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ACRONYMS AND ABBREVIATIONS

°C degrees Celsius
°F degrees Fahrenheit
bgs below ground surface

BLM United States Bureau of Land Management
BTEX benzene, toluene, ethylbenzene, and xylenes

Burlington Burlington Environmental, Inc.

CH2M CH2M Hill

DOT United States Department of Transportation

DRO diesel-range organics

EPCGP El Paso CGP Company, LLC

EPFS El Paso Field Services

EPNG El Paso Natural Gas Company, LLC Eurofins Eurofins/TestAmerica Laboratories, Inc.

GMR groundwater monitoring report

GRO gasoline-range organics

ID inside diameter

Jacobs Ingineering Group, Inc.
LNAPL light nonaqueous phase liquid

mg/L milligram(s) per liter

mg/kg milligram(s) per kilogram
MWH Montgomery Watson Harza

NFP North Flare Pit

NMEDNew Mexico Environment DepartmentNMOCDNew Mexico Oil Conservation DivisionNMOSENew Mexico Office of the State Engineer

NMWQCC New Mexico Water Quality Control Commission

ORO oil-range organics

PID photoionization detector

ppm parts per million

QAQC quality assurance/quality control

RRAL recommended remediation action level RCRA Resource Conservation and Recovery Act

SSL soil screening level

SVOC semivolatile organic compound TPH total petroleum hydrocarbons

TCLP toxicity characteristic leaching procedure

VOC volatile organic compound

1. INTRODUCTION

1.1 SITE BACKGROUND

This Site Characterization Report (Report) has been prepared on behalf of El Paso CGP Company, LLC (EPCGP) to document the results of two phases of site characterization activities conducted at the Blanco Gas Plant – Former North Flare Pit (NFP) site. Unless otherwise noted, the NFP site characterization activities documented in the Report were completed by CH2M Hill (CH2M; now Jacobs Engineering Group, Inc. [Jacobs]), on behalf of EPCGP.

The NFP site is located at 81 Road 4900 in Bloomfield, San Juan County, New Mexico. Jacobs completed the site characterization to identify the nature and extent of hydrocarbon and nitrate impacts that may have resulted from historical operations in the northernmost portion of the site at or near the former NFP. Characterization activities were performed in two discrete phases occurring in September 2017 and from August to September 2019. Activities completed during these phases included advancement of soil borings, collection of soil samples, installation of monitoring wells, abandonment of existing dry monitoring wells, and collection of groundwater and light non-aqueous phase liquids (LNAPL) samples. Additionally, the Report also summarizes the results of groundwater sampling and monitoring completed at the NFP site from 2017 through 2020.

The NFP site location is shown on Figure 1. The NFP site plan is presented as Figure 2.

1.2 SITE LOCATION AND DESCRIPTION

The NFP site is located approximately 1.5 miles northeast of central Bloomfield, New Mexico, on land controlled by the U.S. Bureau of Land Management (BLM). The San Juan River is located approximately 2 miles south of the NFP site. The former NFP is located north of San Juan County Road 4900, on a portion of the Blanco Gas Plant, operated by Enterprise Products, and used for gas gathering activities with no active gas processing. On the south side of San Juan County Road 4900 is the main Blanco Gas Plant facility. The main Blanco Gas Plant facility is primarily owned and operated by Enterprise Products. El Paso Natural Gas Company (EPNG) operates natural gas compression facilities in one area of the main Blanco Gas Plant.

A pipeline pigging station and former evaporation pond are located on the northern portion of the Blanco Plant. An arroyo drainageway bisects the NFP site roughly south-southeastward from the former NFP. Land use surrounding the former NFP site to the west, north and east is not heavily industrialized, but includes oil and gas production and transmission infrastructure.

1.3 SUMMARY OF PREVIOUS INVESTIGATIONS

In 1985, the NMOCD issued a directive for oil and gas producers to cease discharging production fluids to unlined surface impoundments (pits) located in the groundwater recharge areas of the San Juan Basin and to the major river drainages to the San Juan, Animas, and La Plata Rivers. Once discharge had ceased, producers were required to investigate and remediate soil and groundwater contamination caused by these pits. In response, several investigations and removal actions were completed at the NFP site:

 One monitoring well (MW-2) was installed and sampled in 1988 in response to a 1987 New Mexico Environmental Improvement Division (currently the New Mexico Environment Department [NMED]) recommendation in support of a groundwater discharge plan application. Monitoring well MW-2 was located roughly 1,250 feet south-southeast of the former NFP location (Figure 2). Elevated concentrations of nitrate exceeding applicable New Mexico Water Quality Control Commission (NMWQCC) criteria were found in groundwater samples collected from MW-2.

- In January 1990, a second monitoring well (MW-19) was installed approximately 630 feet south-southeast of the former NFP location (Figure 2). This monitoring well was observed to exhibit an oily sheen on the groundwater. The reported concentrations of benzene, toluene, ethylbenzene, and total xylenes (BTEX) in a groundwater sample collected from MW-19 exceeded the NMWQCC standards (MWH, 2012).
- In February 1992, hydrocarbon-contaminated soils were excavated and removed from the NFP. Groundwater was not encountered in the excavation during that soil removal. Some inaccessible hydrocarbon-contaminated soil located adjacent to the NFP was left in place. Following the excavation, a work plan describing planned activities for a subsurface investigation activites of the NFP was submitted to NMOCD.
- In September and October 1992, five groundwater monitoring wells (MW-20, MW-23, MW-24, MW-26, and MW-27) were installed south-southeast of the former NFP (Figure 2). Several additional soil borings were also advanced; however, these additional borings were not completed as monitoring wells, as significant groundwater was not encountered during drilling. LNAPL was encountered in monitoring wells MW-19, MW-26, and MW-27, and was sampled and analyzed for BTEX constituents. Concentrations of BTEX in groundwater samples collected from MW-23 and MW-24 exceeded their respective NMWQCC standards.

The 1992 investigation suggested two possible sources of hydrocarbon contamination: the former NFP, and the original evaporation pond, formerly an unlined pit. The analysis of LNAPL samples indicated slightly weathered hydrocarbons ranging from C6 to C18 with a strong correlation to typical pipeline drip, which was known to have been discharged to both the NFP and the former unlined pit (Burlington, 1992).

- From 1993 through June 1995, EPNG conducted LNAPL removal from monitoring wells MW-19 and MW-26. Routine groundwater monitoring was also conducted during this period. By August 1995, LNAPL was not detected in the NFP site monitoring wells. In September 1995, EPNG submitted a work plan to NMOCD that proposed remdiation of BTEX impacts with nitrate addition, quarterly groundwater monitoring, and the abandonment of monitoring wells following the remediation of hydrocarbon constituents to below NMWQCC standards. Approval of this work plan was not received from the NMOCD, and groundwater monitoring at the site was discontinued (MWH, 2011).
- Periodic groundwater sampling resumed in 2000. Management of the NFP site was transferred from EPNG to El Paso Field Services (EPFS) in August 2001. In October 2001, sludge from the lined evaporation pond was excavated and removed. During the evaporation pond excavation, the liner was retracted, and soil samples were collected at depths from 1 to 4 feet below ground surface (bgs). The soil samples were submitted to an analytical laboratory for analysis of petroleum hydrocarbons. The soil samples reportedly contained no detectable quantities of petroleum hydrocarbons (MWH, 2011).
- In May 2002, the NMOCD requested EPFS submit historic monitoring and remediation data collected from the NFP site since 1994. EPFS submitted the requested data along with a work plan which proposed the installation and operation of a pilot air sparge system adjacent to MW-19 and MW-26 to remediate groundwater. NMOCD approved the work plan in February 2003 (MWH, 2011).
- In December 2002, a single air sparge well (SW-1) was installed north of MW-26. In April 2003, a skimmer pump was installed in MW-26. Through August 2003, approximately 7.6 gallons of LNAPL was recovered from MW-26 (MWH, 2011).
- An air sparge system was installed and became operational in June 2003. The air sparge system was operated until August 2009 and was successful in reducing BTEX concentrations in monitoring wells MW-19 and MW-26 (MWH, 2011).

- In May 2006, three additional monitoring wells were installed (MW-31, MW-32, and MW-33) in an effort to better characterize the NFP site (Figure 2). Monitoring well MW-20, which was damaged, was also plugged and abandoned. Within weeks of installation, measurable LNAPL was present in monitoring well MW-32. In September 2006, a skimmer pump was installed in monitoring well MW-32 to facilitate LNAPL removal. In August 2007, the skimmer was removed from MW-32 and LNAPL recovery continued using absorbant socks through 2013.
- Nitrate concentrations exceeded the associated NMWQCC standard in groundwater samples collected periocially from monitoring well MW-2 between 1989 and 1992, and, since 2014, from MW-33.
- In June 2009, EPFS suspended use of the air sparge system and began evaluating the NFP site for hydrocarbon rebound (MWH, 2011).
- In October 2013, an aboveground storage tank, formerly used to store recovered liquids, was removed. Semi-annual groundwater monitoring resumed in December 2013 (CH2M, 2014a).
- In March 2014, a work plan to conduct site characterization activities was submitted to the NMOCD. In August 2014, environmental remediation-related infrastructure associated with the air sparge system was decommissioned and disposed off site (Jacobs, 2020).

