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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,

on behalf of

Ian Yanagisawa, P.E., P.G. Environmental Representative

cc: Buddy Shaw, BP Mr. John Jaquez Brandon Powell, NMOCD-Aztec

Enclosures: as stated

El Paso Corporation

1001 Louisiana Street

Houston, Texas

77002

# 2010 GROUNDWATER, SOIL, AND AIR SAMPLING REPORT

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

November 2010

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**Prepared for:** 

EL PASO CORPORATION 1001 Louisiana Street Houston, Texas 77002

**Prepared by:** 

MWH 1801 California Street, Suite 2900 Denver, Colorado 80202

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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
µg/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
ТРН	total petroleum hydrocarbons
yd <sup>3</sup>	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 7<sup>th</sup>, 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.

<u>Groundwater Sampling</u>: 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**.

<u>Soil Sampling and Screening</u>: 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 PetroFLAG<sup>TM</sup> 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<sup>®</sup> 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<sup>®</sup> 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  $\mu$ g/L, which exceeded the NMWQCC groundwater standard of 10  $\mu$ g/L. Xylenes were also detected at 139  $\mu$ g/L, which is well below the NMWQCC xylene standard of 620  $\mu$ 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 coarse-grained, 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 PetroFLAG<sup>TM</sup> test kit, with a result of 132 mg/kg, potentially exceeding the NMOCD standard of 100 mg/kg (as discussed later, the PetroFLAG<sup>TM</sup> 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 PetroFLAG<sup>TM</sup> 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 PetroFLAG<sup>TM</sup> 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 PetroFLAG<sup>TM</sup> 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 PetroFLAG<sup>TM</sup> 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 PetroFLAG<sup>TM</sup> 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<sup>®</sup> 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<sup>™</sup> 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.

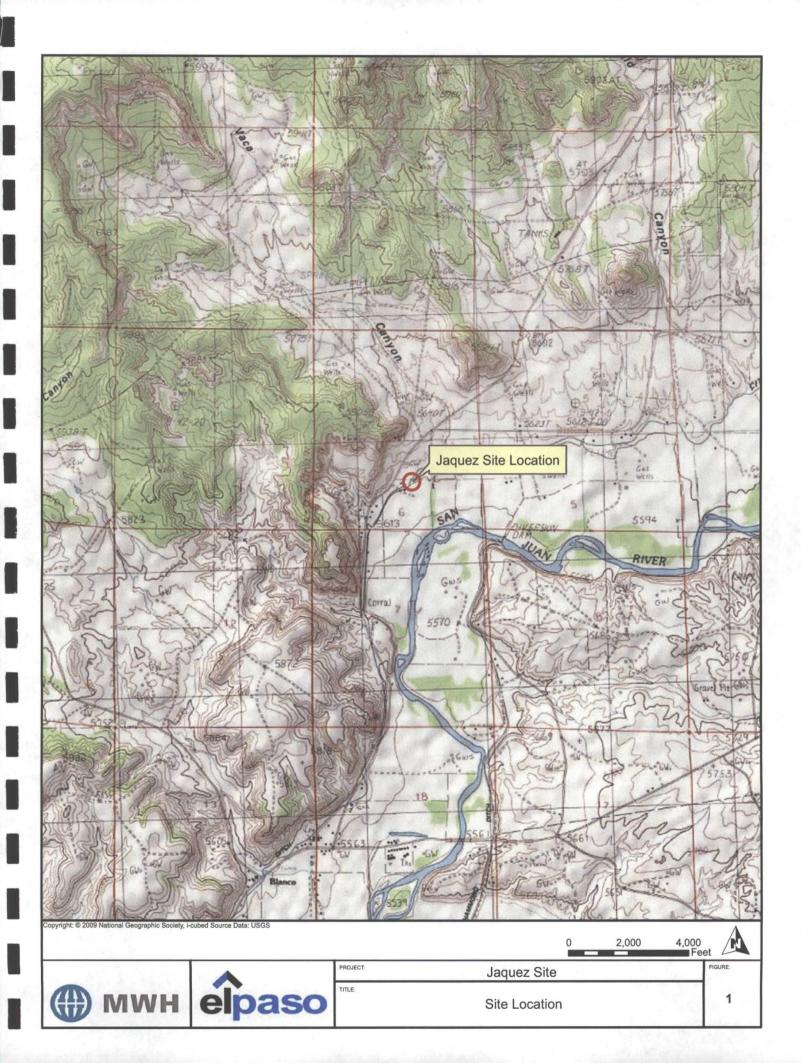
Based upon the review of data collected at the Jaquez Site during these assessment activities, the following recommendations are provided:

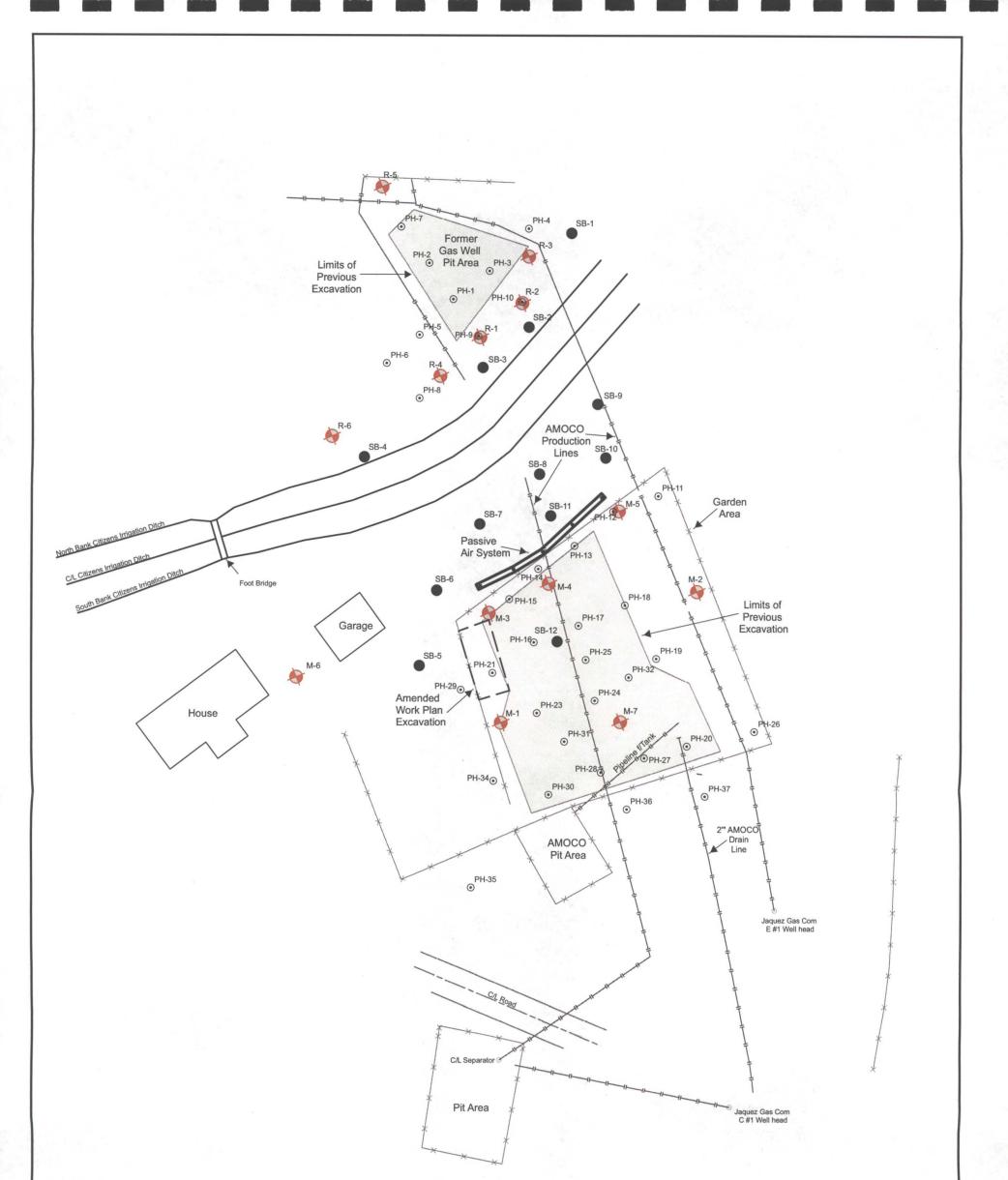
- More data are required regarding the recent release from the Jaquez Gas Com C#1 gathering line. Such information would include detailed delineation and/or confirmation data collected at and downhill from the area of the release. More information is also needed regarding the estimated volume and composition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

#### 6.0 **REFERENCES**

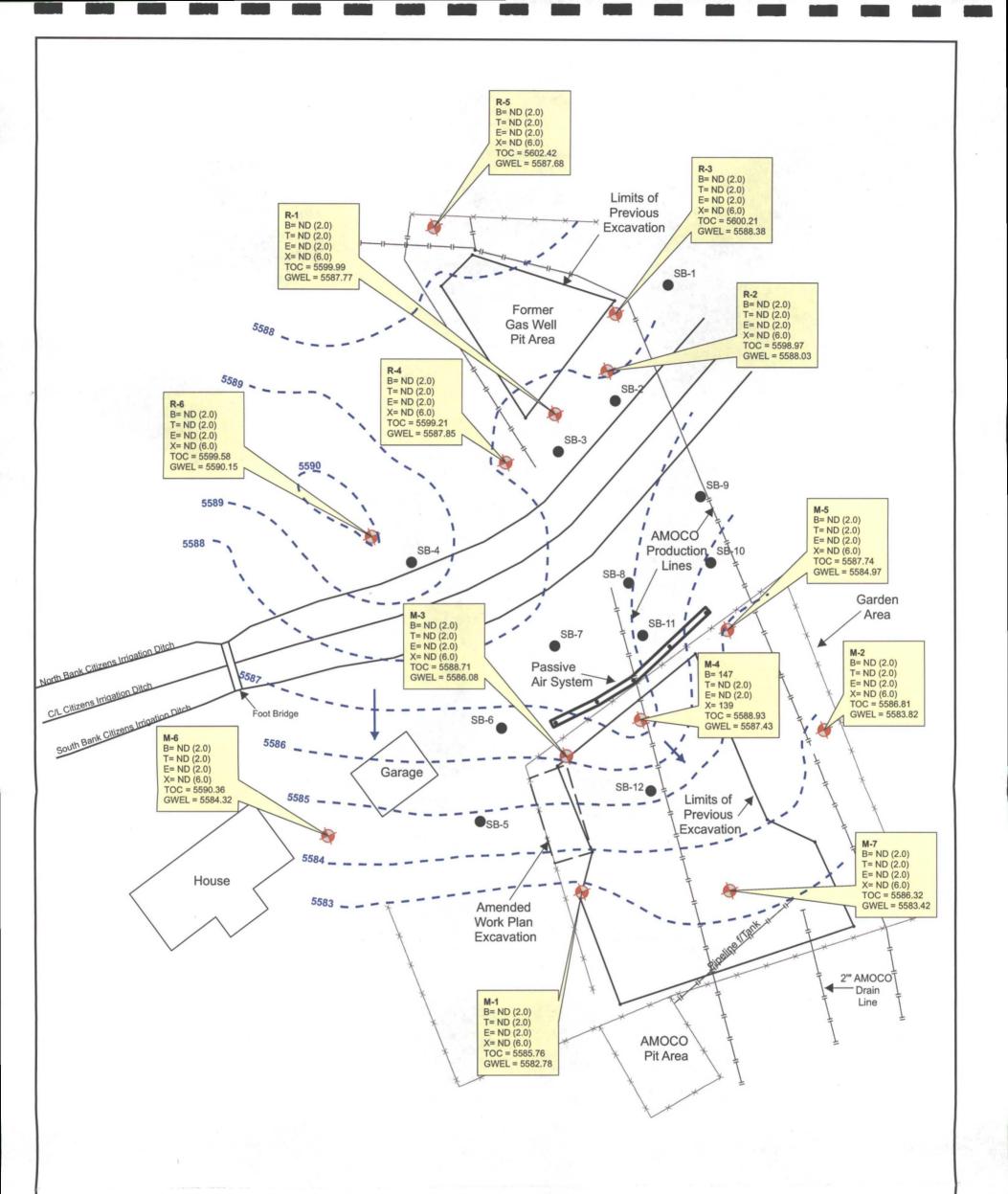
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# Figures

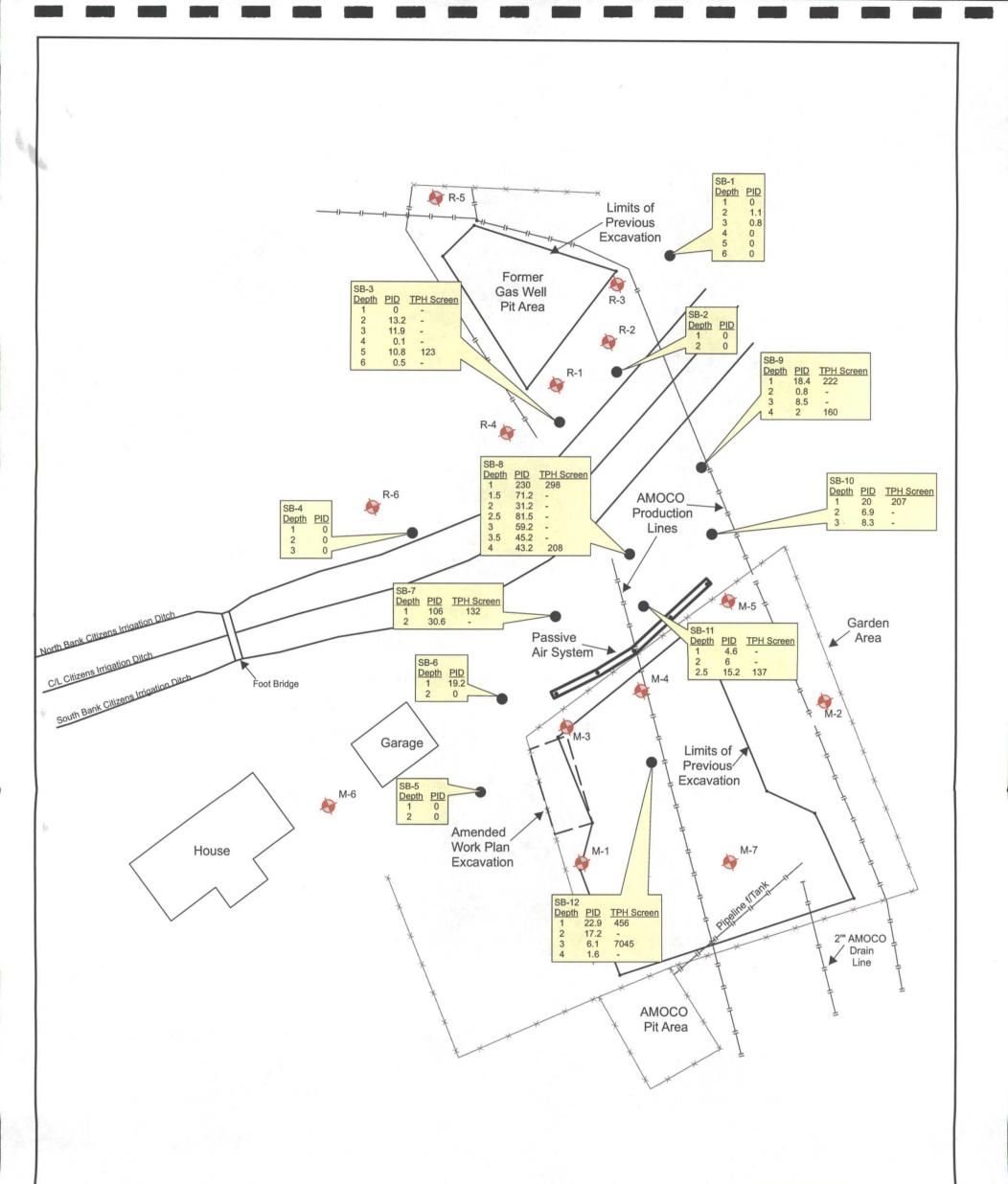




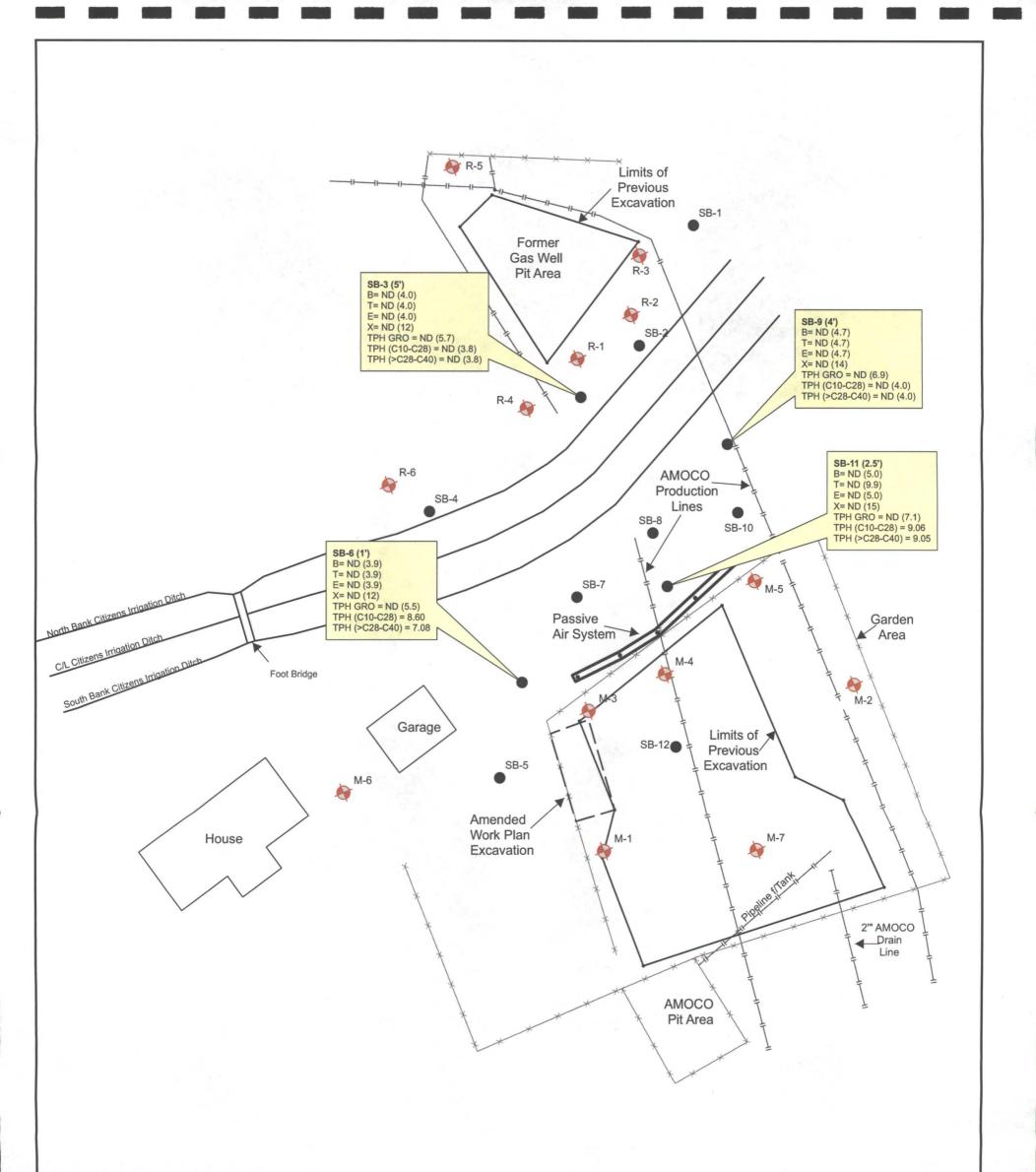
_		LEGEN	ID			
Ļ	+		g / Observation Well			$\mathbf{\Lambda}$
-1	•	Soil Borings				
H-1	$\odot$	Probe Hole				
N		Fence Line			0 25	50 100
	-11	Pipe Line				50 100 Feet
				PROJECT:	Jaquez Site	FIGURE:
		MWH	elpas	50 TITLE:	Site Layout	2



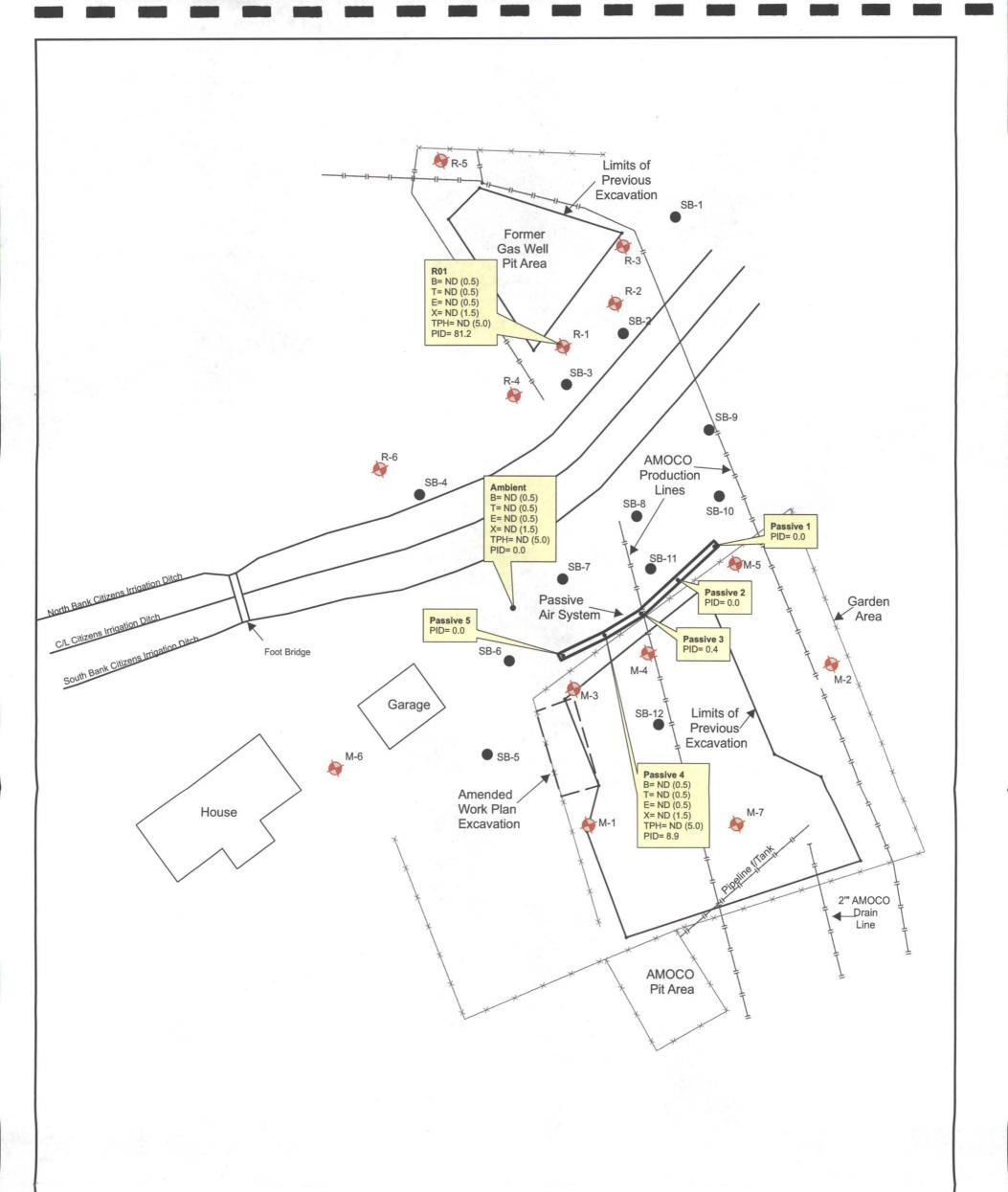
		LEGEN	D	В	Benzene (ug/L) Toluene (ug/L)	٨
M-4	+	Existing Monitoring	g / Observation Well	E	Ethylbenzene (ug/L)	
SB-1 558	• 3	Soil Borings Groundwater Flow D Potentiometric Surfa	lirection Ice Contour (Inferred Where Dashed)	X TOC GWEL ND	Total Xylenes (ug/L) Top of Casing (ft.) Groundwater Elevation (ft. AMSL) Not Detected; Reporting Limit Shown In Parenthesis 0 20 40	
			•	PROJECT:	Jaquez Site	FIGURE:



GEND onitoring / Observation Well	Depth PID TPH Screen -	Midpoint depth of 6" Sample Interval (feet below ground surface) Bag Headspace Vapor Screening Result (ppmv) PetroFlag <sup>™</sup> Field Screening Result (mg/total kg) (If no result is listed, sample was not tested) 0 20 40	80
	PROJECT:	Jaguez Site	FIGURE:
		baquez one	



	<u>LEGEND</u>	B T	Benzene (ug/kg) Toluene (ug/kg)	Δ
<ul> <li>M-4   Existing Monitoring / Observation Well</li> <li>SB-3 (5')   Soil Borings (Depth below ground surface)</li> <li>Note: Listed depth is the midpoint of</li> </ul>		E X TPH GRO TPH (C10- C28)	Ethylbenzene (ug/kg) Total Xylenes (ug/kg) Total Petroleum Hydrocarbon- Gasoline Range Organics (mg/kg) Total Petroleum Hydrocarbon (C10-C28) (mg/kg)	N
each 6" sample inter	rval.	TPH (>C28- C40)	Total Petroleum Hydrocarbon (>C28-C40) (mg/kg)	
			ions are reported on a dry weight basis	FIGURE:
	wн <b>ера</b> з	PROJECT: TITLE:	ions are reported on a dry weight basis 0 20 40 Jaquez Site Soil Analytical Results	FIGURE:



Л-4 6В-3	<ul> <li>•</li> </ul>	<b>LEGEN</b> Existing Monitor Soil Borings	<b>ID</b> ing / Observation Well	B T X TPH PID ND		Benzene (ppmv) Toluene (ppmv) Ethylbenzene (ppmv) Total Xylenes (ppmv) Total Petroleum Hydrocarbons as Equivalent Pentane(ppmv) Vapor Screening Result via Photoionization Detector (ppmv) Not Detected; Reporting Limit Shown In Parenthesis	
					PROJECT:	Jaquez Site	80 FIGURE:
	) [	NWH	elpas	50	Vap	or Field Screening and Laboratory Analytical Results (June 11, 2010)	6

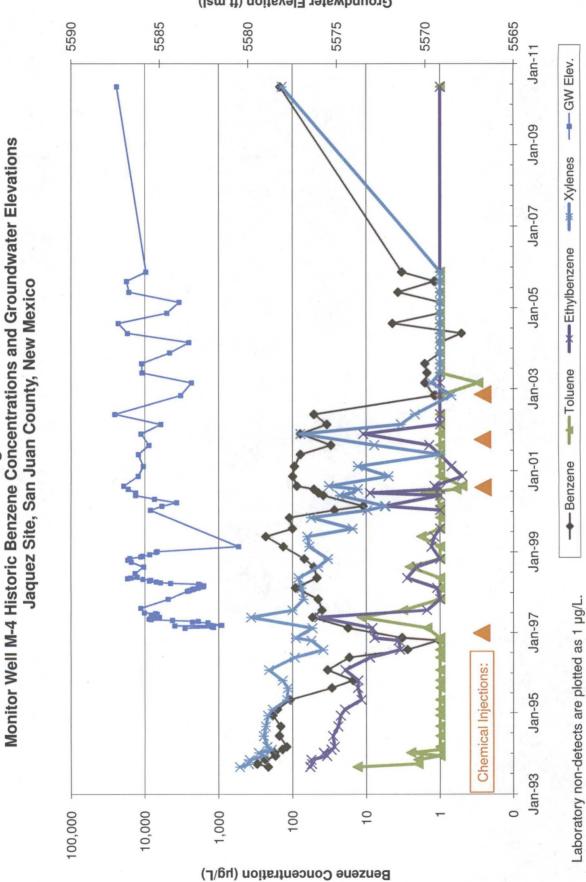


Figure 7

Groundwater Elevation (ft msl)



-	10	10 × 10	R S	
E	R	AE	Alter and the second se	
	L	GEND		Λ
/1-4	•	Existing Monitoring / Observation Well*		
SP-16	0	Soil Borings***		
SB-1		Soil Borings**		
SW1	$\oplus$	Sparge Wells*		
Passive 1	•	Passive Air Wells	Note: 1) Locations are determined by GPS and are approximate. 0 25 50	100
GPS coordina	ates taken	n *May 2010, **June 2010, ***Aug./Sept. 201		100 Fe
			PROJECT: Jaquez Site	FIGURE:
		vн elpaso		



D	KAL		e Extent of Soil TPH > 100 mg/kg here inferred) Note: 1) Locations are determined by GPS a 2) Aerial Photo by Pictometry, flown F	
M-4 GP-7 (15'-16') SB-1 SW1 Passive 1 GPS coordinates	<ul> <li>Existing Monitoring / Observation Well*</li> <li>Soil Borings (Depth below ground surface)***</li> <li>Soil Borings**</li> <li>Sparge Wells*</li> <li>Passive Air Wells</li> <li>staken in *May 2010, **June 2010, ***Aug./Sept. 2010</li> </ul>	B T E X TPH GRO TPH (C10- C28) TPH (>C28- C40) Note: All concentratio	Benzene (ug/kg) Toluene (ug/kg) Ethylbenzene (ug/kg) Total Xylenes (ug/kg) Total Petroleum Hydrocarbon- Gasoline Range Organics (mg. Total Petroleum Hydrocarbon (C10-C28) (mg/kg) Total Petroleum Hydrocarbon (>C28-C40) (mg/kg) <i>ns are reported on a dry weight basis</i>	/kg)
		PROJECT:	Jaquez Site	FIGURE:
	иwн elpaso	TITLE: Augu	st/September Soil Analytical Results	9



	1	A LONG					
L		AR	公主		Note: 1) Locations are determined by GPS 2) Aerial Photo by Pictometry, flown	and are approximate. February 2009	
	LEGE	ND				Λ	
M-4	•	Existing Monitoring / Observation	Well*100	Soil Concentration Isopleth (mg/kg) (Inferred Where Dashed)			
GP-7 ( <u>15'-16'</u> ) 200	•	Soil Borings*** (Depth below ground surface) Concentration (mg/kg)		(interred where Dashed)			
SB-1		Soil Borings**	Note:	Note:			
SW1 Passive 1	<ul> <li>Sparge Wells*</li> <li>Passive Air Wells</li> </ul>			1) All concentrations are reported on a dry weight basis. 2) GPS coordinates taken in *May 2010, **June 2010, ***Aug./Sept. 2010			
			PROJECT:	Jaquez Site	)	FIGURE:	
	мwн elpaso			Maximum Concentrations of TPH-GRO in Soil (8/26/10 - 9/2/10)			



D	R	AB		Note: 1) Locations are determined by G 2) April 2 Bate by Biotemetry file	PS and are approxima
	LEGE		So	2) Aerial Photo by Pictometry, flo il Concentration Isopleth (mg/kg)	
M-4 GP-7 (15'-16') 200	•	Existing Monitoring / Observation We Soil Borings*** (Depth below ground surface) Concentration (mg/kg)		ferred Where Dashed)	
SB-1 SW1 Passive 1	<ul> <li>Soil Borings**</li> <li>Sparge Wells*</li> </ul>		Note: 1) All concentrations are reported on a dry weight basis. 2) GPS coordinates taken in *May 2010, **June 2010, ***Aug./Sept. 2010		
			PROJECT:	Jaquez Site	FIGURE:
	MV	vн elpas	O Maxir	num Concentrations of TPH-DRO in Soil (8/26/10 - 9/2/10)	11



D	R/			Note: 1) Locations are determined by GPS and an 2) Aerial Photo by Pictometry, flown Februa	re approxima ary 2009	
1-4 \$P-7 15'-16') 00	LEGE	Existing N	fonitoring / Observation Well* gs*** low ground surface) ation (mg/kg)	* – –100 – – Soil Concentration Isopleth (mg/kg) (Inferred Where Dashed)	A	
B-1 W1 Passive 1		Soil Borin Sparge W Passive A	gs** /ells*	Note: 1) All concentrations are reported on a dry weight basis. 2) GPS coordinates taken in *May 2010, **June 2010, ***Aug./Sept. 2010	5 50	
		le se a	•	PROJECT: Jaquez Site	FIGURE:	
	<b>мwн</b>		elpas	Maximum Concentrations of TPH (>C28 - C40) in Soil (8/26/10 - 9/2/10)		



D	R	A		Note: 1) Locations are determined by GPS 2) Aerial Photo by Pictometry, flown	and are approximate. February 2009
M-4 GP-7 (15'-16') 200	LEGE	EXISTING Monitoring / Observation Wel Soil Borings*** (Depth below ground surface) Concentration (ug/kg)	ll* — —100 — -	Soil Concentration Isopleth (ug/kg) (Inferred Where Dashed)	A
SB-1     Soil Borings**       SW1     Sparge Wells*       Passive 1     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		
			PROJECT:	Jaquez Site	FIGURE:
	MV	wн elpas		Jaquez Site Iaximum Concentrations of Benzene in Soil (8/26/10 - 9/2/10)	13



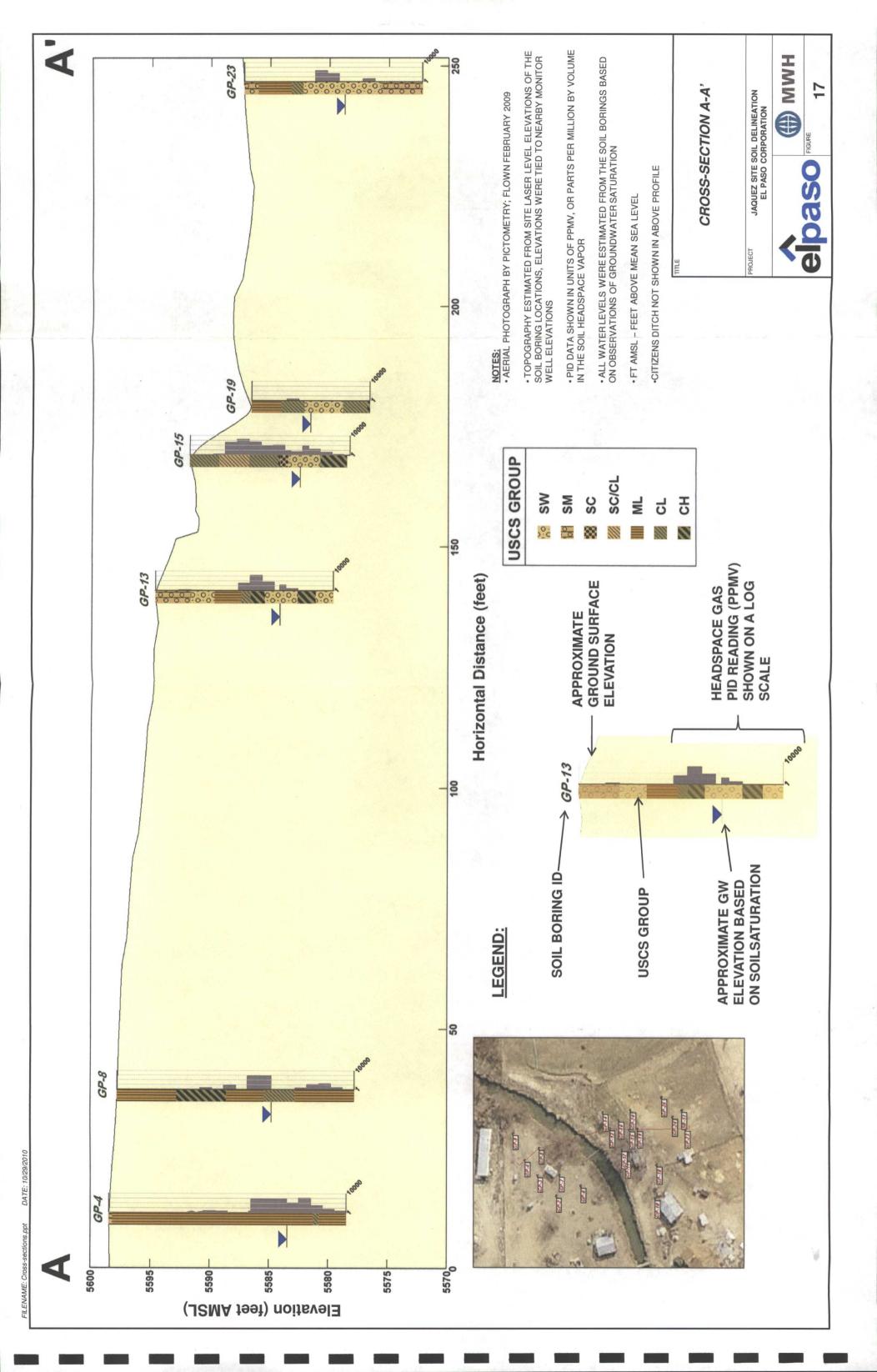
D	R	AF	Note: 1) Locations are determined by GPS 2) Aerial Photo by Pictometry, flown	and are approximate February 2009
	LEGE	IND	Soil Concentration localeth (unline)	Λ
1-4	+	Existing Monitoring / Observation Well*	100 Soil Concentration Isopleth (ug/kg) (Inferred Where Dashed)	
GP-7 (15'-16') 200		Soil Borings*** (Depth below ground surface) Concentration (ug/kg)		
6B-1		Soil Borings**	Note:	
SW1 Passive 1	<b>+</b> •	Sparge Wells* Passive Air Wells	1) All concentrations are reported on a dry weight basis. 2) GPS coordinates taken in *May 2010, **June 2010, ***Aug./Sept. 2010	25 50
			PROJECT: Jaquez Site	FIGURE:
	MV	VH elpaso	Maximum Concentrations of Toluene in Soil (8/26/10 - 9/2/10)	14

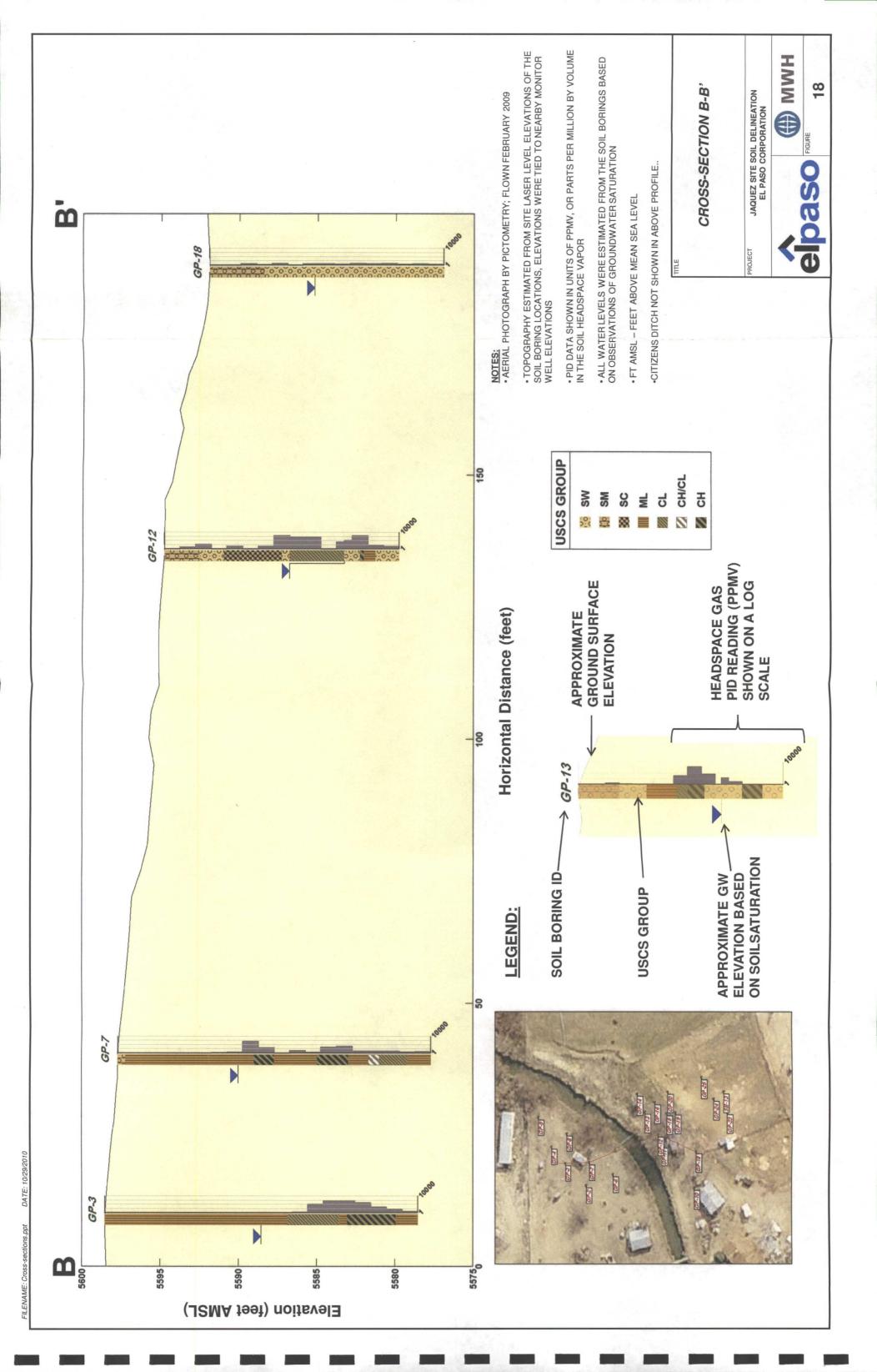


	1			I.C.	See K	
L	K	A			Note: 1) Locations are determined by GPS a 2) Aerial Photo by Pictometry, flown F	
M-4 GP-7 (15'-16') 200	<u>LEGE</u>	Existing Mor	nitoring / Observation Well* *** w ground surface) on (ug/kg)	100	Soil Concentration Isopleth (ug/kg) (Inferred Where Dashed)	
SB-1 SW1 Passive 1		Soil Borings' Sparge Well Passive Air V	S*		tions are reported on a dry weight basis. ates taken in *May 2010, **June 2010, ***Aug./Sept. 2010	25 50
			A	PROJECT:	Jaquez Site	FIGURE:
	MV	<b>ИН</b>	elpaso	титье: Мах	timum Concentrations of Ethylbenzene in Soil (8/26/10 - 9/2/10)	15



	)E				10	· Frès
					Note: 1) Locations are determined by GPS and 2) Aerial Photo by Pictometry, flown Fe	
All the second	LEGE	ND	and Rowald			Λ
1-4	•	Existing Monitoring / Observation Well*	100	Soil Concentration Isopleth (ug/kg) (Inferred Where Dashed)		
GP-7 (15'-16') 200	•	Soil Borings*** (Depth below ground surface) Concentration (ug/kg)		(interfed where Dashed)		
SB-1 SW1 Passive 1		Soil Borings** Sparge Wells* Passive Air Wells		ations are reported on a dry weight basis nates taken in *May 2010, **June 2010, *		25 50
			PROJECT:	Jaquez Site	9	FIGURE:
	MV	NH elpas	Ма	ximum Concentrations of 1 (8/26/10 - 9/2)		16





### Tables

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 Table 1

 June 2010 Groundwater Measurements and Laboratory Analytical Data

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

						Laborato	Laboratory Analytical Data	ia 👘 👘
Sample	Date	Elevation	Groundwater	Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes
Location	Sampled	(ft: AMSL)	(ft:)	(ft.:AMSL)	(ug/L)	(nd/l)	(ug/L)	(ùg/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)
Notec:					×			

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

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	ŃA
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	<sup>×</sup> 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	<b>1.5</b>	· 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

Sample Location	Date Sampled	Benzene (µg/l)	Tolùene (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		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	S. ND 🛓	ND	,
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	ŇD	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	S.N/A	NĎ	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	ŇA
M-2	8/6/1996	<1.0	<1.0	<1.0	<1.0	N/A	ND	NA

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	ŇA
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 <del>.</del> 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	ŃD	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	
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	ŃD	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 <sup>-</sup>	NA	<sup>-</sup> NA	ND	NA
M-2	11/17/2004	NA	NA	NA	NA	ŇĂ	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	1:16	<2.0	3	37.6	157	ND	NA

#### 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-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
М-3	.3/7/1994	<0.5	<0.5	<0.5	2.5	. 3	ND	NA
M-3	<sup>,</sup> 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	<sup>.</sup> 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 <sup>′</sup>	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		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	v <b>1.6</b>	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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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	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	ND	0.32
M-3	5/22/2002	<0.5	<0.5	<0.5	1	1	ND	0.31
M-3	11/6/2002	<b>.</b> 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	ŇA	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	ŇD	NA

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	8/25/1995	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	ŇA
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	NÁ
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	1.15	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 ND	5
M-4	11/29/2001	78	<0.5	11	78	167	NĎ	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	r 1.3	3.200	ND	NA ·
M-4	5/28/2003	1.5	<1.0	<1.0	<3.0	1.500	ND	4.2

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)
<b>M-4</b>	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 <sup>·</sup>
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
<b>M</b> -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	ŇD	NA
M-5	5/8/1995	<2.5	<u>&lt;</u> 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

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-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 <sup>,</sup>	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	NĂ	NA	NA	ND	NA
M-5	11/17/2004	ŇA	NA	NA	NA	NA	ND	NA
M-5	2/22/2005	NA	NA	NA	NA	NA	ŇD	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	ŅA
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

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-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	<sup>(</sup> NA	NA
<u>M-6</u>	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	NĂ	NA	NA	ŇA	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	NDN	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	NĂ	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

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
- er <b>R-1</b>	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 *	NĂ
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
<b>R-1</b>	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
Ř-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

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	<b>4</b> " <sup>~</sup>	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
<b>R-2</b>	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
Ré2,	7/26/2000	3600	3200	150	2300	9250	TR	NA

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	ŃA
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 آي	<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	NĎ	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	NĎ	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	NĎ	NA
R-3	11/10/1993	<sup>`</sup> 6.19	27.7	10.4	89.2	134	ND	ŃA
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
<b>`R-3</b>	2/9/1994	<2.0	10.9	8.3	59.6	79	ND	NA
R-3	3/7/1994	7.7	43 <sup>°</sup>	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

Sample Location	Date Sampled	Benzene (µg/l)	Toluene (µg /l)	Êthylbenzen e (µg/l)	Totāl Xylenes (µg/l)	Total BTEX (µg/l)	Floating Product (inches)	Nitrates (mg/l)
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	<u>`</u> 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	ŃD	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	NĎ	ND	NA
R-3	2/15/2001	2.2	<0.5	<0.5	<0.5	2.2	ND	NA
R-3	6/1/2001	<0.5	<0.5	<0.5	<0.5	ND	NĎ	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.	ŇA
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
- <b>R-3</b>	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
	11/24/2003	NA	ŇA	NA	NA	NA	NA	NA

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	ŇA
R-4	9/7/1993	104	267	39.9	370	781	ŇD	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	<sup>-</sup> NA
R-4	3/7/1994	150		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	<i></i> 26	218	584	ND	NA
R-4	12/15/1994	222	63.3	26.9	213	525	ND	NA
<sup>•</sup> 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

#### 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-4	5/25/1999	110	63	15	144	332	ND	NA
R-4	1/20/2000	280	<b>89</b> \	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	ŇĎ	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	NĎ	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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#### Summary of Historical Groundwater Analytical Data El Paso Corporation Jaquez Site, San Juan County, New Mexico

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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-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 <sup>°</sup>	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	≷r <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
<b>R-5</b>	8/23/2001	<0.5	<0.5	<0:5	<0:5	ND	ND	NÀ
R-5	11/28/2001	<sup>`</sup> <0.5	<0.5	<0.5	<0.5	ND	ND	NA
R-5	2/21/2002	<0.5	<1.0	<0.5	<0.5	ŇĎ	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	NŅ	NA

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	<b>NA</b>
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 <sup>)</sup>	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
<b>R-6</b>	11/24/2003	<1.0	<1.0	<1.0	<3.0	NĎ	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	ŇA	an tree of a section of the section	NA	NA	ND	ND.	NA

#### 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

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Sample D Location (ft.					一一一一一日の日の一一日の日の日の日の日の日の日の日の日の日の日の日の日の日の							the second s
DUDNIN'S. COM. S.	Sample			Petro FLAG™	m Petro			Ethyl	Total	HAT	HAT	ТРН (>С28-
2	Depth (ft. BGS)	Date Sampled	PID (PPMV)	(mg/ total kg)	FLAG <sup>III</sup> (mg/kg)	Benzene (ug/kg)	Toluene (ug/kg)	benzene (ug/kg)	Xylenes (ug/kg)	FGRO (mg/kg)	(C10-C28) (mg/kg)	C40) (mg/kg)
SB-1 ´	-	6/11/2010	0	-	ı	-	1	-	-	-		,
	5	6/11/2010	1.1	•	•	I	I	. 1	Ι.	ı	1	1
	3	6/11/2010	0.8	-	I	-	1	-	ı	•	-	
	4	6/11/2010	· 0 ·	1	I	-	1	I	i	'		ı
	5	6/11/2010	0	I	I	I	1	I	ı	1	I	1
	6	6/11/2010	0	1	ı	ſ	1	•	ı	•	•	•
SB-2	1	6/11/2010	0		ı	1	1	ŀ	1	,	,	ı
	2	6/11/2010	0	ı	I	-	1	ſ	ſ	1	1	
SB-3	-	6/11/2010	0	-	1	-	,		ı	'	· ·	` •
	2	6/11/2010	13.2		ł	. ,	I	1	I	ı	1	
	в	6/11/2010	11.9			ı	1	٩.	I	1	'	·
	4	6/11/2010	0.1	I	I	I	1	. 1	I	`` ``		
	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	1	ı		ı	· 1	1			
SB-4	-	6/11/2010	0	1		I	1	I	,	ı	71	ı
	2	6/11/2010	0	I	. 1	1	ı	ı		ı		
	З	6/11/2010	0	1	ı	ı	ı	1	1	ı	•	1
SB-5	٦	6/11/2010	0		I	1	/ -	·	I	ı	•	1
	2	6/11/2010	0	I	ı	•	I	I		ſ	•	
SB-6	1	6/11/2010	19.2	1	1	ND (3.9)	ND (3.9)	ND (3.9)	ND (12)	ND. (5.5)	8.60	7.08
	2	6/11/2010	0	1	J		1	ł	١.	ı	-	1
SB-7	-	6/11/2010	106	132	I	1	1	I	ł	'		1
	2	6/11/2010	30.6	I	3	÷ 1	I	ï	1	1		, I ,

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 Table 3

 June 2010 Soil Sample Field Screening and Laboratory Analytical Data

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

			Field Screet	Screening	ning Data			Labora	Laboratory Analytical Data	tical Data		
	Sample			Petro FLAG™	Petro			Ethyl	Total		TPH	6
Sample Location		83.845.8996.6ada Fra	PID (PPMV)	(mg/ total kg)	ina kana	Benzene (ug/kg)	Toluene (ug/kg)	benzene (ug/kg)	Xylenes (ug/kg)	GRO (mg/kg)	(C10-C28) (mg/kg)	C40) (mg/kg)
SB-8	-	6/11/2010	230	298	ı		I	-		-		
	1.5	6/11/2010	71.2	I	I	۱	1		I	ı	I	I
	2	6/11/2010	31.2	1	<i>t</i> 1	ı	I	ſ	•	1	ı	
	2.5	6/11/2010	81.5	ı	I	1	ı	ı	ı	ı		ı
	3	6/11/2010	59.2	ı	1	. 1	I	ı	1	ı	1	1
	3.5	6/11/2010	45.2	I	t	ı	I	ı	ı		-	I
Ň	4	6/11/2010	43.2	208	ı	I	I	1		I		-
SB-9	-	6/11/2010	18.4	222	ı	ı		ı	l	I	ı	
	2	6/11/2010	0.8	ı	·		ı	1	-	I	•	
	З	6/11/2010	8.5	I		I	1		I	I	1	ı
	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	-	6/11/2010	20	207	'	ı	'n	ı	I	ı	ı	I
	2	6/11/2010	6.9	ı	1	ı	ı		I	ı	ı	r
	ý3	6/11/2010	8.3	•	ı	1	1	•	ı	1	-	
SB-11		6/11/2010	4.6	•				,	-	T	1	
	N	6/11/2010	9	١	۱ 、	ı	·	•	ı	ı ,		I
	2.5	6/11/2010	15.2	137	170	ND (5.0)	ND (9.9)	ND (5.0)	ND (15)	ND (7.1)	90.6	9.05
SB-12		6/11/2010	22.9	456	ł	ı	1	•	1	ı	~ •	I
	N	6/11/2010	17.2	ſ	I.	1 • .	ı	'	1	ı		I
	3	6/11/2010	6.1	I	1	'	-	ı	ı		•	I
	4	6/11/2010	1.6	7045	/ 1		'	•	1	ı	,	1
	4.75	6/11/2010	8.1	•	I	1	, I	1		-	ł	

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 Table 3

 June 2010 Soil Sample Field Screening and Laboratory Analytical Data

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

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## 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

Page 3 of 3

PetroFLAG<sup>™</sup> 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		E C	Laboratory Analytical Data	cal Data	
Sample Location	Date Sampled	Data PID	Benzene	Toluene	Ethylbenzene	Total Xylenes	HGT
		(PPMV)					
Passive 1	6/11/2010	0.0		I		4	-
Passive 2	6/11/2010	0.0	•	1	-	-	1
Passive 3	6/11/2010	0.4	1	ı		ı	ı
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	1	ł	1	-	
R-1	6/1.1/2010	N 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

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# El Paso Corporation Jaquez Site, San Juan County, New Mexico August/September 2010 Soil Sample Analytical Data Summary Table 5

	Total TPH	mg/kg	100	32	60	1,282	1,082	7	2,405	915	395	254	35	320	1,390	247	2,312	3,314	2,727	596	5,807	σ	21	53	UN
	TPH (>C28-C40)	mg/kg	100	2.90 J	19.1	36.2	56.7	2.64 J	205	299	28.7	25.6	13.4	120	85.8	102	90.2	141	88.1	6.25	78.7	ND (3.8)	ND (4.2)	22.8	
	TPH (C10-C28)	mg/kg	100	ND (3.8)	32.6	156	138	ND (3.6)	1,110	339	61.3	85.8	18.1	196	498	137	362	663	379	14	408	ND (3.8)	11.7	27.2	
	TPH (C6-C10)	mg/kg	100	26.8	8.46	1,090	887	ND (5.8)	1,090	277	305	143	3.25 J	3.88 J	806	7.74	1,860	2,510	2,260	575	5,320	4.77 J	ND (15)	ND (5.6)	
tical Parameter	Total BTEX	ug/kg	50,000	47	275	13,669	872	QN	4,009	758	QN	29	14	13	1,765	12	182	5,902	125	37,313	170,766	144	QN	61	
Analytical Pa	o-Xylene	ug/kg	NA	ND (4.1)	0.82 J	1,270	82.0 J	ND (4.4)	137 J	153 J	ND (280)	3.6 J	ND (4.6)	1.1 J	ND (310)	ND (4.1)	34.4	473 J	19.0	4,610	ND (320)	1.5 J	ND (13)	ND (4.5)	VID / CIV
An	m,p-Xylene	ug/kg	NA	41.3	257	12,000	393 J	ND (8.8)	3,320	498 J	ND (560)	16.8	ND (9.2)	5.0 J	1,300	ND (8.3)	124	4,070	88.7	19,700	143,000	119	ND (26)	52.0	101/ UN
	Total Xylenes	ug/kg	NA	41.3	258	13,300	475 J	ND (13)	3,460	651 J	ND (840)	20.5	ND (14)	6.1 J	1,300	ND (12)	158	4,540	108	24,300	143,000	120	ND (39) 52.0 ND (18)		
	Ethylbenzene	ug/kg	NA	1.5 J	13.5	340	107 J	ND (4.4)	292	68.6	ND (280)	3.6 J	ND (4.6)	ND (4.7)	ND (310)	ND (4.1)	16.7	662 J	11.6	2,250	18,000	15.3	ND (13)	ND (4.5)	ND /R 11
	Toluene	ug/kg	NA	ND (4.1)	ND (4.4)	25	ND (290)	ND (4.4)	ND (250)	ND (4.1)	ND (280)	ND (4.6)	ND (4.6)	ND (4.7)	ND (310)	ND (4.1)	3.3 J	ND (700)	1.4 J	9,940	176 J	ND (4.0)	ND (13)	ND (4.5)	ND /A 1/
	Benzene	ug/kg	NA	ND (4.1)	1.6 J	(0.7) ON	ND (290)	ND (4.4)	132 J	36.8	ND (280)	ND (4.6)	2.8 J	ND (4.7)	ND (310)	ND (4.1)	ND (7.0)	ND (700)	3.7 J	823 J	9,590	6.7	ND (13)	4.0 J	ND /R 11
	Date	Units==>	Standard==>	8/26/2010	8/26/2010	8/26/2010	8/26/2010	8/26/2010	8/26/2010	8/26/2010	8/26/2010	8/26/2010	8/26/2010	8/26/2010	8/26/2010	8/26/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/2/2010	9/2/2010	0100/0/0
Depth	(ft. bgs)		NMOCD S	(0-2,)	(11-12')	(14-15')	(15-16')	(8-9')	(13-14')	(16-17')	(8-9')	(14-16')	(15-16')	(9-10')	(12-13')	(17-18')	(12.5-13')	(7-8')	(12-13')	(8-9')	(4-5')	(9.5-10')	(5.5-6.5')	(.2-9)	17.91
Soil	Boring			GP-2	GP-2	GP-3	GP-3	GP-4	GP-4	GP-4	GP-7	GP-7	GP-7	GP-8	GP-8	GP-8	GP-11	GP-12	GP-12	GP-13	GP-15	GP-15	GP-19	GP-23	GP-05

**1282** = Concentration exceeds the applicable NMOCD standard.

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.

