 460-00-4	Toluene-D8	93%			32% 65%	
17060-07-0			117% 74%			

(a) Dilution required due to matrix interference.

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: GP-7 8'-9' Lab Sample ID:

T58817-2

Date Sampled:

08/26/10

Matrix:

SO - Soil

Date Received:

08/27/10

Method:

SW846 8015

Project:

Percent Solids:

82.4

MWHCODE: San Juan River Basin Program

Analyzed

08/31/10

Prep Date

Prep Batch

Analytical Batch

By AT

Run #1 Run #2

BB0001646.D

n/a

n/a

GBB97

Initial Weight

File ID

5.11 g

Final Volume 5.0 ml

DF

10

Methanol Aliquot 100 ul

Run #1 Run #2

CAS No. Compound

Result

RL

MDL Units

Q

TPH-GRO (C6-C10)

305

70

4.2 mg/kg

CAS No. Surrogate Recoveries Run#1

Run# 2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

70% 115% 46-127% 44-120%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

E = Indicates value exceeds calibration range

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



By

HD

Client Sample ID: Lab Sample ID:

GP-7 8'-9' T58817-2

Matrix: Method: SO - Soil

SW846 8015 M SW846 3550B

Date Sampled:

08/26/10

Date Received:

08/27/10

Percent Solids: 82.4

Project:

MWHCODE: San Juan River Basin Program

Analyzed

09/04/10

Prep Date

08/30/10

Analytical Batch Prep Batch

OP15844 **GIF1088**

Run #1 Run #2

Initial Weight

30.6 g

File ID

IF201033.D

Final Volume 1.0 ml

DF

1

Run #1 Run #2

CAS No.

Compound

Result

RL

MDL

3.3

2.6

Units

mg/kg

Q

TPH (C10-C28) TPH (>C28-C40)

61.3 28.7

4.0 4.0

mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

77%

33-115%

ND = Not detected

RL = Reporting Limit E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

FI

Page 1 of 1

Client Sample ID: GP-7 14'-16'

Lab Sample ID:

T58817-3

Matrix:

SO - Soil

Method: Project:

SW846 8260B

DF

1

MWHCODE: San Juan River Basin Program

Analyzed

08/30/10

Date Sampled:

08/26/10 Date Received: 08/27/10

Percent Solids: 73.0

n/a

Prep Date

Analytical Batch

Prep Batch VY2593 n/a

Run #1 Run #2

Initial Weight

Y0041719.D

File ID

5.91 g

Final Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene	ND ND 3.6 20.5 16.8 3.6	4.6 4.6 4.6 14 9.3 4.6	0.81 1.1 1.0 2.4 1.7 0.74	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	J J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		J
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	86% 96% 82% 73%	70-121% 76-132% 73-165% 57-122%			

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: GP-7 14'-16'

Lab Sample ID:

T58817-3

File ID

SO - Soil

Date Sampled:

08/26/10

Matrix:

Date Received:

08/27/10

Method:

SW846 8015

Percent Solids: 73.0

Project:

MWHCODE: San Juan River Basin Program

Analytical Batch Prep Batch

BB0001692.D

Analyzed DF 09/01/10

By AT Prep Date n/a

MDL

2.6

n/a

GBB100

Run #1 Run #2

Initial Weight

Final Volume

Methanol Aliquot

Run #1

5.09 g

5.0 ml

5

100 ul

Run #2

CAS No. Compound

Result

RL

Units

Q

TPH-GRO (C6-C10)

143

43

mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

72% 109% 46-127% 44-120%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

E = Indicates value exceeds calibration range

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

T58817

Client Sample ID: GP-7 14'-16' Lab Sample ID:

File ID

IF201034.D

T58817-3

Date Sampled:

Prep Date

08/30/10

08/26/10

Matrix:

SO - Soil

Date Received:

08/27/10

Method:

SW846 8015 M SW846 3550B

By

HD

Prep Batch

OP15844

Percent Solids: 73.0

Project:

MWHCODE: San Juan River Basin Program

Analyzed

09/04/10

Analytical Batch

GIB1088

Run #1 Run #2

Final Volume

Run #1

CAS No.

Initial Weight 30.4 g

1.0 ml

DF

1

Run #2

Result

RL

Units

Q

TPH (C10-C28) TPH (> C28-C40)

Compound

85.8 25.6 4.5 4.5 mg/kg mg/kg

CAS No. Surrogate Recoveries Run#1 Run# 2 Limits

MDL

3.7

3.0

84-15-1

o-Terphenyl

78%

33-115%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: GP-8 9'-10'

Lab Sample ID:

T58817-4

Matrix:

SO - Soil

Date Sampled: 08/26/10

Date Received: 08/27/10

SW846 8260B

Percent Solids: 76.8

Method: Project:

MWHCODE: San Juan River Basin Program

Prep Date

Analytical Batch Prep Batch

Run #1

File ID Y0041774.D DF 1

Analyzed By 08/31/10 FI

n/a

n/a

VY2595

Run #2

Initial Weight

Final Volume

Run #1 5.53 g 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	4.7	0.82	ug/kg	
108-88-3	Toluene	ND	4.7	1.1	ug/kg	
100-41-4	Ethylbenzene	ND	4.7	1.1	ug/kg	
1330-20-7	Xylene (total)	6.1	14	2.5	ug/kg	J
m,p-Xylene		5.0	9.4	1.7	ug/kg	Ĭ
95-47-6	- 0		4.7	0.75	ug/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	91%		70-1	21%	
2037-26-5	Toluene-D8	101%		76-1	32%	
460-00-4	4-Bromofluorobenzene	122%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	75%		57-1	22%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: GP-8 9'-10'

Lab Sample ID:

T58817-4

Method:

SO - Soil

SW846 8015

DF

1

Date Sampled:

08/26/10

Date Received:

08/27/10

Percent Solids:

76.8

Project:

Matrix:

MWHCODE: San Juan River Basin Program

Prep Date

Prep Batch

Analytical Batch

Run #1 Run #2

BB0001669.D

AT

By

n/a

MDL

0.46

n/a

GBB99

Initial Weight

File ID

Final Volume $5.0 \, \mathrm{ml}$

Methanol Aliquot 100 ul

Run #1 Run #2

CAS No.

Result

Analyzed

08/31/10

RL

7.6

Units

Q

Compound

5.36 g

3.88

mg/kg J

CAS No.

Surrogate Recoveries

TPH-GRO (C6-C10)

Run#1

Run# 2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

92% 104% 46-127% 44-120%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: Lab Sample ID:

GP-8 9'-10'

Matrix:

T58817-4

SO - Soil

SW846 8015 M SW846 3550B

Date Sampled: 08/26/10

Date Received:

08/27/10

Method: Project:

MWHCODE: San Juan River Basin Program

Percent Solids:

76.8

File ID Run #1

DF IF201035.D 1

Analyzed 09/04/10

By HD Prep Date 08/30/10

Prep Batch OP15844

Analytical Batch **GIF1088**

Run #2

Initial Weight

30.4 g

Final Volume 1.0 ml

Run #1 Run #2

CAS No. Compound Result

RL

Units

Q

TPH (C10-C28) TPH (> C28-C40)

196 120 4.3 3.5 4.3 2.8 mg/kg mg/kg

CAS No. Surrogate Recoveries

Run# 2 Run#1

Limits

MDL

84-15-1

o-Terphenyl

82%

33-115%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: GP-8 12'-13'

Lab Sample ID:

T58817-5

SO - Soil

SW846 8260B

Date Sampled:

08/26/10

Date Received:

08/27/10

Percent Solids:

76.0

Method: Project:

Matrix:

MWHCODE: San Juan River Basin Program

Run #1 a

File ID Y0041744.D DF 1

Analyzed 08/31/10

By FI

Prep Date n/a

Prep Batch n/a

Analytical Batch VY2594

Run #2

Initial Weight

Final Volume

Methanol Aliquot

Run #1

5.26 g

5.0 ml

100 ul

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q	
71-43-2	Benzene	ND	310	55	ug/kg		
108-88-3	Toluene	ND	310	74	ug/kg		
100-41-4	Ethylbenzene	ND	310	71	ug/kg		
1330-20-7	Xylene (total)	1300	940	160	ug/kg		
m,p-Xylene		1300	630	110	ug/kg		
95-47-6	o-Xylene	ND	310	50	ug/kg		
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits			
1868-53-7	Dibromofluoromethane	88%		70-1	21%		
2037-26-5	Toluene-D8	90%		76-1	32%		
460-00-4	4-Bromofluorobenzene	139%		73-1	65%		
17060-07-0	1,2-Dichloroethane-D4	72 %			57-122%		

⁽a) Dilution required due to matrix interference.

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: GP-8 12'-13'

Lab Sample ID: Matrix:

T58817-5

SO - Soil

Date Sampled:

08/26/10

Date Received:

08/27/10

Method:

SW846 8015

Percent Solids:

76.0

Project:

MWHCODE: San Juan River Basin Program

Analyzed

Prep Date n/a

Prep Batch

Analytical Batch

Run #1 BB0001635.D Run #2 a BB0001693.D

File ID

10 10

DF

08/30/10 09/01/10

AT AT n/a

By

Report of Analysis

n/a n/a GBB96 **GBB100**

Initial Weight Run #1 5.26 g

5.26 g

Final Volume 5.0 ml 5.0 ml

Methanol Aliquot 100 ul 100 ul

Compound CAS No.

Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

806

78

mg/kg

CAS No. Surrogate Recoveries Run#1

Run# 2

Limits

4.7

460-00-4 98-08-8

Run #2

4-Bromofluorobenzene aaa-Trifluorotoluene

170% b 119%

194% b 127% b

46-127% 44-120%

(a) Confirmation run for surrogate recoveries.

(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

E = Indicates value exceeds calibration range

Page 1 of 1

Client Sample ID: Lab Sample ID:

GP-8 12'-13' T58817-5

Matrix:

SO - Soil

Date Sampled:

08/26/10

Date Received:

08/27/10

Method:

SW846 8015 M SW846 3550B

Percent Solids:

Project:

MWHCODE: San Juan River Basin Program

76.0

Analytical Batch

Run #1

File ID IF201036.D DF 10

Analyzed 09/04/10

By HD Prep Date 08/30/10

Prep Batch OP15844

GIB1088

Run #2

Initial Weight

Final Volume 1.0 ml

Run #1 Run #2

30.4 g

RL

MDL Units Q

CAS No. Compound Result

498

85.8

43

43

36 29 mg/kg mg/kg

CAS No.

Surrogate Recoveries

TPH (C10-C28)

TPH (> C28-C40)

Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

0% a

33-115%

(a) Outside control limits due to dilution.

ND = Not detected RL = Reporting Limit

E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

FI

Client Sample ID: GP-8 17'-18'

Lab Sample ID:

T58817-6

Matrix: Method: SO - Soil

SW846 8260B

Date Sampled: 08/26/10

Date Received:

08/27/10

Percent Solids: 84.5

Project:

MWHCODE: San Juan River Basin Program

Analyzed

08/30/10

Prep Batch

Analytical Batch

Run #1 Run #2

Y0041720.D

n/a

Prep Date

n/a

VY2593

Initial Weight

File ID

Final Volume

Run #1 5.73 g 5.0 ml

DF

1

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene	ND ND ND ND ND ND	4.1 4.1 4.1 12 8.3 4.1	0.72 0.98 0.93 2.2 1.5 0.66	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	85% 95% 125% 71%		76-1 73-1	21% 32% 65% 22%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: GP-8 17'-18'

Lab Sample ID:

T58817-6

Matrix:

SO - Soil

Method:

SW846 8015

DF

1

Date Sampled:

08/26/10 Date Received: 08/27/10

Percent Solids:

84.5

Project:

MWHCODE: San Juan River Basin Program

Analyzed

08/31/10

By

AT

Prep Date

Prep Batch

Analytical Batch

Run #1 Run #2

Initial Weight

BB0001670.D

n/a

n/a

GBB99

5.45 g

File ID

Final Volume $5.0 \, \text{ml}$

Methanol Aliquot 100 ul

Run #1 Run #2

CAS No. Compound

Result

RL

MDL Units O

TPH-GRO (C6-C10)

7.74

6.3

0.38 mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run#2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

100% 101% 46-127% 44-120%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

HD

Client Sample ID: GP-8 17'-18'

File ID

Lab Sample ID: Matrix:

T58817-6

SO - Soil

Date Sampled:

08/26/10

Date Received:

08/27/10

Percent Solids:

Prep Date

08/30/10

Method:

SW846 8015 M SW846 3550B

84.5

Project: MWHCODE: San Juan River Basin Program

DF

1

Analytical Batch Prep Batch

GIF1088 OP15844

Run #1 Run #2

Initial Weight

IF201037.D

Final Volume

Run #1 30.4 g 1.0 ml

Run #2

CAS No. Compound Result

Analyzed

09/04/10

MDL

Units

Q

TPH (C10-C28) TPH (> C28-C40)

137 102 3.9 3.2 2.6 3.9

RL

mg/kg mg/kg

CAS No. Surrogate Recoveries

Run# 2 Run#1

Limits

84-15-1

o-Terphenyl

69%

33-115%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

E = Indicates value exceeds calibration range

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

Client Sample ID: GP-4 8'-9' Lab Sample ID:

T58817-7

Matrix:

Method:

SO - Soil

SW846 8260B

Date Sampled:

08/26/10

Date Received:

08/27/10

Percent Solids: 90.7

Project:

MWHCODE: San Juan River Basin Program

Prep Date

Analytical Batch

Run #1

File ID Y0041721.D DF 1

Analyzed 08/30/10

By FI

n/a

Prep Batch n/a

VY2593

Run #2

Final Volume

Run #1

Initial Weight 4.99 g

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	4.4	0.77	ug/kg	
108-88-3	Toluene	ND	4.4	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	4.4	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	13	2.3	ug/kg	
	m,p-Xylene	ND	8.8	1.6	ug/kg	
95-47-6	o-Xylene	ND	4.4	0.71	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	84%		70-1	21%	
2037-26-5	Toluene-D8	91%		76-1	32%	
460-00-4	4-Bromofluorobenzene	93%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	69%		57-1	22%	

ND = Not detected

RL = Reporting Limit E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: GP-4 8'-9'

Lab Sample ID: Matrix:

T58817-7

SO - Soil

Date Sampled:

08/26/10

Date Received:

08/27/10

Method:

SW846 8015

Percent Solids:

90.7

Project:

MWHCODE: San Juan River Basin Program

File ID

DF BB0001625.D 1

Analyzed 08/30/10

Prep Date

Prep Batch

Analytical Batch

Run #1 Run #2

By AT

n/a

n/a

Q

GBB96

Initial Weight

5.20 g

Final Volume 5.0 ml

Methanol Aliquot 100 ul

Run #1 Run #2

CAS No.

Compound

Result

RL

MDL

Units

TPH-GRO (C6-C10)

ND

5.8

0.35

mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run#2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

90% 100% 46-127% 44-120%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

E = Indicates value exceeds calibration range

Client Sample ID: GP-4 8'-9' Lab Sample ID:

T58817-7

Matrix: Method:

Project:

SO - Soil

MWHCODE: San Juan River Basin Program

SW846 8015 M SW846 3550B

Date Sampled: Date Received:

08/26/10 08/27/10

Percent Solids:

90.7

File ID Run #1

IF201038.D

DF 1

Analyzed 09/04/10

By HD Prep Date 08/30/10

Prep Batch

Analytical Batch

GIB1088 OP15844

Run #2

Initial Weight

30.4 g

Final Volume 1.0 ml

Run #1 Run #2

CAS No. Compound

RL

MDL 3.6 3.0

2.4

Units

mg/kg

mg/kg

Q

J

CAS No. Surrogate Recoveries

TPH (C10-C28)

TPH (> C28-C40)

Run#1

Result

ND

2.64

Run# 2

3.6

Limits

84-15-1

o-Terphenyl

75%

33-115%

ND = Not detected

RL = Reporting Limit E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: Lab Sample ID:

GP-4 16'-17'

T58817-8

SO - Soil

Date Sampled:

08/26/10

Matrix:

Date Received:

08/27/10

Method:

SW846 8260B

Project:

Percent Solids:

79.8

MWHCODE: San Juan River Basin Program

Prep Date Prep Batch

Analytical Batch

Run #1 Run #2 Y0041722.D Y0041775.D Analyzed 08/30/10 08/31/10

n/a n/a

n/a n/a

VY2593 VY2595

Run #1 Run #2

CAS No.

1330-20-7

17060-07-0

Initial Weight 6.12 g 5.24 g

File ID

Final Volume 5.0 ml 5.0 ml

DF

1

1

Methanol Aliquot

By

FI

FI

Purgeable Aromatics

Compound

Result

100 ul

MDL

Units Q

71-43-2 Benzene 108-88-3 Toluene 100-41-4

Ethylbenzene Xylene (total)

36.8 4.1 ND 4.1 68.6 4.1 651 a 870

RL

580

4.1

72%

0.72 ug/kg 0.97

110

ug/kg 0.92ug/kg 150 ug/kg

ug/kg

J

m,p-Xylene 95-47-6 o-Xylene

151

498 a

Run#1

93%

Run# 2

0.66 ug/kg

CAS No. Surrogate Recoveries

1868-53-7 Dibromofluoromethane 2037-26-5 Toluene-D8 460-00-4 4-Bromofluorobenzene

1,2-Dichloroethane-D4

91% 87% 98% 96% 1589% b 133% 70-121% 76-132% 73-165%

57-122%

Limits

(a) Result is from Run# 2

(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: GP-4 16'-17'

Lab Sample ID:

T58817-8

SO - Soil

SW846 8015

MWHCODE: San Juan River Basin Program

Date Sampled:

08/26/10

Date Received: 08/27/10

Percent Solids:

79.8

File ID DF Analyzed Ву Prep Date Prep Batch **Analytical Batch** Run #1 BB0001674.D GBB99 10 08/31/10 AT n/a n/a

Run #2

Matrix:

Method:

Project:

Initial Weight

5.24 g

Final Volume

Methanol Aliquot

Run #1

Run #2

5.0 ml

100 ul

CAS No. Compound Result

RL

MDL Units

mg/kg

Q

TPH-GRO (C6-C10)

277

72 Run#2

Limits

4.3

CAS No. Surrogate Recoveries Run#1

46-127%

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

70% 113%

44-120%

ND = Not detected

MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID:

GP-4 16'-17'

Lab Sample ID:

T58817-8

SO - Soil

Date Sampled:

08/26/10

Matrix:

Date Received:

08/27/10

Method:

SW846 8015 M SW846 3550B

Project:

Percent Solids: 79.8

MWHCODE: San Juan River Basin Program

Analytical Batch Prep Batch

Run #1

IF201039.D

File ID

DF 10

Analyzed By 09/04/10 HD Prep Date 08/30/10

OP15844

GIF1088

Run #2

Initial Weight

Final Volume

Run #1

30.5 g

1.0 ml

Run #2

CAS No. Compound Result

MDL

34

27

Units

Q

TPH (C10-C28)

TPH (> C28-C40)

339

41

RL

41

mg/kg mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

82%

299

33-115%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

E = Indicates value exceeds calibration range

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

Page 1 of 1

Client Sample ID: GP-4 13'-14'

Lab Sample ID:

T58817-9 SO - Soil

Date Sampled: 08/26/10

SW846 8260B

Date Received: 08/27/10

Matrix: Method:

DF

1

Percent Solids: 83.6

Project:

MWHCODE: San Juan River Basin Program

Prep Date

Prep Batch

Analytical Batch

Run #1

Y0041745.D

Analyzed 08/31/10

By FI n/a

n/a

VY2594

Run #2

Initial Weight

Final Volume

Methanol Aliquot

Run #1

5.69 g

File ID

5.0 ml

100 ul

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	132	250	44	ug/kg	J
108-88-3	Toluene	ND	250	59	ug/kg	
100-41-4	Ethylbenzene	292	250	56	ug/kg	
1330-20-7	Xylene (total)	3460	750	130	ug/kg	
	m,p-Xylene	3320	500	90	ug/kg	
95-47-6	o-Xylene	137	250	40	ug/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	89%		70-1	21%	
2037-26-5	Toluene-D8	91%		76-1	32%	
460-00-4	4-Bromofluorobenzene	144%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	79%		57-1	22%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: GP-4 13'-14'

Lab Sample ID:

T58817-9

SO - Soil

Date Sampled:

08/26/10

Matrix:

Date Received:

08/27/10

Method:

SW846 8015

n/a

Percent Solids:

83.6

Project:

MWHCODE: San Juan River Basin Program

File ID

DF BB0001675.D 40

Analyzed 08/31/10

By AT Prep Date n/a

Prep Batch

Analytical Batch GBB99

Run #1 Run #2

Initial Weight

Final Volume

Methanol Aliquot

Run #1

5.69 g

5.0 ml

100 ul

Run #2

CAS No. Compound Result

RL

MDL

15

Units Q

TPH-GRO (C6-C10)

1090

250

mg/kg

CAS No. Surrogate Recoveries Run#1

Run#2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

63% 119% 46-127% 44-120%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

E = Indicates value exceeds calibration range

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

Client Sample ID: GP-4 13'-14'

Lab Sample ID:

T58817-9

Matrix: Method: SO - Soil

SW846 8015 M SW846 3550B

Date Sampled:

08/26/10

Date Received:

08/27/10

Percent Solids:

Project:

MWHCODE: San Juan River Basin Program

83.6

Analytical Batch File ID DF Prep Date Prep Batch Analyzed By IF201040.D 10 09/04/10 HD 08/30/10 OP15844 **GIB1088** Run #1

Run #2

Initial Weight

30.2 g

Final Volume

Run #1

1.0 ml

Run #2

CAS No. Compound Result

RL

MDL

Units

O

TPH (C10-C28) TPH (> C28-C40) 1110 205

40 40 33 26 mg/kg mg/kg

CAS No. Surrogate Recoveries Run#1

Run#2

Limits

84-15-1 o-Terphenyl 0% a

33-115%

(a) Outside control limits due to dilution.

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID:

GP-3 15'-16'

Lab Sample ID:

T58817-10

SO - Soil

Date Sampled:

08/26/10

Date Received:

08/27/10

Method:

SW846 8260B

Percent Solids: 79.2

Project:

Matrix:

MWHCODE: San Juan River Basin Program

Prep Batch

Analytical Batch

Run #1 a

File ID Y0041746.D DF 1

Analyzed By 08/31/10 FI

Prep Date n/a

n/a

VY2594

Run #2

Initial Weight

Final Volume

Methanol Aliquot

Run #1 5.25 g

5.0 ml

100 ul

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	290	51	ug/kg	
108-88-3	Toluene	ND	290	70	ug/kg	
100-41-4	Ethylbenzene	107	290	66	ug/kg	J
1330-20-7	Xylene (total)	475	880	150	ug/kg	J
m,p-Xylene		393	590	110	ug/kg	J
95-47-6	o-Xylene	82.0	290	47	ug/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	86%		70-1	21%	
2037-26-5	Toluene-D8	90%		76-1	32%	
460-00-4	4-Bromofluorobenzene	124%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	77%		57-1	22%	

(a) Dilution required due to matrix interference.

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: GP-3 15'-16' Lab Sample ID: T58817-10

Matrix: Method:

Project:

SO - Soil

SW846 8015

MWHCODE: San Juan River Basin Program

Final Volume

Date Sampled:

08/26/10 Date Received: 08/27/10

Percent Solids: 79.2

File ID DF Analyzed By Run #1 BB0001634.D 10 08/30/10 AT Run #2 a BB0001694.D 10 09/01/10 AT	Prep Date Prep Batch Analytical Batch n/a n/a GBB96 n/a n/a GBB100
----------------------------------------------------------------------------------------------	--------------------------------------------------------------------

Methanol Aliquot

Run #1 Run #2	5.25 g 5.25 g	5.0 ml 5.0 ml	100 ul 100 ul					
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH-GRO (0	C6-C10)	887	73	4.4	mg/kg		

CAS No. Surrogate Recoveries Run#1 Run# 2

460-00-4 4-Bromofluorobenzene 98-08-8 aaa-Trifluorotoluene

Initial Weight

169% b 166% b 203% b 201% b

46-127% 44-120%

Limits

(a) Confirmation run for surrogate recoveries.

(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Ву

HD

Page 1 of 1

Client Sample ID: Lab Sample ID:

GP-3 15'-16' T58817-10

SO - Soil

Date Sampled:

08/26/10

Matrix: Method:

SW846 8015 M SW846 3550B

DF

1

Date Received: 08/27/10

Percent Solids: 79.2

Project:

MWHCODE: San Juan River Basin Program

Analytical Batch

Run #1 Run #2

30.1 g

File ID

09/04/10

Analyzed

Prep Date 08/30/10

Prep Batch OP15844

GIF1088

Initial Weight

IF201041.D

Final Volume

1.0 ml

Run #1

Run #2

CAS No. Compound Result

MDL

Units

Q

TPH (C10-C28) TPH (> C28-C40)

138 56.7 4.2 3.5 4.2 2.8

RL

mg/kg mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run#2

Limits

84-15-1

o-Terphenyl

58%

33-115%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

E = Indicates value exceeds calibration range



Client Sample ID: Lab Sample ID:

GP-3 14'-15' T58817-11

Matrix: Method:

Project:

SO - Soil

SW846 8260B

MWHCODE: San Juan River Basin Program

Date Sampled:

08/26/10 08/27/10

Date Received: Percent Solids: 74.3

7	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run	#1 Y0041777.D) 1	08/31/10	FI	n/a	n/a	VY2595
Run	#2 Y0041723.D) 1	08/30/10	FI	n/a	n/a	VY2593

	Initial Weight	Final Volume	Methanol Aliquot	
Run #1	5.05 g	5.0 ml	100 ul	
Run #2	3.83 g	5.0 ml		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND a	7.0	1.2	ug/kg	
108-88-3 100-41-4	Toluene Ethylbenzene	25.3 a 340	7.0 340	1.7 76	ug/kg ug/kg	
1330-20-7	Xylene (total) m,p-Xylene	13300 12000	1000 670	180 120	ug/kg ug/kg	
95-47-6	o-Xylene	1270	340	54	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	90%	85%	70-	121%	
2037-26-5	Toluene-D8	95%	2204% l	76-	132%	
460-00-4	4-Bromofluorobenzene	165%	1470% h	73-	165%	
17060-07-0	1,2-Dichloroethane-D4	74%	304% b	57-	122%	

(a) Result is from Run# 2

(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



ND = Not detected

MDL - Method Detection Limit

Page 1 of 1

Client Sample ID: GP-3 14'-15'

Lab Sample ID:

T58817-11

Matrix: Method: SO - Soil

SW846 8015

Date Sampled:

08/26/10

Date Received:

08/27/10

74.3

n/a

Percent Solids:

Project:

MWHCODE: San Juan River Basin Program

File ID

BB0001676.D

DF 40

Analyzed 08/31/10

By AT Prep Date n/a

Prep Batch

Analytical Batch GBB99

Run #1 Run #2

> Initial Weight 5.05 g

Final Volume 5.0 ml

Methanol Aliquot 100 ul

Run #1 Run #2

CAS No.

Compound

Result

1090

RL

340

MDL

20

Units Q

mg/kg

CAS No.

Surrogate Recoveries

TPH-GRO (C6-C10)

Run#1

Run# 2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

123% 111% 46-127% 44-120%

ND = Not detected

RL = Reporting Limit E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: GP-3 14'-15' Lab Sample ID:

T58817-11

SO - Soil

Date Sampled:

08/26/10

Matrix:

SW846 8015 M SW846 3550B

Date Received:

08/27/10

Method:

Project:

Percent Solids: 74.3

MWHCODE: San Juan River Basin Program

Analyzed

09/04/10

Prep Date 08/30/10

Prep Batch OP15844

Analytical Batch GIB1088

Run #1 Run #2

Initial Weight

IF201042.D

File ID

30.4 g

Final Volume

Run #1

1.0 ml

DF

1

Run #2

CAS No.

Compound

Result

RL

MDL Units Q

TPH (C10-C28)

156 36.2

4.4 4.4

By

HD

3.6 2.9

mg/kg mg/kg

CAS No. Surrogate Recoveries

Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

TPH (>C28-C40)

88%

33-115%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range



Page 1 of 1

Client Sample ID: GP-2 11'-12'

Lab Sample ID: T58817-12

Matrix:

SO - Soil

SW846 8260B

Date Sampled:

08/26/10

Date Received:

08/27/10

Percent Solids: 85.2

Method: Project:

MWHCODE: San Juan River Basin Program

Run #1

File ID Y0041776.D DF Analyzed 08/31/10 1

ByFI

Prep Date n/a

Prep Batch n/a

Analytical Batch VY2595

Run #2

Initial Weight

5.30 g

Final Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q	
71-43-2	Benzene	1.6	4.4	0.77	ug/kg	J	
108-88-3	Toluene	ND	4.4	1.1	ug/kg		
100-41-4	Ethylbenzene	13.5	4.4	1.0	ug/kg		
1330-20-7	Xylene (total)	258	13	2.3	ug/kg		
	m,p-Xylene	257	8.9	1.6	ug/kg		
95-47-6	o-Xylene	0.82	4.4	0.71	ug/kg	J	
CAS No.	Surrogate Recoveries	Run# 1	1 Run# 2 Limits		its		
1868-53-7	68-53-7 Dibromofluoromethane		70-121% 76-132%				
2037-26-5 Toluene-D8 460-00-4 4-Bromofluorobenzene		94%					
		120% 73-165%					
17060-07-0	1,2-Dichloroethane-D4	68%	57-122%				

MDL - Method Detection Limit

ND = Not detected RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: GP-2 11'-12' Lab Sample ID:

Matrix: Method:

Project:

T58817-12

SO - Soil SW846 8015

MWHCODE: San Juan River Basin Program

Date Sampled:

08/26/10 Date Received: 08/27/10

Percent Solids: 85.2

Run #1 Run #2 File ID BB0001631.D

DF 1

Analyzed 08/30/10

By AT Prep Date n/a

Prep Batch n/a

Analytical Batch

GBB96

Initial Weight 5.08 g

Final Volume $5.0 \, \mathrm{ml}$

Methanol Aliquot 100 ul

Run #1 Run #2

CAS No. Compound Result

RL

MDL Units Q

TPH-GRO (C6-C10)

8.46

6.6

0.40mg/kg

CAS No. Surrogate Recoveries Run#1

Run# 2

Limits

460-00-4 4-Bromofluorobenzene 98-08-8 aaa-Trifluorotoluene

111% 105% 46-127% 44-120%

ND = Not detected

RL = Reporting Limit E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

HD

Page 1 of 1

Client Sample ID: GP-2 11'-12' Lab Sample ID:

File ID

30.3 g

IF201043.D

Matrix: Method: T58817-12

SO - Soil

SW846 8015 M SW846 3550B

Date Sampled: Date Received:

Prep Date

08/30/10

08/26/10 08/27/10

OP15844

Percent Solids: 85.2

Project:

MWHCODE: San Juan River Basin Program

Analyzed

09/04/10

Analytical Batch Prep Batch

GIF1088

Run #1 Run #2

> Final Volume Initial Weight

Run #1

1.0 ml

DF

1

Run #2

CAS No. Compound Result RL MDL Units Q

> TPH (C10-C28) TPH (> C28-C40)

32.6 3.9 3.2 mg/kg 3.9 2.6 mg/kg 19.1

CAS No. Surrogate Recoveries Run#1 Run# 2

Limits

84-15-1 o-Terphenyl 70%

33-115%

ND = Not detected RL = Reporting Limit MDL - Method Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: GP-2 (0-5')

Lab Sample ID:

T58817-13

Matrix:

SO - Soil

Method:

SW846 8260B

Date Sampled:

08/26/10

Date Received:

08/27/10

Percent Solids:

86.5

Project:

MWHCODE: San Juan River Basin Program

08/30/10

Analyzed By

FI

Prep Date n/a

Prep Batch

Analytical Batch

VY2594 n/a

Run #1 Run #2

Initial Weight

Y0041735.D

Final Volume

Run #1

5.61 g

File ID

 $5.0 \, \mathrm{ml}$

DF

1

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	4.1	0.72	ug/kg	
108-88-3	Toluene	ND	4.1	0.98	ug/kg	
100-41-4	Ethylbenzene	1.5	4.1	0.93	ug/kg	J
1330-20-7	Xylene (total)	41.3	12	2.2	ug/kg	
	m,p-Xylene	41.3	8.2	1.5	ug/kg	
95-47-6	o-Xylene	ND	4.1	0.66	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
1868-53-7	Dibromofluoromethane	85%		70-1	21%	
2037-26-5	Toluene-D8	90%		76-1	32%	
460-00-4	4-Bromofluorobenzene	109%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	72%		57-1	22%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: GP-2 (0-5')

Lab Sample ID: Matrix:

T58817-13

SO - Soil

Date Sampled: Date Received:

08/26/10

Method:

SW846 8015

08/27/10

Project:

MWHCODE: San Juan River Basin Program

Percent Solids: 86.5

	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
Run #1	BB0001632.D	1	08/30/10	AT	n/a	n/a	GBB96
Run #2 a	BB0001689.D	1	09/01/10	AT	n/a	n/a	GBB100

Run #1 Run #2	Initial Weight 5.20 g 5.20 g	Final Volume 5.0 ml 5.0 ml	Methan 100 ul 100 ul	ol Aliqu	iot				
CASNo	Compound		D ogult	Dī	MDI	Linita	0		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	26.8	6.3	0.38	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts	
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	142% ^b 122% ^b	149% ^b 119%	46-12 44-12		

(a) Confirmation run for surrogate recoveries.