1.4 OVERVIEW OF SITE CHARACTERIZATION ACTIVITIES

As discussed in the Site Characterization Work Plan (Work Plan, CH2M, 2014b), the scope of work was developed by incorporating data gathered from investigative work performed at the NFP site prior to 2013, and NFP site activities completed in 2013. The Work Plan identified the following data gaps:

- The presence or extent of LNAPL in soil and groundwater near MW-32 was uncertain. Additional soil and groundwater data were required.
- Insufficient soil characterization data existed to address uncertainty regarding the presence of hydrocarbons in soil at the Blanco NFP. Additional soil and groundwater data were required.
- Decreasing water table elevations at the NFP site resulted in numerous monitoring wells going dry. Dry monitoring wells were identified for abandonment and new replacement monitoring wells were to be installed.
- Groundwater flow direction in the aquifer was uncertain. The installation of more monitoring
 wells in the area of the former NFP would provide for a better evaluation of groundwater flow
 direction.

NFP site characterization activities completed in 2017 included the following:

- Advancement of twelve soil borings to the top of bedrock, including collection of soil samples for laboratory analysis during advancement.
- Completion of of nine of the soil borings below the water table (presumed to be in bedrock
 or at the soil-bedrock interface), and construction of monitoring wells at each of these
 locations.
- Monitoring wells, both existing and newly-installed, were gauged and groundwater samples collected and submitted for laboratory analysis of BTEX and nitrate.

The results of the 2017 NFP site characterization activities indicated additional investigation was warranted. Subsequently, a Phase 2 Site Characterization Work Plan (Jacobs, 2019a) was submitted to the NMOCD in August 2019. The Phase 2 NFP site characterization activities included the following:

- Advancement of eight soil borings to 15 feet below the observed water table using rotosonic drilling techniques; each boring completed as a monitoring well. Soil samples were collected and submitted for laboratory analysis during soil boring advancement.
- The existing and newly-installed monitoring wells were gauged and groundwater samples collected and submitted for laboratory analysis of BTEX and nitrate.

1.5 CURRENT REGULATORY STATUS

The NFP site is regulated by the NMOCD, generally under the provisions of Ground Water Discharge Permit GW-049. In March 2020, the NMOCD assigned Incident Number NAUTOFCS000155 to the NFP site. NMOCD will track progress under this incident number. Previous groundwater monitoring activities were initiated pursuant to an NMOCD letter dated May 3, 2002, regarding remediation activities at the Blanco Plant (NMOCD, 2002).

2. SITE PHYSICAL SETTING

Unless otherwise notes, the following was sourced from information presented in the Work Plan (CH2M, 2014b).

2.1 CLIMATE

The climate of the NFP site area is semi-arid and can experience hot summers and cold winters with low precipitation throughout the year. The average annual snowfall is 10.9 inches and the average annual rainfall is 7.8 inches. The highest average temperatures occur in July (93 degrees Fahrenheit [°F]) and the lowest average temperatures occur in January (16.8°F).

2.2 TOPOGRAPHY AND HYDROLOGY

The NFP site is located on the eastern Colorado Plateau, with an average elevation of 5,500 feet. The topography surrounding the NFP site is composed of plains and valleys with mesas, buttes, and dissected by canyons. Surrounding uplands exceed elevations of 9,000 feet above mean sea level.

The San Juan River and its tributaries comprise the main drainage system in the area. The San Juan River flows through the city of Bloomfield (City), approximately 2 miles south of the NFP site.

A water supply channel, known as Citizens Ditch, is located approximately one-half mile south of the former NFP. Citizens Ditch carries water diverted from the San Juan River to the Aragon Reservoir, at which point the water enters the City's surface water treatment facility for use as potable water supply (bloomfieldnm/water treatment.html).

An arroyo drainageway bisects the NFP site, sloping roughly south-southeastward from the former NFP area.

2.3 GEOLOGY

The NFP site is underlain by Quaternary alluvium, which consists of sand, silt, clay, and gravel with a thickness varying from less than 3 feet to more than 75 feet (EPNG, 1989). Beneath the alluvium is the Tertiary Nacimiento Formation, which consists of interbedded coarse-to-medium-grained arkosic sandstone, siltstone, and shale, which were reportedly deposited as channel fill and floodplain deposits (New Mexico Bureau of Mines and Mineral Resources, 1983).

In 1992, Burlington Environmental, Inc. (Burlington) conducted a hydrogeologic investigation specific to the former NFP area (Burlington, 1992). Eight borings were drilled in the area to the south-southeast of the former NFP. The borings were advanced through approximately 19 feet of silty/clayey sand, underlain by silty/sandy clay with laminated siltstone and mudstone. In the soil borings for monitoring wells MW-24, MW-26, and MW-27, a sand layer with gravel and clay was encountered just above the sandstone bedrock, possibly indicating a relict channel feature. Similarly, a thick sandy unit was encountered in the soil boring for monitoring well MW-19 (Brown, 1990). Sandstone was encountered at depths ranging from approximately 50 to 70 feet bgs, with the greatest depths occurring beneath the possible relict channel feature. The borings reportedly terminated in gypsum-cemented sandstone that Burlington characterized as an apparent aquitard. Groundwater saturation was encountered either within the laminated siltstone/mudstone or just above the sandstone, depending on the location.

2.4 HYDROGEOLOGY

Regional groundwater flow in the San Juan Basin is from the topographically high outcrop areas at the margins of the basin, toward the lower outcrop areas. The San Juan River Valley is considered as the main discharge area of the San Juan Basin (Stone et al., 1983). The San Juan River is located approximately 2 miles to the south of the NFP site. Groundwater level measurements collected duringgauging events indicate groundwater near the former NFP flows toward the south and southeast.

Based on the available data for monitoring wells MW-24, MW-26, MW-27, and MW-33 recorded through the 2011 annual groundwater monitoring event, groundwater elevations (at least within the apparent relict channel) reportedly decreased by approximately 15 feet since the initial environmental investigation in 1988 (MWH, 2012). Between 2006 and 2011, two large changes in the groundwater elevation occurred at MW-33; an increase of approximately 20 feet from August to November 2007 and a decrease of approximately 15 feet between February and May 2008. Between April and November 2017, the groundwater elevation again increased by approximately 12 feet. However, the same two periods in 2007 and 2008, groundwater level fluctuations at monitoring wells within the relict channel (MW-24, MW-26, and MW-27) were less than 1 foot (Table 1). It was suggested that infiltration from the former NFP and/or the original unlined evaporation pond provided for increased groundwater recharge. In their report, Montgomery Watson-Harza (MWH) suggested that water level stability or rise appeared to be a common pattern among monitoring wells (i.e., MW-23 and MW-32) that are located away from the apparent relict channel, in locations where the encountered competent bedrock surface is higher. It was concluded that, if a hydraulic connection exists between groundwater encountered at higher elevations in the bedrock with groundwater occurring in the apparent relict channel, it was not well understood (MWH, 2012).

Historically, the groundwater elevation data for the former NFP were presented separately from data collected from the Blanco South Flare Pit and D Plant Area site, located to the south of the former NFP. Since completion of the September 2017 NFP site characterization activities, groundwater elevation data and groundwater flow direction for both sites have been combined on a single map. This provides a more comprehensive depiction of the groundwater flow direction for the Blanco Gas Plant.

3. SITE INVESTIGATION ACTIVITIES

Unless otherwise noted, this section describes the activites completed by CH2M Hill (now Jacobs) as part of the NFP site characterization.

3.1 PREPARATION ACTIVITIES

Prior to mobilization for the NFP site characterization activities completed in August 2017, New Mexico Office of State Engineer (NMOSE) permits were obtained to install montoring wells MW-40 through MW-48, and to abandon monitoring wells MW-2, MW-19, MW-24, MW-26, MW-27, and MW-31, and air sparge well SW-1, on August 17, 2017. NMOSE permits to install monitoring wells MW-49 through MW-56 were obtained on May 9, 2019. New Mexico 811 utility locate requests identifying the work areas were submitted on August 29, 2017, and August 5, 2019. Soil boring and monitoring well locations were staked prior to initiating the utility locate notifications.

3.2 DRILLING AND SOIL SAMPLING ACTIVITIES

3.2.1 Soil Borings

Prior to advancement with drilling equipment, each soil boring location was cleared for subsurface utilities to at least 10 feet bgs using hydro-excavation techniques performed by Riley Industrial Services, Inc., and Badger Daylighting, Inc. in 2017 and 2019, respectively. Once cleared for utilities, the soil borings were advanced to the field-interpreted top of bedrock, with soil samples retrieved for visual inspection, lithologic characterization, photoionization detector (PID) screening for total volatile organic compounds (VOCs), and potential laboratory analysis. The locations of the soil borings are depicted on Figure 2. A summary of drilling and soil sampling activities conducted in September 2017 and August 2019 is provided below.

3.2.1.1 August-September 2017

A total of 12 soil borings (MW-40 through MW-48, and SB-1 through SB-3) were advanced using a TerraSonic model 150cc rotary sonic drill rig with nominal 8-inch inside diameter (ID) casing. Nine (MW-40 through MW-48) of the twelve soil borings were completed as monitoring wells as described in Section 3.3. The soil borings logs prepared by CH2M for MW-40 through MW-48, and SB-1 through SB-3, are included in Appendix A.

3.2.1.2 August 2019

A total of eight soil borings (MW-49 through MW-56) were advanced using a TerraSonic model 150cc rotary sonic drill rig with nominal 8-inch ID casing. Following advancement and soil sampling, the eight soil borings were completed as monitoring wells as described in Section 3.3. The soil borings logs prepared by Jacobs for MW-49 through MW-56 are included in Appendix A.