Natural Resources Department, Oil Conservation Division

Notes:

1. Sample GP-27 (6'-7') is a duplicate of Sample GP-23 (6'-7').

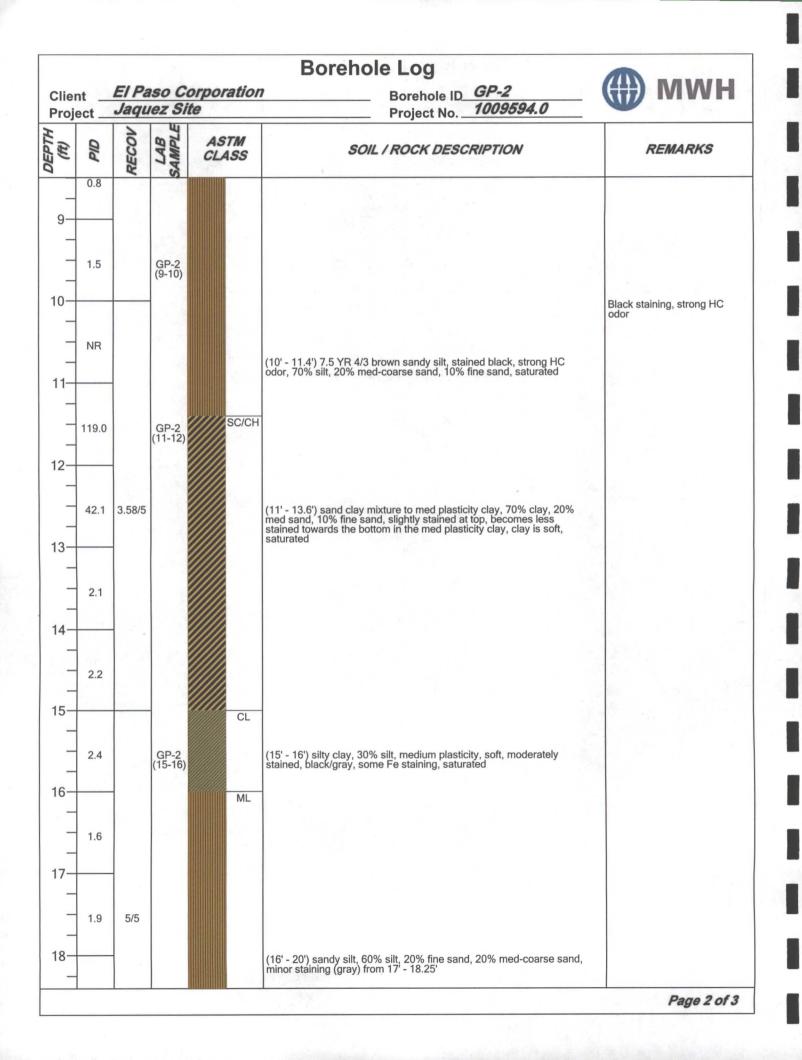
2. "ND" indicates that the analyte was not detected above the reporting limit (shown in parentheses).

"BGS" = below ground surface.
 "NMOCD" = New Mexico Energy, Minerals and



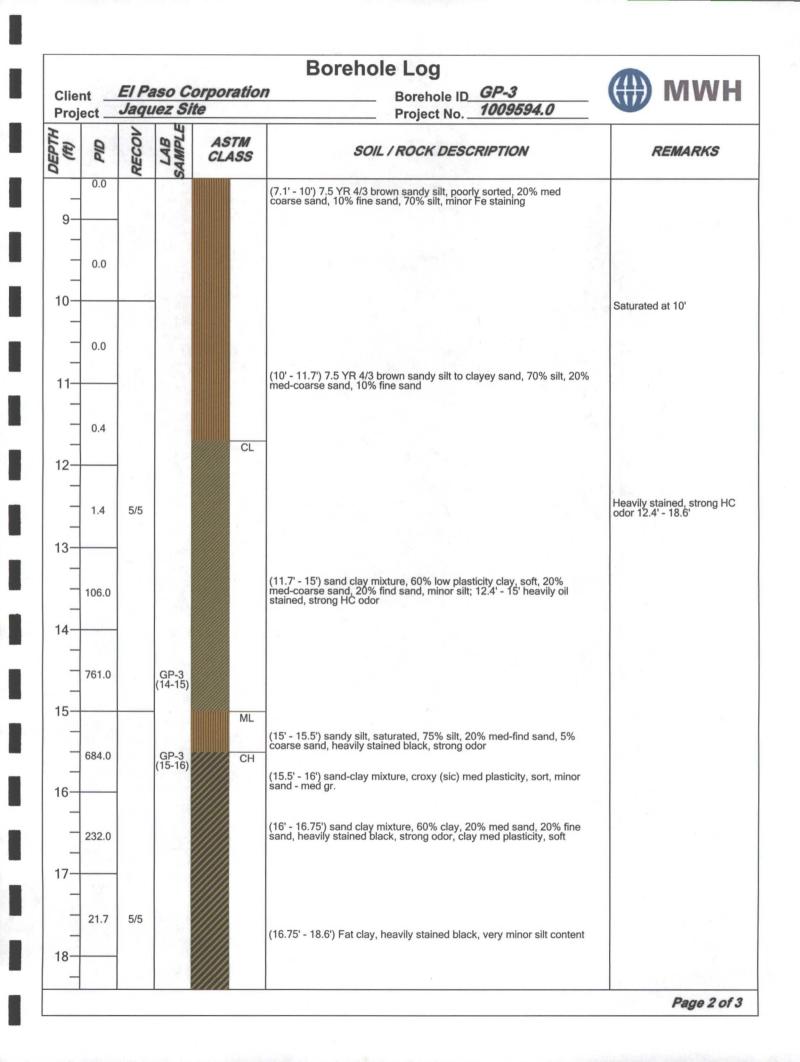
## August-September 2010 Soil Boring Logs

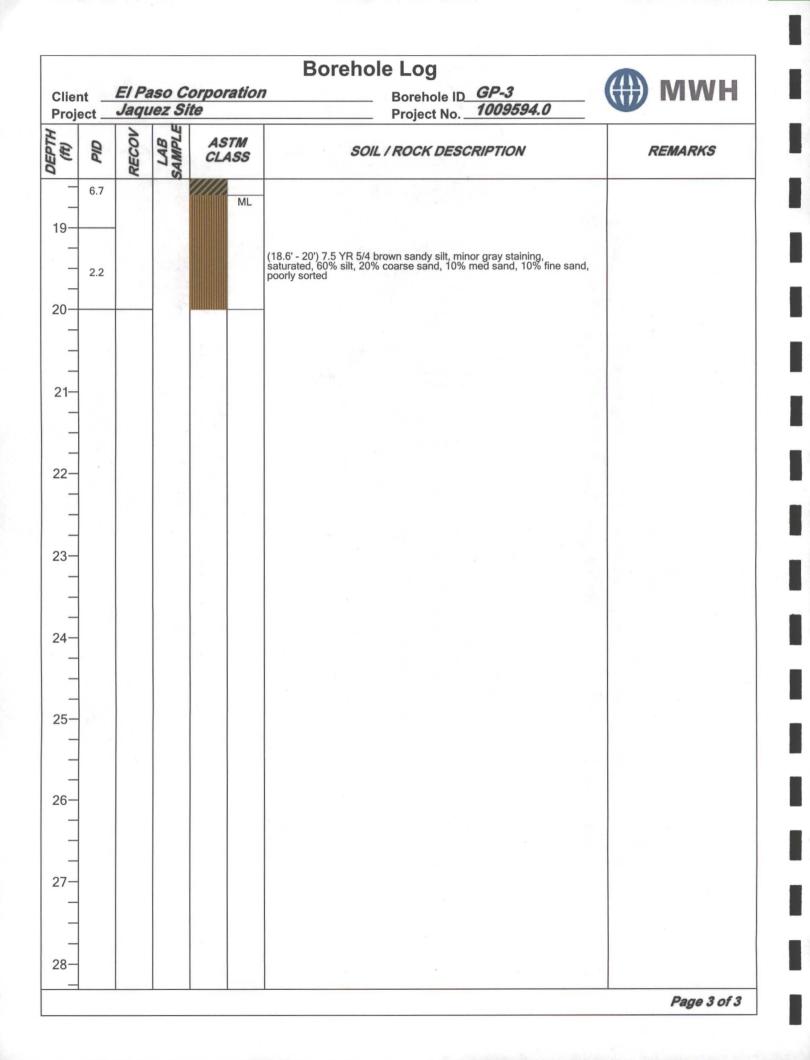
Clien Proje	t	El Pa Jaqu	nso Co vez Sit	orporati e	Borehol	Borehole ID GP-2 Project No. 10095	94.0	()) ММН
Dimin	ng Cor d by_ Rig_ ng Me	ntractor	Virone) G. Grei Geopro Dual Tu	x, Inc. nier obe 6600 ube	Logged By Completion Da Borehole Depth Borehole Dia	D. Heneman (LTE) te August 26, 2010	- Northing Easting Surface Elev	2092403.5 2727399.0 v. (ft)_5597.7
Sam	ple Me	ethod	5' Dual	Tube	Sample Interva	Continuous	DTP (bgs) DTW (bgs)	8.75' August 26, 2010
Samı	DIA	RECOV	LAB SAMPLE	ASTM CLASS		I ROCK DESCRIPTION	v	REMARKS
-	NR			M	- (0' - 0.8') NR			
1-	-		-		(0.8' - 1.2') 7.5 YR 3/4 da	ark brown, sandy soil, minor roo	ots	
2-	0.0							
-	0.0	4.2/5						
3	0.0				(1.2' - 5') 7.5 YR 6/3 ligh 20% med grained sand,	t brown sandy silt, 70% silt, 10 poorly sorted	% fine sand,	
-	0.0							
5	NR							Saturated at 8.75'
6								
7	1.0	-						
8-	0.3	3.75/5			(5' - 10') sandy silt, 70% some gray staining and saturated at 8.75'	silt, 10% fine, 20% med sand, Fe staining associated with it, v	minor staining, wet at 7.9',	
_								



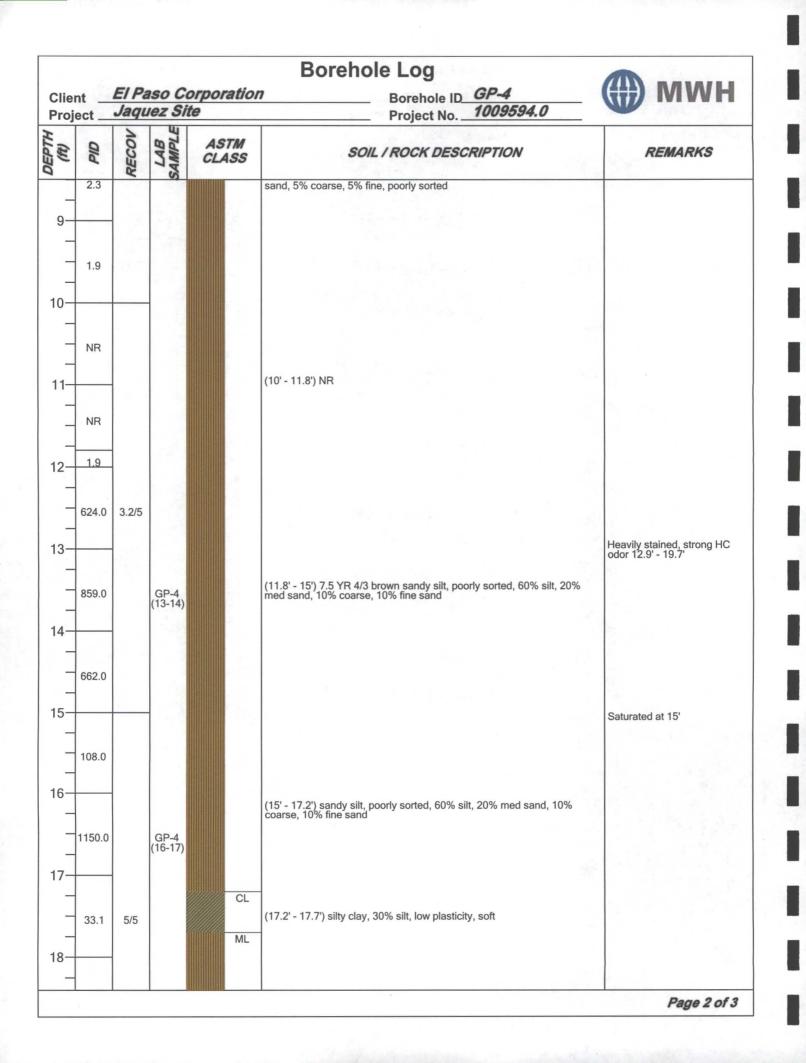
Clier Proje		El Pa Jaqu	aso Co Iez Sit	orporation te	Borehole Log           Borehole ID         GP-2           Project No.         1009594.0	_ ()) МWH
(11)	DID	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
-	0.0		0			
19-	- 3.	1.1				
	0.0	×.,				
-	0.0					
20-						
21-						
-						
22-						
23-						
_		2				
24-						
25-						
26-						
-						
			8			
27-						
_						
-						
28-						

Drilling Contractor Vironex, Inc.       Logged By       D. Heneman (LTE)         Drilled by       G. Grenier       Completion Date       August 26, 2010         Drilling Method       Dual Tube       Borehole Depth       20'         See Sample Method       5' Dual Tube       Sample Interval       Continuous         DTP (bgs)       DTW (bgs)       10'       August 26, 2010	MWH	4.0	-OG orehole ID <u>GP-3</u> oject No. <u>1009594</u>		ration	so Corpo ez Site	El Pa Jaqu	nt	Clier Proje
And Dec         ASTIM CLASS         SOIL / ROCK DESCRIPTION           -	92430.1 27426.9 98.5		lugust 26, 2010 '0'	Completion Date Borehole Depth	600	<i>Vironex, Inc. G. Grenier Geoprobe 60 Dual Tube</i>	hod	ng Cor ed by Rig ng Met	Drilli Drille Drill Drill
B         D         D         D         ASTM CLASS         SOIL / ROCK DESCRIPTION           -         -         0.0         -	ugust 26, 2010		Continuous	Sample Interval	9	5' Dual Tube	thod	ple Me	samples
ML         (0 - 0.3) NR           0.0         0.0           0.0         (0.3' - 0.5') top soil, dark yellowish brown, 10 YR 4/6, med sand gr, poorly sorted, 70% fine slit, 10% med sand, 20% fine sand, some minor roots           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         4.7/5           0.0         5.5           0.0         5.5           0.0         (5' - 6.5') NR           0.0         (5' - 6.5') NR           0.0         (5' - 6.5') NR           0.0         (5' - 7.1) 7.5 YR 5/4 brown sandy silt, poorly sorted, 10% med, 10%	REMARKS		SUL CLASS SOIL / ROCK DESCRIPTION				RECOV	DIA	
(5.5 - 7.1) 7.5 TK 3/4 Down sandy site, poorly solited, to 76 med, to 76		o fine sand, nd 10%	sandy silt, med to coarse to 1% med sand, 10% find sand lor or stains	(0.3' - 0.5') top soil, dark ye poorly sorted, 70% fine silt minor roots (0.5' - 5.0') 7.5 YR 5/4 brow poorly sorted, 70% fine silt coarse; soli looks clean, no (5' - 6.5') NR			4.7/5	0.0 0.0 0.0 NR	
		u% med, 10%	sandy silt, poorly sorted, 10 <sup>4</sup> ne silt	(6.5' - 7,1') 7.5 YR 5/4 brov fine, 10% coarse sand, 70'			3.5/5		-



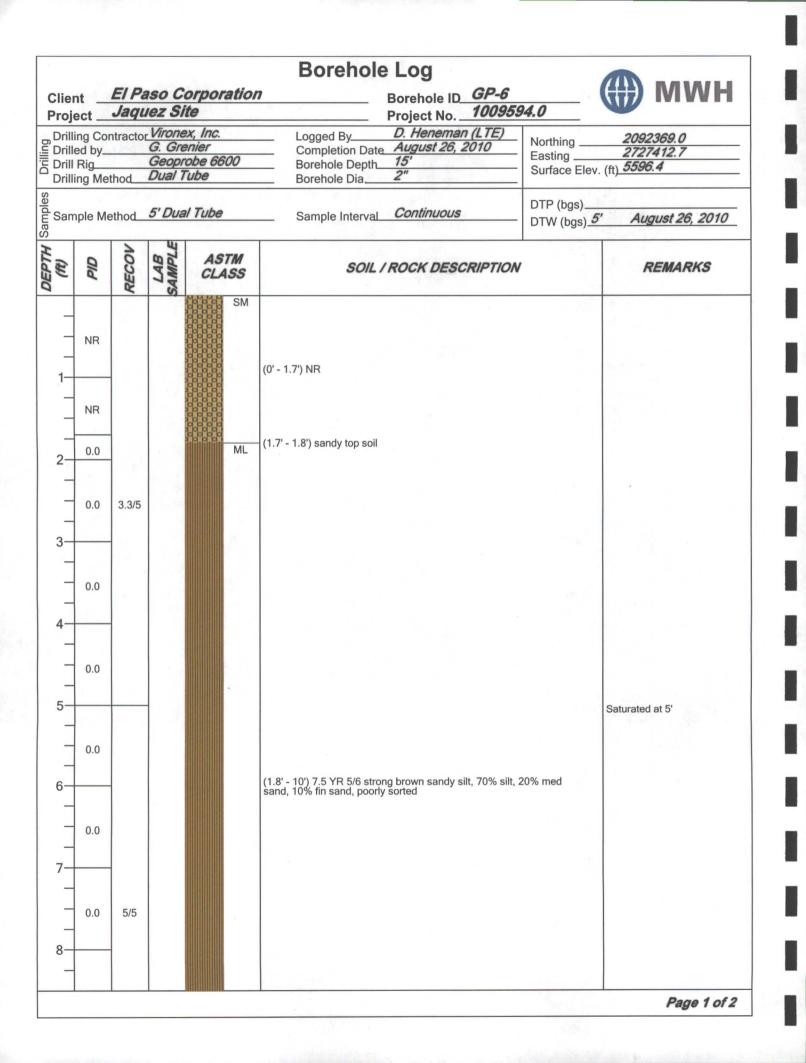


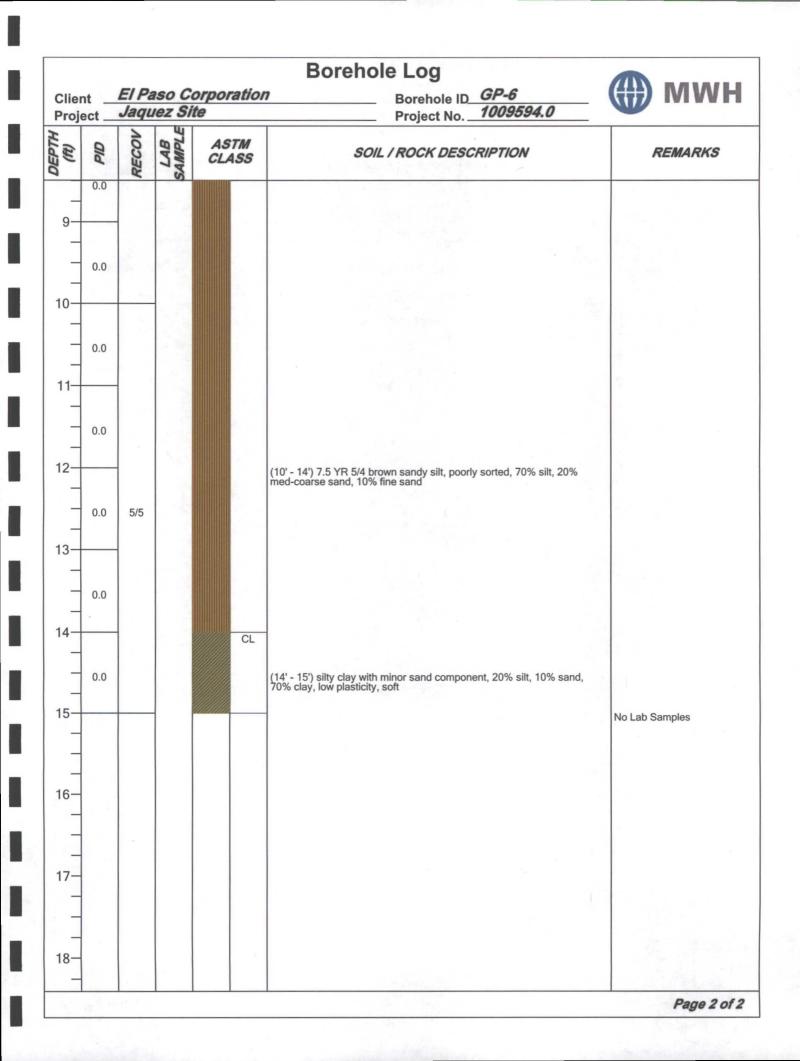
lient	El Pa	aso Co	rporation	Borehole Log Borehole I	D GP-4		MWH		
Client roject Drilling Cond Drilled by Drill Rig Drilling Me	Jaqu	iez Sit	e	Project No		.0			
Drilling Co	ntracto	Vironex	, Inc.	Logged By D. Henen	nan (LTE)	Northing	2092448.0		
Drilled by_	1	Geopro	be 6600	Completion Date <u>August 26</u> Borehole Depth <u>20'</u>	0, 2010	Fasting	2727448.2		
Drilling Me	thod	Dual Tu	ibe	Borehole Dia. 2"		Surface Elev. (ft)	5598.4		
	1.1								
Sample Me	ethod	5' Dual	Tube	Sample Interval Continuou	DTP (bgs) DTW (bgs)_15'	August 26, 2010			
						D1w (bgs)			
(II) DID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DE	SCRIPTION		REMARKS		
- - 0.0 1-			ML	(0' - 0.3') 7.5 YR strong brown sandy top	soil, roots				
2 2									
0.0 	5/5			(0.3' - 5') 7.5 YR 5/3 brown sandy silt, 70' fine, poorly sorted	9% silt, 20% med :	sand, 10%			
0.0 4									
- - NR				(5' - 6.7') NR					
6	1								
-									
NR									
-									
7	-								
-									
2.0	3.3/5								
_									
8	-								
_									
				(6.7' - 10') 7.5 YR 5/4 brown, sandy silt C	CUS (sic), 70% sil	t, 20% med	and the second		
							Page 1 of		



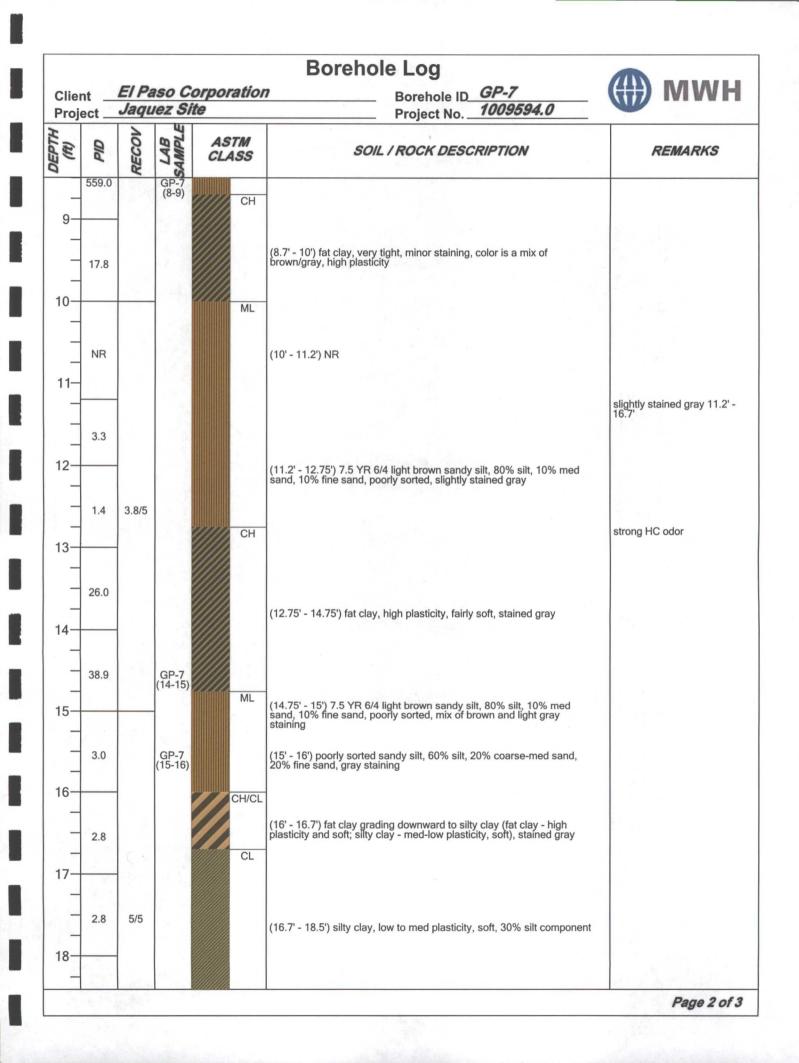
	nt ect	El Pa Jacu	aso Co Iez Sit	orporatio. te	n         Borehole ID         GP-4           Project No.         1009594.0	. 🌐 мwн	
(11)	QIA	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS	
-	5.9	R	S				
- 19-			1		(17.7' - 20') sandy silt, poorly sorted, 60% silt, 20% med sand, 10% coarse, 10% fine sand		
-					coarse, 10% fine sand	1000	
	2.6						
20-					-		
_							
21-							
_							
2-							
-							
-							
3-							
_				X			
4-							
_							
5-							
-							
6-							
_							
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-8-							
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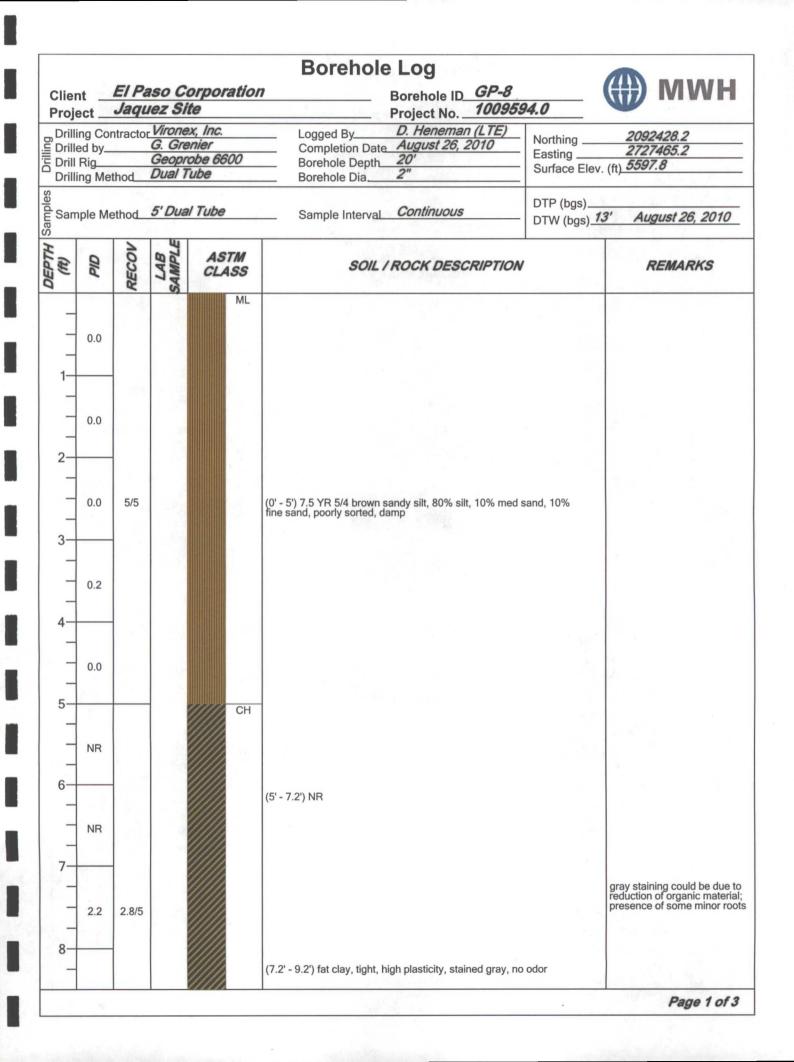


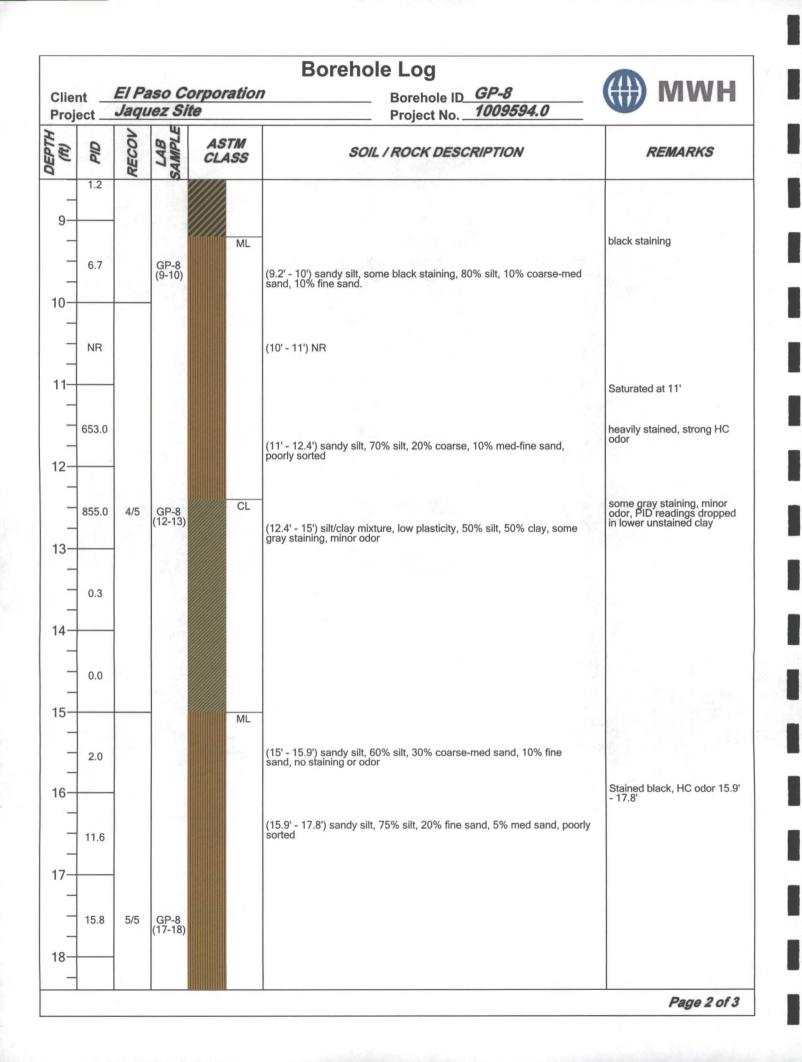


Clier Proje	nt	<u></u> () MW				
Drilli Drille Drill Drill	ng Cor ed by Rig ng Met	ntracto	Vironex G. Gren Dual Tu	r, Inc. hier be 6600 hbe	Project No.       1009594         Logged By       D. Heneman (LTE)         Completion Date       August 26, 2010         Borehole Depth       20'         Borehole Dia       2"	2092399.6           Easting         2727427.8           Surface Elev. (ft)         5597.7
Sam	ple Me	ethod	5' Dual	Tube	Sample Interval Continuous	DTP (bgs) DTW (bgs)_ <i>7.7' August 26, 2</i>
(ff)	DID	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
-	0.0			M SM	(0' - 0.5') 7.5 YR 4/6 strong brown sandy top soil, minor ro	ots, damp
1	0.0					
2	0.0	5/5			(0.5' - 5') 7.5 YR 6/4 light brown sandy silt, poorly sorted, 20% med-coarse sand, 20% fine sand	60% silt,
3-	0.0				20% med-coarse sand, 20% fine sand	
4	0.0					
5	0.0					
6	1.1				(E) (8.71) 7.5 VD E/4 brown conducity 500/ city 200/ mod	
7	1.6	5/5			(5' - 8.7') 7.5 YR 5/4 brown sandy silt, 50% silt, 30% med- sand, poorly sorted, minor Fe staining, minor gray stainin more heavily stained)	coarse g (8.25' - 8.7' Saturated at 7.7'
8-						minor staining

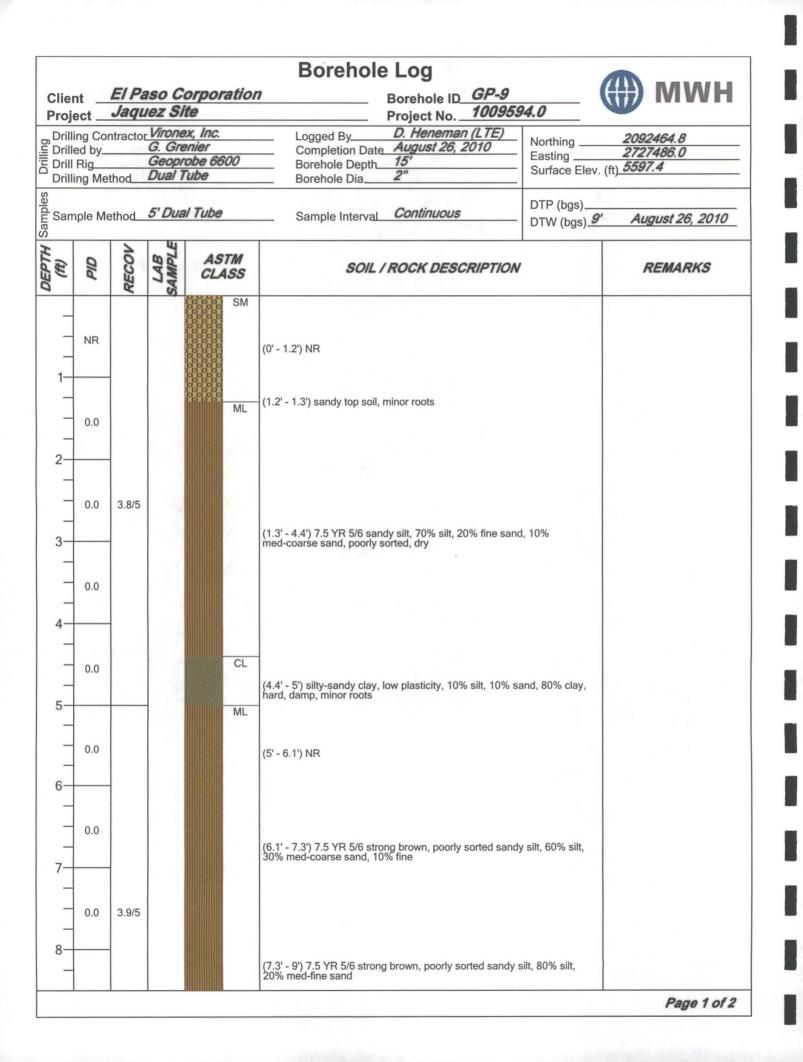


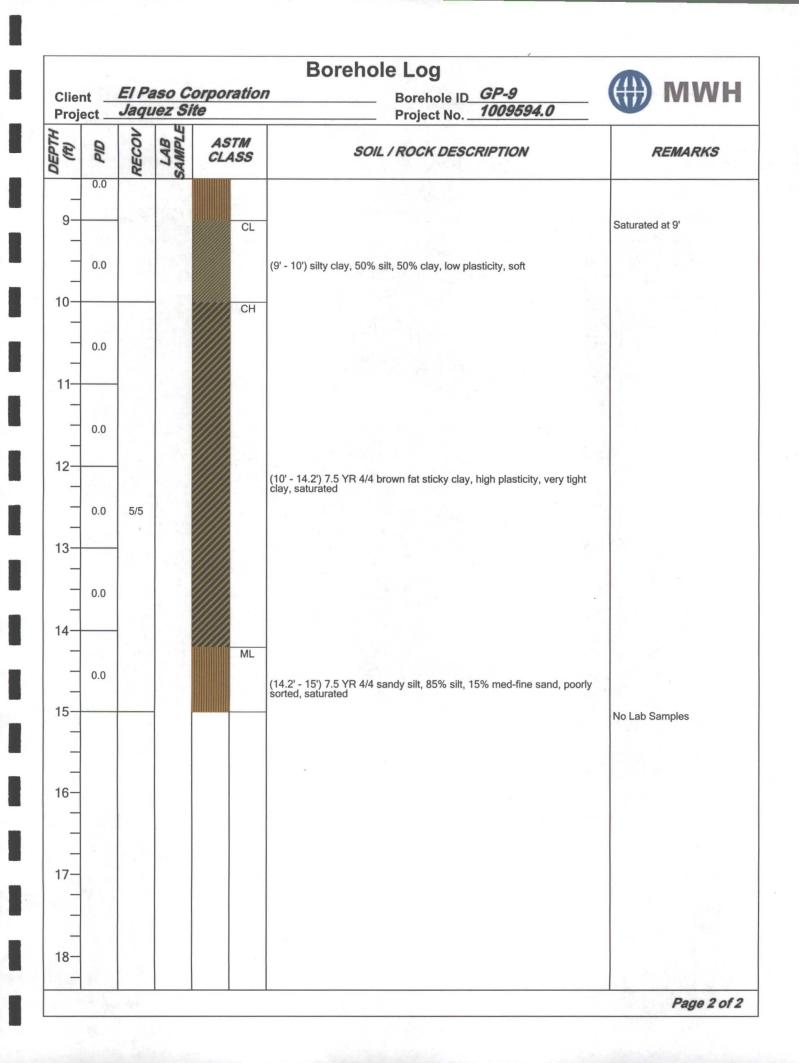
Client _ Project _	El Pa Jaqu	aso Co lez Sit	orporatio. e	Borehole Log           n         Borehole ID         GP-7           Project No.         1009594.0	MWH
DEPTH (ft) PID	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
- 1.7		S	ML		gray staining 18.5' - 19.4'
19				(18.5' - 20') 7.5 YR 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'	
20				_	
 21		2			
_ _ 22_ _					
_ 23_ _					
 24					
 25					
 26					
 27					
_ _ 28—					

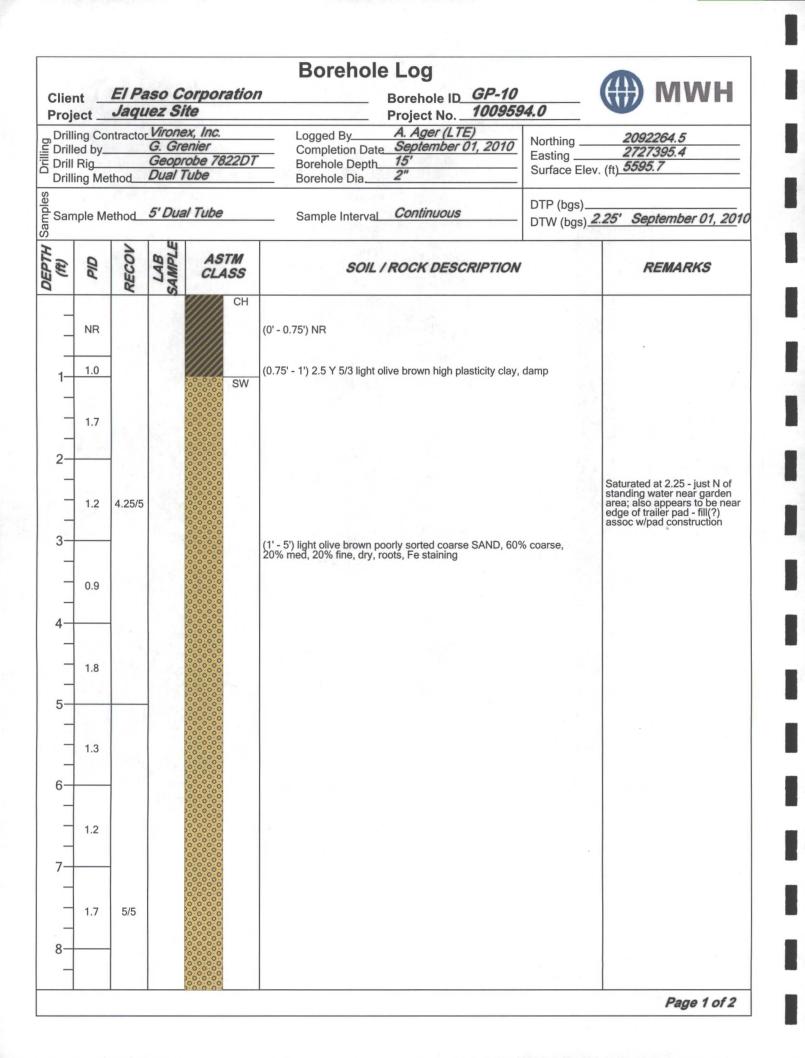




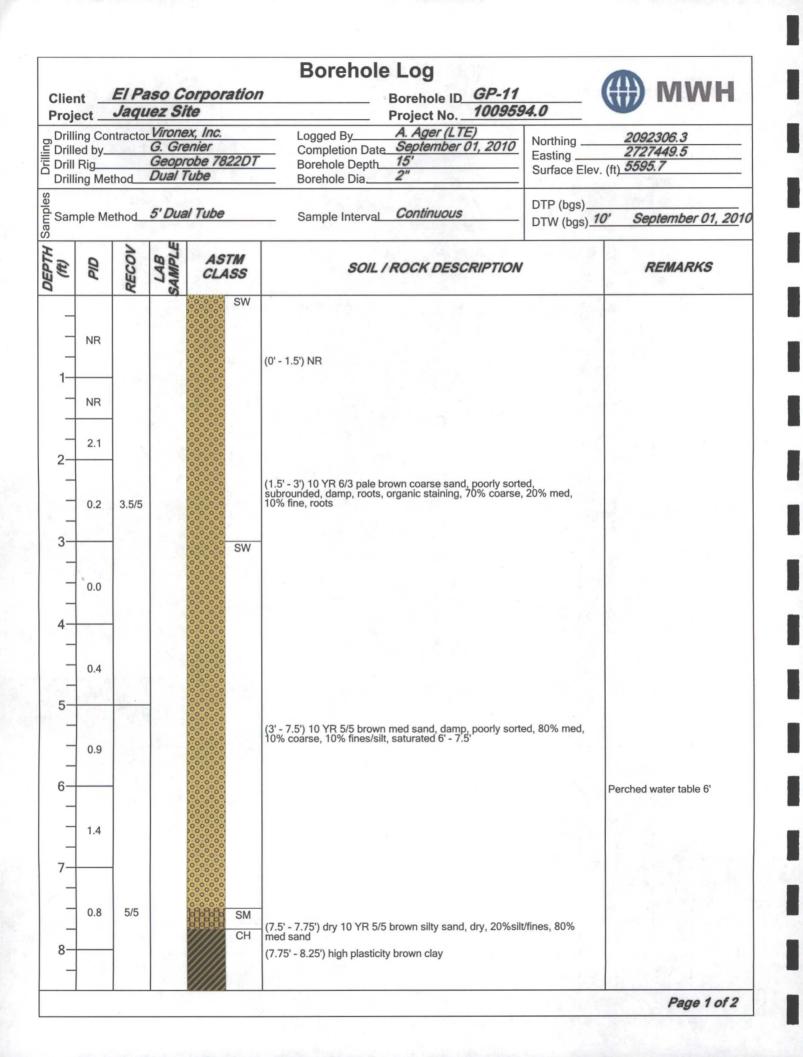
Clier Proje		El Pa Jaqu	iso Co Iez Sit	orporatio te	Borehole Log           n         Borehole ID GP-8           Project No.         1009594.0	MWH	
(41)	DIA	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS	
_ 19_ _	2.8				(17.8' - 20') sandy silt, 60% silt, 30% coarse-med sand, 10% fine sand, patchy light gray staining		
20-	0.0					19.4'-20' no staining or odc	
- - 21- -							
4-							
-							
7		÷					
28-						Page 3 of	

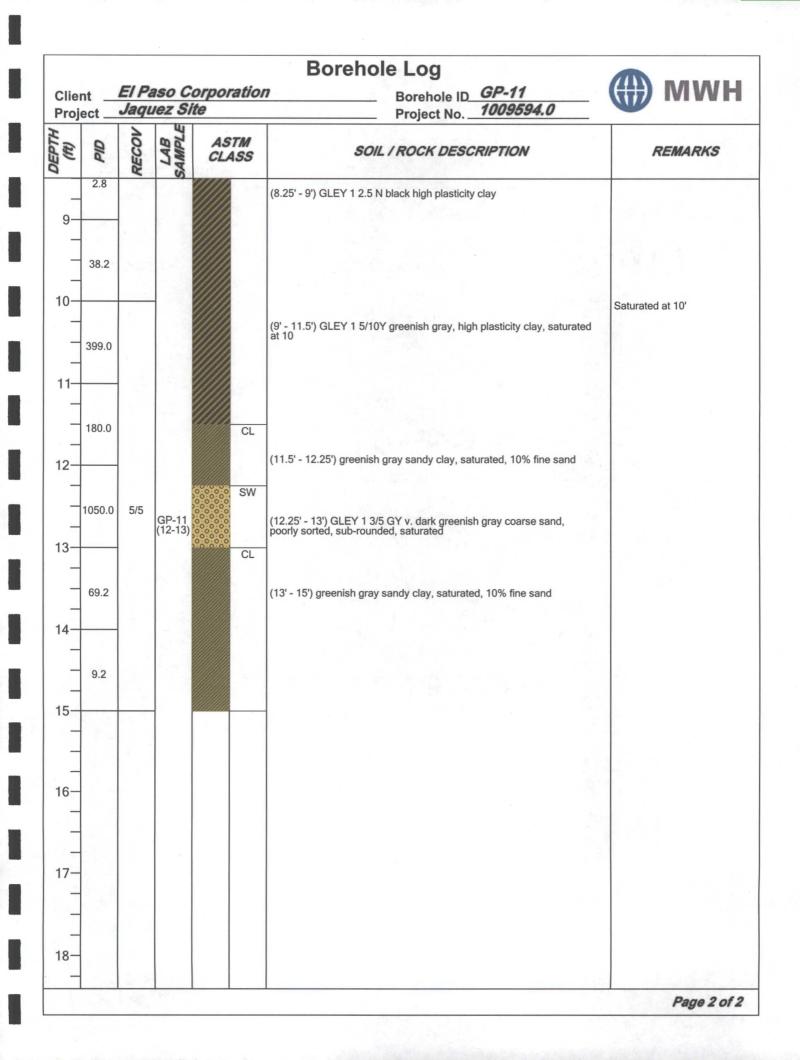


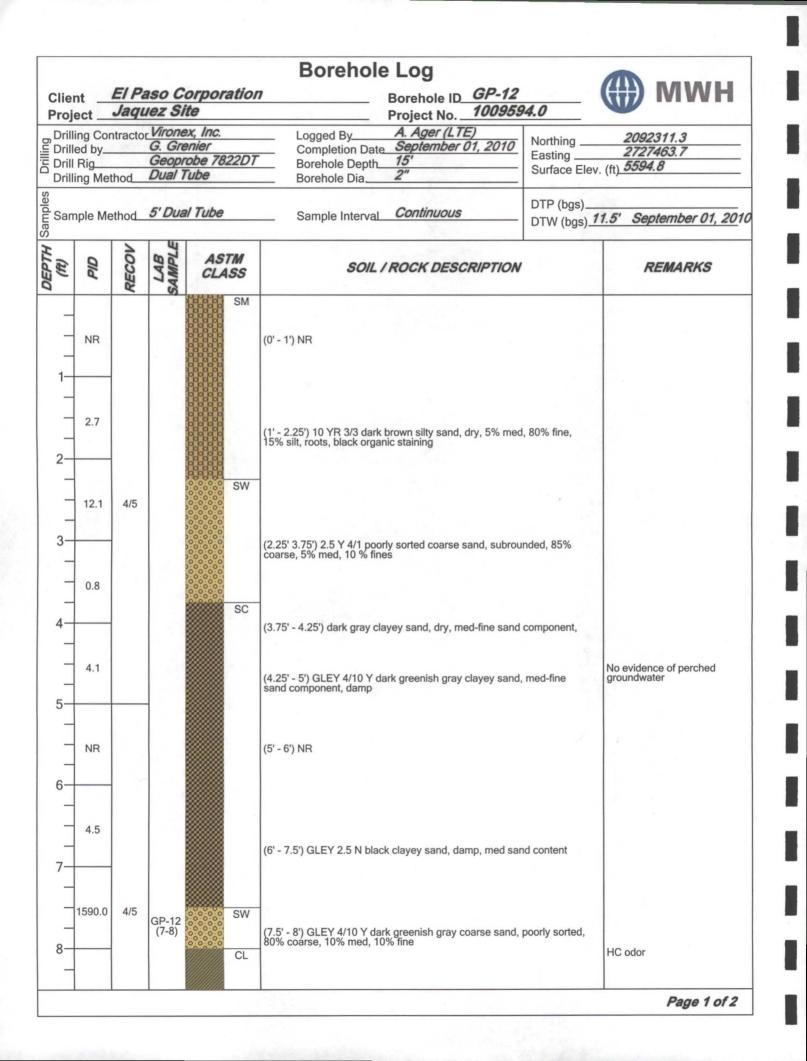


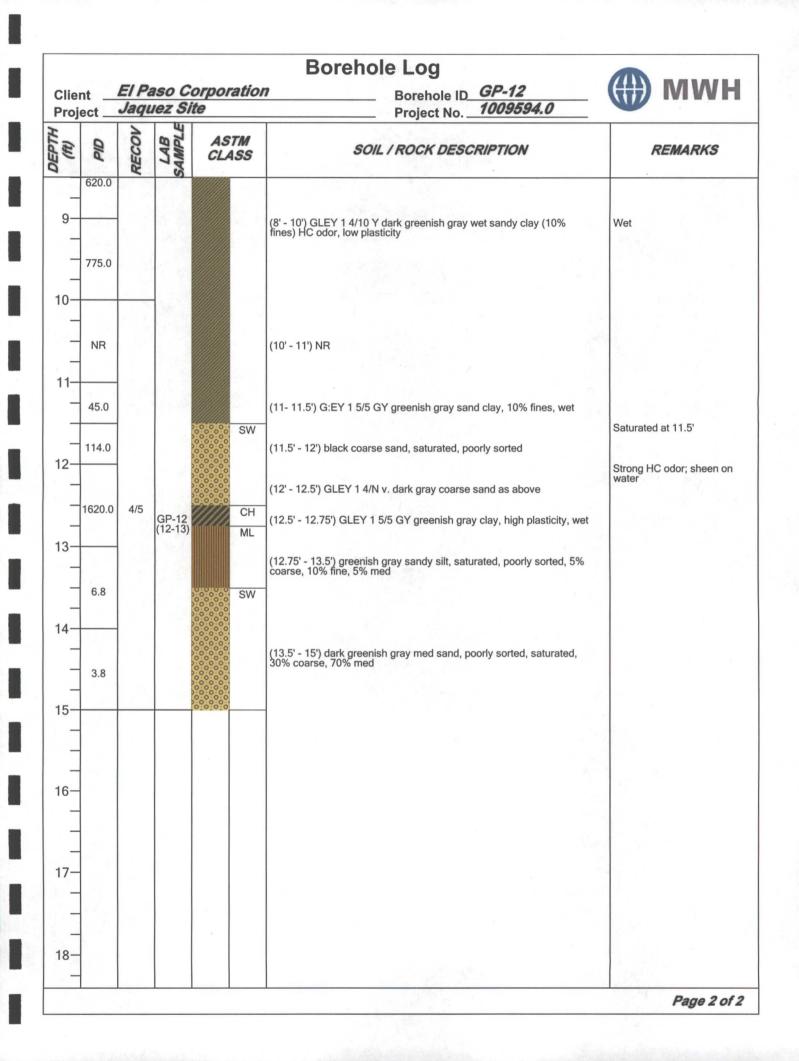


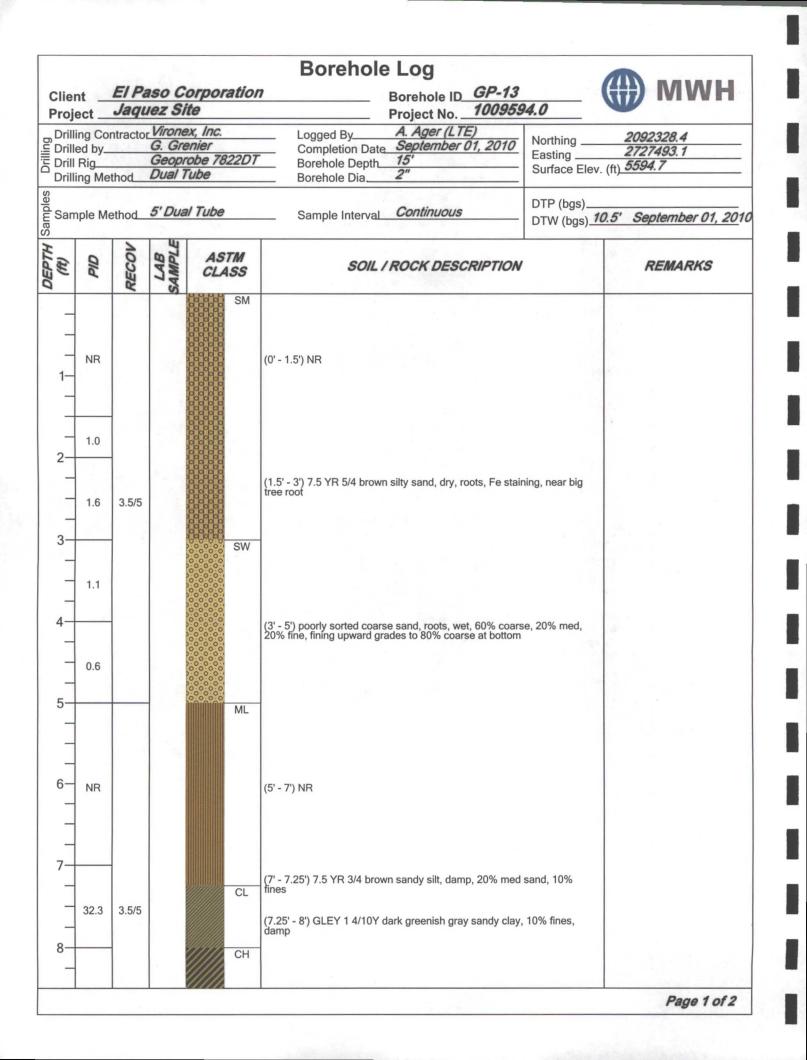
Clier Proje		El Pa Jaqu	aso Ca lez Si	orporatio. Ite	Borehole Log           n         Borehole ID         GP-10           Project No.         1009594.0	MWH
(H)	OId	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
9	0.9					Saturated at 9'
_	1.2		N N			
10-	0.6				(5' - 15') light olive brown coarse SAND, saturated, 60% coarse, 30% fines, 10% med, varying mineralogy, no structure	
11-	0.0					
_	1.6					
2-	1.8	5/5				
3-						
4-	1.3					
_	1.9					
5-						No Lab Samples
6						
_						
7-						
8-						
_		1				Page 2 of