(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

E = Indicates value exceeds calibration range



Page 1 of 1

Client Sample ID: GP-2 (0-5') Lab Sample ID:

T58817-13

Matrix:

SO - Soil

Method:

SW846 8015 M SW846 3550B

Date Sampled:

08/26/10

Date Received:

08/27/10

Prep Batch

Percent Solids:

86.5

Project:

MWHCODE: San Juan River Basin Program

Analytical Batch

Run #1

IF201044.D

File ID

DF 1

Analyzed 09/04/10

By HD Prep Date 08/30/10

OP15844

GIB1088

Run #2

Initial Weight

30.4 g

Final Volume 1.0 ml

Run #1 Run #2

CAS No. Compound

Result

RL

MDL

Units

Q

J

TPH (C10-C28)

TPH (> C28-C40)

ND 3.8 2.90 3.8

3.1 2.5 mg/kg mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

78%

33-115%

ND = Not detected

MDL - Method Detection Limit RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: 260810TB02

Lab Sample ID:

T58817-14

Matrix:

SO - Trip Blank Soil

SW846 8260B

Date Sampled:

08/26/10

Date Received: 08/27/10

Percent Solids: n/a

Method:

Project:

MWHCODE: San Juan River Basin Program

Run #1

File ID Y0041716.D DF Analyzed 08/30/10 1

By FI

Prep Date n/a

Prep Batch n/a

Analytical Batch

VY2593

Run #2

Initial Weight

5.00 g

Final Volume

Run #1 Run #2 5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3	Benzene Toluene	ND ND	4.0 4.0	0.70 0.95	ug/kg ug/kg	
100-41-4	Ethylbenzene	ND	4.0	0.90	ug/kg	
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg	
	m,p-Xylene	ND	8.0	1.5	ug/kg	
95-47-6	o-Xylene	ND	4.0	0.64	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts	
1868-53-7	Dibromofluoromethane	90%		70-12	21%	
2037-26-5	Toluene-D8	93%		76-13	32%	
460-00-4	4-Bromofluorobenzene	92%		73-16	65%	
17060-07-0	1,2-Dichloroethane-D4	78%		57-12	22%	

ND = Not detected

RL = Reporting Limit E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: 260810TB02 Lab Sample ID:

T58817-14

Matrix:

SO - Trip Blank Soil

DF

1

SW846 8015

Date Sampled: Date Received: 08/27/10

08/26/10

Method: Project:

MWHCODE: San Juan River Basin Program

Percent Solids: n/a

Analytical Batch

File ID HH0001017.D Analyzed 09/01/10

By LB Prep Date n/a

Prep Batch n/a

GHH53

Run #1 Run #2

Initial Weight

5.00 g

Final Volume 5.0 ml

Run #1 Run #2

CAS No.

Compound

Result

RL

MDL Units

mg/kg

Q

TPH-GRO (C6-C10)

ND

0.10 Run#2

Limits

0.0060

CAS No. 460-00-4

Surrogate Recoveries 4-Bromofluorobenzene

Run#1

46-127%

98-08-8

aaa-Trifluorotoluene

88% 110%

44-120%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody



		HAIN	OF C	UST	ODY			***************************************	- 6				1 of 2
ACCUTEST.	7	10165 Harwin I							Tracking #			er Control #	
Laboratories			1-4700 FAX:		770			Accutes	Quote #		Acculest 3	ob# 75	58817
Client / Reporting Information		Project Info		國際						Request	ed Anal		Matrix Codes
Company Name	Project Name:												
MWH Americas Street Address 1801 Coliforniast, Ste290 City State Denver CO 80202	Jaquez Street							1					DW - Drinking Wa GW - Ground Wal
Street Address	Street 0	3300	然而出来				の対象を対象						WW - Water SW - Surface Wat
City State Zio	City		ting Information	n (if differe	int from Repor	t to)		- 87					SO - Soil SL- Sludge
Denver (0) 80202			.,,					3					SED-Sediment OI - Oil
Denver CO 80202 Project Contact Ted Smith	Project#	Stre	eet Address					A					LIQ - Other Liqui
Ted Sprith								K	0				SOL - Other Soli
Phone # Fax # 3 0 3 ~ 2 9 1 – 2276	Client Purchase Order#	City	У		State		Zip		02				WP - Wipe FB-Field Blank
Sampler(s) Name(s) Phone #	Project Manager	Atte	intion:					0	63				EB-Equipment Bla RB- Rinse Blan
Devin H	Ashley Ager							0	7				TB-Trip Blank
	Collection			1 1=	Number of prese	ved Bott	es .	38	f H				
Accurent			# of	NaO!	NE SO4	8	HSO4	1000	+		- 1 1		1
Sample # Field ID / Point of Collection			atrix bottles	로 물 점	로 보 및 급	A t	E W	5					LAB USE ONL
1 GP-7 15'-16'		DH 50	-		X			14	X				
2 48-7 8-91	082610 09/0 1) H 5	0 2		l X			14	X				
3 69-7 141-16'		H S	02		X	T		X	X				
4 68-8 9'-10'		DH 5			X	T		X	X				
5 69-8 12-131		DH 5	-		X	\sqcap	H	X	X				
6 NR.8 17-181		DH S			X	$\dagger \dagger$		X	X				
7 60-4 81-91		DH S			V	I	\Box	X	2				
8 69-4 16'-17'	0826/0 1320	DH SO		\top	X	H		X	X				
9 6041 13-14		H S			12	H	++	×	7				
10 4P3 15'-16') H 5			12	H	1	DZ	4				1
11 (0 3) 14/ 15/	082610 0800 1	DH S				\vdash	++	W	N				
12 61-12)H 50			1	+		×	2	++	++		
Turnaround Time (Business days)	0826/0 1600 1	טק דונ	0	Data D	eliverable Info	rmatic					Comments / S	pecial Instructions	
Standard	Approved By (Accutest PM): / Date:	SERVICE AND SERVICE SERVICE	Commerci			Пт		1923(Septime	apapaga va zieno	WAS TO ANY OF THE PROPERTY OF	oommand / c	podial management	- International Account of the Assessment
5 Day RUSH			Commerci	al "B" (Lev	rel 2)		DD Forma	ıt					
4 Day RUSH			FULT1 (L				ther						
3 Day RUSH 2 Day RUSH	4		REDT1 (L							***			
1 Day EMERGENCY		-			rcial "A" = Resi	its Only							
Emergency & Rush T/A data available VIA Lablink					rcial "B" = Res			I- D.					
	Sample Custody must	be documente	ed below eacl		rcial "C" = Resi					very.			
Relinquished by Sampler: Date Time:	1620 Rocelved By	11.	^	170	Relinquished By	. 4	~		4 1-	Date Time:	Received I		A STATE OF THE STA
	6/10 1 Tag	165	. /:		2 / Mg				20/10	1655	2		
Relinquished by Sampler: Feder Date Time: 8 - 2	7-10 0930 Racelved By: A	mus)	tuddle	itos	Relinquistred By	:				Date Time:	Received I	ay:	10
Made the day	Intt n				0-1-1-0-14		п	Barbara A		d b tt t.t.	-	Contract to	Contra Town

Intact
Not intact

> T58817: Chain of Custody Page 1 of 5



	u	
#	ACCUTEST	

CHAIN OF CUSTODY

FED-EX Tracking #

	PAGE	2 OF 2
	Battle Order Control #	5-16-6-16-20
	Accusest Job #	58817
este	Analyses	Matrix Codes
		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water

MACCO I LO 10		7	10165 Har	rwin Dr. St	te 150 Ho	uston.	TX 77	036					P	ED-EX	Tracking	a a				Battle On	rder Control			
Laboratories		•		3-271-470		713-2							^	ccutest	Quote #					Acculest	Job# _	T	588	-17
Client / Reporting Information			Project	Informa		Supple	四数										Req	ues	t e d	Ana	lyses			Matrix Codes
Company Name M W H Street Address	Project Name: Jagu Street	ez			在那位祖名		沙鼠鼠																	DW - Drinking Water GW - Ground Water WW - Water
Street Address 1801 Callfonia St. Ste 2900 City State 210 Denver CO 80202 Project Contact E-mail	City	S	State	Company		in (If o	differe	nt from	m Rep	ort to)			RO	_									SW - Surface Water SO - Soil SL- Sludge SED-Sediment OI - Oil
Project Contact Sm1 + L Phone # Fax #	Project # Client Purchase C	Order#		Street Ad	idress			S	tste			Zip		PHG	RO O									LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe
State Zip Denver CO Sozoo Project Contact E-mail E-mail Phone # Pax # 203-291-2276 Sampler(a) Name(a) Phone # Phone	Project Manager AShley	Ager		Attention	:								\rightarrow	60/7	H/6									FB-Field Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank
Accusted Sample # Field ID / Point of Collection	Dete	Time	Sampled By	Malrix	# of bottles	HG.	NaCH	Number 500H	NONE NONE	Di Water	Bottles	NaHSO4 ENCORE	OTHER	821	7									LAB USE ONLY
13 6-9-2	082610	1610	DH	50	2	Ц			X				1	K	X	U								
14 074260810TB 02	082610	0700	DH	50	2	H	+	H	+	+	\mathbb{H}	+	1	X.	X							-		13
							†			1														
						H	+	H	+	+	H	+	+	\dashv	-			-				\dashv	-	
							1			1			Ħ											
				-		+	+	H	+	+	H	+	+				<i>j.</i> 1					+	_	
							1																	
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Turnaround Time (Business days)	を表現を表現を表		NAME OF THE PARTY	1 医细胞			Data D	eliver	able I	nform	ation		- RS						Com	ments /	Special	Instruc	tions	
☐ Standard ☐ 5 Day RUSH ☐ 4 Day RUSH ☐ 3 Day RUSH	Approved By (Accu	test PM): / Date:			Commerce Commerce FULT1 (1 REDT1 (ial "B Level	" (Let 3+4)				TR.	D Fo	mat	_										
2 Day RUSH					Commerc																			
1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink						(ercial *	B" = R	esults	+ QC	Summ											-	
		mple Custody m	ust be docur	nented b	elow eac								ogate S includ			delive	ry.	-						
Ralinquished by Sampler: Data Time: 8/22	6116	Received By:	en	/			-		sy		~					ŗ.	Data Ti		-	Received 2	d By:		4	
Relinguished by Samplor: Date Time:		Received By: 3				1	7	4	n parties	(0)							Date Tir			Receive 4	d By:	n-1		
Relinquished by:	10 2970	Received By: AL	67	2-26	edde	107	VA.	Custo	dy Sea								ed when	applica	ble			On Ice	Cool	ler Temp. 40C

T58817: Chain of Custody Page 2 of 5



SAMPLE INSPECTION FORM

Accutest Job Number: T58817 Client: MWH Americas Date/Time Received: 8-27-10 0938
of Coolers Received: Thermometer #: # 110 Temperature Adjustment Factor: -0.5°C
Cooler Temperatures (initial/adjusted): #1:5.9 /5.4°C #2: #3: #4: #5:
#6:#8:#9:#10#11#12
Method of Delivery: FEDEX UPS Accutest Courier Greyhound Delivery Other
Cooler Information Custody seal missing or not intact Temperature criteria not met Wet ice received in cooler Wet ice received in cooler CHAIN OF CUSTODY Chain of Custody not received Sample Information Sample Information Sample Information Trip Blank information Trip Blank on COC but not received Trip Blank received but not on COC Trip Blank not intact ID on COC does not match label(s) P/T on COC does not match label(s) Chain of Custody not received Sample/Bottles reved but no analysis on COC Sample/Bottles reved but no analysis on COC
Sample D/T unclear or missing Analyses unclear or missing COC not properly executed Insufficient volume for analysis Sample listed on COC, but not received Bottles missing for requested analysis Number of Encores? Number of 5035 kits? Sample received improperly preserved Number of lab-filtered metals?
Summary of Discrepancies: GP-7 (14'-16') received labeled GP-7 (14'-15'), Date + Time match COC.
OTU 260810 TBO2 COC ID received as Soil Unit Trip Blank. 2 Soil Unit Trip Blanks received. 402 sample jars received labeled for TPH/DRO analysis; COC marked for TPH/GRO analysis.
GP-7 (14-15), GP-8 (9-10), GP-4 (16-17) - 4 oz soiljars received with water in sample.
GP-2 40zjar received labeled GP-2 (0-5'), Date + Time match COC
TECHNICIAN SIGNATURE/DATE: Owned Huddleston 8-27-10
INFORMATION AND SAMPLE LABELING VERIFIED BY: EC 82715
· · · · · · · · · · CORRECTIVE ACTIONS · · · · · · · · · · · ·
Client Representative Notified: Sed Smith Date: 8/27/10
By Accutest Representative: League Jones Via: Phone Email Client Instructions: Analyze encell for volatile - \$260, perform CNO from bulk for Analyze Rel. Others encell so souther because

T58817: Chain of Custody Page 3 of 5



SAMPLE RECEIPT LOG

T58817

DATE/TIME RECEIVED: 8-27-10 0930

CLIENT:

mwH Americas

INITIALS:

DRA

COOLER#	SAMPLE ID		FIELD ID		DATE	MAT	rix	VOL	BOTTLE#		ATION		PRESE	ERV		PH
1	1	GP-7	(15-16)	8-26	-10 945	50	il	402	/	V	IR	05	8	3 4 7 8	<2	>12
1	1	1			1)	Encore	2		1	0 5	6	3 4 7 8	<2	>12
	2	GP-7	(8-9)		910			402	1			0 5	2 6	3 4	<2	>12
	7	4	4		4			Encore	2			0,	2	3 4 7 8	<2	>12
	3	GP-7	(14-15)		925			402	1			0 5	2	3 4 7 8	<2	>12
	N	1	7		4			Encore	2			0 5	2 6	3 4 7 8	<2	>12
	4	GP-8	(9-10)		1310			402	1			0 5	6	3 4 7 8	<2	>12
	7	J	7		1			Encore	a			0 5	2 6	3. 4 7 8	<2	>12
	5	GP-8	(12-13)		1430			402	1			0 5	2 6	3 4 7 8	<2	>12
	7	1	4		1			Encore	2			0 5	6	3 4 7 8	<2	>12
	6	GP-8	(17-18)		1500			402	1			0,	2 6	3 4 7 8	<2	>12
	7	1	4		J			Encore	2			0 5	6	3 4 7 8	<2	>12
	7	GP-4	(8-9)		1240			402	1			0 5	6	3 4 7 8	<2	>12
	4	7	4		4			Encore	2			0,	2 6	3 4 7 8	<2	>12
	8	GP-4	(16-17)	15	1320			402	1			Ø 5		3 4 7 8.	<2	>12
	1	4	Ψ		1			Encore	2			① 5		3 4 7 8	<2	>12
	9	GP-4	(13-14)		1025			402	/			0,		3 4 7 8	<2	>12
	J	4	1		4			Encore	2	gi.		Ü ₅		3 4 7 8	<2	>12
	10	GP-3	(15-16)		810			402	1			0,5		3 4 7 8	<2	>12
	J	1	4					Encore	2			(V) 5		3 4 7 8	<2	>12
	11	GP-3	(14-15)		800			40Z	1	- 1		0 5		3 4 7 8	<2	>12
V	V	1	V	4	· 4	V	/	Encore	2	_	\vee	(1) ₅		3 4 7 8	<2	>12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Solls) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer Rev 8/13/01 ewp

> T58817: Chain of Custody Page 4 of 5

SAMPLE RECEIPT LOG

pg. 2 of 2

T58817 JOB#:

DATE/TIME RECEIVED: 8-27-10 0930

CLIENT:

MWH Americas

DRA INITIALS:

	3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2								
SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE#	LOCATION	PRESERV	F	Н
12	GP-2 (11-12)	8-26-10 1600	567)	402)	VR	5 6 7 8	<2	>12
V	4 4	1 +		Encore	2	1	D 2 3 4 5 6 7 8	<2	>12
13	GP-2 (0-5)	1610		402	(.		D 2 3 4 5 6 7 8	<2	>12
13	GP-2	1610	4	Encore	2		① 2 3 4 5 6 7 8	<2	>12
14		12/09/09	5TB	40ml	1-2		1 2 3 4 5 (6) 7 8	<2	>12
15						4	1 2 3 4 5 6 7 8	<2	>12
							1 2 3 4 5 6 7 8	~2	>12
							1 2 3 4 5 6 7 8	52	>12
							1 2 3 4	<2	>12
							1 2 3 4 5 6 7 8	<2	>12
2							1 2 3 4 5 6 7 8	<2	>12
							1 2 3 4 5 6 7 8	<2	>12
							1 2 3 4 5 6 7 8	<2	>12
		NDA					1 2 3 4 5 6 7 8	<2	>12
		1101					1 2 3 4 5 6 7 8	<2	>12
							1 2 3 4 5 6 7 8	<2	>12
		8/27/10					1 2 3 4 5 6 7 8	<2	>12
							1 2 3 4	<2	>12
				11.			1 2 3 4 5 6 7 8	<2	>12
							1 2 3 4 5 6 7 8	<2	>12
							1 2 3 4	<2	>12
							1 2 3 4	2	->T2
	12 13 13 14	12 GP-2 (11-12) V V V 13 GP-2 (0-5) 13 GP-2	12 GP-2 (11-12) 8-26-10 1600 V V V V 1 V 13 GP-2 (0-5) 1610 13 GP-2 1610	12 GP-2 (11-12) 8-26-10 1600 5071 V V V V 13 GP-2 (0-5) 1610 14 12/09/09 57B 15 12/09/09 57B	12 GP-2 (11-12) 8-26-10 1600 56il 402 V V V I Encore 13 GP-2 (0-5) 1610 402 13 GP-2 1610 V Encore 14 18/09/09 5TB 40ml 15 18/09/09 5TB 40ml	12 GP-2 (11-12) 8-26-10 1600 56il 402 1 V V V FENCORE 2 13 GP-2 (0-5) 1610 402 1 13 GP-2 1610 V Encore 2 14 19/09/09 5TB 40ml 1-2 15 19/09/09 5TB 40ml 1-2	12 GP-2 (11-12) 8-26-10 1600 Soil 402 1 VR V V V V P PEncore 2 13 GP-2 (0-5) 1610 402 1 13 GP-2 1 1610 V Encore 2 14 160 V Encore 2 1600 V Encore 2 17/09/09 - 5TB 40ml 1-2 18/09/09 - 5TB 40ml 1-2 19/09/09 - 5TB 40ml 1-2	12 GP-2 (11-12) 8-26-10 600 56-11 402 1 VR 5 8 7 8 8	12 GP-2 (11-12) 8-26-10 1600 Sei 40z VR 5 8 7 8 8 9 7 8 9 13 GP-2 (0-5) 1610 40z Denore 2 Denore 3 Denor

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer Rev 8/13/01 ewp

> **T58817: Chain of Custody** Page 5 of 5





GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Job Number:

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample VY2593-MB File ID DF Analyzed

Prep Date

Prep Batch

Analytical Batch

Page 1 of 1

Y0041706.D 1

By 08/30/10 FΪ

n/a

n/a

VY2593

The QC reported here applies to the following samples:

Method: SW846 8260B

T58817-1, T58817-3, T58817-6, T58817-7, T58817-8, T58817-11, T58817-14

CAS No.	Compound	Result	RL	MDL	Units Q
71-43-2	Benzene	ND	4.0	0.70	ug/kg
100-41-4	Ethylbenzene	ND	4.0	0.90	ug/kg
108-88-3	Toluene	ND	4.0	0.95	ug/kg
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg
	m,p-Xylene	ND	8.0	1.5	ug/kg
95-47-6	o-Xylene	ND	4.0	0.64	ug/kg
CAS No.	Surrogate Recoveries		Limits		
	8				
1868-53-7	Dibromofluoromethane	85%	70-121	%	
2037-26-5	Toluene-D8	90%	76-132	%	
460-00-4	4-Bromofluorobenzene	90%	73-165	%	
17060-07-0	1,2-Dichloroethane-D4	72%	57-122	%	



Method Blank Summary

Job Number: T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID	DE	Amalurad	Dv	Prep Date	Prep Batch	Analytical Batch
VY2594-MB	Y0041734.	Dr D1	Analyzed 08/30/10		n/a	n/a	VY2594
V I ZOOT IVID	10011101.		00/30/10	11	II/ a	II/ a	V 1 2 3 3 4

The QC reported here applies to the following samples:

Method: SW846 8260B

T58817-2, T58817-5, T58817-9, T58817-10, T58817-13

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	4.0	0.70	ug/kg	
100-41-4	Ethylbenzene	ND	4.0	0.90	ug/kg	
108-88-3	Toluene	ND	4.0	0.95	ug/kg	
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg	
	m,p-Xylene	ND	8.0	1.5	ug/kg	
95-47-6	o-Xylene	ND	4.0	0.64	ug/kg	
CAS No.	Surrogate Recoveries		Limits			
1868-53-7	Dibromofluoromethane	88%	70-1219	%		
2037-26-5	Toluene-D8	91%	76-1329	%		
460-00-4	4-Bromofluorobenzene	89%	73-1659	%		
17060-07-0	1,2-Dichloroethane-D4	74%	57-1229	%		



Job Number:

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample VY2595-MB File ID DF Y0041759.D 1

Analyzed 08/31/10

By FI

Prep Date n/a

Prep Batch

Analytical Batch VY2595

Page 1 of 1

n/a

The QC reported here applies to the following samples:

Method: SW846 8260B

T58817-4, T58817-8, T58817-11, T58817-12

CAS No.	Compound	Result	RL	MDL	Units Q
71-43-2	Benzene	ND	4.0	0.70	ug/kg
100-41-4	Ethylbenzene	ND	4.0	0.90	ug/kg
108-88-3	Toluene	ND	4.0	0.95	ug/kg
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg
	m,p-Xylene	ND	8.0	1.5	ug/kg
95-47-6	o-Xylene	ND	4.0	0.64	ug/kg
CAS No.	Surrogate Recoveries		Limits		
	· ·				
1868-53-7	Dibromofluoromethane	83%	70-1219	%	
2037-26-5	Toluene-D8	92%	76-132	%	
460-00-4	4-Bromofluorobenzene	92%	73-1659	%	
17060-07-0	1,2-Dichloroethane-D4	69%	57-1229	%	



Blank Spike Summary Job Number: T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample File ID DF VY2593-BS Y0041704.D 1	Analyzed By 08/30/10 FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VY2593
---------------------------------------------	-------------------------	---------------	-------------------	----------------------------

The QC reported here applies to the following samples:

Method: SW846 8260B

 $T58817\text{--}1,\ T58817\text{--}3,\ T58817\text{--}6,\ T58817\text{--}7,\ T58817\text{--}8,\ T58817\text{--}11,\ T58817\text{--}14$

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	47.0	94	70-114
100-41-4	Ethylbenzene	50	46.3	93	60-119
108-88-3	Toluene	50	44.5	89	68-115
1330-20-7	Xylene (total)	150	143	95	61-115
	m,p-Xylene	100	94.6	95	60-115
95-47-6	o-Xylene	50	48.6	97	63-114
CAS No.	Surrogate Recoveries	BSP	Limits		
1868-53-7	Dibromofluoromethane	86%	70-121%		
2037-26-5	Toluene-D8	88%	76-1	32%	
460-00-4	4-Bromofluorobenzene	90%	73-1	165 %	
17060-07-0	1,2-Dichloroethane-D4	75%	57-1	22%	



Blank Spike Summary

Job Number: T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID	DF	Analyzed 08/30/10	By	Prep Date	Prep Batch	Analytical Batch
VY2594-BS	Y0041730.D	1		FI	n/a	n/a	VY2594

The QC reported here applies to the following samples:

Method: SW846 8260B

T58817-2, T58817-5, T58817-9, T58817-10, T58817-13

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	44.5	89	70-114
100-41-4	Ethylbenzene	50	40.6	81	60-119
108-88-3	Toluene	50	42.5	85	68-115
1330-20-7	Xylene (total)	150	126	84	61-115
	m,p-Xylene	100	83.0	83	60-115
95-47-6	o-Xylene	50	43.4	87	63-114
CAS No.	Surrogate Recoveries	BSP	Limits		
1868-53-7	Dibromofluoromethane	93%	70-1	21%	
2037-26-5	Toluene-D8	92%	76-1	32%	
460-00-4	4-Bromofluorobenzene	93%	73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	76%	57-1	22%	



Blank Spike Summary Job Number: T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

	Sample VY2595-BS	File ID Y0041757.D	DF 1	Analyzed 08/31/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VY2595
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The QC reported here applies to the following samples:

Method: SW846 8260B

T58817-4, T58817-8, T58817-11, T58817-12

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2 100-41-4 108-88-3 1330-20-7	Benzene Ethylbenzene Toluene Xylene (total)	50 50 50 150	43.5 43.8 43.3 137	87 88 87 91	70-114 60-119 68-115 61-115
95-47-6	m,p-Xylene o-Xylene	100 50	89.8 47.1	90 94	60-115 63-114
CAS No.	Surrogate Recoveries	BSP	Lim	its	
1868-53-7 2037-26-5	Dibromofluoromethane Toluene-D8	85% 91%	76-1	121% 132%	
460-00-4 17060-07-0	4-Bromofluorobenzene 1,2-Dichloroethane-D4	93% 72%		1 65 % 1 22 %	



Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID DF	Analyzed By	Prep Date	Prep Batch	Analytical Batch
T58706-1MS	Y0041713.D 1	08/30/10 FI	n/a	n/a	VY2593
T58706-1MSD	Y0041714.D 1	08/30/10 FI	n/a	n/a	VY2593
T58706-1	Y0041707.D 1	08/30/10 FI	n/a	n/a	VY2593

The QC reported here applies to the following samples:

Method: SW846 8260B

T58817-1, T58817-3, T58817-6, T58817-7, T58817-8, T58817-11, T58817-14

CAS No.	Compound	T58706-1 ug/kg Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	43.9	32.6	74	44.6	93	31	70-114/38
100-41-4	Ethylbenzene	ND	43.9	30.5	70	44.6	93	38	60-119/40
108-88-3	Toluene	ND	43.9	35.2	80	53.4	112	41*	68-115/38
1330-20-7	Xylene (total)	ND	132	95.5	73	142	99	39	61-115/39
	m,p-Xylene	ND	87.7	64.7	74	95.8	100	39	60-115/40
95-47-6	o-Xylene	ND	43.9	30.8	70	46.4	97	40*	63-114/37
CAS No.	Surrogate Recoveries	MS	MSD	T58	3706-1	Limits			
1868-53-7	Dibromofluoromethane	88%	84%	849	6	70-121%	, 0		
2037-26-5	Toluene-D8	89%	93%	939	6	76-132%	ó		
460-00-4	4-Bromofluorobenzene	91%	96%	95%	6	73-165%	ó		
17060-07-0	1,2-Dichloroethane-D4	74%	69%	719	6	57-122%	ó		



Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T58817-13MS	Y0041736.D	1	08/31/10	FI	n/a	n/a	VY2594
T58817-13MSD	Y0041737.D	1	08/31/10	FI	n/a	n/a	VY2594
T58817-13	Y0041735.D	1	08/30/10	FI	n/a	n/a	VY2594

The QC reported here applies to the following samples:

Method: SW846 8260B

T58817-2, T58817-5, T58817-9, T58817-10, T58817-13

CAS No.	Compound	T58817-13 ug/kg Q			MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2 100-41-4 108-88-3 1330-20-7 95-47-6	Benzene Ethylbenzene Toluene Xylene (total) m,p-Xylene o-Xylene	ND 1.5 J ND 41.3 41.3 ND	55.9 55.9 55.9 168 112 55.9	39.1 6 48.4 8 110 4 64.6 2	92 67 87 41* 21*	49.3 46.1 47.7 149 99.6 49.1	90 81 87 65 53* 89	5 16 1 30 43* 8	70-114/38 60-119/40 68-115/38 61-115/39 60-115/40 63-114/37
CAS No.	Surrogate Recoveries	MS	MSD	T5881	17-13	Limits			
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	92% 93% 95% 72%	87% 91% 93% 72%	85% 90% 109% 72%		70-121% 76-132% 73-165% 57-122%	, , , ,		

Matrix Spike/Matrix Spike Duplicate Summary

Job Number:

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample T58706-10MS T58706-10MSD T58706-10	File ID Y0041761.D Y0041762.D Y0041760.D	1	Analyzed 08/31/10 08/31/10 08/31/10	By FI FI FI	Prep Date n/a n/a n/a	Prep Batch n/a n/a n/a	Analytical Batch VY2595 VY2595 VY2595

The QC reported here applies to the following samples:

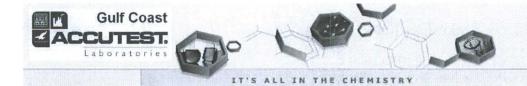
Method: SW846 8260B

T58817-4, T58817-8, T58817-11, T58817-12

71-43-2 Benzene 8.3 44.6 50.7 95 43.9 80 14 70-11-	ts RPD
100 41 4 Ethylhogons 5 2 44 6 56 0 116 44 7 90 24 60 110	4/38
100-41-4 Ethylbenzene 5.2 44.6 56.9 116 44.7 89 24 60-119	9/40
108-88-3 Toluene 24.2 44.6 89.8 147* 64.6 91 33 68-11	5/38
1330-20-7 Xylene (total) 19.4 134 165 109 130 83 24 61-11	5/39
m,p-Xylene 14.8 89.1 113 110 87.5 82 25 60-11	5/40
95-47-6 o-Xylene 4.6 44.6 52.0 106 42.0 84 21 63-11-	4/37
CAS No. Surrogate Recoveries MS MSD T58706-10 Limits	
1868-53-7 Dibromofluoromethane 89% 86% 89% 70-121%	
2037-26-5 Toluene-D8 133%* a 122% 136%* a 76-132%	
460-00-4 4-Bromofluorobenzene 146% 141% 144% 73-165%	
17060-07-0 1,2-Dichloroethane-D4 72% 70% 73% 57-122%	

⁽a) Outside control limits due to matrix interference. Confirmed by MS/MSD.





GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Job Number:

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GBB96-MB File ID DF BB0001609.D1 Analyzed 08/30/10

By AT Prep Date

n/a

Prep Batch

Analytical Batch

Page 1 of 1

n/a

GBB96

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-5, T58817-7, T58817-10, T58817-12, T58817-13

CAS No. Compound

Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

ND

5.0

0.30 m

mg/kg

CAS No.

Surrogate Recoveries

Limits

460-00-4 98-08-8 4-Bromofluorobenzene aaa-Trifluorotoluene

90% 99% 46-127% 44-120%

67 of 85

ACCUTEST.

T58817 Laboratories

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GBB97-MB File ID DF BB0001639.D1

Analyzed 08/30/10

By AT Prep Date

n/a

Prep Batch

Analytical Batch

n/a

GBB97

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-1, T58817-2

CAS No. Compound

Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

ND

5.0

0.30

mg/kg

CAS No.

Surrogate Recoveries

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

91% 99%

46-127% 44-120%

Job Number:

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GBB99-MB File ID DF BB0001651.D1

Analyzed 08/31/10

By AT Prep Date n/a

Prep Batch n/a

Analytical Batch

Page 1 of 1

GBB99

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-4, T58817-6, T58817-8, T58817-9, T58817-11

CAS No. Compound

Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

ND

5.0

0.30

mg/kg

CAS No.

Surrogate Recoveries

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

93% 101% 46-127% 44-120%



Job Number:

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample

GHH53-MB

File ID

DF HH0001007.D

Analyzed 09/01/10

By

LB

Prep Date

n/a

Prep Batch

n/a

Analytical Batch

GHH53

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-14

CAS No.

Compound

Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

ND

0.050

 $0.0060 \, \text{mg/l}$

CAS No.

Surrogate Recoveries

Limits

460-00-4 98-08-8

4-Bromofluorobenzene

86%

42-123%

aaa-Trifluorotoluene

114% 51-130%

Job Number:

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GBB100-MB File ID DF BB0001682.D1

Analyzed 09/01/10

By AT Prep Date

n/a

Prep Batch

Analytical Batch

Page 1 of 1

n/a

GBB100

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-3

CAS No. Compound

Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

ND

5.0

0.30

mg/kg

CAS No.

Surrogate Recoveries

Limits

460-00-4

4-Bromofluorobenzene

93%

46-127%

98-08-8 aaa-Trifluorotoluene 101%

44-120%

Job Number:

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	
Sample GBB96-	BS

File ID DF BB0001607.D1 Analyzed 08/30/10

Prep Date n/a

Prep Batch n/a **Analytical Batch**

GBB96

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-5, T58817-7, T58817-10, T58817-12, T58817-13

CAS No. Compound

Spike BSP mg/kg mg/kg

BSP g %

85

By

AT

Limits

TPH-GRO (C6-C10)

0.4 0.340

78-115

CAS No. Surr

Surrogate Recoveries

BSP

Limits

460-00-4 98-08-8 4-Bromofluorobenzene aaa-Trifluorotoluene

94% 108%

46-127% 44-120%

Job Number:

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GBB97-BS File ID DF BB0001637.D1

Analyzed 08/30/10

By AT Prep Date

n/a

Prep Batch n/a

Analytical Batch

Page 1 of 1

GBB97

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-1, T58817-2

CAS No. Compound Spike **BSP** mg/kg mg/kg

BSP %

Limits

TPH-GRO (C6-C10)

0.4 0.339 85 78-115

CAS No.