3.2.2 Soil Sample Collection

Soil cores were collected continuously during soil boring advancement using a 10-foot-long core barrel. Recovered, soil cores were placed into plastic bags in 2-foot-long segments. A total of 127 soil samples; 81 including eight field duplicates in September 2017 and 48 including four duplicates in August 2019, were retained from the 20 soil borings and submitted for laboratory analysis of BTEX constituents.

The soil samples recovered during advancement were logged for lithology following the Unified Soil Classification System, field-apparent moisture content, and evidence of hydrocarbons including observed soil staining, and odors. These data are reported on the soil boring logs (Appendix A). Soil was field screened for VOCs with a PID along the entire length of each recovered core. Portions of recovered soil from the top, middle, and bottom portion of each 2-foot sample segment was also placed into a 1-gallon zip-top bag for further headspace screening with a PID. The headspace screening method involved the following process:

- Approximately 4 ounces of soil was placed into a 1-gallon zip-top bag and the bag was sealed.
- After approximately 10 minutes, the tip of the PID probe was inserted through the plastic bag and the highest measured PID reading was recorded on the boring log.

The field screening results were included in the soil boring logs provided in Appendix A.

Soil samples were retained for laboratory analysis from the portions of the soil cores where suspected hydrocarbons were observed, defined by elevated headspace readings, staining, and/or odors. Where no indication of potential elevated VOCs were observed, soil samples were retained for laboratory analysis of changes in lithology, or at a minimum every ten feet to the top of field-apparent bedrock or the top of the field-apparent water table, whichever was encountered first.

3.2.3 Soil Sample Analysis

Soil samples collected for laboratory analysis were submitted under chain of custody protocols to the Eurofins/TestAmerica Laboratory in Houston, Texas (Eurofins), for analysis of BTEX constituents using EPA Method 8260B.

Quality assurance/quality control (QAQC) samples were also collected to ensure proper sample handling and to provide information for laboratory data validation. These included field duplicates, trip blanks, and matrix spike duplicate samples.

During the August 2019 activities, three soil samples retained during advancement of soil boring MW-56 at depth intervals of 10 to 11 feet bgs, 19 to 20 feet bgs, and 29 to 30 feet bgs, were not analyzed at the laboratory. The delayed delivery of the samples to the laboratory by the shipping company resulted in a sample receipt temperature of 16 degrees Celsius (°C). As reported laboratory results would have been biased low, and as no suspected hydrocarbon staining, odors, or elevated PID readings were observed during logging, these samples were not analyzed.

3.3 MONITORING WELL INSTALLATION

Seventeen of the 20 soil borings advanced in 2017 and 2019 were completed as monitoring wells MW-40 through MW-56. Well completion details are summarized on Table 1. The well construction details are included with the soil boring logs in Appendix A. Each monitoring well was completed as an above-grade surface completion with lockable cover and lockable well cap. At each newly-installed monitoring well location, bumper posts were installed. The bumper posts and protective covers were painted safety yellow, and the unique monitoring well identification stenciled onto the completion.

3.3.1 September 2017

The soil borings converted to monitoring wells were advanced at least 25 feet below the top of the field-apparent water table, as defined by water levels in nearby existing monitoring wells and visible saturation in recovered soil cores. The monitoring wells were constructed with the screened interval intersecting the field-apparent water table, with a minimum of 15 feet of screen located above the field-apparent water table. Total well installation depths ranged from 82 feet bgs (MW-48), to 102 feet bgs (MW-40, MW-41, and MW-43) as presented on the well construction logs in Appendix A.

Monitoring well MW-42 was originally advanced to a depth of 100 feet bgs and the sonic casing left in the borehole during a scheduled break. Upon returning to the Site to resume drilling, the depth to water in the borehole was measured to be approximately 50 feet bgs. Rather then installing a submerged well screen (if set at a total depth of 100 feet bgs), the borehole was backfilled with bentonite chips from the total depth (100 feet bgs) of the borehole to approximately 87 feet bgs. The monitoring well was then installed such that 15 feet of screen remained above the observed water table.

3.3.2 August 2019

During the August 2019 drilling event, nine soil borings were advanced at least 15 feet below the top of the field-apparent water table. The monitoring wells were screened across the top of the bedrock surface, and the field-apparent water table. With a minimum 10 feet of unsaturated screen to allow for fluctuations on thewater table. As summaried on the well construction logs within Appendix A, well installation depths ranged from 51 feet bgs (MW-55) to 85 feet bgs (MW-53).

3.3.3 Well Development

Following installation, the monitoring wells were developed by swabbing and bailing each monitoring well dry. Purge water was containerized in a temporary storage tank pending removal and disposal off-site. For the monitoring wells installed and developed in 2019, approximately 25 gallons of potable water was added to facilitate swabbing of each monitoring well, and then removed via bailing. Development information for each monitoring well is documented on the well construction forms included in Appendix A.

Upon completion of well development activities in 2017 and 2019, a HydraSleeve sampler was installed in each monitoring well to facilitate future groundwater sampling.

3.4 DECONTAMINATION

The drill rig and supporting downhole equipment were decontaminated and inspected prior to arrival to the NFP site. Decontamination of sonic casing, core barrels, and downhole equipment was completed between drilling locations and at the completion of project activities. Spent decontamination water was containerized in a temporary storage tank pending removal and disposal off-site.

3.5 MONITORING WELL AND SOIL BORING ABANDONMENT ACTIVITIES

Six monitoring wells (MW-2, MW-19, MW-24, MW-26, MW-27 and MW-31) and one air sparge well (SW-1) were abandoned in September 2017. The wells were abandoned by filling the well screen and casing with a cement-bentonite grout slurry consisting of 95 percent Portland cement and 5 percent sodium bentonite through a tremie pipe from the bottom of the well to approximately 3 feet bgs. The well completions, and well casings to three feet bgs, were also removed. The upper 3 feet of the well bore was filled with a Portland cement plug and finished flush with the ground surface.

Following advancement and soil sampling, soil borings SB-1 through SB-3 were plugged to the surface utilizing a cement-bentonite grout slurry consisting of 95 percent Portland cement and 5 percent sodium bentonite using a tumie pipe. The surface of each soil boring was sealed with Portland Cement.

Copies of the NMOSE plugging forms for the abandoned monitoring wells and plugged soil borings are included in Appendix B.

3.6 MANAGEMENT OF INVESTIGATION-DERIVED WASTES

In 2017, the mud generated during hydro-excavation activities was containerized in the vacuum truck and transported offsite for disposal at the Envirotech, Inc., landfarm under a U.S. Department of Transportation (DOT)-approved transport manifest or bill of lading. A copy of the completed manifest is included in Appendix C.

Soil cuttings, including solids from equipment decontamination, were placed into lined roll-off containers. In 2017, the roll-off containers were transported to the Envirotech, Inc., landfarm for disposal under a DOT-approved manifest or bill of lading, included in Appendix C. In 2019, the soil and solids, including hydro-excavated solids, were sent to Envirotech using using New Mexico Energy, Minerals, and Natural Resources Form C-138 (C-138). Copies of the waste disposal documentation is included in Appendix C.

Water generated during well development and decontamination activities was containerized at the source and transferred daily to an onsite water storage tank. Upon completion of site investigation activities, the water was removed from the storage tank and transported to Basin Disposal, Inc., for disposal utililizing a DOT-approved manifest in 2017, and a C-138 form in 2019. Copies of the waste disposal documentation is included in Appendix C.

Construction and well abandonment debris, as well as other solid trash (plastic/paper bags, disposable and uncontaminated personal protective equipment, etc.), was placed into a 3-cubic-yard commercial disposal trash receptacle at the Blanco Plant EPNG office.

3.7 LOCATION AND ELEVATION SURVEY

The newly-installed and existing monitoring well locations at the NFP site were surveyed for horizontal location and vertical elevation by Sakura Engineering, a New Mexico-licensed surveyor. Soil boring locations SB-1 through SB-3 were also surveyed for horizontal location and vertical elevation. Location and elevation information for the new and existing monitoring wells and soil borings SB-1 through SB-3 are summarized on Table 1.

3.8 SITE CHARACTERIZATION GROUNDWATER SAMPLING

Following completion of monitoring well installation and development activities, the existing and newly-installed monitoring wells were gauged and groundwater samples collected on a semi-annual basis to assess groundwater elevations and the extent of hydrocarbon and nitrate impact to groundwater. Groundwater samples were collected approximately 1.5 months after development of the September 2017 monitoring wells, and approximately one month after development of the August 2019 monitoring wells. A summary of the groundwater gauging and sampling activities completed by CH2M (2017) and by Jacobs (2018 and 2019) were presented in annual groundwater monitoring reports (GMRs) previously submitted to the NMOCD.

The results of groundwater sampling and monitoring completed by Stantec in 2020 were evaluated as part of the NFP site characterization. Stantec's groundwater sampling and monitoring activities are documented in the 2020 Annual GMR, previously submitted to the NMOCD (Stantec, 2021).

During the November 2018, and April and September 2019 groundwater monitoring events, measurable LNAPL was found to be present in monitoring well MW-32. Measurable LNAPL was also found to be present in monitoring well MW-47 during the September 2019 sampling event. Instead of collecting groundwater samples from monitoring wells where LNAPL was present, Jacobs collected LNAPL samples from these monitoring wells and submitted them to Eurofins for analysis of total petroleum hydrocarbons (TPH) diesel-range organics (DRO), TPH gasoline-range organics (GRO), and TPH oil-range organics (ORO) via EPA SW-846 Method 8015M. Stantec did not collect LNAPL samples in 2020 for laboratory analysis.