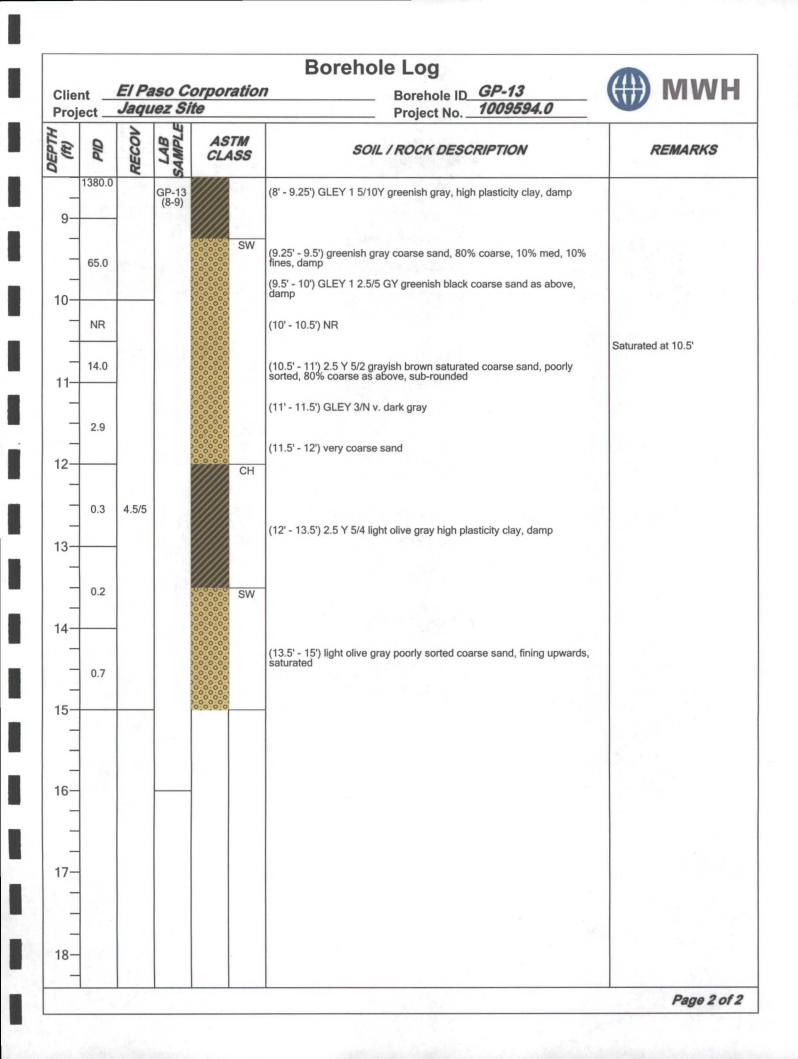




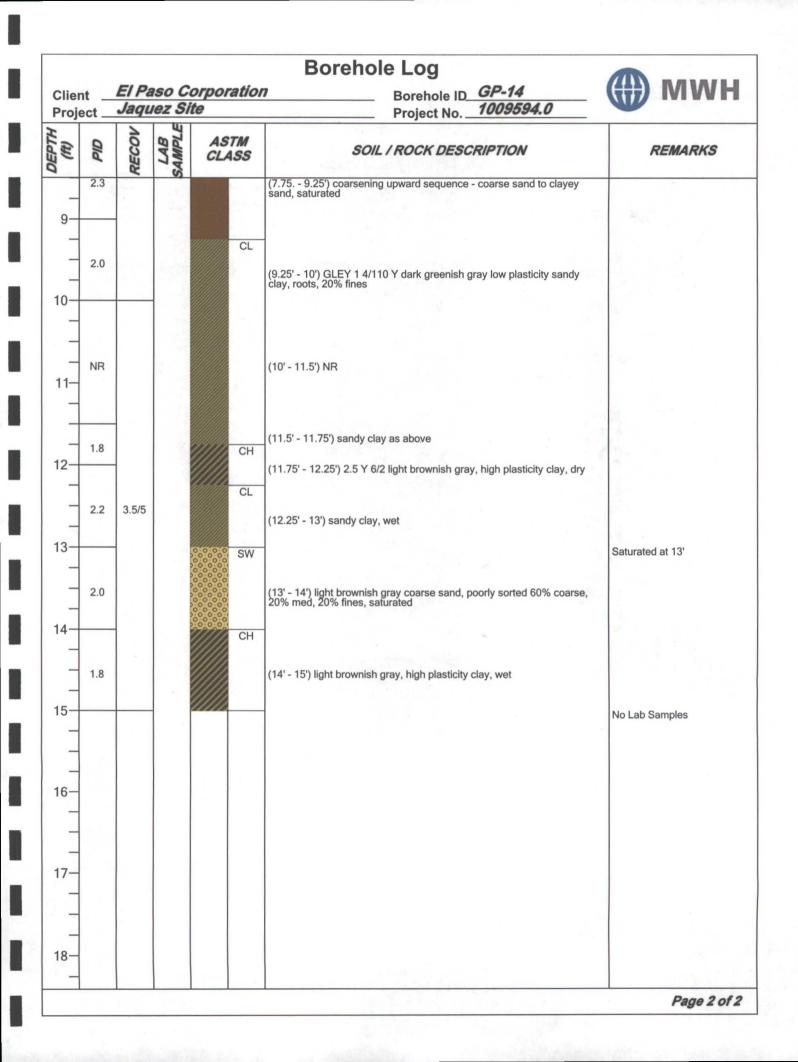




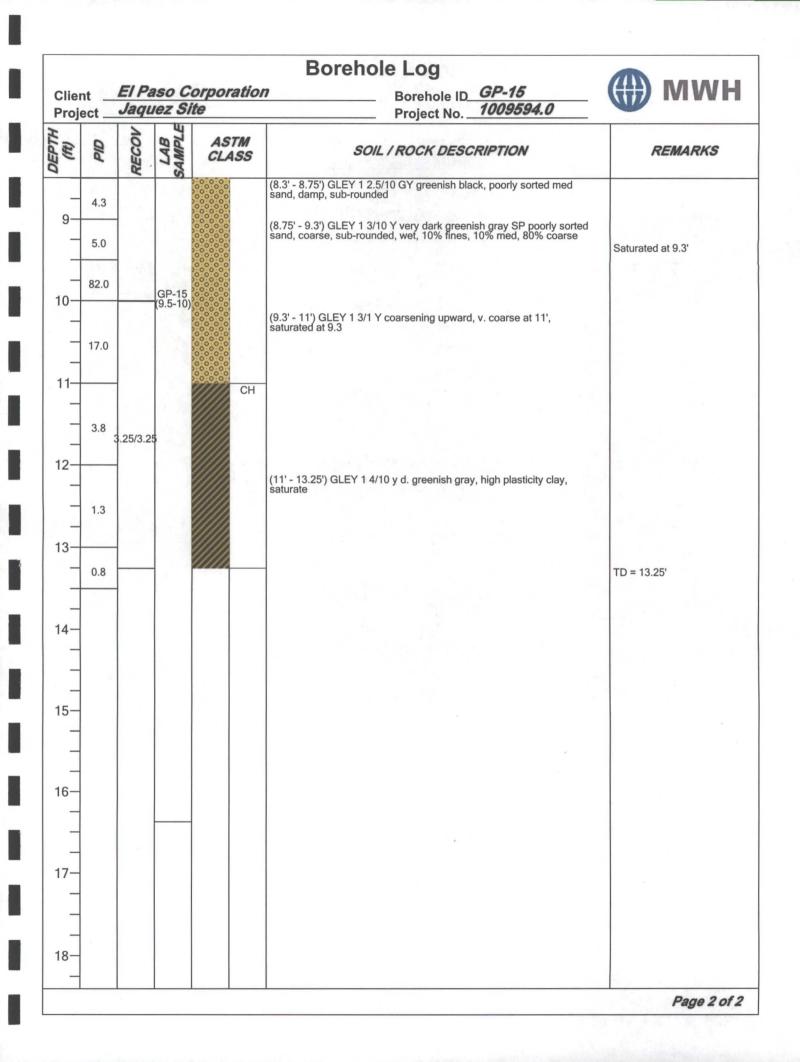




					Borehole Log		
Client Projec	1	1	01	orporatio te	-	04.0	MWH
Drilling Drillec Drill R Drill R	ig Cor d by Rig	ntractor	Virone G. Gre Geopre Dual T	x, Inc. phier pbe 7822D Tube	Logged By A. Ager (LTE) Completion Date September 01, 2010	Northing Easting Surface Elev	2092338.2 2727515.9 . (ft) 5593.3
			5' Dua	l Tube	Sample Interval Continuous	DTP (bgs) DTW (bgs)1	3' September 01, 201
(11)	DID	RECOV	LAB	ASTM CLASS	SOIL / ROCK DESCRIPTION		REMARKS
- - 1- - - 2-	NR			SM	(0' - 2') NR		
_	1.4	3/5		CH	(2' - 3.25') 2.5 Y 4/3 olive brown silty sand, dry, 10% fine roots	s, 60% med,	
4	1.6				(3.25' - 4.25') olive brown high plasticity clay, dry		
	1.6		-	SW	(4.25' - 5') olive brown, poorly sorted sand, 80% coarse, 10% fines, roots, black discoloration at 4.25' (<0.1' thick)	10% med,	
6	NR				(5' - 6.25') NR		
7	1.5				(6.25' - 7') 2.5 Y 5/3 light olive brown sandy clay, wet, 20	% fines	
-	1.6	3.75/5		SP/S	(7' - 7.75') same clay, 5% fines		Perched groundwater at 7.75'
8							
							Page 1 of 2

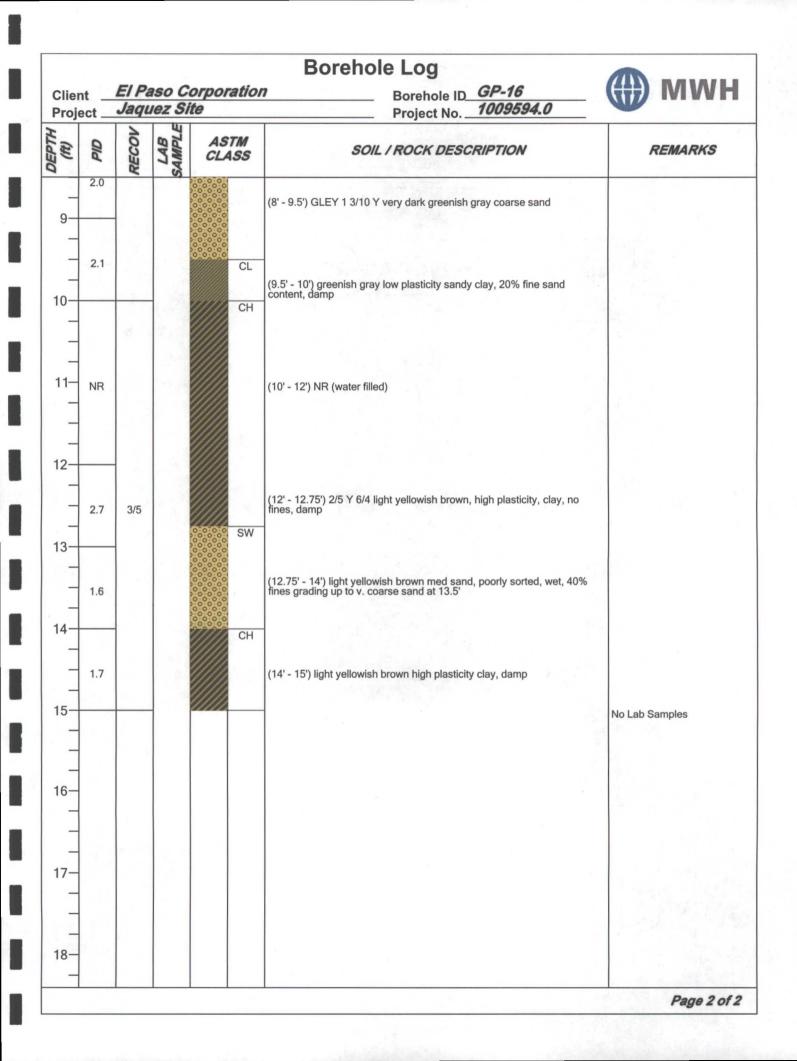


Client _			orporation			()) МWH
Drilling Co Drilled by Drill Rig Drill Rig	ontracto	Virone, G. Gre Geopro Dual T	x, Inc. nier obe 7822DT	Project No.       100959         Logged By       A. Ager (LTE)         Completion Date       September 01, 2010         Borehole Depth       13.25'         Borehole Dia       2"	Northing	2092300.3 2727491.2 v. (ft <u>)</u> 5591.8
Sample N	lethod	5' Duai	Tube	Sample Interval Continuous	DTP (bgs)_ DTW (bgs)_	9.3' September 01, 201
(ii) PID	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION		REMARKS
- - - - - - - - - - - - - -		GP-15 (4-5)	CL SC/CL	(0'- 2') NR (2' - 2.5') 7.5 YR 3/3 dark brown clayey sand or sandy classed, poorly sorted, damp, roots, black organic staining (2.5' - 3.75') GLEY 1 4/10 clayey sand or sandy clay, we sand, 10% fine sand, 50% clay (3.75' - 5') GLEY 1 4/10 dark greenish gray clayey sand damp, 50% clay, 10% fin, 40% med sand poorly sorted, upwards	t, 40% med	Slight HC odor
6 	_		CH SC	(5' - 6.5') GLEY 1 3/5 GY v. dark greenish gray sandy cla low plasticity, damp, saturated 6.5' - 7.4' (7.4' - 7.6') GLEY 1 3/5 GY gray sandy clay (<5% sand),		Perched water at 6.5' is likely from ditch (dry clay beneath)
8	-		SC SW	(7.6' - 8.3') GLEY 1 4/10 Y d. greenish gray clayey sand, 20% med, 10% fine, 10% clay, damp	40% coarse,	

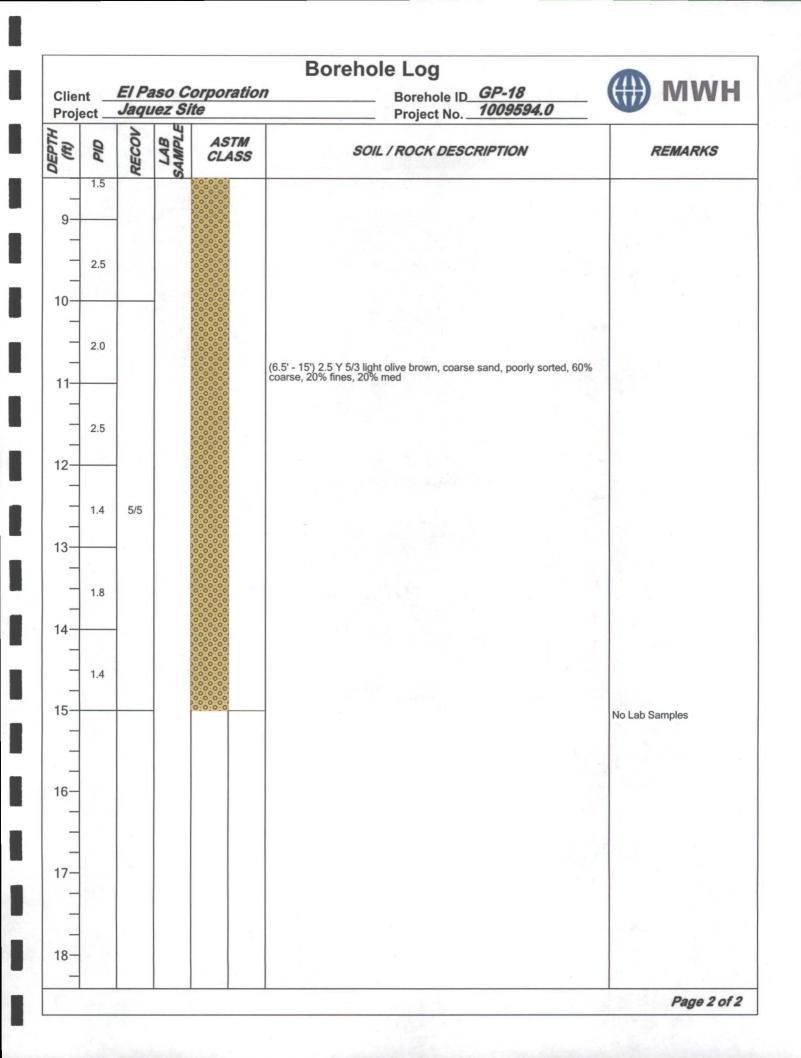


Client	EU	Paso Co	orporatio	Borehole Log Borehole ID GP-16		MWH
	100	Ci	4-	Project No. 100959	04.0	
Drilling Drilled b Drill Rig Drilling	Contractory	Dual T	x, Inc. nier obe 7822D ube	Logged By A. Ager (LTE) Completion Date September 01, 2010	Northing Easting Surface Ele	2092315.8 2727505.1 v. (ft <u>)</u> 5591.7
Sample	Method	5' Dua	l Tube	Sample Interval Continuous	DTP (bgs)_ DTW (bgs)_	5.25' September 01, 201
(ff) DID	2		ASTM CLASS	SOIL / ROCK DESCRIPTION		REMARKS
	R		ML	(0' - 1.5') NR		
- 1. 2		5	CL	(1.5' - 2.5') 7.5 YR 4/4 brown sandy silt, poorly sorted, da	amp, 80% silt	
32	.1		SW	<ul> <li>(2.5' - 3.25') GLEY 1 4/10 Y dark greenish gray sandy cl damp, black organic staining</li> <li>(3.25' - 4') coarse sand, poorly sorted, 80% coarse, 10% fines, Fe staining in bands</li> </ul>		
- - 3 5	.1	_		(4' - 4.5') black coarse sand as above, damp		Alternating coarse to fine sand units 4.5' - 9.5'
-	.0			(4.5' - 6.5') black med sand, poorly sorted, occ silt, satur	ated at 5.25'	Saturated at 5.25
- - 3 - 7	.8			(6.5' - 7.25') v. coarse sand, black, saturated		
- 2. - 8-	.8 5/5			(7.25' - 8') gray fine sand, 80% fines, 10% coarse, 10%	med, saturated	

.



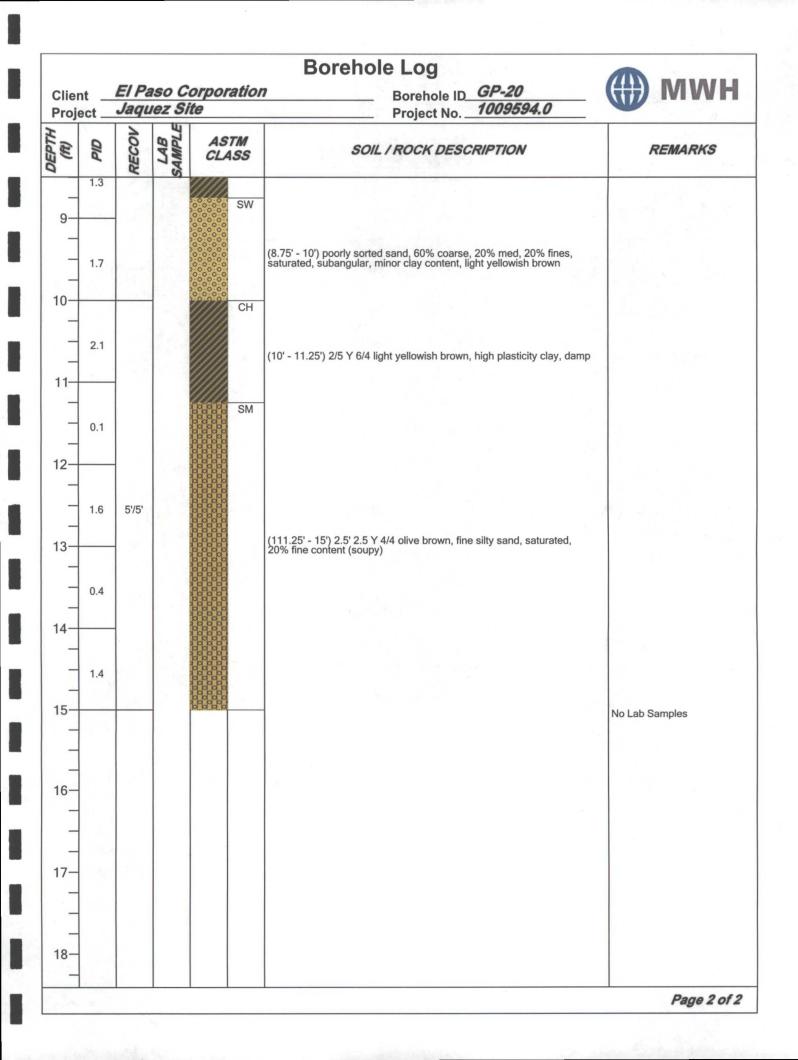
Clier	nt	El Pa Jaqu	aso Co vez Sit	orpoi	ratio	Borehole Log Borehole ID GP-18 Project No. 100955		mwh	
Drilli Drilli Drill Drill Drilli	ing Cor ed by Rig ing Me	ntracto	Virone, G. Gre Dual To	x, Inc. nier obe 78 ube	822DT	Logged By A. Ager (LTE) Completion Date September 01, 2010 Borehole Depth 15' Borehole Dia 2"	Northing Easting Surface Elev.	2092262.4 2727441.9 (ft) 5591.9	
Samples Sau	ple Me	ethod_	5' Dual	l Tube	,	Sample Interval Continuous	DTP (bgs) DTW (bgs) <b>6.75' September 01, 20</b> 10		
DEPTH (ft)	DID	RECOV	LAB SAMPLE		TM ASS	SOIL / ROCK DESCRIPTION		REMARKS	
- - 1- - 2-	NR				SM	(0' - 2') NR			
_	2.0	3/5			•	(2' - 3') 2.5 Y 5/3 light olive brown silty sand, dry, roots, 3 sand, 10% med, 10% fines	30% coarse		
3	1.3				SW	(3' - 3.5') light olive brown, silty sand, dry, roots, no coars component, 60% fine, 10% med, large root at 3.5' (3.5' - 4.25') 2.5 Y 4/2 dark grayish brown, very coarse, subangular, 80% coarse, 10% med, 10% fine, wet			
4     5	2.2					(4.25' - 5') 2.5 Y 6/4 light yellowish brown coarse sand, p 60% coarse, 20% fines, 20% med, roots, wet			
	NR					(5' - 6') NR			
6— — —	2.0					(6' - 6.5') very coarse sand, poorly sorted, subangular			
								Saturated at 6.75	
- 8- -	2.0	4/5							
	3			00000				Page 1 of 2	



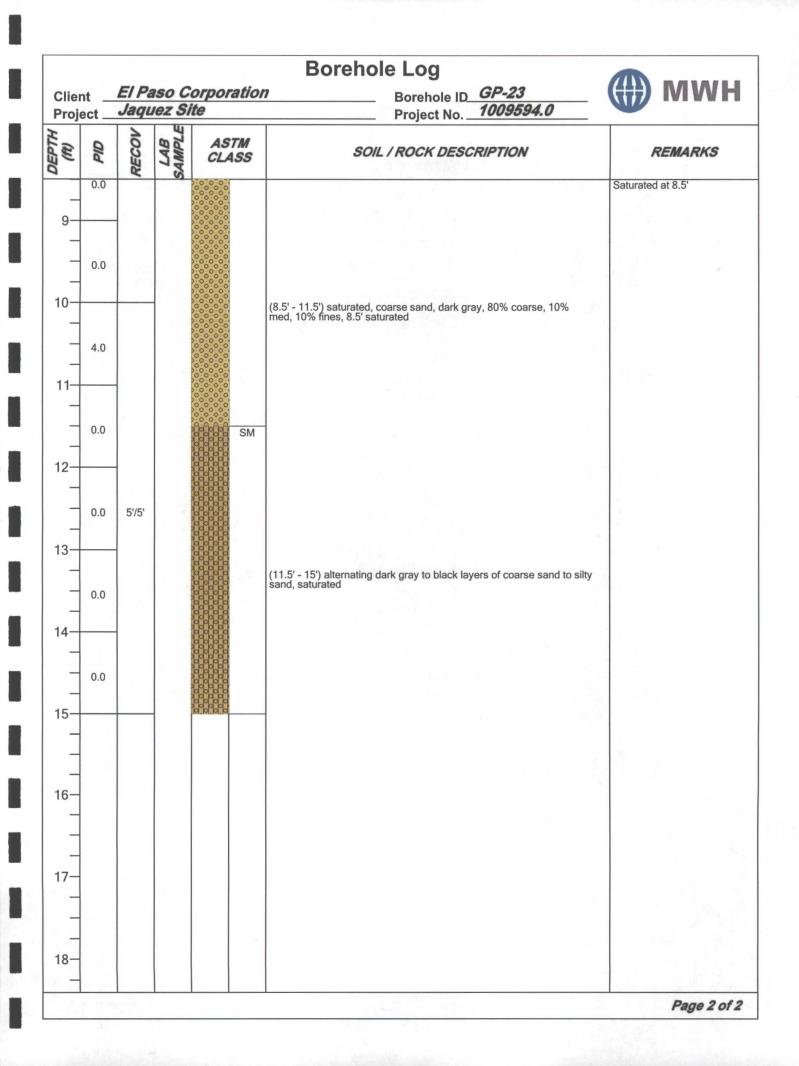
Clien Proje			nso Co Nez Sita	orporatio e	M Borehole Log Borehole ID GP-19 Project No. 100959	MWH
Drillir Drille Drill F Drillir	ng Cor d by Rig ng Met	ntractor	Vironex G. Grei Geopro Dual Tu	k, Inc. hier bbe 7822D1 ube	Logged By A. Ager (LTE) Completion Date September 02, 2010	Northing         2092289.1           Easting         2727492.2           Surface Elev. (ft)         5586.6
Sample Method 5' Dual Tube					Sample Interval Continuous	DTP (bgs) DTW (bgs)_ <u>5'</u> September 02, 20
(41)	DId	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
- - 1- - - 2-	NR			ML	(0' - 2') NR	
3	0.0	3'/5'		CL	(2' - 2.5') 7.5 YR 4/4 brown sandy silt, organic (black) sta fines, damp (2.5' - 3.25') brown sandy clay, wet	nining, 30%
4	2.2				(3.25' - 4.5') 7.5 YR 3/2 dark brown, low plasticity clay, rostaining (black), wet	pots, organic
5-	0.2		-	SW	(4.5' - 5') 7.5 YR 5/2 brown, p. sorted coarse sand, roots subangular, 60% coarse, 20% med, 10% fines (minor cla	, wet, ay content) Saturated at 5'
6	0.0	-	GP-19 (5.5-6.5)			
7-	0.0	-	(5.5-6.5)		(5' - 7.75') 2.5 Y 6/2 light brownish gray coarse sand, sat "soupy", p. sorted, 60% coarse, 20% med, 10% fines, su	urated Ibangular
8-	0.0	5'/5'		CL	_	
-						Page 1 of 2

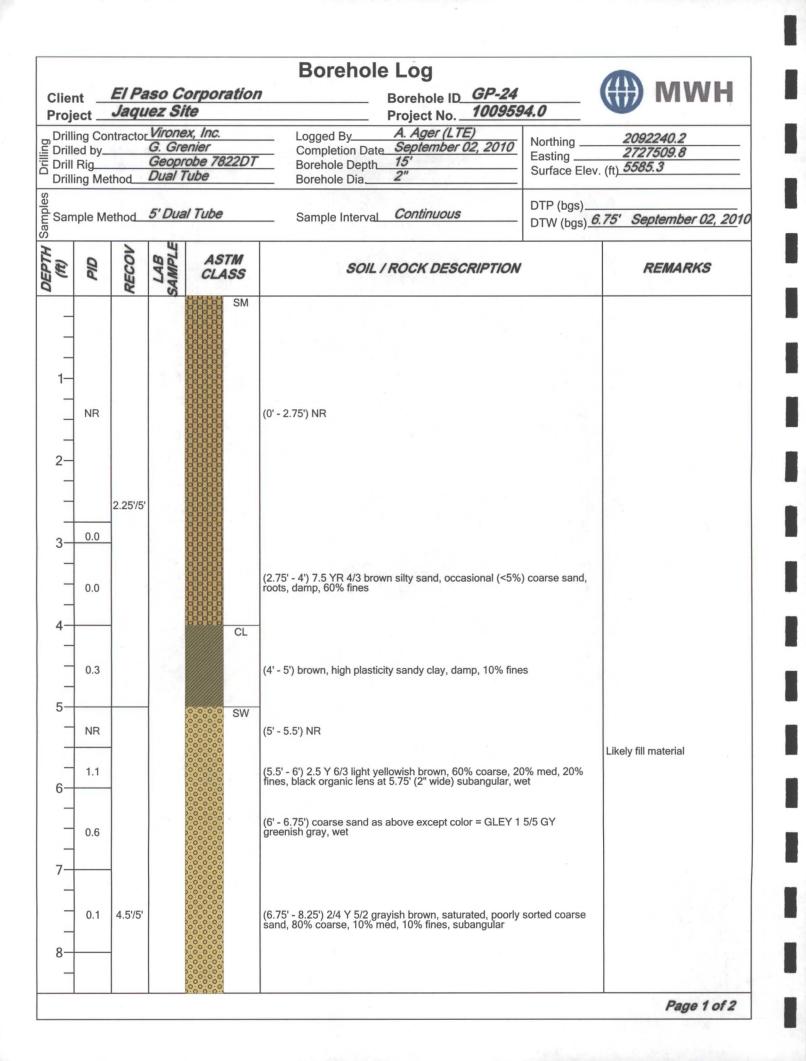
Clier Proje		El Pa Jaqu	aso C uez Si	orporatio ite	Borehole Log           on         Borehole ID         GP-19           Project No.         1009594.0	MWH
(ft)	DIA	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS
_	0.0				(7.75' - 9.75') light brownish grav sandy clay, 20% fines, 5% coarse,	
9-		1			(7.75' - 9.75') light brownish gray sandy clay, 20% fines, 5% coarse, saturated, various interbedded w/fat clay layers (<1" thick)	
-	0.0					
-				СН	(9.75' - 10') light brownish gray high plasticity clay, wet	
10-		1				
-						
11-						
-						
12-						
-						
13-						
-						
14-						
-						
15-		- X.				
-						
-						
17-						
_						
18–						
						Page 2 of

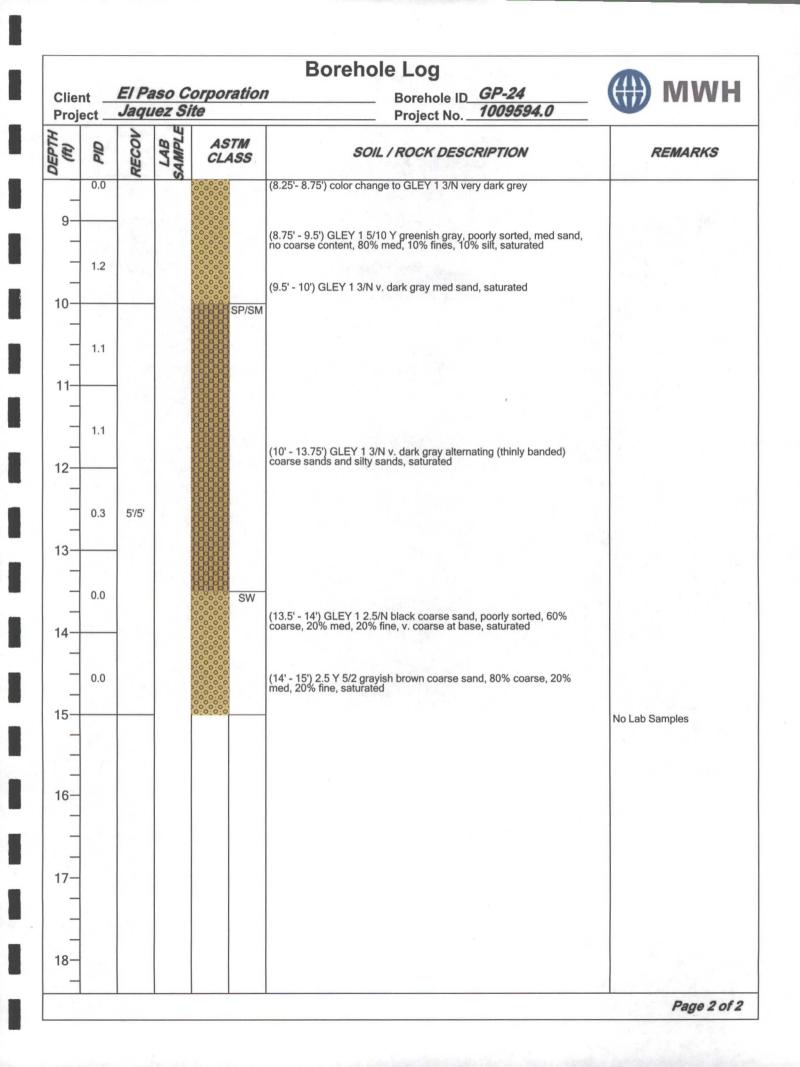
		FID	aso Co	ornoratio	<i>B</i> orehole Log			
Client El Paso Corporation Project Jaquez Site			INT CH	10	M Borehole ID GP-20 Project No. 100959			
Project       Jaquez Site         Drilling Contractor Vironex, Inc.         Drilled by       G. Grenier         Drill Rig       Geoprobe 7822DT         Drilling Method       Dual Tube				x, Inc. nier obe 7822D1 ube	Logged By <u>A. Ager (LTE)</u> Completion Date <u>September 02, 2010</u> Easting			
Sample Method 5' Dual Tube					Sample Interval <i>Continuous</i> DTP (bgs) DTW (bgs)_		7' September 02, 201	
(H)	DID	RECOV LAB SAMPLE SAMPLE			SOIL / ROCK DESCRIPTION		REMARKS	
	NR 0.4			SM	(0' - 1.5') NR			
2	0.4	3.5'/5'		SW	(1.5' - 2.75') 2.5 Y 3/2 v. dark grayish brown silty sand, da fines, 10% coarse, roots, grass, black organic staining	amp, 60%		
3	0.8	8		CL	(2.75' - 3.5') 2.5 Y 5/3 light olive brown, subangular, sample 80% coarse, 10% med, 10% fines		Rod stuck in casing; down ~1 hr	
4	1.5				(3.5' - 5') light olive brown, wet sandy clay (10% fines), lo	ow plasticity		
5— — — 6—	1.0			SW				
- - 7-	1.6	_			(5' - 7.25') 2.5 Y 5/3 light olive brown, v. coarse sand, po 90% coarse, 5% med, 5% fines, wet, subangular, satural	ted at 7	Saturated at 7'	
	2.5	5'/5'		ML CH	(7.25' - 7'6') 2.5 Y 6/4 light yellowish brown, sandy silt, w	et		
-					(7.6' - 8.75') 2.5 Y 6/4 light yellowish brown, high plasticit	y clay		



Clien Proje		Jaqu	ez Sit	orporatio te	Borehole Log Borehole ID GP-23 Project No. 100959	4.0	🌐 мwн
Drillin Drille Drill I Drill I	ng Cor ed by_ Rig ng Me	unou	Dual T		Logged By A. Ager (LTE) Completion Date September 02, 2010	Northing Easting Surface Elev	2092222.7 2727492.4 v. (ft <u>) 5587.2</u>
Sam	ple Me	ethod	5' Duai	Tube	Sample Interval Continuous	DTP (bgs) DTW (bgs)	8.5' September 02, 2010
(#)	aid	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION		REMARKS
_	NR			SM	(0' - 0.75') NR		
1-	0.0	-		ML	(0.75' - 1.2') 7.5 YR 4/4 brown silty sand, 60% sand, main component, roots, damp	nly coarse	
2	0.0	-			(1.2' - 2.0') brown, sandy silt, 20% sand, no coarse comp fine, damp	oonent, all	
3	0.2	4.25'/5'			(2' - 3') dry, more roots, white staining, near roots		
-	0.0				(3' - 4') damp again		
4	0.0	-		CL	(4' - 5') brown sandy clay, med to fine content (30%), dan	np	
5	NR			SW	(5' - 6') NR		
6	215.0	-			(6' - 6.125') 2.5 Y 5/2 grayish brown, poorly sorted med s med, 20% fines, subangular, damp	and, 80%	Likely fill material
7		-	GP-23 (6-7); GP-23 (6-7) Blind Duplicate				6.7' to 7.5' is saturated
8-	48.6	4'/5'			(6.25' - 7.5') GLEY 1 3/N v. dark gray, fining upward sand coarse content, damp , 6.75' - 7.5' saturated (7.5' - 8.5') GLEY 1 4/N dark gray, coarse sand as above		
8		-			(7.5' - 8.5') GLEY 1 4/N dark gray, coarse sand as above	, damp	







Client	•	El Pa	iso Co	rporatio	<i>n</i> Borehole Log Borehole ID GP-25			
		lan	INT Sit	0	Project No	4.0		
Drillin Drille Drill F	ng Cor d by_ Rig ng Me	ntractor	Vironex G. Gren Geopro Dual Tu	; Inc. hier be 7822D1 be	Logged By A. Ager (LTE) Completion Date September 02, 2010	2092255.7 2727537.1 /. (ft) 5584.6		
			5' Dual	Tube	Sample Interval <i>Continuous</i>	6.25' September 02, 201		
(H)	DIA	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION		REMARKS	
  1	NR			ML	(0' - 2') NR			
2	1.0	3'/5'			(2' - 2.25') 2.5 Y 5/3 light olive brown sandy silt, saturated (2.25' - 3.5') light olive brown sandy silt, roots, damp, med component (30% sand)			
4 	1.1			sw	(3.5' - 4.5') 2.5 Y 3/1 v. dark gray sandy silt, damp	ted 80%		
5	NR			00000	(4.5' - 5') 7.5 Y 5/2 grayish brown coarse sand, poorly sor coarse, 10% med, 10% fine, damp (5' - 5.5') NR			
	0.5	-	0,0,0,0	SW/SN	π			
_	0.6		0,0,0,0				Saturated at 6.25	
7	20.5	4.5'/5'	GP-25 (7-8) MS-MSD also collected here)		(5.5' - 10') alternating poorly sorted coarse sands and thir of silty sand, grayish brown, saturated at 6.25'	n (2") bands	Jed called to stop @ 7' but only 3 more feet to push so driller provided full core	

Clier Proje		El Pa Jaqu	aso C Iez Si	orporation ite	Borehole Log           Borehole ID         GP-25           Project No.         1009594.0	_ ()) MWH		
(ft)	aid	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION	REMARKS		
_	0.5							
9-	13.1		1		and the second			
-								
-	0.4	and a						
10-								
_								
-								
11-								
-								
12-								
_								
-				in the second				
13–								
_								
_								
14–								
-								
-								
- 15-								
_								
_								
-								
16-								
_								
17–								
-								
-								
- 18	10							
_						- C		
	-		1			Page 2 of .		

oje	ct	Jaqu	uez Sit	e	Borehole ID         SB-13           Project No.         100955	4.0		
rillir rille	ng Cor d by	tracto	A. Age	<b>'e</b> <i>ironmental</i> r Auger	<u>, Inc.</u> Logged By <u>A. Ager (LTE)</u> Completion Date <u>September 01, 2010</u>	Northing	2092227.6 2727518.9	
rill F	Rig ng Met	hod	- Hand A	luger	Borehole Depth 8' Borehole Dia 2"	Easting Surface Ele	v. (ft) 5585.3	
						DTP (bgs)_		
amp	ole Me	thod	Grab		Sample Interval Continuous	5.83' September 01, 2010		
(11)	DID	RECOV	LAB SAMPLE	ASTM CLASS	SOIL / ROCK DESCRIPTION		REMARKS	
-		~	S	ML				
	0.0							
-								
1					(0' - 2') Brown 7.5 YR 4/3 fine sandy silt, poorly sorted, 1 90% silt, damp, roots	0% fine sand,		
	0.0							
-								
_	0.0				(2' - 3') strong brown 7.5 YR 5/6 very fine sandy silt, we 15% fine sand, 85% silt, damp	l sorted/mod.		
+			1		15% fine sand, 85% silt, damp			
				SW				
_	0.5		200		(3' - 4') brown 7.5 YR 4/4 fine-med sand, moderately sor sand, 60% med sand, damp, possible organic/reduction	ted, 40% fine		
-			200		sand, 60% med sand, damp, possible organic/reduction	zones		
1		8'/8'	2.0					
_	1.3		200		(4' - 5') brown 7.5 YR 4/4 same as above, possible organ	ic		
-			200		concentration			
			200					
-	0.9		200					
			200					
_			222				Saturated at 5.83'	
-	0.7		222		(5' - 8') brown 7.5 YR 5/3 fine sands, mod sorted, satura organics, 80% fine, 20% med sand-silt; saturated at 5.83	ted, possible		
-			200		organics, ou mine, 20% meu sand-siit; saturated at 5.83			
			200					
-	0.4		200					
			200					

# **APPENDIX B**

## **Field Sampling Forms and Notes**



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

6/10/2010

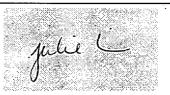
Project Name: Jaquez Date: Project Manager: Julie Linn, RG Client: MWH Site Name: Jaquez

		Depth to	Depth to	Product	Volume of	
Well	Time	Product (ft)	Water (ft)	Thickness (ft)	Product Removed	Comments
		(11)		(11)	Kemoveu	
R4	8:57 AM		11.36	-		Sample BTEX
R6	9:31 AM	<b>-</b> ·	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 <sup>a</sup>	-	14.74		-	Sample BTEX
M7	12:16 PM	-	2.9	-	-	Sample BTEX
M1	12:41 PM	-	2.98	-		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:



Date: 6/17/2010

.



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

Project Name: Client: Project Manager:	MWH	RG	Samp	Location: Date: Ier's Name:	6/10/2010		Well No: Time:	M1 12:38
Measuring Point: Well Diameter:	4".		to Water: al Depth: n Height:	15.37	ft .		to Product: Thickness:	
Sampling Method: Criteria:	Bottom Va	alve Bailer	Double	ıgal Pump Check Valve Ba moval ☑ Stal	ailer	ŝ		<u>9r</u>
-		-		Water Volur	ne in Well			
Gal/ft x ft of w		Gall		Our	nces			o be removed
12.39 x 0.6	5	8.05	5x 3				24	4.15 gal
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)		Comments/Flow Rate
12:45	7.00	224	70.5	, ,			gal 1.25	clear
12.45	6.87	224	66.7				2.5	orangish particles
· · · ·	6.83	225	63.0				3.75	grevish particles
	6.80	220	58.6		·		5.75	greyish particles
12:56	7.05	227	56.3				9	bailing dry
12.50	7.05	44.1	50.5	•		•		bunning dry
			-					
								,
							·	
Finál: 12:56	7.05	221	53.2				<b>9</b>	bailing dry
COMMENTS:								
Instrumentation:	✓ pH Meter	DO Ma	onitor 🔽	Conductivity	Meter 🔽 Te	mperature Met	er 🗌 Oth	er
Water Disposal:	Rio Vista							
Sample ID:	M1		. Sa	mple Time:	12:56			
Analysis Requested:	✓ BTEX Other		🗌 Alkalir	nity TDS	Cations	Anions	Nitrate [	Nitrite Metals
. ~ Trip Blank:	Ye	25				Duplica	ate Sample:	No

COMPLIANCE / ENGINEERING / REMEDIATION LT Environmental Inc. 2243 Main Ave, Ste 3 Durango, Colorado 81301 T 970.385.1096 Well No: M2 Project Name: Jaquez Location: Jaquez Client: MWH Date: 6/10/2010 Time: 15:32 Project Manager: Julie Linn, RG Sampler's Name: Julie Linn, RG Measuring Point: TOC Depth to Water: Depth to Product: 0 ft 2.99 ft Well Diameter: 4" Total Depth: 14.88 ft Product Thickness: 0 ft Water Column Height: 11.89 ft Sampling Method: Submersible Pump Centrifugal Pump Peristaltic Pump Other Bottom Valve Bailer Double Check Valve Bailer Criteria: 🗹 3 to 5 Casing Volumes of Water Removal 🗹 Stabilization of Indicator Parameters 🗌 Other Water Volume in Well Gal/ft x ft of water Gallons Volume to be removed Ounces 11.89x 0.65 7.72x 3 23.16 gal Time ORP pН SC Temp D.O. Turbidity Vol Evac. Comments/Flow Rate (military) (su) (us) (°F) (millivolts) (mg/L)(NTU) gal 15:32 7.10 264 61.0 1.25 clear 6.80 275 54.3 slight orange flecks/clear 2.5 6.74 285 52.0 3.75 slight orange flecks/clear slight orange flecks/clear 6.66 288 51.3 5 6.64 299 51.1 10 slight orange flecks/clear slight orange flecks/clear 6.64 315 50.7 15 6.65 321 50.7 20 slight orange flecks/clear 331 50.4 slight orange flecks/clear 15:48 6.68 23 Final: 50.4 slight orange flecks/clear 15:48 6.68 331 COMMENTS: Instrumentation: 🗹 pH Meter 🗌 DO Monitor 🗹 Conductivity Meter 🔽 Temperature Meter Other Water Disposal: Rio Vista Sample ID: M2 Sample Time: 15:48 Analysis Requested: 🛛 BTEX VOCs Alkalinity TDS Cations Anions Nitrate Nitrite Metals Other Trip Blank: Yes Duplicate Sample: No



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

1

Project Name: Client: Project Manager:	MWH	٩G	Samp	Location: Date: Ier's Name:	6/10/2010		Well No: Time:	
Measuring Point: Well Diameter:	4"		o Water: al Depth: n Height:	15.06	ft		to Product: Thickness:	
Sampling Method: Criteria:	Bottom Va	alve Bailer	Double	igal Pump	iler			21
				Water Volun	ne in Well			
Gal/ft x ft of w	/ater	Gall	ons	Oun	ices.		Volume t	o be removed
12.43 x 0.6	5	8.07	7x 3				24	1.21 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				1.25	clear
	7.14	237	64.6				2.5	very slightly cloudy
	6.89	277	59.5				3.75	very slightly cloudy
	6.83	314	57.4				5	very slightly cloudy
13:29	6.74	350	56.5				10	very slightly cloudy
	6.74	352	56.7				15	very slightly cloudy
	6.73	346	56.7				20	very slightly cloudy
	6.72	352	56.8				24	very slightly cloudy
Final: 13:29	6.72	352	56.8				24	very slightly cloudy
COMMENTS:								<u></u>
Instrumentation:			nitor 🔽	Conductivity N	1eter 🗹 Te	mperature Mei	er 🗌 Oth	er
Sample ID:	M4		Sa	mple Time:	13:29	-		
Analysis Requested:	⊡ BTEX	VOCs	Alkalir	nity 🗌 TDS	Cations	Anions	Nitrate [	Nitrite Metals
Trip Blank:	Ye	25				Duplica	ate Sample:	No

Project Name: Client:				Location: Date:	Jaquez 6/10/2010		Well No: Tíme:	M4 14:41	
Project Manager:	Julie Linn,	RG	Samp	ler's Name:			• · · · · · · · · · · · · · · · · · · ·		
		· · ·							-
Measuring Point: Well Diameter:			to Water: al Depth:				to Product: Thickness:		0 ft 0 ft
	W	ater Colum	in Height:	13.87	ft	,			
Sampling Method:						inter-			
amping method.	Bottom Va		· ·	ugal Pump		Imp 🛄 Othe	<u>r                                    </u>		
Criteria:	☑ 3 to 5 Cas	sing Volumes		moval 🗹 Stal		idicator Parame	ters 🗍 Othe	· . er	
		5							
Gal/ft x ft of v	vater	Gall		Water Volur Our	ne in Well	1	Volume t	o be removed	<u>.</u> .
13.87 x 0.6		9.02						2.06	g
			-						
Time (militàry)	_ pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)		Comments/F	low Rate
14:41	7.56	437	85.8		(8/ -/	(	gal 1.25	clear	
	7.57	439	76.8				2.5	clear	
	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 o	lry
		ļ	·						
									,
						,			
		· · ·				,		•	
· · · · ·									
nal:		5235						and the state of the second	
14:53	7.43	462	54.9				12.5	bailing o	lry
								•	
OMMENTS:			•-						Υ.
Instrumentation		<b>—</b>		1					
Instrumentation:	[✓] pH Meter	🗌 DO Mo	onitor 🗠	Conductivity N	leter [⊻] le	emperature Met	er 🔲 Oth	er '	
Water Disposal:	Rio Vista								
			•						
	M5	L	Sa	mple Time:	14:53				
Sample ID:				•					
Sample ID:									
Sample ID: nalysis Requested:	🗸 втех		Alkali	nity 🗌 TDS	Cations	Anions	🗌 Nitrate 🛛	Nitrite 🗌 Metals	

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

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Project Name: Client: Project Manager:	MWH	₹G	Samp	Location: Date: ler's Name:	6/10/2010		Well No: Time:	M5 15:02
Measuring Point: Well Diameter:	4"		to Water: al Depth: n Height:	15.04	ft .		to Product: Thickness:	
Sampling Method: Criteria:	Bottom Va	lve Bailer	Double	ugal Pump 🗌 Check Valve Ba moval 📿 Stab	iler			2r
3			-	Water Volun	ne in Well			
Gal/ft x ft of w	vater	Gall		Oun			Volume t	o be removed
12.27 x 0.6		7.98						3.94 gal
					i.			
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.Q. (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
	6.73	297 .	52.9				10	more clear
	6.68	361	52.5	· · · · ·	·····		15	more clear
	6.72	379	51.8	<b> _</b>			20	more dark grey
15:20	6.76	386	52.7				24	more clear
· · ·								
			-		<u> </u>			
Final: 15:20	6.76	386	52.7				24	more clear
COMMENTS:	,			, ,				
Instrumentation:	🗹 pH Meter	DO Mo	nitor 🔽	] Conductivity M	leter 🗹 Tei	mperature Met	er 🗌 Oth	er
Water Disposal:	Rio Vista							
Sample ID:	M5		. Sa	mple Time:	15:20	• -		
Analysis Requested:	✓ BTEX Other		🗌 Alkalir	nity 🗌 TDS	Cations	Anions	Nitrate [	] Nitrite 🗌 Metals
Trip Blank:	Ye	s				Duplica	ate Sample:	No

5		،	)					Т 970.3			
Project Name:	Jaquez MWH			Location:	Jaquez 6/10/2010		Well No: Time:				
Project Manager:		RG	Samp	ler's Name:				10:10			
Measuring Point:	-		to Water:			-	to Product:				
Well Diameter:		ater Colum	al Depth: In Height:			Product	Thickness:	0ft			
Sampling Method:	Submersil	ble Pump	Centrifu	ugal Pump	Peristaltic Pu	mp 🗌 Othe	:r	· ·			
, Criteria:	Bottom Va			Check Valve Ba moval 🗹 Stat		P. 1. 19					
	<u>13 to 5 Cas</u>	sing volumes		Water Volur		dicator Parame		r			
Gal/ft x ft of water		er Gallons			ices		Volume to be removed				
2.56 × 0.6	5	1.6	5x 3			l	4.	.98 ga			
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate			
16:21	6.95	1673	62.2			,	0.52	slighty grey			
	6.97	1844	59.9				0.79	slighty grey w/fuel odor			
16:32	7.03	<u>1942</u>	59.0			<u> </u>	1.05	slighty grey w/fuel odor			
	<b></b>										
						·					
	<u> </u>				-			: 			
								·			
			·,								
· · · · · · · · · · · · · · · · · · ·											
nal:	7.03	1942	59				1.05	slighty grey w/fuel odor			
16:32	Roots							· · ·			
			onitor. 🔽	Conductivity M	1eter 🗹 Te	mperature Met	er 🗌 Othe				
	✓ pH Meter	🗌 DO Ma									
OMMENTS:		DO Mo	, •								
DMMENTS:	Rio Vista	DO Mo	. Sa	mple Time:	16:32	1	·				
DMMENTS:	Rio Vista M6		•	imple Time: nity □ TDS		Anions	Nitrate [	Nitrite Metals			

	?	<u>COMPLIANCE /</u>	ENGINEERING	/REMEDIATION			.•		LT Environmen 2243 Main Av Durango, Colorad T 970.3	
Project Name: Client: Project Manager:	MWH	RG	Samp	Location: Date: ler's Name:	Well No: Time:					
Measuring Point: Well Diameter:	2"		to Water: tal Depth: nn Height:	al Depth: 16.17 ft Product Thickness:						
ampling Method: Criteria:	Bottom Va	Ilve Bailer	Double	igal Pump 🗹 Check Valve Ba moval 🔽 Stat	iler			r		
				Wáter Volun	ne in Well	· · · · · · · · · · · · · · · · · · ·				
Gal/ft x ft of water 13.27 x 0.16			Illons Ounces			Volume to be removed 6.4				
15.27 × 0.1	0	2,1			· · · · ·	l		.4	gal	
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments	/Flow Rate	
12:16	7.12	314	66.0			·	0.26	slightly orar	ge & cloudy	
	7.09	320	62.6				0.53		ge & cloudy	
	7.06	322	58.1			·	0.79	slightly orar		
	7.02 7.08	326 321	55.8 53.2				1.05 2	grey &	cloudy	
12:16	7.09	323	52.7		· <u></u>		2.5		Α.	
	7.01	318	52.5			·	3	N	A	
	7.03	320	52.0				4	· N	A	
	7.01	317	52.5				5		Α'	
	7.04	317 317	52.2 51.4	,	·,		6 6.5	N	A ^	
	7.02	, 517	. 51.4				0.5		A ,	
al: 12:16	7.02	317	51.4	rementation of the second s			6.5	arran Konstanti a sa M	A	
MMENTS:						<u> </u>				
Instrumentation:	⊡ pH Meter		onitor 🗸	] Conductivity M	leter 🔽 Te	mperature Met	er 🗌 Othe	2F <i>r</i>		
Water Disposal:			-		-					
Sample ID:	M7		- Sa	mple Time:	12:16	<u>.</u>				
alysis Requested:	BTEX Other		Alkalin	ity TDS	Cations	Anions	Nitrate	Nitrite Me	als	
•							•			

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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		to Product: Thickness:	
Sampling Method: Criteria:	Bottom Va	Ilve Bailer	Double	ugal Pump 🗌 Check Valve Ba moval 🗹 Stat	iler			<u>2r</u>
				Water Volun	ne in Well			· .
Gal/ft x ft of v		Gall	ons	Oun	ices		Volume t	o be removed
12.88 x .6	5	8.37	7x 3				25	5.11 gal
Time	pН	SC	Temp	ORP	D.O.	Turbidity	Vol Evac.	
(military)	(su)	(us)	(°F)	(millivolts)	(mg/L)	(NTU)	1	Comments/Flow Rate
10:00	6.78	898	56.7	, ,			gal 1	fuel smell
10.00	6.90	1180	54.0			·	2.25	fuel smell
<u> </u>	6.88	1118	54.0				3.5	fuel smell
. 1	6.81	1033	52.7				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	765	52.2	<u> </u>		<u>.</u>	12.25	fuel smell, gray
	6.78	579	52.2				12.25	fuel smell, gray
<u> </u>	6.75	494	52.2	<u> </u>			15	fuel smell, gray
	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:	2010 I							
10:25	6.31	433	54.5				27	less fuel smell, clear
COMMENTS:		when oper	2017 A 2004 A 2 1 1000	ing. 6/11/10	) PID heads	pace in wel	**************************************	
Instrumentation: Water Disposal:			nitor 🔽	Conductivity M	leter 🗹 Te	mperature Met	er 🗌 Otho	er
Sample ID:		i	Sa	mple Time:	10:26		1	
Analysis Requested:	BTEX		🗌 Alkalii	nity 🗍 TDS	Cations	Anions	Nitrate	Nitrite Metals
Trip Blank:	Ye	s				Duplica	ate Sample:	No

	2	<u>COMPLIANCE / I</u>	EŅĢIŅEERING	/ REMEDIATION				LT Environmen 2243 Main Av Durango, Colorado T 970.30
Project Name: Client: Project Manager:	MWH	RG	Samp	Location: Date: ler's Name:	6/10/2010		Well No: Time:	
 •								
Measuring Point: Well Diameter:	4"		o Water: al Depth: n Height:	22.11	ft		to Product: Thickness:	0 ft 0 ft
Sampling Method: Criteria:	Bottom Va	alve Bailer	Double	ugal Pump 🗌 Check Valve Ba moval 🔽 Stat	iler			 r
				Water Volun	ne in Well		****	
Gal/ft x ft of w	vater	Gall	ons	Oun	ices		Volume to	o be removed
11.17 x .65	5	7.26	5x 3		1		21	.78 gal
Time (military)	pH (su)	SC (us)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate
10:39	6.92	1377	56.3				1.25	clear
	6.93	1435	52.7			ļ	2.5	slightly cloudy
	6.95 6.95	1500 1523	51.3 51.3				3.75 5	slightly cloudy 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
nal:								
10:58	7.22	938	53.4	And		đ	<u></u> 13.5.	starting to bail dry
OMMENTS:								
Instrumentation:	✓ pH Meter	DO Mo	nitor 🗹	Conductivity M	1eter 🛛 Te	mperature Met	er Othe	Ir
Water Disposal:	Rio Vista							
Sample ID:	R2		Sa	mple Time:	10:58	-		
nalysis Requested:	BTEX		🗌 Alkalir	nity 🗌 TDS	Cations	Anions	Nitrate	] Nitrite 🔲 Metals

								` 1	2243 Main A Durango, Colora T 970.
Destant N									
Project Name:			-	Location:			. Well No:		
Client: Project Manager:	-	26	Samr	Date: ler's Name:	6/10/2010		•	11:02	
			- Jamp	iner s nume.	June Linn,			•	
Measuring Point:	тос	Depth	to Water:	11.83	ft	Depth	to Product:		0 ft
Well Diameter:				22.18		Product	: Thickness:		<u>0</u> ft
	Wa	ater Colum	n Height:	10.35	ft	۲.		•	
Sampling Method:	Submersit	e Pump	Centrif	ugal Pump	Peristaltic Pu	Imp 🗌 Othe	r		
	Bottom Va			Check Valve Ba		<b>p</b>			
	Dottoin ve	iive bailei							
Criteria:	✓ 3 to 5 Cas	ing Volumes	of Water Re	emoval 🗹 Stal	bilization of In	dicator Parame	ters 🗌 Othe	er	
C-1/4 . C . C		~ "		Water Volur		r		- I	
Gal/ft x ft of v 10.35 x .6			ons 3x 3	Our	nces			to be removed 0.19	
10.55 X .0:		0.73	5 2 2			L	20	J.19	ga
Time	pН	SC	Temp	ORP	D.O.	Turbidity	Vol Evac		
(military)	(su)	(us)	(°F)	(millivolts)		(NTU)		Comments,	Flow Rate
11:07	6.86	527	57.9		,		gal 1.25	cle	ar
	9.94	565	54.0				2.5		ar
	6.95	598	52.5				3.75	cle	
	6.97	614	51.8				5	cle	ar
	6.95	551	53.1				10	cle	ar
	7.01	411	52.2	'	•		15	cle	ar
	7.03	331	53.2				20	cle	ar
11:27	7.11	333	51.7				23	, cle	ar
									· · · · ·
inal:									
11:27	7.11	333	51.7	11 (12) 21 (12) 21 (12)		0.02	23	cle	ar
	Constant of the second			22510 0200000000000000000000000000000000		i Malakal Seffection	-		
OMMENTS:	•		•					a.	
		•					· ·	•	•
Instrumentation:	V pH Motor			Conductivity N	Anton 📿 Ta	mporaturo Mot	er 🗌 Oth	~	•
	Pri netel				neter ∐tte	mperature met			
Water Disposal:	Rio Vista								
Sample ID:	R3	. · ·	. Sa	mple Time:	11:27	<del>.</del> .			
		□vocs	🔲 Alkaliı	nity 🗌 TDS	Cations	. Anions	Nitrate	Nitrite Meta	als
Analysis Requested:	Other .								