Surrogate Recoveries

BSP

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

94% 105% 46-127% 44-120%

Job Number:

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample
GBB99-BS

File ID DF BB0001650.D1 Analyzed 08/31/10

By AT Prep Date n/a

Prep Batch

Analytical Batch

n/a GBB99

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-4, T58817-6, T58817-8, T58817-9, T58817-11

CAS No. Compound

Spike BSP mg/kg mg/kg

SP BSP

%

87

Limits

TPH-GRO (C6-C10)

0.4 0.349

78-115

CAS No. Surrogate Recoveries

BSP

Limits

460-00-4 98-08-8 4-Bromofluorobenzene aaa-Trifluorotoluene

96% 108%

6 46-127% 9% 44-120%

Job Number:

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GHH53-BS

File ID

DF HH0001005.D

Analyzed 09/01/10

By LB Prep Date

n/a

Prep Batch

Analytical Batch

n/a

GHH53

Page 1 of 1

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-14

CAS No. Compound Spike mg/1

BSP mg/l

BSP %

97

Limits

TPH-GRO (C6-C10)

0.4

0.387

81-113

CAS No.

Surrogate Recoveries

BSP

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

87% 115% 42-123% 51-130%

Blank Spike Summary

Job Number:

T58817

Account:

:: ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GBB100-BS File ID DF BB0001680.DI

Analyzed 09/01/10

d By

Prep Date

n/a

Prep Batch n/a Analytical Batch

GBB100

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-3

CAS No. Compound

Spike I mg/kg r

BSP BSP mg/kg %

Limits

TPH-GRO (C6-C10)

0.359

90 78-115

CAS No. Surre

Surrogate Recoveries

BSP

0.4

Limits

460-00-4 98-08-8 4-Bromofluorobenzene aaa-Trifluorotoluene 96% 106%

46-127% 44-120%

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

G 1	T'I ID I	DE	A 1 1	D	D D	D D . 4 - 1	Augletical Details
Sample		DF	Analyzed	$\mathbf{B}\mathbf{y}$	Prep Date	Prep Batch	Analytical Batch
T58836-4MS	BB0001620.D	1	08/30/10	AT	n/a	n/a	GBB96
T58836-4MSD	BB0001621.D	1	08/30/10	AT	n/a	n/a	GBB96
T58836-4	BB0001619.D	1	08/30/10	AT	n/a	n/a	GBB96

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-5, T58817-7, T58817-10, T58817-12, T58817-13

CAS No.	Compound	T58836- mg/kg	4 Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	0.818	J	24.6	21.1	83	21.5	84	2	78-115/14
CAS No.	Surrogate Recoveries	MS		MSD	T58	836-4	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	93% 106%		96% 107%	93% 103		46-127% 44-120%			

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample File ID DF T58817-1MS BB0001641.Dl T58817-1MSD BB0001642.Dl T58817-1 BB0001640.Dl	Analyzed 08/31/10 08/31/10 08/30/10	By Prep Da AT n/a AT n/a AT n/a	nte Prep Batch n/a n/a n/a	Analytical Batch GBB97 GBB97 GBB97
----------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------	---------------------------------	-------------------------------------	---------------------------------------------

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-1, T58817-2

CAS No.	Compound	T58817- mg/kg	-1 Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	3.25	J	25.6	22.6	76*	22.5	75*	0	78-115/14
CAS No.	Surrogate Recoveries	MS		MSD	T58	8817-1	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	94% 106%		94% 108%	939 106		46-127% 44-120%	-		

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample T58920-5AMS	File ID DF BB0001658.DI	Analyzed 08/31/10	By AT	Prep Date	Prep Batch	Analytical Batch GBB99
T58920-5AMSD	BB0001659.DI	08/31/10	AT	n/a	n/a	GBB99
T58920-5A	BB0001657.D1	08/31/10	AT	n/a	n/a	GBB99

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-4, T58817-6, T58817-8, T58817-9, T58817-11

CAS No.	Compound	T58920-5A mg/kg Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	7.5 U	30.1	25.6	85	25.8	86	1	78-115/14
CAS No.	Surrogate Recoveries	MS	MSD	T58	920-5A	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	96% 105%	96% 105%	91% 99%		46-127% 44-120%			

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T59027-1MS	BB0001687.D1	09/01/10	AT	n/a	n/a	GBB100
T59027-1MSD	BB0001688.D1	09/01/10	AT	n/a	n/a	GBB100
T59027-1	BB0001685.D1	09/01/10	AT	n/a	n/a	GBB100

The QC reported here applies to the following samples:

Method: SW846 8015

T58817-3

CAS No.	Compound	T59027-1 mg/kg Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	14 U	54	49.1	91	48.0	89	2	78-115/14
CAS No.	Surrogate Recoveries	MS	MSD	T59	027-1	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	93% 107%	95% 105%	91% 101°		46-127% 44-120%			

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample File ID DF Analyzed By T59026-4MS HH0001025.D 09/01/10 LB T59026-4MSD HH0001026.D 09/01/10 LB T59026-4 HH0001009.D 09/01/10 LB	Prep Date Prep Batch n/a n/a n/a n/a n/a n/a	Analytical Batch GHH53 GHH53 GHH53
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The QC reported here applies to the following samples:

Method: SW846 8015

T58817-14

CAS No.	Compound	T59026-4 mg/l Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	0.050 U	0.4	0.417	104	0.409	102	2	81-113/31
CAS No.	Surrogate Recoveries	MS	MSD	T59	0026-4	Limits			
460-00-4	4-Bromofluorobenzene	89%	87%	89%		42-1239			
98-08-8	aaa-Trifluorotoluene	115%	115%	110	%	51-1309	6		



GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Method Blank Summary

Job Number: T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample OP15844-MB

84-15-1

o-Terphenyl

File ID DF IF201028.D 1

Analyzed 09/04/10

By HD Prep Date 08/30/10

Prep Batch OP15844

Analytical Batch

Page 1 of 1

GIB1088

The QC reported here applies to the following samples:

Method: SW846 8015 M

T58817-1, T58817-2, T58817-3, T58817-4, T58817-5, T58817-6, T58817-7, T58817-8, T58817-9, T58817-10, T58817-11, T58817-12, T58817-13

33-115%

CAS No. Compound Result RL MDL Units Q TPH (C10-C28) ND 3.3 2.7 mg/kg TPH (>C28-C40) ND 3.3 2.2 mg/kg CAS No. Surrogate Recoveries Limits

77%



Blank Spike Summary

Job Number:

T58817

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample OP15844-BS

File ID D IF201029.D 1

DF

Analyzed 09/04/10

Prep Date 08/30/10

Prep Batch OP15844 Analytical Batch

GIF1088

The QC reported here applies to the following samples:

Method: SW846 8015 M

T58817-1, T58817-2, T58817-3, T58817-4, T58817-5, T58817-6, T58817-7, T58817-8, T58817-9, T58817-10, T58817-11, T58817-12, T58817-13

By

HD

CAS No.

Compound

Spike BS mg/kg mg

BSP mg/kg

BSP %

Limits

TPH (C10-C28)

33.2 25.6

77 45-107

CAS No.

Surrogate Recoveries

BSP

Limits

84-15-1

o-Terphenyl

73%

33-115%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T58817

Account: Project:

ELPASOX EL PASO CORPORATION MWHCODE: San Juan River Basin Program

The QC reported here applies to the following samples:

Method: SW846 8015 M

T58817-1, T58817-2, T58817-3, T58817-4, T58817-5, T58817-6, T58817-7, T58817-8, T58817-9, T58817-10, T58817-11, T58817-12, T58817-13

CAS No.	Compound	T58817-7 mg/kg Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	ND	36.1	27.2	75	30.8	85	12	45-107/34
CAS No.	Surrogate Recoveries	MS	MSD	T58	817-7	Limits			
84-15-1	o-Terphenyl	83%	77%	75%		33-115%			







09/13/10



Technical Report for

EL PASO CORPORATION

MWHCODE: San Juan River Basin Program

Jaquez Site

Accutest Job Number: T58848

Sampling Date: 08/26/10

Report to:

MWH

jed.smith@mwhglobal.com

ATTN: Jed Smith

Total number of pages in report: 28





Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro Laboratory Director

Client Service contact: Georgia Jones 713-271-4700

Certifications: TX (T104704220-09C-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700)

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Sample Summary

EL PASO CORPORATION

Job No:

T58848

MWHCODE: San Juan River Basin Program Project No: Jaquez Site

Sample Number	Collected Date	Time By	Received	Matr		Client Sample ID
T58848-1	08/26/10	16:00	08/28/10	SO	Soil	GP-2 11'-12'
T58848-2	08/26/10	16:30	08/28/10	SO	Soil	GP-2 15'-16'
T58848-3	08/26/10	15:40	08/28/10	so	Soil	GP-2 9'-10'
T58848-4	08/26/10	17:10	08/28/10	AQ	Equipment Blank	EQUIPMENT RINSE
T58848-5	08/26/10	18:20	08/28/10	AQ	Field Blank Water	FIELD BLANK



SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:

EL PASO CORPORATION

Job No

T58848

Site:

MWHCODE: San Juan River Basin Program

Report Date

9/9/2010 5:11:37 PM

1 Sample(s), 1 Field Blank(s) were collected on 08/26/2010 and were received at Accutest on 08/28/2010 properly preserved, at 2.3 Deg. C and intact. These Samples received an Accutest job number of T58848. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results' Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AO

Batch ID: VE95

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T58851-4MS, T58851-4MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015

Matrix AQ

Batch ID: GHH52

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T58921-2MS, T58921-2MSD were used as the QC samples indicated.

Matrix AQ

Batch ID: GHH53

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T59026-4MS, T59026-4MSD were used as the QC samples indicated.

Extractables by GC By Method SW846 8015 M

Matrix AQ

Batch ID: OP15973

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used



Sample Results

Report of Analysis



EQUIPMENT RINSE Client Sample ID:

Lab Sample ID:

T58848-4

AQ - Equipment Blank

Date Sampled:

08/26/10

Date Received:

08/28/10

SW846 8260B

Percent Solids: n/a

Project:

Matrix:

Method:

MWHCODE: San Juan River Basin Program

Prep Batch

Analytical Batch

Run #1

File ID E0001519.D DF Analyzed 1 08/30/10

Ву MH Prep Date n/a

n/a

VE95

Run #2

Purge Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.55	_	
1330-20-7	Xylene (total)	ND	6.0	1.7		
		ND	4.0	1.1	_	
95-47-6	o-Xylene	ND	2.0	0.53	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	2 Limits		
1868-53-7	Dibromofluoromethane	96%		79-1	22%	
17060-07-0	1,2-Dichloroethane-D4	90%		75-1	21%	
2037-26-5	Toluene-D8	103%		87-1	19%	
460-00-4	4-Bromofluorobenzene	113%		80-1	33%	
1330-20-7 95-47-6 CAS No. 1868-53-7 17060-07-0 2037-26-5	Xylene (total) m,p-Xylene o-Xylene Surrogate Recoveries Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8	ND ND ND Run# 1 96% 90% 103%	6.0 4.0 2.0	1.7 1.1 0.53 Lim 79-1 75-1 87-1	ug/l ug/l ug/l ug/l its 22% 21% 19%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Client Sample ID: EQUIPMENT RINSE

Lab Sample ID:

T58848-4

Matrix:

AQ - Equipment Blank

DF

SW846 8015

Date Sampled:

08/26/10

Date Received: 08/28/10

Percent Solids: n/a

Method: Project:

MWHCODE: San Juan River Basin Program

Prep Batch

Analytical Batch

Run #1

HH0000987.D 1 Analyzed 08/31/10

By LB Prep Date n/a

n/a

GHH52

Run #2

Purge Volume

Run #1

5.0 ml

File ID

Run #2

CAS No. Compound

Result

RL

MDL Units Q

TPH-GRO (C6-C10)

ND

0.050

0.0060mg/l

CAS No. Surrogate Recoveries

Run#1 Run#2 Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

86% 126% 42-123% 51-130%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Page 1 of 1

EQUIPMENT RINSE Client Sample ID:

Lab Sample ID:

T58848-4

AQ - Equipment Blank

Date Sampled:

08/26/10

Matrix:

DF

1

Date Received:

08/28/10

Method:

SW846 8015 M SW846 3510C

Percent Solids:

n/a

Project:

MWHCODE: San Juan River Basin Program

Analyzed

09/05/10

Prep Batch OP15973

Analytical Batch GIB1089

Run #1 Run #2

Final Volume

Run #1

Initial Volume 800 ml

IF201086.D

File ID

1.0 ml

Run #2

CAS No.

Compound

Result

ND

ND

RL

By

EM

MDL

Prep Date

09/01/10

Units

Q

TPH (C10-C28)

TPH (> C28-C40)

0.13 0.13 0.029 0.030

mg/l mg/l

CAS No. Surrogate Recoveries Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

70%

25-112%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

E = Indicates value exceeds calibration range



Client Sample ID: FIELD BLANK

Lab Sample ID:

T58848-5

Matrix: Method:

Project:

AQ - Field Blank Water

SW846 8260B

MWHCODE: San Juan River Basin Program

Date Sampled:

Date Received: 08/28/10

08/26/10

Percent Solids: n/a

File ID DF **Analytical Batch** Analyzed By Prep Date Prep Batch Run #1 E0001520.D 1 08/30/10 MH n/a n/a VE95

Run #2

Purge Volume

Run #1 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.55	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.7	ug/l	
	m,p-Xylene	ND	4.0	1.1	ug/l	
95-47-6	o-Xylene	ND	2.0	0.53	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	92%		79-1	22%	
17060-07-0	1,2-Dichloroethane-D4	85%		75-1	21%	
2037-26-5	Toluene-D8	98%		87-1	19%	
460-00-4	4-Bromofluorobenzene	105%		80-1	33%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Client Sample ID: FIELD BLANK

Lab Sample ID: Matrix:

T58848-5

AQ - Field Blank Water

Date Sampled:

08/26/10

Date Received:

08/28/10

Method:

SW846 8015

Percent Solids: n/a

Project:

MWHCODE: San Juan River Basin Program

Prep Batch

Analytical Batch

Run #1

File ID HH0001010.D DF 1

Analyzed 09/01/10

By LB Prep Date n/a

n/a

GHH53

Run #2

Purge Volume

Run #1

5.0 ml

Run #2

CAS No. Compound Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

ND

0.050

0.0060mg/l

CAS No.

Surrogate Recoveries

Run#1

Run#2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

86% 111% 42-123% 51-130%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound





Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody



14.4	11						
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CHAIN OF CUSTODY

PAGE	1	OF	1

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Laboratories		18 8 8		3-271-470		713-						Accutest Quote #				1 19	Accutest Job # T.588			848			
Client / Reporting Information			Project	Inform		600										Req	uest	ted	Anal	yses			Matrix Codes
Company Name M W H Americas 1801 California, stander City State City State Project Contact E-mail	Project Nama:	2002	-																				DW - Drinking Water GW - Ground Water
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Denver CO 80202													7	1									SED-Sediment OI - Oil
	Project#			Sireel Address									0	910									LIQ - Other Liquid AIR - Air
Phone # 303-291-2276	Client Purchase	Order#		City				St	ala		ZI	p	00	8									SOL - Other Solid WP - Wipe FB-Field Blank
Sampler(s) Name(s) Phone #	Project Manager			Attention	:						_		X		0								EB-Equipment Blank RB- Rinse Blank
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Accutest Sample 9 Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	ᅙ	ZANBO	HN03 HZSO4	NONE	DI Wate	NaHSO	ENCOF	8	1	00								LAB USE ONLY
168-2 11-12	8/26/6	1600	DH	50	强工	П	T		П			x	X	×									
2 68-2 15-16	8/26/00	1630	DH	50	2	П			П			×	×	X									
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	1/10	1						2		1	ec	10	1	-			8-12				rel	All	www.
Relinquished by Sampler: Date Time: 3		Received By: 3					Relinquished By: A Date Time: Received By: 4																
Relinquished by: Date Time:	200	Received By: 5						Custod	y Seal	я			Intact Not intact		Preserve	ererby be	applicab	ile			Onjes	Coole	2.3°C

T58848: Chain of Custody

Page 1 of 3

SAMPLE INSPECTION FORM

Accutest Job Number: 758	848 cı	ient: MWH Ame	ricas D	Pate/Time Received:	8-28-10	1050
# of Coolers Received:	Thermo	meter #: IP Gu	no4Tempe	erature Adjustment Fa	ctor;	
Cooler Temperatures (initial/adj	usted): #1:	a,3°C #2:	#3:	#4:	#5:	
#6: #7:	#8:	#9:	#10	#11	#12	
Method of Delivery: FEDEX	UPS	Accutest Courier	Greyhound D	Delivery Other		
COOLER INFORMATI	ON	SAMPLE INFOR	MATION	TRIP B	ANK INFORMAT	ION
Custody seal missing or not Temperature criteria not me Wet ice received in cooler CHAIN OF CUSTODY Chain of Custody not receiv	ed ed	Sample containers receive VOC vials have headspace Sample labels missing or i ID on COC does not match D/T on COC does not match Sample/Bottles revd but n	ilegible 1 label(s) ch label(s) 10 analysis on COC	Trip Blank on C Trip Blank recel Trip Blank rot is Received Water ' Received Soil TB	ntact Prip Blank	
Sample D/T unclear or miss Analyses unclear or missing COC not properly executed		Sample listed on COC, but Bottles missing for request Insufficient volume for ana	ted analysis	Number of Encores? Number of 5035 kits?	3	
Summary of Discrepancies: Field Blank listed or Matrix with three Equipment Rinse rec Equipment Rinse coc received, not listed	40 ml vía eived as Time 17	16. Equipment water matrix	S. a bottles Rinse listed o with 5 bottle Is sample time	n coc as soil es - 2 LAG b e 1647, wo	eld Blank as Matrix with ottles + 3 40 ter Trip Bla	a bottles, mlvials, nk
TECHNICIAN SIGNATURE/DATE			8-28-	10		14 May 10 (10 May 10 Ma
		CORRECTIVI	E ACTIONS			
Client Representative Notified				Date:		
By Accutest Representative:		•		Via: Phone	Email	
Client Instructions:						
:t/mwalkert/ormisamplemanagement SM023 Revised 8/11/	10					

T58848: Chain of Custody Page 2 of 3



SAMPLE RECEIPT LOG

JOB#: T58848 DATE/TIME RECEIVED: 8-28-10 1050

CLIENT: MWH Americas INITIALS: DR A

						7						
C	OOLER#	SAMPLE ID	A -	LDID	DATE	MATRIX	VOL	BOTTLE#		PRESERV	P	Н
			GP-2	(11-12)	8-26-10 1600	soil	Encore	1	VR	1) 2 3 4 5 6 7 8	<2	>12
	1	2	GP-2	(15-16)	8-26-10 1630		402			① 2 3 4 5 6 7 8	<2	>12
		4	V	4	1 1		Encore	2		① 2 3 4 5 6 7 8	<2	>12
		3	GP-2	(9-10)	8-26-10 1540		402	1		① 2 3 4 5 6 7 8	<2	>12
		4	1	V	4 4	4	Encore	a	\checkmark	① 2 3 4 5 6 7 8	<2	>12
		4	Equipme	nt Rinse	8-26-10 1710		ILAG	1-2	Imm	1 2 3 4 5 6 7 8	<2	>12
		4	Equipmen	+ Rinse	8-26-10 1647	W	40ml	3-5	VR	1 2 3 4 5 6 7 8	<2	>12
	1,	5	Field E	Blank	8-26-10 1820	W	40ml	1-3	VR	1 2 3 4 5 6 7 8	<2	>12
	V	6	TRIP (BLANK	8-20-10 1130	WTB	40 ml	1-2	VR	1 2 3 4	<2	>12
									W-1	1 2 3 4	<2	>12
										1 2 3 4 5 6 7 8	52	>12
										1 2 3 4 5 6 7 8	<2	>12
								0 5		1 2 3 4 5 6 7 8	<2	>12
		-			١٨					1 2 3 4 5 6 7 8	<2	>12
					004					1 2 3 4 5 6 7 8	<2	>12
										1 2 3 4 5 6 7 8	<2	>12
										1 2 3 4 5 6 7 8	<2	>12
					8/28/10					1 2 3 4 5 6 7 8	<2	>12
										1 2 3 4 5 6 7 8	<2	>12
										1 2 3 4 5 6 7 8	<2	>12
										1 2 3 4 5 6 7 8	<2	>12
	\leq									1 2 3 4	2	>12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer Rev 8/13/01 ewp

T58848: Chain of Custody Page 3 of 3





GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Job Number:

T58848

Account:

ELPASOX EL PASO CORPORATION

DF

Project:

MWHCODE: San Juan River Basin Program

Sample VE95-MB
VE95-MB

File ID E0001508.D 1 Analyzed 08/30/10

By

MH

Prep Date n/a

Prep Batch

Analytical Batch

n/a

VE95

The QC reported here applies to the following samples:

Method: SW846 8260B

T58848-4, T58848-5

CAS No.	Compound	Result	RL	MDL	Units Q
71-43-2	Benzene	ND	2.0	0.50	ug/l
100-41-4	Ethylbenzene	ND	2.0	0.55	ug/l
108-88-3	Toluene	ND	2.0	0.43	ug/l
1330-20-7	Xylene (total)	ND	6.0	1.7	ug/l
	m,p-Xylene	ND	4.0	1.1	ug/l
95-47-6	o-Xylene	ND	2.0	0.53	. ug/1

CAS No.	Surrogate Recoveries	
1868-53-7	Dibromofluoromethane	909

17060-07-0 1,2-Dichloroethane-D4 2037-26-5 Toluene-D8

460-00-4

4-Bromofluorobenzene

Limits

1% 79-122% 85% 75-121%

97% 87-119% 80-133% 104%

Blank Spike Summary Job Number: T58848

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

•	Analyzed By 08/30/10 MH	Prep Date n/a	Prep Batch n/a	Analytical Batch VE95
---	-------------------------	------------------	-------------------	--------------------------

The QC reported here applies to the following samples:

Method: SW846 8260B

T58848-4, T58848-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits	
71-43-2	Benzene	25	25.4	102	76-118	
100-41-4		25				
	Ethylbenzene		25.8	103	75-112	
108-88-3	Toluene	25	25.8	103	77-114	
1330-20-7	Xylene (total)	75	78.8	105	75-111	
	m,p-Xylene	50	52.7	105	75-112	
95-47-6	o-Xylene	25	26.0	104	74-110	
CAS No.	Surrogate Recoveries	BSP	Lir	nits		
1868-53-7	Dibromofluoromethane	94%	79-	122%		
17060-07-0	1,2-Dichloroethane-D4	86%	75-	121%		
2037-26-5	Toluene-D8	97%	87-	119%		
460-00-4	4-Bromofluorobenzene	107%	80-	133%		



Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58848

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T58851-4MS	E0001516.D	1	08/30/10	MH	n/a	n/a	VE95
T58851-4MSD	E0001517.D	1	08/30/10	MH	n/a	n/a	VE95
T58851-4	E0001515.D	1	08/30/10	MH	n/a	n/a	VE95

The QC reported here applies to the following samples:

Method: SW846 8260B

T58848-4, T58848-5

		T58851-	4	Spike	MS	MS	MSD	MSD		Limits
CAS No.	Compound	ug/l	Q	ug/l	ug/l	%	ug/l	%	RPD	Rec/RPD
71-43-2	Benzene	2.0 U		25	25.8	103	24.5	98	5	76-118/16
100-41-4	Ethylbenzene	2.0 U		25	26.5	106	24.8	99	7	75-112/12
108-88-3	Toluene	0.78	J	25	26.9	104	25.5	99	5	77-114/12
1330-20-7	Xylene (total)	6.0 U		75	79.7	106	74.2	99	7	75-111/12
	m,p-Xylene	4.0 U		50	53.4	107	49.1	98	8	75-112/12
95-47-6	o-Xylene	2.0 U		25	26.3	105	25.1	100	5	74-110/11
CAS No.	Surrogate Recoveries	MS		MSD	T5	8851-4	Limits			
1868-53-7	Dibromofluoromethane	91%		90%	919	%	79-1229	6		
17060-07-0	1,2-Dichloroethane-D4	83%		85%	869	%	75-1219	6		
2037-26-5	Toluene-D8	97%		96%	979	%	87-1199	6		
460-00-4	4-Bromofluorobenzene	103%		104%	104	1%	80-1339	6		



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Method Blank Summary

Job Number:

T58848

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GHH52-MB

File ID DF HH0000984.D

Analyzed 08/31/10

By LB Prep Date n/a

Prep Batch

n/a

Analytical Batch

GHH52

The QC reported here applies to the following samples:

Method: SW846 8015

T58848-4

CAS No. Compound Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

ND

0.050

0.0060mg/1

CAS No.

Surrogate Recoveries

Limits

460-00-4

4-Bromofluorobenzene aaa-Trifluorotoluene

85% 111% 42-123%

98-08-8

51-130%

Method Blank Summary

Job Number:

T58848

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GHH53-MB File ID DF HH0001007.D

Analyzed 09/01/10

By LB Prep Date

n/a

Prep Batch

Analytical Batch

Page 1 of 1

n/a

GHH53

The QC reported here applies to the following samples:

Method: SW846 8015

T58848-5

CAS No. Compound Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

ND

0.050

0.0060mg/l

CAS No.

Surrogate Recoveries

Limits

460-00-4

4-Bromofluorobenzene

86%

42-123%

98-08-8

aaa-Trifluorotoluene

114%

51-130%

Blank Spike Summary Job Number: T58848

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID DF	Analyzed By	Prep Date	Prep Batch	Analytical Batch
GHH52-BS	HH0000982.D	08/31/10 LB	n/a	n/a	GHH52

The QC reported here applies to the following samples:

Method: SW846 8015

T58848-4

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.336	84	81-113
CAS No.	Surrogate Recoveries	BSP	Lim	its	
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	91% 111%		23% 30%	



Blank Spike Summary

Job Number:

T58848

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GHH53-BS File ID DF HH0001005.D

Analyzed 09/01/10

By LB Prep Date n/a

Prep Batch

Analytical Batch

Page 1 of 1

n/a

GHH53

The QC reported here applies to the following samples:

Method: SW846 8015

T58848-5

CAS No. Compound

Spike BSP mg/l mg/l

BSP %

Limits

TPH-GRO (C6-C10)

0.4 0.387

97 81-113

CAS No.

Surrogate Recoveries

BSP

Limits

460-00-4 98-08-8 4-Bromofluorobenzene aaa-Trifluorotoluene

87% 115% 42-123% 51-130%



Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58848

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID D	F Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T58921-2MS	HH0000988.D	08/31/10	LB	n/a	n/a	GHH52
T58921-2MSD	HH0000989.D	08/31/10	LB	n/a	n/a	GHH52
T58921-2	HH0000985.D	08/31/10	LB	n/a	n/a	GHH52

The QC reported here applies to the following samples:

Method: SW846 8015

T58848-4

CAS No.	Compound	T58921-2 mg/l Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	0.050 U	0.4	0.403	101	0.370	93	9	81-113/31
CAS No.	Surrogate Recoveries	MS	MSD	T58	921-2	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	89% 111%	90% 115%	99% 113		42-123% 51-130%			

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58848

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID DF	Analyzed	By	Prep Date n/a n/a n/a	Prep Batch	Analytical Batch
T59026-4MS	HH0001025.D	09/01/10	LB		n/a	GHH53
T59026-4MSD	HH0001026.D	09/01/10	LB		n/a	GHH53
T59026-4	HH0001009.D	09/01/10	LB		n/a	GHH53

The QC reported here applies to the following samples:

Method: SW846 8015

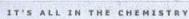
T58848-5

CAS No.	Compound	T59026-4 mg/l Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	0.050 U	0.4	0.417	104	0.409	102	2	81-113/31
CAS No.	Surrogate Recoveries	MS	MSD	T59	0026-4	Limits			
460-00-4	4-Bromofluorobenzene	89%	87%	89%		42-123%			
98-08-8	aaa-Trifluorotoluene	115%	115%	110	%	51-130%	6		









GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Method Blank Summary

Job Number: T58848

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample OP15973-MB File ID DF IF201208.D 1

Analyzed 09/09/10

By **EM** Prep Date 09/01/10

Prep Batch OP15973

Analytical Batch

Page 1 of 1

GIB1093

The QC reported here applies to the following samples:

Method: SW846 8015 M

T58848-4

CAS No. Compound

Result

RL

MDL

Units Q

TPH (C10-C28)

TPH (> C28-C40)

ND ND

0.10 0.10 0.0230.024

mg/l mg/l

CAS No.

Surrogate Recoveries

Limits

84-15-1

o-Terphenyl

62%

25-112%



Blank Spike/Blank Spike Duplicate Summary Job Number: T58848

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample OP15973-BS OP15973-BSD	File ID IF201209.D IF201212.D	_	Analyzed 09/09/10 09/09/10	By EM EM	Prep Date 09/01/10 09/01/10	Prep Batch OP15973 OP15973	Analytical Batch GIF1093 GIB1093

The QC reported here applies to the following samples:

Method: SW846 8015 M

T58848-4

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	1	0.713	71	1.45	73	68*	22-84/30
CAS No.	Surrogate Recoveries	BSP	BSI	D	Limits			
84-15-1	o-Terphenyl	67%	80%	6	25-112%	ó		





09/13/10



Technical Report for

EL PASO CORPORATION

MWHCODE: San Juan River Basin Program

JAQUEZ SITE

Accutest Job Number: T59243

Sampling Dates: 09/01/10 - 09/02/10

Report to:

MWH

jed.smith@mwhglobal.com

ATTN: Jed Smith

Total number of pages in report: 89





Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul Canevaro Laboratory Director

Paul K Carrevaro

Client Service contact: Georgia Jones 713-271-4700

Certifications: TX (T104704220-09C-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700)

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-1-

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Sample Summary

EL PASO CORPORATION

Job No:

T59243

 $\begin{array}{ll} MWHCODE\colon San\ Juan\ River\ Basin\ Program \\ Project\ No:\ \ JAQUEZ\ SITE \end{array}$

Sample Number	Collected Date	Time By	Received	Matr		Client Sample ID
T59243-1	09/02/10	08:20	09/03/10	SO	Soil	GP-19 (5.5-6.5')
T59243-2	09/02/10	11:55	09/03/10	SO	Soil	GP-25 (7-8')
T59243-2D	09/02/10	11:55	09/03/10	SO	Soil Dup/MSD	GP-25 (7-8') MSD
T59243-2S	09/02/10	11:55	09/03/10	SO	Soil Matrix Spike	GP-25 (7-8') MS
T59243-3	09/02/10	09:30	09/03/10	AQ	Water	GP-23 RINSE BLANK
T59243-4	09/02/10	09:30	09/03/10	AQ	Field Blank Water	FIELD BLANK
T59243-5	09/01/10	09:00	09/03/10	AQ	Trip Blank Water	TRIP BLANK #1 09-02-1010
T59243-6	09/01/10	14:26	09/03/10	SO	Soil	GP-15 (4-5')
T59243-7	09/01/10	14:55	09/03/10	SO	Soil	GP-15 (9.5-10')
T59243-8	09/01/10	15:41	09/03/10	SO	Soil	GP-11 (12.5-13')
T59243-9	09/01/10	16:30	09/03/10	SO	Soil	GP-12 (12-13')
T59243-10	09/01/10	16:35	09/03/10	so	Soil	GP-12 (7-8')
T59243-11	09/01/10	17:20	09/03/10	SO	Soil	GP-13 (8-9')

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



Sample Summary (continued)

EL PASO CORPORATION

Job No:

T59243

MWHCODE: San Juan River Basin Program Project No: JAQUEZ SITE

Sample Number	Collected Date	Time By	Received	Matr. Code		Client Sample ID
T59243-12	09/02/10	09:38	09/03/10	SO	Soil	GP-23 (6-7')
T59243-13	09/02/10	10:27	09/03/10	SO	Soil	GP-27 (6-7')
T59243-15	09/02/10	00:00	09/03/10	SO	Trip Blank Soil	TRIP BLANK



SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:

EL PASO CORPORATION

Job No

T59243

Site:

MWHCODE: San Juan River Basin Program

Report Date

9/10/2010 8:38:02 AM

11 Sample(s), 2 Trip Blank(s) and 1 Field Blank(s) were collected on between 09/01/2010 and 09/02/2010 and were received at Accutest on 09/03/2010 properly preserved, at 2.6 Deg. C and intact. These Samples received an Accutest job number of T59243. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ

Batch ID: VF3985

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T59288-4MS, T59288-4MSD were used as the QC samples indicated.