4. RESULTS

This section discusses the results of the site characterization activities, including subsurface geology, the nature and extent of hydrocarbons in soil, and the nature and extent of BTEX constituents and nitrate in groundwater at the NFP site.

4.1 GEOLOGY

Based on the soil boring logs compiled during site characterization activities, Jacobs constructed five hydrogeological cross-sections to better evaluate the subsurface geology within the investigation area (Figure 3). The cross-sections constructed by Jacobs are presented in Appendix D. Additionally, Jacobs constructed a bedrock surface elevation map across the investigation area, as depicted on Figure 4. The soil boring logs and associated cross-sections indicate that the NFP site is underlain by unconsolidated sand, silt, and clay soils ranging in thickness from 33 feet (at MW-53) to up to 75 feet bgs (at MW-50). The unconsolidated soils were underlain by either sandstone or shale, with shale predominantly the first encountered bedrock at or north of the former NFP, while sandstone was predominantly encountered as the first bedrock south the former NFP area. Areas of interbedded shale and sandstone were also encountered (MW-45 and MW-48).

Based on the soil boring logs, the sandstone bedrock, where encountered, was described as massive, cemented, and dry. However, the shale bedrock, where encountered, was fractured, with saturation. Encountered groundwater-bearing units include the fractured shale and relatively thin layers of alluvium directly overlaying dry sandstone bedrock. With the exception of a wet sandy unit overlying bedrock at MW-50, "wet" unconsolidated units overlying bedrock, where present, were predominantly classified as clayey soils.

As depicted on Figure 4, the top of the bedrock surface is generally consistent from northwest to southeast and east, with the exception of a topgraphic bedrock low in the vicinity of MW-44 and MW-45. Depth to bedrock in the area of MW-44 and MW-45 was logged at 70 feet bgs. The slope of the bedrock surface appears steepest in the vicinity of the former NFP, and, with the exception of the topographic low noted around MW-44 and MW-45, becomes more gentle to southeast.

4.2 HYDROCARBON OBSERVATIONS AND FIELD SCREENING READINGS

Based on the soil boring logs, field-apparent hydrocarbon staining and/or odors were observed in portions of the soil samples recovered from nine of the 20 soil borings advanced (SB-2, SB-3, MW-44, MW-45, MW-47, MW-48, MW-51, MW-52, and MW-55). One or more soil samples collected from SB-2, SB-3, MW-44, MW-45, MW-47, MW-48, and MW-51 exhibited headspace measurements greater than 500 parts per million (ppm) vapor. With the exception of monitoring well MW-52, soil samples exhibiting elevated headspace values were associated with soil boring and monitoring well locations either adjacent to or southeast (the historical downgradient direction) of the former NFP and the former evaporation pond (Figure 2).

4.3 SOIL ANALYTICAL RESULTS

Soil analytical data were evaluated against the New Mexico Industrial/Occupational Soil Screening Levels (SSLs, NMED, 2019) for BTEX constituents, and the NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (NMOCD Guidelines) (NMOCD, 1993). Recommended Remediation Action Levels (RRALs) for individual ethylbenzene, toluene, or xylenes constituents have not been established in the NMOCD Guidelines. Soil analytical results are summarized in Table 2. Laboratory analytical reports are provided in Appendix E. Soil samples with exceedances of the NMOCD Guidelines for Remediation of 10 milligrams per kilograms (mg/kg) for benzene and 50 mg/kg for total BTEX are depicted on Figure 5.

Benzene concentrations exceeded the NMOCD-recommended remediation action level of 10 mg/kg (NMOCD, 1993) in at least one soil sample collected from soil boring SB-03 (36-37 feet bgs) and MW-45 (48-49 feet bgs, 59-60 feet bgs, and 69-70 feet bgs). The highest benzene concentration (61.8 mg/kg) was reported in a sample collected from soil boring SB-03, located adjacent to the former NFP. Soil staining and hydrocarbon odors were noted at the depth intervals of each of the 19 analytical samples where detectable benzene concentrations were reported (see the soil boring logs in Appendix A).

Individual BTEX constituent calculations did not exceed any of the applicable NMED SSLs. The NMOCD has established a RRAL for a summation of BTEX constituents of 50 mg/kg in soil. Total BTEX exceeded the 50 mg/kg RRAL in at least one sample collected from SB-03, MW-45, and MW-48 (Table 2). Soil samples with detectable total BTEX concentrations above reporting limits occurred in silt, sand, and lean clay soils located at depth adjacent to the former NFP and former evaporation pond (Figure 5). Additionally, the detectable total BTEX concentrations in soil generally correlate with the locations and depths of elevated PID headspace readings of soils samples collected during soil boring activities.

4.4 GROUNDWATER RESULTS

The results of groundwater gauging and sampling completed from 2017 through 2019, the period in which site characterization activities were conducted, have been documented in annual GMRs previously replaced by CH2M (2018) and Jacobs (2019 and 2020), with subsequent sampling and monitoring completed in 2020 (Stantec, 2021). Historical gauging data and the calculated groundwater elevations are presented on Table 3. Groundwater analytical laboratory reports for the groundwater sample data collected from 2017 through 2020 were included in the previously submitted GMRs. The groundwater analytical results were evaluated against the applicable NMWQCC Standards.

4.4.1 Groundwater Elevation and Gradient

Based on the soil boring logs, groundwater predominantly occurs in the unconsolidated soil immediately above bedrock, and in fractured and weathered shale bedrock. Due to the apparent low permeability and/or limited thickness of saturated soils or shale encountered during advancement, groundwater elevations in a number of the monitoring wells completed during site characterization activities rose slowly in the months following their completion, as noted in Table 3. As a result, NFP site-wide groundwater levels measured in 2020 appear to be more representative of static conditions, and were utilized in the site characterization discussion.

Based on 2020 well gauging data, depth-to-water measurements ranged from approximately 41 feet bgs in the northwestern portion of the NFP site (MW-53), to approximately 73 feet bgs, southeast of the former evaporation pond(MW-50).

Maps depicting groundwater elevations measured during the April, August, and November 2020 groundwater gauging events are provided as Figures 6, 7, and 8, respectively. Figure 8 also incorporates groundwater gaging data from the adjacent Blanco South Flare Pit and D Plant Area site. The general direction of groundwater flow at the NFP site is to the southeast in the area of the former NFP and central portion of the NFP site, and more southerly in the southern portion of the NFP site. Uilizing the November 2020 gauging data from MW-47 and MW-53, the groundwater gradient in the former NFP area was calculated at approximately 0.065 feet per foot.

Groundwater levels at MW-33 appear anomalous in comparison to groundwater levels in adjacent monitoring wells at the NFP site. In 2020, the groundwater elevations measured in MW-33 are approximately 19 feet higher than adjacent monitoring well MW-43, and approximately 17 feet higher than adjacent monitoring well MW-41. As Table 3 shows, groundwater elevations in MW-33 were historically similar to those observed in MW-41 and MW-43 from June 2007 through August 2008, and from November 2008 through June 2015. However, June 2007 and August 2008, and after June 2015, groundwater levels rose up to 22 feet higher then the historical lows. While the exact cause of the higher groundwater elevations in MW-33 is unknown, the monitoring well is located within the arroyo and could potentially be inundated by runoff following large precipitation events.

4.4.2 Light Non-Aqueous Phase Liquid

During site characterization activities, LNAPL was observed as a sheen in MW-32 during the November 2018 sampling event (<0.01 foot thick), and has been present up to 1.16 feet thick (April 2019). Historically, LNAPL was present in MW-32 following installation in 2006, through at least 2011 (MWH, 2012), and from November 2015 through April 2017 (CH2M, 2018).

LNAPL was also detected as a sheenin MW-47 during the September 2019 sampling event, and up to 0.03 feet in (November 2020). LNAPL was not reported to be present in former monitoring well MW-20, which was located near MW-47, and plugged and abandoned in 2002 (Appendix F). However, field evidence of hydrocarbons were noted at depths ranging from 40 to 50 feet bgs during advancement of MW-47, and BTEX constituents were confirmed in a soil sample collected from 44-45 feet bgs.

A summary of the analytical data for the LNAPL samples submitted by Jacobs is presented in Table 4. The analytical laboratory reports for the LNAPL samples were included in the 2018 and 2019 annual GMRs submitted by Jacobs. Analysis of LNAPL samples collected from MW-32 during November 2018 and April and October 2019, indicate it contains a mixture of GRO, DRO, and ORO. The analytical results of the LNAPL sample collected from MW-47 in October 2019 indicates a content of 92 percent DRO.

4.4.3 Groundwater Analytical Results

A summary of groundwater analytical data collected at the NFP site is presented in Tables 5 and 6. Groundwater analytical results from sampling completed in April and November 2020 are summarized on Figures 9 and 10, respectively. Analytical laboratory reports for groundwater samples collected from 2017 through 2020 were presented in the respective annual groundwater monitoring reports previously submitted to the NMOCD.