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LT				G / REMEDIATION				LT Environn 2243 Mair Durango, Colo T 97
	·····		·					. •
Project Name:	laguez	· · · ·	•	Location:	laquez		Well No:	R-4
Client:			•		6/10/2010		Time:	
Project Manager:	Julie Linn, F	RG	Samp	ler's Name:	Julie Linn,	RG	•	
Measuring Point:	τος	Denth	to Water	11.36	ft ·	Denth 1	o Product:	0 f
Well Diameter:				22.23			Thickness:	
		iter Colum						
ampling Method:		e Pumo	Centrifu	ugal Pump	Peristaltic Pu	mp 🗌 Othe		
	Bottom Va		_	Check Valve Ba				
		ive baller		CHECK VOIVE BO	1121			
Criteria:	✓ 3 to 5 Cas	ing Volumes		emoval 🗹 Stat		dicator Parame	ters Othe	r
				Water Volun				
Gal/ft x ft of w		Gall		Oun	ces			o be removed
10.87 x .65		7.00	5x 3	•			21	18
Time	pН	SC	Temp	ORP	D.O.	Turbidity	Vol Evac.	
(military)	(su)	(us)	(°F)	(millivolts)	(mg/L)	(NTU)	gal	Comments/Flow Rate
9:00	6.84	317	57.4		i		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
	7.26	541	55.9	ļ			15	clear
9:23	7.29	545	53.8				15.25	Clear
ál:		and a second s	1	- 0 - 1	е д убул , бор			
9:23	7.29	544	55.8	· · · · ·		a start and a second and a second and a second a Second a second a s Second a second a sec Second a second	18	clear
MMENTS:								
Instrumentation:	🗹 pH Meter		onitor 🔽	Conductivity M	leter 🗹 Te	mperature Mete	er 🗌 Othe	er
Water Disposal:	Rio Vista							
Sample ID:	R4		. Sa	imple Time:	9:23	-		
alysis Requested:	✓ BTEX Other			nity 🗌 TDS	Cations	Anions	Nitrate	Nitrite Metals
					,			

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1 Te	2	COMPLIANCE /	ENGINEERING	/ REMEDIATION					LT Environment 2243 Main Ave Durango, Colorado
			y					1	<sup>т</sup> т 970.38
Project Name: Client: Project Manager:	MWH	RG	Samp	Location: Date: Ier's Name:	6/10/2010		Well No: Time:		
Measuring Point: Well Diameter:	4"		to Water: al Depth: in Height:	24.5	ft		to Product: Thickness:		<u>0</u> ft <u>0</u> ft
ampling Method: Criteria:	✓ Bottom Va	lve Bailer	Double	gal Pump □ Check Valve Ba moval ☑ Stat	iler			er	
	•			Water Volur	ne in Well	,			
Gal/ft x ft of w		Gall	ons	. Our			Volume t	o be removed	
9.76 x .65		6.34	4x 3				19	9.02	gal
Time (military)	рН (su)	SC (us)	Temp (° <u>F</u> )	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments	Flow Rate
11:37	7.60	434	61.9				1.25	cle	ar
	7.58	449	58.6				2.5	slightly	
	7.28	450 451	57.7 58.8		•		3.75 5	slightly slightly	
	7.42	500	57.9				10	slightly	
11:56	7.63	573	59.9				13.5	bailin	
							Scher and the second	กยาวสนุมสนิสมัยว่าการการระ	
al: 11:56	7.63	573	59.9				. 13.5	bailin	g dry
MMENTS:	i			,		·			
Instrumentation:	✓ pH Meter		onitor 🔽	Conductivity M	ſeter √Ťe	mperature Met	er 🗌 Oth	er	
Water Disposal:	Rio Vista		•	· · ·	· ·				• •
Sample ID:	R5		. Sa	mple Time:	11:56	•			·
alysis Requested:	☑ BTEX		Alkalir	iity 🗌 TDS	Cations	Anions	Nitrate	Nitrite Met	als

									2243 Main A Durango, Colorad T 970.3
		· · · · · ·	<u>.</u>	<u></u>					
Project Name	: Jaquez			Location:	Jaquez		Well No:	Ř-6	
Client	MWH			Date:	6/10/2010	)	Time:	9:31	
Project Manager:	Julie Linn, F	RG	Samp	ler's Name:	Julie Linn,	RG			
· · · · · · · · · · · ·				*			•		-
Measuring Point:		Denth	o Water	9.43	ft	Denth	to Product:	·	0 ft
Well Diameter:				13.57					0 ft
				4.14		, roude		i	
ompling Mothod	. —					· · · · · · · · · · · · · · · · · · ·			
ampling Method:				ıgal Pump 🗌		imp 🗌 Othe	r		· · · · · · · · · · · · · · · · · · ·
	Bottom Va	Ive Bailer	Double	Check Valve Ba	iler .			•	
Criteria	: 🗹 3 to 5 Cas	ing Volumes	of Water Re	moval 🗹 Stal	bilization of In	dicator Parame	eters 🗌 Othe	er	
				Water Volur		······			
Gal/ft x ft of v		Gall		Our	nces			to be removed	
4.14 x .6	>	2.69	9x 3	l	l		8	.07	ga
Time	pH	SC	Temp	ORP	D.O.	Turbidity	Vol Evac		
(military)	(su)	(us)	(°F)	(millivolts)		(NTU)		Comments/	Flow Rate
9:37	6.87	262	60.6				gal 0.528	dirt	v
5107	6.81	288	60.1				1.056	dirt	-
	6.80	301	58.6				1.585	dirt -	-
	6.76	298	57.9				2.113	dirt	τ <b>γ</b>
	6.74	298	58.3			-	2	dir	ty
9:45	6.77	275	58.5				4	bailinį	g dry
<u> </u>	· · · · ·								
		-	C.						
al:							مى تەرىپى يەرىپى قىرىكى يەرىپى		
ົ້	6.77	275	58.5				<u></u> 4	bailing	g d <b>ry</b>
MMENTS:									
Instrumentation	: 🗹 pH Meter	🗌 DO Mo	nitor 🔽	Conductivity	Aeter 🗹 Te	mperature Met	er 🗌 Oth	ier .	
Water Disposal	Rio Vista								-
Sample ID:	R6		Sa	mple Time:	9:45	-			
			🗌 Alkalir	nity TDS	Cations	Anions	Nitrate [	Nitrite Meta	als
alysis Requested	Other								

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## 6/10/10 4" well = 0.65 44 0736 IN office 150150 0818 crite @ Jaquez 0830 Set up on <u>R4</u> (<u>4</u>) <u>will diameter</u>) TD 2223 BTO <u>14</u> 0857 DTW 1/.36 0900 <u>p/1 Temp°F) Cond(us) Vol proxidee</u> Computes <u>7,27 549</u> 517 517 517 517 <u>. O qu' grupish</u> 7.03 53.1 402 7.31 53.4 540 13,5 a) dar 15 gal claur 7.26 <u>55.9 54/</u> 7.29 5<u>3.8 545</u> 15-25 grg Clear 0922 7.29 55% - 5444 18 gallers 123 Collect sample from R4

0931 ON SIR R.G. (4" well diametr.) BOttom & well 13,57 BToc Mote-Roots IN 09.43 BToc Pro

			45
<u>09.37</u>	- pH - Temp - Co. 87 Co. 1	the second se	OI Rigel Commune a
	6181-60.1	288	Tlifos 12
	6.80 58.70		olifics
	676 57.9 6.74 58,		gallons
	6.77 58.5	Add. 3. Water Site approximation of the Site of the State of the St	gulling - Bailing
	Sample RG		J. S.
0952	on sk Rl	(4" will dramety	
au. . 0955		5.10' BTOL P BTOL P	
	pH Jemp °E	Cord (ms) Vol	purge Conment
1000	6.90 56.7 6.90 54.0		100 Fuel soull
	6.88 52.7		D gel 15 gel (1997)
	6.81 52.2	1033 4.7	<u>) Sace a grey</u>
	6.83 5202	$-\frac{169}{-29}$ $\frac{1}{9}$	D gel " grey
	6.81 52.2	768 12.2	5 gel "
	6:78 52.3	$\frac{579}{490}$ 14.0	D gal ""
	6.77 53.1	444 20.0	) gal field smell.
	<u>_6.78 52.3</u>	441 23.0	
	0-31-545	<u>    433    25.</u> Anora	
1026	Collect Sample	RI	<u> </u>

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- 46 /035	$\frac{1}{2} = 0$
1039	
	KH       COND(MS)       Temp (°F)       Volume       Connews         6.92       1377       56.3       1.25 gal       Clear         6.93       1435       52.7       2.50 gal       clear         6.93       1435       52.7       2.50 gal       clear         6.95       1500       51.3       3.75 gal       slight         6.95       1523       51.3       5.00 gal       torl odor         6.98       1435       54.3       10.00 gal       torl odor         7.09       1047       54.5       13.00 gal       5ternis         7.22       938       53.4       13.5 gal       50.9
	Sample RZ
	ON SITE R.3. (4" well diameter) Bottom y well 22.18' BTOR AR
Anterterbehavior, training Transformenting and appropriate the second se	DEW 11.83 BTCR PVC 12
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	7.01 411 52.2 15.00 7.05 33 53.2 20.0 1 7.11 333 51.7 23.0
	Sample R3

	2″ ©.16 47
135	on site 25 (4" will diamiter)
	Bottom 8 Well 24,50 BTOX PVC DTW 14.74 BTOC PVC
	60 61.9 737 125gal Clear -58 58.6 4.49 2.5 gal slightly cluby
	-28 57.7 450 3.75 ge 7.42 58.8 451 5.00 ge 7.56 57.9 500 10 ge
	7.43 59.9 573 13.5gcl Bailing dry
150	Sample R 5
<u>, J213</u>	<u>Sife M7 (note 2" well diameter)</u> Bottom <u>9 Well  6.17" BTOC PVC</u> DTW 2.95 BTX PVC
1216	OIN TEMP(°F) Gov/ (11) Volume (an) Comments
	7.09 62.6 320 2.44 orange 2 7.09 62.6 320 2.44 orange 2 7.06 B.1 322 3.44
	7,02 55.8 326 464 Sclady 7,08 53.2 321 2 gallon
	7:09 52.7 32.3 R. Sgallon 7:01 52.5 318 3.0 gollin 7:03 52.0 320 4.0 gallon
	7:01 52.5 317 5.0 gellor 7:04 52.3 317 6.0 gellor
A second second	7.02 51.4 317 6.5 jain

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48	
1238	<u>sample m7</u>
1240	On site MI (4" anel)
1241	TD 15.371 BTOC PVC DTW 2.98 BTOC PVC
	alt Temp("F) Cond (us) Volume (G) Comments
1245	7.00 70.5 224 1.25 cual
	630 226 3175 greyisk 630 226 3175 particles
	6.80 58.6 227 5 gollow Bailing 7.05 56.3 221 Gallone Bailing
1256	7.05 56.3 661 gaune DRy Sample MI
130/	TD 15.06 BTX PVC
	DTW 2.63' RTOC PVC
<u> </u>	OH TemploF) Cond (us) Volume (gol) Conserve -122 -70.2 222 1.25 class
<u> </u>	722 70.2 7.14 64.6 237 2.50 vaslandy 6.89 59.5 277 3.75 away
	6.83 57.4 3.12 iS. Or gallow
	6.74 56.7 352 15.0 gallors
	6.73 56.7 346 20.0 gallon 6.72 56.8 352 24.0 gallon
1329	Sample M3
	5

<u>1321</u> Call Oshley - Out of Water Storage - tank full Troy calls can dump purg H20 at 1430 1349 M.H.: TD 15:37 DTW 1:50 BTOC PVC 1350 M.S.: TD 15:04 DTW 2:77 BTOC PVC 1353 M.2: TD 14:88 DTW 2:99 BTOL PVC

1441 ON Site M.4 (4" well Diameter) DH Temp Cond Volume (goe) comments 7:50 85.8 437 1.25 lear 7:50 85.8 437 1.25 lear 7:57 76.8 439 2.5 7:57 76.8 439 2.5 7:57 76.8 439 3.75 7:48 68.5 4149 3.75 7:25 64.6 500 5.0 goe Legel date

7.34 56.5 481 O.D. gol J2gol grey 7.43 54.9 462 12,5 gol Bailing dry

1453 sanple my

1502 at MS (4" will Diameter)

Temp <u>Conductivity (us) volume (que) Comments</u> PHER 69.8 241 1.25 clear 751 61.5 300 2.50 6.90 6.82 56.8 325 3.75 Slightly 6.82 545 312 5.0 ml gray -5.0 gal 6.77 54.5 312 10.0 gol more clear 52.9 297 6.73 6.68 52.5 301 15.0 gel 1 darle 6.72 51.8 379 20:0 gel more greg 6.76 52.7 386 24.0 gel more clear more clear.

1520 <u>Sample m5</u>

<b>50</b>	ar M2 (4" weet drameter)
	pH       timp(*r)       cond (us)       volume (ge)       commenter         7.10       61.0       204       1.2.5       clear         6.80       54.3       275       2.50       slipt orang         6.74       2.0       285       3.75       Packs/mush         6.66       51.3       2.88       5.0 gallos       clear         6.64       51.1       2.79       10.0 gallos       clear         6.64       51.1       2.79       10.0 gallos       clear         6.64       50.7       3.15       15.0 gallos       clear         6.65       50.7       3.21       20.0 gallos       clear
<u>1548</u> <u>1618</u> 1621	6.68 50.4 331 23.0 gallon Sample M2 Cut off passive vent prove strice ops to ~3' above grand at MC (4' well diameter) DTW 6.04' BTOC PU
	TD 8.60 BTOC PVC <u>pH TempleF) Cond (us) Volume (gollurs) Comment</u> <u>6.95 62.2 1673 2 lites Slighthygren</u> <u>6.97 59.9 1844 3 lites rshight dl</u> 7.03 59.0 1942 4 lites Fled odor 7.03 59.0 1942 4 lites Fled odor 7.03 59.0 1942
1646	semple m6 In Jaques arrive @ office 150234
	arrive @ office 150234

15 ١., A STATISTICS

· I. - - 1 Ŷ . . .

6/11/10 51 0745 V office 150234 0828 arrive @ Jaquez Ste 15.0257 Ambient air survey - No thing detected meter read 0:0 pp m throughout site north g canal 0924 Set up on SB-1. 36°45101.478N 0927 Sample @ 1 PID 0.0 0931 "" 2 PID 1.1 " " 31 PTD 0.8 0937 0942 n " 4" PID Ø 0952 11 11 51 11 61-11 0957 // // S.n saturated Set up on SB-3 for soil sampling 36° 45' 00.694N 107° 49' 06.499 W Site Dépth PTD 1017 SB=3 13,2 1019 SB3 1.9 1023 58-3 0.1 1027 SB-3 10.8 0.5 saturated 1028-58-3 1033 SB-3 SB-3A l'closer to canal O, 6 ppm 1027 R-1 PTD 81.2 pp monitor will hed Space

52 6/11/10 52 6/1/10 Jaguez Soll Sampling Cont. 1056 Set up on SB-2 soll Sample 1058 sample SD-2 @ 1' PID Depm 1059 11 " " 0 2' PID D.D ppn setur SP-2 location 36° 45'00.860"N 107° 49' 06.120" W 1105 Setup on SB-4 Soil Sample 1107 sample SP-4 @ 1 PID D.O 1103 ... PID D.O 1113 ... PID D.O 1115 ... PID D.O saturated 1200 Set up on SB-5 Soil Sample 36° 44' 59.607" N 107° 49' 06.974" W 1202 Sample<sup>900</sup>@ 1° PID 0,0 1206 Sample SB-5 @ 2' PID 0.0 scturated 1208 Set up on SB-6 Soil Sample. 36°44"59.452"N 107° 49' 06,842" W 1211 Sample SB=6 @ 1' PID 1912 ppm 1215 11 11 11 2' PID 010 ppm 1225 Set up on SB-7 Soil Sample 1228 Sample SB-7@ PID 106 ppm 1230 Sample SB-7@ 18" PID 30.6 ppm saturated 10004100 36°44759.847" N 107° 49' 06.522 W

<ul> <li>Anno and a second second</li></ul>	6/11/10 Jayuez Soil	Sampling 53
	Set up on SB-8 36°45'00:161''N 107°49'06.089''W	soul sample
1237 1237 1239	Derth 121/1/2000	2 <u>ID</u> 230PPM 71.2 //
1241 1243 1245	<u>30″</u> 3′	3/1. 8/15 592 - PPM
<u> </u>	48-51/1	45,2 43.2 ppm saturated
)300. 	location 36-45,007. 107° 49' 05,0	672 W S
<u>[363</u> <u>1307</u> 1308	Depth PI	D (spr) 3.4 2.5
<u>  3 2</u>   33 ]	Setur SB-10	2.º saturated
	location 36° 45' 00. 107° 49' 05. Depth Pt	291 <u>"N</u> 609 "W Depm
8 <u> 334</u>   <u>33</u> 7  34]	<u>)</u> 2 3 8	3 saturated

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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 Depth PID ppm 1355 1 4.6 1402 2 610 1405 32 15.2 1418 Set up on SB-12 Soll Sample location 36° 44' 59.380" N 107°49 05.029"N Depth PTO <u>PTQ (ppn.)</u> 22,<u>-</u> 421 12 1426 2' 17.2 1431 31 6.1 1436 4/ 1.6 1440 56"-57" 8,1 Fill in all soil sampling holes w/ Bartonite and DI water 1625 take ambient our sample 1632 take air sample @ Passive well #4 offer purging air for 3minutas @ 6 1.7cs per minute 1652 take air sample @ well R-1 after purging for 3 minutes @ 6 liters/min.

6/11/10 Jaguez continued 55 results Petrontlag <u>Weight(g)</u> Reading (ppm) Sarple ID 503-5 9/07/1 193 SB=7-18 10.1 132 SB=8-14 /0./ 298 SB-8-4 208 Jo.1 SB-9-1 122 16,0 SD-9=4 160 10,0 SB=10-1 207 16,0 SB-11-32 137 1071 200 SB=12=1 456 10,1 SB=12-4 1011 7045 \* RF<sup>2</sup> 2 for all samples Souls sample' sent to lab? SB-3-5 Sample' for 8015, TVPH, SB-6-1 TEPH(8015), BTEX 8021 SB-3-5 SB=6-1 SB-9-4 SB=11=32 \* all of the remains soil from the above 4 samples was left in outside refrigurator & John Jacuez residence par John Jaguez 1829 IV Japuez Site arrive Qui office 150286 1906



#### LT Environmental, Inc.

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.

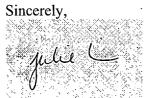
*Response:* This ambient air screening on both the north and south sides of the canal was conducted by holding the PID at waist height and walking around the area slowly, observing any



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>.



Julie Linn, RG Project Geologist

Copy: Ashley Ager

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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)	Sample Sent to Analytical Lab
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 SB1-5		4 5	6/11/2010 6/11/2010	9:42 AM 9:52 AM	0		· · ·		
SB1-5		6	6/11/2010	9:57 AM	<u> </u>		Saturated		
SB2-1	SB-2	1	6/11/2010	10:58 AM	· 0	36° 45' 00.860''N; 107° 49' 06.120''W			
SB2-1 SB2-2		2	6/11/2010	10:59 AM	· 0	55 45 00.000 11, 107 49 00.120 W	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	0.5 15 00.071 11, 107 T7 00.777 W	· · · · · · · · · · · · · · · · · · ·		
SB3-3		3	6/11/2010	10:23 AM	11.9	· · · · · · · · · · · · · · · · · · ·	İ		
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		Cotoretad		
SB4-3			6/11/2010	11:15 AM	0		Saturated	l	
SB5-1 SB5-2	SB-5	1 2	6/11/2010 6/11/2010	12:02 PM 12:06 PM	0.0	36° 44' 59.046"N; 107° 49' 06.974"W	Catal	·	
				I			Saturated	 	
SB6-1 SB6-2	SB-6	1 2	6/11/2010 6/11/2010	12:11 PM 12:15 PM	19.2 0	36° 44' 59.452"N; 107° 49' 06.842"W	Saturated		Yes
					-	268 441 50 0 47101 1078 4010 5 500101	Saturateu	100	
SB7-1 SB7-2	SB-7	· 1 2	6/11/2010 6/11/2010	12:28 PM 12:30 PM	106 30.6	36° 44' 59.847"N; 107° 49' 06.522"W	Saturated	132	
	<u> </u>		6/11/2010	12:30 PM		36° 44' 00.161"N; 107° 49' 06.089"W			
SB8-1 SB8-2	SB-8	1	6/11/2010	12:37 PM 12:39 PM	230	36 44 00.161 N; 107 49 06.089 W		298	
SB8-3		2	6/11/2010	12:39 T M	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	ļ	3.5	6/11/2010	12:48 PM	45.2	·		• •	
SB8-4	ļ=	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	ļ	222	
SB9-2 SB9-3		2 3	6/11/2010 6/11/2010	1:07 PM 1:08 PM	0.8				
SB9-3 SB9-4		4	6/11/2010	1:08 PM	8.5		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	Suturated	207	
SB10-1 SB10-2	01-46	2	6/11/2010	1:34 PM 1:37 PM	6.9	50 45 00.221 IN, 107 49 05.009 W	1	207	
SB10-2 SB10-3		3	6/11/2010	1:41 PM	8.3		Saturated		
SB11-1	SB-11	1	6/11/2010	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	ļ	3	6/11/2010	1:08 PM	6.1		•		
SB12-4		4.75	6/11/2010 6/11/2010	1:08 PM 1:08 PM	1.6		Soturata 3	7045	
SB12-4.75	l	4./3	0/11/2010	1.06 PM	8.1	<u> </u>	Saturated	<u> </u>	

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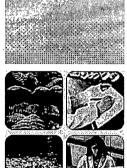
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## **Laboratory Analytical Reports**

e-Hardcopy 2.0 **Automated Report** 

07/07/10



Southeast

# 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



**nelaci** 

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.

Harry Behzadi, Ph.D.

Laboratory Director

<u> A</u>C

F74410

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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## Sample Summary

## EL PASO CORPORATION

Job No: F74410

14

JTEST.

F74410 Labor

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

Sample Number	Collected Date	Time By	Received	Matri Code		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	Ri
F74410-3	06/11/10	16:25 JL	06/15/10	AIR	Air	AMBIENT



# Sample Results

# **Report of Analysis**

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F7410

			Rep	ort of A	nalysi	is			Pa	ge 1 of 1
Client Sam Lab Sampl Matrix: Method: Project:		PASSIVE 4 F74410-1 AIR - Air EPA TO-3 MWHCOD: San	Juan River Ba	sin Progran	Dat Per	e Sampl e Receiv cent Sol	ved: 06/	11/10 15/10		
Run #1 <sup>a</sup> Run #2	File ID HH035	DF 760.D 1	Analyzed 06/15/10	By NJ	Prep n/a	Date	Prep n/a	Batch	Analytica GHH1674	
Run #1 Run #2	Initial V 0.50 ml							•. • •		
Purgeable	Aromati	cs	∠₽					· ·	,	
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 72	Benzene Toluene Ethylbenzene Xylenes (total) Methyl Tert But TPH as Equiv P		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 ppmv	ND ND ND ND ND	1.6 1.9 2.2 6.5 1.8 15	mg/m3 mg/m3 mg/m3 mg/m3 mg/m3 mg/m3
CAS No.	Surrog	gate Recoveries	Run# 1	. Run#	2 L	imits				
460-00-4 460-00-4		nofluorobenzene nofluorobenzene	95% 83%			8-132% 8-132%	I			

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

ND = Not detectedMDL - 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											ige 1 of 1
Client Sam Lab Sampl Matrix: Method: Project:		R1 F74410-2 AIR - Air EPA TO-3 MWHCOD: San Ju	an River Ba	sin Progran	D P	ate Sampl ate Receiv ercent Soli	ed: 06	/11/1( /15/1( 1	-		
Run #1 <sup>a</sup> Run #2	File ID HH035	DF 761.D 1	Analyzed 06/15/10	By NJ	Pr n/a	ep Date	Pre n/a	p Bat		alytica iH1674	ll Batch 1
Run #1 Run #2	Initial 0.50 ml										
Purgeable	Aromati	CS									
CAS No.	MW	Compound		Result	RL	MDL	Units	QI	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 TPH as Equiv Pen		ND ND ND ND ND ND	0.50 0.50 0.50 1.5 0.50 5.0	0.10 0.10 0.30	ppmv ppmv ppmv ppmv ppmv ppmv	1 1 1 1 1	ND ND ND ND ND ND	1.6 1.9 2.2 6.5 1.8 15	mg/m3 mg/m3 mg/m3 mg/m3 mg/m3 mg/m3
CAS No.	Surro	gate Recoveries	Run# 1	Run#	2	Limits					
460-00-4 460-00-4		nofluorobenzene nofluorobenzene	95% 76%			58-132% 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 Sam Lab Samp Matrix: Method: Project:		AMBIEN F74410-3 AIR - Air EPA TO- MWHCC	8 r -3	an River Ba	sin Program	Da Pe	ite Sampl ite Receiv rcent Soli	ed: 06	/11/ /15/ a			
Run #1 <sup>a</sup> Run #2	File ID HH035		DF 1	Analyzed 06/15/10	By NJ	Pre n/a	p Date	Pre n/a	-	atch	Analyti GHH16	cal Batch 74
Run #1 Run #2	Initial 0.50 ml											
Purgeable	Aromati	cs										
CAS No.	MW	Compou	ınd		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		nzene		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 ppmv	÷	ND ND ND ND ND ND	1.6 1.9 2.2 6.5 1.8 15	mg/m3 mg/m3 mg/m3 mg/m3 mg/m3 mg/m3
CAS No.	Surro	gate Reco	veries	Run# 1	Run#	2 ]	Limits					
460-00-4 460-00-4		nofluorobe nofluorobe		96% 78%			58-132% 58-132%					

1

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

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



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# Misc. Forms

# **Custody Documents and Other Forms**

# Includes the following where applicable:

Certification ExceptionsChain of Custody



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ACCUTEST.	10165 Harwin Dr, Ste 150 Houston, TX 77036								FEDEX (newlog #         Bodie Order Control #           PEDEX (newlog #         Accent Add #													
Client / Reporting Information			Project						445		zor + b				ques	tod	1					Aatrix Codes
Company Harris MWH Solumi According IROI California St. St. 2900	Project Name:		State	<b>D</b> RUKA	7. Tormatio		2.1		836C			TP4-6R			lues			<b>y s c</b>			DV GV	/ - Drinking Water - Ground Water WW - Water WW - Water SO - Soil SL- Skidge
Denvic CO 80202 Jed Suith jedsmith@fmith	Project # .204 Client Purchase Orde		j	€ρ P.Õ	NG BD	Pip X	251	L (    State	,			STEX W									s	SED-Sediment OI - Oll Q - Other Liquid AIR - Air OL - Other Solid WP - Wipe FB-Field Blank
Sampulle Nameio	Project Manager 17	Collect	ion	Attention	n ya	21 2010 71	ģ	i sal	W0	Botties	2 <u>52</u>	0-3(									F	Equipment Blank IB- Rinse Blank TB-Trip Blank
Field ID / Point of Collection	مالية ( (11-10)	Time 1032	Sampled By	Matrix	1 d	PH H	SANIA	H2SOA NOME	DI Was	2	ENCORE	R X									<u> </u>	AB USE ONLY
2 R 3 Ambient	6-11-10	652	\$_	Anr Anr	1							Ż	_		-		$\square$					. 1
			J.			-				$\left  \right $												
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Tumaround Time ( Business days)							ha Delh	verable	nform	ation		638.28	W.E.S.Z.		-	Com	ments / 1	Specia	al Instru	ctions &	1322105	<del>XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX</del>
Standard 5 Day RUSH 4 Day RUSH	Approved By (Accutes)				Commerci Commerci FULT1 (L	el "A"	(Level 1	1)		) TRR	Forma	EALT AND		Send	6	dit	ut	ly t	to f	7 <u>.</u>	"Teg	las"
3 Day RUSH     2 Day RUSH     1 Day EMERGENCY					CED71 (L Commerci	evel 3+ si "C"	4)		·	_			-	<u>5 (m</u> 6/1	2/10	9 14	<u>Cept</u> 00	- l	in eliu	$\frac{L}{10}$	01	tices 500 M
Emergency & Rush T/A data available V/A Lablink	Commercial *A* = Resute Only Commercial *B* < Resute + QC Summo Commercial *C* = Resute + QC & Sum / Sample Custody must be documented below each time samples change poesession.							Surroga			felivery.					建全体的		ine part				
Ref guished by Bempler: Deter Time:	H/D / Stracebred By: Received By: Received By: Retringuished By:					f	x			Date Date	1540	₿0	Received		]Acu	Hest.	[e]	5/10 9100				
3 // Rhingutshed by: 5	3 Rec 5	ceived By:	<u> </u>		,		4 Cur	stody See				intect Not intect				tile .	4		On ice		ooler Tem	p.

F74410: Chain of Custody Page 1 of 2



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ACCUTEST LABORATORIES	SAMPLE RECEIPT CONFIRMATION	
ACCUTEST'S JOB NUMBER: F7410 CLIENT:	MWH PROJECT: ?	
DATE/TIME RECEIVED: () 5 10 9:00 [MM/DD/YY		
	ST COURIER GREYHOUND DELIVERY OTHER	
AIRBILL NUMBERS: 8686 4131 7101		•
COOLER INFORMATION	TEMPERATURE INFORMATION	
CUSTODY SEAL NOT PRESENT OR NOT INTACT CHAIN OF CUSTODY NOT RECEIVED (COC)	IR THERM ID CORR. FACTOR M	
ANALYSIS REQUESTED IS UNCLEAR OR MISSING	CORRECTED TEMPS:	`
SAMPLE DATES OR TIMES UNCLEAR OR MISSING	SAMPLE INFORMATION	
TEMPERATURE CRITERIA NOT MET	SAMPLE LABELS PRESENT ON ALL BOTTLES	
WET ICE PRESENT	INCORRECT NUMBER OF CONTAINERS USED	
TRIP BLANK INFORMATION	SAMPLE RECEIVED IMPROPERLY PRESERVED	
TRIP BLANK PROVIDED	INSUFFICIENT VOLUME FOR ANALYSIS	
TRIP BLANK NOT PROVIDED	DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL	
TRIP BLANK NOT ON COC	ID'S ON COC DO NOT MATCH LABEL	
TRIP BLANK INTACT	VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)	
TRIP BLANK NOT INTACT	BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED	
RECEIVED WATER TRIP BLANK	NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED	
RECEIVED SOIL TRIP BLANK	UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS	
	SAMPLE CONTAINER(S) RECEIVED BROKEN	
MISC. INFORMATION	% SOLIDS JAR NOT RECEIVED	
NUMBER OF ENCORES ?	5035 FIELD KIT FROZEN WITHIN 48 HOUR'S	
NUMBER OF 5035 FIELD KITS ?	RESIDUAL CHLORINE PRESENT	
NUMBER OR LAB FILTERED METALS ?	(APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)	
SUMMARY OF COMMENTS:		
· · · · · · · · · · · · · · · · · · ·		
· · · · · · · · · · · · · · · · · · ·		
	REVIEWER SIGNATURE C 06.15.19	
NF 10/09 RECEIPT CO		

F74410: Chain of Custody Page 2 of 2



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QC Data Summaries

GC Volatiles

## Includes the following where applicable:

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



Method Bl Job Number: Account: Project:	lank Summary F74410 ELPASOX EL PASO C MWHCOD: San Juan R		ram			Page 1 of 1
Sample GHH1674-MB	File ID DF HH035759.D1	Analyzed 06/15/10	By NJ	Prep Date n/a	Prep Batch n/a	Analytical Batch GHH1674
· · · •	ted here applies to the fo 410-2, F74410-3	llowing samples	5:	]	Method: EPA 7	ГО-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 1.5 5.0	ppmv 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 mg/m3
CAS No.	Surrogate Recoveries		Liraits	5				
460-00-4 460-00-4	4-Bromofluorobenzene 4-Bromofluorobenzene	97% 72%	58-132 58-132					

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460-00-4	4-Bromofluorobenzene	97% •••
460-00-4	4-Bromofluorobenzene	72%

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F74410 Laboratories 14

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# Blank Spike Summary

Account: Project:	ELPASOX EL PASO C MWHCOD: San Juan R			Υ.			
Sample GHH1674-BS	File ID DF HH035758.D1	Analyzed 06/15/10	By NJ	Prep Date n/a	Prep Batch n/a	Analytical Batch GHH1674	
The QC report	ted here applies to the fo	llowing sample	s:		Method: EPA 7	ГО-3	

F74410-1, F74410-2, F74410-3

CAS No.	Compound	Spike ppmv	BSP ppmv	BSP %	Limits	
1634-04-4	Methyl Tert Butyl Ether	10	9.7	97	85-106	
71-43-2	Benzene	10	9.9	99	66-114	
108-88-3	Toluene	10	<b>9.7</b>	97	60-123	
100-41-4	Ethylbenzene	10	9.6	96	62-109	
1330-20-7	Xylenes (total)	30	28.5	95	62-111	
	TPH as Equiv Pentane	135	126	93	62-111	
CAS No.	Surrogate Recoveries	BSP	Lir	nits		
460-00-4 460-00-4	4-Bromofluorobenzene 4-Bromofluorobenzene	97% 85%	200000	132% 132%		

>



## Duplicate Summary

Job Number: Account: Project:		ORPORATION iver Basin Prog					, 4
Sample F74410-2DUP F74410-2 <sup>a</sup>	File ID HH035762 HH035761	Analyzed 06/15/10 06/15/10	By NJ NJ	Prep Date n/a n/a	Prep Batch n/a n/a	Analytical Batch GHH1674 GHH1674	.3.1

The QC reported here applies to the following samples:

F74410-1, F74410-2, F74410-3

CAS No.	Compound	F74410-2 ppmv Q	DUP ppinv Q	RPD Limits
1634-04-4 71-43-2	Methyl Tert Butyl Ether Benzene	ND ND	ND ND	nc 13 nc 10
108-88-3	Toluene	ND	ND	nc 12
100-41-4 1330-20-7	Ethylbenzene Xylenes (total)	ND ND	ND ND	nc 13 nc 13
	TPH as Equiv Pentane	ND	ND	nc 17
CAS No.	Surrogate Recoveries	DUP	F74410-2	Limits
460-00-4 460-00-4	4-Bromofluorobenzene 4-Bromofluorobenzene	95% 72%	95% 76%	58-132% 58-132%

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



Page 1 of 1

Method: EPA TO-3

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e-Hardcopy 2.0 **Automated Report** 

11/02/10

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## **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** 



Paul K Carrevaro

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

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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Gulf Coast • 10165 Harwin Drive • Suite 150 • Houston, TX 77036 • tel: 713-271-4700 • fax: 713-271-4770 • http://www.accutest.com



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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	•			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	<b>06/15/10</b>	AQ	Ground Water	RI
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	<u>M3</u>
T54504-10	66/10/10	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
in Program		

4 of 30

LABORATOR

ACCUTEST.

T54504

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

Sample Number	Collected Date	Time By	Received	Matri Code		Client Sample ID
T54504-14	<b>06/10/10</b>	17:00 JL	06/15/10	AQ	Trip Blank Water	TRIP BLANK



## SAMPLE DELIVERY GROUP CASE NARRATIVE

#### Client: EL PASO CORPORATION

**Job No** T54504

7/7/2010 1:40:37 PM

**Report Date** 

Site: MWHCODE: San Juan River Basin Program

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

Γ	Matrix	AQ	Batch ID:	VC451		· · ·			
8	<ul> <li>All samples were analyzed within the recommended method holding time.</li> </ul>								

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 Batc	ch 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



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Sample Results

# Report of Analysis

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Report of Analysis

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Client Samj Lab Sample Matrix: Method: Project:	e ID: T54504-1 AQ - Gro SW846 8	ound Wates 260B	uan River Ba	sin Program	Date Sampled: Date Received: Percent Solids:	06/15/10	
Run #1 Run #2	File ID C0010070.D	DF 1	Analyzed 06/18/10	By RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VC451
Run #1 Run #2	Purge Volume 5.0 ml						
Purgeable A	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 Recov	veries	Run# 1	Run# 2	Limits		
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluorom 1,2-Dichloroetha Toluene-D8 4-Bromofluorobe	ne-D4	112% 108% 105% 88%		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
- N = Indicates presumptive evidence of a compound



Report of Analysis

Client Samj Lab Sample Matrix: Method: Project:			in Program	Date Sampled Date Received Percent Solids	l: 06/15/10	
Run #1 Run #2	File ID         DF           C0010082.D         1	Analyzed 06/18/10	By RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VC451
Run #1 Run #2	Purge Volume 5.0 ml					
Purgeable A	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		· · . ·
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	111% 107% 103% 88%		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
- N = Indicates presumptive evidence of a compound



Client Sample ID: R1 Lab Sample ID: T54504-3 Date Sampled: 06/10/10 Matrix: **AO** - Ground Water Date Received: 06/15/10 Method: SW846 8260B Percent Solids: n/a MWHCODE: San Juan River Basin Program Project: File ID DF Analyzed Prep Date **Prep Batch Analytical Batch** By Run #1 C0010083.D 1 06/18/10 RR n/a n/a . VC451 Run #2 Purge Volume 5.0 ml Run #1 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 ug/l 2.0 m,p-Xylene ND 4.0 ug/l Surrogate Recoveries CAS No. Run#1 Run#2 Limits 1868-53-7 Dibromofluoromethane .110% 79-122% 17060-07-0 1.2-Dichloroethane-D4 75-121% 109% 2037-26-5 Toluene-D8 87-119% 103% 4-Bromofluorobenzene 460-00,4 80-133% 87%

**Report of Analysis** 

 $\cdot$  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

N = Indicates presumptive evidence of a compound



Report of Analysis

Client Samj Lab Sample Matrix: Method: Project:	D: T54504-4 AQ - Ground Wa SW846 8260B	ter 1 Juan River Basin Prog	Date Sampled Date Received Percent Solids gram	l: 06/15/10	
Run #1 Run #2	File ID         DF           C0010084.D         1	Analyzed By 06/18/10 RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VC451
Run #1 Run #2	Purge Volume 5.0 ml		•		
Purgeable A	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         2.0           ND         2.0           ND         2.0           ND         6.0           ND         2.0           ND         4.0	ug/l ug/l ug/l ug/l ug/l ug/l		
CAS No.	Surrogate Recoveries	Run#1 Run	n#2 Limits		
1868-53-7 1706`0-07-0 2037-26-5 460-00-4	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	1119% 110% 102% 89%	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
- N = Indicates presumptive evidence of a compound



Report of Analysis

				· ·		
Client Samj Lab Sample Matrix: Method: Project:			sin Program	Date Sampled: Date Received: Percent Solids:	: 06/15/10	· .
Run #1 Run #2	File ID DF C0010085.D 1	Analyzed 06/18/10	By RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VC451
Run #1 Run #2	Purge Volume 5.0 ml				·	
Purgeable A	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	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	111% 108% 103% 89%		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

N = Indicates presumptive evidence of a compound



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Report of Analysis

	Method: SW846 8260B			asin Program	Date Sampled Date Received Percent Solid	l: 06/15/10	
Run #1 Run #2	File ID C0010086.D	DF 1	Analyzed 06/18/10	By RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VC451
Run #1 Run #2	Purge Volume 5.0 ml						
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	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 Reco	veries	Run# 1	Run# 2	Limits		
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoron 1,2-Dichloroetha Toluene-D8 4-Bromofluorob	ane-D4	112% 110% 104% 89%		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 N = Indicates presumptive evidence of a compound



	. (	Repo	rt of An	alysis		Page 1 of 1
Client Sample Lab Sample Matrix: Method: Project:			sin Program	Date Sampled Date Received Percent Solid	l: 06/15/10	
Run #1 Run #2	File ID DF C0010087.D 1	Analyzed 06/18/10	By RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VC451
Run #1 Run #2	Purge Volume 5.0 ml	· · ·				
Purgeable A	Aromatics	-				``
CAS No.	Compound	Result	RL	Units Q		ı.
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% 110% 104% 88%		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
- N = Indicates presumptive evidence of a compound



Report of Analysis

Client Sam Lab Sampl Matrix: Method: Project:	e ID: T54504-8 AQ - Ground Wat SW846 8260B	er 1 Juan River Basin Pro	Date Sampled Date Received Percent Solid gram	1: 06/15/10	
Run #1 Run #2	File ID         DF           C0010088.D         1	Analyzed By 06/18/10 RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VC451
Run #1 Run #2	Purge Volume 5.0 ml				
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         2.0           ND         4.0	ug/l ug/l ug/l ug/l		
CAS No.	Surrogate Recoveries	Run#1 Ru	n#2 Limits		
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	113% 110% 103% 85%	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
- N = Indicates presumptive evidence of a compound



	•	Repor	t of An	alysis		Page 1 of
Client Samp Lab Sample Matrix: Method: Project:			in Program	Date Sampled: Date Received: Percent Solids:	06/15/10	· · · ·
Run #1 Run #2	File ID DF C0010089.D 1	Analyzed 06/18/10	By RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VC451
Run #1 Run #2	Purge Volume 5.0 ml				·	· .
Purgeable A	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	<b>Run#</b> 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%		· .
i		ς				

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

N = Indicates presumptive evidence of a compound



Report of Analysis

Client Sam	ple ID:	M4							
Lab Sampl	le ID:	T54504	4-10			Date S	Sample	d: 06/10/10	
Matrix:		AQ - Q	Fround Wa	ater		Date I	Receive	d: 06/15/10	
Method:		~	8260B			Perce	nt Solid	ls: n/a	
Project:				n Juan River Ba	sin Progra				
	File ID		DF	Analyzed	By	Prep D	ate	Prep Batch	Analytical Batch
Run #1	C00100	90.D	1	06/18/10	RR	n/a		n/a	VC451
Run #2	F02659	8.D	5	06/21/10	RR	n/a		n/a	VF3896
	Purge	Volume				·			
Run #1	5.0 ml								
Run #2	5.0 ml								
L	<u> </u>			<u></u>					
Purgeable	Aromati	cs							
CAS No.	Comp	ound		Result	RL	Units	Q		
71-43-2	Benze	ne		147 a	10	ug/l			
108-88-3	Toluer			ND	2.0	ug/l			
100-41-4		enzene		ND.	2.0	ug/l			
1330-20-7				139	6.0				
		e (total)		1000 A	8 <b>8</b> 084	ug/l			
95-47-6	o-Xyle	ene		ND	2.0	ug/l			

	m,p-Xylene	139	4.0 ug	g/1
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%	84%	<b>79-122%</b>
17060-07-0	1,2-Dichloroethane-D4	106%	80%	75-121%
2037-26-5	Toluene-D8	106%	91%	<b>87-119</b> %
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

N = Indicates presumptive evidence of a compound



Page 1 of 1

Report of Analysis Client Sample ID: M5 Lab Sample ID: T54504-11 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 File ID DF Analyzed Prep Date Analytical Batch By **Prep Batch** Run #1 F026599.D 1 06/21/10 RR VF3896 n/a n/a 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 2.0 ND ug/l 1330-20-7 Xylene (total) ND ug/l 6.0 95-47-6 o-Xylene ND 2.0 ug/l m,p-Xylene 4.0 ug/l ND 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 80-133% 111%

ND = Not detected

n

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

			*		5			. 0
Client Sam Lab Samp Matrix: Method: Project:	le ID: T5450 AQ - 0 SW84	Ground W 6 8260B	ater an Juan River Ba	sin Progra	Date H Percer	Sampleo Receive nt Solid	d: 06/15/10	
Run #1 Run #2	File ID F026593.D	DF 1	Analyzed 06/21/10	By RR	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VF3896
Run #1 Run #2	Purge Volume 5.0 ml	•						
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			

6.0

ug/l

95-47-6	o-Xylene	ND 2.0	ug/l
	m,p-Xylene	ND 2.0 4.0	ug/l
CAS No.	Surrogate Recoveries	Run#1 Run#2	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

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

Xylene (total)

1330-20-7

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

18 of 30 ACCUTEST. T54504

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		Repo	Report of Analysis									
Client Sam Lab Sampl Matrix: Method: Project:			sin Program	Date Sampled Date Received Percent Solid	1: 06/15/10							
Run #1 Run #2	File IDDFF026600.D1	Analyzed 06/21/10	By RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VF3896						
Run #1 Run #2	Purge Volume 5.0 ml											
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	<b>Run#</b> 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	84% 80% 91% 112%		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

N = Indicates presumptive evidence of a compound



3.13

**TRIP BLANK** Client Sample ID: Lab Sample ID: T54504-14 Date Sampled: 06/10/10 Matrix: AQ - Trip Blank Water Date Received: 06/15/10 Method: SW846 8260B Percent Solids: n/a Project: MWHCODE: San Juan River Basin Program **Analytical Batch** File ID DF Analyzed By Prep Date Prep Batch C0010069.D RR VC451 Run #1 1 06/18/10 n/a n/a 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 ND\* \* Toluene 2.0 ug/l ug/l 100-41-4 Ethylbenzene ND 2.0 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% 75-121% 17060-07-0 1,2-Dichloroethane-D4 111% 2037-26-5 **Toluene-D8** 102% 87-119% 460-00-4 4-Bromofluorobenzene 80-133% 92%

**Report of Analysis** 

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

N = Indicates presumptive evidence of a compound



Section 4

# Misc. Forms

Gulf Coast

LABORATORIES

<u>Accutest</u>

# Custody Documents and Other Forms

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Includes the following where applicable:

• Chain of Custody



United South         E Mail         Bit to         Universe Mail	r,		·		СН	AI	N (	DF	' <b>C</b>	CU	'S'	тс	D	Y		·								· · ·	
10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4700         Collect (Reparing Information         Collect (Reparing Information         Collect (Reparing Information         Man Mark College (See Stand Ass)         Mark College (See Stand Ass)         The Set Stand Ass)         Association         The Set Stand Ass)         Association (See Stand Ass)													IF	ED-EX	Tracking				Bottle	Order Co	entrol #		F	age <u>of</u>	
Client / Reporting Information         Client / Reporting Information <thclient information<="" reporting="" th=""> <thclient <="" td=""><td></td><td></td><td>n. TX -</td><td>77036 -</td><td>713-27</td><td>1-47</td><td>00 fa</td><td>x: 7</td><td>13_</td><td>271.</td><td>.47</td><td>70</td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thclient></thclient>			n. TX -	77036 -	713-27	1-47	00 fa	x: 7	13_	271.	.47	70			-										
Client (Reporting Information)         Construction         Description         Description <thdes< td=""><td></td><td>To too and thin, butter 150 Houses</td><td></td><td>//050</td><td>,115 21</td><td></td><td>00 10</td><td><b>A</b>I /</td><td>10 /</td><td></td><td></td><td></td><td>ſ</td><td>Courtes</td><td></td><td></td><td></td><td></td><td>Account</td><td>T</td><td>-5'</td><td>4:</td><td>50</td><td>74</td></thdes<>		To too and thin, butter 150 Houses		//050	,115 21		00 10	<b>A</b> I /	10 /				ſ	Courtes					Account	T	-5'	4:	50	74	
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Ind Smith       jed.smith@mwhglobal.com       EPNC Pipeline       Inn Yangdiguya         Markai       Inn Yangdiguya       Inn Yangdiguya       Inn Yangdiguya         Markai       Sing       P.O. Box 2511       Inn       Inn         Markai       Sing       Sing       Inn       Top       Inn       Inn         Markai       Sing       Sing       Sing       Inn       Top       Inn       Inn <td>мwн</td> <td></td> <td></td> <td>·</td> <td>•</td> <td></td> <td>GW - Ground Water</td>	мwн			·	•																			GW - Ground Water	
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4       R2       IOSS CW 3       X       X       IOSS CW 3       X         5       R3       I/27 GW 3       X       X       IOSS CW 3       X         6       R5       I/15G GW 3       X       X       IOSS CW 3       X         7       M7       I/23G GW 3       X       IOSS CW 3       X       IOSS CW 3       X         7       M7       IZ25C GW 3       X       IOSS CW 3       X       IOSS CW 3       X       IOSS CW 3       X         9       M3       IZ25C GW 3       X       IOSS CW 3	2	RG			0945	GW	3	х						X											
T       K/2       I/27       GW       3       X       X         G       R5       I/27       GW       3       X       X       I/27         G       R5       I/26       GW       3       X       X       I/27         G       R5       I/27       GW       3       X       X       I/27         G       R5       I/23       GW       3       X       I/27       GW       I/27         G       R1       I/25       GW       3       X       I/27       GW       I/27         S       M       I/25       GW       3       X       I/27       I/27       I/27         G       M1       I/25       GW       3       X       I/27       I/27       I/27         G       M1       I/25       GW       3       X       I/27       I/27       I/27         G       M1       I/25       GW       3       X       I/27       I/27       I/27         G       M1       I/26       GW       3       X       I/27       I/27       I/27       I/27       I/27       I/27       I/27       I/27       I/27	3	RT			1026	GW	3	x	Т	TT	T		T	X											
S       R3       I/27       GW       3       X       X       X         G       R55       I/15G       GW       3       X       X       X       X         7       M7       I/28       GW       3       X       X       X       X       X         8       M       I       I/25G       GW       3       X       X       X       X       X         9       M3       I/27G       GW       3       X       X       X       X       X       X         9       M3       I/27G       GW       3       X <td< td=""><td>4</td><td>P2</td><td>+</td><td></td><td>INSC</td><td>GW</td><td>3</td><td>x</td><td></td><td><math>^{++}</math></td><td>1</td><td></td><td></td><td>Ŷ</td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td></td<>	4	P2	+		INSC	GW	3	x		$^{++}$	1			Ŷ		-						-			
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7       M 7       I 230       GW 3       X       X       X         8       M 1       I 250       GW 3       X       X       X       X         9       M 3       I 250       GW 3       X       X       X       X       X         9       M 3       I 250       GW 3       X       X       X       X       X       X       X         9       M 3       X       I 455       GW 3       X		KJ	+-+		1121	ļ	<u> </u>				-+	$\rightarrow$		<u> </u>		-+-		+			┼──┼				
7       111       7       252       GW       3       X <td>6</td> <td><u>R5</u></td> <td></td> <td></td> <td>1150</td> <td>· · · ·</td> <td>·</td> <td></td> <td></td> <td><math>\square</math></td> <td>-+</td> <td>.    </td> <td></td> <td><u> </u></td> <td></td> <td>-</td> <td></td> <td></td> <td>-</td> <td></td> <td>ļ</td> <td></td> <td>-</td> <td></td>	6	<u>R5</u>			1150	· · · ·	·			$\square$	-+	.		<u> </u>		-			-		ļ		-		
9       M3       //2/9       GW       3       X       //2/9       GW       GW       X       //2/9       GW       GW       //2/9       GW       GW       X       //2/9       GW       GW       GW       //2/9       GW       GW       GW       //2/9       GW       GW       GW       //2/9       GW       GW </td <td>7</td> <td><u>m7</u></td> <td></td> <td></td> <td>1238</td> <td>GW</td> <td>3.</td> <td>x</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td>	7	<u>m7</u>			1238	GW	3.	x						X											
10       13       14 <td< td=""><td>8</td><td>m '1</td><td>+ T</td><td></td><td>125%</td><td>GW</td><td>3</td><td>Х</td><td></td><td></td><td></td><td></td><td></td><td>XI</td><td></td><td></td><td></td><td></td><td></td><td></td><td>   </td><td></td><td></td><td></td></td<>	8	m '1	+ T		125%	GW	3	Х						XI											
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Sector Contract of the Subject of t	10	me			145	GW	3	Y	1.		+			2	-+	-+-			+				-		
X       10 Day STANDARD       Approved By/ Date:       Commercial "A"       TRRP-13         Y       Day       X       Commercial "A"       TRRP-13         Y       Day       Reduced Tior 1       Other       Method 8260 also acceptable at 8021 Price         Y       Day SMERGENCY       Reduced Tior 1       Other       U-10-10       IRCO       PUT IN Sample         Y       Day SMERGENCY       Commercial "A" = Results Only       Commercial "A" = Results Only       Full Data Package         Y       Day SMERGENCY       Commercial "A" = Results Only       Commercial "A" = Results Only       Full Data Package         Other       Day SMERGENCY       Commercial "A" = Results Only       Commercial "B" = Results & Standard QC       Full Data Package         Real time analytical data available via Lablink       Sample Custorby MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY       Received By:         Realinguished by:       Data Time:       Received By:       Data Time:       Received By:         Mathod By:       Data Time:       Data Time:       Received By:       Data Time:       Received By:         A       Mathod By:       Data Time:       Received By:       Custory Sail #       Preserved when applicable       Quiter Tomp.         A       Data Ti	_	Tumaround Time ( Business days)	<u>L Y</u>	7.47.478					nation	12903	1			<b>∧</b> ≣2855	E	1000	使於		 omments	 ; / Remá	i	<b>8</b> 1	7. 1913 - 1914 - 1914 - 1914 - 1914 - 1914 - 1914 - 1914 - 1914 - 1914 - 1914 - 1914 - 1914 - 1914 - 1914 - 1914 -		
4 Day RUSH       Raduced Tier 1       Other       Other         3 Day KERGENCY       Pull Data Package       Commercial TA* = Results Only       Frid Data Package         1 Day MERGENCY       Commercial TA* = Results Only       Commercial TA* = Results Only       Frid CLC At LT UN 1/45, DGD AL         Other       Commercial TA* = Results Only       Commercial TA* = Results Only       Frid CLC At LT UN 1/45, DGD AL         Relinquished by Simplar.       SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSE SSION, INCLUDING COURIER DELIVERY       Relinquished by:       C// 1/4//0         Relinquished by Simplar.       Data Time.       Receiver By:       C// 1/4//0       1500         1       MULLI       2       Receiver By:       C// 1/4//0       1500       Receiver By:         1       Multicity       Data Time.       Receiver By:       C// 1/4//0       1500       2       FED       X         References       Data Time.       Data Time.       Receiver By:       Custor's Stall #       Preserved twine applicable       Preserved twine applicable         1       Data Time.       Receiver By:       Custor's Stall #       Preserved twine applicable       Preserved twine applicable       Preserved twine applicable         1       Data Time.       Receiver By:       Custor's Stall # <td< td=""><td>X</td><td></td><td>Data:</td><td></td><td>Com</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	X		Data:		Com																				
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## T54504: Chain of Custody Page 1 of 2