Matrix SO

Batch ID: VM1141

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T59403-1MS, T59403-1MSD were used as the QC samples indicated.
- T59243-6 for Toluene-D8: Outside control limits due to matrix interference. Confirmed by reanalysis.

Matrix SO

Batch ID: VM1142

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T59272-4MS, T59272-4MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery(s) for m,p-Xylene, o-Xylene, Xylene (total) are outside control limits. Probable cause due to matrix interference.

Matrix SO

Batch ID: VY2603

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T59243-2MS, T59243-2MSD were used as the QC samples indicated.

Matrix SO

Batch ID: VY2605

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Volatiles by GC By Method SW846 8015

Matrix AQ

Batch ID: GEE2912

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T59243-3MS, T59243-3MSD were used as the QC samples indicated.

Matrix SO

Batch ID: GBB106

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T59306-2MS, T59306-2MSD were used as the QC samples indicated.

Matrix SO

Batch ID: GBB111

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix SO

Batch ID: GEE2912

Sample(s) T59243-3MS, T59243-3MSD were used as the QC samples indicated.

Matrix SO

Batch ID: GEE2913

- All samples were analyzed within the recommended method holding time.
- Sample(s) T59243-2MS, T59243-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GC By Method SW846 8015 M

Matrix AQ

Batch ID: OP15901

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix AQ

Batch ID: OP15986

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T59243-10 have surrogates outside control limits. Probable cause due to matrix interference.

Matrix SO

Batch ID: OP15901

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T59243-2MS, T59243-2MSD were used as the QC samples indicated.

Wet Chemistry By Method SM 2540 G

Matrix SO

Batch ID: GN25173

Sample(s) T59243-2DUP were used as the QC samples for Solids, Percent.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used



Sample Results

Report of Analysis



Page 1 of 1

Client Sample ID: GP-19 (5.5-6.5')

Lab Sample ID:

T59243-1

SO - Soil

Date Sampled:

09/02/10

Matrix:

Date Received:

09/03/10

Method:

SW846 8260B

Percent Solids:

76.6

Project:

MWHCODE: San Juan River Basin Program

Prep Batch

Analytical Batch

Run #1

Y0041959.D

File ID

2.03 g

DF Analyzed 09/07/10 1

By FI

Prep Date n/a

n/a

VY2603

Run #2

Initial Weight

Final Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	13	2.2	ug/kg	
100-41-4	Ethylbenzene	ND	13	2.9	ug/kg	
108-88-3	Toluene	ND	13	3.1	ug/kg	
1330-20-7	Xylene (total)	ND	39	6.7	ug/kg	
	m,p-Xylene	ND	26	4.7	ug/kg	
95-47-6	o-Xylene	ND	13	2.1	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	94%	70-121%			
2037-26-5	Toluene-D8	100%		76-1	32%	
460-00-4	4-Bromofluorobenzene	87%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	80%		57-1	22%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: GP-19 (5.5-6.5')

Lab Sample ID:

T59243-1

SO - Soil

SW846 8015

DF

1

Date Sampled:

09/02/10

Date Received:

09/03/10

Percent Solids:

76.6

Method: Project:

Matrix:

MWHCODE: San Juan River Basin Program

Analytical Batch Prep Batch

Run #1 Run #2

BB0001816.D

Prep Date n/a

n/a

GBB106

Initial Weight 2.45 g

Compound

File ID

Final Volume

5.0 ml

Methanol Aliquot 100 ul

By

AT

Run #1 Run #2

CAS No.

Result

Analyzed

09/05/10

RL

MDL Units Q

TPH-GRO (C6-C10)

ND

15

0.89 mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2 Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

91% 99% 46-127% 44-120%

MDL - Method Detection Limit

RL = Reporting Limit

ND = Not detected

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

GP-19 (5.5-6.5') Client Sample ID:

Lab Sample ID: Matrix:

T59243-1

SO - Soil

SW846 8015 M SW846 3550B

Date Sampled:

09/02/10

Date Received:

09/03/10

Percent Solids:

Method: Project:

76.6

MWHCODE: San Juan River Basin Program

File ID Run #1

DF IF201055.D 1

Analyzed 09/04/10

By HD Prep Date 09/03/10

Prep Batch OP15901

Analytical Batch GIF1088

Run #2

Initial Weight

Final Volume 1.0 ml

Run #1 Run #2 30.8 g

CAS No.

Compound

Result

RL

MDL

Units Q

TPH (C10-C28) TPH (> C28-C40)

11.7 ND

4.2 4.2

mg/kg 3.5 2.8 mg/kg

CAS No. Surrogate Recoveries Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

59%

33-115%

ND = Not detected

RL = Reporting Limit E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: GP-25 (7-8') Lab Sample ID:

T59243-2

Matrix:

SO - Soil

Method: Project:

SW846 8260B

MWHCODE: San Juan River Basin Program

Date Sampled:

09/02/10 Date Received: 09/03/10

Percent Solids: 82.6

Run #1

File ID Y0041960.D

DF 1

Analyzed 09/08/10

By FI

Prep Date n/a

Prep Batch n/a

Analytical Batch

VY2603

Run #2

Initial Weight

Final Volume

Run #1 Run #2 3.95 g

5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q	
71-43-2	Benzene	ND	6.1	1.1	ug/kg		
100-41-4	Ethylbenzene	ND	6.1	1.4	ug/kg		
108-88-3	Toluene	ND	6.1	1.5	ug/kg		
1330-20-7	Xylene (total)	ND	18	3.2	ug/kg		
	m,p-Xylene	ND	12	2.2	ug/kg		
95-47-6	o-Xylene	ND	6.1	0.98	ug/kg		
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	Limits		
1868-53-7	Dibromofluoromethane	102%		70-1	21%		
2037-26-5	Toluene-D8	101%		76-1	32%		
460-00-4	4-Bromofluorobenzene	86%		73-1	65%		
17060-07-0	1,2-Dichloroethane-D4	81%		57-1	22%		

RL = Reporting Limit E = Indicates value exceeds calibration range J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: Lab Sample ID:

GP-25 (7-8')

Matrix:

T59243-2 SO - Soil

Method:

SW846 8015

Date Sampled: Date Received:

09/02/10 09/03/10

Percent Solids: 82.6

Project:

MWHCODE: San Juan River Basin Program

File ID

DF 1

Analyzed 09/08/10

By AT Prep Date

n/a

Prep Batch

Analytical Batch

Run #1 Run #2 EE056792.D

n/a

GEE2913

Initial Weight 4.19 g

Final Volume

Methanol Aliquot

Run #1 Run #2

CAS No.

5.0 ml

100 ul

Compound TPH-GRO (C6-C10) Result

RL

MDL

Units Q

8.3

0.50 mg/kg

CAS No.

Surrogate Recoveries

Run# 1

ND

Run# 2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

95% 99% 46-127% 44-120%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

B = Indicates analyte found in associated method blank

Client Sample ID: GP-25 (7-8')

Lab Sample ID:

T59243-2

Matrix:

SO - Soil

SW846 8015 M SW846 3550B

Date Sampled:

09/02/10

Date Received:

09/03/10

Percent Solids:

82.6

Method: Project:

MWHCODE: San Juan River Basin Program

IF201056.D

Analyzed 09/04/10

By HD Prep Date 09/03/10

Prep Batch OP15901

Analytical Batch GIB1088

Run #1 Run #2

Initial Weight

30.4 g

File ID

1.0 ml

Final Volume

DF

1

Run #1 Run #2

CAS No. Compound Result

RL

MDL

Units

Q

TPH (C10-C28)

TPH (> C28-C40)

ND 4.0 ND 4.0

3.3 2.6 mg/kg mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

65%

33-115%

ND = Not detected RL = Reporting Limit

E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

GP-23 RINSE BLANK Client Sample ID:

Lab Sample ID:

T59243-3

AQ - Water

Date Sampled:

09/02/10

Matrix:

Date Received: 09/03/10

Method:

SW846 8260B

Percent Solids: n/a

Project:

MWHCODE: San Juan River Basin Program

File ID Run #1

DF

Analyzed 09/07/10

Prep Date

Prep Batch

Analytical Batch

Run #2

F028633.D

1

By AK

n/a

n/a

VF3985

Purge Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.55	ug/l	
108-88-3	Toluene	ND	2.0	0.43	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.7	ug/l	
	m,p-Xylene	ND	4.0	1.1	ug/l	
95-47-6	o-Xylene	ND	2.0	0.53	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	105%	79-122%			
17060-07-0	1,2-Dichloroethane-D4	101%	75-121%			
2037-26-5	Toluene-D8	97%		87-1	19%	
460-00-4	4-Bromofluorobenzene	100%	80-133%			

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

 $B \,=\, Indicates \; analyte \; found \; in \; associated \; method \; blank \;$

Client Sample ID: GP-23 RINSE BLANK

Lab Sample ID:

T59243-3

AO - Water

Date Sampled:

09/02/10

Matrix:

SW846 8015

Date Received:

09/03/10

Method:

Percent Solids:

n/a

Project:

MWHCODE: San Juan River Basin Program

File ID EE056783.D DF 1

Analyzed By 09/08/10 AT Prep Date n/a

Prep Batch n/a

Analytical Batch GEE2912

Run #1 Run #2

Purge Volume

Run #1

5.0 ml

Run #2

CAS No. Compound Result

RL

MDL Units Q

TPH-GRO (C6-C10)

ND

0.050

0.0060mg/l

CAS No.

Surrogate Recoveries

Run#1

Run# 2 Limits

460-00-4 4-Bromofluorobenzene 98-08-8 aaa-Trifluorotoluene

90% 97% 42-123% 51-130%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

EM

Page 1 of 1

GP-23 RINSE BLANK Client Sample ID:

Lab Sample ID:

T59243-3

Date Sampled:

09/02/10

Matrix:

AQ - Water

Date Received:

Prep Date

09/07/10

09/03/10

Method:

SW846 8015 M SW846 3510C

Project:

Percent Solids: n/a

Q

MWHCODE: San Juan River Basin Program

Analyzed

09/08/10

Analytical Batch Prep Batch

OP15986 GIB1093

Run #1 Run #2

Initial Volume Final Volume

DF

1

Run #1

990 ml

File ID

IF201186.D

1.0 ml

Run #2

CAS No.

Compound Result

TPH (C10-C28) TPH (> C28-C40) ND ND 0.10 0.10

Run# 2

RL

0.024

MDL

mg/10.024 mg/l

Units

CAS No.

Surrogate Recoveries

Run#1

Limits

84-15-1

o-Terphenyl

68%

25-112%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

E = Indicates value exceeds calibration range



By

AK

Client Sample ID: FIELD BLANK

Lab Sample ID:

T59243-4

Matrix:

AQ - Field Blank Water

SW846 8260B

DF

1

Analyzed

09/07/10

Date Sampled:

09/02/10

Date Received: 09/03/10

Percent Solids: n/a

Method: Project:

MWHCODE: San Juan River Basin Program

Prep Date

n/a

Prep Batch

Analytical Batch

n/a VF3985

Run #1 Run #2

Purge Volume

Run #1

5.0 ml

File ID

F028632.D

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.55	ug/l	
108-88-3	Toluene	ND	2.0	0.43	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.7	ug/l	
	m,p-Xylene	ND	4.0	1.1	ug/l	
95-47-6	o-Xylene	ND	2.0	0.53	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
1868-53-7	Dibromofluoromethane	105%		79-1	22%	
17060-07-0	1,2-Dichloroethane-D4	101% 75-121%				
2037-26-5	Toluene-D8	97%		87-1	19%	
460-00-4	4-Bromofluorobenzene	95%		80-1	33%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: FIELD BLANK

Lab Sample ID:

T59243-4

Matrix:

AQ - Field Blank Water

Date Sampled: Date Received: 09/02/10

Method:

SW846 8015

09/03/10

Percent Solids: n/a

Project:

MWHCODE: San Juan River Basin Program

Prep Date

Prep Batch

Analytical Batch

Run #1

EE056787.D

File ID

DF 1

Analyzed 09/08/10

By AT

n/a

n/a

GEE2912

Run #2

Purge Volume

Run #1

5.0 ml

Run #2

Compound

Result

ND

RL

MDL Units

Q

0.050

0.0060mg/l

CAS No.

CAS No.

Surrogate Recoveries

TPH-GRO (C6-C10)

Run#1

Run#2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

90% 99% 42-123% 51-130%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

E = Indicates value exceeds calibration range

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

Client Sample ID: TRIP BLANK #1 09-02-1010

Lab Sample ID:

T59243-5

Matrix:

AQ - Trip Blank Water

DF

1

SW846 8260B

09/01/10 Date Sampled:

Date Received:

09/03/10

Percent Solids: n/a

Method: Project:

MWHCODE: San Juan River Basin Program

File ID Run #1 F028631.D

Analyzed 09/07/10

By AK Prep Date n/a

Prep Batch

Analytical Batch

n/a VF3985

Run #2

Purge Volume

Run #1

5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.55	ug/l	
108-88-3	Toluene	ND	2.0	0.43	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.7	ug/l	
	m,p-Xylene	ND	4.0	1.1	ug/l	
95-47-6	o-Xylene	ND	2.0	0.53	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	106%	79-122%			
17060-07-0	1,2-Dichloroethane-D4	101%		75-1	21%	
2037-26-5	Toluene-D8	98%		87-1	19%	
460-00-4	4-Bromofluorobenzene	96%		80-1	33%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: TRIP BLANK #1 09-02-1010

Lab Sample ID:

T59243-5

AQ - Trip Blank Water SW846 8015

Date Sampled:

09/01/10

Date Received:

09/03/10

Percent Solids: n/a

Method: Project:

Matrix:

MWHCODE: San Juan River Basin Program

File ID

DF EE056788.D 1

Analyzed 09/08/10

By AT Prep Date n/a

Prep Batch

Analytical Batch GEE2912

Run #1 Run #2

Purge Volume

Run #1

5.0 ml

Run #2

CAS No.

Compound

Result

RL

MDL

Units

Q

n/a

TPH-GRO (C6-C10)

0.0161

0.050

0.0060mg/1

J

CAS No. Surrogate Recoveries

Run#1 Run# 2 Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

92% 98% 42-123% 51-130%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

E = Indicates value exceeds calibration range

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

T59243

Page 1 of 1

Client Sample ID: GP-15 (4-5') Lab Sample ID:

T59243-6

SO - Soil

Date Sampled:

09/01/10

Matrix:

SW846 8260B

Date Received: 09/03/10

Method:

Percent Solids: 80.3

Project:

MWHCODE: San Juan River Basin Program

	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
Run #1	M0027947.D	1	09/08/10	FI	n/a	n/a	VM1141
Run #2	M0027942.D	10	09/08/10	FI	n/a	n/a	VM1141

	Initial Weight	Final Volume	Methanol Aliquot	
Run #1	4.58 g	5.0 ml	100 ul	
Run #2	4.58 g	5.0 ml	100 ul	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 100-41-4 108-88-3 1330-20-7	Benzene Ethylbenzene Toluene Xylene (total) m,p-Xylene	9590 18000 ^a 176 143000 ^a 143000 ^a	320 3200 320 9600 6400	56 720 76 1700 1200	ug/kg ug/kg ug/kg ug/kg ug/kg	J
95-47-6	o-Xylene	ND	320	51	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1.2-Dichloroethane-D4	88% 161% ^b 150% 80%	77% 126% 105% 68%	70-121% 76-132% 73-165% 57-122%		

(a) Result is from Run# 2

(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: GP-15 (4-5')

Lab Sample ID:

T59243-6

SO - Soil

SW846 8015

Date Sampled:

09/01/10

Date Received:

09/03/10

Percent Solids:

Prep Date

n/a

80.3

Method: Project:

Matrix:

MWHCODE: San Juan River Basin Program

File ID EE056799.D

DF 200 Analyzed 09/08/10

By AT Prep Batch n/a

Q

Analytical Batch GEE2913

Run #1 Run #2

Initial Weight

Final Volume

Methanol Aliquot

Run #1 Run #2 4.58 g

5.0 ml

100 ul

CAS No. Compound Result

RL

1600

Run# 2

MDL Units

mg/kg

TPH-GRO (C6-C10)

5320 Run#1

96

Limits

CAS No. 460-00-4

4-Bromofluorobenzene

Surrogate Recoveries

104%

46-127%

98-08-8

aaa-Trifluorotoluene

105%

44-120%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

E = Indicates value exceeds calibration range



Page 1 of 1

Client Sample ID: GP-15 (4-5')

Lab Sample ID:

T59243-6

SO - Soil

Date Sampled:

09/01/10

Method:

SW846 8015 M SW846 3550B

Date Received: Percent Solids:

09/03/10

80.3

Project:

Matrix:

MWHCODE: San Juan River Basin Program

Prep Batch

Run #1

IF201057.D

File ID

DF 1

Analyzed 09/04/10

By HD Prep Date 09/03/10

OP15901

Analytical Batch GIF1088

Run #2

Initial Weight

Final Volume 1.0 ml

Run #1 Run #2

CAS No.

Compound

30.2 g

Result

408

78.7

RL

MDL

Units

Q

TPH (C10-C28)

TPH (>C28-C40)

4.1 4.1

3.4 2.7 mg/kg mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run#2

Limits

84-15-1

o-Terphenyl

70%

33-115%

ND = Not detected RL = Reporting Limit

E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: GP-15 (9.5-10')

Lab Sample ID:

T59243-7

SO - Soil

Date Sampled: 09/01/10

Matrix:

Date Received: 09/03/10

Method:

SW846 8260B

Percent Solids: 86.7

Project:

MWHCODE: San Juan River Basin Program

n/a

By

FI

Analyzed

09/08/10

Prep Date n/a

Prep Batch

Analytical Batch VY2603

Run #1 Run #2

Initial Weight

Y0041963.D

File ID

5.71 g

Final Volume

Run #1

5.0 ml

DF

1

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 100-41-4	Benzene Ethylbenzene	6.7 15.3	4.0 4.0	$0.71 \\ 0.91$	ug/kg ug/kg	
108-88-3	Toluene	ND	4.0	0.96	ug/kg	
1330-20-7	Xylene (total)	120	12	2.1	ug/kg	
	m,p-Xylene	119	8.1	1.5	ug/kg	
95-47-6	o-Xylene	1.5	4.0	0.65	ug/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	99%	70-121%			
2037-26-5	Toluene-D8	99%		76-1	32%	
460-00-4	4-Bromofluorobenzene	108%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	84%	57-122%			

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value B = Indicates analyte found in associated method blank

RL = Reporting Limit

N = Indicates presumptive evidence of a compound

E = Indicates value exceeds calibration range



Client Sample ID: GP-15 (9.5-10')

Lab Sample ID: Matrix:

T59243-7

SO - Soil

SW846 8015

Date Sampled:

09/01/10 09/03/10

Percent Solids: 86.7

Date Received:

Method: Project:

MWHCODE: San Juan River Basin Program

Analyzed

09/05/10

Prep Date

n/a

Prep Batch

Analytical Batch

GBB106 n/a

Run #1 Run #2

Initial Weight

BB0001823.D

Final Volume

Methanol Aliquot

By

AT

5.35 g

5.0 ml

DF

1

100 ul

Run #1 Run #2

CAS No. Compound

File ID

Result

RL

MDL Units Q

TPH-GRO (C6-C10)

4.77

6.2

0.37

mg/kg J

CAS No.

Surrogate Recoveries

Run#1

Run#2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

92% 102% 46-127% 44-120%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: GP-15 (9.5-10')

Lab Sample ID:

T59243-7

File ID

SO - Soil

Date Sampled:

09/01/10

Date Received:

09/03/10

Method: SW846 8015 M SW846 3550B

Project:

Matrix:

MWHCODE: San Juan River Basin Program

Analyzed

Percent Solids: 86.7

Prep Batch Analytical Batch

Run #1

IF201058.D

09/04/10 1

By HD

Report of Analysis

Prep Date 09/03/10

OP15901

GIB1088

Run #2

Initial Weight

Final Volume

30.7 g

1.0 ml

DF

Run #1 Run #2

CAS No. Compound Result

ND

ND

RL

MDL Units Q

TPH (C10-C28) TPH (> C28-C40)

3.8 3.8 3.1 2.5 mg/kg mg/kg

CAS No.

Surrogate Recoveries

Run#1 Run#2

Limits

84-15-1

o-Terphenyl

71%

33-115%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

FI

Client Sample ID: GP-11 (12.5-13')

Lab Sample ID:

T59243-8

SO - Soil

Date Sampled:

09/01/10

Matrix: Method:

SW846 8260B

DF

1

Date Received:

09/03/10

Project:

MWHCODE: San Juan River Basin Program

Percent Solids: 83.5

Analyzed

09/08/10

Prep Date

n/a

Prep Batch

Analytical Batch n/a VY2603

Run #1 Run #2

Initial Weight

Y0041964.D

File ID

Final Volume

Run #1

3.44 g 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	7.0	1.2	ug/kg	
100-41-4	Ethylbenzene	16.7	7.0	1.6	ug/kg	
108-88-3	Toluene	3.3	7.0	1.7	ug/kg	J
1330-20-7	Xylene (total)	158	21	3.6	ug/kg	
	m,p-Xylene	124	14	2.5	ug/kg	
95-47-6	o-Xylene	34.4	7.0	1.1	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	ın# 2 Limits		
1868-53-7	Dibromofluoromethane	94%		70-1	21%	
2037-26-5	Toluene-D8	98%		76-1	32%	
460-00-4	4-Bromofluorobenzene	97%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	79%		57-1	22%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: GP-11 (12.5-13')

Lab Sample ID:

T59243-8

Matrix:

SO - Soil

Date Sampled:

09/01/10

Date Received:

09/03/10

Percent Solids: 83.5

Prep Date

n/a

28

Method: Project:

SW846 8015

MWHCODE: San Juan River Basin Program

Analyzed

09/08/10

Prep Batch

Analytical Batch

Run #1 Run #2

n/a

GEE2913

Initial Weight

EE056796.D

Final Volume

Methanol Aliquot

By

AT

Run #1

1.34 g

File ID

5.0 ml

DF

20

100 ul

Run #2

CAS No. Compound Result

RL

MDL Units

Q

TPH-GRO (C6-C10)

1860

470

mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run#2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

104% 106% 46-127% 44-120%

ND = Not detected

RL = Reporting Limit E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: GP-11 (12.5-13')

Lab Sample ID:

T59243-8

SO - Soil

Date Sampled:

09/01/10

Matrix: Method:

SW846 8015 M SW846 3550B

Date Received:

09/03/10

Percent Solids:

83.5

Project:

MWHCODE: San Juan River Basin Program

Run #1

IF201059.D

Analyzed 09/04/10

Prep Date 09/03/10

Prep Batch OP15901

Analytical Batch GIF1088

Run #2

Initial Weight

Final Volume

Run #1

30.6 g

File ID

1.0 ml

DF

1

Run #2

CAS No. Compound Result

RL

By

HD

MDL Units

Q

TPH (C10-C28)

TPH (> C28-C40)

362 90.2 3.9 3.9

3.2 2.6

mg/kg mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

84%

33-115%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

FI

Client Sample ID: GP-12 (12-13')

Lab Sample ID:

T59243-9

SO - Soil

Date Sampled:

09/01/10

Matrix:

File ID

Date Received: 09/03/10

Prep Date

n/a

Method:

SW846 8260B

Percent Solids: 83.7

n/a

Project:

MWHCODE: San Juan River Basin Program

Analyzed

09/08/10

Prep Batch

Analytical Batch

VY2603

Run #1 Run #2

Initial Weight

Y0041965.D

4.29 g

Final Volume 5.0 ml

DF

1

Run #1 Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	3.7	5.6	0.97	ug/kg	J
100-41-4	Ethylbenzene	11.6	5.6	1.3	ug/kg	
108-88-3	Toluene	1.4	5.6	1.3	ug/kg	J
1330-20-7	Xylene (total)	108	17	2.9	ug/kg	
	m,p-Xylene	88.7	11	2.0	ug/kg	
95-47-6	o-Xylene	19.0	5.6	0.89	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	101%	70-121%			
2037-26-5	Toluene-D8	105%		76-1	32%	
460-00-4	4-Bromofluorobenzene	69% a		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	104%		57-1	22%	

(a) Outside control limits biased low. There are no target compounds associated with this surrogate.

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range



Client Sample ID: GP-12 (12-13')

Lab Sample ID:

T59243-9

Matrix:

SO - Soil

SW846 8015

Date Sampled:

09/01/10

Date Received:

09/03/10

Method: Project:

DF

MWHCODE: San Juan River Basin Program

Analyzed

Percent Solids: 83.7

Analytical Batch

Run #1

EE056798.D

File ID

100 09/08/10 By AT Prep Date n/a

Prep Batch n/a

GEE2913

Run #2

Initial Weight 3.42 g

Final Volume

5.0 ml

Methanol Aliquot

100 ul

Run #1 Run #2

CAS No.

Compound

Result

RL

MDL Units Q

TPH-GRO (C6-C10)

2260

970

mg/kg

CAS No. Surrogate Recoveries Run#1

Run#2

Limits

58

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

106% 104% 46-127% 44-120%

ND = Not detected

RL = Reporting Limit E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: GP-12 (12-13')

Lab Sample ID:

T59243-9

Matrix:

SO - Soil

SW846 8015 M SW846 3550B

Date Sampled:

09/01/10

Date Received:

09/03/10

Percent Solids: 83.7

Method: Project:

MWHCODE: San Juan River Basin Program

Prep Date

Prep Batch

Analytical Batch

Run #1

IF201060.D

File ID

DF 1

Analyzed By 09/04/10 HD

09/03/10

OP15901

GIB1088

Run #2

Initial Weight

Final Volume

Run #1

30.4 g

1.0 ml

Run #2

CAS No. Compound Result

RL

MDL

Units

0

TPH (C10-C28) TPH (> C28-C40)

379 88.1 3.9 3.9 3.2 2.6 mg/kg mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

103%

33-115%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: GP-12 (7-8')

Lab Sample ID:

T59243-10

Matrix:

SO - Soil

SW846 8260B

Date Sampled:

09/01/10

Date Received:

09/03/10

Percent Solids:

Method:

DF

1

79.1

Project:

MWHCODE: San Juan River Basin Program

Analytical Batch Prep Batch

Run #1

File ID Y0042031.D

Analyzed 09/09/10

By FI

Prep Date n/a

n/a

Run #2

VY2605

Initial Weight 1.94 g

Final Volume $5.0 \, \text{ml}$

Methanol Aliquot 100 ul

Run #1 Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	700	120	ug/kg	
100-41-4	Ethylbenzene	662	700	160	ug/kg	J
108-88-3	Toluene	ND	700	170	ug/kg	
1330-20-7	Xylene (total)	4540	2100	370	ug/kg	
	m,p-Xylene	4070	1400	260	ug/kg	
95-47-6	o-Xylene	473	700	110	ug/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	99%	70-121%			
2037-26-5	Toluene-D8	94%	76-132%			
460-00-4	4-Bromofluorobenzene	123%	73-165%			
17060-07-0 1,2-Dichloroethane-D4 93% 57				57-1	22%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: GP-12 (7-8')

Lab Sample ID:

T59243-10

Matrix:

SO - Soil

Method:

SW846 8015

Date Sampled:

Prep Date

n/a

42

09/01/10

Date Received:

09/03/10

Percent Solids: 79.1

Project:

MWHCODE: San Juan River Basin Program

DF

40

Analytical Batch Prep Batch

GEE2913 n/a

Run #1 Run #2

Initial Weight

EE056797.D

Final Volume

Methanol Aliquot

By

AT

Run #1 Run #2 1.94 g

File ID

5.0 ml

100 ul

CAS No. Compound Result

Analyzed

09/08/10

RL

MDL

Units

Q

TPH-GRO (C6-C10)

2510

700

mg/kg

CAS No. Surrogate Recoveries Run#1

Run# 2

Limits

460-00-4 4-Bromofluorobenzene 98-08-8 aaa-Trifluorotoluene

104% 108% 46-127% 44-120%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: GP-12 (7-8')

Lab Sample ID:

T59243-10

SO - Soil

Date Sampled: 09/01/10

Date Received:

09/03/10

Matrix: Method:

SW846 8015 M SW846 3550B

Percent Solids:

79.1

Project:

MWHCODE: San Juan River Basin Program

File ID

DF 5

Analyzed 09/05/10

By **EM** Prep Date 09/03/10

Prep Batch OP15901

Analytical Batch GIF1089

Run #1 Run #2

Initial Weight

IF201099.D

Run #1 30.4 g Final Volume 1.0 ml

Run #2

CAS No. Compound Result

RL

MDL

Units Q

TPH (C10-C28)

TPH (> C28-C40)

663 141

21 21

17 14 mg/kg mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

0%

33-115%

ND = Not detected RL = Reporting Limit

E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: GP-13 (8-9') Lab Sample ID:

T59243-11

Matrix:

SO - Soil

SW846 8260B

Date Sampled:

09/01/10

Date Received:

09/03/10

Method:

DF

5

Percent Solids: 76.4

Project:

MWHCODE: San Juan River Basin Program

Analyzed

09/09/10

Prep Date

n/a

Prep Batch

Analytical Batch

Run #1 Run #2

M0027975.D

File ID

Final Volume

Ву

FI

n/a

VM1142

Initial Weight 5.57 g

5.0 ml

100 ul

Methanol Aliquot

Run #1 Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	823	1500	260	ug/kg	J
100-41-4	Ethylbenzene	2250	1500	330	ug/kg	
108-88-3	Toluene	9940	1500	350	ug/kg	
1330-20-7	Xylene (total)	24300	4500	780	ug/kg	
	m,p-Xylene	19700	3000	540	ug/kg	
95-47-6	o-Xylene	4610	1500	240	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	81%	70-121%			
2037-26-5	Toluene-D8	109%	76-132%			
460-00-4	4-Bromofluorobenzene	105%	73-165%			
17060-07-0	1,2-Dichloroethane-D4	69%	57-122%			

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value B = Indicates analyte found in associated method blank

RL = Reporting Limit

N = Indicates presumptive evidence of a compound

E = Indicates value exceeds calibration range



Page 1 of 1

Client Sample ID: GP-13 (8-9') Lab Sample ID:

T59243-11

SO - Soil

Date Sampled:

09/01/10

Matrix:

Date Received:

09/03/10

Method:

SW846 8015

Percent Solids:

Project:

DF

40

76.4

MWHCODE: San Juan River Basin Program

File ID

Analyzed 09/08/10

By AT Prep Date

n/a

18

Prep Batch

Analytical Batch

Run #1 Run #2

EE056789.D

Final Volume

Methanol Aliquot

n/a

GEE2913

Initial Weight 5.57 g

5.0 ml

100 ul

Run #1 Run #2

CAS No. Compound Result

RL

MDL Units Q

TPH-GRO (C6-C10)

575

300

mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run# 2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

95% 102% 46-127% 44-120%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

E = Indicates value exceeds calibration range



Page 1 of 1

Client Sample ID: GP-13 (8-9') Lab Sample ID:

Matrix:

T59243-11

SO - Soil

Date Sampled: Date Received:

09/01/10

09/03/10

SW846 8015 M SW846 3550B

Percent Solids: 76.4

Method: Project:

MWHCODE: San Juan River Basin Program

Analyzed

09/04/10

Analytical Batch Prep Batch

OP15901 GIB1088

Run #1 Run #2

Initial Weight

IF201062.D

Final Volume

Run #1

30.5 g

File ID

1.0 ml

DF

1

Run #2

CAS No. Compound Result

RL

By

HD

MDL Units

Prep Date

09/03/10

Q

TPH (C10-C28) TPH (> C28-C40)

14.3 6.25

4.3 4.3

mg/kg mg/kg

CAS No. Surrogate Recoveries

Run# 2 Run#1

3.5

2.8

Limits

84-15-1

o-Terphenyl

58%

33-115%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: GP-23 (6-7') Lab Sample ID: T59243-12

SO - Soil SW846 8260B Date Sampled: Date Received:

09/02/10 09/03/10

Percent Solids:

86.0

Method: Project:

Matrix:

MWHCODE: San Juan River Basin Program

File ID M0027943.D Run #1

DF Analyzed 1 09/08/10

By FI

Prep Date n/a

Prep Batch n/a

Analytical Batch VM1141

Run #2

Initial Weight

5.18 g

Final Volume

5.0 ml

Run #1

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 100-41-4	Benzene Ethylbenzene	4.0 ND	4.5 4.5	0.78 1.0	ug/kg ug/kg	J
108-88-3	Toluene	ND	4.5	1.1	ug/kg	
1330-20-7	Xylene (total)	52.0	13	2.3	ug/kg	
	m,p-Xylene	52.0	9.0	1.6	ug/kg	
95-47-6	o-Xylene	ND	4.5	0.72	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
1868-53-7	Dibromofluoromethane	82%		70-121%		
2037-26-5	Toluene-D8	90%		76-132%		
460-00-4	4 4-Bromofluorobenzene 103% 73-165			65%		
17060-07-0	1,2-Dichloroethane-D4	66%		57-122%		

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: GP-23 (6-7')

Lab Sample ID:

T59243-12

Matrix:

SO - Soil

Date Sampled: Date Received:

09/02/10

Percent Solids:

09/03/10

Method:

SW846 8015

86.0

n/a

Q

Project:

MWHCODE: San Juan River Basin Program

Analyzed

09/09/10

Prep Date

n/a

Prep Batch

Analytical Batch

GBB111

Run #1 Run #2

Initial Weight

BB0001896.D

Final Volume

Methanol Aliquot

By

AT

Run #1

6.09 g

File ID

5.0 ml

DF

1

100 ul

Run #2

CAS No. Compound Result

MDL

0.34

Units

TPH-GRO (C6-C10)

ND

5.6

mg/kg

CAS No. Surrogate Recoveries

Run#1 Run#2

RL

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

94% 105% 46-127% 44-120%

ND = Not detected RL = Reporting Limit

E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: GP-23 (6-7') Lab Sample ID:

Matrix:

T59243-12

SO - Soil

Date Sampled:

09/02/10

Date Received:

09/03/10

Percent Solids:

Method:

SW846 8015 M SW846 3550B

86.0

Project:

MWHCODE: San Juan River Basin Program

Run #1

File ID IF201063.D DF 1

Analyzed 09/04/10

Prep Date 09/03/10

Prep Batch OP15901

Analytical Batch **GIF1088**

Run #2

Initial Weight

30.7 g

Final Volume 1.0 ml

Run #1 Run #2

CAS No.