Over the eight sampling events completed from 2017 through 2020, benzene concentrations exceeded the applicable NMWQCC standard of 0.01 mg/L in at least one groundwater sample collected from monitoring wells MW-23, MW-32, MW-44, MW-45, MW-47, MW-48, MW-51, and MW-52. Concentrations of toluene exceeded the NMWQCC standard of 0.75 mg/L in at least one groundwater sample collected from monitoring well MW-32 and MW-48. Concentrations of total xylenes exceeded the NMWQCC standard of 0.62 mg/L in at least one groundewater sample collected from monitoring wells MW-23, MW-32, MW-45, and MW-47. Concentrations of ethylenzene did not exceed the applicable NMWQCC standard of 0.750 mg/L in any of the groundwater samples collected from 2017 through 2020. The monitoring wells with groundwater samples exceeding NMWQCC standards for benzene, toluene, and/or xylenes are either adjacent to the former NFP or are located in the downgradient direction within the central portion of the NFP site.

Over the eight sampling events completed from 2017 through 2020, nitrate concentrations exceeded the applicable NMWQCC standard of 10 mg/L in at least one groundwater sample collected from monitoring wells MW-33, MW-40, MW-50 and MW-54. Historically, eight of the nine groundwater samples collected from monitoring well MW-33 have exhibited nitrate concentrations exceeding the applicable NMWQCC standard. Nitrate concrentrations in groundwater samples collected from MW-40 exceeded the applicable NMWQCC standard in three of eight samples collected, while MW-50 and MW-54 exceeded the applicable NMWQCC standard each in one of four samples collected. As noted previously, MW-33 is located within the arroyo any may have periodically been inundated by stormwater from heavy precipitation events. Monitoring well MW-40 is located near former monitoring well MW-2, which also reported nitrate concentrations that exceeded applicable NMWQCC standards.

5. CONCLUSIONS

Groundwater-bearing units at the NFP site are generally limited to unconsolidated soils immediately above competent sandstone bedrock and within fractured and weathered shale bedrock. Groundwater recharge into the new-installed monitoring wells generally tooks months before static conditions were noted, likely reflecting of the limited thickness and/or low permeability of the water bearing units. The sandstone bedrock was found largely to be non-water bearing. Groundwater flow across the area of the NFP site is generally follows the topography of the bedrock surface, with the exception of a bedrock surface topographic low noted in soil boring logs for MW-44, MW-45, and MW-50, where depth to bedrock was 70 feet or greater bgs. While hydrocarbon impacts were noted in the soils immediately above-bedrock, the presence of a buried relict channel containing coarse-grained sediments controlling groundwater movement was not readily evident from the information presented in the site characterization boring logs. Anomously-high groundwater elevations documented in monitoring well MW-33 may be the result of stormwater having inundating this monitoring well.

During gauging and sampling activities, LNAPL was encountered in monitoring well MW-32, located in the former NFP, and MW-47, located downgradient of the former NFP. Analysis of LNAPL samples indicate GRO and DRO constituents dominate the current TPH composition at MW-32 and MW-47, although a greater DRO fraction was present in the LNAPL sample from MW-47. The results are generally consistent with the previous conclusion that LNAPL was the result of historic condensate disposal practices at the former NFP.

Evidence of hydrocarbons (odors and/or staining, and elevated PID readings) in soil were found in the northern portion of the NFP site, extending fromthe area of the former NFP, southeastward to the area including MW-44 and MW-45, in the central portion of the NFP site. Benzene and/or total BTEX concentrations in soil exceeded their respective NMOCD standards in soil samples submitted from three locations (SB-03 [28 to 44 feet bgs], MW-45 [39 to 70 feet bgs], and MW-48 [39-40 feet bgs). Soil boring SB-03 and monitoring well MW-48 are located adjacent to the former NFP, where soils inaccessible to excavation, were left in place on1992. Monitoring well MW-45 is located adjacent to the former evaporation pond. Soils in these areas are potentially the source of LNAPL and dissolved phase hydrocarbons documented during this investigation. Benzene and BTEX concentrations in soil samples submitted for analysis in the remainder of the soil borings were below the NMOCD-RRALs.

Dissolved BTEX constituents are present around the former NFP and in monitoring wells to the southeast towards and including the southwestern porton of the former evaporation pond. Based on the soil boring logs completed around the former NFP, hydrocarbons may have migrated into the shale bedrock underlying the former NFP. However, hydrocarbon impacts orginating from the former NFP have migrated and appear to havecomingled with hydrocarbons originating from the former evaporation pond area. With the exception of areas east and northeast of the former NFP, the extent of dissolved BTEX is largely delineated laterally. The dry sandstone bedrock appears to represent a viable confining unit.

Concentrations of nitrate in groundwater in the southern part of the NFP exceeded the NMWQCC standard at MW-33, MW-40, MW-44, and MW-50 at least once since 2017. Nitrate exceedences in MW-33 may be related to the source of anomolonsly high groundwater elevations documented at this location, potentially from an off-site source to the north and transported in stormwater. There is no known nitrate source at the NFP site, and nitrates are not known to have been stored or used at the former NFP or former evaporation pond.

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Tables

Table 1. Monitoring Well and Soil Boring Details

Site Characterization Report

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Blanco Plant - North Flare Pit, Bloomfield, New Mexico

Well ID	Easting (ft)	Northing (ft)	Ground Surface Elevation (ft amsl)	Top of Casing (ft amsl)	Total Depth (ft btoc)	Total Borehole Depth Elevation (ft amsl)	Screen Interval (ft bgs)	Screen Interval Elevation (ft amsl) from Top to Bottom	Top of Sandstone Bedrock Elevation (ft amsl)	Top of Shale Bedrock Elevation (ft amsl)	September 2019 Groundwater Elevation (ft amsl)	Water Column (ft)	Screen Length (ft)	Well Diameter (in)
MW-23	2,686,128.04	2,087,013.80	5,632.16	5,634.33	66	5,568.3	50 - 65	5,582.2 - 5,567.2	5,574.2	NE	5574.94	7.78	15	4
MW-32	2,685,814.59	2,087,349.77	5,647.20	5,650.00	81.4	5,568.6	40.4 - 80.6	5,606.8 - 5,566.6	NE	5,619.2	5591.90	25.3	40.2	4
MW-33	2,686,260.36	2,086,548.94	5,623.68	5,625.44	80.8	5,544.7	52.1- 80.1	5,571.6 - 5,543.6	5,570.7	NE	5576.14	32.54	28	2
MW-40	2,686,334.64	2,086,220.46	5,619.59	5,621.43	103.4	5,518.0	51.1 - 101.1	5,568.5 - 5,518.5	5,561.6	NE	5557.90	39.41	50	4
MW-41	2,686,317.46	2,086,395.91	5,627.88	5,629.52	103.6	5,525.9	51.5 - 101.5	5,576.4 - 5,526.4	5,566.9	NE	5556.50	30.12	50	4
MW-42	2,686,044.29	2,086,655.56	5,621.26	5,623.91	89.1	5,534.8	36 - 86	5,585.3 - 5,535.3	5,576.3	5,526.3	5554.56	21.95	50	4
MW-43	2,686,177.07	2,086,665.13	5,623.79	5,626.45	101.6	5,524.9	48.4 - 98.4	5,575.5 - 5,525.5	5,566.8	5,545.8	5557.33	34.28	50	4
MW-44	2,686,104.00	2,086,792.65	5,624.36	5,626.89	103.0	5,523.9	50 - 100	5,574.4 - 5,524.4	5,554.4	NE	5559.10	36.24	50	4
MW-45	2,686,247.97	2,086,914.12	5,631.59	5,633.95	103.5	5,530.5	50.6 - 100.6	5,581.0 - 5,531.0	5,551.6	5,561.6	5561.28	31.19	50	4
MW-46	2,685,719.83	2,087,220.84	5,648.61	5,650.99	88.1	5,562.9	35.25 - 85.25	5,613.4 - 5,563.4	5,570.6	5,603.6	5602.50	41.73	50	4
MW-47	2,685,919.43	2,087,242.70	5,635.18	5,637.74	91.6	5,546.2	38.5 - 88.5	5,596.7 - 5,546.7	5,584.2	5,582.6	5590.97	47.01	50	4
MW-48	2,685,788.60	2,087,440.51	5,648.99	5,651.40	81.9	5,569.5	29.0 - 79.0	5,620.0 - 5,570.0	5,583.0	5,609.0	5597.56	30.35	50	4
MW-49	2,686,222.58	2,086,796.89	5,629.14	5,631.77	73.6	5,558.1	46 - 71	5,583.1 - 5,558.1	5,572.1	5,557.1	5559.74	1.60	25	4
MW-50	2,686,431.76	2,086,909.07	5,640.18	5,643.04	75.9	5,567.2	48 - 73	5,592.2 - 5,567.2	5,565.2	NE	5567.72	0.54	25	4
MW-51	2,686,092.14	2,087,220.55	5,637.09	5,639.50	67.4	5,572.1	40 - 65	5,599.1 - 5,574.1	5,581.1	5,580.1	5577.60	3.51	25	4
MW-52	2,686,018.60	2,087,441.48	5,640.96	5,643.83	54.9	5,589.0	27 - 52	5,614.0 - 5,589.0	5,565.0	5,589.0	5591.42	2.46	25	4
MW-53	2,685,764.77	2,087,548.05	5,653.61	5,656.17	87.6	5,568.6	60 - 85	5,593.6 - 5,568.6	NE	5,620.6	5596.27	27.66	25	4
MW-54	2,685,729.64	2,087,349.78	5,648.83	5,651.30	65.5	5,585.8	38 - 63	5,610.8 - 5,585.8	5,586.8	5,608.8	5591.75	5.92	25	4
MW-55	2,685,908.67	2,087,040.90	5,631.08	5,633.54	53.5	5,580.1	26 - 51	5,605.1 - 5,580.1	5,591.1	5,587.1	5583.58	3.50	25	4
MW-56	2,686,020.21	2,086,804.86	5,625.19	5,627.88	59.7	5,568.2	32 - 57	5,593.2 - 5,568.2	5,576.2	NE	5569.77	1.58	25	4
SB-01	2,685,757.53	2,087,378.35	5,648.51	N/A	43	5,605.5	N/A	N/A	NE	5,609.5	N/A	N/A	N/A	N/A
SB-02	2,685,793.95	2,087,303.95	5,647.21	N/A	43	5,604.2	N/A	N/A	NE	5,607.2	N/A	N/A	N/A	N/A
SB-03	2,685,868.90	2,087,323.73	5,639.81	N/A	49	5,590.8	N/A	N/A	NE	5,595.8	N/A	N/A	N/A	N/A

Notes:

Top of bedrock elevation calculated using ground surface elevation and depth of bedrock from ground surface, as presented on soil boring logs.