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## T54504: Chain of Custody Page 2 of 2

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## Section 5

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## GC/MS Volatiles

**Gulf Coast** 

LABORATORIES

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## QC Data Summaries

### Includes the following where applicable:

- Method Blank Summaries
- Blank Spike SummariesMatrix Spike and Duplicate Summaries



## Method Blank Summary

Account: Project:	ELPASOX EL I MWHCODE: S					. ,	
Sample VC451-MB	File ID C0010068.D	DF 1	Analyzed 06/18/10	By RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VC451
The QC report	ted here applies t	o the fo	llowing sample	5:	·····	Method: SW84	6 8260B

T54504-1, T54504-2, T54504-3, T54504-4, T54504-5, T54504-6, T54504-7, T54504-8, T54504-9, T54504-10, T54504-14

CAS No.	Compound	Result	RL	Units	Q
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 ND ND ND ND ND	2.0 2.0 2.0 6.0 4.0 2.0	ug/l ug/l ug/l ug/l ug/l ug/l	(
CAS No.	Surrogate Recoveries		Limits	<b>;</b>	

	Dibromofluoromethane
17060-07-0	1,2-Dichloroethane-D4
2037-26-5	Toluene-D8
460-00-4	4-Bromofluorobenzene

110%	79-122%
109%	75-121%
103%	87-119%
88%	80-133%



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T54504

## Method Blank Summary

Job Number: Account: Project:	T54504 ELPASOX EL MWHCODE: S						
Sample VF3896-MB	File ID F026585.D	DF 1	Analyzed 06/21/10	By <sup>.</sup> RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VF3896
	ted here applies 4504-11, T54504			es:		Method: SW84	6 8260B
CAS No. Co	ompound		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
1868-53-7	Dibromofluoromethane
17060-07-0	1,2-Dichloroethane-D4
2037-26-5	Toluene-D8

2037-26-5	Toluene-D8
460-00-4	4-Bromofluorobenzene

86%	79-122%
82%	75-121%
94%	87-119%
113%	80-133%

Limits

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## Blank Spike Summary

Job Number: Account: Project:	T54504 ELPASOX EL PASO ( MWHCODE: San Juar			•••		·
Sample VC451-BS	File ID DF C0010066.D 1	Analyzed 06/18/10	By RR	Prep Date n/a	Prep Batch n/a	Analytical Batch VC451
The QC report	ted here applies to the f	ollowing sample	s:		Method: SW84	6 8260B

T54504-1, T54504-2, T54504-3, T54504-4, T54504-5, T54504-6, T54504-7, T54504-8, T54504-9, T54504-10, T54504-14

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	Liı	nits	
1868-53-7	Dibromofluoromethane	109%		-122%	
17060-07-0	,	109%	24.16.23	-121%	
2037-26-5	Toluene-D8	105%	87	-119%	
460-00-4	4-Bromofluorobenzene	90%	80	-133%	



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## Blank Spike Summary

Job Number: Account: Project:	T54504 ELPASOX EL MWHCODE: S						
Sample VF3896-BS	File ID F026583.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	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	Li	aits	
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	84% 83% 91% 110%	75 87	-122% -121% -119% -133%	



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## Matrix Spike/Matrix Spike Duplicate Summary

Job Number: Account: Project:	T54504 ELPASOX EL I MWHCODE: S						
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T54504-1MS	C0010071.D	1	06/18/10	RR	n/a	n/a	VC451
T54504-1MSD	C0010072.D	1	06/18/10	RR	n/a	n/a	VC451
T54504-1	C0010070.D	1	06/18/10	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, T54504-14

100-41-4       Ethylbenzene       ND       25       22.4       90       21.6       86       4       75-112/1         108-88-3       Toluene       ND       25       23.2       93       22.5       90       3       77-114/1         1330-20-7       Xylene (total)       ND       75       67.0       89       64.5       86       4       75-112/1         1330-20-7       Xylene (total)       ND       75       67.0       89       64.5       86       4       75-111/1         m,p-Xylene       ND       50       45.1       90       43.4       87       4       75-112/1         95-47-6       o-Xylene       ND       25       22.0       88       21.1       84       4       74-110/1         CAS No.       Surrogate Recoveries       MS       MSD       T54504-1       Limits       101/1         108%       108%       112%       79-122%         17060-07-0       1,2-Dichloroethane-D4       106%       108%       112%       79-122%       75-121%	CAS No.	Compound	T54504-1 ug/l Q	Spike ug/l	MS MS ug/l %	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
CAS No.       Surrogate Recoveries       MS       MSD       T54504-1       Limits         1868-53-7       Dibromofluoromethane       109%       108%       112%       79-122%         17060-07-0       1,2-Dichloroethane-D4       106%       104%       108%       75-121%	100-41-4 108-88-3 1330-20-7	Ethylbenzene Toluene Xylene (total) m,p-Xylene	ND ND ND ND	25 25 75 50	22.4       90         23.2       93         67.0       89         45.1       90	21.6 22.5 64.5 43.4	86 90 86 87	4 3 4 4	76-118/16 75-112/12 77-114/12 75-111/12 75-112/12 74 110/11	
	CAS No. 1868-53-7	Surrogate Recoveries Dibromofluoromethane	MS 109%	MSD	T54504-1	Limits 79-122	% %		/4-110/11	



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## Matrix Spike/Matrix Spike Duplicate Summary

Account: Project:			ORPORATION River Basin Pro				
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T54504-12MS	F026594.D	1	06/21/10	RR	n/a	n/a	VF3896
T54504-12MSD	F026596.D	1	06/21/10	RR	n/a	n/a	VF3896
T54504-12	F026593.D	1	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	· .	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2 100-41-4	Benzene	ND	25 25	19.9 19.9	80 80	19.2 19.2	202 9 (10 00 C	4 4	76-118/16 75-112/12
108-88-3	Ethylbenzene Toluene	ND ND	25	20.0	80	19.5	78	3	77-114/12
	Xylene (total) m,p-Xylene	ND ND	75 50	60.9 40.5	81 81	58.8 39.1		4 4	75-111/12 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			
2037-26-5	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	83% 82% 89% 108%	82% 81% 90% 106%	84% 81% 91% 1115	) ) )	79-122% 75-121% 87-119% 80-133%	6		



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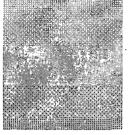
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e-Hardcopy 2.0 **Automated Report** 

07/07/10







Technical Report for

### EL PASO CORPORATION

### MWHCODE: San Juan River Basin Program

ALL IN. THE CHEMISTRY

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.

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)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories. Test results relate only to samples analyzed.

Paul K Carrevan

Paul Canevaro Laboratory Director

Gulf Coast • 10165 Harwin Drive • Suite 150 • Houston, TX 77036 • tel: 713-271-4700 • fax: 713-271-4770 • http://www.accutest.com

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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	Matr: Code		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	
1	All samples were extracted within	the recommended method holding time.	
1	All samples were analyzed within	the recommended method holding time.	
I	All method blanks for this batch r	neet 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

Wednesday, July 07, 2010

Page 1 of 1



# Section 3

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## Sample Results

IT'S ALL IN THE CHEMISTRY

## Report of Analysis

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			Repo	rt of An	alysis			Page 1 of
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T54517 SO - So SW846	Juan River Ba	Date Sampled: 06/11/10 Date Received: 06/15/10 Percent Solids: 87.2					
Run #1 Run #2	File ID Y0040687.D	DF 1	Analyzed 06/18/10	By FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VY2544
Run #1 Run #2	Initial Weight 5.68 g	Final Vo 5.0 ml	lume					
Purgeable	Aromatics			· .				
CAS No.	Compound		Result	RL	MDL	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	4.0 4.0 4.0 12 4.0 8.1	0.71 0.96 0.91 2.1 0.65 1.5	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	·	
CAS No.	Surrogate Rec	overies	Run# 1	Run#2	Lim	its		
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoro Toluene-D8 4-Bromofluoro 1,2-Dichloroet	benzene	76% 78% 91% 57%		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

N = Indicates presumptive evidence of a compound



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		Page 1 of 1						
Client Sam Lab Samp Matrix: Method: Project:	le ID: T5451 SO - S SW846	7-1 oil 3 8015	Juan River Ba	sin Program	Date Sampled: 06/11/10 Date Received: 06/15/10 Percent Solids: 87.2			
Run #1 Run #2	File ID EE055801.D	DF 1	Analyzed 06/17/10	By LB	Prep Date n/a	Prep Batch n/a	Analytical Batch GEE2855	
Run #1 Run #2	Initial Weight 5.81 g	Final Vo 5.0 ml	lume Meth 100 u	anol Aliquo l	t _	. ,		
CAS No.	Compound TPH-GRO (C	6-C10)	Result	RL 5.7	MDL Units 0.34 mg/kg	Q		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Limits			
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluorot		108% 89%		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 N = Indicates presumptive evidence of a compound



			Repo	rt of An	alysis			Page 1 of 1		
Client San Lab Samp Matrix: Method: Project:	le ID: T54517 SO - So SW846	oil 8015 M SV	W846 3550B uan River Ba	Date			Date Sampled: 06/11/10 Date Received: 06/15/10 Percent Solids: 87.2			
Run #1 Run #2	File ID IF199058.D	DF 1	Analyzed 06/29/10	By EM	Prep D 06/19/1		Prep Batch OP15183	Analytical Batch GIF1044		
Run #1 Run #2	Initial Weight 30.3 g	Final Volu 1.0 ml	ıme							
CAS No.	Compound		Result	RL	MDL	Units	Q			
	TPH (C10-C28 TPH (>C28-C	•	ND ND	3.8 3.8	3.1 2.5	mg/kg mg/kg				
CAS No.	Surrogate Rec	coveries	<b>Run#</b> 1	Run# 2	Lim	its				
84-15-1	o-Terphenyl	• •	60%		33-1	15%				

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



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		Repor	t of An	alysis				Page 1 of 1
Client Samp Lab Sample Matrix: Method: Project:		Juan River Basi	n Program	Date Sat Date Re Percent	ceived:	06/11/10 06/15/10 82.2		
	File ID DF M0026382.D 1	Analyzed 06/16/10	By FI	Prep Date n/a	8	Prep Batch n/a	Analy VM10	tical Batch 69
	Initial Weight Final Vo 5.22 g 5.0 ml	olume			í			
Purgeable A	Aromatics							
CAS No.	Compound	Result	RL	MDL	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	4.7 4.7 4.7 14 4.7 9.3	1.1 1.1 2.4 0.75	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg			•
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits				
1868-53-7 2037-26-5 460-00-4 17060-07-0	037-26-5 Toluene-D8 60-00-4 4-Bromofluorobenzene			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

N = Indicates presumptive evidence of a compound



		Page 1 of 1						
Client San Lab Sam Matrix: Method: Project:	-	06/11/10 06/15/10 82.2						
Run #1 Run #2	File ID EE055802.D	DF 1	Analyzed 06/17/10	By LB	Prep D n/a	vate	Prep Batch n/a	Analytical Batch GEE2855
Run #1 Run #2	Initial Weight 5.24 g	Final Vo 5.0 ml	lume Metha 100 ul	anol Aliquo	t			
CAS No.	Compound		Result	RL	MDL	Units	Q	····
	TPH-GRO (C	6-C10)	ND	6.9	0.41	mg/kg	I	·
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its		
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluorot		107% 90%			27% 20%		

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



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	i	Page 1 of 1						
Client San Lab Samp Matrix: Method: Project:	le ID: T54517 SO - So SW846	7-2 oil 5 8015 M S	SW846 3550B Juan River Ba	sin Program	Date Sampled: Date Received: Percent Solids:		06/15/10	
Run #1 Run #2	File ID IF199059.D	DF 1	Analyzed 06/29/10	By EM	Prep D 06/19/1		Prep Batch OP15183	Analytical Batch GIB1044
Run #1 Run #2	Initial Weight 30.2 g	Final Vo 1.0 ml	lume	<u>.</u> .				
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH (C10-C2 TPH (>C28-C		ND ND	4.0 4.0	3.3 2.7	mg/kg mg/kg		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its	•	
84-15-1	o-Terphenyl		50%.		33-1	15%		

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

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N = Indicates presumptive evidence of a compound.



	Report of Analysis											
Client Sam Lab Sampl Matrix: Method: Project:		5/11/10 5/15/10 ).4										
Run #1 Run #2	File ID         DF           M0026383.D         1	Analyzed By 06/16/10 FI	Prep Date Pre n/a n/a	ep Batch Analytical Batch VM1069								
Run #1 Run #2	Initial Weight Final Vo 5.02 g 5.0 ml	olume		······								
Purgeable	Aromatics	- 										
CAS No.	Compound	Result RL	MDL 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         5.0           ND         5.0           ND         5.0           ND         5.0           ND         15           ND         5.0           ND         9.9	0.87 ug/kg 1.2 ug/kg 1.1 ug/kg 2.6 ug/kg 0.79 ug/kg 1.8 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	109% 99% 124% 98%	70-121% 76-132% 73-165% 57-122%									

**MDL - Method Detection Limit** ND = Not detectedRL = 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



a'	Report of Analysis									
Client Sam Lab Samp Matrix: Method: Project:	le ID: T5451 SO - S SW840	7-3 oil 5 8015	Juan River Bas	Juan River Basin Program			06/11/10 06/15/10 80.4			
Run #1 Run #2	File ID EE055803.D	DF 1	Analyzed 06/17/10	By LB	Prep Da n/a	te	Prep Batch n/a	Analytical Batch GEE2855		
Run #1 Run #2	Initial Weight 5.28 g	Final Vo 5.0 ml	blume Metha 100 ul	anol Aliquo	t					
CAS No.	Compound TPH-GRO (C	6-C10)	Result ND	RL	MDL 0.43	Units mg/kg	Q			
CAS No.	 Surrogate Re	coveries	Run# 1	Run# 2	Limi	ts				
460-00-4 4-Bromofluorobenzene 98-08-8 aaa-Trifluorotoluene		107% 88%		46-12 44-12						

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



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		Page 1 of 1						
Client Sam Lab Sampl Matrix: Method: Project:	le ID: T54517 SO - So SW846	7-3 oil 5 8015 M S	SW846 3550B Juan River Bas	W846 3550B uan River Basin Program		Sampled: Received: nt Solids:	06/15/10	
Run #1 Run #2	File ID IF199060.D	DF 1	Analyzed 06/29/10	By EM	Prep D 06/19/1		Prep Batch OP15183	Analytical Batch GIF1044
Run #1 Run #2	Initial Weight 30.3 g	Final Vol 1.0 ml	lume				~	
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH (C10-C23 TPH (>C28-C	•	9.06 9.05	South L	3.4 2.7	mg/kg mg/kg		
CAS No.	Surrogate Red	coveries	Run# 1	Run# 2	Lim	its		
84-15-1	o-Terphenyl		57%		33-1	15%		

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



			Repo	rt of An	alysis		<b>v</b> .	Page 1 of 1
Client Samp Lab Sample Matrix: Method: Project:	e ID: T54517 SO - So SW846	oil 8260B	Juan River Ba	sin Program	Date I Percer	Sampled: Received: nt Solids:	: 06/15/10	• .
Run #1 Run #2	File ID M0026384.D	DF 1	Analyzed 06/16/10	By FI	Prep D n/a	bate	Prep Batch n/a	Analytical Batch VM1069
Run #1 Run #2	Initial Weight 5.53 g	Final Vo 5.0 ml	lume					
Purgeable A	Aromatics							
CAS No.	Compound		Result	RL	MDL	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 To	3.9 3.9 3.9 12 3.9 7.9	0.69 0.93 0.89 2.1 0.63 1.4	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg		,
CAS No.	Surrogate Rec	coveries	<b>Run#</b> 1	Run# 2	Lim	its	N	
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoro Toluene-D8 4-Bromofluoro 1,2-Dichloroet	benzene	109% 106% 117% 101%		76-1 73-1	21% 32% 65% 22%		

ND = Not detected MDL - Method Detection Limit RL = Reporting LimitE = 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 Sam Lab Samp Matrix: Method: Project:	le ID: T5451 SO - S SW846	7-4 oil 5 8015	Juan River Ba	sin Program	Date Sa Date Re Percent	eceived:	06/15/10			
Run #1 Run #2	File ID EE055804.D	DF 1	Analyzed 06/17/10	By LB	Prep Dat n/a	te	Prep Batch n/a	Analytical Batch GEE2855		
Run #1 Run #2	Initial Weight 5.35 g	Final Vo 5.0 ml	lume Meth 100 u	anol Aliquo l	t	-				
CAS No.	Compound		Result	RL	MDL	Units	Q			
	TPH-GRO (C	6-C10)	ND	5.5	0.33	mg/kg				
CAS No.	Surrogate Re	coveries	Run# 1	Run#2	Limit	s				
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluorot		*109% 90%		46-12 44-12					

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



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Report of Analysis

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Client San Lab Samp Matrix: Method: Project:	le ID: T54517 SO - So SW846	7-4 pil 5 8015 M - S	SW846 3550B Juan River Ba	sin Program	Date 1 Perce	Sampled: Received: nt Solids:	: 06/15/10	
Run #1 Run #2	File ID IF199061.D	DF 1	Analyzed 06/29/10	By EM	Prep D 06/19/1		Prep Batch OP15183	Analytical Batch GIB1044
Run #1 Run #2	Initial Weight 30.5 g	Final Vo 1.0 ml	lume					'n
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH (C10-C23 TPH ( > C28-C		8:60 7:08	3.6 3.6	2.9 2.4	mg/kg mg/kg		
CAS No.	Surrogate Rec	coveries	Run# 1	Run# 2	Lim	its		
84-15-1	o-Terphenyl		65%		33-1	15%		

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

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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody



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Leboratories							FED-ED	Trackin		•	Bot	tie Order Co	entrol 🖡		Page of
10165 Harwin, Suite 150 - Houston, TX	77036 - 713-27	'1-4700 f	ax: 71	3-271	-477(	)		rt Quote				utest Joh #	Т5	45	17
Client / Reporting Information		roject Informat	tion 🖘	2892E		500 A 10					Requester		s 8	ing an an an an an an an an an an an an an	Matrix Codes
Company Name MWH	Project Name / No.						1								DW - Drinking Water
Project Contact E-Mail	Bill to		Inv	oice Attn			1								GW - Ground Water WW - Wastewater
Jed Smith jed.smith@mwhglobal.com	EPNG Pipeline		lan Ya	anagisa	wa			1.							SQ - Soll
Address	Address														SL - Skutge
1801 California Street, Suite 2900 City State Zip	P.O. Box 2511 City		State			Zip	-	1				· [			OI-Oil LiQ-Liquid
	Houston .		тх			7252	]							1	SOL - Other Solid
Phone No. Fax No. 303-291-2276	Phone No. 713 420-736				Fax N	lo.	]	15	2						
Samplers's Name Julie Linn, RG	Client Purchase Order #	1					8021	TPHGRO/8015	TPHDRO/8015						÷
Accutest Field ID / Point of Collection	Collection	. #of		ber of pr	1 2 1 1		BTEX/802	μĔ	臣						
i Sample #1		Matrix bottle		HNGS N2804	ENCOR NaMSD	MEDH	B	Ē	i i						LAB USE ONLY
<u>  SB 3-5</u> 6-11.	10 1211	SO 2	X				X	LX.	X						
2 SB9-4 6-11	-10 1312	SO 2	X				X	X.	X						*
3 SB 11-32 611.	10 1405	SO 2	X				X	X	V						
4 SB (0-1 10-11	-10 1211	SO 2	X	1-1-			ΓŶ	Ý	Ŷ			-			
	10 1-11	SO 2	x	$\square$				h.							
		SO 2	x									-			
		SO 2	x									-			
		SO 2	x											+	
		SO 2	x	$\left  \right $	$\square$					+		+ .			
		SO 2	<u>}</u>  −			_	<u> </u>		-						
Turnaround Time ( Business days)				lion 288	STRATE OF			1875 Mar	ana an	503	Comme	nts / Remai	da s	#93812	CONSIGNATION CONSIGNATION
X 10 Day STANDARD Approved By:/ Date:		norcial "A"		RP-13										1	
7 Day		vercial "8"		D Forma		_		· ·	Method	8260 als	o accepta	ble at 80	21 Price		
4 Day RUSH		ed Tier 1 ata Package	0	her		_		10:	17.00	Uni	) ni	t in	San	nole	Faidge
2 Day EMERGENCY										1.10					
1 Day EMERGENCY	Commo	arcial "A" = Resu	itts Only					lat	Ľ	T ol·	hill	5 11	) De	D.	1 1
Real time analytical data available via Lablink	Comm	rcial "8" = Resu	ilts & Stan	dard QC					-	ί	·'				•
SAMPLE CUSTODY MUST BE D	OCUMENTED BELOW E	CH TIME SAMP	LES CHAN	GE POSE	ESSION,	INCLUDI	IG COU	RIER DE	LIVERY		1800 1800			12000	
Rollinguished by Sampoler:	10 1400 M	die (	,	R#15	Mil	"io l'	5	6	1,41	o 19	Rece	ived By:			
	300 Receiveday	nr.	1	Reli	guished B	y:			bate Timo:		Rece	lved By:			
3 Grand Gran	0 Kacakriad By: 5	<u>sll</u>	В	Cust	ody Seal A			Proserve	id where a	pplicable	4		Support of the second s	2.4	Temp.

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## T54517: Chain of Custody Page 1 of 3



O A REPORT ON	TRANK MARANTANT	TODE
CARLEN H.		
CANCEDD	INSPECTION	I. CALCIAR

Accutest Job Number: T54517	Client: MWH	Date/Time	Received: 6-	5-10 1300
# of Coolers Received: The	ermometer #: FR-)	Temperature Ad	ljustment Factor	+0.4%
Cooler Temps: #1: <u>2,4 °C</u> #2:		5: #6:		•
Method of Delivery: FEDEX UPS		aound Delivery	Other	
Airbill Numbers: <u><u> </u></u>	9 3277 5587		· · · · · · · · · · · · · · · · · · ·	
COOLER-INFORMATION				INFORMATION
Custody seal missing or not intact Temperature criteria not met Wet ice received in cooler	Sample containers received broker VOC vials have headspace Sample labels missing or illegible ID on COC does not match label(s)		Mp Blank on COC bu Mp Blank received bu Mp Blank not intact Received Water Trip E	ut not on COC
CHAIN OF CUSTODY Chain of Custody not received Sample D/T unclear or missing	D/T on COC does not match label Sample/Bottles revd but no analys Sample listed on COC, but not rec	s)] Is on COC zived	Received Soil TB	
Analyses unclear or missing COC not properly executed Summary of Discrepancies:	Bottles missing for requested analysis Insufficient volume for analysis Sample received improperly preser	Numbe	r of Encores? r of 5035 kits?	s?
TECHNICIAN SIGNATURE/DATE:	90	6/15/10	-10	
	• • <u>CORRECTIVE</u>		* * * *	• • • •
Client Representative Notified:	· · · · · · · · · · · · · · · · · · ·			
By Accutest Representative: Client Instructions:		Via:	Phone	Email

## T54517: Chain of Custody Page 2 of 3



				SAN		ECEIPT	LOG						
JOB #:	T5	4517	•				RECEIVED:	6-1	5-10	· ·	300	<u>с</u>	
CLIENT:	. m	WH	1	·····		•	INITIALS:		IRA				
COOLER#	SAMPLE ID	FIELD ID					1/01						
CODLER#	SAMPLEID	583-5		6-11-10		MATRIX 50	4 02.	BOTTLE #	LOCATION	$O_{5}^{2}$	3 4	<u>۲</u>	가 >12
		<u>5055</u> 583-5			1028	1	1	2	VIP	(1) 2	3 4	<2	>12
<u> </u>	à	SR 9-4			1312			$\frac{1}{1}$	2-76		3 4	<2	>12
مقتدته وتقافرهم	2	589-4		Jaine Jaine	1312	<u></u>		ð	NR NR		3		×==>12
ŀ	3	5B 11-32			1405			1	2-76		3 4	<2	>12
•	3	SB 11-32			1405			2	VR		3 4	<2	>12
~	4	5B 6-1			1211			١	2-76	$D_{5 6 7}^{2}$	<sup>3</sup> 4 . 8 .	<2	>12
V	4	5B 6-1		$\vee$	1211	$\mathbf{V}$	$\checkmark$	للا	VR	$O_{5}^{2}$		<2	>12
· •		`								<u>1 2 3</u> 5 6 7		<2	A
										1 2 3		~2	>12
		-								1 2 3		<2	>12
									$\leq$	1 2 3 5 6 7	8	<2	>12
										123 567	8	<2	>12
		· · · · · · · · · · · · · · · · · · ·				10				1 2 3	8	<2	>12
			<u> </u>		6-14	2-10-1				1 2 3	8	<2	`>12
			2.	_AK#						1 2 3 5 6 7 1 2 3	8	<2	>12
								- <i>,</i>		567	8	<2	>12
			$\leq$	· · · · · ·			· · · · ·			5 6 7	в	<2	>12
										<u>5 8 7</u> 1 2 3	8	<2	>12
										<u>567</u> 123	8	<2	>12
	<u> </u>									5 6 7	8	<2	>12
										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 SummariesMatrix Spike and Duplicate Summaries



## Method Blank Summary

<u> </u>						
Sample	File ID DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
VM1069-MB	M0026370.D1	06/16/10	FI	n/a	n/a	VM1069
					• •	
		,				

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		Limit	S	
1868-53-7	Dibromofluoromethane	103%	70-12	1%	
2037-26-5	Toluene-D8	106%	6-13	2%	
460-00-4	4-Bromofluorobenzene	111%	📓 73-16	5%	
17060-07-0	1,2-Dichloroethane-D4	98%	57-12	2%	
		11 THE REPORT OF STREET, STORE			·



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5.1.1

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## Method Blank Summary

Job Number Account: Project:	r: T54517 ELPASOX EL PASO MWHCODE: San Jua						8
Sample VY2544-MI	File ID DF 3 Y0040677.D 1	Analyzed 06/18/10	By FI	Pro n/a	ep Date	Prep Batch n/a	Analytical Batch VY2544
The QC rep	ported here applies to the	following sample				Method: SW84	6 8260B
T54517-1							
CAS No.	Compound	Result	RL	MDL	Units	Q,	
71-43-2	Benzene	ND.	4.0	0.70	ug/kg		
	Ethylbenzene	ND · · · · ·	4.0	0.90	ug/kg		
	Toluene	ND	4.0	0.95	ug/kg		
1330-20-7	Xylene (total)	ND	12	2.1	ug/kg		
95-47-6	m,p-Xylene o-Xylene	ND ND	8.0 4.0	1.5 0.64	ug/kg ug/kg		
CAS No.	Surrogate Recoveries		Limit	s			
2037-26-5 460-00-4	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	79% 81% 90% 59%	70-12 76-13 73-16 57-12	2% 5%			

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Page 1 of 1



## Blank Spike Summary

Job Number: Account: Project:	T54517 ELPASOX EL F MWHCODE: Sa				· · ·		,
Sample VM1069-BS	File ID M0026368.D		Analyzed 06/16/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VM1069 /
The QC repor	ted here applies to	o the followi	ing sample	s:	1	Method: SW84	6 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	Lir	nits	
1868-53-7	Dibromofluoromethane	108%	70-	121%	r -
2037-26-5	Toluene-D8	106%	76-	132%	
460-00-4	4-Bromofluorobenzene	116%	73-	165%	
17060-07-0	1,2-Dichloroethane-D4	97%	57-	122%	
	· · ·	Internation second second second second second second second second second second second second second second s	NENIYA KENENE		



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5.2.1

## Blank Spike Summary

Job Numbe Account: Project:	r: T54517 ELPASOX EL PASO ( MWHCODE: San Juán						
Sample VY2544-BS	File ID DF Y0040675.D 1	Analy: 06/18/			Prep Date n/a	Prep Batch n/a	Analytical Batch VY2544
	ported here applies to the fo					Method: SW84	6 8260B
T54517-1	for red here applies to the h	onowing sai	inpies.			Memou. Swo4	0.02000
CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits		
71-43-2	Benzene	50		75	70-114		
100-41-4 108-88-3	Ethylbenzene Toluene	50 50		74 72 · · ·	60-119 68-115		
1330-20-7	Xylene (total)	30 150	30.0 115	12 77	61-115		
1000-20 1	m,p-Xylene	100		76	60-115		
95-47-6	o-Xylene	50		77:3	63-114		
CAS No.	Surrogate Recoveries	BSP ·	Lirn	its			
1868-53-7	Dibromofluoromethane	<b>79%</b> -1.	200 100 200 00 C	21%			
2037-26-5	Toluene-D8	· <b>87</b> %		32%			·
460-00-4	4-Bromofluorobenzene	97%	Sec. 3 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	65%			
17060-07-0	1,2-Dichloroethane-D4	1 <b>62%</b> >>>	57-1	22%	^		



2.2



## Matrix Spike/Matrix Spike Duplicate Summary Job Number: T54517

Project:	MWHCODE: San Juan River Basin Program	· .		
Account:	ELPASOX EL PASO CORPORATION			
Job Number:	T54517			·

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch	
T54357-6M	S M0026377.I	D1	06/16/10	FI	n/a	n/a	VM1069	
T54357-6M	SD M0026378.I	D1	06/16/10	FI /	n/a	n/a	VM1069	
T54357-6	M0026376.I	D1	06/16/10	FI	n/a	n/a	VM1069	
					-			

The QC reported here applies to the following samples:

T54517-2, T54517-3, T54517-4

CAS No.	Compound	T54357-6 ug/kg Q	Spike ug/kg	MS MS ug/kg %	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	4.0 U 4.0 U 4.0 U 12 U 8.1 U 4.0 U	57.1 57.1 57.1 171 114 57.1	56.3       99         51.8       91         52.3       92         148       86         99.1       87         48.6       85	48.7 45.0 45.2 127 84.8 42.3	94 87 87 82 82 82 82 82	14 14 15 15 16 14	70-114/38 60-119/40 68-115/38 61-115/39 60-115/40 63-114/37
CAS No.	Surrogate Recoveries	MS	MSD	Т54357-6	Limits			
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	104% 107% 116% 94%	103% 106%- 115% 92%	141% 99% 109% 106%	70-121 76-132 73-165 57-122	% %	·	

Page 1 of 1

Method: SW846 8260B

5.3.1



## Matrix Spike/Matrix Spike Duplicate Summary

Job Number: Account: Project:	T54517 ELPASOX EL I MWHCODE: Sa			•			
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T54623-4MS	Y0040679.D	-	06/18/10	FI	n/a	n/a	VY2544
T54623-4MSD	Y0040680.D	-	.06/18/10	FI	n/a	n/a	VY2544
T54623-4	Y0040678.D	I	06/18/10	FI	n/a	n/a	VY2544
The OC report	ed here applies t	o the fo	llowing sample	<u> </u>		Method: SW84	6 8260B

T54517-1

CAS No. Co	ompound	T54623-4 ug/kg Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
	enzene	150 U 150 U	1830 1830	1500 1410	82 77	1490 1410	20 LL	1 0	70-114/38 60-119/40
108-88-3 To	thylbenzene oluene	150 U	1830	1390	76	1390	76	0	68-115/38
	ylene (total) ,p-Xylene	440 U 290 U	5490 3660	4450 2940	81 80	4450 2940	81 80	0 0	61-115/39 60-115/40
95-47-6 o-	Xylene	150 U	1830	1510	82	1510	82	0	63-114/37
CAS No. Su	arrogate Recoveries	MS	MSD	T54	623-4	Limits			
2037-26-5 To 460-00-4 4-	oluene-D8 Bromofluorobenzene	79% 91%	80% 80% 87%	81% 82% 89% 60%		70-121% 76-132% 73-165% 57-122%			

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5.3.2





## Section 6

## QC Data Summaries

GC Volatiles

Includes the following where applicable:

Method Blank SummariesBlank Spike Summaries

• Matrix Spike and Duplicate Summaries



## Method Blank Summary

Job Number Account: Project:	r: T54517 ELPASOX EL PASO MWHCODE: San Jua					`	
Sample GEE2855-M	File ID DF IB EE055800.D 1	Analyzed 06/17/10	By LB	Pre n/a	p Date	Prep Batch n/a	Analytical Batch GEE2855
	oorted here applies to the 54517-2, T54517-3, T545		s:			Method: SW84	6 8015
					~		÷
CAS No.	Compound	Result	RL	MDL	Units	Q	
	TPH-GRO (C6-C10)	ND	5.0	0.30	mg/kg		
CAS No.	Surrogate Recoveries		Liraits	8			

 
 460-00-4
 4-Bromofluorobenzene 98-08-8
 108%
 46-127%

 98-08-8
 aaa-Trifluorotoluene
 89%
 44-120%
 Page 1 of 1



## Blank Spike Summary

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEE2855-BS	EE055797.D	1	06/17/10	LB	n/a	n/a	GEE2855
The QC report	ted here applies to	o the follo	wing sample	5:	N	Method: SW84	<b>3 8015</b>

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.345	86	78-115
CAS No.	Surrogate Recoveries	BSP	Lin	nits	1
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	111% 96%	663,8566,658	127% <sup>′</sup> 120%	

Page 1 of 1

6.2.1



## Matrix Spike/Matrix Spike Duplicate Summary

Job Number:	T54517	
Account:	ELPASOX EL PASO CORPORATION	
Project:	MWHCODE: San Juan River Basin Program	

Sample T54517-2N T54517-2N T54517-2	ELOCOUL	1	Analyz 06/17/1 06/17/1 06/17/1	0 .0	By LB LB LB	Prep n/a n/a n/a	Date	Prep H n/a n/a n/a		Analytic GEE285 GEE285 GEE285	5
The QC re	eported here applies (	o the follow	ring san	nple	s:		1	Method:	SW846 8	8015	J
T54517-1,	T54517-2, T54517-3,	T54517-4							۰ ۰		
CAS No.	Compound	_	[54517- ng/kg	2 Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10	) N	٧D		27.5	23.4	85	24.1	87	3	78-115/14
CAS No.	Surrogate Recoveri	es N	ศร		MSD	T54	4517-2	Limits			

		1	
460-00-4	4-Bromofluorobenzene	115% 114% 107%	46-127%
98-08-8	aaa-Trifluorotoluene	86% 92% 90%	44-120%



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## Section 7

## QC Data Summaries

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GC Semi-volatiles

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## Includes the following where applicable:

Method Blank SummariesBlank Spike Summaries

• Matrix Spike and Duplicate Summaries



## Method Blank Summary

Method Bl Job Number: Account: Project:		PASO C	CORPORATION River Basin Prog				Page 1 of 1
Sample OP15183-MB	File ID IF199055.D	DF 1	Analyzed 06/29/10	By EM	Prep Date 06/19/10	Prep Batch OP15183	Analytical Batch GIB1044
	ted here applies to		•	s:		Method: SW840	 6 8015 M
	omnound		Decult	דע	MDI Unite	0	

CAS NO.	Compound	Kesun KL	WIDL	Units Q
	TPH (C10-C28) TPH (>C28-C40)	ND 3.3 ND 3.3	2.7 2.2	mg/kg mg/kg
CAS No.	Surrogate Recoveries	Lir	nits	

	-			
84-15-1	o-Terphenyl	•	55%	33-115%



l

## Blank Spike/Blank Spike Duplicate Summary

Job Number:	T54517						
Account:	ELPASOX EL	PASO C	ORPORATION				
Project:	MWHCODE: S	an Juan I	River Basin Pro	gram			
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15183-BS	IF199056.D	1	06/29/10	EM	06/19/10	OP15183	GIF1044
OP15183-BSD	IF199057.D		06/29/10	EM	06/19/10	OP15183	GIB1044

The QC reported here applies to the following samples:

Method: SW846 8015 M

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7.2.1

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

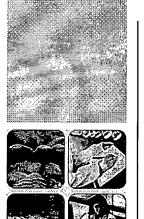
CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP · %	BSD mg/kg	BSD %	RPD	Limits Rec/RPD
	ТРН (С10-С28)	33	16.4	. <b>50</b>	14.9	45.20	10	45-107/30
CAS No.	Surrogate Recoveries	BSP	BS	D	Limits			
84-15-1	o-Terphenyl	56%	<b>55</b> 9	6	33-1159	6		



e-Hardcopy 2.0 Automated Report

09/13/10





### Technical Report for

### EL PASO CORPORATION

#### MWHCODE: San Juan River Basin Program

THEFCHEMISTO

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.

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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Paul & Canevano

Paul Canevaro Laboratory Director

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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 Code		Client Sample ID
T58817-1	08/26/10	09:45 DH	08/27/ĬO	SO	Soil	GP-7415%-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	<u>GP=4:8'=9</u> !
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-3114 -15
T58817-12	08/26/10	16:00 DH	08/27/10	SO	Soil	GR-2-111-12
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 Number	Collected Date	Jime By	Received	Matri Code		Client Sample ID	
T58817-14	08/26/10	07:00 DH	08/27/10	SO	Trip Blank Soil	260810TB02	

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	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 analyze	d within the recommended method	od 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 Tohene-D8: Outside control limits due to matrix interference. Confirmed by reanalysis.
- **T**58817-11 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.

#### 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.

Matrix SO



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, T5902	7-1MSD 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, T5883	6-4MSD were used as the QC samples indicated.	
All method blanks for this batch	meet method specific criteria.	
T58817-13 for 4-Bromofluorobe	nzene: Outside control limits due to matrix interference. Confirmed by reanalysis.	
T58817-10 for 4-Bromofluorobe	nzene: Outside control limits due to matrix interference. Confirmed by reanalysis.	
T58817-5 for 4-Bromofluorober	zene: Outside control limits due to matrix interference. Confirmed by reanalysis.	
T58817-13 for aaa-Trifluorotolu	ene: Outside control limits due to matrix interference. Confirmed by reanalysis.	
T58817-10 for aaa-Trifluorotolu	ene: Outside control limits due to matrix interference. Confirmed by reanalysis.	
Matrix SO	Batch ID: GBB97	
All samples were analyzed withir	the recommended method holding time.	
All method blanks for this batch	meet method specific criteria.	
Sample(s) T58817-1MS, T5881	7-1MSD were used as the QC samples indicated.	
Matrix Spike Recovery(s) for T	PH-GRO (C6-C10) are outside control limits. Probable cause due to matrix interference.	
Matrix Spike Duplicate Recover	r(s) for TPH-GRO (C6-C10) are outside control limits. Probable cause due to matrix interf	erer
Matrix SO	Batch ID: GBB99	
All samples were analyzed within	the recommended method holding time.	
Sample(s) T58920-5AMS, T589	220-5AMSD 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, T5902	6-4MSD were used as the QC samples indicated.	
	、	
ctractables by GC By M	ethod SW846 8015 M	
Matrix SO	Batch ID: OP15844	
All samples were extracted within	n the recommended method holding time.	
All complex 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. 88

T58817-5 for o-Terphenyl: Outside control limits due to dilution. 8

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.

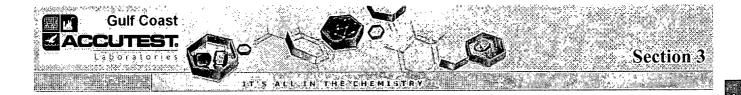
Wednesday, September 08, 2010



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**



Report of Analysis								Page 1 of 1	
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T58817 SO - So SW846	-1 il 8260B	Juan River Ba	sin Program	Date 1 Perce	Sampled: Received: nt Solids:	08/27/10	· · ·	
Run #1 Run #2	File ID Y0041718.D	DF 1	Analyzed 08/30/10	<b>By</b> FI	Prep D n/a	Date	Prep Batch n/a	Analytical Batch VY2593	
Run #1 Run #2	Initial Weight 5.22 g	Final Vol 5.0 ml	ume						
Purgeable	Aromatics				:				
CAS No.	Compound		Result	RL	MDL	Units	Q		
71-43-2 108-88-3	Benzene Toluene		2.8 ND	4.6 4.6	0.80 1.1	ug/kg ug/kg	J	•	
100-41-4 1330 <u>-</u> 20-7	Ethylbenzene Xylene (total) m,p-Xylene		ND ND ND	4.6 14 9.2	1.0 2.4 1.7	ug/kg ug/kg ug/kg	• .		
95-47-6	o-Xylene		ND	4.6	0.74	ug/kg			
CAS No.	Surrogate Reco	overies	Run# 1	Run# 2	Lim	its		r	
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoron Toluene-D8 4-Bromofluorot 1,2-Dichloroeth	enzene	88% 90% 103% 74%		76-1 73-1	121% 132% 165% 122%		· · ·	

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit E = Indicates value exceeds calibration range

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J = Indicates an estimated value

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B = Indicates analyte found in associated method blank



	Report of Analysis						
Client Sar Lab Samp Matrix: Method: Project:	ble ID: T58817-1 SO - Soil SW846 8015	San Juan River Basin Program	Date Sampled: Date Received Percent Solids: n	08/27/10			
Run #1 Run #2	File ID DF BB0001640.D 1	Analyzed By 08/30/10 AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB97		
Run #1 Run #2	Initial Weight Fina 5.57 g 5.0	l Volume Methanol Aliqu nl 100 ul	ot		· · · · · · · · · · · · · · · · · · ·		
CAS No.	Compound TPH-GRO (C6-C10)	Result         RL           3:25         6.4	MDL Units 0.38 mg/kg	Q J			
CAS No. 460-00-4 98-08-8	Surrogate Recoverie 4-Bromofluorobenzer aaa-Trifluorotoluene		2 Limits 46-127% 44-120%		<b>х</b>		

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						
Client San Lab Samp Matrix: Method: Project:	le ID: T58817 SO - So SW846	7-1 oil 5 8015 M - S	SW846 3550B Juan River Ba	sin Progran	Date Sampled Date Received Percent Solids	: 08/27/10	
Run #1 Run #2	File ID IF201032.D	DF 1	Analyzed 09/04/10	By HD	Prep Date 08/30/10	Prep Batch OP15844	Analytical Batch GIB1088
Run #1 Run #2	Initial Weight 30.1 g	Final Vo 1.0 ml	lume		;		
CAS No.	Compound TPH (C10-C2 TPH (>C28-0	· ·	Result 18:1 13:4	RL 4.0 4.0	MDL Units 3.3 mg/kg 2.6 mg/kg		X
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl		85%		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
- N = Indicates presumptive evidence of a compound



	Report of Analysis							
Client Samp Lab Sample Matrix: Method: Project:	e ID: T58817 SO - So SW846	7-2 pil 8260B	Juan River Bas	in Program	Date 1 Percer	Sampled: Received: nt Solids:	08/27/10	· .
Run #1 <sup>a</sup> Run #2	File ID Y0041742.D	DF 1	Analyzed 08/31/10	By FI	Prep D n/a	Date	Prep Batch n/a	Analytical Batch VY2594
Run #1 Run #2	Initial Weight 5.11 g	Final Vo 5.0 ml	lùme Metha 100 ul	nol Aliquo	,		•	
Purgeable A	Aromatics	1						
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene	•	ND ND ND ND ND ND	280 280 280 840 560 280	49 66 63 150 100 45	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	· · ·	• .
CAS No.	Surrogate Rec	coveries	<b>Run#</b> 1	Run# 2	Lim	its		,
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoro Toluene-D8 4-Bromofluoro 1,2-Dichloroet	obenzene	88% 93% 117% 74%		76-1 73-1	121% 132% 165% 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



	· · · ·	Report of An	alysis		Page 1 of 1
Client Sam Lab Samp Matrix: Method: Project:					
Run #1 Run #2	File IDDFBB0001646.D10	Analyzed By 08/31/10 AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB97
Run #1 Run #2	Initial Weight Final Vol 5.11 g 5.0 ml	ume Methanol Alique 100 ul	ot	• .	
CAS No.	Compound TPH-GRO (C6-C10)	Result RL	MDL Units 4.2 mg/kg	Q	
CAS No.	Surrogate Recoveries	Run# 1 Run# 2	Limits	t	
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	70% 115%	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
- N = Indicates presumptive evidence of a compound



	Report of Analysis							Page 1 of 1
Client Sam Lab Sampl Matrix: Method: Project:	le ID: T58817 SO - So SW846	7-2 Dil 8015 M	SW846 3550B 1 Juan River Ba	sin Program	Date F Percer	Sampled: Received: nt Solids:	08/27/10	v
Run #1 Run #2	File ID IF201033.D	DF 1 -	Analyzed 09/04/10	By HD	Prep D 08/30/1		Prep Batch OP15844	Analytical Batch GIF1088
Run #1 Run #2	Initial Weight 30.6 g	Final V 1.0 ml	olume					
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH (C10-C23 TPH (>C28-C		61.3 28.7	4.0 4.0	3.3 2.6	mg/kg mg/kg		
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its		
84-15-1 o-Terphenyl		77%	77%		15%			

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: GP-7 14'-16' Lab Sample ID: T58817-3 Date Sampled: 08/26/10 Matrix: SO - Soil Date Received: 08/27/10 Method: SW846 8260B Percent Solids: 73.0 Project: MWHCODE: San Juan River Basin Program File ID DF Analyzed Prep Date **Prep Batch** Analytical Batch By Y0041719.D 08/30/10 FÍ VY2593 Run #1 1 n/a n/a 🕤 Run #2 Initial Weight **Final Volume** Run #1 5.91 g 5.0 ml Run #2 **Purgeable** Aromatics CAS No. Compound Result RL MDL Units 0 71-43-2 Benzene ND 0.81 4.6 ug/kg 108-88-3 Toluene ND 4.6 1.1 ug/kg 100-41-4 Ethylbenzene 3.6 4.6 ug/kg 1.0 J 1330-20-7 Xylene (total) 20.5 14 2.4 ug/kg m,p-Xylene 16.8 9.3 1.7 ug/kg 95-47-6 o-Xylene 3.6 4.6 0.74 ug/kg J CAS No. Surrogate Recoveries Run#1 Run#2 Limits 1868-53-7 Dibromofluoromethane 86% 70-121% 2037-26-5 96% Toluene-D8 76-132% 460-00-4 4-Bromofluorobenzene 82% 73-165% 17060-07-0 1,2-Dichloroethane-D4 73% 57-122%

ND = Not detectedMDL - Method Detection LimitRL = Reporting LimitE = Indicates value exceeds calibration range

 $J_{i} =$  Indicates an estimated value

 $\mathbf{B}$  = Indicates analyte found in associated method blank

 $N\,=\,$  Indicates presumptive evidence of a compound



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		Page 1 of						
Client Sar Lab Samp Matrix: Method: Project:	ole ID: T58817 SO - So SW846	-3 5il 8015	Juan River Ba	sin Program	Date Sampled: Date Received: Percent Solids:	08/27/10		
Run #1 Run #2	File ID BB0001692.D	DF 5	Analyzed 09/01/10	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB100	
Run #1 Run #2	Initial Weight 5.09 g	Final Vo 5.0 ml	olume Meth 100 u	anol Aliquo I	t			
CAS No.	Compound		Result	RL	MDL Units	Q		
	TPH-GRO (C6	-C10)	143	43	2.6 mg/kg			
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Limits			
460-00-4 98-08-8			72% 109%		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



			Repo	rt of An	alysis			Page 1 of 1	
Client Sam Lab Samp Matrix: Method: Project:	le ID: T58813 SO - S SW846	7-3 oil 5 8015 M S	W846 3550B Juan River Bas	sin Program	Date H Percer	Sampled: Received: nt Solids:	08/27/10		
Run #1 Run #2	File ID. IF201034.D	DF 1	Analyzed 09/04/10	By HD	Prep D 08/30/1		Prep Batch OP15844	Analytical Batch GIB1088	
Run #1 Run #2	Initial Weight 30.4 g	Final Vol 1.0 ml	ume			<u>    .                                </u>	,		
CAS No.	Compound TPH (C10-C2 TPH (>C28-0	,	Result 85:8 25:6	RL · · 4.5 4.5	MDL 3.7 3.0	Units mg/kg mg/kg	Q		
CAS No.	Surrogate Re	coveries	<b>Run#</b> 1	Run#2	Lim	its			
84-15-1	o-Terphenyl		78%	78%		15%			

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



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	Report of Analysis										
Client Sample Lab Sample Matrix: Method: Project:	e ID: T58817 SO - So SW846	7-4 bil 8260B	Juan River Bas	uan River Basin Program			08/26/10 08/27/10 76.8				
Run #1 Run #2	File ID Y0041774.D	DF 1	Analyzed 08/31/10	By FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VY2595			
Run #1 Run #2	Initial Weight 5.53 g	Final Vo 5.0 ml	lume								
Purgeable A	Aromatics										
CAS No.	Compound		Result	RL	MDL	Units	Q				
71-43-2 108-88-3 100-41-4	Benzene Toluene Ethylbenzene		ND ND ND	4.7 4.7 4.7	0.82 1.1 1.1	ug/kg ug/kg ug/kg	Ţ				
1330-20-7 95-47-6	Xylene (total) m,p-Xylene o-Xylene		6:1 5:0 1:1	14 9.4 4.7	2.5 1.7 0.75	ug/kg ug/kg ug/kg	] ] ]				
CAS No.	Surrogate Rec	coveries	Run# 1	Run# 2	Lim	its					
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoro Toluene-D8 4-Bromofluoro 1,2-Dichloroet	obenzene	91% 101% 122% 75%		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



Report of Analysis

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Client Sam Lab Samp Matrix: Method: Project:	le ID: T58817-4 SO - Soil SW846 80	)15	uan River Basir	ı Program	Date F Percer	Sampled: Received: nt Solids:		7/10	۰. ۲۰		
Run #1 Run #2		DF 1	•	Èy AT	Prep D n/a		Prep n/a	Batch	Anal GBB	ytical E 99	Batch
Run #1 Run #2	-	Final Volu 5.0 ml	me Methan 100 ul	ol Aliquo		N	X	, ·			•
CAS No.	Compound		Result	RL	MDL	Units	Q	•	-		-
· .	TPH-GRO (C6-C	:10)	3.88	7.6	0.46	mg/kg	J				
CAS No.	Surrogate Recov	veries	Run# 1	Run# 2	Lim	its					
460-00-4 98-08-8	4-Bromofluorobe aaa-Trifluorotolu		92% 104%			27% 20%		•		. •	

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

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		Page 1 of 1					
Client Sam Lab Samp Matrix: Method: Project:	le ID: T58817 SO - So SW846	7-4 oil 5 8015 M - S	SW846 3550B Juan River Bas	sin Program	Date Sampled: Date Received: Percent Solids:		
Run #1 Run #2	File ID IF201035.D	DF 1	Analyzed 09/04/10	By HD	Prep Date 08/30/10	Prep Batch OP15844	Analytical Batch GIF1088
Run #1 Run #2	Initial Weight 30.4 g	Final Vo 1.0 ml	lume	· · · ·			
CAS No.	Compound		Result	RL	MDL Units	Q	
-	TPH (C10-C2) TPH (>C28-C		196 120	4.3 4.3	3.5     mg/kg       2.8     mg/kg		
CAS No.	Surrogate Red	coveries	<b>Run#</b> 1	Run# 2	Limits		
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 N = Indicates presumptive evidence of a compound



			Repo	rt of A	nalysis		Page 1 of 1	
Client San Lab Samp Matrix: Method: Project:	· · ·							
Run #1 <sup>a</sup> Run #2	File ID Y0041744.D	DF 1	Analyzed 08/31/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VY2594	
Run #1 Run #2	Initial Weight 5.26 g	Final Vol 5.0 ml	ume Meth 100 u	anol Aliq Il	uot			
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL Unit	s O		

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71-43-2	Benzene	ND.	310	55	ug/kg	
108-88-3	Toluene	ŇD	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	Lim	its	
1868-53-7	Dibromofluoromethane	- <b>88</b> %		70-1	21%	
2037-26-5	Toluene-D8	90%			32%	
460-00-4	4-Bromofluorobenzene	139%		73-1	65%	
17060-07-0	1,2-Dichloroethane-D4	72%			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