Compound

Result

RL

MDL

Units

Q

TPH (C10-C28)

27.2 22.8

3.8 3.8

By

HD

3.1 2.5 mg/kg mg/kg

CAS No.

Surrogate Recoveries

TPH (>C28-C40)

Run#1

Run#2

Limits

84-15-1

o-Terphenyl

69%

33-115%

ND = Not detected

RL = Reporting Limit E = Indicates value exceeds calibration range

MDL - Method Detection Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: GP-27 (6-7')

Lab Sample ID:

T59243-13

SO - Soil

Date Sampled:

09/02/10

Date Received:

Matrix: Method:

SW846 8260B

09/03/10

1

Percent Solids: 85.3

Project:

MWHCODE: San Juan River Basin Program

Prep Batch

Analytical Batch

Run #1

M0027944.D

File ID

DF Analyzed 09/08/10

By FI

n/a

Prep Date

n/a

VM1141

Run #2

Initial Weight

Final Volume

Run #1 3.34 g 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 100-41-4 108-88-3 1330-20-7	Benzene Ethylbenzene Toluene Xylene (total) m,p-Xylene	20.9 ND ND 36.8 36.8	7.0 7.0 7.0 21 14	1.2 1.6 1.7 3.7 2.5	ug/kg ug/kg ug/kg ug/kg ug/kg	
95-47-6	o-Xylene	ND	7.0	1.1	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	86% 91% 105% 69%		76-1 73-1	21% 32% 65% 22%	

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

E = Indicates value exceeds calibration range



T59243

Page 1 of 1

Client Sample ID: GP-27 (6-7')

Lab Sample ID:

T59243-13

Matrix: Method:

Project:

SO - Soil

SW846 8015

MWHCODE: San Juan River Basin Program

Date Sampled:

09/02/10 09/03/10

Date Received: Percent Solids:

85.3

File ID DF Analyzed By Prep Date Prep Batch **Analytical Batch** Run #1 BB0001817.D 1 09/05/10 AT n/a n/a **GBB106**

Run #2

Initial Weight Final Volume Methanol Aliquot

Run #1 Run #2

4.04 g

5.0 ml

100 ul

CAS No.

Compound

Result

RL

MDL

Units

Q

J

1.36

8.1

0.49 mg/kg

CAS No.

Surrogate Recoveries

TPH-GRO (C6-C10)

Run#1

Run# 2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

90% 100% 46-127% 44-120%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: GP-27 (6-7') Lab Sample ID:

T59243-13

Date Sampled:

09/02/10

Matrix:

SO - Soil

Date Received:

09/03/10

Method:

SW846 8015 M SW846 3550B

Percent Solids: 85.3

Project:

MWHCODE: San Juan River Basin Program

Analyzed

09/05/10

Prep Batch OP15901

Analytical Batch GIB1088

Run #1 Run #2

Initial Weight

IF201064.D

Final Volume

Run #1

30.5 g

File ID

1.0 ml

DF

1

Run #2

CAS No. Compound Result

RL

3.8

3.8

By

HD

MDL

3.2

2.5

Prep Date

09/03/10

Units Q

TPH (C10-C28) TPH (> C28-C40)

125 45.5

mg/kg mg/kg

CAS No. Surrogate Recoveries Run#1

Run# 2

Limits

84-15-1

o-Terphenyl

80%

33-115%

ND = Not detected RL = Reporting Limit MDL - Method Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: TRIP BLANK

File ID

Lab Sample ID:

T59243-15

Matrix: Method:

Project:

SO - Trip Blank Soil

SW846 8260B

DF

1

Date Sampled:

09/02/10

Date Received: 09/03/10

Prep Date

n/a

Percent Solids: n/a

MWHCODE: San Juan River Basin Program

By

FI

Analyzed

09/07/10

Prep Batch

Analytical Batch

n/a VY2603

Run #1 Run #2

Initial Weight

Y0041957.D

Final Volume

Run #1

5.00 g 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	4.0	0.70	ug/kg	
100-41-4	Ethylbenzene	ND	4.0	0.90	ug/kg	
108-88-3	Toluene	ND	4.0	0.95	ug/kg	
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg	
	m,p-Xylene	ND	8.0	1.5	ug/kg	
95-47-6	o-Xylene	ND	4.0	0.64	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
1868-53-7	Dibromofluoromethane	108%		70-1	21%	
2037-26-5	Toluene-D8	103%		76-1	32%	
460-00-4	4-Bromofluorobenzene	89%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	88%		57-1	22%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: TRIP BLANK

Lab Sample ID: Matrix:

T59243-15

SO - Trip Blank Soil

Date Sampled:

09/02/10

Date Received:

09/03/10

Method:

SW846 8015

By

AT

Percent Solids: n/a

Project:

MWHCODE: San Juan River Basin Program

Analyzed

09/08/10

Prep Date

n/a

Prep Batch

n/a

Analytical Batch **GEE2912**

Run #1 Run #2

Initial Weight

EE056786.D

Final Volume

Run #1

5.00 g

File ID

5.0 ml

DF

1

Run #2

CAS No. Compound Result

RL

MDL

Units

Q

TPH-GRO (C6-C10)

ND

0.10

0.0060mg/kg

CAS No.

Surrogate Recoveries

Run#1

Run#2

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

90% 97% 46-127% 44-120%

ND = Not detected

MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound

E = Indicates value exceeds calibration range





Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody



#	A	C	C			J	1		E	=	C	3	٦	
			1	_	_		_	_	+	_	_	Ŧ	_	_

CHAIN OF CUSTODY

PAGE | OF |

MACCO IES	_	i 10165 Harwin Dr, Ste 150 Houston, TX 77036					智等31070209271					Bottle Order Control #				No. of Street,							
Laboratorie	s	The same of	TEL. 71		00 FAX:		271-47	70					Accule	st Quote i					Acculest .	lob#	15	9-	142
Client / Reporting Information			Project	Inform		655						國際	1			Req	uest	e d	Anal	yses	1	, ,	Matrix Codes
MWH Americas	Project Name:	ulz		TERRISE			O.S. Million		586		ensile is		J. J.										DW - Drinking Water GW - Ground Water WW - Water
Street Address 1801 California St. St. 296 City State	D			Billing	Informatio	in I If a	liffare	nt from	Ren	ort tol		Acceleration	43	1/2						-			SW - Surface Water SO - Soll
Denver CO 80202	City		State	Compan			anna (top	one usy			recteda	1 2									SL- Sludge SED-Sediment
Denver CO 80202 Project Contact F-mail	Project #			Street A	ddress								The S	5								- 0	OI - Oil LIQ - Other Liquid
Jed Smith												9	10	1	5								AIR - Air SOL - Other Solid
Phone # 303 29 2270 Fax#	Client Purchase	Order#		City State Zip					8260	8015	108								WP - Wipe FB-Field Blank EB-Equipment Blank				
Ashley Ager 970 385 /		ey Ager	-	Attention	Mumber of preserved Bottles					×	١	2-0								RB- Rinse Blank TB-Trip Blank			
, , ,		Colle	tion	T		\perp	TE	Number of	pres	erved Bo	ittes	2 2	M	2	Q								
Accasest Sample # Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCIN	ZANIN	HZSO	NONE	MEOH	TSP	ENCO	100	2	17								LAB USE ONLY
1 GP 19 (5.5-6.5')	9-2-10	0820	AA	50	5		Ш		1		\perp	4	V	V	V								
2 GP-25 (7-8')	9-2-10	11:45	AA	50	5				1			4	V	V	~								
3 GP-25 (7-8') MS	9-2-10	11:50	AA	50	5				1			4	V	V	V								
4 GP-25 (7-8') MSD	9-2-10	11:55	AA	50	5		П		1			4	V	1	1								
6 GP-23 Rinse Blank	9-2-10	09:43	AA	WW	5	3	П	\Box	2	T			V	/	/								
4 Field Blank	9-2-10	09:30	AA	WW	3	3	П		П				V	V									
17 Trip Blank #1 09-02-201		09:00	AA	WW		2	\sqcap	$\neg \neg$	T	\top	7	\sqcap	V	V									
40							П			П													
							П																
							П	\top	\top	\top	\top	\Box					\neg	\neg		\neg			
							П	\Box	\top	\top		\Box						\neg					
						\top	П	\forall	\top	\forall							\neg	\neg					
Tumaround Time (Business days)	新港主席政府					_		eliverabl	le In								開稿	Comm	nents / S	pecial Inst	uctions	21025	
Standard 5 Day RUSH	Approved By (Acc	rtest PM): / Date:			Commerci Commerci							Format											
4 Day RUSH					FULT1 (L			11 2]		H					_			-					
3 Day RUSH					REDT1 (L		-									-							
2 Day RUSH	-				Commerci																		
1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink								cial "A" =				nmarv		1				-					
		Commercial "5" = Results + QC Surrmary Commercial "0" = Results + QC & Surrogal Sample Custody must be documented below each time samples change possession, incl							d-th-			In	42-10-2 (A)		SISSESSED IN	Charles and	Talanta and consideration and						
Relinitished by Jampier:		Received By:	ust be docum	ented be	now each	time		ples ch Relinquisi			essio	on, incl	uding d	ourier	deliver	ate Time	917	R	leceived	ly:	PRICE STATE	三 三 三 三 三 三 三 三 三 三 三 三 三 三 三 三 三 三 三	
1 Why Light 9-2-		103 1 2 FOXI				_				ata Time		2	2	2	21	_							
Relinquished by Sampler: 0 Date Time 3		Received By: 3	4					×			ate Time		R 4	leceived E				y					
Relinquished by: Date Time		Raceived By: Custody Seal #					Intact Not Intac		Preserve	where a	pplicable			On I		Cooler	Татр.						

T59243: Chain of Custody Page 1 of 5



			CHAI	N O	F C	US	ST	OD	Y											GE.	1	OF	1
EACCUTEST		7	10165 Har	win Dr. S	te 150 Ho	uston.	TX 77	7036					FED-EX	Tracking	ก็วก	92150)	Bottle Or	irder Cant	trol #			
Laboratories		`	TEL. 71	3-271-470	0 FAX:	713-2	271-47	770					Accutes	Quole#	V Eater			Accutest	t Job#	1	KO	12	13
Client / Reporting Information			Project		-	-							100			Reques	ted	Ana	lyse	s	-		Matrix Codes
Company Name MWH Americas	Project Name:	07											0									5	OW - Drinking Water
Street Address	Street		-	995533		MACA AND	or consider		100113	物造器			50									-	GW - Ground Water WW - Water SW - Surface Water
1801 California St., Ste 2901	2				Informatio	n (if c	differe	nt from	Repo	ort to)												-	SO - Soll SL- Sludge
Denver, CO 80202	City		State	Compan	y Name								Jes y										SED-Sediment OI - Oil
Project Centact E-mail	Project #			Street A	ddress								X CF	-									LIQ - Other Liquid AIR - Air
Jed Smith	Client Purchase	0-1 #		City				St	nio.			Zip	-						1				SOL - Other Solid WP - Wipe
Phone # 303 291 2270	Client Purchase	Order#		City				Oli	atu .			Zip .	200	m	5							١.	FB-Field Blank B-Equipment Blank
Sampler(s) Name(s) Phone #	Project Manager	Λ		Attention	Y:								23	800	108				1				RB- Rinse Blank TB-Trip Blank
Ashley Ager	Ashle	y Ager Colle	otion			_		Number	nt nms	erved B	lottler		100	1	1								тв-тпр вник
. 0		Conte		T		1	-	1 1	T	B		100	BTEX	GRO	DRO								
Acculest Sample # Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	를 를	ZANaOH	HNO3 HZSO4	NONE	DI Wat	TSP	MaHSO4 ENCORE	10	0									LAB USE ONLY
GP-15 (4-51)	9-1-10	14:26	AA	50	5	П			1			9	1	V	1								
1 9 GP-15 (9.5-10')	9-1-10	14:55	AA	90	5	П		П	1			4	V	V	V								
(10 GP- 11 (125-13')	9-1-10	15:41	AA	50	5	П	T	П	1			4	1	1	/								
111 GP-12 (12-13')	9-1-10	16:30	AA	50	5				1			4	1	1	1								
1 (3P-12 (7-8')	9-1-10	110:35	AA	50	5	П		П	1		П	4	1	1	/								
1 GP-13 (8-9')	9-1-10	17:20	AA	50	5	П			1			4	V	1	V								
2 14 GP-23 (6-7')	9-2-10	09.38	AA	50	5				1			4	/	/	V								
318 60-27 16-7)	9-2-10	10:27	AA	50	5	T		П	1			4	V	/	1								
4 16 Trip Blank # 2 09-02-2010	9-2-10	10:15	AA	WW	2	2			П				V	V									le .
TP							T				П												
							T	П	П														
						T			П		П							\Box					
Turnsround Time (Business days)								Delivera	ble In		-		開起教			OFFICE REAL	Com	nents /	Specia	al Instruci	ions 🎬	STANKE OF	
Standard 5 Day RUSH	Approved By (Acco	utest PM): / Date:			Commerc							RP D Forma	t										
4 Day RUSH				占	FULT1 (I	Level 3	3+4)				Ot	her	_				ls.						
3 Day RUSH 2 Day RUSH	-				REDT1 (1									
1 Day EMERGENCY				_		C	omme	ercial "A												1 1 1			
Emergency & Rush T/A data available VIA Lablink												Summary & Surrogal	e Summa	ıry						40	1	100	
		Received By:	ust be docur	nented b	elow eac		e san		hang	je pos						y. Date Time:	-	Received	1000	7	4		
1 Whill Lake 9-2	10/1505	1						2	native l	7	Je	07	D		-	9111	0	2	. 37.	U			
Relinquished by Sampler: Date Time:		Received By:						Relinqu	Ished E	Ву:		-			ı	Date Time:	4	Racelved	d By:	1			X

Intact
Not intact

T59243: Chain of Custody Page 2 of 5



SAMPLE INSPECTION FORM

Accutest Job Number: 759243 Client: MWI+ Americas Date/Time Received: 9-3-10 945
of Coolers Received: 7 Thermometer #: // O Temperature Adjustment Factor:5°C
Cooler Temperatures (initial/adjusted): #1: 3,1° / 16° = #2: / 2 5 / 0 7° = #3: #4: #5:
#6:#8:#8:#10#11#12
Method of Delivery: FEDEX UPS Accutest Courier Greyhound Delivery Other
COOLER INFORMATION Custody seal missing or not intact Temperature criteria not met Wet fee received in cooler Wet fee received in cooler Chain of Custody not received Sample labels missing or illegible D/T on COC does not match label(s) Chain of Custody not received Sample D/T unclear or missing Analyses unclear or missing COC not properly executed Insufficient volume for analysis Sample received improperly preserved Sample # 5 Received color Sample # 5 Received Sample Samp
TECHNICIAN SIGNATURE/DATE: 9-3-10 INFORMATION AND SAMPLE LABELING VERIFIED BY:
· · · · · · · · · · · CORRECTIVE ACTIONS
Client Representative Notified: Date:
By Accutest Representative: Via: Phone Email Client Instructions:
chwalker/Jorntsamplemanagement SM023 Revised 8/11/10

T59243: Chain of Custody Page 3 of 5



SAMPLE RECEIPT LOG

JOB#:	T59243	DATE/TIME RECEIVED:	9-3-10	945	
CLIENT:	MWH Americas	INITIALS:	50		

COOLER#	SAMPLE ID	FIELD ID	DATE		MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	-	PH
1	1	(-P-19 (5.5-6.5')		820	5	402	1	7-61	① 2 3 4 5 6 7 8	<2	>12
1	1		1		1	GALIFR	2-5	M	1) 2 3 4 5 6 7 8	<2	>12
	2	GP-25 (7-8')		141		402	1	2-61	2 3 4 5 6 7 8	<2	>12
	2			,		Encore	25	WL	2 3 4 5 6 7 8	<2	>12
	2	GP-25 (7-8)m5		100		402	Ь	2-61	5 6 7 8	<2	>12
	2					Encor	7-10	v2	D 2 3 4 5 6 7 8	<2	>12
	2	GP-25-(7-8')ms1)		1155		402	11	2.61	2 3 4 5 6 7 8	<2	>12
	2		1		Vr	Encore	12-15	vr	5 6 7 8	<2	>12
	3	(-P.23 Rinse Blunk	9-2-10	3-13	W	LAG	1-2	1-A	2 3 4 5 6 7 8	<2	>12
	3					40	3.5	YR	1 2 3 4	<2	>12
	4	Field Blank		730	+	40	1-2	m	Ag D 3 4 5 6 7 8	<2	>12
V	5	Trop Black Hogola	DID 9-1-13 .9:	7-0	WTB	40ml	1-2	m	5 6 7 8	<2	>12
2	6	GP-15 (4-5')	9/1/10	1424	5	4,2	1	2-61	(f) 2 3 4 5 6 7 8	<2	>12
7	6	• •			1	facore	2-5	SL	5 6 7 8	<2	>12
	7	GP 15 (9.575')		1455		4,2	1	2-61	5 6 7 8	<2	>12
	7	1,				Encore	25	vR	8 2 3 4 5 6 7 8	<2	>12
	8	GP 11 (125-13')	1	541		402	1	2-61	2 3 4	<2	>12
	8	,				Encore	215	M	2 3 4 25 6 7 8	<2	>12
	9	GP 12 (12-13'))	630		452	1	261	5 B 7 B	<2	>12
	9	11				Court	2-5	WR	5 6 7 8	<2	>12
/	10	GP 12 (28')		1635	//	402	1	2-61	D 2 3 4 5 6 7 8	<2	>12
1	10	11	V		V	Solore	nig	w	5 6 7 8	<2	>12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Solls) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

T59243: Chain of Custody

Page 4 of 5



SAMPLE RECEIPT LOG

JOB#:	T 59243	DATE/TIME RECEIVED:		9-1-10	915	
CLIENT:	must Americas	INITIALS:	80			

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE#	LOCATION	PRESERV	PH
2	11	GP-13 (8-9')	9-1-10 1720	S	402	1	2-61	5 6 7 8	<2 >12
1	11	1.7			ENGU	2-5	m	1) 2 3 4 5 6 7 8	<2 >12
	12	GP-23(6.7')	9-2-12 938		422	1	2-61	2 3 4	<2 >12
	12	.,	1		Encore	25	W	0 2 3 4 5 6 7 8	<2 >12
	13	GP-27 (6.7')	1027		402	1	2-61	D 2 3 4 5 6 7 8	<2 >12
	13		4	4.	Encore	2-5	1/2	5 6 7 8	<2 >12
	14	Tr: &Bluk#2 09-02-29	9 9,2-10 101	WTV3	40	1-2	w	① 2 3 4 5 6 7 8	<2 >12
V	15	Trip Blank		STV3	40	112	VR	1 2 3 4 5 6 7 8	<2 >12
-								1 2 3 4	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
	61							5 6 7 8	<2 >12
		7						1 2 3 4 5 6 7 8	<2 >12
	+ - 4			<i>a</i>				1 2 3 4 5 6 7 8	<2 >12
			621	10				1 2 3 4 5 6 7 8	<2 >12
			100					1 2 3 4 5 6 7 8	<2 >12
		7						1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
							12 -	1 2 3 4 5 8 7 8	<2 >12
	14			·				1 2 3 4 5 8 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4	<2 >12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Solls) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

T59243: Chain of Custody Page 5 of 5





GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Method Blank Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample
VF3985-MB

File ID DF F028630.D 1

Analyzed 09/07/10

Prep Date By AK n/a

Prep Batch

Analytical Batch VF3985

Page 1 of 1

n/a

The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-3, T59243-4, T59243-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.55	ug/l	
108-88-3	Toluene	ND	2.0	0.43	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.7	ug/l	
	m,p-Xylene	ND	4.0	1.1	ug/l	
95-47-6	o-Xylene	ND	2.0	0.53	ug/l	
CAS No.	Surrogate Recoveries		Limit	ts		
1868-53-7	Dibromofluoromethane	104%	79-12	2%		
17060-07-0	1,2-Dichloroethane-D4	98%	75-12	1%		
2037-26-5	Toluene-D8	97%	87-11	9%		
460-00-4	4-Bromofluorobenzene	96%	80-13	3%		



Method Blank Summary

Job Number: T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample VY2603-MB	File ID Y0041956.	DF D 1	Analyzed 09/07/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VY2603
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The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-1, T59243-2, T59243-7, T59243-8, T59243-9, T59243-15

CAS No.	Compound	Result	RL	MDL	Units Q
71-43-2	Benzene	ND	4.0	0.70	ug/kg
100-41-4	Ethylbenzene	ND	4.0	0.90	ug/kg
108-88-3	Toluene	ND	4.0	0.95	ug/kg
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg
	m,p-Xylene	ND	8.0	1.5	ug/kg
95-47-6	o-Xylene	ND	4.0	0.64	ug/kg
CAS No.	Surrogate Recoveries		Limits		
1868-53-7	Dibromofluoromethane	105%	70-1219	%	
2037-26-5	Toluene-D8	100%	76-1329	%	
460-00-4	4-Bromofluorobenzene	85%	73-1659	%	
17060-07-0	1,2-Dichloroethane-D4	84%	57-1229	%	



Method Blank Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sa	mple M1141-MB
VN	M1141-MB

File ID DF M0027931.D1

Analyzed 09/08/10

Pre n/a

By

FI

Prep Date Prep Batch

n/a

Analytical Batch

Page 1 of 1

VM1141

The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-6, T59243-12, T59243-13

CAS No.	Compound	Result	RL	MDL	Units Q
71-43-2	Benzene	ND	4.0	0.70	ug/kg
100-41-4	Ethylbenzene	ND	4.0	0.90	ug/kg
108-88-3	Toluene	ND	4.0	0.95	ug/kg
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg
	m,p-Xylene	ND	8.0	1.5	ug/kg
95-47-6	o-Xylene	ND	4.0	0.64	ug/kg
CAS No.	Surrogate Recoveries		Limi	ts	
1868-53-7	Dibromofluoromethane	87%	70-12	21%	
2037-26-5	Toluene-D8	91%	76-13	32%	
460-00-4	4-Bromofluorobenzene	102%	73-16	65%	
17060-07-0	1,2-Dichloroethane-D4	69%	57-12	22%	



Method Blank Summary Job Number: T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID	DF	Analyzed 09/08/10	By	Prep Date	Prep Batch	Analytical Batch
VM1142-MB	M0027954	I.D 1		FI	n/a	n/a	VM1142

The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-11

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	4.0	0.70	ug/kg	
100-41-4	Ethylbenzene	ND	4.0	0.90	ug/kg	
108-88-3	Toluene	ND	4.0	0.95	ug/kg	
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg	
	m,p-Xylene	ND	8.0	1.5	ug/kg	
95-47-6	o-Xylene	ND	4.0	0.64	ug/kg	
CAS No.	Surrogate Recoveries		Limits			
1868-53-7	Dibromofluoromethane	87%	70-1219	%		
2037-26-5	Toluene-D8	90%	76-132	%		
460-00-4	4-Bromofluorobenzene	102%	73-1659	%		
17060-07-0	1,2-Dichloroethane-D4	70%	57-1229			



Method Blank Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample VY2605-MB File ID DF Y0042028.D 1

Analyzed 09/09/10

Ву

FΪ

Prep Date

Prep Batch

Analytical Batch VY2605

Page 1 of 1

n/a

n/a

The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-10

CAS No.	Compound	Result	RL	MDL	Units Q
71-43-2	Benzene	ND	4.0	0.70	ug/kg
100-41-4	Ethylbenzene	ND	4.0	0.90	ug/kg
108-88-3	Toluene	ND	4.0	0.95	ug/kg
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg
	m,p-Xylene	ND	8.0	1.5	ug/kg
95-47-6	o-Xylene	ND	4.0	0.64	ug/kg
CAS No.	Surrogate Recoveries		Limits		
1868-53-7	Dibromofluoromethane	98%	70-121	%	
2037-26-5	Toluene-D8	97%	76-132	2%	
460-00-4	4-Bromofluorobenzene	88%	73-165	1%	
17060-07-0	1,2-Dichloroethane-D4	81%	57-122	2%	



Blank Spike Summary

Job Number: T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-3, T59243-4, T59243-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	21.2	85	76-118
100-41-4	Ethylbenzene	25	22.4	90	75-112
108-88-3	Toluene	25	21.3	85	77-114
1330-20-7	Xylene (total)	75	68.3	91	75-111
	m,p-Xylene	50	45.5	91	75-112
95-47-6	o-Xylene	25	22.9	92	74-110
CAS No.	Surrogate Recoveries	BSP	Lim	its	
1868-53-7	Dibromofluoromethane	102%	79-1	22%	
17060-07-0	1,2-Dichloroethane-D4	94%	75-1	21%	
2037-26-5	Toluene-D8	93%	87-1	19%	
460-00-4	4-Bromofluorobenzene	94%	80-1	33%	



Blank Spike Summary Job Number: T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample VY2603-BS	File ID DF Y0041954.D 1	Analyzed 09/07/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VY2603
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The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-1, T59243-2, T59243-7, T59243-8, T59243-9, T59243-15

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2 100-41-4 108-88-3 1330-20-7	Benzene Ethylbenzene Toluene Xylene (total) m,p-Xylene	50 50 50 150 100	43.5 40.1 40.9 126 82.5	87 80 82 84 83	70-114 60-119 68-115 61-115 60-115
95-47-6	o-Xylene	50	43.5	87	63-114
CAS No.	Surrogate Recoveries	BSP	Lim	nits	
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	103% 100% 87% 84%	76-1 73-1	121% 132% 165%	

Blank Spike Summary Job Number: T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample File ID DF Analyzed By VM1141-BS M0027929.D 1 09/08/10 FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VM1141
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The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-6, T59243-12, T59243-13

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	42.5	85	70-114
100-41-4	Ethylbenzene	50	41.1	82	60-119
108-88-3	Toluene	50	41.0	82	68-115
1330-20-7	Xylene (total)	150	124	83	61-115
	m,p-Xylene	100	83.4	83	60-115
95-47-6	o-Xylene	50	41.0	82	63-114
CAS No.	Surrogate Recoveries	BSP	Lin	nits	
1868-53-7	Dibromofluoromethane	87%	70-	121%	
2037-26-5	Toluene-D8	90%	76-	132%	
460-00-4	4-Bromofluorobenzene	99%		165%	
17060-07-0	1,2-Dichloroethane-D4	70%	57-	122%	



Blank Spike Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

	Sample VM1142-BS
ı	VM1142-R9

File ID DF M0027952.D1

Analyzed By 09/08/10 FI

Prep Date n/a

Prep Batch

Analytical Batch

Page 1 of 1

n/a VM1142

The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-11

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	42.9	86	70-114
100-41-4	Ethylbenzene	50	40.5	81	60-119
108-88-3	Toluene	50	40.6	81	68-115
1330-20-7	Xylene (total)	150	119	79	61-115
	m,p-Xylene	100	79.1	79	60-115
95-47-6	o-Xylene	50	40.3	81	63-114
CAS No.	Surrogate Recoveries	BSP	Lim	its	
1868-53-7	Dibromofluoromethane	85%	70-1	21%	
2037-26-5	Toluene-D8	92%	76-1	32%	
460-00-4	4-Bromofluorobenzene	98%	73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	70%	57-1	22%	
460-00-4	4-Bromofluorobenzene	98%	73-1	65%	



Blank Spike Summary

Job Number: T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample File ID DF	Analyzed 09/09/10	By	Prep Date	Prep Batch	Analytical Batch
VY2605-BS Y0042025.D 1		FI	n/a	n/a	VY2605

The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-10

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	49.0	98	70-114
100-41-4	Ethylbenzene	50	48.9	98	60-119
108-88-3	Toluene	50	46.8	94	68-115
1330-20-7	Xylene (total)	150	153	102	61-115
	m,p-Xylene	100	102	102	60-115
95-47-6	o-Xylene	50	51.1	102	63-114
CAS No.	Surrogate Recoveries	BSP	Lin	nits	
1868-53-7	Dibromofluoromethane	98%	70-	121%	
2037-26-5	Toluene-D8	98%	76-	132%	
460-00-4	4-Bromofluorobenzene	87%	73-	165%	
17060-07-0	1,2-Dichloroethane-D4	81%	57-	122%	



Matrix Spike/Matrix Spike Duplicate Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample T59288-4MS	File ID F028636.D	DF 1	Analyzed 09/07/10	By AK	Prep Date n/a	Prep Batch n/a	Analytical Batch VF3985
T59288-4MSD	F028637.D	1	09/07/10	AK	n/a	n/a	VF3985
T59288-4	F028635.D	1	09/07/10	AK	n/a	n/a	VF3985

The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-3, T59243-4, T59243-5

CAS No.	Compound	T59288-4 ug/l Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	25	20.6	82	20.5	82	0	76-118/16
100-41-4	Ethylbenzene	ND	25	22.4	90	22.6	90	1	75-112/12
108-88-3	Toluene	ND	25	21.3	85	21.1	84	1	77-114/12
1330-20-7	Xylene (total)	ND	75	68.1	91	69.2	92	2	75-111/12
	m,p-Xylene	ND	50	45.2	90	45.8	92	1	75-112/12
95-47-6	o-Xylene	ND	25	23.0	92	23.4	94	2	74-110/11
CAS No.	Surrogate Recoveries	MS	MSD	T59	9288-4	Limits			
1868-53-7	Dibromofluoromethane	103%	105%	105	%	79-122%	ó		
17060-07-0	1,2-Dichloroethane-D4	98%	99%	101	%	75-121%	ó		
2037-26-5	Toluene-D8	94%	94%	979	6	87-119%	ó		
460-00-4	4-Bromofluorobenzene	95%	96%	969	6	80-133%	ó		

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample T59243-2MS	File ID 1	DF	Analyzed 09/08/10	By FI	Prep Date	Prep Batch	Analytical Batch VY2603
T59243-2MSD	Y0041962.D		09/08/10	FI	n/a	n/a n/a	VY2603
T59243-2	Y0041960.D	1	09/08/10	FI	n/a	n/a	VY2603

The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-1, T59243-2, T59243-7, T59243-8, T59243-9, T59243-15

CAS No.	Compound	T59243-2 ug/kg Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	61.8	53.8	87	66.8	92	22	70-114/38
100-41-4	Ethylbenzene	ND	61.8	51.7	84	63.2	87	20	60-119/40
108-88-3	Toluene	ND	61.8	52.5	85	64.2	88	20	68-115/38
1330-20-7	Xylene (total)	ND	185	160	86	198	90	21	61-115/39
	m,p-Xylene	ND	124	106	86	130	89	20	60-115/40
95-47-6	o-Xylene	ND	61.8	54.6	88	67.7	93	21	63-114/37
CAS No.	Surrogate Recoveries	MS	MSD	T59	9243-2	Limits			
1868-53-7	Dibromofluoromethane	101%	103%	102	%	70-1219	%		
2037-26-5	Toluene-D8	99%	101%	101	%	76-1329	%		
460-00-4	4-Bromofluorobenzene	87%	88%	869	6	73-1659	%		
17060-07-0	1,2-Dichloroethane-D4	78%	82%	819	6	57-1229	%		



Matrix Spike/Matrix Spike Duplicate Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID DF	Analyzed	Bv	Prep Date	Prep Batch	Analytical Batch
T59403-1MS	M0027939.D1	09/08/10	FI	n/a	n/a	VM1141
T59403-1MSD	M0027940.D1	09/08/10	FI	n/a	n/a	VM1141
T59403-1	M0027932.D1	09/08/10	FI	n/a	n/a	VM1141

The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-6, T59243-12, T59243-13

CAS No.	Compound	T59403-1 ug/kg Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
CAS No.	Compound	ug/kg Q	ug/kg	ug/kg	70	ug/kg	70	KID	Kec/KID
71-43-2	Benzene	5.9 U	83.8	69.4	83	70.4	82	1	70-114/38
100-41-4	Ethylbenzene	5.9 U	83.8	66.4	79	66.7	78	0	60-119/40
108-88-3	Toluene	5.9 U	83.8	67.5	81	69.0	81	2	68-115/38
1330-20-7	Xylene (total)	18 U	251	194	77	199	78	3	61-115/39
	m,p-Xylene	12 U	168	130	78	133	78	2	60-115/40
95-47-6	o-Xylene	5.9 U	83.8	64.6	77	66.5	78	3	63-114/37
CAGN	G	MG	MgD	T.50	402.1	T ! !*-			
CAS No.	Surrogate Recoveries	MS	MSD	1 59	403-1	Limits			
1868-53-7	Dibromofluoromethane	82%	87%	84%	ó	70-121%	,		
2037-26-5	Toluene-D8	92%	96%	98%	ó	76-132%	ó		
460-00-4	4-Bromofluorobenzene	112%	114%	115	%	73-165%	ó		
17060-07-0	1,2-Dichloroethane-D4	65%	66%	68%	ó	57-122%	ò		

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample File ID DF Analyzed T59272-4MS M0027956.D 1 09/08/10 T59272-4MSD M0027957.D 1 09/09/10 T59272-4 M0027955.D 1 09/08/10	By Prep Date FI n/a FI n/a FI n/a	Prep Batch n/a VM1142 n/a VM1142 n/a VM1142
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The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-11

T59272-4 Spike MS MS MSD M	ISD	Limits		
CAS No. Compound ug/kg Q ug/kg ug/kg % ug/kg %	6 RI	PD Rec/RPD		
71-43-2 Benzene 4.7 U 60.4 48.3 80 45.5 73	5 6	70-114/38		
100-41-4 Ethylbenzene 4.7 U 60.4 42.6 71 36.2 60	0 16	60-119/40		
108-88-3 Toluene 4.7 U 60.4 49.0 81 44.9 74	4 9	68-115/38		
1330-20-7 Xylene (total) 14 U 181 124 68 106 50	8* 16	61-115/39		
m,p-Xylene 9.5 U 121 83.5 69 71.8 55	9* 15	60-115/40		
95-47-6 o-Xylene 4.7 U 60.4 40.7 67 34.0 50	6* 18	63-114/37		
CAS No. Surrogate Recoveries MS MSD T59272-4 Limits				
1868-53-7 Dibromofluoromethane 85% 87% 86% 70-121%				
2037-26-5 Toluene-D8 92% 90% 90% 76-132%				
460-00-4 4-Bromofluorobenzene 106% 102% 109% 73-165%				
17060-07-0 1,2-Dichloroethane-D4 71% 69% 70% 57-122%				

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID		Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T59488-2MS	Y0042032.D		09/09/10	FI	n/a	n/a	VY2605
T59488-2MSD	Y0042033.D		09/09/10	FI	n/a	n/a	VY2605
T59488-2	Y0042029.D	1	09/09/10	FI	n/a	n/a	VY2605

The QC reported here applies to the following samples:

Method: SW846 8260B

T59243-10

			T59488-2		Spike MS		MS	MSD	MSD		Limits
	CAS No.	Compound	ug/kg	Q	ug/kg	ug/kg	%	ug/kg	%	RPD	Rec/RPD
	71-43-2	Benzene	7.6 U		95.8	84.9	89	86.2	86	2	70-114/38
	100-41-4	Ethylbenzene	7.6 U		95.8	86.8	91	87.3	87	1	60-119/40
	108-88-3	Toluene	2.0	J	95.8	84.7	86	85.1	82	0	68-115/38
	1330-20-7	Xylene (total)	23 U		288	271	94	273	90	1	61-115/39
		m,p-Xylene	15 U		192	179	93	181	90	1	60-115/40
	95-47-6	o-Xylene	7.6 U		95.8	91.6	96	92.1	91	1	63-114/37
CAS No.		Surrogate Recoveries MS			MSD T5		9488-2	Limits			
		Surrogate Recoveries	MIS		MSD	1 39400-2		Limits			
	1868-53-7	Dibromofluoromethane	93%		94%	95%	6	70-121%	ó		
	2037-26-5	Toluene-D8	101%	1% 99		105%		76-132%			
	460-00-4	4-Bromofluorobenzene	93%		94%	92%		73-165%	%		
17060-07-0 1,2-Dichloroethane-D4		73%		75%	77%		57-122%				



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Method Blank Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GBB106-MB File ID DF BB0001810.D1

Analyzed 09/05/10

By AT Prep Date

n/a

Prep Batch n/a

Analytical Batch

GBB106

The QC reported here applies to the following samples:

Method: SW846 8015

T59243-1, T59243-7, T59243-13

CAS No.