Water column calculated from the September 2019 groundwater elevation and the elevation of the bottom of the well screen.

amsl = above mean sea level

btoc = below top of casing

ft = feet

in = inches

N/A = well not installed or no longer present.

NE = none encountered

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Table 2. Summary of Soil Analytical Results

Site Characterization Report
Blanco Plant - North Flare Pit, Bloomfield, New Mexico

Diameter land	Trin Flare Pit, Bioomilieid, New I				SB-01					SB-02						e e	-03			
Analyte	New Mexico Industrial/Occupational Soil Screening Criteria ^a (mg/kg)	NMOCD Recommended Remediation Action Level ^b (mg/kg)	1-2 ft bgs	12-13 ft bgs		31-32 ft bgs	38-39 ft bgs	1-2 ft bgs	12-14 ft bgs		28-30 ft bgs	39-40 ft bgs	1-2 ft bgs	13-14 ft bgs	20-21 ft bgs			36-37 ft bgs	40-42 ft bgs	43-44 ft bgs
		Sample Date	9/6/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/6/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/6/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017
Volatile Organic	Compounds					•	•		•			•		•		•				
Benzene	87.2	10	<0.000589	<0.000588	<0.000712	<0.000592	<0.000527	<0.000585	<0.000618	<0.000616	0.093	0.00229 J	<0.000624	<0.000616	<0.000662	5.73	5.59	61.8	4.28	7.32
Ethylbenzene	368	NE	<0.000954	<0.000952	0.00115 UJ	<0.000958	<0.000854	<0.000947	<0.001	<0.000997	0.044	<0.000931	<0.00101	0.000997 UJ	<0.00107	12.5	5.14	13.4	4.16	4.88
Toluene	61,340	NE	<0.00129	<0.00129	<0.00156	< 0.0013	<0.00116	<0.001628	<0.00135	<0.00135	< 0.00143	0.0102	< 0.00137	0.00135 UJ	<0.00145	11.4	66.8	261	28.1	43.1
Xylenes, Total	4,275	NE	<0.00106	<0.00106	0.00265 J	<0.00106	<0.000946	<0.00105	<0.00110	<0.00111	0.117	0.00425 J	<0.00112	0.0011 UJ	0.00713	182	81.9	216	60.6	76.8
Total BTEX	NE	50°	<0.00129	<0.00129	0.00265 J	< 0.0013	<0.00116	<0.00105	<0.001	< 0.00135	0.25	0.02	< 0.00137	0.00135 UJ	0.00713	212	159	552	97	132

	New Mexico					MW-40							MV	/-41					MW-42	
Analyte	Industrial/Occupational Soil Screening Criteria ^a (mg/kg)	NMOCD Recommended Remediation Action Level ^b (mg/kg)	1-2 ft bgs	11-12 ft bgs	19-20 ft bgs	29-30 ft bgs	39-40 ft bgs	50-51 ft bgs	57-58 ft bgs	1-2 ft bgs	12-14 ft bgs	20-22 ft bgs	35-36 ft bgs	40-41 ft bgs	50-51 ft bgs	60-61 ft bgs	64-65 ft bgs	1-2 ft bgs	13-15 ft bgs	20-21 ft bgs
		Sample Date	9/5/2017	9/7/2017	9/7/2017	9/7/2017	9/7/2017	9/7/2017	9/7/2017	9/5/2017	9/13/2017	9/13/2017	9/13/2017	9/13/2017	9/13/2017	9/13/2017	9/13/2017	9/6/2017	9/15/2017	9/15/2017
Volatile Organic	Compounds			•				•											•	
Benzene	87.2	10	<0.000617	<0.000576	<0.000593	<0.000655	<0.000627	<0.000603	<0.000555	<0.00063	<0.000662	<0.000649	<0.000583	<0.00066	<0.000808	<0.000573	<0.000631	<0.00131	<0.000663	<0.000658
Ethylbenzene	368	NE	<0.000999	< 0.000933	<0.00096	<0.00106	<0.00102	<0.000976	<0.000898	<0.00102	<0.00107	<0.00105	<0.000943	<0.00107	<0.00131	<0.000928	<0.00102	<0.00213	<0.00107	<0.00106
Toluene	61,340	NE	<0.00135	<0.00126	<0.0013	<0.00144	<0.00137	<0.00132	<0.00122	<0.00138	<0.00145	<0.00142	<0.00128	<0.00145	<0.00177	<0.00126	<0.00138	<0.00288	<0.00145	<0.00144
Xylenes, Total	4,275	NE	<0.00111	<0.00103	<0.0013	<0.00118	<0.00113	<0.00108	<0.000995	<0.00113	<0.00119	<0.00116	<0.00105	<0.00118	<0.00145	<0.00103	<0.00113	<0.00236	<0.00119	<0.00118
Total BTEX	NE	50°	<0.00135	<0.00126	<0.0013	<0.00144	<0.00137	<0.00132	<0.00122	<0.00138	<0.00145	<0.00142	<0.00128	<0.00145	<0.00177	<0.00126	<0.00138	<0.00288	<0.00145	<0.00144

	New Mexico			V-42			MV	V-43				MV	V-44						MV	N-45
Analyte	Industrial/Occupational Soil Screening Criteria ^a (mg/kg)	NMOCD Recommended Remediation Action Level ^b (mg/kg)		40-41 ft bgs	1-2 ft bgs	14-15 ft bgs	20-21 ft bgs	25-26 ft bgs	41-42 ft bgs	54-55 ft bgs	1-2 ft bgs	14-16 ft bgs	20-21 ft bgs	31-32 ft bgs	41-42 ft bgs	53-54 ft bgs	62-63 ft bgs	69-70 ft bgs	1-2 ft bgs	13-14 ft bgs
		Sample Date	9/15/2017	9/15/2017	9/5/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/6/2017	9/10/2017	9/10/2017	9/10/2017	9/10/2017	9/10/2017	9/10/2017	9/10/2017	9/5/2017	9/11/2017
Volatile Organi	c Compounds		•	•		•		•					•							•
Benzene	87.2	10	<0.000666	<0.000645	<0.00131	<0.00068	<0.000619	< 0.000564	<0.000655	<0.000583	<0.0012	0.0025 J	<0.000592	<0.000671	<0.000562	<0.000654	<0.000511	<0.000581	<0.00089	<0.000644
Ethylbenzene	368	NE	<0.00108	<0.00104	<0.00212	<0.0011	<0.001	<0.000913	<0.00106	0.00644	<0.00194	<0.00108	<0.000958	<0.00109	<0.00091	<0.00106	0.00293 J	<0.00094	<0.00144	<0.00104
Toluene	61,340	NE	<0.00146	<0.00141	<0.00286	<0.00149	<0.00135	<0.00123	<0.00143	<0.00128	<0.00262	<0.00146	<0.0013	<0.00147	<0.00123	<0.00143	<0.00112	<0.00127	<0.00195	<0.00141
Xylenes, Total	4,275	NE	<0.00119	<0.00116	<0.00235	<0.00122	<0.00111	<0.00101	<0.00117	0.0139	<0.00215	<0.00119	<0.00106	<0.0012	<0.00101	<0.00117	<0.000917	<0.00104	<0.0016	<0.00116
Total BTEX	NE	50°	< 0.00146	< 0.00141	<0.00286	< 0.00149	< 0.00135	< 0.00123	< 0.00143	0.02	<0.00262	0.0025 J	< 0.0013	< 0.00147	< 0.00123	< 0.00143	0.00293 J	<0.00127	<0.00195	< 0.00141