N = Indicates presumptive evidence of a compound



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	Report of Analysis											
Client Sam Lab Samp Matrix: Method: Project:	le ID: T58817 SO - So SW846	7-5 5il 8015	Juan River Ba	sin Progra	Date H Percer	Sampled: Received: nt Solids:	: 08/27/10					
Run #1 Run #2 ª	File ID BB0001635.D BB0001693.D	DF 10 10	Analyzed 08/30/10 09/01/10	By AT AT	Prep D n/a n/a	ate	Prep Batch n/a n/a	Analytical Batch GBB96 GBB100				
Run #1 Run #2	Initial Weight 5.26 g 5.26 g	Final Vo 5.0 ml 5.0 ml	lume Meth 100 ι 100 ι		uot							
CAS No.	Compound		Result	RL	MDL	Units	Q					
	TPH-GRO (C6	i-C10)	806	78	4.7	mg/kg		·				
CAS No.	Surrogate Rec	overies	Run# 1	Run#	2 Lim	its						
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluoroto		170% b/ 119%	194% 127%		.27% .20%						

(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



	Report of Analysis										
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T58817-5 SO - Soil SW846 8015 1	M SW846 3550B San Juan River Basi	n Program	Date R Percen	ampled: Leceived: It Solids:	08/27/10					
Run #1 Run #2	File IDDFIF201036.D10		By HD :	Prep Da 08/30/1		Prep Batch OP15844	Analytical Batch GIB1088				
Run #1 Run #2	Initial Weight Fina 30.4 g 1.0 r	l Volume nl	· · · · · · · · · · · · · · · · · · ·								
CAS No.	Compound	Result	RL	MDL	Units	Q					
	TPH (C10-C28) TPH ( > C28-C40)	498 85.8	43 43	36 29	mg/kg mg/kg		t ·				
CAS No.	Surrogate Recoverie	s Run#1	Run# 2	Limi	its						
84-15-1 o-Terphenyl		0% <sup>a</sup>	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

N = Indicates presumptive evidence of a compound



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	Report of Analysis										
	ethod:     SW846 8260B     Percent Solids:     84.5       oject:     MWHCODE: San Juan River Basin Program										
Run #1 Run #2	File ID Y0041720.D	DF 1	Analyzed 08/30/10	By FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VY2593			
Run #1 Run #2	Initial Weight 5.73 g	Final Vol 5.0 ml	ume	<u></u>	·		· ·				
Purgeable	Aromatics										
CAS No.	Compound		Result	RL	MÌL	Units	Q				
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene	·	ND ND ND ND ND ND	12	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 Rec	coveries	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

N = Indicates presumptive evidence of a compound



		Report of Analysis								
Client San Lab Samp Matrix: Method: Project:	le ID: T58817 SO - So SW846	7-6 pil 8015	Juan River Ba	Juan River Basin Program		08/26/10 08/27/10 84.5	· · ·			
Run #1 Run #2	File ID BB0001670.D	DF 1	Analyzed 08/31/10	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB99			
Run #1 Run #2	Initial Weight 5.45 g	Final Vo 5.0 ml	lume Meth 100 u	anol Aliquo Il	ot					
CAS No.	Compound		Result	RL	MDL Units	Q				
``	TPH-GRO (Ce	6-C10)	7.74	6.3	0.38 mg/kg					
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Limits					
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluoroto		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

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N = Indicates presumptive evidence of a compound



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		Report of Analysis										
Client San Lab Samp Matrix: Method: Project:	le ID: T5881 SO - S SW846	7-6 oil 5 8015 M	SW846 3550B Juan River Ba	sin Program	Date F Percer	Sampled: Received: nt Solids:	08/27/10					
Run #1 Run #2	File ID IF201037.D	DF 1	Analyzed 09/04/10	By HD	Prep D 08/30/1		Prep Batch OP15844	Analytical Batch GIF1088				
Run #1 Run #2	Initial Weight 30.4 g	Final Vo 1.0 ml	blume									
CAS No.	Compound		Result	RL	MDL	Units	Q					
	TPH (C10-C2 TPH (>C28-	,	137 102	3.9 3.9	3.2 2.6	mg/kg mg/kg	,					
CAS No.	Surrogate Recoveries		Run# 1	Run# 2	Lim	its						
84-15-1	-15-1 o-Terphenyl		69%		33-1	15%						

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

E = Indicates value exceeds calibration range

J = Indicates an estimated value

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



		Page 1 of 1							
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T58817 SO - So SW846	-7 il 8260B	- Juan River Basin Program		Date Sampled: Date Received: Percent Solids:		08/27/10	,	
Run #1 Run #2	File ID Y0041721.D	DF 1	Analyzed 08/30/10	By FI	Prep D n/a	ate	Prep Batch n/a	n Analytical Batch VY2593	
Run #1 Run #2	Initial Weight 4.99 g	Final Vo 5.0 ml	lume				· · · · ·		
Purgeable .	Aromatics								
CAS No.	Compound		Result	RL	MDL	Units	Q		
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene	·	ND ND ND ND ND	4.4 4.4 13 8.8 4.4	0.77 1.0 1.0 2.3 1.6 0.71	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg		/	
CAS No.	Surrogate Rec	overies	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		84% 91% 93% 69%		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
- N = Indicates presumptive evidence of a compound



	Report of Analysis								
Client Sample ID:GP-4 8'-9'Lab Sample ID:T58817-7Matrix:SO - SoilMethod:SW846 8015Project:MWHCODE: San Juan River Basin Program								· · · · · · · · · · · · · · · · · · ·	
Run #1 Run #2	File ID BB0001625.D	DF 1	•	By AT	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GBB96	
Run #1 Run #2	Initial Weight 5.20 g	Final Vo 5.0 ml	blume Methan 100 ul	nol Aliquo	t				
CAS No.	Compound		Result	RL	MDL	Units	Q		
	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

RL ≈ Reporting Limit

E = Indicates value exceeds calibration range

 $J = Indicates an estimated value ^{-1}$ 

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

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	1	Page 1 of 1							
			SW846 3550B Juan River Bas	V846 3550B ıan River Basin Program		Sampled: Received: nt Solids:	08/27/10		
Run #1 Run #2	File ID IF201038.D	DF 1	Analyzed 09/04/10	By HD	Prep Date 08/30/10		Prep Batch OP15844	Analytical Batch GIB1088	
Run #1 Run #2	Initial Weight 30.4 g	Final Vo 1.0 ml	lume						
CAS No.	Compound		Result	RL	MDL	Units	Q		
	TPH (C10-C28) TPH (>C28-C40)		ND 2.64	1000	3.0 2.4	mg/kg mg/kg	J ·		
CAS No.	Surrogate Recoveries		<b>Run#</b> 1	Run# 2	Limits		•		
84-15-1	4-15-1 o-Terphenyl		75%	75%		15%			

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



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	Report of Analysis									
Client Sam Lab Samp Matrix: Method: Project:	le ID: T58817 SO - So SW846	7-8 bil 8260B	Juan River Ba	sin Program	Date 1 Percer	Sampled: Received nt Solids	: 08/27/10	· · ·		
Run #1 Run #2	File ID Y0041722.D Y0041775.D	DF 1 1	Analyzed 08/30/10 08/31/10	By FI FI	Prep D n/a n/a	Date	Prep Batch n/a n/a	Analytical Batch VY2593 VY2595		
Run #1 Run #2	Initial Weight 6.12 g 5.24 g	Final Vo 5.0 ml 5.0 ml	lume Metha	anol Aliqu	iot					
Purgeable	Aromatics									
CAS No.	Compound		Result	RL	MDL	Units	Q			
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene		36 8 ND 68.6 651 a 498 a 151	4.1 4.1 870 580	0.72 0.97 0.92 150 110 0.66	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	J J			
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	2 Lim	iits				
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoro Toluene-D8 4-Bromofluoro 1,2-Dichloroet	benzene	91% 98% 1589% <sup>b</sup> 93%	96% 133%	76-1 73-1	121% 132% 165% 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



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		Page 1 of			
Client Sar Lab Samp Matrix: Method: Project:	ole ID: T58817-8 SO - Soil SW846 8015	Juan River Basin Program	Date Sampled: Date Received: Percent Solids:	08/27/10	· · · · · · · · · · · · · · · · · · ·
Run #1 Run #2	File ID DF BB0001674.D 10	Analyzed By 08/31/10 AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB99
Run #1 Run #2	Initial Weight Final Vo 5.24 g 5.0 ml	lume Methanol Aliquo 100 ul	t		
CAS No.	Compound	Result RL	MDL Units	Q .	
	TPH-GRO (C6-C10)	277 72 72	4.3 mg/kg		
CAS No.	Surrogate Recoveries	Run#1 Run#2	Limits		
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	70% 113%	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

N = Indicates presumptive evidence of a compound



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	Report of Analysis										
Client San Lab Samp Matrix: Method: Project:	le ID: T5881 SO - S SW846	7-8 oil 5 8015 M - S	SW846 3550B Juan River Ba	sin Progran	Date H Percer	Sampled: Received: nt Solids:	08/27/10				
Run #1 Run #2	File ID IF201039.D	DF 10	Analyzed 09/04/10	By HD	Prep D 08/30/1		Prep Batch OP15844	Analytical Batch GIF1088			
Run #1 Run #2	Initial Weight 30.5 g	Final Vo 1.0 ml	lume								
CAS No.	Compound		Result	RL	MDL	Units	Q				
	TPH (C10-C2 TPH (>C28-0	•	.339 299	41 41	34 27	mg/kg mg/kg					
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its					
84-15-1	o-Terphenyl		82%		33-1	15%		· .			

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



		Repo	ort of An	alysis	Ì		Pag	Page 1 of 1	
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T58817-9 SO - Soil SW846 8260E	s San Juan River Ba	isin Program	Date F Percer	Sampled: Received: nt Solids:	08/27/10		<u> </u>	
Run #1 Run #2	File ID         DF           Y0041745.D         1	Analyzed 08/31/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical VY2594	Batch	
Run #1 Run #2	Initial Weight Fina 5.69 g 5.0 r		anol Aliquo Il	it .					
Purgeable	Aromatics								
CAS No.	Compound	Result	RL	MDL	Units	Q		:	
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene	132 ND 292 3460 3320 137		44 59 56 130 90 40	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	J			
CAS No.	Surrogate Recoverie	s Run#1	Run# 2	Lim	its				
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethar Toluene-D8 4-Bromofluorobenzen 1,2-Dichloroethane-D	91% e 144%		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

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



	Report of Analysis										
Client San Lab Samp Matrix: Method: Project:	le ID: T58817 SO - So SW846	7-9 Dil 8015	Juan River Bas	in Program	Date R Percer	Sampled: Received: nt Solids:	08/27/10				
Run #1 Run #2	File ID BB0001675.D	DF 40	Analyzed 08/31/10	By AT	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GBB99			
Run #1 Run #2	Initial Weight 5.69 g	Final Vo 5.0 ml	olume Metha 100 ul	nol Aliquo							
CAS No.	Compound		Result	RL	MDL	Units	Q				
	TPH-GRO (Ce	6-C10)	1090	250	15	mg/kg					
CAS No.	Surrogate Rec	coveries	Run# 1	Run# 2	Lim	its					
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluoroto		63%: 119%			27% 20%					

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



			Repo	rt of An	alysis		Page 1 of 1	l
Client San Lab Samp Matrix: Method: Project:	le ID: T588 SO - SW84	Soil 6 8015 M	SW846 3550B an Juan River Ba	sin Program	Date Sampled Date Received Percent Solids	l: 08/27/10		
Run #1 Run #2	File ID IF201040.D	DF 10	Analyzed 09/04/10	By HD	Prep Date 08/30/10	Prep Batch OP15844	Analytical Batch GIB1088	
Run #1 Run #2	Initial Weigh 30.2 g	Final V 1.0 ml	Volume				· · · ·	
CAS No.	Compound		Result	RL	MDL Units	Q .		_
	TPH (C10-C TPH (>C28	•	1110 205	40 40	33 mg/kg 26 mg/kg			
CAS No.	Surrogate R	ecoveries	<b>Run#</b> 1	Run# 2	Limits			
84-15-1	o-Terphenyl		0% <sup>;a</sup> .sa		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 N = Indicates presumptive evidence of a compound



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		Repo	rt of An	alysis		Page 1 of 1
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T58817-10 SO - Soil SW846 826		sin Program	Date Samj Date Rece Percent So	ived: 08/27/10	
Run #1 <sup>a</sup> Run #2	File ID DI Y0041746.D 1	F Analyzed 08/31/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VY2594
Run #1 Run #2		nal Volume Meth 0 ml 100 u	anol Aliquo l	ot		
Purgeable	Aromatics					
CAS No.	Compound	Result	RL	MDL U	nits Q	
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene	ND ND 107 475 393 82.0	290 290 290 880 590 290	70 ug 66 ug 150 ug 110 ug	;/kg ;/kg J ;/kg J ;/kg J ;/kg J	·
CAS No.	Surrogate Recover	ries Run# 1	Run# 2	Limits		
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluorometl Toluene-D8 4-Bromofluorobenz 1,2-Dichloroethane	90% zene 124%		70-121% 76-132% 73-165% 57-122%	6 · · · · ·	

(a) Dilution required due to matrix interference.

ND = Not detectedMDL - Method Detection LimitRL = Reporting LimitE = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



			Repo	rt of Aı	nalysis			Page 1 of 1
Client Sam Lab Samp Matrix: Method: Project:	le ID: T58817 SO - So SW846	7-10 5il 8015	Juan River Ba	sin Program	Date R Percen	ampled: Leceived: It Solids:	08/27/10	
Run #1 Run #2 <sup>a</sup>	File ID BB0001634.D BB0001694.D	DF 10 10	Analyzed 08/30/10 09/01/10	By AT AT	Prep Da n/a n/a	ate	Prep Batch n/a n/a	Analytical Batch GBB96 GBB100
Run #1 Run #2	Initial Weight 5.25 g 5.25 g	Final Vo 5.0 ml 5.0 ml	lume Meth 100 u 100 u		ot	· · ·		
CAS No.	Compound		Result	RL	MDL	Units	Q	· · ·
	TPH-GRO (C6	6-C10)	887	73	4.4	mg/kg		
CAS No.	Surrogate Rec	overies	Run# 1	Run#2	2 Limi	its	•	. *
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluoroto		169% <sup>b</sup> 203% <sup>b</sup>	166% 201%				

(a) Confirmation run for surrogate recoveries.

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(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

N = Indicates presumptive evidence of a compound



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		Page 1 of 1					
Client San Lab Samp Matrix: Method: Project:	le ID: T58817 SO - So SW846	'-10 bil 8015 M S	SW846 3550B Juan River Ba	sin Program	Date Sampled: Date Received: Percent Solids:		
Run #1 Run #2	File ID IF201041.D	DF 1	Analyzed 09/04/10	By HD	Prep Date 08/30/10	Prep Batch OP15844	Analytical Batch GIF1088
Run #1 Run #2	Initial Weight 30.1 g	Final Vo 1.0 ml	lume		· · · · ·		, ,
CAS No.	Compound		Result	RL	MDL Units	Q	
	TPH (C10-C28 TPH (>C28-C		138 56:7	5.20V.V25	3.5 mg/kg 2.8 mg/kg		
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl		58%		33-115%		

ND = Not detected MDL - Method Detection Limit RL = Reporting LimitE = Indicates value exceeds calibration range

J = Indicates an estimated value

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



<u>.</u>	Report of Analysis								
Client Sam Lab Sampl Matrix: Method: Project:		Juan River Bas	in Program	Date Sampled Date Received Percent Solids	: 08/27/10				
Run #1 Run #2	File IDDFY0041777.D1Y0041723.D1	Analyzed 08/31/10 08/30/10	<b>By</b> FI FI	Prep Date n/a n/a	Prep Batch n/a n/a	Analytical Batch VY2595 VY2593			
Run #1 Run #2	Initial Weight         Final Vol           5.05 g         5.0 ml           3.83 g         5.0 ml	lume Metha 100 ul	nol Aliquo	t					
Purgeable	Aromatics								
CAS No.	Compound	Result	RL	MDL Units	Q				
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene	ND <sup>a</sup> 25.3 <sup>a</sup> 340 13300 12000 1270	7.0 7.0 340 1000 670 340	1.2       ug/kg         1.7       ug/kg         76       ug/kg         180       ug/kg         120       ug/kg         54       ug/kg	•				
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		1 1			
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	90% 95% 165% 74%	85% 2204% <sup>t</sup> 1470% <sup>t</sup> 304% <sup>b</sup>		• • •	 			

(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 N = Indicates presumptive evidence of a compound
  - 39 of 85 ACCUTEST: 158817 F4.Nereteries



	Report of Analysis								Page 1 of	
Client San Lab Samp Matrix: Method: Project:	le ID: T58817 SO - So SW846	'-11 pil 8015	ı Juan River Ba	sin Program	Date I Percei	Sampled: Received: nt Solids:	08/27			
Run #1 Run #2	File ID BB0001676.D	DF 40	Analyzed 08/31/10	By AT	Prep D n/a	ate	Prep 1 n/a	Batch	Analytical Batch GBB99	
Run #1 Run #2	Initial Weight 5.05 g	Final Vo 5.0 ml	olume Meth 100 u	anol Aliquo l	t					
CAS No.	Compound		Result	RL	MDL	Units	Q	ı	¢	
	TPH-GRO (Ce	6-C10)	1090	340	20	mg/kg			ι.	
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its				
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene		123% 111%			27% 20%			· · ·	
						,				

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



**Report of Analysis** Page 1 of 1 Client Sample ID: GP-3 14'-15' Lab Sample ID: T58817-11 Date Sampled: 08/26/10 Matrix: SO - Soil Date Received: 08/27/10 Method: SW846 8015 M SW846 3550B Percent Solids: 74.3 Project: MWHCODE: San Juan River Basin Program File ID DF Analyzed By Prep Date Prep Batch **Analytical Batch** Run #1 IF201042.D 09/04/10 HD -08/30/10 OP15844 1 GIB1088. Run #2 Initial Weight **Final Volume** Run #1 30.4 g 1.0 ml Run #2 CAS No. Compound Result RL MDL Units Q **TPH (C10-C28)** 156 3.6 4.4 mg/kg TPH (>C28-C40) 36.2 4.4 2.9 mg/kg CAS No. Surrogate Recoveries Run#1 Run#2 Limits 84-15-1 o-Terphenyl 33-115% 88%

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



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		Page 1 of 1						
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T58817 SO - So SW846	-12 vil 8260B	Juan River Ba	sin Program	Date H Percer	Sampled: Received: nt Solids:	08/27/10	
Run #1 Run #2	File ID Y0041776.D	DF 1	Analyzed 08/31/10	By FI	Prep D n/a	vate	Prep Batch n/a	Analytical Batch VY2595
Run #1 Run #2	Initial Weight 5.30 g	Final Vol 5.0 ml	lume					· · ·
Purgeable	Aromatics			•				
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene		1:6 ND 13:5 258 257 0:82	4.4 4.4 13 8.9 4.4	0.77 1.1 1.0 2.3 1.6 0.71	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	J	
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its		
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoro Toluene-D8 4-Bromofluoro 1,2-Dichloroet	benzene	82% 94% 120% 68%		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

N = Indicates presumptive evidence of a compound



	<i>.</i> .		Repo	rt of An	alysis		Page 1 of
Client Samp Lab Sample Matrix: Method: Project:	e ID: T58817-1 SO - Soil SW846 80	2 015	uan River Ba	sin Program	Date Sampled Date Received Percent Solids	l: 08/27/10	
Run #1 Run #2		DF 1	Analyzed 08/30/10	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB96
Run #1 Run #2	-	Final Volu 5.0 ml	ıme Meth 100 u	anol Aliquo l	t		
CAS No.	Compound TPH-GRO (C6-C	210)	Result 8:46	RL 6.6	MDL Units 0.40 mg/kg	Q	
CAS No.	Surrogate Recov	veries	Run# 1	Run# 2	Limits		
460-00-4 98-08-8	4-Bromofluorobe aaa-Trifluorotolu		111 105%		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

N = Indicates presumptive evidence of a compound



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			Repo	rt of An	alysis			Page 1 of
Client Sam Lab Sampl Matrix: Method: Project:	le ID: T58817 SO - So SW846	7-12 oil 8015 M S	SW846 3550B Juan River Ba	sin Program	Date I Percer	Sampled: Received: nt Solids:	08/27/10	
Run #1 Run #2	File ID IF201043.D	DF 1	Analyzed 09/04/10	By HD	Prep D 08/30/1		Prep Batch OP15844	Analytical Batch GIF1088
Run #1 Run #2	Initial Weight 30.3 g	Final Vol 1.0 ml	lume	, .	<u></u>			
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH (C10-C2 TPH (>C28-0		32.6 19.1		3.2 2.6	mg/kg mg/kg		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its		
84-15-1	o-Terphenyl	,	70%	3	33-1	15%		

MDL - Method Detection Limit ND = Not detectedRL = 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



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Client Sam Lab Sample Matrix: Method: Project:	e ID: T5881 SO - S SW84	7-13 Soil 6 8260B	Juan River Ba	sin Program	Date I Percer	Sampled: Received: nt Solids:	08/27/10	· ·
Run #1 Run #2	File ID Y0041735.D	DF 1	Analyzed 08/30/10	By FI	Prep D n/a	late	Prep Batch n/a	Analytical Batch VY2594
Run #1 Run #2	Initial Weight 5.61 g	Final Vo 5.0 ml	lume					
Purgeable A	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene		ND ND 1-5 4133 413 ND	4.1 4.1 12 8.2 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	J	
CAS No.	Surrogate Re	coveries	<b>Run#</b> 1	Run# 2	Lim	its		· .
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluor Toluene-D8 4-Bromofluor 1,2-Dichloroe	obenzene	85% 90% 109% 72%		76-1 73-1	21% 32% 65% 22%		

Report of Analysis

ND = Not detectedMDL - Method Detection LimitRL = Reporting LimitE = 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

			Repo	ort of A	nalysis			Page 1	of 1
Client Sam Lab Sampl Matrix: Method: Project:	le ID: T58817 SO - So SW846	-13 il 8015	Juan River Ba	asin Progra	Date 1 Percer	Sampled: Received: nt Solids:	08/27/10		
Run #1 Run #2 ª	File ID BB0001632.D BB0001689.D	DF 1 1	Analyzed 08/30/10 09/01/10	By AT AT	Prep D n/a n/a	Date	Prep Batch n/a n/a	Analytical Bat GBB96 GBB100	ch
Run #1 Run #2	Initial Weight 5.20 g 5.20 g	Final Vo 5.0 ml 5.0 ml	lume Meth 100 t 100 t		ıot				
CAS No.	Compound		Result	RL	MDL	Units	Q	. ,	
	TPH-GRO (C6	-C10)	26.8	6.3	0.38	mg/kg			
CAS No.	Surrogate Rec	overies	Run# 1	Run#	2 Lim	its		١	
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluoroto		142% <sup>b</sup> 122% <sup>b</sup>	149% 119%		27%			

(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

N = Indicates presumptive evidence of a compound

T58817

**Report of Analysis** Page 1 of 1 Client Sample ID: GP-2 (0-5') Lab Sample ID: T58817-13 Date Sampled: 08/26/10 Matrix: Date Received: 08/27/10 SO - Soil SW846 8015 M SW846 3550B Method: Percent Solids: 86.5 Project: MWHCODE: San Juan River Basin Program File ID DF Analyzed Prep Date Prep Batch Analytical Batch By IF201044.D Run #1 1 09/04/10 HD 08/30/10 OP15844 **GIB1088** Run #2 Initial Weight **Final Volume** Run #1 30.4 g 1.0 ml Run #2 CAS No. Compound Result RL MDL Units Q mg/kg **TPH (C10-C28)** ND 3.8 3.1 TPH (>C28-C40) 2:90 3.8 2.5 mg/kg J CAS No. Surrogate Recoveries Run# 2 Run#1 Limits 84-15-1 o-Terphenyl 33-115% 78%

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



			Repo	rt of An	alysis			Page 1 of 1
Client Samp Lab Sample Matrix: Method: Project:	E ID: T58817 SO - Ti SW846	'-14 rip Blank So 8260B	il Juan River Bas	sin Program	Date I Percer	Sampled: Received: nt Solids:	08/27/10	
Run #1 Run #2	File ID Y0041716.D	DF 1	Analyzed 08/30/10	By FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VY2593
Run #1 Run #2	Initial Weight 5.00 g	Final Vol 5.0 ml	ume					
Purgeable A	Aromatics	i						
CAS No.	Compound		Result	<b>RL</b>	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene		ND ND ND ND ND ND	4.0 4.0 4.0 12 8.0 4.0	0.70 0.95 0.90 2.1 1.5 0.64	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg		
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its		
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoro Toluene-D8 4-Bromofluoro 1,2-Dichloroet	benzene	90% 93% 92% 78%		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



			Repo	rt of An	alysis		Page 1 of 1
Client Sam Lab Samp Matrix: Method: Project:	le ID: T58817 SO - Ti SW846	-14 ip Blank So 8015	bil Juan River Ba	) sin Program	Date Sampled Date Received Percent Solids	l: 08/27/10	
Run #1 Run #2	File ID HH0001017.D	DF 1	Analyzed 09/01/10	By LB	Prep Date n/a	Prep Batch n/a	Analytical Batch GHH53
Run #1 Run #2	Initial Weight 5.00 g	Final Vo 5.0 ml	lume				-
CAS No.	Compound TPH-GRO (C6	5-C10)	Result	RL 0.10	MDL Units 0.0060 mg/kg	Q	
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Limits		•
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluoroto		88% 110%		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





# Misc. Forms

### Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody





### CHAIN OF CUSTODY

7

### PAGE <u>/</u> OF <u>2</u>

SACCUTEST.			•	FED-EX Tracking #		Bottle Order Control #	
Laboratories		larwin Dr, Ste 150 Houston, TX 77036 (13-271-4700 FAX: 713-271-4770 www.accutest.com		Accutest Quote #	····	Acculant Job # 758	817
Client / Reporting Information					Requested	i Analyses	Matrix Codes
Company Name MWH Americas	Project Name: JGQUEZ	· · · · · · · · · · · · · · · · · · ·					DW - Drinking Weler GW - Ground Water
Street Address	Street D	Internet in the second s	n solden set an an	0			WW - Water SW - Surface Water
Street Address 1801 Californiast, Ste2901 Status Denver Co 80202 Project Contact	City State	Billing Information ( if different from Repo Company Name	rt to)	<u>FR</u>			SO - Soil SL- Sludge
Denver CO 80202				74			SED-Sediment OI - Oil
Project Contact TEd Struitth	Project #	Street Address		A			LIQ - Other Liquid AIR - Air
	Client Purchase Order #	City State	Zip	H y			SOL - Other Solid WP - Wipe
303-291-2276				àu			FB-Field Blank EB-Equipment Blank
Sempler(s) Name(s) Phone #	Project Manager Ashlet Ager	Atlantion:	1	10			RB-Rinse Blank TB-Trip Blank
	Collection	Number of pres	arved Bottles				
Accuraci		HORNAL HORNAL HORNAL HORNAL HORNAL HORNAL	N WARDH MEDH TSP NaHSOM ENCORE OTHER	28 È			
Sample # Field ID / Point of Collection	Date Time Sampled By	╶╁┈┈┥───┤┼┼┼┼┼╻╆					LAB USE ONLY
1 GP-7 15'-16'	082610 0945 DH	50 2 1 1	┼┼┼┼┼┤	XX		+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$	<b>_</b>
2 kp-7 8-41	082610 0910 DH	50 2 X	┼┼┼┤┤	<u> </u>		╺╁╼╾┥╌╴┤╌╴┤╴╴┤	
3 69-7 141-16	082610 0925 DH	502 X	┥╿╎╷	XX		┢╺┟╴┥╴┥╸┥╸	
4 6P-8 9'-10'	082610 1310 DH	502 X		XX		╀┉╉╸┤╸┥╸┼	
5 67-8 12-131	082610 1430 DH	502 X	+++++	XX			
6 08-8 17-181	082610 1500 DH	50 2 X	+++++	XX			
7 GP-4 81-91	082610 1240 DH	50 Z X	╺┠╾┨╴┨╴┨╶┨	XX			
8 68-4 16'-17'	082610 1320 DH	50 Z X		XX	<u>.</u>		
9 G-P-4 13-14-	0826/0 1025 DH	50 Z 4		ハア			
10 1/2 P-3 15-16	082610 0810 DH	502 X	┥┥┥┥	F4			·
11 6-P-3 141-151	082610 0800 DH	502 X		XX			<u> </u>
12 GP-2 11-12'	082610 1600 DH	50 2 4		r K			
Tumaround Time (Business days)	Approved By (Acculated PM): / Date:	記録記録 Data Deliverable In Commercial "A" (Lovel 1)	formation 👔		Cor	mments / Special Instructions	
5 Day RUSH		Commercial "B" ( Level 2)	EDD Format				
4 Day RUSH		FULT1 (Love) 3+4) REDT1 (Love) 3+4)	Clher	-		•	
2 Day RUSH		Commercial *C*					
1 Day EMERGENCY		Commercial *A* = Re	· · ·				
Emergancy & Rush T/A data available VIA Lablink			ults + CC & Surrogale				
Relinquising by Samplar: Data Time: /	20 Received By	mented below each time samples chang Refineuisbed		ding courier deliv	Date Time:	Received By:	ist in sec. As
1 5 ~ 2 ~ 3/2	6/10 1 my Ve		i h	8/20/10	1655	2	
Relinquished by Sampler: Freday Date Tene: 8-2-	7-10 0930 Racelved By ALG	in Huddlettons 4	y:		Date Timo:	Received By: 4	
Reinquished by: Oate Time:	Racelved By:	Custody Seal /		ntact Prese	rved where applicable	On Ico Co	oler Temp. 5.4°C
	1-	·- I			-	-	

T58817: Chain of Custody Page 1 of 5



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Laboratories		Υ.	10165 Han TEL- 713	-271-4700	FAX:	713-2								Tracking	_				Botila On Acculest			58	8-	<u></u>
Client / Reporting Information		Rational	Project		contest.co		8 M	<b>按</b> 13	¥Ю.							Rea	uest	l e d	Anal	lvse		50	0	Matrix Codes
Company Name H	Project Name: Jagu			· · ·				•					¶											DW - Drinking Water GW - Ground Water
Street Address 1801 Cg Lifonia Sti Ste 2900			State		formatio Nome	-							] 0		I									WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment Of - Oil
I SPA SMIN	Projeci#	<u>,</u>		Street Ad	dress								PHCR	Ö		ľ		i						LIQ - Other Liquid AIR - Air SOL - Other Solid
1903-291-2276	Client Purchase C	Irder#		City				Sta	le		Z .)		] <del> </del>	98										WP - Wipe FB-Field Blank EB-Equipment Blank
Sampler(s) Name(s) Phone #	Project Manager Ashley	1 <del>9er</del>		Attention:						erved Bi			0	$\pm$										RB- Rinse Blank TB-Trip Blank
Accrited Sample # Field ID / Point of Collection		Time	Sampled By	Mairix	# of bottles	p i		. x	ĹŢ	NECH B	TSP 125	ENCORE	8	f										LAB USE ONLY
13 6-8-2	0 82610	1610	DH	50	2	1			X	1	+			X										
14 074260BIOTB 02	082610	0700	DH	SU	2								Ŕ	X										· · ·
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						┝┼	++	╉	┝╊	+		┼┼				-		<u> </u>		<u> </u>	┢╾──			
·····	· · ·								┢╹┢	T	Ħ	$\uparrow \uparrow$	1	<u> </u>	·	1					<u> </u>			
Standard	Approved By (Accu	and Bally ( Detail	ana an an an an an an an an an an an an	1	Commerc		Data De		ble in		tion TRR			建选有			新設	Com	ments /	/ Speci	al Instru	clions		
5 Day RUSH				1 E	Commerc	:ial "B	" ( Leva			Ē	EDC	Form	at		L									
4 Day RUSH					fult1,(1 Redt1 (		•				Oth	er												
2 Day RUSH     1 Day EMERGENCY					Commerc		r Commen	-io1 *A*	• - Đa	cutte f	in lu													
Emergency & Rush T/A data available VIA Lablink						c	Commen	cial 'B'	= Fle	suts +	ac s		ite Sumit		<u> </u>									
Ralinguished by Sampler: Data Time:	Sa	mple Custody m	ust be docun	nanted b	alow eac		ne sam	ples c	chang	je po:					deliv		<u> </u>			_				
1 5-1 8/2	6116	Received By:	ph			-			11/1/	ン	~					10		<b></b>	Receive 2	in ay:		·		
Ralinguished by Bampler: 3 7000 Date Time:		Received By: U 3				4		talinny 1								Date Th			Recsive 4	ed By:				
Relinquished by: Fed EX Data Time: 5	10 09.30	Racelved Dy: AL	GC	, H	idd	Éa	H	talody	y Se.1	#			Intaci Noi Inta	ict	Preser	ved when	applica	ble			on las		Coaia	5.4°C

T58817: Chain of Custody Page 2 of 5



### SAMPLE INSPECTION FORM

Accutest Job Number: T58817	Client: MWH Americas	Date/Time R	eceived: 8-27-10 0930
# of Coolers Received:	Thermometer #:110	Temperature Adju	stment Factor: $-0.5^{\circ}C$
Cooler Temperatures (initial/adjusted):	#1: <u>5,9/5,4°C</u> #2:	#3: #4	: #5:
#6: #7:	#8: #9:	#10#1	#12
Method of Delivery: FEDEX	JPS Accutest Courier Gr	eyhound Delivery	Other
COOLER INFORMATION 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	SAMPLE INFORMA Sample containers received bro VOC vials have headspace Sample labels missing or tilegib ID on COC does not match labe D/T on COC does not match lab Sample/Bottles rcvd but no and Sample listed on COC, but not in Bottles missing for requested ar Insufficient volume for analysis Sample received improperly pre	ken Trip le Trip I(s) Rec alysis on COC received alysis Number of Number of	TRIP BLANK INFORMATION         Blank on COC but not received         Blank received but not on COC         Blank not intact         tived Water Trip Blank         tived Soll TB         Encores?       13         5035 ldts?         lab-filtered metals?
	GIP-7(14'-15'), Date +	Time match COC.	
0TH260810TB02 COC <u>402 Sample jars (eceived</u> GP-7 (14-15), GP-8 (9-10).	labeled for TPH/DRO c	inalysis, COC mark	Dil Unit Trip Blanks received, ed for TPH/GRO analysis, ater in sample,
GP-2 402 jac received 10	Abeled GP-2 (0-5'), uned per cample Puner Huddletor	Date + Time Mat	-h COC. 1 GRO-8015 .
Client Representative Notified: By Accutest Representative: Client Instructions: fully_c encett g	• CORRECTIVE A Sed Smith Georgian Jones Set volatily - 7260.	CTIONS • • • Date: Via: ( belform Cho Blue	8/27/10 Phone Email am Ault lat Analisa
all other even Her	samples secured	·····	

## T58817: Chain of Custody

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### SAMPLE RECEIPT LOG

pg, 10fa

JOB #:	T58	8817				DAT	E/TIMI	E RECEIVED:	8-2	.7-	10	0930		
CLIENT:	mu	JH Ar	nericas					INITIALS:		R¥				
COOLER#	SAMPLE ID		FIELD ID		DATE	MA	TRIX	VOL	BOTTLE #	LOC	ATION	PRESERV		м
	)	GP-7	(15-16)	8-20	-10 945	50	51	402	/	V	IR.		<2	>12
1	4	1	V V		1		]	Encore	2		1	D 2 3 4 5 6 7 8	<2	>12
	2	GP-7	(8-9)		910	•		40z	(			1) 2 3 4 5 6 7 8	<2	· >12
	L I	4	Ý		4			Encore	2			1) 2 3 4 5 6 7 8	<2	>12
	3	GP-7	(14-15)		925			402	)			0) 2 3 4 5 6 7 8	<2	>12
	₹.	4	Ł		4			Encore	2			1 2 3 4 5 6 7 8	<2	>12
	4	GP-8	(9-10)		1310			40z	1			() 2 3 4 5 6 7 8	<2	>12
	Ŀ	J.	Ŷ		↓ ↓			Encore	a			0 2 3 4 5 6 7 8	<2	>12
	5	GP-8	(12 - 13)		1430			402	1		•	0 2 3 4 5 6 7 8	<2	>12
	ŀ	1	4		Y			Encore	a			(1) 2 3 4 5 6 7 8	<2	>12
	6	GP-8	(17-18)		1500			4oz	_/			() 2 3 4 5 6 7 8	<2	>12
	Ł	↓	4		J			Encore.	え			<sup>(1)</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> <sup>6</sup> <sup>7</sup> <sup>8</sup> <sup>8</sup> <sup>1</sup>	<2	>12
	7	G.P-4	(8-9)		1240			402	1			() 2 3 4 5 6 7 8 0	<2	>12
	¥	1	4		4			Encore	2			$\mathcal{O}_{5678}^{234}$	<2	>12
	8	GP-4	(16 - 17)		1320			402	1			<sup>(1)</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> <sup>6</sup> <sup>7</sup> <sup>8</sup> <sup>8</sup> <sup>1</sup>	<2	>12
	$\downarrow$	¥	· •		Ţ			Encore	2			(1) 2 3 4 5 6 7 8	<2 .	>12
	9	GP-4	(13-14)		1025	-		402	/			1 2 3 4 5 6 7 8	<2	>12
	J	$\checkmark$	4		Ţ			Encore	2			() 2 3 4 5 6 7 8	· <2	>12
	10	GP-3	(15-16)		810			4oz	1			$\begin{pmatrix} 1 & 2 & 3 & 4 \\ 5 & 6 & 7 & 8 \end{pmatrix}$	<2	>12
	J	Ţ			· J			Encore	a			() 2 3 4 5 6 7 8	<2	>12
		GP-3	(14 - 15)		800			4oz	1			2 3 4 5 6 7 8	<2	>12
	V	J	V	ų	/ ↓	$\downarrow$	/	Encore	a	~	$\bigvee$	(1) 2 3 4 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

Rev 8/13/01 ewp

### T58817: Chain of Custody Page 4 of 5

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			SAMPLE R	ECEIPT	LOG		Pg. 20	$\rightarrow + a$	
JOB #:	T5	8817		DATE/TIME	RECEIVED:	8-2	27-10	0930	
CLIENT:	mw	H Americas		-	INITIALS:	-	DRY		
					• <u>.</u>		421-1	<b>.</b>	
COOLER#	SAMPLE ID		DATE	MATRIX	VOL	BOTTLE #		PRESERV	РН
	12	GP-2(11-12)	8-26-10 1600	567)	40Z		VR	CD 2 3 4 5 6 7 8	<2 >12
	V	t t	1 4	1	Encore	2		O <sup>1</sup> 2 3 4 5 6 7 8	<2 >12
	13	GP-2 (0-5)	1610		402			0 2 3 4 5 6 7 8	<2 >12
	1'3	GP-2	1610	$\downarrow$	Encore	2		1) 2 3 4 5 6 7 8	<2 >12
	14		12/09/09	STB	40ml	1-2.		1 2 3 4 5 (6) 7 8	<2 >12
$\vee$	15		12/09/09	57B	40 ml	1-2	$\rightarrow$	1 2 3 4 5 <del>(3</del> ) 7 8	<2 >12
								<u>1 2 3 4</u> 5 6 7 8	2 312
		· ·						1 2 <u>3</u> 4 5 6 7 8	52 >12
								1 2 3 4	<2 >12
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		······································		•				1 2 3 4 5 6 7 8	<2 >12
		<u> </u>	8/27/10			:		1 2 3 4	<2 >12
			- Djon // -					1 2 3 4	<2 >12
				· · · · ·				<u>5678</u> 1234	<2 >12
<u>├</u> ┦			· · · · · · · · · · · · · · · · · · ·		·			<u>5678</u> 1234	<2 >12
<u>├</u> †								5678 123.4	<2 >12
$\vdash$	$\leq$							<u>5678</u>	
			-					5678	

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

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

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T58817: Chain of Custody Page 5 of 5





# GC/MS Volatiles

### QC Data Summaries

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**Gulf Coast** 

ACCUTEST.

### Includes the following where applicable:

- Method Blank Summaries
- Blank Spike SummariesMatrix Spike and Duplicate Summaries



# Method Blank Summary

Sample	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
VY2593-MB	Y0041706.D		08/30/10	FI	n/a	n/a	VY2593
						-	ı

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	<b>0.95</b>	uġ/kg
1330-20-7	Xylene (total)	ND:	12 ·	2.1	ug/kg
1. Sec. 1. Sec	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	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%



5.1.1 5

# Method Blank Summary

Job Number: Account: Project:	T58817 ELPASOX EL I MWHCODE: S						
Sample VY2594-MB	File ID Y0041734.D	DF 1	Analyzed 08/30/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VY2594
The QC repor	ted here applies t	o the fo	bllowing sample	5:	· · · · · · · · · · · · · · · · · · ·	Method: SW84	6 8260B

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

CAS No.	Compound	Result	RL	MDL	Units Q
7.1-43-2 100-41-4 108-88-3	Benzene Ethylbenzene Toluene	ND ND	4.0 4.0 4.0	0.70 0.90 0.95	ug/kg ug/kg ug/kg
1330-20-7	Xylene (total) m,p-Xylene	ND ND ND	12	2.1 1.5	ug/kg ug/kg
95-47-6	o-Xylene	ND ,	4.0	0.64	ug/kg
CAS No.	Surrogate Recoveries		Limi	ts	

1868-53-7	Dibromofluoromethane	88%	70-121%
2037-26-5	Toluene-D8	91%	76-132%
460-00-4	4-Bromofluorobenzene	<b>89%</b>	73-165%
17060-07-0	1,2-Dichloroethane-D4	74%	57-122%



	lank Summa	ry	• . • •				Page 1 of 1
Job Number: Account:	T58817 ELPASOX EL 1				N	•	• .
Project:	MWHCODE: S						
Sample VY2595-MB	File ID Y0041759.D	DF 1	Analyzed 08/31/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VY2595
					•		
		•			•	•	

The QC reported here applies to the following samples:

### Method: SW846 8260B

5.1.3

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

CAS No.	Compound	Result	RL	MDL	Units Q
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 ND ND ND ND ND	4.0 4.0 12 8.0 4.0	0.70 0.90 0.95 2.1 1.5 0.64	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg
CAS No.	Surrogate Recoveries		Limits	• .	
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	83% 92% 92% 69%	70-121 76-132 73-165 57-122	% %	1. 1.



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### Blank Spike Summary

460-00-4 4-Bromofluorobenzene 17060-07-0 1,2-Dichloroethane-D4

ample	File ID DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Y2593-BS	Y0041704.D 1	08/30/10	FÍ	n/a	n/a	VY2593

73-165%

57-122%

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

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	<sup>-</sup> 48.6	97	63-114
CAS No.	Surrogate Recoveries	BSP	Lir	nits	
1868-53-7	Dibromofluoromethane	86%	70-	121%	
2037-26-5	Toluene-D8	88%	76-	132%	

90% 75%

60 of 85

Page 1 of 1

# Blank Spike Summary

Job Number: Account: Project:	T58817 ELPASOX EL PASO C MWHCODE: San Juan					
Sample VY2594-BS	File ID DF Y0041730.D 1	Analyzed 08/30/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VY2594
The QC repor	ted here applies to the fo	llowing samples	5:	]	Method: SW84	6 8260B

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

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2 100-41-4	Bènzene Ethylbenzene	50 50	44.5 40.6	89 81	70-114 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	Lin	nits	
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	93% 92% 93% 76%	76- 73-	121% 132% 165% 122%	•



5.2.2



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### Blank Spike Summary

Sample VY2595-BS	File ID DF Y0041757.D 1	Analyzed 08/31/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VY2595
The QC repor	ted here applies to the fo	bllowing samples	s:		Method: SW84	6 8260B
	ted here applies to the fo 3817-8, T58817-11, T588		5:	· ]	Method: SW84	6 8260B

CAS No.	Compound	ug/kg	ug/kg	%	Limits
71-43-2	Benzene	50	43.5	87	§ 70-114
100-41-4	Ethylbenzene	50	43.8	88	60-119
108-88-3	Toluene	50	43.3	87	§ 68-115
1330-20-7	Xylene (total)	150	137	91	61-115
	m,p-Xylene	100	89.8	.90	60-115
95-47-6	o-Xylene	50	47.1	94	63-114
CAS No.	Surrogate Recoveries	BSP	Lir	nits	
1868-53-7	Dibromofluoromethane	85%	70-	121%	
2037-26-5	Toluene-D8	91%		132%	
460-00-4	4-Bromofluorobenzene	93%	73-	165%	
17060-07-0	1,2-Dichloroethane-D4	72%	57-	122%	
	<i>,</i> •	DECEMPTOR STREET, STRE	ALCOLOGICAL STREET		



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# Matrix Spike/Matrix Spike Duplicate Summary

G-mm1-	Ed. ID	DE	A	D., `	D D	D. D.(1
Project:			River Basin Pro		•	
Account:	FLPASOX F	I PASO C	ORPORATION			
Job Number:	T58817					

Sample T58706-1MS T58706-1MSD T58706-1	File ID Y0041713.D Y0041714.D Y0041707.D	1	Analyzed 08/30/10 08/30/10 08/30/10	By FI FI FI	Prep Date n/a n/a n/a	Prep Batch n/a n/a n/a	Analytical Batch VY2593 VY2593 VY2593 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	A PAPER AN A PAPER AND A PAPER	70-1219	%		
2037-26-5	Toluene-D8	89%	93%	939		76-1329	•		
460-00-4	4-Bromofluorobenzene	91%	96%	95%		73-1659	-		•
17060-07-0	1,2-Dichloroethane-D4	74%	69%	719	6,	57-1229	%		



Page 1 of 1

5.3.1

# 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           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	Batch
--	-------

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- ug/kg	-13 Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2 100-41-4 108-88-3	Benzene Ethylbenzene Toluene	ND 1.5 ND	J	55.9 55.9 55.9	51.7 39.1 48.4	92 67 87	49.3 46.1 47.7	90 81 87	5 16 1	70-114/38 60-119/40 68-115/38
1330-20-7 95-47-6	Xylene (total) m,p-Xylene o-Xylene	41.3 41.3 ND		168 112 55.9	110 64.6 45.4	*41* 21* 81	149 99.6 49.1	65 53* 89	30. 43* 8-	61-115/39 60-115/40 63-114/37
CAS No.	Surrogate Recoveries	MS		MSD T58817-13		Limits				
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	93% 95%		87%         85%           91%         90%           93%         109%           72%         72%		70-1219 76-1329 73-1659 57-1229	% %			



### Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58817

Job Number:	T58817	-	_ ,					
Account: ELPASOX EL PASO CORPORATION								
Project:	MWHCODE: Sa	an Juan	River Basin Pro	gram				
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch	
T58706-10MS	Y0041761.D	1	08/31/10	FI	n/a	n/a	VY2595	
T58706-10MSD	Y0041762.D	1	08/31/10	FL	n/a	n/a	VY2595	
T58706-10	Y0041760.D	1	08/31/10	FI	n/a	n/a	VY2595	
The QC reporte	ed here applies t	o the fo	llowing samples	5:		Method: SW84	6 8260B	

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

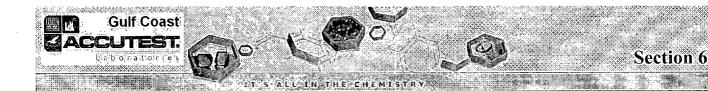
CAS No.	Compound	T58706- ug/kg	-10 Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD	۰.
71-43-2	Benzene	8.3		44.6	50.7	95	43.9	80	14	70-114/38	
100-41-4	Ethylbenzene	5.2		44.6	56.9	116	44.7	89	24	60-119/40	
108-88-3	Toluene	24.2		44.6	89.8	147*	64.6	91	33	68-115/38	
1330-20-7	Xylene (total)	19.4		134	165	109	130	83	24	61-115/39	
•	m,p-Xylene	14.8		89.1	113	110.	87.5	82	25	60-115/40	
95-47-6	o-Xylene	4.6	Υ.	44.6	52.0	106	42.0	84	21	63-114/37	
CAS No.	Surrogate Recoveries	MS		MSD	Т5	8706-10	Limits		·		
1868-53-7	Dibromofluoromethane	89%		86%	899	%	70-121%	'n		, •	
2037-26-5	Toluene-D8	133%**	<b>1</b>	122%	265 (3 <b>64</b> 5286) (20%) (30%)	5%∗a	76-132%				
460-00-4	4-Bromofluorobenzene	146%		141%	144		73-165%				
17060-07-0	1,2-Dichloroethane-D4	72%	1999-1997 1998-1997	70%	739	Contraction of the local	57-122%	-			
		DAUNIAR AND A CONSTRAINT OF AN AN AN AN AN AN AN AN AN AN AN AN AN	67,81999	AN # \$1,2400 A. 38,5425	sessensendene beröhenden	NUMBER REFERENCES					

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



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5.3.3



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## QC Data Summaries

Includes the following where applicable:

• Method Blank Summaries

• Blank Spike Summaries

• Matrix Spike and Duplicate Summaries



Job Numb Account: Project:	er: T58817 ELPASOX EL PASO MWHCODE: San Ju					:		
Sample GBB96-MI	File ID DF BB0001609.DI	Analyzed 08/30/10	By AT	Pre n/a	p Date	Prep Batch n/a	Analytical B GBB96	atch
-	ported here applies to the T58817-7, T58817-10, T5	•••				Method: SW84	16 8015	
CAS No.	Compound TPH-GRO (C6-C10)	,	RL 5.0	MDL 0.30	Units mg/kg	Q		
CAS No.	Surrogate Recoveries		Limits					
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	90% 99%:::::::::::::::::::::::::::::::::	46-127 44-120					



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6.1.1

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Job Number: Account: Project:	T58817 ELPASOX EL PASO C MWHCODE: San Juan					
Sample GBB97-MB	File ID DF BB0001639.D1	Analyzed 08/30/10	Ву АТ	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB97
The QC repor	ted here applies to the fo	ollowing sample	s:		Method: SW84	6 8015
T58817-1, T58	817-2					

CAS No.	Compound	Result	RL	MDL	Units Q
	TPH-GRO (C6-C10)	ND	5.0	0.30	mg/kg
CAS No.	Surrogate Recoveries		Limits		

## Page 1 of 1

6.1.2

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Job Number:	T58817				,	
Account:	ELPASOX EL PASO	CORPORATIO	N			
Project:	MWHCODE: San Juan	n River Basin Pi	rogram			
Sample GBB99-MB	File ID DF BB0001651.DI	Analyzed 08/31/10	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB99
The OC server					Neate J. SW040	
The QC repor	ted here applies to the f	ollowing sampl	les:		Method: SW846	010
T58817-4, T58	817-6, T58817-8, T5881	.7-9, T58817-11	l			
CAS No. Co	ompound	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% 46-127% 101% 44-120%	

69 of 85 **CUTEST** T58817

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6.1.3

### Method Blank Summary Job Number: T58817

#### Account: ELPASOX EL PASO CORPORATION Project: MWHCODE: San Juan River Basin Program Sample Prep Date Prep Batch Analytical Batch File ID DF Analyzed By HH0001007.D GHH53 GHH53-MB 09/01/10 LB n/a n/a The QC reported here applies to the following samples: Method: SW846 8015 T58817-14 CAS No. Result RL MDL Units Q Compound

	TPH-GRO (C6-C10)	ND 0.050	0.0060	mg/l	
CAS No.	Surrogate Recoveries	Limits	5		
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	86% 42-123 114% 51-130			

70 of 85

Page 1 of 1

Method	l Blank Summary	•		•		·	Page 1 of 1	
Job Numb Account: Project:	er: T58817 ELPASOX EL PASO MWHCODE: San Jua			•				
Sample. GBB100-M	File ID DF 1B BB0001682.D1	Analyzed 09/01/10	By AT	Pre n/a	p Date	Prep Batch n/a	Analytical Batch GBB100	•
The OC #	monted have employ to the	fallowin a com 1				Mathad. SW04	6 9015	6.1.
T58817-3	eported here applies to the	ionowing sample	es:			Method: SW84	0 8013	5 0
CAS No.	Compound	Result	RL ·	MDL	Units	Q		
	TPH-GRO (C6-C10)	ND	5.0	0.30	mg/kg			
CAS No.	Surrogate Recoveries		Limits	5 <sup>-</sup>				

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

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

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T58817

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Project:	MWHCODE: San Juan River Basin Program	
Account:	ELPASOX EL PASO CORPORATION	
Job Number:	158817	

Sample GBB96-BS	File ID DF BB0001607.D1	Analyzed 08/30/10	<b>В</b> у АТ	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB96
The OC arrest				<u></u>	Mathad, SW/94	6 9015
The QC repor	ted here applies to the fol	lowing sample	s:		Method: SW84	6 8015

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

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.340	85	78-115 ·
CAS No.	Surrogate Recoveries	BSP	Li	mits	
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	94% 108%	20000000	-127% -120%	

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Job Number: Account: Project:	T58817 ELPASOX EL PASO C MWHCODE: San Juan					
Sample GBB97-BS	File ID DF BB0001637.Dl	Analyzed 08/30/10	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB97
The QC report	ted here applies to the fo	llowing sample	s: .	. ]	Method: SW840	

T58817-1, T58817-2

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CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.339	85	78-115
CAS No.	Surrogate Recoveries	BSP	Lin	nits .	
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	94% 105%	1. Cont.	127% 120%	

Page 1 of 1

6.2.2



Job Number: Account: Project:	T58817 ELPASOX EL PASO C MWHCODE: San Juan					
Sample GBB99-BS	File ID DF BB0001650.D1	Analyzed 08/31/10	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB99
	rted here applies to the fo 8817-6, T58817-8, T58817		es:		Method: SW84	6 8015
	Compound PH-GRO (C6-C10)	mg/kg m	SP BSP g/kg % 349 <u>87</u> %	Limits 78-115		
CAS No. S	urrogate Recoveries	BSP	Limits			
460-00-4 4	-Bromofluorobenzene	96%	46-127%		· .	• .