Compound

Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

ND

5.0

0.30

mg/kg

CAS No.

Surrogate Recoveries

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

94%

46-127% 101% 44-120% Method Blank Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample **GEE2913-MB** File ID

EE056782.D 1

DF

Analyzed 09/08/10

By AT Prep Date

n/a

Prep Batch n/a

Analytical Batch

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GEE2913

The QC reported here applies to the following samples:

Method: SW846 8015

T59243-2, T59243-6, T59243-8, T59243-9, T59243-10, T59243-11

CAS No.

Compound

Result

RL

MDL

0.30

Units Q

TPH-GRO (C6-C10)

ND

5.0

mg/kg

CAS No.

Surrogate Recoveries

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

97% 99% 46-127% 44-120%

T59243

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GEE2912-MB File ID DF EE056782.D 1 Analyzed 09/08/10

By AT Prep Date

n/a

Prep Batch

Analytical Batch

n/a GEE2912

The QC reported here applies to the following samples:

Method: SW846 8015

T59243-3, T59243-4, T59243-5, T59243-15

CAS No. Compound

Result

RL

MDL Units Q

TPH-GRO (C6-C10)

ND

0.050

0.0060 mg/l

CAS No.

Surrogate Recoveries

Limits

460-00-4 98-08-8 4-Bromofluorobenzene aaa-Trifluorotoluene

97%

42-123%

99% 51-130%

.1 ... Method Blank Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GBB111-MB File ID DF BB0001894.D1

Analyzed 09/09/10

By AT Prep Date

n/a

Prep Batch

Analytical Batch

Page 1 of 1

n/a

GBB111

The QC reported here applies to the following samples:

Method: SW846 8015

T59243-12

CAS No. Compound

Result

RL

MDL

Units Q

TPH-GRO (C6-C10)

ND

5.0

0.30

mg/kg

CAS No.

Surrogate Recoveries

Limits

460-00-4 98-08-8

4-Bromofluorobenzene

95%

46-127%

aaa-Trifluorotoluene

103% 44-120% Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample

File ID DF BB0001808.D1

Analyzed 09/05/10

Prep Date

Prep Batch

Analytical Batch

GBB106-BS

By AT

n/a

n/a

GBB106

The QC reported here applies to the following samples:

Method: SW846 8015

T59243-1, T59243-7, T59243-13

CAS No. Compound

Spike mg/kg mg/kg

BSP BSP

%

91

Limits

TPH-GRO (C6-C10)

0.362 0.4

78-115

CAS No.

Surrogate Recoveries

BSP

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

96% 106% 46-127% 44-120%

Blank Spike Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample **GEE2913-BS**

File ID DF EE056779.D 1

Analyzed 09/08/10

By AT Prep Date n/a

Prep Batch n/a

Analytical Batch

Page 1 of 1

GEE2913

The QC reported here applies to the following samples:

Method: SW846 8015

T59243-2, T59243-6, T59243-8, T59243-9, T59243-10, T59243-11

CAS No. Compound

BSP Spike mg/kg mg/kg

BSP

%

Limits

TPH-GRO (C6-C10)

0.4 0.367 92 78-115

CAS No.

Surrogate Recoveries

BSP

Limits

460-00-4 98-08-8

4-Bromofluorobenzene aaa-Trifluorotoluene

96% 95% 46-127% 44-120% T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample GEE2912-BS File ID DF EE056779.D 1 Analyzed 09/08/10

By AT Prep Date

n/a

Prep Batch

Analytical Batch

n/a GEE2912

The QC reported here applies to the following samples:

Method: SW846 8015

T59243-3, T59243-4, T59243-5, T59243-15

Compound

Spike mg/l

BSP mg/l BSP Limits

TPH-GRO (C6-C10)

0.4 0.367

92

81-113

CAS No.

CAS No.

Surrogate Recoveries

BSP

Limits

460-00-4 98-08-8 4-Bromofluorobenzene aaa-Trifluorotoluene 96% 95%

% 42-123% % 51-130%

Blank Spike Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample
GBB111-BS

File ID DF BB0001892.DI Analyzed 09/09/10

By AT Prep Date

n/a

Prep Batch

Analytical Batch

Page 1 of 1

n/a

GBB111

The QC reported here applies to the following samples:

Method: SW846 8015

T59243-12

CAS No. Compound

Spike BSP BSP

mg/kg mg/kg %

Limits

TPH-GRO (C6-C10)

0.4

0.368 92

78-115

CAS No. Surrogate Recoveries

BSP

Limits

460-00-4 4-Bromofluorobenzene 98-08-8 aaa-Trifluorotoluene 96% 46-127% 109% 44-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample File ID DF T59306-2MS BB0001813.Dl T59306-2MSD BB0001814.Dl T59306-2 BB0001812.Dl	Analyzed 09/05/10 09/05/10 09/05/10	By AT AT AT	Prep Date n/a n/a n/a	Prep Batch n/a n/a n/a	Analytical Batch GBB106 GBB106 GBB106
----------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------	----------------------	--------------------------------	---------------------------------	------------------------------------------------

The QC reported here applies to the following samples:

Method: SW846 8015

T59243-1, T59243-7, T59243-13

CAS No.	Compound	T59306-2 mg/kg Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	18 U	73.6	64.2	87	64.4	87	0	78-115/14
CAS No.	Surrogate Recoveries	MS	MSD	T59	306-2	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	94% 103%	96% 107%	93% 101		46-127% 44-120%			

Matrix Spike/Matrix Spike Duplicate Summary Job Number: T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID DF	Analyzed	By Prep Date	Prep Batch	Analytical Batch
T59243-3MS	EE056784.D 1	09/08/10	AT n/a	n/a	GEE2912
T59243-3MSD	EE056785.D 1	09/08/10	AT n/a	n/a	GEE2912
T59243-3	EE056783.D 1	09/08/10	AT n/a	n/a	GEE2912
1					

The QC reported here applies to the following samples:

Method: SW846 8015

T59243-3, T59243-4, T59243-5, T59243-15

CAS No.	Compound	T59243-3 mg/l	Q Q	Spike mg/l	MS mg/l	MS %	S	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		0.4	0.408	3 102	2	0.403	101	1	81-113/31
CAS No.	Surrogate Recoveries	MS		MSD	1	59243-	-3	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	95% 91%		93% 100%		0% 7%		42-123% 51-130%			

Matrix Spike/Matrix Spike Duplicate Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
	EE056793.D		09/08/10	AT	n/a	n/a	GEE2913
	EE056794.D		09/08/10	AT	n/a	n/a	GEE2913
	EE056792.D		09/08/10	AT	n/a	n/a	GEE2913

The QC reported here applies to the following samples:

Method: SW846 8015

T59243-2, T59243-6, T59243-8, T59243-9, T59243-10, T59243-11

CAS No.	Compound TPH-GRO (C6-C10)	T59243-2 mg/kg Q	Spike mg/kg 33.1	MS mg/kg 25.8	MS % 78	MSD mg/kg 26.3	MSD % 79	RPD	Limits Rec/RPD 78-115/14
CAS No.	Surrogate Recoveries	MS	MSD	T59	243-2	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	95% 96%	95% 97%	95% 99%		46-127% 44-120%			

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

The QC reported here applies to the following samples:

Method: SW846 8015

T59243-12

CAS No.	Compound	T59488-1 mg/kg Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	9.2 U	36.8	30.4	83	31.7	86	4	78-115/14
CAS No.	Surrogate Recoveries	MS	MSD	T59	488-1	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	95% 106%	98% 110%	94% 103		46-127% 44-120%			



GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Method Blank Summary

Job Number: T59243

ELPASOX EL PASO CORPORATION Account:

Project: MWHCODE: San Juan River Basin Program

Sample File ID Prep Date Prep Batch **Analytical Batch** DF Analyzed By 09/03/10 OP15901 **GIF1088** OP15901-MB IF201045.D 1 09/04/10 HD

The QC reported here applies to the following samples:

Method: SW846 8015 M

T59243-1, T59243-2, T59243-6, T59243-7, T59243-8, T59243-9, T59243-10, T59243-11, T59243-12, T59243-13

CAS No. Units Q Compound Result RL MDL

mg/kg TPH (C10-C28) ND 3.3 2.7 TPH (> C28-C40)ND 3.3 2.2 mg/kg

CAS No. Limits Surrogate Recoveries

84-15-1 o-Terphenyl 76% 33-115% T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample OP15901-MB File ID DF IF201045.D 1

Analyzed 09/04/10

Prep Batch Prep Date 09/03/10

OP15901

Analytical Batch

GIF1088

The QC reported here applies to the following samples:

Method: SW846 8015 M

T59243-1, T59243-2, T59243-6, T59243-7, T59243-8, T59243-9, T59243-10, T59243-11, T59243-12, T59243-13

By

HD

CAS No. Compound Result

RL

Units Q MDL

TPH (C10-C28) TPH (>C28-C40) ND ND 3.3 3.3 0.78 mg/l 0.80

mg/l

CAS No.

Surrogate Recoveries

Limits

84-15-1

o-Terphenyl

76% 25-112%

Method Blank Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample OP15986-MB File ID DF IF201207.D 1

Analyzed 09/08/10

By EM Prep Date 09/07/10

Prep Batch

Analytical Batch

Page 1 of 1

GIF1093 OP15986

The QC reported here applies to the following samples:

Method: SW846 8015 M

T59243-3

Compound CAS No.

Result

RL

MDL

Units Q

TPH (C10-C28) TPH (>C28-C40) ND ND 0.10 0.10 0.023 0.024 mg/l mg/1

CAS No.

Surrogate Recoveries

Limits

84-15-1

o-Terphenyl

84%

25-112%



Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

Sample OP15901-BS File ID DF IF201046.D 1

Analyzed 09/04/10

Prep Date 09/03/10

Prep Batch OP15901

Analytical Batch

GIB1088

The QC reported here applies to the following samples:

Method: SW846 8015 M

T59243-1, T59243-2, T59243-6, T59243-7, T59243-8, T59243-9, T59243-10, T59243-11, T59243-12, T59243-13

BSP

Spike mg/1

BSP mg/1%

80

Limits

TPH (C10-C28)

Compound

33.3 26.5

By

HD

22-84

CAS No.

CAS No.

Surrogate Recoveries

BSP

Limits

84-15-1

o-Terphenyl

92%

25-112%

Blank Spike Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

DF

Project:

MWHCODE: San Juan River Basin Program

Sample OP15901-BS File ID IF201046.D 1

Analyzed 09/04/10

Prep Date HD 09/03/10

Prep Batch

Analytical Batch

Page 1 of 1

GIB1088 OP15901

The QC reported here applies to the following samples:

Method: SW846 8015 M

T59243-1, T59243-2, T59243-6, T59243-7, T59243-8, T59243-9, T59243-10, T59243-11, T59243-12, T59243-13

By

Spike **BSP**

Compound

mg/kg mg/kg

26.5

BSP %

Limits

TPH (C10-C28)

33.3

80

45-107

CAS No.

CAS No.

Surrogate Recoveries

BSP

Limits

84-15-1

o-Terphenyl

92%

33-115%

Account:

ELPASOX EL PASO CORPORATION

Project:

MWHCODE: San Juan River Basin Program

		-	2	1	1	Analytical Batch
201211.D	I	09/09/10	EM	09/07/10	OP15986	GIF1093
F201213.D	1	09/09/10 EM		09/07/10	OP15986	GIF1093
-	201211.D	201211.D 1	201211.D 1 09/09/10	201211.D 1 09/09/10 EM	201211.D 1 09/09/10 EM 09/07/10	201211.D 1 09/09/10 EM 09/07/10 OP15986

The QC reported here applies to the following samples:

Method: SW846 8015 M

T59243-3

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	1	0.828	83	0.836	84	1	22-84/30
CAS No.	Surrogate Recoveries	BSP	BSD)	Limits			
84-15-1	o-Terphenyl	78%	78%		25-112%	ó		

Matrix Spike/Matrix Spike Duplicate Summary

Job Number:

T59243

Account:

ELPASOX EL PASO CORPORATION

Project: MWHCODE: San Juan River Basin Program

The QC reported here applies to the following samples:

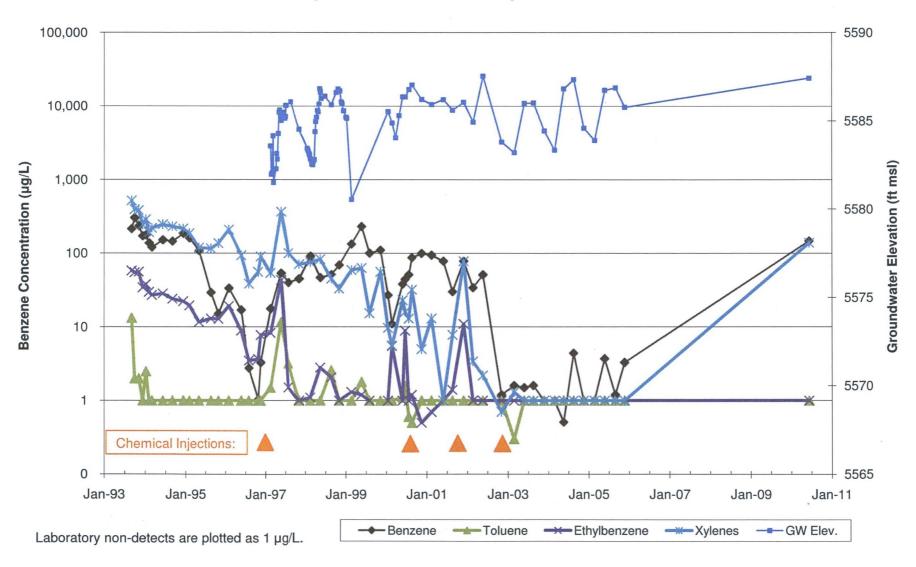
Method: SW846 8015 M

T59243-1, T59243-2, T59243-6, T59243-7, T59243-8, T59243-9, T59243-10, T59243-11, T59243-12, T59243-13

CAS No.	Compound	T59243-2 mg/kg Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	ND	39.8	22.7	57	24.9	63	9	45-107/34
CAS No.	Surrogate Recoveries	MS	MSD	T59	243-2	Limits			
84-15-1	o-Terphenyl	67%	78%	65%	6	33-115%	ó		



Figure 7
Monitor Well M-4 Historic Benzene Concentrations and Groundwater Elevations
Jaquez Site, San Juan County, New Mexico





VIA FedEx

November 10, 2010

Mr. Glenn von Gonten New Mexico Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87504

RE: 2010 Groundwater, Soil, and Air Sampling Report

Jaquez Com C#1 and Jaquez Com E#1 Site

NMOCD Case No.: 3RP-194

Dear Mr. von Gonten

El Paso Natural Gas Company (EPNG) hereby submits the enclosed 2010 Groundwater, Soil, and Air Sampling Report for the above-referenced site. The report presents the results of site assessment work conducted in June, August, and September of 2010.

If you have any questions concerning the enclosed report or require additional information, please call me at (713) 420-7361.

Sincerely,

//
Ian Yanagisawa, P.E., P.G.

Environmental Representative

cc: Buddy Shaw, BP

Mr. John Jaquez

Brandon Powell, NMOCD-Aztec

Enclosures: as stated

Table 1
June 2010 Groundwater Measurements and Laboratory Analytical Data
El Paso Corporation Jaquez Site, San Juan County, New Mexico

		тос	Donth To	Croundwater		Laborate	ory Analytical Da	ta
Sample Location	Date Sampled	Elevation (ft. AMSL)	Depth To Groundwater (ft.)	Groundwater Elevation (ft. AMSL)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
M-1	6/10/2010	5585.76	2.98	5582.78	ND (2.0)	ND (2.0)	ND (2.0)	ND (6.0)
M-2	6/10/2010	5586.81	2.99	5583.82	ND (2.0)	ND (2.0)	ND (2.0)	ND (6.0)
M-3	6/10/2010	5588.71	2.63	5586.08	ND (2.0)	ND (2.0)	ND (2.0)	ND (6.0)
M-4	6/10/2010	5588.93	1.50	5587.43	147	ND (2.0)	ND (2.0)	139
M-5	6/10/2010	5587.74	2.77	5584.97	ND (2.0)	ND (2.0)	ND (2.0)	ND (6.0)
M-6	6/10/2010	5590.36	6.04	5584.32	ND (2.0)	ND (2.0)	ND (2.0)	ND (6.0)
M-7	6/10/2010	5586.32	2.90	5583.42	ND (2.0)	ND (2.0)	ND (2.0)	ND (6.0)
R-1	6/10/2010	5599.99	12.22	5587.77	ND (2.0)	ND (2.0)	ND (2.0)	ND (6.0)
R-2	6/10/2010	5598.97	10.94	5588.03	ND (2.0)	ND (2.0)	ND (2.0)	ND (6.0)
R-3	6/10/2010	5600.21	11.83	5588.38	ND (2.0)	ND (2.0)	ND (2.0)	ND (6.0)
R-4	6/10/2010	5599.21	11.36	5587.85	ND (2.0)	ND (2.0)	ND (2.0)	ND (6.0)
R-5	6/10/2010	5602.42	14.74	5587.68	ND (2.0)	ND (2.0)	ND (2.0)	ND (6.0)
R-6	6/10/2010	5599.58	9.43	5590.15	ND (2.0)	ND (2.0)	ND (2.0)	ND (6.0)

Notes:

ft. AMSL = feet above mean sea level

ft. = feet

ug/L = micrograms per liter

ND = analyte not detected at the reporting limit (RL). Value shown is the RL.

Values appearing in bold type exceed the New Mexico Water Quality Control Commission Groundwater Standard

TABLE 2
Summary of Historical Groundwater Analytical Data
El Paso Corporation Jaquez Site, San Juan County, New Mexico

Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Ethylbenzen e (μg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)
M-1	9/8/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-1	10/5/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-1	11/11/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-1	12/16/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-1	1/13/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-1	2/10/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-1	3/7/1994	<0.5	<0.5	<0.5	<0.5	N/A	ND	NA
M-1	5/17/1994	No Test	No Test	No Test	No Test	No Test	ND	NA
M-1	6/13/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-1	9/7/1994	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-1	12/15/1994	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-1	2/9/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-1	5/8/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-1	8/25/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-1	11/2/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-1	2/5/1996	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-1	5/28/1996	<1.0	<1.0	<1.0	<1.0	N/A	ND	NA
M-1	8/6/1996	<1.0	<1.0	<1.0	<1.0	N/A	ND	NA
M-1	10/28/1996	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
M-1	11/20/1996	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
M-1	2/19/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
M-1	5/28/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
M-1	8/21/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
M-1	11/10/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
M-1	2/18/1998	5.08	<1.0	<1.0	<3.0	N/A	ND	<1.2
M-1	5/19/1998	<1.0	<1.0	<1.0	<3.0	<6.0	ND	<0.1
M-1	5/25/1999	0.5	0.5	0.5	1.5	3	ND	0.05
M-1	1/19/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-1	5/30/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-1	6/22/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-1	8/22/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-1	11/17/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-1	2/14/2001	10	<0.5	<0.5	<0.5	10	ND	NA
M-1	5/31/2001	1	<0.5	<0.5	0.6	1.6	ND	NA
M-1	8/21/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA

TABLE 2
Summary of Historical Groundwater Analytical Data
El Paso Corporation Jaquez Site, San Juan County, New Mexico

Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Ethylbenzen e (μg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)
M-1	11/28/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-1	2/22/2002	<0.5	<1.0	<0.5	<0.5	ND	ND	NA
M-1	5/22/2002	<0.5	<0.5	<0.5	<1.0	ND	ND	NA
M-1	11/6/2002	<0.5	<0.5	<0.5	1	1	ND	NA
M-1	2/27/2003	0.1	0.2	<0.5	1.3	1.6	ND	NA
M-1	5/28/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	0.90
M-1	8/20/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-1	11/24/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-1	2/26/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-1	5/19/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-1	8/17/2004	NA	NA	NA	NA	ND	ND	NA
M-1	11/17/2004	NA	NA	NA	NA	ND	ND	NA
M-1	2/22/2005	NA	NA	NA	NA	NA	ND	NA
M-1	5/24/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
M-1	8/29/2005	NA	NA	NA	NA	NA	ND	NA
M-1	11/21/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
M-1	6/10/2010	<2.0	<2.0	<2.0	<6.0	ND	ND	NA
M-2	9/8/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-2	10/5/1993	2	2	<2.0	<2.0	4.0	ND	NA
M-2	11/11/1993	2.3	2	<2.0	<2.0	4.3	ND	NA
M-2	12/16/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-2	1/13/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-2	2/10/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-2	3/7/1994	<0.5	<0.5	<0.5	<0.5	N/A	ND	NA
M-2	5/17/1994	No Test	No Test	No Test	No Test	No Test	ND	NA
M-2	6/13/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-2	9/7/1994	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-2	12/15/1994	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-2	2/9/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-2	5/5/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-2	8/25/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-2	11/2/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-2	2/5/1996	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-2	5/28/1996	<1.0	<1.0	<1.0	<1.0	N/A	ND	NA
M-2	8/6/1996	<1.0	<1.0	<1.0	<1.0	N/A	ND	NA

TABLE 2
Summary of Historical Groundwater Analytical Data
El Paso Corporation Jaquez Site, San Juan County, New Mexico

Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Ethylbenzen e (μg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)
M-2	10/28/1996	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
M-2	11/20/1996	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
M-2	2/19/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
M-2	5/28/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
M-2	8/21/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
M-2	11/10/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
M-2	2/18/1998	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
M-2	5/19/1998	<1.0	<1.0	<1.0	<3.0	<6	ND	<0.1
M-2	5/25/1999	0.5	0.5	0.5	1.5	3	ND	0.05
M-2	1/19/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-2	5/30/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-2	6/22/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-2	8/22/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-2	11/20/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-2	2/14/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-2	5/31/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-2	8/21/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-2	11/28/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-2	2/22/2002	<0.5	<1.0	<0.5	<0.5	ND	ND	NA
M-2	5/22/2002	<0.5	<0.5	<0.5	<1.0	ND	ND	NA
M-2	11/6/2002	<0.5	<0.5	<0.5	1	1	ND	NA
M-2	2/27/2003	NA	NA	NA	NA	NA	NA	NA
M-2	5/28/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	0.30
M-2	8/20/2003	NA	NA	NA	NA	NA	NA	NA
M-2	11/24/2003	NA	NA	NA	NA	NA	NA	NA
M-2	2/26/2004	NA	NA	NA	NA	NA	ND	NA
M-2	5/19/2004	<1.0	<1.0	<1.0	<3.0	NA	ND	NA
M-2	8/17/2004	NA	NA	NA	NA	NA	ND	NA
M-2	11/17/2004	NA	NA	NA NA	NA	NA	ND	NA
M-2	2/22/2005	NA	NA	NA	NA	NA	ND	NA
M-2	5/24/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
M-2	8/29/2005	NA	NA	NA	NA	NA	ND	NA
M-2	11/21/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
M-2	6/10/2010	<2.0	<2.0	<2.0	<6.0	ND	ND	NA
M-3	9/8/1993	116	<2.0	3	37.6	157	ND	NA

TABLE 2
Summary of Historical Groundwater Analytical Data
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Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Ethylbenzen e (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)
M-3	10/5/1993	306	<2.0	4	19	329	ND	NA
M-3	11/11/1993	8.4	5.3	<2.0	2.6	16	ND	NA
M-3	12/16/1993	42	<2.0	<2.0	<2.0	42	ND	NA
M-3	1/13/1994	19	2.1	<2.0	<2.0	21	ND	NA
M-3	2/10/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-3	3/7/1994	<0.5	<0.5	<0.5	2.5	3	ND	NA
M-3	5/17/1994	No Test	No Test	No Test	No Test	No Test	ND	NA
M-3	6/13/1994	3.65	<2.0	<2.0	<2.0	4	ND	NA
M-3	9/7/1994	2.87	<2.5	<2.5	2.5	5	ND	NA
M-3	12/15/1994	<2.5	<2.5	<2.5	5.61	6	ND	NA
M-3	2/9/1995	11.4	<2.5	<2.5	<2.5	11	ND	NA
M-3	5/8/1995	180	67.2	<2.5	53.9	301	ND	NA
M-3	8/25/1995	11.8	<2.5	<2.5	16.8	29	ND	NA
M-3	11/2/1995	<2.5	<2.5	<2.5	5.03	5	ND	NA
M-3	2/5/1996	236	<2.5	5.77	22.2	264	ND	NA
M-3	5/28/1996	88.4	<1.0	5.93	20.3	115	ND	NA
M-3	8/6/1996	96.4	<1.0	2.5	3.27	102	ND	NA
M-3	10/29/1996	17.4	<1.0	1.55	2.23	21	ND	NA
M-3	11/20/1996	70.2	<1.0	1.89	<3	72	ND	NA
M-3	2/19/1997	2.44	<1.0	2.61	7.43	12	ND	NA
M-3	5/28/1997	38	6.1	<1	13.5	58	ND	20.1
M-3	8/21/1997	<1	<1	<1	7.68	8	ND	<1.2
M-3	11/10/1997	<1	<1	<1	7.68	8	ND	<1.2
M-3	2/18/1998	<1	<1	<1	<3	<6	ND	<1.2
M-3	5/19/1998	26.7	<1	<1	2.52	29	ND	0.32
M-3	8/26/1998	<1	2.8	<1	<3	3	ND	0.3
M-3	11/5/1998	1.93	3.2	<1	<3	5	ND	NA
M-3	5/25/1999	4.2	0.8	0.5	1.5	7	ND	0.05
M-3	8/5/1999	<1	1.8	<1	<3	<6	ND	<.1
M-3	11/12/1999	6	2.2	1.7	5.4	15	ND	ND
M-3	1/19/2000	4.1	2.8	1.6	3.7	12.2	ND	NA
M-3	2/24/2000	30	21	2.3	9.4	62.7	ND	NA
M-3	5/30/2000	2.1	<0.5	0.9	2.2	5.2	ND	<0.1
M-3	6/22/2000	0.6	<0.5	<0.5	<0.5	0.6	ND	0.14
M-3	7/25/2000	<0.5	<0.5	<0.5	1.1	1.1	ND	NA

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M-3	8/22/2000	0.6	<0.5	<0.5	2.2	2.8	ND	<0.05
M-3	11/20/2000	1.1	<0.5	<0.5	3.4	4.5	ND	<0.05
M-3	2/14/2001	0.6	<0.5	<0.5	0.6	1.2	ND	<0.05
M-3	5/31/2001	1.2	<0.5	<0.5	1.7	2.9	ND	0.18
M-3	8/21/2001	1.6	<0.5	1.2	4.5	7.3	ND	0.15
M-3	11/29/2001	0.7	<0.5	<0.5	<0.5	0.7	ND	0.23
M-3	2/22/2002	<0.5	<0.5	<0.5	1.1	1.1	ND	0.32
M-3	5/22/2002	<0.5	<0.5	<0.5	1	1	ND	0.31
M-3	11/6/2002	0.7	0.4	<0.5	1.2	2.300	ND	NA
M-3	2/27/2003	1.3	0.8	<0.5	2.6	4.700	ND	NA
M-3	5/28/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	0.40
M-3	8/20/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-3	11/24/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-3	2/26/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-3	5/19/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-3	8/17/2004	NA	NA	NA	NA	ND	ND	NA
M-3	11/17/2004	NA	NA	NA	NA	ND	ND	NA
M-3	2/22/2005	NA	NA	NA	NA	ND	ND	NA
M-3	5/24/2005	<1.0	0.9	1.0	2.0	3.880	ND	NA
M-3	8/29/2005	NA	NA	NA	NA	ND	ND	NA
M-3	11/21/2005	<1.0	<1.0	0.4	<2.0	0.430	ND	<0.050
M-3	6/10/2010	<2.0	<2.0	<2.0	<6.0	ND	ND	ND
M-4	9/8/1993	213	13.3	58	519	803	ND	NA
M-4	10/5/1993	302	2	55	395	754	ND	NA
M-4	11/11/1993	234	2	56	383	675	ND	NA
M-4	12/16/1993	171	<2.0	34.3	244	449	ND	NA
M-4	1/13/1994	175	2.5	38	288	504	ND	NA
M-4	2/10/1994	137	<2.0	29.8	192	359	ND	NA
M-4	3/7/1994	120	<2.5	27	220	367	ND	NA
M-4	5/17/1994	No Test	No Test	No Test	No Test	No Test	ND	NA
M-4	6/13/1994	151	<2.0	28.4	246	425	ND	NA
M-4	9/7/1994	145	<2.5	24.1	231	400	ND	NA
M-4	12/15/1994	184	<2.5	22.3	215	421	ND	NA
M-4	2/9/1995	160	<2.5	19.6	186	366	ND	NA
M-4	5/8/1995	108	<2.5	11.7	119	239	ND	NA