	New Mexico					MW-45						MW	<i>I-</i> 46					MW-47		
Analyte	Industrial/Occupational Soil Screening Criteria ^a (mg/kg)	NMOCD Recommended Remediation Action Level ^b (mg/kg)		31-32 ft bgs	35-36 ft bgs	39-40 ft bgs	48-49 ft bgs	59-60 ft bgs	69-70 ft bgs	1-2 ft bgs	12-13 ft bgs	25-26 ft bgs	35-36 ft bgs	41-42 ft bgs	49-50 ft bgs	1-2 ft bgs	12-13 ft bgs	20-21 ft bgs	30-31 ft bgs	39-40 ft bgs
		Sample Date	9/12/2017	9/12/2017	9/12/2017	9/12/2017	9/12/2017	9/12/2017	4/12/2017	9/6/2017	9/18/2017	9/18/2017	9/18/2017	9/18/2017	9/18/2017	9/6/2017	9/19/2017	9/19/2017	9/19/2017	9/19/2017
Volatile Organic	Compounds		•	-	•	•	-	-					-	•				-	•	
Benzene	87.2	10	0.0011 J	0.102	0.224 J	1.22	25.1	20.1	21.6	<0.000704	<0.000685	<0.000645	<0.000657	<0.000704	<0.000549	<0.00106	<0.000685	<0.000664	<0.000586	0.0064
Ethylbenzene	368	NE	<0.000997	0.101	0.440 J	4.82	29.5	5.51	16	<0.00114	<0.00111	<0.00104	<0.00106	<0.00114	<0.000889	< 0.00172	<0.00111	<0.00107	<0.000949	0.0438
Toluene	61,340	NE	0.00135 J	<0.0012	0.498 J	4.87	45.9	4.92	20.7	< 0.00154	<0.0015	<0.00141	<0.00144	<0.00154	<0.0012	< 0.00232	<0.0015	<0.00145	<0.00128	<0.00113
Xylenes, Total	4,275	NE	<0.00235	0.00316 J	4.02 J	54.8	317	77.1	155	<0.00126	<0.00123	<0.00116	<0.00118	<0.00126	<0.000985	<0.0019	<0.00123	<0.00119	<0.00105	0.104
Total BTEX	NE	50°	0.0	0.2	5.2	66	418	108	213	<0.00154	<0.0015	<0.00141	<0.00144	<0.00154	<0.0012	<0.00232	<0.0015	<0.00145	<0.00128	0.2

Blanco Plant - North Flare Pit, Bloomfield, New Mexico

	New Mexico			MW-47				MV	V-48						MW-49					MW-50	
Analyte	Industrial/Occupational Soil Screening Criteria ^a (mg/kg)	NMOCD Recommended Remediation Action Level ^b (mg/kg)		46-47 ft bgs	47-49 ft bgs	1-2 ft bgs	12-13 ft bgs	21-22 ft bgs	29-30 ft bgs	36-37 ft bgs	39-40 ft bgs	1-2 ft bgs	14-15 ft bgs	19-20 ft bgs	29-30 ft bgs	39-40 ft bgs	49-50 ft bgs	56-57 ft bgs	1-2 ft bgs	12-13 ft bgs	19-20 ft bgs
		Sample Date	9/19/2017	9/19/2017	9/19/2017	9/6/2017	9/21/2017	9/21/2017	9/21/2017	9/21/2017	9/21/2017	8/15/2019	8/17/2019	8/17/2019	8/17/2019	8/17/2019	8/17/2019	8/17/2019	8/14/2019	8/18/2019	8/18/2019
Volatile Organic	Compounds			•	•		•	•	•		•			•		•		•			•
Benzene	87.2	10	6.08	0.049	1.82	<0.00107	<0.00067	<0.000632	<0.00053	0.00581	3.88	< 0.000603	<0.000625	<0.000612	<0.000599	<0.000644	<0.000634	<0.000626	0.000651 UJ	<0.000653	<0.00068
Ethylbenzene	368	NE	1.67	0.00398 J	0.524	< 0.00173	<0.00108	<0.00102	<0.000858	0.0102	1.8	< 0.000976	<0.00101	<0.000991	<0.00097	<0.00104	< 0.00103	<0.00101	0.00105 UJ	<0.00106	<0.0011
Toluene	61,340	NE	<0.18	0.00727	9.25	<0.00234	< 0.00147	<0.00138	<0.00116	0.0377	23.3	<0.00132	< 0.00137	< 0.00134	<0.00131	<0.00141	< 0.00139	< 0.00137	0.00143 UJ	< 0.00143	< 0.00149
Xylenes, Total	4,275	NE	40.4	0.132	5.29	<0.00191	<0.0012	< 0.00113	<0.000951	0.156	25.2	<0.00108	<0.00112	<0.0011	< 0.00107	<0.00116	<0.00114	<0.00112	0.00117 UJ	<0.00117	<0.00122
Total BTEX	NE	50°	48	0.2	17	< 0.00234	< 0.00147	<0.00138	< 0.00116	0.2	54	< 0.00132	< 0.00137	< 0.00134	<0.00131	< 0.00141	< 0.00139	< 0.00137	0.00143 UJ	< 0.00143	< 0.00149

	New Mexico			MV	V-50				MV	V-51					MW-52				MV	V-53	
Analyte	Industrial/Occupational Soil Screening Criteria ^a (mg/kg)	NMOCD Recommended Remediation Action Level ^b (mg/kg)	29-30 ft bgs	39-40 ft bgs	49-50 ft bgs	57-58 ft bgs	1-2 ft bgs	13-14 ft bgs	19-20 ft bgs	29-30 ft bgs	39-40 ft bgs	49-50 ft bgs	1-2 ft bgs	10-11 ft bgs	19-20 ft bgs	29-30 ft bgs	36-37 ft bgs	1-2 ft bgs	9-10 ft bgs	19-20 ft bgs	29-30 ft bgs
		Sample Date	8/18/2019	8/18/2019	8/18/2019	8/18/2019	8/14/2019	8/19/2019	8/19/2019	8/19/2019	8/19/2019	8/19/2019	8/14/2019	8/24/2019	8/24/2019	8/24/2019	8/24/2019	8/15/2019	8/22/2019	8/22/2019	8/22/2019
Volatile Organic	Compounds			•		•				•										•	
Benzene	87.2	10	<0000675	<0.000725	<0.000705	<0.000669	<0.000607	<0.00314	<0.00322	<0.00313	<0.000649	1.36	<0.000568	<0.000647	<0.000629	<0.000671	<0.000641	<0.000674	<0.000633	<0.000647	<0.000597
Ethylbenzene	368	NE	<0.00109	<0.00117	<0.00114	<0.00108	<0.000983	<0.00509	<0.00521	<0.00507	<0.00105	1.12	<0.00092	<0.00105	<0.00102	<0.00109	<0.00104	<0.00109	<0.00102	<0.00105	< 0.000967
Toluene	61,340	NE	<0.00148	< 0.00159	<0.00154	<0.00147	<0.00133	<0.00688	<0.00705	<0.00686	0.00174 J	5.86	<0.00124	<0.00142	<0.00138	<0.00147	<0.00141	<0.00148	<0.00139	<0.00142	<0.00131
Xylenes, Total	4,275	NE	<0.00121	<0.0013	<0.00126	<0.0012	<0.00109	< 0.00563	<0.00578	<0.00561	0.0105	18.2	<0.00102	<0.00116	<0.00113	<0.0012	<0.00115	<0.00121	<0.00114	<0.00116	<0.00107
Total BTEX	NE	50°	<0.00148	< 0.00159	<0.00154	<0.00147	<0.00133	<0.00688	<0.00705	<0.00686	0.01	27	<0.00124	<0.00142	<0.00138	<0.00147	<0.00141	<0.00148	<0.00139	<0.00142	<0.00131

	New Mexico		MW-53			MW-54					MW-55			MV	V-56
Analyte	Industrial/Occupational Soil Screening Criteria ^a (mg/kg)	NMOCD Recommended Remediation Action Level ^b (mg/kg)	32-33 ft bgs	0-1 ft bgs	10-11 ft bgs	19-20 ft bgs	29-30 ft bgs	39-40 ft bgs	1-2 ft bgs	10-11 ft bgs	19-20 ft bgs	29-30 ft bgs	34-35 ft bgs	0-1 ft bgs	41-42 ft bgs
		Sample Date	8/22/2019	8/14/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019	8/14/2019	8/15/2019	8/15/2019	8/15/2019	8/15/2019	8/16/2019	8/17/2019
Volatile Organic	Compounds														
Benzene	87.2	10	< 0.000673	<0.00894	<0.000644	<0.000594	<0.000642	<0.00058	<0.00061	<0.000695	<0.000634	<0.000642	0.00542	<0.000742	<0.000748
Ethylbenzene	368	NE	<0.00109	<0.00145	<0.00104	<0.000962	<0.00104	<0.000939	<0.000988	0.00134 J	<0.00103	<0.00104	<0.00105	<0.0012	<0.00121
Toluene	61,340	NE	<0.00147	<0.00196	<0.00141	<0.0013	<0.00141	<0.00127	<0.00134	<0.00152	<0.00139	<0.00141	0.0079	<0.00163	<0.00164
Xylenes, Total	4,275	NE	<0.00121	<0.0016	<0.00115	<0.00107	<0.00115	<0.00104	<0.00109	0.00134 J	<0.00114	<0.00115	0.0133	<0.00133	<0.00134
Total BTEX	NE	50°	<0.00147	<0.00196	<0.00141	<0.0013	<0.00141	<0.00127	<0.00134	0.003	<0.00139	<0.00141	0.03	<0.00163	<0.00164

Notes:

Bold text indicates detected concentration

Shaded text indicates detected concentration exceeding the screening criteria or recommended action level

< = Analyte was not detected above the method detection limit

BTEX = benzene, toluene, ethylbenzene, and xylenes

ft bgs = feet below ground surface

J = Analyte detected at concentration above instrument detection limit but below method detection limit

mg/kg = milligrams per kilogram

NE = not established

NMED = New Mexico Environment Department

NMOCD = New Mexico Oil Conservation Division

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a New Mexico Environment Department, Risk Assessment Guidance for Site Investigations and Remediation, Volume I, Soil Screening Guidance for Human Health Risk Assessments. Table A-1 NMED Soil Screening Levels, June 2019

^b Calculated following Section IV.A.2.b. of the NMOCD Guidelines for Remediation of Leaks, Spills and Releases. August 13, 1993. The depth to groundwater at the site is less than 50 feet, which generates a Total Ranking Score of 20 that indicates the listed Remediation Action Level is required.