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

96% 108% 44-120% Page 1 of 1

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# Blank Spike Summary Job Number: T58817

Account: ELPASOX EL PASO CORPORATION Project: MWHCODE: San Juan River Basin Program Analyzed Sample File ID DF Prep Date Prep Batch Analytical Batch By GHH53-BS HH0001005.D 09/01/10 LB n/a n/a GHH53 The QC reported here applies to the following samples: Method: SW846 8015 T58817-14 BSP Spike BSP CAS No. Compound mg/l mg/l % Limits TPH-GRO (C6-C10)  $\mathbf{0.4}$ 0.387 97 81-113 CAS No. Surrogate Recoveries BSP Limits 460-00-4 4-Bromofluorobenzene

98-08-8

aaa-Trifluorotoluene

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



6.2.4



Job Number Account: Project:	r: T58817 ELPASOX EL PASO ( MWHCODE: San Juan			1			
Sample GBB100-BS	File ID DF BB0001680.DI	Analyze 09/01/10			Prep Date n/a	Prep Batch n/a	Analytical Batch GBB100
The QC rep T58817-3	ported here applies to the f	ollowing sam	ples:			Method: SW84	6 8015
CAS No.	Compound	-	BSP mg/kg	BSP %	Limits		
	TPH-GRO (C6-C10)	0.4	0.359	90	78-115		

CAS No.Surrogate RecoveriesBSPLimits460-00-44-Bromofluorobenzene<br/>aaa-Trifluorotoluene96%<br/>106%46-127%<br/>44-120%



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## Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58817

Job Number: Account: Project:			ORPORATION River Basin Pro				
Sample	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
T58836-4MS	BB000162	0.D1	08/30/10	AT ·	n/a	n/a	GBB96
T58836-4MSD T58836-4	BB000162 BB000161		08/30/10 08/30/10	AT AT	n/a n/a	n/a	GBB96
1 30030-4	DDUUUI01	9.11	08/30/10	AI	n/a	n/a	GBB96

The QC reported here applies to the following samples:

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	, <b>21.1</b>	83	21.5	84	2	78-115/14	
CAS No.	Surrogate Recoveries	MS	•	MSD	T58	8836-4	Limits			·	
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	93% 106%		96% 107%	939 103	000000000000000000000000000000000000000	46-1279 44-1209	-			



Method: SW846 8015

6.3.1

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number Account: Project:	ELPASOX EL PASO C MWHCODE: San Juan				```					0
Sample T58817-1MS T58817-1MS T58817-1		Analyz 08/31/ 08/31/ 08/30/	10 10	By AT AT AT	Prer n/a n/a n/a	Date	Prep I n/a n/a n/a	Batch	Analytic GBB97 GBB97 GBB97 GBB97	cal Batch
The QC rep T58817-1, T	orted here applies to the fo	llowing sar	nple	s:		N	lethod:	SW846	8015	
	Compound	T58817 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10) Surrogate Recoveries	3.25 MS	J	25.6 MSD	22.6 T58	76*23 8817-1	22.5 Limits	F/5*	.0.	78-115/14

 460-00-4
 4-Bromofluorobenzene
 94%
 94%
 93%
 46-127%

 98-08-8
 aaa-Trifluorotoluene
 106%
 108%
 106%
 44-120%

# Page 1 of 1



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# Matrix Spike/Matrix Spike Duplicate Summary

Job Number Account: Project:	: T58817 ELPASOX EL PA MWHCODE: San			ram	~ J					
Sample T58920-5AM T58920-5AM T58920-5A	IS BB0001658.DI	08/31/2	LO LO	By AT AT AT	Prep n/a n/a n/a	Date	Prep E n/a n/a n/a	1	Analytic GBB99 GBB99 GBB99	al Batch
• •	orted here applies to 58817-6, T58817-8, T	C C	•			N	fethod:	SW846 8	8015	
CAS No.	Compound	T58920 mg/kg		Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
j	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	T58920-5A	Limits
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	20.00 March 10.000 0000000000000000000000000000000	278363 ED	91% 99%	

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6.3.3

## Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58817

Job Number: Account: Project:	T58817 ELPASOX EL PASO C MWHCODE: San Juan					
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	AΤ	n/a	n/a	GBB100
T59027-1	BB0001685.D1	09/01/10	ΑТ	n/a	.n∕a	GBB100

The QC reported here applies to the following samples:

T58817-3

CAS No.	Compound	T59027-1 mg/kg Q	Spike 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	Т590	027-1	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	93% 107%	95% 105%	91% 1019	) %?		-		



Method: SW846 8015

6.3.4



## Matrix Spike/Matrix Spike Duplicate Summary Job Number: T58817

 Job Number:
 T58817

 Account:
 ELPASOX EL PASO CORPORATION

 Project:
 MWHCODE: San Juan River Basin Program

 Sample
 File ID
 DE
 Analyzed
 By
 Pren Date
 Pren Batch
 Analytical Batch

Sample	rite ID Dr	Analyzed	ву	Prep Date	Ргер Ватсп	Analytical Batch
T59026-4MS	HH0001025.D	09/01/10	LB	n/a	n/a	GHH53
T59026-4MSD	HH0001026.D	09/01/10	LB	n/a	n/a	GHH53
T59026-4	HH0001009.D	09/01/10	LB	` n/a	n/a	GHH53
		· · ·			. '	

The QC reported here applies to the following samples:

T58817-14

CAS No.	Compound	T59026-4 mg/l Q	Spike mg/l	MS MS mg/l %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	<b>TPH-GRO (C6-C10)</b>	0.050 U	0.4	0.417 104	0.409	102	2	81-113/31
<b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> + <b>C</b> +								
CAS No.	Surrogate Recoveries	MS	MSD	Т59026-4	Limits			
460-00-4	4-Bromofluorobenzene	89%	87%	89%	42-1239	%		
98-08-8	aaa-Trifluorotoluene	115%	115%	110%	51-1309	%		

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6.3.5

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Method: SW846 8015





# QC Data Summaries

GC Semi-volatiles

## Includes the following where applicable:

Method Blank Summaries Blank Spike Summaries

• Matrix Spike and Duplicate Summaries



Job Number: Account: Project:	T58817 ELPASOX EL I MWHCODE: S						
Sample OP15844-MB	File ID IF201028.D	DF 1	Analyzed 09/04/10	By HD	Prep Date 08/30/10	Prep Batch OP15844	Analytical Batch GIB1088
	tad have employed					Mathade SW04	0.0015 M

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

Limits

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 84-15-1 o-Terphenyl

77% 33-115%

Page 1 of 1

7.1.1



Job Number: Account: Project:	T58817 ELPASOX EL I MWHCODE: S						
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15844-BS	IF201029.D	1	09/04/10	HD	08/30/10	OP15844	GIF1088

The QC reported here applies to the following samples:

Method: SW846 8015 M

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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	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C28)	33.2	25.6	77	45-107
CAS No.	Surrogate Recoveries	BSP	Lir	nits	
84-15-1	o-Terphenyl	73%	33-	115%	

84 of 85

## Matrix Spike/Matrix Spike Duplicate Summary

Account: Project:	ELPASOX EL I MWHCODE: S						
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15844-MS	IF201030.D	1	09/04/10	HD	08/30/10	OP15844	GIB1088
OP15844-MSD	IF201031.D	1	09/04/10	HD	08/30/10	OP15844	GIF1088
T58817-7	IF201038.D	1	09/04/10	HD	08/30/10	OP15844	GIB1088
The OC report	ed here applies t	o the fo	llowing sample	s:	,	Method: SW84	6 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 M mg/kg %		MSD mg/kg	MSD %	RPD	Limits Rec/RPD	
	ТРН (С10-С28)	ND	36.1	27.2 75	5	30.8	85	12	45-107/34	
CAS No.	Surrogate Recoveries	MS	MSD	T58817	7-7	Limits			r	
84-15-1	o-Terphenyl	83%	77%	75%		33-115%	D		•	

85 of 85 ACCUTEST. L'a b o na toirt lieis T58817

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e-Hardcopy 2.0 **Automated Report** 

09/13/10







# Technical Report for

## **EL PASO CORPORATION**

### MWHCODE: San Juan River Basin Program

THE

CHEMISTR

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



nelac

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.

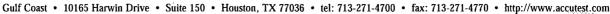
Client Service contact: Georgia Jones 713-271-4700

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

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Paul K Canevaro

Paul Canevaro Laboratory Director



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## Sample Summary

### EL PASO CORPORATION

Job No: T58848

1

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

Sample Number	Collected Date		Received	Matri Code		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

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	T58848
Site:	MWHCODE: San Juan River Basin Program	<b>Report Date</b>	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	AQ	Batch ID:	VE95			
All samples wer	e analyzed w	vithin the recommended method	holding tim	ie.		

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

Γ	Matrix AQ	Batch ID: G	GHH52	
-	All samples were analyzed within	the recommended method he	olding 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	Matrix AQ	. Batch ID: GHH	IH53
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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

Γ	Matrix AQ	Batch ID:	: OP15973
	All complex were extracted	within the recommended metho	ad halding time

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

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T58848



# Sample Results

# Report of Analysis



Report of Analysis									Page 1 of 1		
Client Sam Lab Sample Matrix: Method: Project:		T58848 AQ - E SW846	quipment I 8260B		sin Program	Date I Percer	Sampled: Received nt Solids	08/28/10			
Run #1 Run #2	File ID E00015		DF 1	Analyzed 08/30/10	By MH	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VE95		
Run #1 Run #2	Purge 5.0 ml	Volume		ſ							
Purgeable A	Aromati	cs									
CAS No.	Comp	ound		Result	RL	MDL	Units	Q			
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6		ie enzene e (total) ylene		ND ND ND ND ND ND	2.0 2.0 2.0 6.0 4.0 2.0	0.50 0.43 0.55 1.7 1.1 0.53	ug/l ug/l ug/l ug/l ug/l ug/l				
CAS No.	Surrog	gate Rec	overies	Run# 1	Run# 2	Lim	its				
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibror 1,2-Di Toluer	nofluorc chloroet 1e-D8	omethane hane-D4 obenzene	96% 90% 103% 113%		75-1 87-1	.22% 21% .19% .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



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	Page 1 of 1				
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T58848-4 AQ - Equipment B SW846 8015		Date Sampled Date Received Percent Solids gram	: 08/28/10	• •
Run #1 Run #2	File ID DF HH0000987.D 1	Analyzed By 08/31/10 LB	Prep Date n/a	Prep Batch n/a	Analytical Batch GHH52
Run #1 Run #2	Purge Volume 5.0 ml				
CAS No.	Compound	Result RI	MDL Units	Q	•
;	TPH-GRO (C6-C10)	ND 0.0	50 0.0060 mg/l		
CAS No.	Surrogate Recoveries	Run#1 Ru	n#2 Limits		
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	86% 126%	42-123% 51-130%		• • • •

ND = Not detectedMDL - 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 Sam Lab Samp Matrix: Method: Project:	le ID: T58848-4 AQ - Equip SW846 801		Date Sampled: Date Received: Percent Solids:	08/28/10	·				
Run #1 Run #2	File ID DF IF201086.D 1	Analyzed By 09/05/10 EM	Prep Date 09/01/10	Prep Batch OP15973	Analytical Batch GIB1089				
Run #1 Run #2		al Volume ml							
CAS No.	Compound	Result RL	MDL Units	Q					
-	TPH (C10-C28) TPH (>C28-C40)	ND 0.13 ND 0.13	0.029 mg/l 0.030 mg/l						
CAS No.	Surrogate Recover	ies Run#1 Run#2	Limits						
84-15-1	o-Terphenyl	70%	25-112%						

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							
Client Samj Lab Sample Matrix: Method: Project:	e ID: T58848-5 AQ - Fiel SW846 82	d Blank Wa 260B	nter an River Bas	sin Program	Date I Percer	Sampled: Received nt Solids	: 08/28/10	
Run #1 Run #2			Analyzed 08/30/10	By MH	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VE95
Run #1 Run #2	Purge Volume 5.0 ml					·. \		
Purgeable A	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q	
71-43-2 108-88-3 100-41-4 1330-20-7 95-47-6 CAS No.	Benzene Toluene Ethylbenzene Xylene (total) m,p-Xylene o-Xylene Surrogate Recov	reries	ND ND ND ND ND ND Run# 1	2.0 2.0 2.0 6.0 4.0 2.0 Run# 2	0.50 0.43 0.55 1.7 1.1 0.53 Lim	ug/l ug/l ug/l ug/l ug/l ug/l		
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluorom 1,2-Dichloroetha Toluene-D8 4-Bromofluorobe	ethane ne-D4	92% 85% 98% 105%		79-1 75-1 87-1	22% 21% 19% 33%		·

ND = Not detected MDL - Method Detection LimitRL = Reporting LimitE = Indicates value exceeds calibration range J = Indicates an estimated value

 $\dot{B}$  = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



3.2

	Report of Analysis								
Client San Lab Samp Matrix: Method: Project:	de ID: T58848-5 AQ - Field SW846 801	Blank Water	sin Program	Date Sampled: Date Received: Percent Solids:	08/28/10				
Run #1 Run #2	File ID D HH0001010.D 1		By LB	Prep Date n/a	Prep Batch n/a	Analytical Batch GHH53			
Run #1 Run #2	Purge Volume 5.0 ml		·		t				
CAS No.	Compound TPH-GRO (C6-C1	Result	RL	MDL Units 0.0060 mg/l	Q				
CAS No.	Surrogate Recove	ries Run# 1	Run# 2	Limits					
460-00-4 98-08-8	4-Bromofluoroben aaa-Trifluorotolue	Contraction of the second second		42-123% 51-130%	a				

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

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# Misc. Forms

# **Custody Documents and Other Forms**

Includes the following where applicable:

• Chain of Custody





## CHAIN OF CUSTODY

## PAGE $^{\setminus}$ OF $^{\setminus}$

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Laboratories	•	·	TEL. 71	3-271-470	6 FAX:	713-3	271-47	70				Acout	ansei Quole # Acculient Job # 7.58848				348						
Client / Reporting Information			Project	Informa	ation	1211	5ie	6	1		南湖	2			Req	188	ted	Апа	lyse	5			Matrix Codes
Company Name MWH Americas Strol Address	Project Nama: 5treet	y ve Z	* *					44.10											DW - Drinking Water GW - Ground Water WW - Water				
Street Address 1801 California, St. 296 City State 20 Denver CO 80202 Project Contract 10 E-mail	City		State	Billing Information ( if different from Report to) Company Name															SW - Surface Water SO - Soli SL- Sludge SED-Sediment O1 - O1				
Jed Smith				Street At	idresa <sub>.</sub>			Sta	<u>to</u>		Zip	-0	3				. <sup>.</sup>						LID - Other Liquid AIR - Air SOL - Other Solid WP - Wipe
Phone # Fax # 303~291-2276 Sempler(s) Name(s) Phone # (Der. n [4 250-	Project Manager A 51/1 (2	A.	<u></u>	Atlention	:							-   >		00				ĺ					FB-Fleid Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank
I Vev. M (T rad	11, 51112	<u>- 7 17 C</u> offee	Bon	L		1		Number	of pres-	erved Bott	les	-14	10	17					·				
Azovers Barrele Field ID / Point of Collection	Date	Tima	Sempled By	Matrix	f af botiles	Ю	ZANaOH	HNO3 HZSO4	3402	DI Walar MEOH	NaHSO4 ENCORE	Elec て し	-	82									LAB USE ONLY
160-2 11-12	8/2410	1600	ON	50	21						×	1	4 X										
268-2 15-16	8/26/00	1630	DH	50	2				ΓΤ			2	X										
3 6.0-2 9-10	8/26/10	1540	0H	50	2						×	X	X										
4 Earinment Rinse	8/24/10	17.10	04	50	2	H			†		193		$\nabla$	X									· ·
5 Field Birg K	\$ 12/0/10	18.20	b 17	k.	2	<b>x</b>		$\square$	++	++			#->	۲Ż					-				
JUTER DEALS	126/10		<u>p.77</u>	<u>6</u>	<u> </u>	FÌ			-+				1	7.2									
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Turnaround Time ( Business days)						<u>-</u> c	ata D	ellveral	ole: In	formatic	n i	調定	175-0			8. A. A.	Com	ments /	Specia	al Instruc	ctions	STANCE:	
Btendard	Approved By (Accu	test PM): / Date:			Commerc					ים													
5 Day RUSH					Commenc FULT1 (1			al 2)		<u> </u>	200 Form Other	nat		-							•		
3 Day RUSH					REDTI (I					<u> </u>		_											
2 Day RUSH					Commerc																		
1 Day EMERGENCY										duits Only												_	
Emergency & Rush T/A data available VIA Labilisk											C Summa C & Sumo		nary										
		mple Custody m	ust be docum	nented b	olow eac		е вал	nples c	heing	e poss							7	1838		5930			
Relinguished by Bampler: Doto Time:	- //	Received By: 1						Relloqui 2	sh id I	"F	ect	ĿΧ			Sata Tin &:	10	0	Racelve 2	<sup>аву.</sup> Лс	سيسر ندم	CG.	tin	lillatio
Relinquished by Sampler: Date Time;		Recolved By: 3						Rollnqui 4	shid i			-1			Data Tin			Receive 4					
Relinquished by: Date Time: 5		Received By: 5	•					Custady	Scall			Intact	oct	Preservi	nedw ben	applical	ble					Coolar	Temp 2.3°C

T58848: Chain of Custody Page 1 of 3



S.	AM	<b>[PL</b>	Æ	IN	SP	EC	TI	ON	FO	RM
----	----	------------	---	----	----	----	----	----	----	----

Accutest Job Number: 758848 Client: MWH AMERICAS	Date/Time Received: 8-28-10 1050
# of Coolers Received: Thermometer #: <u>PGun04</u> Tem	perature Adjustment Factor; 🖉
Cooler Temperatures (initial/adjusted): #1: #2: #3:	#4: #5:
#6: #7: #8: #9: #10	#11 #12
Method of Delivery: FEDEX UPS Accutest Courier Greyhound	Delivery Other
COOLER INFORMATION       SAMPLE INFORMATION         Custody seal missing or not intact       Sample containers received broken         Temperature criteria not met       VOC vials have headspace         Wet ice received in cooler       Sample labels missing or illegible         Chain of Custody not received       Sample/Bottles roved but no analysis on COC         Sample D/T unclear or missing       D/T on COC does not match label(s)         Analyses unclear or missing       Sample/Bottles roved but no analysis on COC         Summary of Discrepancies:       Field Blank 1 issted on COC Os soil Matrix with a bettles         Matrix with three 40 ml vials, Equipment Rinse 1 isted         Equipment Rinse Coc Time 1710, 40 ml vials sample time         Key indext, not 1 isted on COC.	on coc as soil matrix with 2 bottles, tles - 2 LAG bottles + 3 40ml vials;
TECHNICIAN SIGNATURE/DATE: Junel Huddelistors 8-28	<u> </u>
INFORMATION AND SAMPLE LABELING VERIFIED BY:	(
• • • • • • • • • • • • • <u>CORRECTIVE ACTIONS</u>	• • • • • • • • •
By Accutest Representative:	Date: Via: Phone Email
Client Instructions:	
L'inwalkerVormisemplemanagement SM023 Revised 8/11/10	

T58848: Chain of Custody Page 2 of 3



JOB #: T58848 DATE/TIME RECEIVED: 8-28-10 1050 CLIENT: MWH AMERICAS INITIALS: DRA	
COOLER# SAMPLE ID FIELD ID DATE MATRIX VOL BOTTLE # LOCATION PRESERV	PH
1 - 1 - 5 = 7 = 1 - 5 = 1 - 5 = 7 = 1 - 5 = 1 - 5 = 7 = 1 - 5 = 1 - 5 = 7 = 1 - 5 =	<2 >12
2 GP-2 (15-16) 8-26-10 1630 1 402 1 1 0 2 3 4	<2 >12
$\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow $ $\downarrow $ Encore $2$ $\bigcirc 2 3 4$ 5 8 7 8	<2 >12
3 GP-2 (9-10) 8-26-10 1540 402 1 D 2 3 4 5 8 7 8	<2 >12 <sup>'</sup>
	<2 >12
$ \begin{bmatrix} 1 \\ -1 \end{bmatrix} = \begin{bmatrix} 2 \\ -1 \end{bmatrix} \begin{bmatrix} 2 \\ $	<2 >12
4 Equipment Rinse 8-26-10 1647 W 40ml 3-5 VR 15 8 7 84	<2 >12
	<2 >12
	<2 >12
	<2 >12
	52 >12
	<2 >12
	<2 >12
	<2 >12
	<2 >12
	<2 >12
	<2 >12
8 28 10 1 2 3 4 5 6 7 8	<2 >12
	<2 >12
	<2 >12
	<2 . >12
	~2)

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SQ4 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

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T58848: Chain of Custody Page 3 of 3



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### Section 5

# **GC/MS Volatiles**

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## QC Data Summaries

CHEMISTRY

### Includes the following where applicable:

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



Job Numbe Account: Project:	r: T58848 ELPASOX EL PASO ( MWHCODE: San Juan						
Sample VE95-MB	File ID DF E0001508.D 1	Analyzed 08/30/10	By MH	Pre n/a	p Date	Prep Batch n/a	Analytical Batch VE95
The QC rep T58848-4, 7	ported here applies to the f	ollowing sampl	es:	٦		Method: SW84	6 8260B
CAS No.	Compound	Result	RL	MDL	Units	Q ~~	
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 ND ND ND ND	2.0 2.0 2.0 6.0 4.0 2.0	0.50 0.55 0.43 1.7 1.1 0.53	ug/l ug/l ug/l ug/l ug/l ug/l	J	
CAS No.	Surrogate Recoveries		Limits	5			
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	90% 85% 97% 104%	79-122 75-121 87-119 80-133	l% }%			



l



## Blank Spike Summary

Job Numbe Account: Project:	r: T58848 ELPASOX EL PASO ( MWHCODE: San Juan			ram					
Sample VE95-BS	File ID DF E0001507.D 1	Analy 08/30/		By MH	Prep Date n/a	Prep ( n/a	Batch	Analyt VE95	ical Batch
	,							•	
The QC rep	ported here applies to the f	ollowing sa	mples:		,	Method:	SW84	6 8260B	
<b>T58848-4,</b> 7	Γ58848-5			• •					
CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits			·	• •
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	25 25 25 75 50 25	25.4 25.8 25.8 78.8 52.7 26.0	102 103 103 105 105 104	75-112 77-114 75-111 75-112				
CAS No.	Surrogate Recoveries	BSP	I	Limits					
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	94% 86% - 97% 107%	7 8	79-122% 75-121% 37-119% 30-133%					

Page 1 of 1

5.2.1

S1

17 of 28

#### Job Number: T58848 ELPASOX EL PASO CORPORATION Account: MWHCODE: San Juan River Basin Program Project: Sample Analytical Batch File ID DF Prep Date Prep Batch Analyzed By T58851-4MS E0001516.D 1 **VE95** 08/30/10 MH n/a n/a T58851-4MSD E0001517.D 1 08/30/10 **VE95** MH n/a n/a T58851-4 E0001515.D 1 08/30/10 MΉ n/a n/a **VE95** Method: SW846 8260B The QC reported here applies to the following samples: T58848-4, T58848-5 MS MSD Limits T58851-4 MS MSD Spike Rec/RPD CAS No. Compound ug/l Q ug/l ug/l % ug/l % 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 25 26.9 .104 25.5 99 5 77-114/12 0.78 J 104 1330-20-7 Xylene (total) 75 74.2 99 75-111/12 6.0 U 79.7 7 107 50 m,p-Xylene 4.0 U 53.4 49.1 98 8 75-112/12 95-47-6 25 26.3 25.1 o-Xylene 2.0 U 105 100 5. 74-110/11 CAS No. MSD T58851-4 Surrogate Recoveries MS Limits

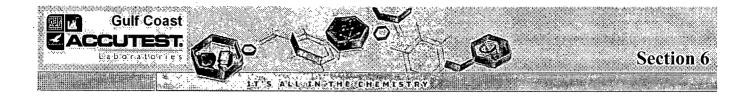
1868-53-7	Dibromofluoromethane	91%	79-122%
17060-07-0	1,2-Dichloroethane-D4	83% 85% 86%	75-121%
2037-26-5	Toluene-D8	97% 96% 97%	<b>87-119</b> %
460-00-4	4-Bromofluorobenzene	103% 104% 104%	80-133%



Page 1 of 1

91%	90%	91%	79-122%
83%	85%	86%*	75-121%
97%	96%	97%	87-119%
103%	104%	104%	80-133%

#### Matrix Spike/Matrix Spike Duplicate Summary



### 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 Numbe Account: Project:	er: T58848 ELPASOX EL PASO ( MWHCODE: San Juan						
Sample GHH52-M	File ID DF B HH0000984.D	Analyzed 08/31/10	By LB	Pre n/a	p Date	Prep Batch n/a	Analytical Batch GHH52
-	ported here applies to the f	ollowing sample	s:			Method: SW84	6 8015
T58848-4					÷.	· ·	
CAS No.	Compound	Result	RL	MDL	Units	Q	
	TPH-GRO (C6-C10)	ND	0.050	0.0060	mg/l		
CAS No.	Surrogate Recoveries		Limits	5		· .	

 460-00-4
 4-Bromofluorobenzene
 85%
 42-123%

 98-08-8
 aaa-Trifluorotoluene
 111%
 51-130%

Page 1 of 1



		•		Page 1 of 1
File ID DF	Analyzed By	Prep Date	Prep Batch	Analytical Batch
HH0001007.D	09/01/10 LB	n/a	n/a	GHH53
	PASOX EL PASO C	PASOX EL PASO CORPORATION	PASOX EL PASO CORPORATION	PASOX EL PASO CORPORATION
	VHCODE: San Juan	VHCODE: San Juan River Basin Program	VHCODE: San Juan River Basin Program	VHCODE: San Juan River Basin Program
	File ID DF	File ID DF Analyzed By	File ID DF Analyzed By Prep Date	File ID DF Analyzed By Prep Date Prep Batch

	CAS No.	Compound	Result	RL	MDL	Units Q	
		TPH-GRO (C6-C10)	ND .	0.050	0.0060	mg/l	
	CAS No.	Surrogate Recoveries	. 1	Limits		• . • .	
·	460-00-4	4-Bromofluorobenzene	86%	42-123	%		
	98-08-8	aaa-Trifluorotoluene	114%	51-130			
			•				

21 of 28 T58848 Lab

6.1.2

### Blank Spike Summary

Job Number: Account: Project:	T58848 ELPASOX EL PASO C MWHCODE: San Juan			۰ ۱	)			
Sample GHH52-BS	File ID DF HH0000982.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						ъ.		

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	Li	mits	
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	91% 111%	198829263	- 123% - 130%	

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# Blank Spike Summary

Job Number: Account: Project:	158848 ELPASOX EL PASO C MWHCODE: San Juan			· •	·	٨
Sample GHH53-BS	File ID DF HH0001005.D	Analyzed 09/01/10	By LB	Prep Date n/a	Prep Batch n/a	Analytical Batch GHH53
The QC repor	ted here applies to the fo	llowing sample	s: _	•	Method: SW84	6 8015

T58848-5

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.387	97	81-113
CAS No.	Surrogate Recoveries	BSP	Lir	nits	
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	87% 115%	1. C.C.B.B.B.M.	123% 130%	



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6.2.2

### Matrix Spike/Matrix Spike Duplicate Summary

Job Numb Account: Project:	er: T58848 ELPASOX EL PASO ( MWHCODE: San Juar			<b>J</b>				_	
Sample T58921-2N T58921-2N T58921-2N T58921-2		Analyzed 08/31/10 08/31/10 08/31/10	By LB LB LB	Pre n/a n/a n/a	p Date	Prep 1 n/a n/a n/a	Batch	Analyti GHH52 GHH52 GHH52 GHH52	
The QC ro T58848-4	eported here applies to the f	ollowing sample	s:		]	Method:	SW846	8015	
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. 460-00-4	Surrogate Recoveries 4-Bromofluorobenzene	MS 89%	MSD 90%	T5	8921-2 %	Limits 42-123			

98-08-8

aaa-Trifluorotoluene

 89%
 90%
 99%
 42-123%

 111%
 115%
 113%
 51-130%

Page 1 of 1

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### Matrix Spike/Matrix Spike Duplicate Summary

Job Number Account: Project:	r: T58848 ELPASOX EL PASO C MWHCODE: San Juan			J			•	•	
Sample T59026-4M T59026-4M T59026-4		Analyzed 09/01/10 09/01/10 09/01/10	By LB LB LB	Pre n/a n/a n/a	p Date	Prep I n/a n/a n/a		Analytia GHH53 GHH53 GHH53 GHH53	cal Batch
The QC rep T58848-5	ported here applies to the fo	ollowing sample	s:			Method:	SW846	8015	J
CAS No.	Compound	T59026-4 mg/l Q	Spike mg/l	MS mg/l	MS %	MSD .mg/1	MSD %	RPD	Limits Rec/RPD
CAS No. 460-00-4	TPH-GRO (C6-C10) Surrogate Recoveries 4-Bromofluorobenzene	0.050 U MS 89%	0.4 MSD 87%	0.417 T5	<u>104</u> 9026-4	0.409 Limits	102	∑ 2.200	81-113/31

98-08-8

aaa-Trifluorotoluene

51-130% 115% 115% 110%

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6.3.2

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## QC Data Summaries

GC Semi-volatiles

Includes the following where applicable:

Method Blank Summaries Blank Spike Summaries

• Matrix Spike and Duplicate Summaries



Method Job Numb Account: Project:	er: T58848 ELPASOX EL PASO MWHCODE: San Jua			·			Page 1 of 1
Sample OP15973-N	File ID DF MB IF201208.D 1	Analyzed 09/09/10	By EM		ep Date 01/10	Prep Batch OP15973	Analytical Batch GIB1093
The QC re T58848-4	eported here applies to the t	following sample	<b>es:</b>		·	Method: SW84	6 8015 <sub>.</sub> M
CAS No.	Compound	Result	RL	MDL	Units	Q	
	TPH (C10-C28) TPH (>C28-C40)	ND ND	0.10 0.10	0.023 0.024	mg/l mg/l		
CAS No.	Surrogate Recoveries		Limits	\$	•		

84-15-1 o-7

o-Terphenyl

62% 25-112%



7.1.1

### Blank Spike/Blank Spike Duplicate Summary

Blank S Job Numb Account: Project:	Spike/Blank Spike D er: T58848 ELPASOX EL PASO ( MWHCODE: San Juan	CORPORAT	ΓΙΟΝ					Page 1 of 1
Sample OP15973-E OP15973-E		Analy 09/09/ 09/09/	'10 E	y M M	Prep Dat 09/01/10 09/01/10	0	ep Batcl P15973 P15973	n Analytical Batch GIF1093 GIB1093
The QC re T58848-4	ported here applies to the f	ollowing sa	mples:			Meth	od: SW	J 846 8015 M
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	BS	SD	Limits			
84-15-1	o-Terphenyl	3 <b>67%</b> (*	302 80	%	25-1129	%		

ΔC T58848

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e-Hardcopy 2.0 **Automated Report** 

09/13/10



Gulf Coast

### Technical Report for

IT'S ALL IN THE CHEMISTRY

### 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.

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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Paul K Canevan

T59243

Paul Canevaro Laboratory Director



Gulf Coast • 10165 Harwin Drive • Suite 150 • Houston, TX 77036 • tel: 713-271-4700 • fax: 713-271-4770 • http://www.accutest.com

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### Sample Summary

#### EL PASO CORPORATION

Job No: T59243

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

Sample Number	Collected Date		Received	Matri Code		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 (748))
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	<b>09:30</b>	09/03/10	AQ	Water	GP=23)RINSE=BLANK
T59243-4	09/02/10	09:30	09/03/10	AQ	Field Blank Water	FIEEDBLANK
T59243 5	09/01/10	09:00	09/03/10	AQ	Trip Blank Water	TRIP/BLANK(#1109-02-1010
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	<b>09/03/10</b>	SO	Soil	GP-11 (12:5:13 <sup>1</sup> ))
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')
					, ,	

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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
L T59243-12	09/02/10	09:38	09/03/10	SO	Soil	GP-23 (6:7')
T59243-13	<b>09/02/10</b>	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

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	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.

Batch ID: VF3985

#### Volatiles by GCMS By Method SW846 8260B

Matrix AQ

Matrix SO

All samples were analyzed within the	ne recommended method	d holding time.
All method blanks for this batch me	eet method specific crite	eria.
Sample(s) T59288-4MS, T59288-4	4MSD were used as the	QC samples indicated.
Matrix SO	Batch ID:	VM1141
All samples were analyzed within the	ne recommended method	d holding time.
All method blanks for this batch me	eet method specific crite	eria.
Sample(s) T59403-1MS, T59403-	1MSD were used as the	QC samples indicated.
T59243-6 for Toluene-D8: Outside	control limits due to ma	atrix 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.

VY2603

Batch ID:

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.

Page 1 of 2



#### Volatiles by GC By Method SW846 8015

Matrix	AQ	Batch ID:	GEE2912	
All samples were	e analyzed within the recomm	nended 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

Batch ID: OP15901

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

Matrix AO

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.

#### 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
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Sample(s) T59243-2DÚP 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

Friday, September 10, 2010

Page 2 of 2

T59243



# Section 3

# Sample Results

## Report of Analysis



1	Report of Analysis								
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T59243 SO - So SW846	oil 8260B	Juan River Ba	sin Program	Date H Percei	Sampled: Received: nt Solids:	09/03/10		
Run #1 Run #2	File ID Y0041959.D	DF 1	Analyzed 09/07/10	By FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VY2603	
Run #1 Run #2	Initial Weight 2.03 g	Final Vol 5.0 ml	ume						
Purgeable	Aromatics								
CAS No.	Compound		Result	RL	MDL	Units	Q		
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 ND ND ND ND ND	13 13 13 39 26 13	2.2 2.9 3.1 6.7 4.7 2.1	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	•		
CAS No.	Surrogate Rec	coveries	<b>Run#</b> 1	Run# 2	Lim	its		· · ·	
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoro Toluene-D8 4-Bromofluoro 1,2-Dichloroet	obenzene	94% 100% 87% 80%		76-1 73-1	21% 32% 65% 22%			

MDL - Method Detection Limit -ND = Not detectedRL ≈ 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 Sam Lab Samp Matrix: Method: Project:								
Run #1 Run #2	File ID BB0001816.D	DF 1	Analyzed 09/05/10	By AT	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GBB106
Run #1 Run #2	Initial Weight 2.45 g	Final Vol 5.0 ml	lume Metha 100 ul	nol Aliquo	t			
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH-GRO (Ce	6-C10)	ND	15	0.89	mg/kg		
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its		
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluoroto		91% 99%			.27% .20%	ж. *	

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				
Client San Lab Samp Matrix: Method: Project:					
Run #1 Run #2	File ID DF IF201055.D 1	Analyzed By 09/04/10 HD	Prep Date 09/03/10	Prep Batch OP15901	Analytical Batch GIF1088
Run #1 Run #2	Initial Weight Final Volu 30.8 g 1.0 ml	me			
CAS No.	Compound	Result RL	MDL Units	Q	
	TPH (C10-C28) TPH ( > C28-C40)	11.7 ND 4.2 4.2	3.5 mg/kg 2.8 mg/kg		
CAS No.	Surrogate Recoveries	Run#1 Run#2	Limits		
84-15-1	o-Terphenyl	59%	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 N = Indicates presumptive evidence of a compound



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			Repo	rt of An	alysis			,	Page 1 of		
	Method:     SW846 8260B     Percent Solids:     82.6       Project:     MWHCODE: San Juan River Basin Program										
Run #1 Run #2	File ID Y0041960.D	DF 1	Analyzed 09/08/10	<b>By</b> FI	Prep D n/a	Date	Prep n/a	Batch	Analytical Batch VY2603		
Run #1 Run #2	Initial Weight 3.95 g	Final Vol 5.0 ml	ume	· · ·							
Purgeable	Aromatics										
CAS No.	Compound		Result	RL	MDL	Units	Q		Ŷ		
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 ND ND ND ND ND	6.1 6.1 6.1 18 12 6.1	1.1 1.4 1.5 3.2 2.2 0.98	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	~				
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	nits		•			
1868-53-7 2037-26-5 460-00-4 17060-07-0	4-Bromofluoro	benzene	102% 101% 86% 81%		76-1 73-1	121% 132% 165% 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

N = Indicates presumptive evidence of a compound



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	Report of Analysis										
Client San Lab Samp Matrix: Method: Project:	le ID: T59243-2 SO - Soil SW846 8015	Juan River Basin Program	Date Sampled Date Received Percent Solids n	: 09/03/10							
Run #1 Run #2	File ID DF EE056792.D 1	Analyzed By 09/08/10 AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GEE2913						
Run #1 Run #2	Initial Weight Final Vo 4.19 g 5.0 ml	lume Methanol Aliqu 100 ul	ot	,							
CAS No.	Compound	Result RL	MDL Units	Q							
	TPH-GRO (C6-C10)	ND 8.3	0.50 mg/kg	1							
CAS No.	Surrogate Recoveries	Run#1 Run#2	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 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

		-		•			•
le ID: T5924 SO - S SW84	3-2 Soil 6 8015 M - S		Program	Date H Percer			
File ID IF201056.D	DF 1	•	•	-		Prep Batch OP15901	Analytical Batch GIB1088
Initial Weight 30.4 g	Final Vo 1.0 ml	lume					
Compound		Result	RL	MDL	Units	Q	
		ND ND	4.0 4.0	3.3 2.6	mg/kg mg/kg	•	
Surrogate Re	ecoveries	Run# 1	Run# 2	Lim	its		
o-Terphenyl		65%		33-1	15%		
	le ID: T5924 SO - S SW84 MWH File ID IF201056.D Initial Weight 30.4 g Compound TPH (C10-C2 TPH (>C28- Surrogate Re	le ID: T59243-2 SO - Soil SW846 8015 M S MWHCODE: San File ID DF IF201056.D 1 Initial Weight Final Vo 30.4 g 1.0 ml Compound TPH (C10-C28) TPH (>C28-C40) Surrogate Recoveries	le ID: T59243-2 SO - Soil SW846 8015 M SW846 3550B MWHCODE: San Juan River Basin File ID DF Analyzed I IF201056.D 1 09/04/10 I Initial Weight Final Volume 30.4 g 1.0 ml Compound Result TPH (C10-C28) TPH (>C28-C40) ND Surrogate Recoveries Run# 1	le ID: T59243-2 SO - Soil SW846 8015 M SW846 3550B MWHCODE: San Juan River Basin Program File ID DF Analyzed By IF201056.D 1 09/04/10 HD Initial Weight Final Volume 30.4 g 1.0 ml Compound Result RL TPH (C10-C28) ND 4.0 TPH (> C28-C40) ND 4.0 Surrogate Recoveries Run# 1 Run# 2	le ID: T59243-2 SO - Soil Date S SW846 8015 M SW846 3550B Percer MWHCODE: San Juan River Basin Program File ID DF Analyzed By Prep D IF201056.D 1 09/04/10 HD 09/03/1 Initial Weight Final Volume 30.4 g 1.0 ml Compound Result RL MDL TPH (C10-C28) ND 4.0 3.3 TPH (> C28-C40) ND 4.0 2.6 Surrogate Recoveries Run#1 Run#2 Lim	le ID:       T59243-2 SO - Soil       Date Sampled: Date Received:         SW846 8015 M       SW846 3550B MWHCODE: San Juan River Basin Program       Date Sampled: Date Received:         File ID       DF       Analyzed       By       Prep Date         IF201056.D       1       09/04/10       HD       09/03/10         Initial Weight       Final Volume       30.4 g       1.0 ml         Compound         Result       RL       MDL         TPH (C10-C28)       ND       4.0       3.3       mg/kg         TPH (> C28-C40)       ND       4.0       2.6       mg/kg         Surrogate Recoveries       Run#1       Run#2       Limits	le ID:       T59243-2 SO - Soil       Date Sampled:       09/02/10 Date Received:       09/03/10 Percent Solids:         SW846 8015 M       SW846 3550B       Percent Solids:       82.6         MWHCODE:       San Juan River Basin Program       Prep Date       Prep Batch         File ID       DF       Analyzed       By       Prep Date       Prep Batch         IF201056.D       1       09/04/10       HD       09/03/10       OP15901         Initial Weight       Final Volume       1.0 ml       Result       RL       MDL       Units       Q         TPH (C10-C28)       ND       4.0       3.3       mg/kg         TPH (> C28-C40)       ND       4.0       2.6       mg/kg         Surrogate Recoveries       Run#1       Run#2       Limits       -

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

	Page 1 of 1						
Client Sam Lab Sample Matrix: Method: Project:	09/02/10 09/03/10 n/a						
Run #1 Run #2	File ID         DF           F028633.D         1	•	By AK	Prep Dat n/a	e	Prep Batch n/a	Analytical Batch VF3985
Run #1 Run #2	Purge Volume 5.0 ml		;				
Purgeable A	Aromatics						
CAS No.	Compound	Result	RL	MDL	Units	Q	
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 ND ND ND ND ND	2.0 2.0 2.0 6.0 4.0 2.0	0.55 0.43 1.7 1.1	ug/1 ug/1 ug/1 ug/1 ug/1 ug/1		*. *. *.
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	5		,
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	105% 101% 97% 100%		79-122 75-121 87-119 80-133	l% }%		

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

N = Indicates presumptive evidence of a compound



:.			Repor	t of An	alysis		Page 1 of 1	
Client San Lab Samp Matrix: Method: Project:	le ID: T59243 AQ - W SW846	ater 8015	LANK n Juan River Basi	n Program	Date Sampled: Date Received: Percent Solids:	09/03/10		
Run #1 Run #2	File ID EE056783.D	DF 1	•	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GEE2912	
Run #1 Run #2	Purge Volume 5.0 ml							
CAS No.	Compound		Result	RL	MDL Units	Q		
	TPH-GRO (C6	-C10)	ND	0.050	0.0060 mg/l			
CAS No.	Surrogate Rec	overies	<b>Run#</b> 1	Run# 2	Limits	•		
460-00-4 98-08-8	4-Bromofluorol aaa-Trifluoroto		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

N = Indicates presumptive evidence of a compound



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	Report of Analysis										
Client San Lab Sam Matrix: Method: Project:	-	: 09/02/10 : 09/03/10 : n/a									
Run #1 Run #2	File ID IF201186.D	DF 1	Analyzed 09/08/10	By EM	Prep D: 09/07/1		Prep Batch OP15986	Analytical Batch GIB1093			
Run #1 Run #2	Initial Volume 990 ml	Final Volu 1.0 ml	me ·				(				
CAS No.	Compound		Result	RL	MDL	Units	Q				
	TPH (C10-C28) TPH (>C28-C4		ND ND		0.024 0.024	mg/l mg/l		•			
CAS No.	Surrogate Reco	overies	Run# 1	Run# 2	Lim	its					
84-15-1	o-Terphenyl				25-1	12%					

ND = Not detectedMDL - 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 Sam Lab Sample Matrix: Method: Project:												
Run #1 Run #2												
Run #1 Run #2	Purge Volume 5.0 ml	1										
Purgeable A	Aromatics					-						
CAS No.	Compound	Result	RL	MDL	Units	Q						
71-43-2	Benzene	ND	2.0	0.50	ug/l							
100-41-4	Ethylbenzene	<b>ND</b>	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-												
2037-26-5							,					
460-00-4	0-00-4 4-Bromofluorobenzene 95% 80-133%											
	,											

ND = Not detectedMDL - Method Detection LimitRL = Reporting LimitE = 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 San Lab Samp Matrix: Method: Project:			sin Program	Date Sampled Date Received Percent Solids	· ·					
Run #1 Run #2	File ID DF EE056787.D 1	Analyzed 09/08/10	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GEE2912				
Run #1 Run #2	Purge Volume 5.0 ml		· · · ·							
CAS No.	Compound TPH-GRO (C6-C10)	Result	RL	MDL Units 0.0060 mg/l	Q					
CAS No. 460-00-4 98-08-8	Surrogate Recoveries 4-Bromofluorobenzene aaa-Trifluorotoluene	Run# 1 90% 99%	Run# 2	Limits 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



	Report of Analysis											
Client Sam Lab Sampl Matrix: Method: Project:		Vater	sin Program	Date Sample Date Receive Percent Solie	ed: 09/03/10							
Run #1 Run #2	File ID         DF           F028631.D         1	Analyzed 09/07/10	By AK	Prep Date n/a	Prep Batch n/a	Analytical Batch VF3985						
Run #1 Run #2	Purge Volume 5.0 ml											
Purgeable	Aromatics											
CAS No.	Compound	Result	RL	MDL Unit	s Q							
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 ND ND ND ND ND	2.0 2.0 2.0 6.0 4.0 2.0	0.50 ug/l 0.55 ug/l 0.43 ug/l 1.7 ug/l 1.1 ug/l 0.53 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	106% 101% 98% 96%		79-122% 75-121% 87-119% 80-133%								

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



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	Report of Analysis										
Client Sam Lab Samp Matrix: Method: Project:											
Run #1 Run #2	File ID EE056788.D	DF 1	Analyzed 09/08/10	By AT	Prep Dat n/a	te	Prep Batch n/a	Analytical Batch GEE2912			
Run #1 Run #2	Purge Volume 5.0 ml										
CAS No.	Compound		Result	RL	MDL	Units	Q				
	TPH-GRO (Ce	6-C10)	0.0161	0.050	0.0060	mg/l	J,	•			
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Limit	s					
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene		92% 98%		42-12 51-13						

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							
Client Sam Lab Sampl Matrix: Method: Project:								
Run #1 Run #2	File ID M0027947.D M0027942.D	DF 1 10	Analyzed 09/08/10 09/08/10	By FI FI	Prep D n/a n/a	ate	Prep Batch n/a n/a	Analytical Batch VM1141 VM1141
Run #1 Run #2	Initial Weight 4.58 g 4.58 g	Final Vo 5.0 ml 5.0 ml	lume Metha 100 ul 100 ul		ot			
Purgeable	Aromatics					·		•
CAS No.	Compound		Result	RL	MDL	Units	Q	
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		9590 18000 <sup>a</sup> 176 143000 <sup>a</sup> 143000 <sup>a</sup> ND	320 3200 320 9600 6400 320	56 720 76 1700 1200 51	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	J	• • •
CAS No.	Surrogate Rec	overies	<b>Run#</b> 1	Run# 2	Lim	its		
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoro Toluene-D8 4-Bromofluoro 1,2-Dichloroetl	benzene	88% 161% <sup>b</sup> 150% 80%	77% 126% 105% 68%	76-1 73-1	21% 32% 65% 22%		

(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

N = Indicates presumptive evidence of a compound



	,	Report of Analysis	Page 1 of 1
Client Sar Lab Samp Matrix: Method: Project:	ole ID: T59243-6 SO - Soil SW846 8015	Date Sampled: 09/01/10 Date Received: 09/03/10 Percent Solids: 80.3 San Juan River Basin Program	
Run #1 Run #2	File ID         DF           EE056799.D         200		Analytical Batch GEE2913
Run #1 Run #2	Initial Weight Fin 4.58 g 5.0	ul Volume Methanol Aliquot ml 100 ul	
CAS No.	Compound	Result RL MDL Units Q	
	TPH-GRO (C6-C10)	5320 1600 96 mg/kg	
CAS No.	Surrogate Recoveri	es Run# 1 Run# 2. Limits	
460-00-4 98-08-8	4-Bromofluorobenze aaa-Trifluorotoluene	ne 104% 46-127% 105% 44-120%	

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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						
Client San Lab Samp Matrix: Method: Project:	ole ID: T59243 SO - So SW846	W846 3550B Juan River Bas	sin Program	Date R Percent	ampled: eceived: t Solids:			
Run #1 Run #2	File ID IF201057.D	DF 1	Analyzed 09/04/10	By HD	Prep Da 09/03/10		Prep Batch OP15901	Analytical Batch GIF1088
Run #1 Run #2	Initial Weight 30.2 g	Final Vol 1.0 ml	ume	·	х. 1			
CAS No.	Compound TPH (C10-C28 TPH (>C28-C		Result 408 78.7	66803664	MDL 3.4 2.7	Units mg/kg mg/kg	Q	
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Limi	ts_		
<b>84-15-1</b>	o-Terphenyl		70%		33-11	15%		

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 Sam Lab Sampl Matrix: Method: Project:	le ID: T59243 SO - So SW846	oil 8260B	Juan River Bas	Date F Percer	Sampled: Received: nt Solids:	09/03/10		
Run #1 Run #2	File ID Y0041963.D	DF 1	Analyzed 09/08/10	<b>By</b> FI	Prep D n/a ,	ate	Prep Batch n/a	Analytical Batch VY2603
Run #1 Run #2	Initial Weight 5.71 g	Final Vo 5.0 ml	lume			, <u>.,u</u> re		
Purgeable	Aromatics							
CAS No.	Compound	`	Result	RL	MDL	Units	Q	
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		6.7 15:3 ND 120 119 1:5	4.0	0.71 0.91 0.96 2.1 1.5 0.65	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	J	
CAS No.	Surrogate Recoveries		<b>Run#</b> 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		99% 99% 108% 84%		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

N = Indicates presumptive evidence of a compound



	Report of Analysis									
Client Sam Lab Samp Matrix: Method: Project:	09/01/10 : 09/03/10 : 86.7									
Run #1 Run #2	File ID BB0001823.D	DF 1	Analyzed 09/05/10	By AT	Prep D n/a	Pate .	Prep Batch n/a	Analytical Batch GBB106		
Run #1 Run #2	Initial Weight 5.35 g	Final Vo 5.0 ml	lume Metha 100 ul	anol Alique	ət					
CAS No.	Compound		Result	RL	MDL	Units	Q			
	TPH-GRO (C6	6-C10)	4.77	6.2	0.37	mg/kg	J			
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its		·		
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluoroto		92% 102%			.27% .20%		• • • •		

ND = Not detected MDL - Method Detection Limit RL = Reporting LimitE = 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										
	Method: SW846 8015 M SW846 3550B Percent Solids: 86.7										
Run #1 Run #2	File ID IF201058.D	DF 1	-	By HD	Prep D 09/03/1		Prep Batch OP15901	Analytical Batch GIB1088			
Run #1 Run #2	Initial Weight 30.7 g	Final Vol 1.0 ml	lume								
CAS No.	Compound		Result	RL	MDL	Units	Q				
	TPH (C10-C2) TPH (>C28-C		ND ND	3.8 3.8 3.8	3.1 2.5	mg/kg mg/kg					
CAS No.	Surrogate Rea	coveries	Run# 1	Run# 2	Lim	its					
84-15-1	o-Terphenyl		71% 🐔 🐍		33-1	15%					

ND = Not detectedMDL - Method Detection Limit  $RL \approx$  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



		·	Repo	rt of An	alysis			Page 1 of 1
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T59243 SO - So SW846	oil 8260B	luan River Ba	sin Program	Date l Percer	Sampled: Received nt Solids	: 09/03/10	
Run #1 Run #2	File ID Y0041964.D	DF 1	Analyzed 09/08/10	By FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VY2603
Run #1 Run #2	Initial Weight 3.44 g	Final Vol 5.0 ml	ume		*		,	
Purgeable	Aromatics							
CAS No.	Compound		Result	RL	MDL	Units	Q ·	
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 16:7 3:3 158 124 34:4	7.0 7.0 7.0 21 14 7.0	1.2 1.6 1.7 3.6 2.5 1.1	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	J	
CAS No.	Surrogate Rea	coveries	Run# 1	Run# 2	Lim	iits	•	
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoro Toluene-D8 4-Bromofluoro 1,2-Dichloroet	benzene	94% 98% 97% 79%		76-1 73-1	121% 132% 165% 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

N = Indicates presumptive evidence of a compound



	Report of Analysis									
Client San Lab Samp Matrix; Method: Project:	le ID: T59243-8 SO - Soil SW846 8015	n Juan River Basin Progra	Date Sampled: 09/01/1 Date Received: 09/03/1 Percent Solids: 83.5 m							
Run #1 Run #2	File ID         DF           EE056796.D         20	Analyzed By 09/08/10 AT	Prep Date Prep Bat n/a n/a	tch Analytical Batch GEE2913						
Run #1 Run #2	Initial Weight Final V 1.34 g 5.0 ml	<sup>7</sup> olume Methanol Aliqu 100 ul	1ot							
CAS No.	Compound	Result RL	MDL Units Q							
	TPH-GRO (C6-C10)	1860 470	28 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%							

MDL - Method Detection Limit ND = Not detectedRL = 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



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			Page 1 of 1					
Client Sam Lab Samp Matrix: Method: Project:	le ID: T59243 SO - So SW846	oil 8015 M _ S	SW846 3550B Juan River Ba	sin Program	Date I Percer	Sampled: Received: nt Solids:	09/03/10	
Run #1 Run #2	File ÍD IF201059.D	DF 1	Analyzed 09/04/10	By HD	Prep D 09/03/1		Prep Batch OP15901	Analytical Batch GIF1088
Run #1 Run #2	Initial Weight 30.6 g	Final Vo 1.0 ml	lume				ŕ	
CAS No.	Compound		Result	RL	MDL	Units	Q	,
	TPH (C10-C28 TPH (>C28-C	,	362 90.2	3.9 3.9	3.2 2.6	mg/kg mg/kg		. '
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its		•
84-15-1	o-Terphenyl		84%		33-1	15%		

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 Sam Lab Sampl Matrix: Method: Project:	le ID: T5924 SO - S SW846	oil 5 8260B	Juan River Bas	sin Program	Date I Percer	Sampled: Received nt Solids	: 09/03/10				
Run #1 Run #2	File ID Y0041965.D	DF 1	Analyzed 09/08/10	By FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VY2603			
Run #1 Run #2	Initial Weight 4.29 g	Final Vol 5.0 ml	ume	· ·							
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)	•	3.7 11:6 1.4 108	5.6 5.6 5.6 17	0.97 1.3 1.3 2.9	ug/kg ug/kg ug/kg ug/kg	J J	•			
95-47-6	m,p-Xylene o-Xylene	·	88:7 19:0	11 5.6	2.0 0.89	ug/kg ug/kg					
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its					
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluor Toluene-D8 4-Bromofluor 1,2-Dichloroe	obenzene	101% 105% 69% <sup>a</sup> 104%		76-1 73-1	21% 32% 65% 22%	ţ				

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

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit E = Indicates value exceeds calibration range

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- J = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound



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	Report of Analysis								
Client Sam Lab Sampl Matrix: Method: Project:	le ID: T59243 SO - So SW846	oil 8015	Juan River Ba	sin Progran	Date R Percen	ampled: Received: It Solids:	09/03/10	· ·	
Run #1 Run #2	File ID EE056798.D	DF 100	Analyzed 09/08/10	By AT	Prep Da n/a	ate	Prep Batch n/a	Analytical Batch GEE2913	
Run #1 Run #2	Initial Weight 3.42 g	Final Vo 5.0 ml	lume Meth 100 u	anol Aliquo I	ot		. (		
CAS No.	Compound		Result	RL	MDL	Units	Q		
	TPH-GRO (C6	6-C10)	2260	970	58	mg/kg			
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Limi	its			
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluoroto		106% 104%		46-12 44-12	27% 20%			

ND = Not detectedMDL - Method Detection Limit RL<sub>-</sub>= 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						
Client Sam Lab Samp Matrix: Method: Project:	le ID: T5924 SO - S SW84	oil 6 8015 M - S	SW846 3550B Juan River Basin	n Program	Date Sampled: Date Received: Percent Solids: ram		09/03/10	
Run #1 Run #2	File ID IF201060.D	DF 1	•	By HD	Prep D 09/03/1		Prep Batch OP15901	Analytical Batch GIB1088
Run #1 Run #2	Initial Weight 30.4 g	Final Vo 1.0 ml	lume					
CAS No.	Compound TPH (C10-C2 TPH (>C28-	,	Result 379 88-1	RL 3.9 3.9	MDL 3.2 2.6	Units mg/kg mg/kg	Q	
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its		
84-15-1	o-Terphenyl		103%		33-1	15%		

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	t of An	alysis		Page 1 of 1
Client Sam Lab Sampl Matrix: Method: Project:		Juan River Basi	n Program	Date Sampled Date Received Percent Solids	: 09/03/10	
Run #1 Run #2	File ID         DF           Y0042031.D         1		By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VY2605
Run #1 Run #2	Initial Weight Final Vol 1.94 g 5.0 ml	ume Methar 100 ul	nol Aliquo	t		· · · · ·
Purgeable	Aromatics					
CAS No.	Compound	Result	RL	MDL Units	Q	
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 662 ND 4540 4070 473	700 700 700 2100 1400 700	120         ug/kg           160         ug/kg           170         ug/kg           370         ug/kg           260         ug/kg           110         ug/kg	J	
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	999% 94% 123% 93%		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
- N = Indicates presumptive evidence of a compound





			Repo	rt of An	alysis		Page 1 of 1
Client Sam Lab Samp Matrix: Method: Project:	ole ID: T59243 SO - So SW846	3-10 oil 5 8015	Juan River Ba	sin Program	Date Sample Date Receiv Percent Soli	ed: 09/03/10	
Run #1 Run #2	File ID EE056797.D	DF 40	Analyzed 09/08/10	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GEE2913
Run #1 Run #2	Initial Weight 1.94 g	Final Vo 5.0 ml	olume Meth 100 u	anol Aliquo l	ot		¢
CAS No.	Compound		Result	RL	MDL Unit	s Q	
	TPH-GRO (C	6-C10)	2510	700	42 mg/	kg	
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Limits		
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluorot		104% 108%		46-127% 44-120%		

ND = Not detectedMDL - Method Detection LimitRL = Reporting LimitE = 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



			Repor	t of An	alysis		· .	Page 1 of 1
Client Sar Lab Samp Matrix: Method: Project:	ole ID: T59243 SO - So SW846	8-10 pil 8015 M - S	W846 3550B Juan River Bas	sin Program	Date F Percer	Sampled: Received: ht Solids:	09/03/10	
Run #1 Run #2	File ID IF201099.D	DF 5	Analyzed 09/05/10	By EM	Prep D 09/03/1		Prep Batch OP15901	Analytical Batch GIF1089
Run #1 Run #2	Initial Weight 30.4 g	Final Vol 1.0 ml	ume	<u></u>				
CAS No.	Compound	2)	Result	RL	MDL	Units	Q	
	ТРН (C10-C28 ТРН (>C28-C	•	663 141	21 21	17 14	mg/kg mg/kg		, · ·
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its		
84-15-1	o-Terphenyl		0%		33-1	15%		