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M-4	8/25/1995	29.3	<2.5	13	116	158	ND	NA
M-4	11/2/1995	15.1	<2.5	12.9	136	164	ND	NA
M-4	2/5/1996	33.5	<2.5	19.3	209	262	ND	NA
M-4	5/28/1996	17	<1.0	8.93	93.6	120	ND	NA
M-4	8/6/1996	2.77	<1.0	3.5	38.5	45	ND	NA
M-4	10/29/1996	1.03	<1.0	3.66	55.5	60	ND	NA
M-4	11/22/1996	3.28	<1.0	7.77	90.3	101	ND	NA
M-4	2/19/1997	17.7	1.5	8.3	54	82	ND	NA
M-4	5/28/1997	53.6	11.6	43.4	366	475	ND	225
M-4	8/1/1997	39.7	3.2	1.51	100	145	ND	20.8
M-4	11/10/1997	44.8	<1.0	<1.0	71	116	ND	1.31
M-4	2/18/1998	91	<1.0	1.1	74.9	167	ND	<1.2
M-4	5/19/1998	46.6	<1.0	2.81	83.1	133	ND	0.21
M-4	8/26/1998	51	2.6	2.08	45.1	101	ND	43.9
M-4	11/5/1998	69	<1.0	<1.0	33	102	ND	NA
M-4	2/23/1999	133	<1	1.31	59.3	194	ND	283
M-4	5/25/1999	230	1.8	1.2	63	296	ND	190
M-4	8/5/1999	100	<2	<2	15.3	115	ND	54.9
M-4	11/12/1999	110	<2.5	<2.5	56	166	ND	57
M-4	1/19/2000	27	<0.5	<0.5	9.7	36.7	ND	NA
M-4	2/24/2000	11	<0.5	5.6	5.5	22.1	ND	NA
M-4	5/30/2000	38	1.1	<0.5	23	62.1	ND	<0.1
M-4	6/22/2000	44	1.6	8.9	16	70.5	ND	<0.1
M-4	7/25/2000	51	0.6	<0.5	13	64.6	ND	NA
M-4	8/22/2000	87	0.5	1.2	32	120.7	ND	1.66
M-4	11/17/2000	99	<0.5	0.5	5	104.5	ND	2.66
M-4	2/14/2001	94	<0.5	0.7	13	107.7	ND	3.37
M-4	5/31/2001	78	<0.5	<0.5	<0.5	78	ND	9.4
M-4	8/21/2001	30	<0.5	1.4	7.8	39.2	ND	5
M-4	11/29/2001	78	<0.5	11	78	167	ND	66
M-4	2/22/2002	34	<0.5	<0.5	3.4	37.4	ND	27.2
M-4	5/22/2002	51	<0.5	<0.5	2.2	53.2	ND	16
M-4	11/6/2002	1.2	<0.5	<0.5	0.7	1.9	ND	NA
M-4	2/27/2003	1.6	0.3	<0.5	1.3	3.200	ND	NA
M-4	5/28/2003	1.5	<1.0	<1.0	<3.0	1.500	ND	4.2

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Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Ethylbenzen e (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)
M-4	8/20/2003	1.6	<1.0	<1.0	<3.0	1.600	ND	NA
M-4	11/24/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-4	2/26/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-4	5/19/2004	0.5	<1.0	<1.0	<3.0	ND	ND	NA
M-4	8/17/2004	4.4	<1.0	<1.0	<3.0	ND	ND	NA
M-4	11/17/2004	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
M-4	2/22/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
M-4	5/24/2005	3.7	<1.0	<1.0	<2.0	3.700	ND	NA
M-4	8/29/2005	1.2	<1.0	<1.0	<2.0	1.200	ND	NA
M-4	11/21/2005	3.3	<1.0	<1.0	<2.0	3.300	ND	<0.050
M-4	6/10/2010	147	<2.0	<2.0	139	286	ND	NA
M-5	9/8/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-5	10/5/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-5	11/11/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-5	12/16/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-5	1/13/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-5	2/10/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-5	3/7/1994	<0.5	<0.5	<0.5	<0.5	N/A	ND	NA
M-5	5/17/1994	No Test	No Test	No Test	No Test	No Test	ND	NA
M-5	6/13/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
M-5	9/7/1994	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-5	12/15/1994	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-5	2/9/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-5	5/8/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-5	8/25/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-5	11/2/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-5	2/5/1996	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
M-5	5/28/1996	<1.0	<1.0	<1.0	<1.0	N/A	ND	NA
M-5	8/6/1996	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
M-5	10/29/1996	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
M-5	11/21/1996	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
M-5	2/19/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
M-5	5/28/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
M-5	8/21/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
M-5	8/21/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2

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M-5	2/18/1998	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
M-5	5/19/1998	<1.0	<1.0	<1.0	<3.0	<6	ND	<0.1
M-5	5/25/1999	0.5	0.5	0.5	1.5	3	ND	0.05
M-5	1/19/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-5	5/30/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-5	6/22/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-5	8/22/2000	43	<0.5	<0.5	<0.5	43	ND	NA
M-5	11/17/2000	2.6	<0.5	<0.5	<0.5	2.6	ND	NA
M-5	2/14/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-5	5/31/2001	0.6	<0.5	<0.5	<0.5	0.6	ND	NA
M-5	8/21/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-5	11/29/2001	5.6	<0.5	<0.5	<0.5	5.6	ND	NA
M-5	2/22/2002	<0.5	<0.5	<0.5	<1.0	ND	ND	NA
M-5	5/22/2002	<0.5	<0.5	<0.5	<1.0	ND	ND	NA
M-5	11/6/2002	<0.5	<0.5	<0.5	0.7	0.700	ND	NA
M-5	2/27/2003	NA	NA	NA	NA	NA	NA	NA
M-5	5/28/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	0.30
M-5	8/20/2003	NA	NA	NA	NA	NA	NA	NA
M-5	11/24/2003	NA	NA	NA	NA	NA	NA	NA
M-5	2/26/2004	NA	NA	NA	NA	NA	ND	NA
M-5	5/19/2004	<1.0	<1.0	<1.0	<3.0	NA	ND	NA
M-5	8/17/2004	NA	NA	NA	NA	NA	ND	NA
M-5	11/17/2004	NA	NA	NA	NA	NA	ND	NA
M-5	2/22/2005	NA	NA	NA	NA	NA	ND	NA
M-5	5/24/2005	<1.0	<1.0	<1.0	<2.0	NA	ND	NA
M-5	8/29/2005	NA	NA	NA	NA	NA	ND	NA
M-5	11/21/2005	<1.0	<1.0	<1.0	<2.0	NA	ND	NA
M-5	6/10/2010	<2.0	<2.0	<2.0	<6.0	NA	ND	NA
M-6	1/19/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-6	6/22/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-6	8/22/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-6	11/17/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-6	2/15/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-6	5/31/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-6	8/21/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA

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M-6	11/28/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-6	5/30/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-6	2/22/2002	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
M-6	5/22/2002	<0.5	<0.5	<0.5	<1.0	ND	ND	NA
M-6	11/6/2002	<0.5	0.4	1.1	1.3	2.800	ND	NA
M-6	2/27/2003	NA	NA	NA	NA	NA	NA	NA
M-6	5/28/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-6	8/20/2003	NA	NA	NA	NA	NA	NA	NA
M-6	11/24/2003	NA	NA	NA	NA	NA	NA	NA
M-6	2/26/2004	NA	NA	NA	NA	NA	ND	NA
M-6	5/19/2004	0.8	0.6	<1.0	<3.0	NA	ND	NA
M-6	8/17/2004	NA	NA	NA	NA	NA	ND	NA
M-6	11/17/2004	NA	NA	NA	NA	NA	ND	NA
M-6	2/22/2005	NA	NA	NA	NA	NA	ND	NA
M-6	5/24/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
M-6	8/29/2005	NA	NA	NA	NA	NA	ND	NA
M-6	11/21/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
M-6	6/10/2010	<2.0	<2.0	<2.0	<6.0	ND	ND	NA
M-7	2/27/2003	0.2	0.2	<0.5	0.9	1.3	ND	NA
M-7	5/28/2003	<1.0	<1.0	<1.0	1.3	1.3	ND	NA
M-7	8/20/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-7	11/24/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-7	2/25/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-7	5/19/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
M-7	8/17/2004	NA	NA	NA	NA	ND	ND	NA
M-7	11/17/2004	NA	NA	NA	NA	ND	ND	NA
M-7	2/22/2005	NA	NA	NA	NA	ND	ND	NA
M-7	5/24/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
M-7	8/29/2005	NA	NA	NA	NA	ND	ND	NA
M-7	11/21/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
M-7	6/10/2010	<2.0	<2.0	<2.0	<6.0	ND	ND	NA
R-1	9/7/1993	991	164	113	1111	2379	ND	NA
R-1	10/4/1993	1280	1328	74	799	3481	1"	NA
R-1	11/10/1993	242	322	15	93.9	673	ND	NA
R-1	12/15/1993	328	411	26.6	196	962	ND	NA

TABLE 2
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Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Ethylbenzen e (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)
R-1	1/12/1994	1830	1965	90.3	1053	4938	17"	NA
R-1	2/9/1994	1255	1504	42.3	730	3531	32"	NA
R-1	3/7/1994	7600	8500	280	2700	19080	4"	NA
R-1	5/17/1994	No Test	No Test	No Test	No Test	NoTest	10"	NA
R-1	6/13/1994	1450	1930	70	944	4394	11"	NA
R-1	9/7/1994	No Test	No Test	No Test	No Test	No Test	2"	NA
R-1	12/15/1994	1890	2130	105	990	5115	TR	NA
R-1	8/25/1995	No Test	No Test	No Test	No Test	No Test	TR	NA
R-1	11/2/1995	2330	2400	108	946	5784	ND	NA
R-1	2/5/1996	No Test	No Test	No Test	No Test	No Test	0.24"	NA
R-1	5/28/1996	No Test	No Test	No Test	No Test	No Test	4.8"	NA
R-1	8/6/1996	2970	3080	130	1200	7380	TR	NA
R-1	10/28/1996	1690	1970	60.8	800	4520	ND	NA
R-1	11/20/1996	1240	1540	61.9	600	3450	ND	NA
R-1	2/19/1997	No Test	No Test	No Test	No Test	No Test	29.76"	NA
R-1	2/24/1999	No Test	No Test	No Test	No Test	No Test	.09'	NA
R-1	5/25/1999	No Test	No Test	No Test	No Test	No Test	TR	NA
R-1	1/20/2000	2500	3800	180	1900	8380	NO	NA
R-1	5/31/2000	2300	1000	120	2000	5420	TR	NA
R-1	6/26/2000	2400	690	150	2000	5420	TR	NA
R-1	7/26/2000	4900	2900	150	3100	11050	TR	NA
R-1	8/23/2000	2500	1400	180	2200	6280	TR	NA
R-1	11/20/2000	3500	2700	210	2900	9310	TR	NA
R-1	2/15/2001	120	<10	<10	190	310	NO	NA
R-1	6/1/2001	17	<2.5	<2.5	19	36	ND	NA
R-1	7/5/2001	17	1.8	1.2	18	38	ND	NA
R-1	8/23/2001	22	1.2	1	4.2	28.4	ND	NA
R-1	11/28/2001	100	17	3.9	24	144.9	ND	NA
R-1	2/21/2002	23	1.3	2.1	6.1	32.5	ND	NA
R-1	5/23/2002	<0.5	<0.5	<0.5	<1.0	ND	ND	NA
R-1	8/8/2002	0.4	2.5	1.2	2.4	6.5	ND	NA
R-1	11/6/2002	6	0.5	1.1	2.4	10	ND	NA
R-1	2/20/2003	0.5	2.2	1.7	5.7	10.1	ND	NA
R-1	5/29/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-1	8/20/2003	25.6	0.6	0.9	<3.0	27.1	ND	NA

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Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Ethylbenzen e (μg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)
R-1	11/24/2003	18.0	<1.0	<1.0	<3.0	18.0	ND	NA
R-1	2/25/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-1	5/19/2004	13.0	<1.0	<1.0	<3.0	ND	ND	NA
R-1	8/17/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-1	11/17/2004	20.6	3.8	0.6	2.5	ND	ND	NA
R-1	2/22/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
R-1	5/24/2005	8.8	0.4	<1.0	<2.0	9.2	ND	NA
R-1	8/29/2005	6.0	0.40	<1.0	<2.0	6.4	ND	NA
R-1	11/21/2005	9.8	<1.0	0.4	0.9	ND	ND	NA
R-1	6/10/2010	<2.0	<2.0	<2.0	<6.0	ND	ND	NA
R-2	9/7/1993	278	651	59	538	1526	ND	NA
R-2	10/4/1993	509	789	73	741	2112	ND	NA
R-2	11/10/1993	284	470	38	401	1193	ND	NA
R-2	12/15/1993	529	864	65.3	709	2167	1"	NA
R-2	1/12/1994	1722	2501	150	1702	6075	24"	NA
R-2	2/9/1994	2806	3667	89.5	1520	8083	26"	NA
R-2	3/7/1994	5600	6800	290	2700	15390	4"	NA
R-2	5/17/1994	No Test	No Test	No Test	No Test	No Test	7"	NA
R-2	6/13/1994	3210	3790	139	1670	8809	7"	NA
R-2	9/7/1994	No Test	No Test	No Test	No Test	No Test	ND	NA
R-2	12/15/1994	1140	2200	148	1520	5008	0.6"	NA
R-2	8/25/1995	No Test	No Test	No Test	No Test	No Test	TR	NA
R-2	11/2/1995	1250	2030	116	1010	4406	TR	NA
R-2	2/5/1996	No Test	No Test	No Test	No Test	No Test	2.52	NA
R-2	5/28/1996	No Test	No Test	No Test	No Test	No Test	2.04"	NA
R-2	8/6/1996	2610	3960	165	1540	8275	0.72"	NA
R-2	10/28/1996	1100	2300	85.4	1100	4585	0.96"	NA
R-2	11/20/1996	428	1340	87.3	821	2680	0.48"	NA
R-2	2/19/1997	No Test	No Test	No Test	No Test	No Test	NA	NA
R-2	2/24/1999	No Test	No Test	No Test	No Test	No Test	0.07	NA
R-2	5/25/1999	No Test	No Test	No Test	No Test	No Test	TR	NA
R-2	1/20/2000	1200	2000	<130	1500	4700	NO	NA
R-2	5/31/2000	2300	3200	280	3000	8780	TR	NA
R-2	6/26/2000	1300	1300	79	1100	3779	TR	NA
R-2	7/26/2000	3600	3200	150	2300	9250	TR	NA

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Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Ethylbenzen e (μg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)
R-2	8/23/2000	1600	1500	82	1100	4282	TR	NA
R-2	11/20/2000	770	1300	170	1500	3740	TR	NA
R-2	2/15/2001	620	400	43	440	1503	0.03	NA
R-2	6/1/2001	120	12	15	70	217	ND	NA
R-2	7/5/2001	39	31	18	220	308	ND	NA
R-2	8/23/2001	<2.5	22	22	310	354	ND	NA
R-2	11/28/2001	26	5.8	<5.0	85	116.8	ND	NA
R-2	2/21/2002	<20	1.0	<3.1	35	36	ND	NA
R-2	5/23/2002	<0.5	<0.5	2.4	30	32.4	ND	NA
R-2	8/8/2002	11.4	0.6	2	9.3	23.3	ND	NA
R-2	11/6/2002	19.8	0.6	1.6	7.6	29.6	ND	NA
R-2	2/20/2003	6.1	1.4	1.6	6.5	15.6	ND	NA
R-2	5/29/2003	<1.0	<1.0	<1.0	1.7	1.7	ND	NA
R-2	8/20/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-2	11/24/2003	<1.0	<1.0	<1.0	2.7	2.7	ND	NA
R-2	2/25/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-2	5/19/2004	1.2	2.1	<1.0	1.1	ND	ND	NA
R-2	8/17/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-2	11/17/2004	<1.0	<1.0	<1.0	1.1	ND	ND	NA
R-2	2/22/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
- R-2	5/24/2005	<1.0	4.9	<1.0	1.3	6.2	ND	NA
R-2	8/29/2005	<1.0	<1.0	<1.0	1.2	1.2	ND	NA
R-2	11/21/2005	<1.0	<1.0	<1.0	1.1	1.1	ND	NA
R-2	6/10/2010	<2.0	<2.0	<2.0	<6.0	ND	ND	NA
R-3	9/7/1993	<2.0	61.4	22	207	290	ND	NA
R-3	10/4/1993	21	179	32	310	542	ND	NA
R-3	11/10/1993	6.19	27.7	10.4	89.2	134	ND	NA
R-3	12/15/1993	26	88.4	19.4	178	312	ND	NA
R-3	1/12/1994	4.4	2.9	2.7	18	28	ND	NA
R-3	2/9/1994	<2.0	10.9	8.3	59.6	79	ND	NA
R-3	3/7/1994	7.7	43	24	220	295	ND	NA
R-3	5/17/1994	No Test	No Test	No Test	No Test	No Test	ND	NA
R-3	6/13/1994	3.03	41.4	18.4	188	251	ND	NA
R-3	9/7/1994	<2.5	18	6.9	67.9	93	ND	NA
R-3	12/15/1994	11.7	12.2	12.4	114	150	ND	NA

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R-3	2/9/1995	7.36	2.7	2.68	20.8	34	ND	NA
R-3	5/8/1995	16.6	11.7	13.9	126	168	ND	NA
R-3	8/25/1995	<2.5	15.2	13.6	101	130	ND	NA
R-3	11/2/1995	<2.5	14	9.3	82	105	ND	NA
R-3	2/5/1996	5.34	14	12.8	108	140	ND	NA
R-3	5/28/1996	1.05	18.7	22.9	203	246	ND	NA
R-3	8/6/1996	1.24	24.7	25.9	236	288	ND	NA
R-3	10/28/1996	<1.0	10.7	12.6	109	132	ND	NA
R-3	11/20/1996	<1.0	12.5	12.4	114	139	ND	NA
R-3	2/19/1997	2.12	1.9	2.29	12.6	19	ND	NA
R-3	5/28/1997	<1.0	15.3	13.5	130	159	ND	<1.2
R-3	8/21/1997	<1.0	20.8	18.6	176	215	ND	<1.2
R-3	11/10/1997	<1.0	13.6	17.2	149	180	ND	<1.2
R-3	2/18/1998	<1.0	<1.0	<1.0	<3	<6	ND	<1.2
R-3	5/19/1998	<1.0	11.9	12.5	125	150	ND	NA
R-3	5/25/1999	0.5	3.3	6.3	26	36	ND	NA
R-3	1/20/2000	<0.5	<0.5	0.5	5.2	5.7	ND	NA
R-3	5/31/2000	1	1.4	0.5	5.4	8.3	ND	NA
R-3	7/26/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-3	8/23/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-3	11/20/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-3	2/15/2001	2.2	<0.5	<0.5	<0.5	2.2	ND	NA NA
R-3	6/1/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-3	7/5/2001	<0.5	<0.5	<0.5	1.8	1.8	ND	NA
R-3	8/23/2001	1.3	<0.5	<0.5	<0.5	1.3	ND	NA
R-3	11/28/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-3	6/26/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-3	2/21/2002	<0.5	<0.5	<0.5	<1.0	ND	ND	NA
R-3	5/23/2002	<0.5	<0.5	<0.5	<1.0	ND	ND	NA
R-3	8/8/2002	<0.5	0.5	0.9	1	2.4	ND	NA
R-3	11/6/2002	<0.5	<0.5	<0.5	0.8	0.8	ND	NA
R-3	2/27/2003	NA	NA	NA	NA	NA	NA	NA
R-3	5/29/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-3	8/20/2003	NA	NA	NA	NA	NA	NA	NA
R-3	11/24/2003	NA	NA	NA	NA	NA	NA	NA

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Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Ethylbenzen e (μg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)
R-3	2/25/2004	NA	NA	NA	NA	NA	NA	NA
R-3	5/19/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-3	8/17/2004	NA	NA	NA	NA	NA	NA	NA
R-3	11/17/2004	NA	NA	NA	NA	NA	ND	NA
R-3	2/22/2005	NA	NA	NA	NA	NA	NA	NA
R-3	5/24/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
R-3	8/29/2005	NA	NA	NA	NA	NA	NA	NA
R-3	11/21/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
R-3	6/10/2010	<2.0	<2.0	<2.0	<6.0	ND	ND	NA
R-4	9/7/1993	104	267	39.9	370	781	ND	NA
R-4	10/4/1993	118	266	41	364	789	ND	NA
R-4	11/10/1993	93.6	132	40.4	347	613	ND	NA
R-4	12/15/1993	102	161	48.4	418	729	ND	NA
R-4	1/12/1994	124	101	38.5	353	617	ND	NA
R-4	2/9/1994	120	51.4	20.8	150	342	ND	NA
R-4	3/7/1994	150	63	20	190	423	ND	NA
R-4	5/17/1994	No Test	No Test	No Test	No Test	No Test	ND	NA
R-4	6/13/1994	179	60.6	17.2	176	433	ND	NA
R-4	9/7/1994	238	102	26	218	584	ND	NA
R-4	12/15/1994	222	63.3	26.9	213	525	ND	NA
R-4	2/9/1995	273	61	20.4	165	519	ND	NA
R-4	5/8/1995	278	251	23.1	220	772	ND	NA
R-4	8/25/1995	646	278	50.8	544	1519	ND	NA
R-4	11/2/1995	343	60.4	35.1	284	723	ND	NA
R-4	2/5/1996	218	43.3	23.1	200	484	ND	NA
R-4	5/28/1996	716	199	36.6	394	1346	ND	NA
R-4	8/6/1996	384	156	24	275	839	ND	NA
R-4	10/28/1996	320	53.4	20.1	237	631	ND	NA
R-4	11/20/1996	289	31.2	19.3	220	560	ND	NA
R-4	2/19/1997	162	65.9	34.4	337	599	ND	NA
R-4	5/28/1997	189	92.5	13.3	144	439	ND	<1.2
R-4	8/21/1997	343	377	45.5	408	1174	ND	<1.2
R-4	11/10/1997	542	129	31.1	267	969	ND	<1.2
R-4	2/18/1998	98	15.9	10	79.3	203	ND	<1.2
R-4	5/19/1998	916	244	38.1	304	1502	ND	NA

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R-4	5/25/1999	110	63	15	144	332	ND	NA
R-4	1/20/2000	280	89	60	690	1,119	ND	NA
R-4	5/31/2000	960	980	29	1900	3869	ND	NA
R-4	6/26/2000	950	1000	43	2500	4493	ND	NA
R-4	7/26/2000	520	400	50	1600	2570	ND	NA
R-4	8/23/2000	1500	1800	110	1800	5210	ND	NA
R-4	11/20/2000	590	580	110	1800	3080	ND	NA
R-4	2/15/2001	19	<10	<10	36	55	ND	NA
R-4	6/1/2001	3.4	0.5	<0.5	2.2	6.1	ND	NA
R-4	7/5/2001	370	85	<2.5	14	469	ND	NA
R-4	8/23/2001	86	20	<2.5	12	118	ND	NA
R-4	11/28/2001	79	0.5	1.5	13	94	ND	NA
R-4	2/21/2002	120	2.6	0.56	7.5	130.66	ND	NA
R-4	5/23/2002	<0.5	<0.5	<0.5	<1.0	ND	ND	NA
R-4	8/8/2002	<0.5	0.4	0.8	0.7	1.9	ND	NA
R-4	11/6/2002	15.8	0.6	0.9	20.9	38.2	ND	NA
R-4	2/20/2003	0.5	0.9	<0.5	2.4	3.800	ND	NA
R-4	5/28/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-4	8/20/2003	10.0	<1.0	<1.0	3.1	13.100	ND	NA
R-4	11/24/2003	6.1	<1.0	<1.0	1.1	7.200	ND	NA
R-4	2/25/2004	<1.0	<1.0	<1.0	<3.0	0.000	ND	NA
R-4	5/19/2004	10.0	<1.0	<1.0	4.2	14.200	ND	NA
R-4	8/17/2004	0.6	<1.0	<1.0	<3.0	0.580	ND	NA
R-4	11/17/2004	14.8	<1.0	0.5	3.1	18.360	ND	NA
R-4	2/22/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
R-4	5/24/2005	1.1	<1.0	<1.0	<2.0	1.100	ND	NA
R-4	8/29/2005	0.7	<1.0	<1.0	<2.0	0.700	ND	NA
R-4	11/21/2005	1.0	<1.0	<1.0	<2.0	1.000	ND	NA
R-4	6/10/2010	<2.0	<2.0	<2.0	<6.0	ND	ND	NA
R-5	9/7/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
R-5	10/4/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
R-5	11/10/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
R-5	12/15/1993	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
R-5	1/12/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
R-5	2/9/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA

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El Paso Corporation Jaquez Site, San Juan County, New Mexico

Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Ethylbenzen e (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)
R-5	3/7/1994	<0.5	<0.5	<0.5	<0.5	N/A	ND	NA
R-5	5/17/1994	No Test	No Test	No Test	No Test	No Test	ND	NA
R-5	6/13/1994	<2.0	<2.0	<2.0	<2.0	N/A	ND	NA
R-5	9/7/1994	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
R-5	12/15/1994	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
R-5	2/9/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
R-5	5/8/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
R-5	8/25/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
R-5	11/2/1995	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
R-5	2/5/1996	<2.5	<2.5	<2.5	<2.5	N/A	ND	NA
R-5	5/28/1996	<1.0	<1.0	<1.0	<1.0	N/A	ND	NA
R-5	8/6/1996	<1.0	<1.0	<1.0	<1.0	N/A	ND	NA
R-5	10/28/1996	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
R-5	11/20/1996	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
R-5	2/19/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	NA
R-5	5/28/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
R-5	8/21/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
R-5	11/10/1997	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
R-5	2/18/1998	<1.0	<1.0	<1.0	<3.0	N/A	ND	<1.2
R-5	5/19/1998	<1.0	<1.0	<1.0	<3.0	<6	ND	NA
R-5	5/25/1999	0.5	0.5	0.5	1.5	3	ND	NA
R-5	1/20/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-5	5/31/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-5	6/26/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-5	8/23/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-5	11/20/2000	<0.5	<0.5	<0.5	0.9	0.9	ND	NA
R-5	2/15/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-5	6/1/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-5	7/5/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-5	8/23/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-5	11/28/2001	<0.5	<0.5	<0.5			ND	NA
R-5	2/21/2002	<0.5	<1.0	<0.5	<0.5	ND	ND	NA
R-5	5/23/2002	<0.5	<0.5	<0.5	<1.0	ND	ND	NA
R-5	8/8/2002	<0.5	0.4	0.9	0.9	2.2	ND	NA
R-5	11/6/2002	<0.5	<0.5	<0.5	0.8	0.8	ND	NA

TABLE 2
Summary of Historical Groundwater Analytical Data
El Paso Corporation Jaquez Site, San Juan County, New Mexico

Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Ethylbenzen e (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)
R-5	2/27/2003	NA	NA	NA	NA	NA	NA	NA
R-5	5/29/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-5	8/20/2003	NA	NA	NA	NA	NA	NA	NA
R-5	11/24/2003	NA	NA	NA	NA	NA	NA	NA
R-5	2/25/2004	NA	NA	NA	NA	NA	ND	NA
R-5	5/19/2004	<1.0	<1.0	<1.0	<3.0	NA	ND	NA
R-5	8/17/2004	NA	NA	NA	NA	NA	NA	NA
R-5	11/17/2004	NA	NA	NA	NA	NA	NA	NA
R-5	2/22/2005	NA	NA	NA	NA	NA	NA	NA
R-5	5/24/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
R-5	8/29/2005	NA	NA	NA	NA	NA	NA	NA
R-5	11/21/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA
R-5	6/10/2010	<2.0	<2.0	<2.0	<6.0	ND	ND	NA
R-6	1/20/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-6	5/31/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-6	6/26/2000	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-6	8/23/2000	<0.5	<0.5	2.6	13	15.6	ND	NA
R-6	11/20/2000	<0.5	<0.5	<0.5	0.5	0.5	ND	NA
R-6	2/15/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-6	6/1/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-6	7/5/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-6	8/23/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-6	11/28/2001	<0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-6	2/21/2002	<0.5	<0.5	<0.5	<1.0	ND	ND	NA
R-6	5/23/2002	<0.5	<0.5	<0.5	<1.0	ND	ND	NA
R-6	8/8/2002	<0.5	0.4	0.9	1	2.3	ND	NA
R-6	11/6/2002	<0.5	<0.5	<0.5	0.9	0.9	ND	NA
R-6	2/27/2003	NA	NA	NA	NA	NA	NA	NA
R-6	5/28/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-6	8/20/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-6	11/24/2003	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-6	2/25/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-6	5/19/2004	<1.0	<1.0	<1.0	<3.0	ND	ND	NA
R-6	8/17/2004	NA	NA	NA	NA	ND	ND	NA
R-6	11/17/2004	NA	NA	NA	NA	ND	ND	NA

TABLE 2
Summary of Historical Groundwater Analytical Data
El Paso Corporation Jaquez Site, San Juan County, New Mexico

Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Ethylbenzen e (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)	
R-6	2/22/2005	NA	NA	NA	NA	ND	ND	NA	
R-6	5/24/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA	
R-6	8/29/2005	NA	NA	NA	NA	ND	ND	NA	
R-6	11/21/2005	<1.0	<1.0	<1.0	<2.0	ND	ND	NA	
R-6	6/10/2010	<2.0	<2.0	<2.0	<6.0	ND	ND	NA	

Notes:

mg/L = milligrams per liter

ug/L = micrograms per liter

NA= not available (e.g., well was not sampled on that particular date or an analyte was not tested)

ND = not detected

"<" = specific analyte not detected at the reporting limit (RL). Value shown is the RL.

Table 3
June 2010 Soil Sample Field Screening and Laboratory Analytical Data
El Paso Corporation Jaquez Site, San Juan County, New Mexico

			Field	Screening	g Data			Labora	tory Analy	tical Data		
Sample Location	Sample Depth (ft. BGS)	Date Sampled	PID (PPMV)	Petro FLAG™ (mg/ total kg)	Petro FLAG™ (mg/kg)	Benzene (ug/kg)	Toluene (ug/kg)	Ethyl benzene (ug/kg)	Total Xylenes (ug/kg)	TPH GRO (mg/kg)	TPH (C10-C28) (mg/kg)	TPH (>C28- C40) (mg/kg)
SB-1	1	6/11/2010	0	-	-	_	-	-	-	-	-	-
	2	6/11/2010	1.1	-	-	-	-	-	-	-	-	
	3	6/11/2010	0.8		-	-	-	-	-	-	-	-
	4	6/11/2010	0	-	-	-	-	-	-	-	-	-
	5	6/11/2010	0	-	-	-	-	-	-	-	-	
	6	6/11/2010	0	-	-	y -	-	-	-	-	-	-
SB-2	1	6/11/2010	0	-	-	-	-	-	-	-	-	
	2	6/11/2010	0	-	-	-	-		-		-	-
SB-3	1	6/11/2010	0	-	-	-	-	,	-	-	-	-
	2	6/11/2010	13.2	-	-	-	-	,	-	-	-	-
	3	6/11/2010	11.9	-	-	-	-	ı	-	-	-	-
	4	6/11/2010	0.1	-	-	-	-	,	-	-	-	-
	5	6/11/2010	10.8	123	141	ND (4.0)	ND (4.0)	ND (4.0)	ND (12)	ND (5.7)	ND (3.8)	ND (3.8)
	6	6/11/2010	0.5	-	-	-	-	-	-	-	-	-
SB-4	1	6/11/2010	0	-	-	-	-	-	-	-	-	-
	2	6/11/2010	0	-	-	-	-	-	-	-	-	-
	3	6/11/2010	0	-	-	-	-	-	-	-	-	-
SB-5	1	6/11/2010	0	-	-	-	-		-	-	-	-
	2	6/11/2010	0	-	-	-	-	-	-	-	-	-
SB-6	1	6/11/2010	19.2	-	-	ND (3.9)	ND (3.9)	ND (3.9)	ND (12)	ND (5.5)	8.60	7.08
	2	6/11/2010	0	-	-	-	-	-	-	-	-	-
SB-7	1	6/11/2010	106	132	-	-	-	-	-	-	-	-
	2	6/11/2010	30.6	-	-	-	-	-	-	-	-	-

Table 3
June 2010 Soil Sample Field Screening and Laboratory Analytical Data
El Paso Corporation Jaquez Site, San Juan County, New Mexico

Sample Location	Sample Depth (ft. BGS)	Date Sampled	Field Screening Data			Laboratory Analytical Data							
			PID (PPMV)	Petro FLAG™ (mg/ total kg)	Petro FLAG™ (mg/kg)	Benzene (ug/kg)	Toluene (ug/kg)	Ethyl benzene (ug/kg)	Total Xylenes (ug/kg)	TPH GRO (mg/kg)	TPH (C10-C28) (mg/kg)	TPH (>C28- C40) (mg/kg)	
SB-8	1	6/11/2010	230	298	-	-	-	-	-	-	-	-	
	1.5	6/11/2010	71.2	-	-	-	-	-	-	-	-	-	
	2	6/11/2010	31.2	-	-	-	-	-	-	-	-	-	
	2.5	6/11/2010	81.5	-	-	-	-	-	-	-	-	-	
	3	6/11/2010	59.2	-	-	-	-	-	-	-	-	-	
	3.5	6/11/2010	45.2	-	-	-	-	-	-	-	_	-	
	4	6/11/2010	43.2	208	-	-	-	-	-	-	-	-	
SB-9	1	6/11/2010	18.4	222	-	-	-	-	-	-	-	-	
	2	6/11/2010	0.8	-	· -		-	- *		-	-	-	
	3	6/11/2010	8.5	-	-	-	-	-	-	-	-	-	
8. 1	4	6/11/2010	2	160	195	ND (4.7)	ND (4.7)	ND (4.7)	ND (14)	ND (6.9)	ND (4.0)	ND (4.0)	
SB-10	1	6/11/2010	20	207	-	-	-	-	_	-	-	-	
	2	6/11/2010	6.9	-	-	-	-		-	-	-	-	
	3	6/11/2010	8.3	-	-	-	-	-	-	-	-	-	
SB-11	1	6/11/2010	4.6	-	-	-	-	-	-	-	-	-	
	2	6/11/2010	6	-		-	-	-	-	-	-	-	
	2.5	6/11/2010	15.2	137	170	ND (5.0)	ND (9.9)	ND (5.0)	ND (15)	ND (7.1)	9.06	9.05	
SB-12	1	6/11/2010	22.9	456	-	-	-	-	_	-	-	-	
	2	6/11/2010	17.2	-	-	-	-	-	-	-	-	-	
1	3	6/11/2010	6.1	-	-	-	-	-	-	-	-	-	
	4	6/11/2010	1.6	7045	-	-	-	-	-	-	-	-	
	4.75	6/11/2010	8.1	-	-	-	-	-	-	-	-	-	

Table 3

June 2010 Soil Sample Field Screening and Laboratory Analytical Data El Paso Corporation Jaquez Site, San Juan County, New Mexico

		美景堂 2	Field Screening Data			Laboratory Analytical Data						
				Petro								TPH
	Sample			FLAG™	Petro			Ethyl	Total	TPH	TPH	(>C28-
Sample	Depth	Date	PID	(mg/	FLAG™	Benzene	Toluene	benzene	Xylenes	GRO	(C10-C28)	C40)
		Sampled	(PPMV)	total kg)	(mg/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(mg/kg)	(mg/kg)	(mg/kg)

Notes:

ft. BGS = feet below ground surface

PID = photoionization detector screening of bag headspace vapor

PPMV = parts per million by volume

mg/total kg = milligrams per total kilograms

ug/kg = micrograms per kilogram, dry weight basis

mg/kg = milligrams per kilogram, dry weight basis

ND = analyte not detected at the reporting limit (RL). Value shown is the RL.