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



	ŧ		Repor	t of An	alysis			Page 1 of 1
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T5924 SO - S SW84	Soil 6 8260B	Juan River Bas	in Program	Date I Percer	Sampled: Received: nt Solids:	09/03/10	•
Run #1 Run #2	File ID M0027975.D	DF 5	Analyzed 09/09/10	<b>By</b> FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VM1142
Run #1 Run #2	Initial Weight 5.57 g	t Final Vo 5.0 ml	lume Metha 100 ul	nol Aliquo	t			·
Purgeable	Aromatics		·					
CAS No.	Compound		Result	RL	MDL	Units	Q	
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	<b>`</b>	823 2250 9940 24300 19700 4610	1500 1500 1500 4500 3000 1500	260 330 350 780 540 240	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	J	
CAS No.	Surrogate R	ecoveries	Run# 1	Run# 2	Lim	its		
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluo Toluene-D8 4-Bromofluo 1,2-Dichloro	robenzene	81% 109% 105% 69%		76-1 73-1	21% .32% .65% .22%		

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



<b>.</b>		Page 1 of 1					
Client Sam Lab Samp Matrix: Method: Project:	le ID: T5924 SO - S SW840	3-11 oil 3 8015	Juan River Ba	isin Program	Date Sampled: Date Received: Percent Solids:		
Run #1 Run #2	File ID EE056789.D	DF 40	Analyzed 09/08/10	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GEE2913
Run #1 Run #2	Initial Weight 5.57 g	Final Vo 5.0 ml	blume Meth 100 u	anol Aliquo I	it .	١	
CAS No.	Compound		Result	RL	MDL Units	Q	· · · · ·
	TPH-GRO (C	6-C10)	575	300	18 mg/kg		
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Limits		
460-00-4 98-08-8	4-Bromofluor aaa-Trifluorot		95% 102%		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
- N = Indicates presumptive evidence of a compound



	Report of Analysis										
Client Sam Lab Samp Matrix: Method: Project:	ole ID: T5924 SO - S SW84	6 8015 M - S	SW846 3550B Juan River Bas	sin Program	Date Sampled: Date Received: Percent Solids:	09/03/10					
Run #1 Run #2	File ID IF201062.D	DF 1	Analyzed 09/04/10	By HD	Prep Date 09/03/10	Prep Batch OP15901	Analytical Batch GIB1088				
Run #1 Run #2	Initial Weight 30.5 g	Final Vo 1.0 ml	inal Volume 0 ml			,					
CAS No.	Compound		Result	RL,	MDL Units	Q					
	TPH (C10-C2 TPH (>C28-		14:3 6:25	4.3 4.3	3.5 mg/kg 2.8 mg/kg						
CAS No.	Surrogate R	ecoveries	Run# 1	Run# 2	Limits						
84-15-1	o-Terphenyl		58%		33-115%						
		١									
		X									

ND = Not detected MDL - Method Detection Limit RL = Reporting Limit J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



E = Indicates value exceeds calibration range

	· ~ /	Repor	Page 1 of 1				
Client Sam Lab Sampl Matrix: Method: Project:		uan River Basi	n Program	Date R Percen	ampled: eceived: t Solids:	09/03/10	
Run #1 Run #2	File ID         DF           M0027943.D         1	•	<b>By</b> FI	Prep Da n/a	ite	Prep Batch n/a	Analytical Batch VM1141
Run #1 Run #2	Initial WeightFinal Volu5.18 g5.0 ml	ime					· · ·
Purgeable	Aromatics						
CAS No.	Compound	Result	RL	MDL	Units	Q	
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	4:0 ND ND 52:0 52:0 ND	4.5 4.5 4.5 13 9.0 4.5	0.78 1.0 1.1 2.3 1.6 0.72	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	J	· · · · · · · · · · · · · · · · · · ·
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts		
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	82% 90% 103% 66%		70-12 76-13 73-16 57-12	82% 65%	,	

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					
Client Sam Lab Samp Matrix: Method: Project:	ole ID: T59243 SO - So SW846	8-12 bil 8015	ı Juan River Ba	sin Program	Date Sampled: Date Received: Percent Solids:	09/03/10	
Run #1 Run #2	File ID BB0001896.D	DF 1	Analyzed 09/09/10	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB111
Run #1 Run #2	Initial Weight 6.09 g	Final Vo 5.0 ml	olume Metha 100 ul	anol Aliquo I	t		
CAS No.	Compound		Result	RL,	MDL Units	Q ·	
	TPH-GRO (C6	6-C10)	ND	5.6	0.34 mg/kg		
CAS No.	Surrogate Rec	coveries	<b>Run#</b> 1	Run# 2	Limits		
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluoroto		94% 105%		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

N = Indicates presumptive evidence of a compound



	Report of Analysis											
Client Sam Lab Samp Matrix: Method: Project:	le ID: T59243-1 SO - Soil SW846 8	12 015 M S	W846 3550B Juan River Ba	sin Program	Date F Percer	Sampled: Received: nt Solids:	09/03/10					
Run #1 Run #2	File ID IF201063.D	DF 1	Analyzed 09/04/10	By HD	Prep D 09/03/1		Prep Batch OP15901	Analytical Batch GIF1088				
Run #1 Run #2	-	Final Vol 1.0 ml	ume			• .						
CAS No.	Compound TPH (C10-C28) TPH (>C28-C4	0)	Result 27.2 22.8	RL 3.8 3.8	MDL 3.1 2.5	Units mg/kg mg/kg	Q					
CAS No. 84-15-1	Surrogate Recov	veries	Run# 1 69%	Run# 2	Lim 33-1	its 15%		-				

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



			Repor	Page 1 of 1				
Client Sam Lab Sampl Matrix: Method: Project:	e ID: T59 SO SW	27 (6-7') 2243-13 - Soil 846 8260B VHCODE: San	Juan River Bas	in Program	Date I Percer	Sampled: Received: nt Solids:	09/03/10	
Run #1 Run #2	File ID M0027944.1	DF D 1	Analyzed 09/08/10	By FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VM1141
Run #1 Run #2	Initial Weig 3.34 g	ght Final Vo 5.0 ml	lume					
Purgeable	Aromatics							
CAS No.	Compound	1	Result	RL	MDL	Units	Q	
71-43-2 100-41-4 108-88-3 1330-20-7	Benzene Ethylbenze Toluene Xylene (tot m,p-Xylene	al)	20.9 ND ND 36.8 36.8	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 CAS No.	o-Xylene Surrogate	Recoveries	ND Run# 1	7.0 Run# 2	1.1 Lim	ug/kg iits		
1868-53-7 2037-26-5 460-00-4 17060-07-0	Toluene-Da 4-Bromoflu	uoromethane 8 uorobenzene roethane-D4	86% 91% 105% 69%	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	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

N = Indicates presumptive evidence of a compound

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		Page 1 of 1						
Client San Lab Samp Matrix: Method: Project:	le ID: T59243 SO - So SW846	B-13 bil 8015	Juan River Basi	n Program	Date I Percer	Sampled: Received: nt Solids:	09/03/10	
Run #1. Run #2	File ID BB0001817.D	DF 1	•	By AT	Prep D n/a	ate	Prep Batch n/a	Analytical Batch GBB106
Run #1 Run #2	Initial Weight 4.04 g	Final Vo 5.0 ml	lume Methar 100 ul	ol Aliquo	t		· · · · · ·	
CAS No.	Compound		Result	RL	MDL	Units	Q	
	TPH-GRO (C6	5-C10)	1:36	8.1	0.49	mg/kg	J	,
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its		
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluoroto		90% 100%			.27% .20%		•
		,						

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
- N = Indicates presumptive evidence of a compound



	Report of Analysis											
Client San Lab Samp Matrix: Method: Project:	le ID: T59243 SO - So SW846	3-13 oil 5 8015 M 5	SW846 3550B Juan River Bas	sin Program	Date F Percer	Sampled: Received: nt Solids:	09/03/10					
Run #1 Run #2	File ID IF201064.D	DF 1	Analyzed 09/05/10	By HD	Prep D 09/03/1		Prep Batch OP15901	Analytical Batch GIB1088				
Run #1 Run #2	Initial Weight 30.5 g	Final Vo 1.0 ml	lume									
CAS No.	Compound		Result	RL	MDL	Units	Q					
	TPH (C10-C2 TPH (>C28-0		125 45:5	3.8 3.8	3.2 2.5	mg/kg mg/kg						
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Lim	its						
84-15-1	o-Terphenyl	·	80%		33-1	15%						

ND = Not detectedMDL - 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



			Repo	rt of An	alysis			Page 1 of 1
Client Sam Lab Sampl Matrix: Method: Project:	le ID: T59243 SO - Tr SW846	-15 ip Blank So 8260B	il Juan River Ba	sin Program	Date I Perce	Sampled: Received: nt Solids:	: 09/03/10	1
Run #1 Run #2	File ID Y0041957.D	DF 1	Analyzed 09/07/10	By FI	Prep D n/a	ate	Prep Batch n/a	Analytical Batch VY2603
Run #1 Run #2	Initial Weight 5.00 g	Final Vol 5.0 ml	ume					
Purgeable	Aromatics			,				
CAS No.	Compound		Result	RL	MDL	Units	Q	
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 ND ND ND ND ND	4.0 4.0 12 8.0 4.0	0.70 0.90 0.95 2.1 1.5 0.64	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	• • • • • •	
CAS No.	Surrogate Rec	overies	Run# 1	Run# 2	Lim	its		
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoro Toluene-D8 4-Bromofluoro 1,2-Dichloroet	benzene	108% 103% 89% 88%		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<sup>2</sup>

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



		Page 1 of					
Client Sam Lab Samp Matrix: Method: Project:	le ID: T59243 SO - T SW846	rip Blank So 8015	bil Juan River Ba	sin Program	Date Sampled: Date Received Percent Solids	: 09/03/10	
Run #1 Run #2	File ID EE056786.D	DF 1	Analyzed 09/08/10	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GEE2912
Run #1 Run #2	Initial Weight 5.00 g	Final Vo 5.0 ml	lume				
CAS No.	Compound TPH-GRO (C	6-C10)	Result	RL	MDL Units 0.0060 mg/kg	Q	
CAS No.	Surrogate Re	coveries	Run# 1	Run# 2	Limits		
460-00-4 98-08-8	4-Bromofluoro aaa-Trifluoroto		90% 97%		46-127% 44-120%	·	

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

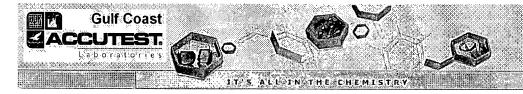
E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound





### Section 4

### Misc. Forms

### **Custody Documents and Other Forms**

### Includes the following where applicable:

• Chain of Custody



T59243



### CHAIN OF CUSTODY

### PAGE / OF /

Bolike Order Control (

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<i>.</i> (	10165 Harwin Dr, Ste 150 Houston, TX 77036
	TEL 713-271-1700 FAX: 713-271-4770

Laboratories			TEL. 71.	3-271-470 WWW.4	0 FAX: acculest.co		271-4	770					Accul	asi Quota	#				Accute	# doL las	-	た	92	42
Client / Reporting Information			Project										羅)	•		Rec	ues	ted	Ant	alyse	es _	+		Matrix Codes
Company Vano MWH Americas Street Address 1804 California St. Ste 2900 State	Project Name: Jagu Streef City	ılz	State		nformatio y Name							d-1201		Alteres 5025										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soli SL - Sludge SED-Sedmeni
Denver CO 80202 Proper Contact Jed Smith	Project #			Street Ac	ldress																		.*	OI - Oi LIQ - Olher Liquid AIR - Air SOL - Other Solid
Phone # <u>303</u> 291 2270 Sample(s) Name(s) Ash Ley Azer 970 385 107	Project Menager	•		City	e				5late 			Ζip	20100		5108-									WP - Wipe FB-Field Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank
		J Cole			# of	-	ZANaOH	Numb	HIZSON	DI Weter		NaHSO4 ENCORE		uge y	3									
Samples Fleid ID / Point of Collection	9-2-10	Time 0820	Sampled By	Maute GD	botiles 5	Ŧ	2 2	Ť	£ ž	8 2	₽	2 6. 4	5 <b>-</b> V					-	$\vdash$		-	┝╼┥		LAB USE ONLY
( CP 19 (5.5-6.5') 3 (CP-25 (7-8')	9-2-10	11:45	AA	50	5			$\square$	+	+		4	V		1			-						
B GP-25 (7-8')MS	9-2-10	11:50	AA	50	5				ī			4	1	1 v		ĺ							. 1	
GP-25 (7-8) MSD	9-2-10	11:55	AA	SD	5			$\square$	1			4	V	1	1									
5 GP-23 Rinse Blank	9-2-10	09:43	AA	W		3		$\square$	2.	_	╟╢		<b>/</b>	$\mathbf{V}$	1					_		$\vdash$	-	
Field Blank	9-2-10 9-1-10	09:30 09:00	AA AA	WW WW		3 2		$\left  \cdot \right $	+·	┢	+		<u> </u>					-	-			$\vdash$	-	
17 Trip Blank #1 09-02-2010	7-1-10	07.00	14	ww	-	-		$\left  \right $		+	╉╉	+	╎				$\vdash$				┢╼─		$\neg$	
-462								+		╈	11													
				,																				
	ļ						$\downarrow$		$\downarrow$	-					· .					_				
Tumaround Time ( Business days)			NINGER BEINER	100000000000000000000000000000000000000		Ц			rable li		ation		RECEIPT-					Cor	ments	/ Speci	al lostru	ctions	8885	
Standord     Standord     Soay RUSH     4 Day RUSH     3 Day RUSH     2 Day RUSH	Approved By (Accu		1 		Commerci Commerci FULT1 (L REDT1 (1 Commorc	iai "A iai "B avei avei avei iai "C	" (Le: "(Le: 3+4) 3+4) "	vel 1) vel 2)			] TRS ] ED ] Oth	D Form												
1 Day EMERGENCY Emergency & Rush T/A data available VIA Labink	Sa	mple Custody m	ust be docum	anted be	low eac	Ċ	Comme Comme	ercial * ercial *	C* = .34	sults - Isults -	+ QC 5 + QC 5		ale Sum		r delive	ry.		_						
Ralingstored by Compler: Y heh 9-2-10	1503	Rocalved By: 1						Relin 2	tuininini F	e C	<u>)</u> Z	4				2,3	ns	12	Receiv 2	2	-(	2(	~	~
Relinquished by Sempler: U Data Tima; 3 Relinquished by: Data Tima:	l	Received By: 3 Received By:						4	quishid dy Seal			· F	I inlact		Preserve	Date Th ed when		ble	Receiv 4	red By:	On les		Cooler	Zanış.
S		5			•		•			•			Not in	ad	( 14BEIN		муратся					2.63		

T59243: Chain of Custody Page 1 of 5



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		·	10165 Hat										FED EX	17	DZO	92	LC	>		rder Cont	trol #			
Laboratorie	S		TEL. 71		B FAX:		271-47	70					Acculant	Quete #			_	•	Accutes	1 Job #	7	5	12	43
Client / Reporting Information	Project Name:		Project	Informa	ation					<b>南部</b>						Req	ues	ted	Ana	lyse	s			Matrix Codes
MWH Americas	Jaqu	ez	· · ·	Lange and	et.com	10112			an anna															OW - Drinking Water GW - Ground Water WW - Water
1801 California St., Ste 2		· · · · · · · · · · · · · · · · · · ·	State		nformatic							57.02075 pije	5 J 2 6											SW - Surface Water SO - Sol
Denver, CO 80202	Caty		04418	Compan	y riante								abu				1							SL- Sludge SED-Sediment OI - Oil
Project Contact E-mail	Project #			Street A	idress	·							22	•										LIO - Other Liquid AIR - Air
Phone # 303 291 2270 Fax #	Client Purchase	Onder#		City		_		Stati	,		Ζp		22	20	15									SOL - Other Solid WP - Wipe FB-Field Blank
Sampler(s) Name(s) Phone i				Attention	к								53	ŝŌ	801			[			•			EB-Equipment Blank RØ- Rinse Blank
Ashley Ager	Ashle	y Ager	tion			[		Number of	preser	wed Bott	es		5	ľ	0-1			ł	ŀ					TB-Trip Blank
Accutest Service Field ID / Point of Collection	Data	Time	Sampled By	Matrix	# ci bottios	Ŧ	ZANaOH	KONH KONH	NONE DI Water	WEOH	NaHSO4	ENCORE	BIEX	GRO	DRI									LAB USE ONLY
(GP-15 (4-5')	9-1-10	14:26	AA	50	5	Π			1	$\square$		9		V	$\checkmark$							-1		
GP-15 (9.5-10')	9-1-10	14:55	AA	co	5				1	$\top$		4	~	V	~									
10 GP-11 (12.5-13')	9-1-10	15:41	AA	50	5	Π			1	$\square$		4	1	1	1									
11 GP-12 (12-13')	9-1-10	16:30	AA	50	5				1	Π		4	-	1	1									
n GP-12 (7-8')	9-1-10	16:35	AA	50	5				1			4	~	~	/									
18 GP-13 (8-9')	9-1-10	17:20	AA	\$0	5				1		4	1	V	~	~									
( JY GP-23(6-7')	9-2-10	09.38	AA	50	5		•		1			4	1	1	V									
16 GP-27 (6-7)	9-2-10	10:27	AA	50	5				1			4	~	1	V								١	
16 Trip Blank#2 09-02-2010	9-2-10	10:15	AA	WW	2	2	·						V	V										
[/P]		L																						
				<u> </u>																		$-\downarrow$		
· · _ · · _ · · · · · · · · · · · · · ·	·												·											
Turnaround Time ( Business days)	Approved By (Acc	utest PMI: / Date:	A. 201 (12-3	and the second	Commerc			ellverab el 1)	le Infi	ormatiko T			許約2		高級國			Cont	ments /	Specia	i instruc	tions is	<b>法</b> :相	
5 Day RUSH				No.	Commerc	lai "8	vel ) "			_	DD Fo	omat												
4 Day RUSH					FULT1 {  REDT1 (						Other _		_					•						
2 Day RUSH					Commarc									ŀ									· · · · ·	· · · · · · · ·
1 Day EMERGENCY	··							rcial "A" :						ļ										
Emergency & Rush T/A data available VIA Lablink							Comme	ncial "B" : ncial "C" :	Res	ulis + Q	C & Su	rrogate												
Reingutefied Ar Remptor: A	r 7	Received By:	ust be docum	nented b	elow oac	h tin		iplos ch Relinguis			pslon	i, inclu	ding c	ourior		y. Date Tin			Bacelved			1111202 A	A.R.B.	
	-10/1505	1						2		-#	۳)	74	0		ŀ	S /	110	) く		~~~~	Ц			
Relinquished by Barkpier: Date Tim		Received By: 3 Received By:						Ratinguls 4		y:		-0				Dale Tir			Ascolved 4	( By:				<u> Z</u>
Relinquished by: 5		Rocelved By:						Cusindy E	ical #				intact Not kilact	ہ 	'nsarva	d where	appiical				On Ico	о.	7	,

T59243: Chain of Custody Page 2 of 5

0n ico 0.



SAMPLE	INSPECTION	FORM

Accutest Job Number: <u>T59243</u> Ch	ient: MWIT Americas	_Date/Time Received:	9-3-10 945
# of Coolers Received: Thermo	ometer #:/_ O Ten	perature Adjustment Factor	- 5°C
Cooler Temperatures (initial/adjusted): #1: 3/	1° / 2.6° ( #2: 1.2° / 0.7" +3:	#4:	#5:
		#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 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: Compared # Second	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 COC Sample listed on COC, but not received Bottles missing for requested analysis Insufficient volume for analysis Sample received improperty preserved CD TCP Blance # 109 or 1-2 CS TCP Blance # 2 57-02-201- TCP Blance # 2 57-02-201- TCP Blance # 2	Trip Blank on COC b Trip Blank received b Trip Blank not intact Received Water Trip 1 Received Soll TB Number of Encores? Number of 5035 kits? Number of 1ab-filtered meta SID (Weber Trip Black)	Ilank Ilank Is? K) Cosstoner Made Cooler1 (withous made, Cooler2
TECHNICIAN SIGNATURE/DATE:		9,2,12	
INFORMATION AND SAMPLE LABELING VERIF	IED BY:	<u>IL</u> K	9-3-10
•     •     •     •     •     •       Client Representative Notified:	CORRECTIVE ACTIONS	• • • • • •	• • • • •
By Accutest Representative:		Via: Phone	Email
Client Instructions:			/
NnwalkerVormsamplemanagement SM023 Revised 8/11/10			

### T59243: Chain of Custody Page 3 of 5



				_	SAI	<b>MPLE R</b>									,
	JOB	#:		759243			DAT	E/TIMI	RECEIVED:	9	-3-12	94	5		
	CLIE	NT:		MWH Americas					INITIALS:		εc				
	[ <u></u>		SAMPLE (D	FIELD ID		ATE	1 140	TRIX	VOL	BOTTLE #	LOCATION		SERV		н
	1		J	(-P-19 (5.5-6.5')	9-2-12				4,2	1	2-61	() 2 5 6	3 4 7 8	<2	>12
	1		1 .		1	0-	1		GALIER	2-5	M	1) 2 5 6	3 4 7 5	<2	>12
			2	GP-25 (7-8')		İlyr			402	1	2-61		3 4	<2	>12
•			2			<u></u>	<u> </u>		Encore	2-5	WL	1) 2 5 6	34 78	<2	>12
			2	GP-25 (7-8)m5		1150		Ι_	402	b	2-61		34 78	<2	>12
			L						Encor	7-10	vr	V 2 5 6	34 78	<2	>12
			2	GP-25-(7-8')m31)		1155		Τ.	402	11	2.61	С) 2 5 В	З4 7В	<2	>12
			2		J			Vr_	Encore	n-15	vl	1) 2 5 6	34 78	<2	>12
				GP.23 Rinse Bluck	9-2-1-	9.13	V	<u></u>	LAG	1-2	1-A	2 5 6		<2	>12
			3						40.	3.5	y.R.		3 4 7 8	<2	>12
			<u> </u>	Field Blunk	1	930		Ł	40	1-34	m	(1gc @) 5 6 (1) 2	3 4 7 8 3 4	<2	>12
			_5	Trip Bluc # 101017	00 9-1-13	-910	Nº.	TB:	Home	1-2	m	<u>5</u> 6	7 8	<2	>12
			6	(sP-15" (4-5')	911-10	1405	S		4,2	<u> </u>	2-61	$5 \overline{8}$	78	<2	>12
	{		6		<u> </u>		$\square$		facore	2.1	JL	5 6	7 B 3 4	<2	>12
			7	GP 15 (9.575').	<b>├</b> <mark> </mark>	1455	- ·		4,2	<u>\</u>	2-61	56	7 B 3 4	<2	>12
			7						Encore	2.5	VR	5 6	78	<2	>12
			8	GP 11 (72.5-13')		1541			402	1 215	2-61 VR	G 6 G 2	78	<2	>12
			D						Encore	1		5 6	7 <u>8</u> 34	<2	>12
			9	<u>GP 12 (12-13)</u>		1630	—		452		261	$\sqrt{\frac{5}{6}}$	78	<2 <2	>12
				GP.12 (1.4)					lowe	1-5	WR QUI	5 6	78	<2	>12
		X	10		<u>}</u>	1235		¥—-	402 ·		2-61 NV	67 2	78	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	>12
		N I	10	12	V				21160	nº4		56	7. B	~~	-12

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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 (Solis) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

T59243: Chain of Custody Page 4 of 5



			SAMPLE R	ECEIPT	LOG			•		
JOB #:		T59243	/	DATE/TIME	RECEIVED:		9-	5-12 91	5	
CLIENT:		must Americas		-	INITIALS:	Ę	C			
				······································						
COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV		и
2	11	GP-13 (8-9')	9-1-13 1720	5	402	1	261	5 6 7 8	<2	>12
					Enloce	2-5	m	5 6 7 8	<2	>12
	12	GP-23(6.7')	9-2-12 938		402		2-61	1 2 3 4 5 6 7 8	<2	>12
	12	• /	1		Encore	25	N	1     2     3     4       5     6     7     8	<2	>12
	13	GP-27 (6.7')	1027		402	1	2-61		<2	>12
	12		¥	4.	Encire	2-5	in	1 2 3 4 5 6 7 8	<2	>12
	14	Tr: pB/11/ #2 09-07-24	= 9,2-1, loir	WTYS	42	1-2	M	(1) $(2)$ $(3)$ $(4)$ $(3)$ $(4)$	<2	>12
$\nabla$	15	Trip Blank		STR	43 ·	112	VR	1 2 3 4 5 (8) 7 8	<2	>12
	L							1 2 3 4	<2	>12
		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·			1 2 3 4 5 6 7 8	52	
						·		1 2 3 4	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
								1 2 3 4 5 6 7 8	<2	>12
			- 20	10			_ <u></u>	1 2 3 4 5 6 7 8	<2	>12
		/	Gry		·			1 2 3 4 5 5 7 8	<2	>12
			$\leftarrow$					1 2 3 4	<2	>12
h								1 2 3 4	<2	>12
								1 2 3 4	<2	>12
								5 6 7 8 1 2 3 4	<2	>12
								<u>5 6 7 8</u> 1 2 3 4	<2	>12
								5 6 7 8 1 2 3 4	<2	>12
			·					5678 1234		
				L				5-6-7 B	<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

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T59243: Chain of Custody Page 5 of 5



### **GC/MS** Volatiles

Gulf Coast

ACCUTEST.

W 14

### QC Data Summaries

### Includes the following where applicable:

T'S ALL IN THE CHEMISTRY

• Method Blank Summaries

• Blank Spike Summaries

• Matrix Spike and Duplicate Summaries



Lab

T59243

Section 5

Job Numb Account: Project:	er: T59243 ELPASOX EL PAS MWHCODE: San J	• • • • • • • • • • • • • • • • • • • •	-			·	
Sample VF3985-M	File ID DF B F028630.D 1	Analyzed 09/07/10	By AK	Prep D n/a		Prep Batch /a	Analytical Batch VF3985
-	ported here applies to th T59243-4, T59243-5	ne following sample	es:		Met	hod: SW846	6 8260B
CAS No.	Compound	Result	RL	MDL U	Jnits Q		
71-43-2 100-41-4	Benzene Ethylbenzene	ND ND	2.0 2.0	0.55 u	g/l g/l		

CAS NO.	Compound	Result	KL	MDL	Units
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	<b>4</b> .0	1.1	ug/l
95-47-6	o-Xylene	ND	2.0	0.53	ug/l
					· ·
CAS No.	Surrogate Recoveries		Limi	ts	

1868-53-7 Dibromofluoromethane 17060-07-0 1,2-Dichloroethane-D4 2037-26-5 Toluene-D8 460-00-4 4-Bromofluorobenzene

### Limits

104%	79-122%
98%	75-121%.
<b>97%</b>	87-119%
96%	80-133%



Page 1 of 1

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Job Number: Account: Project:	T59243 ELPASOX EL I MWHCODE: S						
Sample VY2603-MB	File ID Y0041956.D	DF 1	Analyzed 09/07/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VY2603
The QC repor	ted here applies t	o the fol	llowing samples	 S:	]	Method: SW84	6 8260B

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

CAS No.	Compound	Result	RL	MDL	Units Q
71-43-2 100-41-4 108-88-3	Benzene Ethylbenzene Toluene	ND ND ND	4.0 4.0 4.0	0.70 0.90 0.95	ug/kg ug/kg ug/kg
1330-20-7 95-47-6	Xylene (total) m,p-Xylene o-Xylene	ND ND	12 8.0 4.0	2.1 1.5 0.64	ug/kg ug/kg ug/kg
	Ũ	(1 <b>12</b> ) (1 <b>12</b> )	3 1.0		uging

CAS No. Surrogate Recoveries 1868-53-7 Dibromofluoromethane 2037-26-5 Toluene-D8

460-00-4 4-Bromofluorobenzene 17060-07-0 1,2-Dichloroethane-D4

#### Limits

105%	<b>70-121%</b>
100%	76-132%
85%	73-165%
84%	57-122%



Page 1 of 1

Job Numbe Account: Project:	r: T59243 ELPASOX EL PASO ( MWHCODE: San Juan						-
Sample VM1141-M	File ID DF B M0027931.D1	Analyzed 09/08/10	By FI	Pro n/a	ep Date	Prep Batch n/a	Analytical Batch VM1141
	ported here applies to the f [59243-12, T59243-13	ollowing samp	les:			Method: SW84	6 8260B
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 ND	4.0	0.95	ug/kg		
1330-20-7	Xylene (total)	ND ND	12 8.0	2.1 1.5	ug/kg		
95-47-6	m,p-Xylene o-Xylene	ND ND	4.0	0.64	ug/kg ug/kg		
CAS No.	Surrogate Recoveries		Limit	S			
1868-53-7	Dibromofluoromethane	87%	70-12	1%			
2037-26-5	Toluene-D8	91%	76-13				
460-00-4	4-Bromofluorobenzene	102%	73-16				
17060-07-0	1,2-Dichloroethane-D4	.69%	57-12	2%			

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9 <sup>1</sup> 1-						A 1 4 1 1 1 1
Sample	File ID DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1142-MB	M0027954.D1	09/08/10	FI	n/a	n/a	VM1142
	)					

T59243-11

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	ND ND ND ND ND	4.0 4.0 4.0 12 8.0	0.70 0.90 0.95 2.1 1.5	ug/kg ug/kg ug/kg ug/kg ug/kg
95-47-6	o-Xylene	ND	4.0	0.64	ug/kg
CAS No.	Surrogate Recoveries		Limits		
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	87% 90% 102% 70%	70-121 76-132 73-165 57-122	% %	·



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5.1.4

### Method Blank Summary Job Number: T59243

Job Numbe Account: Project:	r: T59243 ELPASOX EL PASO ( MWHCODE: San Juan					~	
Sample VY2605-MI	File ID DF 3 Y0042028.D 1	Analyzed 09/09/10	By FI	Pre n/a	p Date	Prep Batch n/a	Analytical Batch VY2605
The QC rep	ported here applies to the f	ollowing sampl	es:			Method: SW84	6 8260B
T59243-10							
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)	ND ND ND ND	4.0 4.0 4.0 12	0.70 0.90 0.95 2.1	ug/kg ug/kg ug/kg ug/kg		
95-47-6	m,p-Xylene o-Xylene	ND ND	8.0 4.0	1.5 0.64	ug/kg ug/kg		, ·
CAS No.	Surrogate Recoveries		Limit	S			
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	98% 97% 88% 81%	70-12 76-13 73-16 57-12	2% 5%			

58 of 89 ACCUTEST. T59243

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### Blank Spike Summary

Job Number: Account: Project:			ORPORATION River Basin Pro				
Sample VF3985-BS	File ID F028628.D	DF 1	Analyzed 09/07/10	By AK	Prep Date n/a	Prep Batch n/a	Analytical Batch VF3985
The QC repor	ted here applies	to the fo	bllowing samples		Method: SW84	6 8260B	
T59243-3, T59	243-4, T59243-5		2				

BSP

80-133%

BSP

Spike

4-Bromofluorobenzene

460-00-4

CAS No.	Compound	ug/1	ug/l	%	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	Li	mits	
1868-53-7	Dibromofluoromethane	102%	79	-122%	
17060-07-0	1,2-Dichloroethane-D4	94%	202226-20226-2027	-121%	
2037-26-5	Toluene-D8	93%		-119%	
		现在2016年1月1日			

94%.

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59 of 89 ACCUTEST. T59243 Labor

### Blank Spike 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	
VY2603-BS	Y0041954.D 1	09/07/10	FI	n/a	n/a	VY2603	
The QC report	ted here applies to the fo	ollowing sample	s:		Method: SW84	6 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	Benzene	50	43.5	87	70-114
100-41-4	Ethylbenzene	50	40.1	80	60-119
108-88-3	Toluene	50	40.9	82	68-115
1330-20-7	Xylene (total)	150	126	84	61-115
	m,p-Xylene	100	82.5	83	60-115
95-47-6	o-Xylene	50	43.5	87	63-114
CAS No.	Surrogate Recoveries	BSP	Lir	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- 73-	121% 132% 165% 122%	

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Job Number: Account: Project:			ORPORATION River Basin Pro						
Sample VM1141-BS	File ID M0027929.1	DF D1	Analyzed 09/08/10	By FI	Prep Date n/a	Prep Batch n/a	Analytical Batch VM1141		
	The QC reported here applies to the following samples:					Method: SW846 8260B			

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	Limits
2037-26-5 460-00-4	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	87% 90% 99% 70%	70-121% 76-132% 73-165% 57-122%

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5.2.3 5

Blank S Job Numbe Account: Project:	pike Summary er: T59243 ELPASOX EL PASO MWHCODE: San Juar			r N		·	Page 1 of 1
Sample VM1142-B	File ID DF S M0027952.D 1	Analy: 09/08/		-	Prep Date n/a	Prep Batch n/a	Analytical Batch VM1142
The QC re T59243-11	ported here applies to the f	ollowing same	mples:			Method: SW84	6 8260B
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		68-115		
1330-20-7	Xylene (total)	150	119	<b>79</b> × 5	61-115		1
	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	Ĺ	mits			

1868-53-7	Dibromofluoromethane	85%	<b>70-12</b> 1%
2037-26-5	Toluene-D8	92%	76-132%
460-00-4	4-Bromofluorobenzene	<b>98</b> %	73-165%
17060-07-0	1,2-Dichloroethane-D4	70%	57-122%

AC Τ. T59243 La

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Job Numbe Account: Project:	r: T59243 ELPASOX EL PASO MWHCODE: San Juar			1			
Sample VY2605-BS	File ID DF Y0042025.D 1	Analy 09/09/			Prep Date n/a	Prep Batch n/a	Analytical Batch VY2605
The QC rep	ported here applies to the f	following sa	mples:			Method: SW84	6 8260B
T59243-10							
CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits	~	,
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	50 50 50 150 100 50	49.0 48.9 46.8 153 102 51.1	98 98 94 102 102 102	70-114 60-119 68-115 61-115 60-115 63-114		
CAS No.	Surrogate Recoveries	BSP	Lin	nits			
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	98% 98% 87% 81%	76- 73-	121% 132% 165% 122%			



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5.2.5

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Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analyti
Account: Project:			ORPORATION River Basin Pro		Prep Date Prep Batch		
Job Number:	T59243						

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

The QC reported here applies to the following samples:

T59243-3, T59243-4, T59243-5

CAS No.	Compound	T59288-4 ug/l Q	Spike ug/l	MS MS ug/l %	MSD ` ug/l	MSD % RPD	Limits Rec/RPD
71-43-2 100-41-4 108-88-3 1330-20-7	Benzene Ethylbenzene Toluene Xylene (total) m,p-Xylene	ND ND ND ND	25 25 25 75 50	20.6         82           22.4         90           21.3         85           68.1         91           45.2         90	20.5 22.6 21.1 69.2 45.8	$\begin{array}{cccc} 82 & & 0 & & \\ 90 & & 1 & & \\ 84 & & 1 & \\ 92 & & 2 & \\ 92 & & 1 & \\ \end{array}$	75-112/12 77-114/12 75-111/12 75-112/12
95-47-6 CAS No.	o-Xylene Surrogate Recoveries	ND MS	25 MSD	23.0 92	23.4 Limits	94 - 2	74-110/11
1868-53-7	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	103% 98% 94% 95%	105% 99% 94% 96%	105% 101% 97% 96%	79-1229 75-1219 87-1199 80-1339	% %	



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Method: SW846 8260B

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Job Number: Account: Project:			CORPORATION An River Basin Pro				
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T59243-2MS	Y0041961.D	1	09/08/10	FÍ	n/a	, n/a _	VY2603
T59243-2MSD	Y0041962.D	1	09/08/10	FI	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 MS ug/kg %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2 100-41-4 108-88-3 1330-20-7	Benzene Ethylbenzene Toluene Xylene (total) m,p-Xylene	ND ND ND ND ND	61.8 61.8 61.8 185 124	53.8         87           51.7         84           52.5         85           160         86           106         86	66.8 63.2 64.2 198 130	92. 87 88 90 89	22 20 20 21 20	70-114/38 60-119/40 68-115/38 61-115/39 60-115/40
95-47-6 CAS No.	o-Xylene Surrogate Recoveries	ND MS	61.8 MSD	54.6 88		93	21	63-114/37
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	101% 99% 87% 78%	103% 101% 88%	102% 101% 86% 81%	70-121 76-132 73-165 57-122	% %		



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5.3.2

Job Number:	T59243			J					0
Account:	ELPASOX EL PASO CO	RPORATION							
Project:	MWHCODE: San Juan R	iver Basin Pro	gram				·		
Sample	File ID DF	Analyzed	By	Prep I	Date	Prep E	Batch	Analyti	cal Batch
T59403-1MS	M0027939.D1	09/08/10	FÍ	n/a		n/a		VM114	1
T59403-1MSD	M0027940.D1	09/08/10	FI	n/a		n/a		VM114	1
T59403-1	M0027932.D1	09/08/10	FI	n/a		n/a		VM114	1
The QC report	ted here applies to the follo	owing sample	s:			Method:	SW846	8260B	
T59243-6, T59	243-12, T59243-13	۰							
CAS No. Co	ompound	T59403-1 ug/kg Q	Spike ug/kg		MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD

71-43-2	Benzene	5.9 U	83.8	69.4	83	70.4	82	70-114/38
100-41-4	Ethylbenzene	5.9 U	83.8	66.4	79	66.7	78	60-119/40
108-88-3	Toluene	5.9 U	83.8	67.5	81	69.0	81	68-115/38
1330-20-7	Xylene (total)	18 U	251	194	77	199	81 2 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
CAS No.	Surrogate Recoveries	MS	MSD	T5	9403-1	Limits		
1868-53-7	Dibromofluoromethane	82%	87%	84	%	70-1219	6	
2037-26-5	Toluene-D8	92%	96%	989	%	76-1329	6	
460-00-4	4-Bromofluorobenzene	112%	114%	115	5%	73-165%	6	
17060-07-0	1.2-Dichloroethane-D4	65%	66%	68	76 - 18 - 18 - 18 - 18 - 18 - 18 - 18 - 1	57-1229	6	



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# Matrix Spike/Matrix Spike Duplicate Summary Job Number: T59243

Account: Project:	ELPASOX EL PASO CORPORATION MWHCODE: San Juan River Basin Program										
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch				
T59272-4MS	M0027956	3.D1	09/08/10	FÍ	n/a	n/a	VM1142				
T59272-4MSD	M0027957	/.D1	09/09/10	FI	n/a	n/a	VM1142				

FI

n/a

n/a

Method: SW846 8260B

09/08/10

2

The QC reported here applies to the following samples:

M0027955.D1

T59243-11

T59272-4

CAS No.	Compound	T59272-4 ug/kg Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2 100-41-4	Benzene Ethylbenzene	4.7 U 4.7 U	60.4 60.4	48.3 42.6	80 71	45.5 36.2	75 60	6 16	70-114/38 60-119/40
108-88-3	Toluene	4.7 U	60.4	49.0	81	44.9	74	9	68-115/38
1330-20-7	Xylene (total) m,p-Xylene	14 U 9.5 U	181 121	124 83.5	68 69	106 71.8	58* 59*	16 15	61-115/39 60-115/40
95-47-6	o-Xylene	4.7 U	60.4	40.7	67	34.0	56*	18	63-114/37
CAS No.	Surrogate Recoveries	MS	MSD	T59	9272-4	Limits			.1
1868-53-7 2037-26-5 460-00-4 17060-07-0	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	85% 92% 106% 71%	87% 90% 102% 69%	869 909 109 709	% 1%	70-1219 76-1329 73-1659 57-1229	6 6		



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VM1142

5.3.4

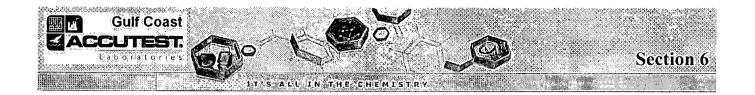
Sample	File ID I	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T59488-2MS	Y0042032.D 1	1	09/09/10	FÍ	n/a	n/a	VY2605
T59488-2MSD	Y0042033.D 1	1	09/09/10	FI	n/a	n/a	VY2605
T59488-2	Y0042029.D	1	09/09/10	FI	n/a	n/a	VY2605

T59243-10

CAS No.	Compound	T59488-2 ug/kg Q	Spike ug/kg	MS MS ug/kg %	MSD ug/kg	MSD % RPI	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	7.6 U 7.6 U 2.0 J 23 U 15 U 7.6 U	95.8 95.8 95.8 288 192 95.8	84.9         89           86.8         91           84.7         86           271         94           179         93           91.6         96	86.2 87.3 85.1 273 181 92.1	86         2           87         1           82         0           90         1           90         1           91         1	70-114/38 60-119/40 68-115/38 61-115/39 60-115/40 63-114/37
CAS No. 1868-53-7 2037-26-5 460-00-4 17060-07-0	Surrogate Recoveries – Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	MS 93% 101% 93% 73%	MSD 94% 99% 94% 75%	T59488-2 95% 105% 92% 77%	Limits 70-121 76-132 73-165 57-122	% %	



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#### QC Data Summaries

Includes the following where applicable:

• Method Blank Summaries

Blank Spike Summaries

• Matrix Spike and Duplicate Summaries





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Job Numbe Account: Project:	er: T59243 ELPASOX EL PASO MWHCODE: San Juar		am			
Sample GBB106-M	File ID DF B BB0001810.DI	•	By Pro AT n/a	ep Date	Prep Batch n/a	Analytical Batch GBB106
	ported here applies to the f T59243-7, T59243-13	following samples:		Ŋ	Method: SW84	6 8015
CAS No.	Compound TPH-GRO (C6-C10)	Result R		Units ( mg/kg	2	
CAS No.	TPH-GRO (C6-C10) Surrogate Recoveries	<u>ND</u> 5. I	0 0.30 Limits	mg/kg		

 460-00-4
 4-Bromofluorobenzene
 94%
 46-127%

 98-08-8
 aaa-Trifluorotoluene
 101%
 44-120%



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Job Number: Account: Project:	T59243 ELPASOX EL PASO C MWHCODE: San Juan		-	·		
Sample GEE2913-MB	File ID DF EE056782.D 1	Analyzed 09/08/10	By AT	Prep Date n/a	Prep Batch n/a	Analytical Batch GEE2913
The QC repor	ted here applies to the fo	ollowing sample	·s:		Method: SW84	6 8015
T59243-2, T59	243-6, T59243-8, T59243	3-9, T59243-10,	T59243-1	1		
CAS No. Co	ompound	Result	RL I	MDL Units	Q	
TF	PH-GRO (C6-C10)	ND	5.0	0.30 mg/kg		. 4

CAS No.Surrogate RecoveriesLimits460-00-44-Bromofluorobenzene<br/>aaa-Trifluorotoluene97%<br/>99%46-127%<br/>44-120%

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6.1.2



Job Numbe Account: Project:	r: T59243 ELPASOX EL PASO ( MWHCODE: San Juan						
Sample GEE2912-N	File ID DF AB EE056782.D 1	Analyzed 09/08/10	By AT	Prej n/a	p Date	Prep Batch n/a	Analytical Batch GEE2912
	ported here applies to the f T59243-4, T59243-5, T5924		es:	۶		Method: SW84	6 8015
CAS No.	Compound TPH-GRO (C6-C10)	Result ND	RL 0.050	MDL 0.0060	Units mg/l	Q	
CAS No.	Surrogate Recoveries		Limits	5			
460.00.4	1 Bromofluorobonzono	070	12 12	20/			

 460-00-4
 4-Bromofluorobenzene
 97%
 42-123%

 98-08-8
 aaa-Trifluorotoluene
 99%
 51-130%

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#### Job Number: T59243 ELPASOX EL PASO CORPORATION Account: Project: MWHCODE: San Juan River Basin Program Sample File ID DF Prep Batch Analytical Batch Analyzed By Prep Date GBB111-MB BB0001894.D1 09/09/10 ΑŤ GBB111 n/a n/a 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 4-Bromofluorobenzene 95%

460-00-4 98-08-8

F

aaa-Trifluorotoluene

95% 46-127% 103% 44-120% Page 1 of 1

6.1.4



Job Numbe Account: Project:	er: T59243 ELPASOX EL PASO C MWHCODE: San Juan					
Sample GBB106-BS	File ID DF S BB0001808.D1	Analyz 09/05/3	•	Prep Date n/a	Prep Batch n/a	Analytical Batch GBB106
	ported here applies to the for T59243-7, T59243-13	ollowing san	nples:		Method: SW846	6 8015
CAS No.	Compound	Spike mg/kg	BSP BSP mg/kg %	Limits		
	TPH-GRO (C6-C10)	0.4	0.362 91	78-115		
CAS No.	Surrogate Recoveries	BSP	Limits			

460-00-4 4-Bromofluorobenzene 96% 46-127% 98-08-8 aaa-Trifluorotoluene 106% 44-120%



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The QC repor	ted here applies to the fe	ollowing sample	s:	. ]	Method: SW84	6 8015
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 GEE2913
Account: Project:	ELPASOX EL PASO ( MWHCODE: San Juan					

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

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.367	92	78-115
CAS No.	Surrogate Recoveries	BSP	Lin	nits	
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	96% 95%		127% 120%	

## Page 1 of 1

6.2.2



Job Numbe Account: Project:	r: T59243 ELPASOX EL PASO MWHCODE: San Jua			n			
Sample GEE2912-B	File ID DF S EE056779.D 1	Analy: 09/08/		•	Prep Date n/a	Prep Batch n/a	Analytical Batch GEE2912
	ported here applies to the F59243-4, T59243-5, T592	-	mples:	 		Method: SW84	6 8015
CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits		
	TPH-GRO (C6-C10)	0.4	0.367	<b>92</b> 😒	81-113		

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	Sector States and States and States	42-123%
98-08-8	aaa-Trifluorotoluene		51-130%

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6.2.3

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Job Number: Account: Project:	T59243 ELPASOX EL PASO C MWHCODE: San Juan			I			
Sample GBB111-BS	File ID DF BB0001892.D1	Analyz 09/09/1			Prep Date n/a	Prep Batch n/a	Analytical Batch GBB111
The QC repor T59243-12	ted here applies to the fo	llowing san	aples:	<b>.</b> ,	· .	Method: SW84	6 8015
CAS No. Co	ompound	Spike mg/kg	BSP mg/kg	BSP %	Limits		

	TPH-GRO (C6-C10)	0.4	0.368	92	78-115
CAS No.	Surrogate Recoveries	BSP	Lir	nits	
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	96% 109%	AN2.441	127% 120%	

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6.2.4

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Job Number:	T59243
Account:	ELPASOX EL PASO CORPORATION
Project:	MWHCODE: San Juan River Basin Program

460-00-4

98-08-8

Sample T59306-2N T59306-2N T59306-2		Analyzed 09/05/10 09/05/10 09/05/10	By AT AT AT	Prep n/a n/a n/a	Date	Prep I n/a n/a: n/a	Batch	Analytic 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	Т59	9306-2	Limits			

 
 4-Bromofluorobenzene aaa-Trifluorotoluene
 94%
 96%
 93%
 46-127%

 103%
 107%
 101%
 44-120%



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Job Numbe Account: Project:	r: T59243 ELPASOX EL PASO MWHCODE: San Jua			J				-	
Sample T59243-3M T59243-3M T59243-3	File ID DF S EE056784.D 1	Analyzed 09/08/10 09/08/10 09/08/10	By AT AT AT	Prep n/a n/a n/a	Date	Prep I n/a n/a n/a	Batch	Analyti GEE291 GEE291 GEE291	2
	ported here applies to the F59243-4, T59243-5, T5924		s: ⁻		]	Method:	SW846	8015	
CAS No.	Compound TPH-GRO (C6-C10)	T59243-3 mg/l Q ND	Spike mg/l 0.4	MS mg/l 0.408	MS %	MSD mg/l 0.403	MSD %	RPD	Limits Rec/RPD 81-113/31
CAS No.	Surrogate Recoveries	MS	MSD		243-3	Limits	63.24 <sup>4</sup> 883		1

 
 460-00-4
 4-Bromofluorobenzene aaa-Trifluorotoluene
 95% 91%
 93% 100%
 90% 97%
 42-123% 51-130%

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6.3.2



Job Number:	T59243
Account:	ELPASOX EL PASO CORPORATION
Project:	MWHCODE: San Juan River Basin Program

Sample	File ID	1	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T59243-2MS	EE056793.D		09/08/10	AT	n/a	n/a	GEE2913
T59243-2MSD	EE056794.D		09/08/10	AT	n/a	n/a	GEE2913
T59243-2	EE056792.D		09/08/10	AT	n/a	n/a	GEE2913
L						······	

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	T59243-2 mg/kg Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND	33.1	25.8	78	26.3	79	2	78-115/14
CAS No.	Surrogate Recoveries	MS	MSD	т50	9243-2	Limits			
CAS NO.	Surrogate Recoveries	MD	MOD	152	243-2	Linns			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	95% 96%	95% 97%	959 999	6	46-1279 44-1209	6 6		

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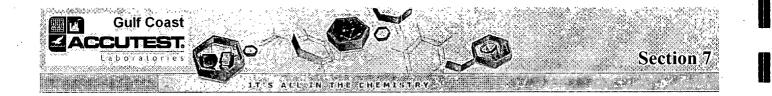
6.3.3



Matrix Job Numb Account: Project:	Spike/Matrix Spike er: T59243 ELPASOX EL PASO C MWHCODE: San Juan	ORPORATION	1	ary				Pa	age 1 of 1
Sample T59488-1N		Analyzed 09/09/10	By AT	n/a	Date	Prep F n/a	Batch	GBB111	
T59488-1N T59488-1	4SD BB0001901.Di BB0001895.Di	09/09/10 09/09/10	AT AT	n/a n/a		n/a n/a		GBB111 GBB111	
The QC re	eported here applies to the fo	ollowing sample	es:		. I	Method:	SW846	8015	ل <sub>يد</sub>
T59243-12				١.					
CAS No.	Compound	T59488-1 mg/kg Q	Spike mg/kg	MS mg/kg	MS %	MSD - mg/kg	MSD %	RPD	Limits Rec/RPD
r I	<b>TPH-GRO (C6-C10)</b>	9.2 U	36.8	30.4	83	31.7	86	4	78-115/14
CAS No.	Surrogate Recoveries	MS	MSD	Т59	9488-1	Limits			
460-00-4 98-08-8	4-Bromofluorobenzene aaa-Trifluorotoluene	95% 106%	98% 110%	949 103	to share the second second second second second second second second second second second second second second	46-1279 44-1209			

6.3.4

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# QC Data Summaries

GC Semi-volatiles

#### Includes the following where applicable:

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



Job Number: Account: Project:	T59243 ELPASOX EL PASO MWHCODE: San Jua					
Sample	File ID DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15901-MB	IF201045.D 1	09/04/10	HD	09/03/10	OP15901	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

CAS No.	Compound	Result	RL	MDL	Units Q
	ТРН (С10-С28)	ND	3.3	2.7	mg/kg
	ТРН (>С28-С40)	ND	3.3	2.2	mg/kg

CAS No.	Surrogate Recoveries		Limits	
84-15-1	o-Terphenyl	76%	33-115%	

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7.1.1



-		<b>J</b>	River Basin Pro				
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15901-MB	IF201045.D	1	09/04/10	HD	09/03/10	OP15901	GIF1088

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

CAS No.	Compound	Result	RL	MDL	Units Q
	TPH (C10-C28)	ND	3.3	0.78	mg/l
	TPH ( > C28-C40)	ND	3.3	0.80	mg/l

CAS No.Surrogate RecoveriesLimits84-15-1o-Terphenyl76%25-112%



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Job Numbe Account: Project:	ELPASOX EL PA	ASO CORPORATIO n Juan River Basin Pi					
Sample OP15986-N		DF Analyzed 1 09/08/10	By EM		p Date 07/10	Prep Batch OP15986	Analytical Batch GIF1093
ŕ	•						-
The QC re	ported here applies to	the following samp	les:			Method: SW84	6 8015 M
T59243-3	· · ·						· .
CAS No.	Compound	Result	RL	MDL	Units	Q	
	ТРН (C10-C28) ТРН ( > C28-C40)	ND ND	0.10 0.10	0.023 0.024	mg/l mg/l	•	
CAS No.	Surrogate Recoveries	S	Limits	5			
84-15-1	o-Terphenyl	84%	25-112	?%			,

Page 1 of 1

7.1.3

#### Blank Spike Summary Job Number: T59243 Page 1 of 1 Account: ELPASOX EL PASO CORPORATION MWHCODE: San Juan River Basin Program Project: Sample File ID DF Prep Date Prep Batch Analytical Batch Analyzed By GIB1088 OP15901-BS IF201046.D 1 09/03/10 OP15901 09/04/10 HD

The QC reported here applies to the following samples:

Method: SW846 8015 M

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

CAS No.	Compound	Spike H mg/l r		BSP % Limits
	TPH (C10-C28)	33.3	26.5	80,
CAS No.	Surrogate Recoveries	BSP	Li	mits
84-15-1	o-Terphenyl	<b>92%</b> 🐟	25	-112%



Blank Spil	ke Summary	Page 1 of 1									
Job Number:	T59243			. •							
Account:	ELPASOX EL	PASO CO		•							
Project:	ct: MWHCODE: San Juan River Basin Program										
Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch				
OP15901-BS	IF201046.D	1 .	09/04/10	HD	09/03/10	OP15901	GIB1088				
		*									
N N											

The QC reported here applies to the following samples:

Method: SW846 8015 M

7.2.2

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

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C28)	33.3	26.5	80	45-107
CAS No.	Surrogate Recoveries	BSP	· Lin	nits	
84-15-1	o-Terphenyl	92%	33-	115%	
				/	/

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#### Blank Spike/Blank Spike Duplicate Summary

Blank S Job Numb Account: Project:	Spike/Blank Spike Du er: T59243 ELPASOX EL PASO C MWHCODE: San Juan	Ÿ	Page 1 of 1				
Sample OP15986-E OP15986-E		Analy: 09/09/ 09/09/	'10 EM	Prep Dat 09/07/10 09/07/10	OP1	9 Batch 5986 5986	Analytical Batch GIF1093 GIF1093
The QC reported here applies to the following samples: Method: SW846 8015 M T59243-3							
CAS No.	Compound TPH (C10-C28)	Spike mg/l 1	BSP BS mg/1 % 0.828 #83	P BSD mg/l	BSD % F	RPD	Limits Rec/RPD 22-84/30
CAS No.	Surrogate Recoveries	BSP	BSD	Limits			

84-15-1

o-Terphenyl

78% 78% 25-112%

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T59243

Job Number: Account: Project:	T59243 ELPASOX EL I MWHCODE: S				· · ·	• •	· · ·
Sample	File ID	DF	Analyzed	By	Prép Date	Prep Batch	Analytical Batch
OP15901-MS	IF201047.D	1	09/04/10	HD	09/03/10	OP15901	GIF1088

OP15901-MS	IF201047.D 1	09/04/10	HD	09/03/10	OP15901	GIF1088	
OP15901-MSD	IF201054.D 1	09/04/10	HD	09/03/10	OP15901	GIB1088	
T59243-2	IF201056.D 1	09/04/10	HD	09/03/10	OP15901	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

CAS No.	Compound	T59243-2 mg/kg Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD	
	ТРН (С10-С28)	ND	<b>39.8</b> <sup>°</sup>	22.7	57	24.9	63	9	45-107/34	
CAS No.	Surrogate Recoveries	MS	MSD	T 50	0243-2	Limits				
CI 10 110.	· ·					Linna				
84-15-1	o-Terphenyl	67%	78%	65%	5	33-115%	5		4. 	

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7.4.1