If no result is listed, sample was not tested

Sample depth is midpoint of 6-inch sample interval

PetroFLAG™ results converted to dry weight by using moisture content data from lab results

Table 4
June 2010 Vapor Field Screening and Laboratory Analytical Data
El Paso Corporation Jaquez Site, San Juan County, New Mexico

		Field Screening	Laboratory Analytical Data								
Sample Location	Date Sampled	PID (PPMV)	Benzene (PPMV)	Toluene (PPMV)	Ethylbenzene (PPMV)	Total Xylenes (PPMV)	TPH (PPMV)				
Passive 1	6/11/2010	0.0	-	-		-	-				
Passive 2	6/11/2010	0.0	-	-	-	-	-				
Passive 3	6/11/2010	0.4	-	-	-	-	-				
Passive 4	6/11/2010	8.9	ND (0.50)	ND (0.50)	ND (0.50)	ND (1.5)	ND (5.0)				
Passive 5	6/11/2010	0.0	-	-	-	-	-				
R-1	6/11/2010	81.2	ND (0.50)	ND (0.50)	ND (0.50)	ND (1.5)	ND (5.0)				
Ambient	6/11/2010	0.0	ND (0.50)	ND (0.50)	ND (0.50)	ND (1.5)	ND (5.0)				

Notes:

PID = photoionization detector

MTBE = methyl tertiary butyl ether

TPH = total petroleum hydrocarbons (as equivalent pentane)

PPMV = parts per million by volume

ND = analyte not detected at the reporting limit (RL). Value shown is the RL.

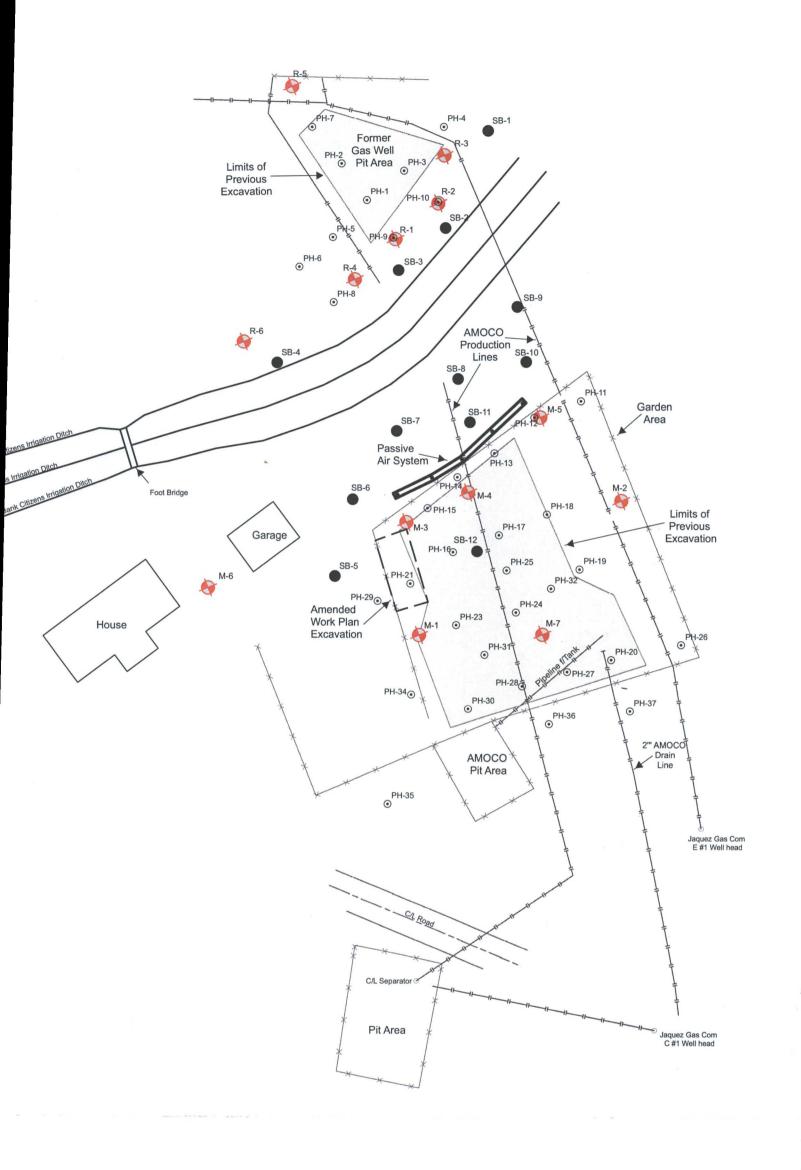
Samples analyzed beyond hold time; reported results are considered minimum values

Soil	Depth		Analytical Parameter												
Boring	(ft. bgs)	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	m,p-Xylene	o-Xylene	Total BTEX	TPH (C6-C10)	TPH (C10-C28)	TPH (>C28-C40)	Total TPH		
		Units==>	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	mg/kg	mg/kg		
	NMOCD Standard==>		NA	NA	NA	NA	NA	NA	50,000	100	100	100	100		
GP-2	(0-5')	8/26/2010	ND (4.1)	ND (4.1)	1.5 J	41.3	41.3	ND (4.1)	47	26.8	ND (3.8)	2.90 J	32		
GP-2	(11-12')	8/26/2010	1.6 J	ND (4.4)	13.5	258	257	0.82 J	275	8.46	32.6	19.1	60		
GP-3	(14-15')	8/26/2010	ND (7.0)	25	340	13,300	12,000	1,270	13,669	1,090	156	36.2	1,282		
GP-3	(15-16')	8/26/2010	ND (290)	ND (290)	107 J	475 J	393 J	82.0 J	872	887	138	56.7	1,082		
GP-4	(8-9')	8/26/2010	ND (4.4)	ND (4.4)	ND (4.4)	ND (13)	ND (8.8)	ND (4.4)	ND	ND (5.8)	ND (3.6)	2.64 J	7		
GP-4	(13-14')	8/26/2010	132 J	ND (250)	292	3,460	3,320	137 J	4,009	1,090	1,110	205	2,405		
GP-4	(16-17')	8/26/2010	36.8	ND (4.1)	68.6	651 J	498 J	153 J	758	277	339	299	915		
GP-7	(8-9')	8/26/2010	ND (280)	ND (280)	ND (280)	ND (840)	ND (560)	ND (280)	ND	305	61.3	28.7	395		
GP-7	(14-16')	8/26/2010	ND (4.6)	ND (4.6)	3.6 J	20.5	16.8	3.6 J	29	143	85.8	25.6	254		
GP-7	(15-16')	8/26/2010	2.8 J	ND (4.6)	ND (4.6)	ND (14)	ND (9.2)	ND (4.6)	14	3.25 J	18.1	13.4	35		
GP-8	(9-10')	8/26/2010	ND (4.7)	ND (4.7)	ND (4.7)	6.1 J	5.0 J	1.1 J	13	3.88 J	196	120	320		
GP-8	(12-13')	8/26/2010	ND (310)	ND (310)	ND (310)	1,300	1,300	ND (310)	1,765	806	498	85.8	1,390		
GP-8	(17-18')	8/26/2010	ND (4.1)	ND (4.1)	ND (4.1)	ND (12)	ND (8.3)	ND (4.1)	12	7.74	137	102	247		
GP-11	(12.5-13')	9/1/2010	ND (7.0)	3.3 J	16.7	158	124	34.4	182	1,860	362	90.2	2,312		
GP-12	(7-8')	9/1/2010	ND (700)	ND (700)	662 J	4,540	4,070	473 J	5,902	2,510	663	141	3,314		
GP-12	(12-13')	9/1/2010	3.7 J	1.4 J	11.6	108	88.7	19.0	125	2,260	379	88.1	2,727		
GP-13	(8-9')	9/1/2010	823 J	9,940	2,250	24,300	19,700	4,610	37,313	575	14	6.25	596		
GP-15	(4-5')	9/1/2010	9,590	176 J	18,000	143,000	143,000	ND (320)	170,766	5,320	408	78.7	5,807		
GP-15	(9.5-10')	9/1/2010	6.7	ND (4.0)	15.3	120	119	1.5 J	144	4.77 J	ND (3.8)	ND (3.8)	9		
GP-19	(5.5-6.5')	9/2/2010	ND (13)	ND (13)	ND (13)	ND (39)	ND (26)	ND (13)	ND	ND (15)	11.7	ND (4.2)	21		
GP-23	(6-7')	9/2/2010	4.0 J	ND (4.5)	ND (4.5)	52.0		ND (4.5)	61	ND (5.6)	27.2	22.8	53		
GP-25	(7-8')	9/2/2010	ND (6.1)	ND (6.1)	ND (6.1)	ND (18)	ND (12)	ND (6.1)	ND	ND (8.3)	ND (4.0)	ND (4.0)	ND		

Notes:

= Concentration exceeds the applicable NMOCD standard.

- 1. Sample GP-27 (6'-7') is a duplicate of Sample GP-23 (6'-7').
- 2. "ND" indicates that the analyte was not detected above the reporting limit (shown in parentheses).
- 3. For BTEX and TPH totals, if any components were non-detect, half the detection limit was used. If no components were detected, an "ND" is indicated.
- 4. "J" qualifiers indicate either that an analyte was detected but was below its reporting limit, or that the value is considered as estimated due to other analytical uncertainty such as matrix interference.
- 5. "BGS" = below ground surface.
- 6. "NMOCD" = New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division



Existing Monitoring / Observation Well

Soil Borings

Probe Hole

Fence Line

Pipe Line

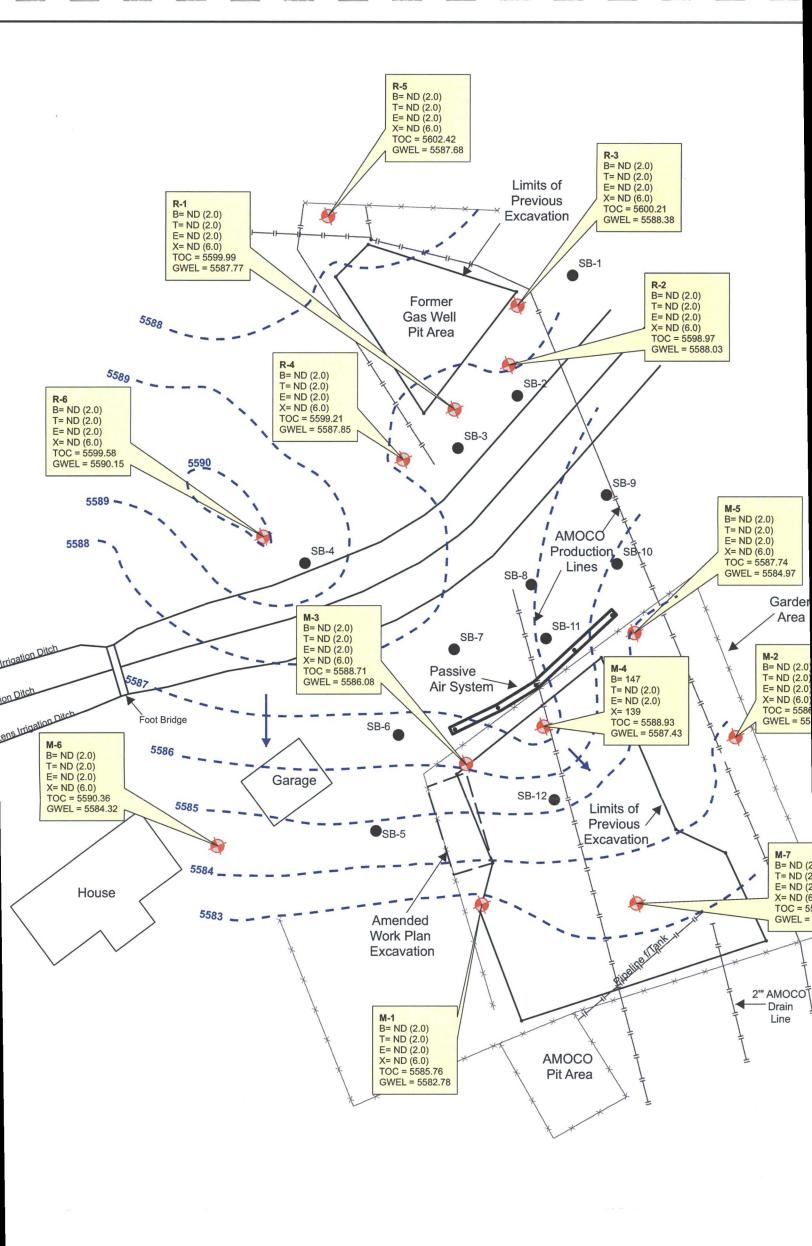
мwн elpaso

PROJECT:

TITLE:

Jaquez Site

Site Layout





Existing Monitoring / Observation Well

Soil Borings

Groundwater Flow Direction

Potentiometric Surface Contour (Inferred Where Dashed)

B Benzene (ug/L)

T Toluene (ug/L)

E Ethylbenzene (ug/L)
X Total Xylenes (ug/L)

TOC Top of Casing (ft.)

PROJECT:

GWEL Groundwater Elevation (ft. AMSL)

ND Not Detected; Reporting Limit Shown In Parenthesis

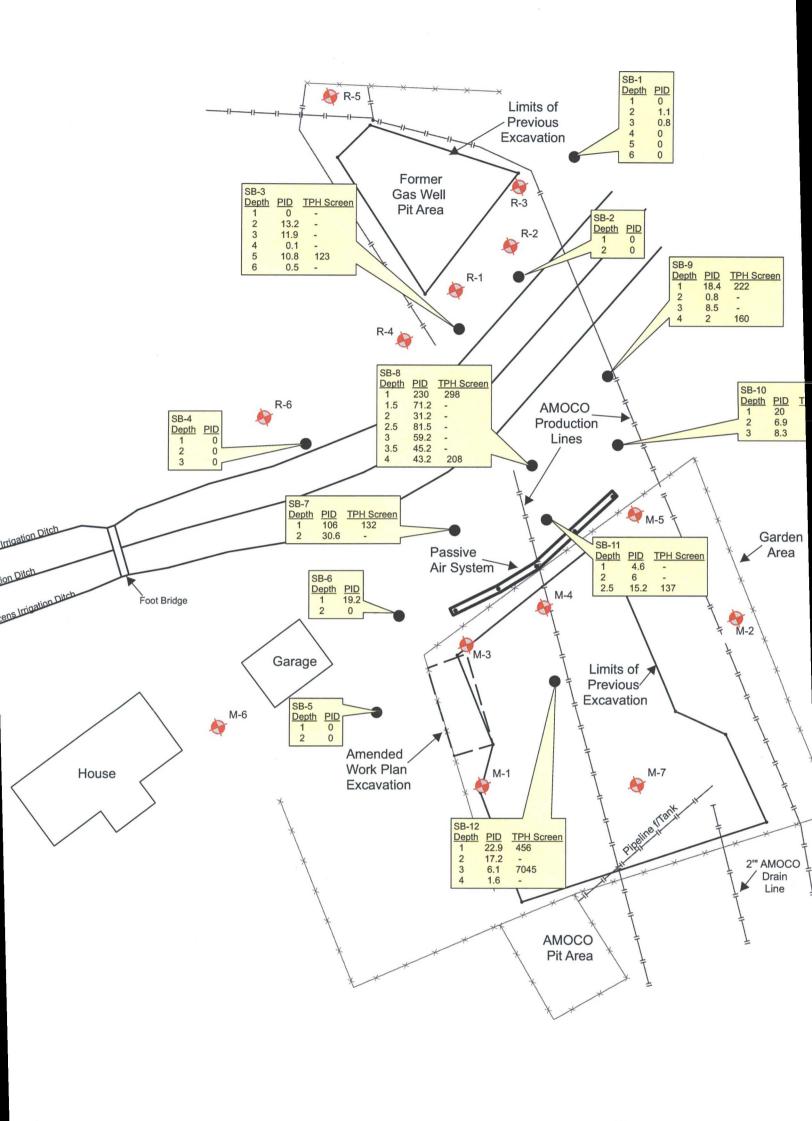
0 20





Jaquez Site

Groundwater BTEX Concentations and Potentiometric Surface Contour Map (June 10, 2010)



Existing Monitoring / Observation Well

Soil Borings

Depth PID TPH Screen

PROJECT:

TITLE:

Midpoint depth of 6" Sample Interval (feet below ground surface)
Bag Headspace Vapor Screening Result (ppmv)
PetroFlagTM Field Screening Result (mg/total kg)

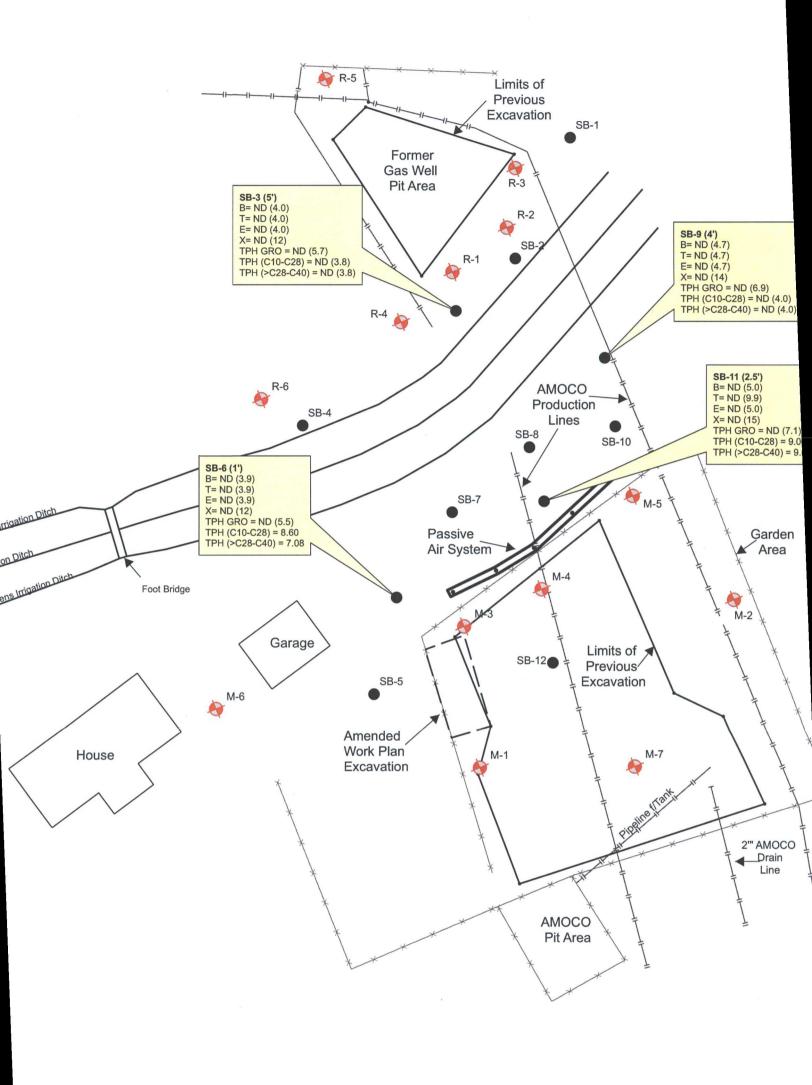
20

(If no result is listed, sample was not tested)



Jaquez Site

Soil Screening Results (June 11, 2010)





sting Monitoring / Observation Well

l Borings (Depth below ground surface)

the midpoint of val.

Benzene (ug/kg) Toluene (ug/kg) Ethylbenzene (ug/kg) Total Xylenes (ug/kg)

TPH GRO Total Petroleum Hydrocarbon- Gasoline Range Organics (mg/kg)

TPH (C10- C28) Total Petroleum Hydrocarbon (C10-C28) (mg/kg) **TPH (>C28- C40)** Total Petroleum Hydrocarbon (>C28-C40) (mg/kg)

Note: All concentrations are reported on a dry weight basis





PROJECT:

B

Т

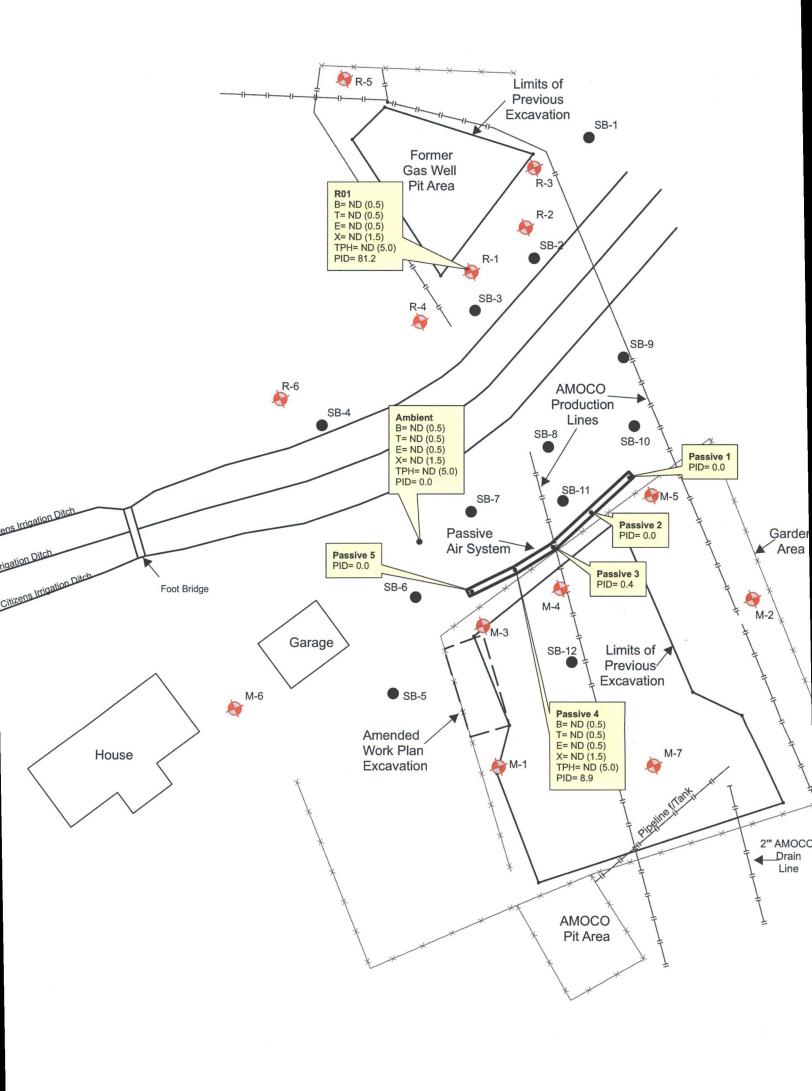
Ε

X



Soil Analytical Results (June 11, 2010) 40





Existing Monitoring / Observation Well

Soil Borings

B T E X TPH Benzene (ppmv) Toluene (ppmv)

Ethylbenzene (ppmv)
Total Xylenes (ppmv)

PID ND Total Petroleum Hydrocarbons as Equivalent Pentane(ppmv) Vapor Screening Result via Photoionization Detector (ppmv) Not Detected; Reporting Limit Shown In Parenthesis



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40



Vapor Field Screening and Laboratory Analytical Results (June 11, 2010)



- Existing Monitoring / Observation Well*
- Soil Borings***
- Soil Borings**
- Sparge Wells*
- Passive Air Wells

taken in *May 2010, **June 2010, ***Aug./Sept. 2010

Note:
1) Locations are determined by GPS and are approximate.
2) Aerial Photo by Pictometry, flown February 2009

PROJECT:

TITLE:

Well and 2010 Soil Boring Locations

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FIGUR







Sparge Wells*

Passive Air Wells

ates taken in *May 2010, **June 2010, ***Aug./Sept. 2010

TPH (C10- C28) Total Petroleum Hydrocarbon (C10-C28) (mg/kg)

TPH (>C28-C40) Total Petroleum Hydrocarbon (>C28-C40) (mg/kg)

Note: All concentrations are reported on a dry weight basis

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Jaquez Site

0 12.5 25

TITLE:

PROJECT:

August/September Soil Analytical Results



Soil Borings*** (Depth below ground surface) Concentration (mg/kg)

Soil Borings**

Sparge Wells* Passive Air Wells -100 - -

(Inferred Where Dashed)

Note:

PROJECT:

TITLE:

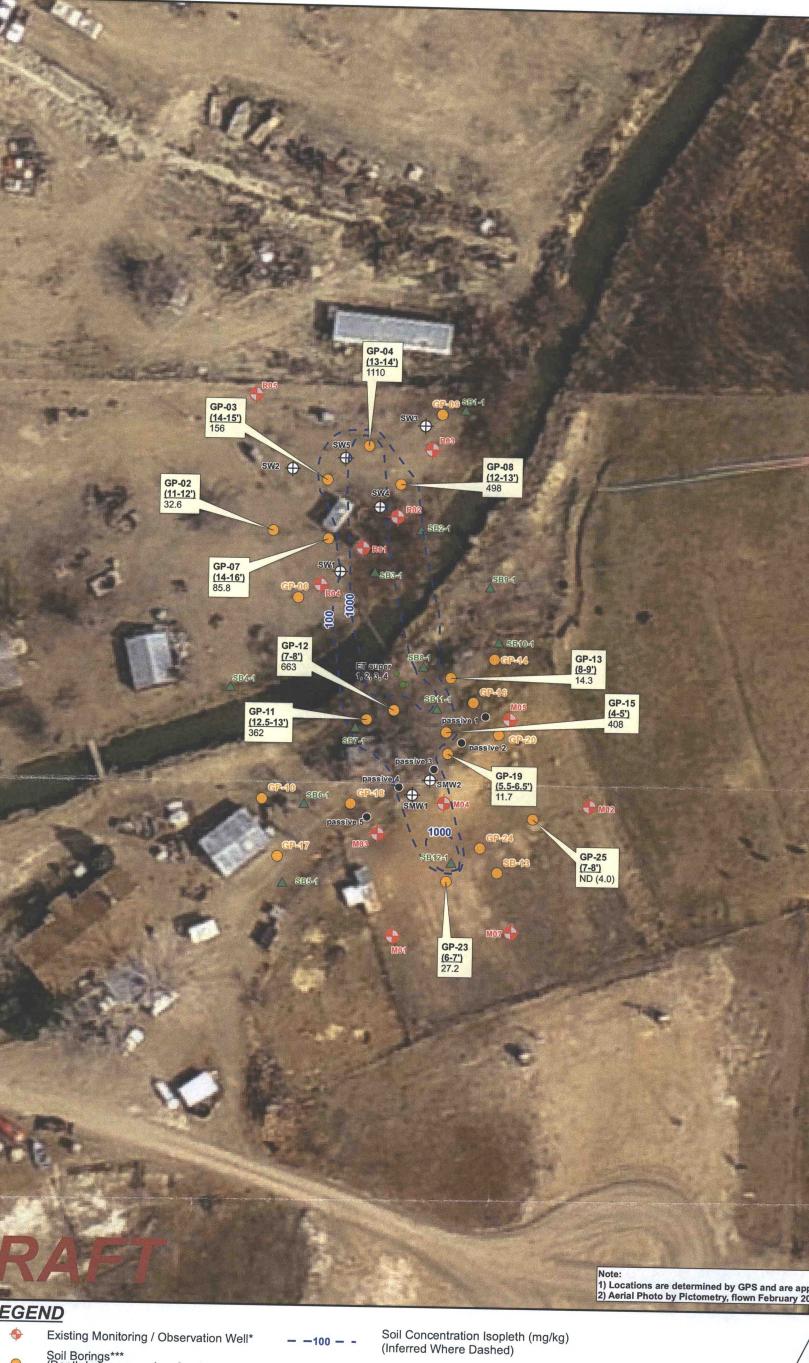
1) All concentrations are reported on a dry weight basis. 2) GPS coordinates taken in *May 2010, **June 2010, ***Aug./Sept. 2010

FIGUR



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Maximum Concentrations of TPH-GRO in Soil (8/26/10 - 9/2/10)



Soil Borings*** (Depth below ground surface) Concentration (mg/kg)

Passive Air Wells

Soil Borings**

 Φ Sparge Wells*

Note:

TITLE:

1) All concentrations are reported on a dry weight basis. 2) GPS coordinates taken in *May 2010, **June 2010, ***Aug./Sept. 2010

FIGUR



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Maximum Concentrations of TPH-DRO in Soil (8/26/10 - 9/2/10)



Soil Borings*** (Depth below ground surface) Concentration (mg/kg)

Soil Borings**

Sparge Wells* Passive Air Wells Note:

1) All concentrations are reported on a dry weight basis. 2) GPS coordinates taken in *May 2010, **June 2010, ***Aug./Sept. 2010

FIGUR



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TITLE: Maximum Concentrations of TPH (>C28 - C40) in Soil (8/26/10 - 9/2/10)



Soil Borings*** (Depth below ground surface) Concentration (ug/kg)

Soil Borings**

Sparge Wells*

Passive Air Wells

Note:

TITLE:

1) All concentrations are reported on a dry weight basis.
2) GPS coordinates taken in *May 2010, **June 2010, ***Aug./Sept. 2010

FIGUE



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Maximum Concentrations of Benzene in Soil (8/26/10 - 9/2/10)



Soil Borings*** (Depth below ground surface) Concentration (ug/kg)

Soil Borings**

Sparge Wells*

Passive Air Wells

(Inferred Where Dashed)

Note:

PROJECT:

TITLE:

1) All concentrations are reported on a dry weight basis. 2) GPS coordinates taken in *May 2010, **June 2010, ***Aug./Sept. 2010

FIGUR



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Maximum Concentrations of Toluene in Soil (8/26/10 - 9/2/10)



Soil Borings*** (Depth below ground surface) Concentration (ug/kg)

Soil Borings**

Sparge Wells*

Passive Air Wells

Note:

TITLE:

1) All concentrations are reported on a dry weight basis. 2) GPS coordinates taken in *May 2010, **June 2010, ***Aug./Sept. 2010

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PROJECT:

Jaquez Site

FIGUE

Maximum Concentrations of Ethylbenzene in Soil (8/26/10 - 9/2/10)



Existing Monitoring / Observation Well*

Soil Borings*** (Depth below ground surface) Concentration (ug/kg)

Soil Borings**

Sparge Wells*

Passive Air Wells

-100 - -

Soil Concentration Isopleth (ug/kg) (Inferred Where Dashed)

Note:

1) All concentrations are reported on a dry weight basis.
2) GPS coordinates taken in *May 2010, ***June 2010, ***Aug./Sept. 2010







TITLE:

Jaquez Site

Maximum Concentrations of Total Xylenes in Soil (8/26/10 - 9/2/10)