^c Calculated following Section IV.A.2.b. of the NMOCD Guidelines for Remediation of Leaks, Spills, and Releases. August 13, 1993. The recommended Remediation Action Level is for a summation of all BTEX components.

Table 3 Groundwater Elevation Data Blanco Gas Plant - North Flare Pit, Bloomfield, New Mexico

Monitoring	TOC	Measurement	Depth to Product	LNAPL Thickness	Depth to Water	GW Elevation
Well	Elevation (ft amsl)	Date	(ft btoc)	(feet)	(ft btoc)	(ft amsl)
	(it dillot)	9/25/1992	NA	NA	57.11	5577.22
		2/1/1993	NA	NA	NA	NA
		2/25/1993	NA	NA	NA	NA
		6/8/1993	NA	NA	NA	NA
		9/29/1993	NA	NA	NA	NA
		2/10/1994	NA	NA	NA	NA
		5/13/1994	NA	NA	NA	NA
		8/22/1994	NA	NA	NA	NA
		11/13/2000	NA	NA	57.02	5577.31
		3/26/2001	NA NA	NA 	57.07	5577.26
		5/30/2002	NA NA	NA NA	57.08	5577.25
		6/2/2003	NA NA	NA NA	57.12	5577.21
		8/4/2003 9/3/2003	NA NA	NA NA	57.06 57.11	5577.27
		12/16/2003	NA NA	NA NA	57.31	5577.22 5577.02
		5/17/2004	NA NA	NA NA	57.14	5577.19
		8/23/2004	NA NA	NA NA	57.04	5577.29
		11/22/2004	NA	NA NA	57.13	5577.2
		2/23/2005	NA	NA	57.13	5577.2
		5/23/2005	NA	NA	57.22	5577.11
		8/30/2005	NA	NA	57.18	5577.15
		11/17/2005	NA	NA	57.29	5577.04
		2/21/2006	NA	NA	57.25	5577.08
MW-23	5634.33	6/8/2006	NA	NA	57.44	5576.89
IVIVV-23	3034.33	8/15/2006	NA	NA	57.40	5576.93
		11/3/2006	NA	NA	57.41	5576.92
		2/26/2007	NA	NA	57.44	5576.89
		5/29/2007	NA	NA	57.47	5576.86
		8/22/2007	NA	NA	57.49	5576.84
		11/28/2007	NA NA	NA	57.62	5576.71
		2/20/2008	NA NA	NA 	57.57	5576.76
		5/22/2008	NA NA	NA NA	57.40	5576.93
		8/21/2008 11/6/2008	NA NA	NA NA	57.70 57.81	5576.63 5576.52
		2/17/2009	NA NA	NA NA	57.69	5576.64
		5/11/2009	NA NA	NA NA	57.83	5576.50
		8/26/2009	NA NA	NA NA	57.93	5576.4
		2/18/2010	NA	NA	57.89	5576.44
		8/25/2010	NA	NA	58.11	5576.22
		2/23/2011	NA	NA	58.04	5576.29
		8/31/2011	NA	NA	58.12	5576.21
		12/17/2013	NP	NP	58.58	5575.75
		6/18/2014	NP	NP	58.53	5575.8
		12/16/2014	NP	NP	58.7	5575.63
		6/24/2015	NP	NP	58.91	5575.42
		12/16/2015	NP	NP	58.82	5575.51
		6/29/2016	NP	NP	58.96	5575.37
		12/13/2016	NP	NP	58.98	5575.35
		4/27/2017	NP	NP	58.94	5575.39
		11/14/2017	NP	NP	59.13	5575.20
		1/28/2018	NP	NP	59.31	5575.02
		4/2/2018	NP	NP	59.1	5575.23
		11/13/2018	NP	NP	59.4	5574.93
MW-23	5634.33	4/16/2019	NP	NP	59.31	5575.02
		9/23/2019	NP	NP	59.39	5574.94
		10/15/2019	NP	NP	59.42	5574.91
		4/27/2020	NP	NP	60.40	5573.93
		8/18/2020	NP	NP	59.41	5574.92
		11/17/2020	NP	NP	59.53	5574.80

Table 3 Groundwater Elevation Data Blanco Gas Plant - North Flare Pit, Bloomfield, New Mexico

Monitoring Well	TOC Elevation (ft amsl)	Measurement Date	Depth to Product (ft btoc)	LNAPL Thickness (feet)	Depth to Water (ft btoc)	GW Elevation (ft amsl)
	()	8/26/2009	NA	NA	59.09	5590.91
		2/18/2010	NA	NA	58.93	5591.07
		2/22/2011	NA	NA	58.98	5591.02
		12/17/2013	NP	NP	59.19	5590.81
		6/18/2014	NP	NP	58.83	5591.17
		12/16/2014	NP	NP	58.61	5591.39
		6/24/2015	58.60	0.22	58.82	5591.18
		12/16/2015	58.45	0.46	58.91	5591.09
		6/29/2016	58.60	0.50	59.10	5590.90
		12/13/2016	Sheen	Sheen	58.93	5591.07
MW-32	5650	4/27/2017	Sheen	Sheen	58.35	5591.65
		11/14/2017	NP	NP	58.30	5591.70
		1/28/2018	NP	NP	58.48	5591.52
		4/2/2018	NP	NP	58.37	5591.63
		11/13/2018	Sheen	Sheen	58.15	5591.85
		4/16/2019	58.15	1.16	59.31	5590.69
		9/23/2019	58.20	0.10	58.10	5591.90
		10/15/2019	57.99	0.38	58.37	5591.63
		4/27/2020	58.13	0.84	58.97	5591.76
		8/18/2020	58.20	0.20	58.40	5591.28
		11/17/2020	58.29	0.11	58.40	5591.21
		6/8/2006	NA	NA	77.58	5547.86
		8/15/2006	NA	NA	71.71	5553.73
	5625.44	11/3/2006	NA	NA	71.07	5554.37
		2/26/2007	NA	NA	70.33	5555.11
		5/29/2007	NA	NA	70.71	5554.73
		8/22/2007	NA	NA	71.29	5554.15
		11/28/2007	NA	NA	51.66	5573.78
		2/20/2008	NA	NA	52.51	5572.93
		5/22/2008	NA	NA	67.47	5557.97
		8/21/2008	NA	NA	69.81	5555.63
MW-33		11/6/2008	NA	NA	71.07	5554.37
		2/17/2009	NA	NA	70.33	5555.11
		5/11/2009	NA	NA	69.70	5555.74
		8/26/2009	NA	NA	69.60	5555.84
		2/18/2010	NA	NA	68.90	5556.54
		8/25/2010	NA	NA	68.90	5556.54
		2/22/2011	NA	NA	68.54	5556.9
		8/31/2011	NA	NA	69.18	5556.26
		12/17/2013	NP	NP	68.40	5557.04
		6/18/2014	NP	NP	68.70	5556.74
		12/16/2014	NP	NP	69.19	5556.25
		6/24/2015	NP	NP	69.15	5556.29
		12/16/2015	NP	NP	70.70	5554.74
		6/29/2016	NP	NP	58.16	5567.28
		12/13/2016	NP	NP	63.50	5561.94
		4/27/2017	NP	NP	61.85	5563.59
		11/14/2017	NP	NP	49.98	5575.46
		1/28/2018	NP	NP	49.39	5576.05
MW-33	5625.44	4/2/2018	NP	NP	49.20	5576.24
		11/13/2018	NP	NP	48.93	5576.51
		4/16/2019	NP	NP	49.34	5576.10
		9/23/2019	NP	NP	49.30	5576.14
		10/15/2019	NP	NP	49.19	5576.25
		4/27/2020	NP	NP	49.08	5576.36
		8/18/2020	NP NP	NP	49.44	5576.00
		11/17/2020	NP NP	NP NP	49.44	5575.82
		11/11/2020	INF	INF	43.02	JJ1 J.02

Table 3 Groundwater Elevation Data Blanco Gas Plant - North Flare Pit, Bloomfield, New Mexico

Monitoring	TOC Elevation	Measurement		LNAPL Thickness	Depth to Water	GW Elevation
Well	(ft amsl)	Date	(ft btoc)	(feet)	(ft btoc)	(ft amsl)
	(11/14/2017	NP	NP	64.25	5557.18
		1/28/2018	NP	NP	64.23	5557.20
		4/2/2018	NP	NP	63.69	5557.74
		11/13/2018	NP	NP	63.72	5557.71
MW-40	5621.43	4/16/2019	NP	NP	63.34	5558.09
	0020	9/23/2019	NP	NP	63.53	5557.90
		10/15/2019	NP	NP	63.48	5557.95
		4/27/2020	NP	NP	63.34	5558.09
		8/18/2020	NP	NP	63.51	5557.92
		11/17/2020	NP	NP	63.59	5557.84
		11/14/2017	NP	NP	89.48	5540.04
		1/28/2018	NP	NP	86.85	5542.67
		4/2/2018	NP	NP ND	83.29	5546.23
		11/13/2018	NP	NP NB	77.70	5551.82
MW-41	5629.52	4/16/2019	NP NP	NP NP	75.44	5554.08 5556.50
		9/23/2019	NP NP	NP NP	73.02	
		10/15/2019 4/27/2020	NP NP	NP NP	73.09 71.20	5556.43 5558.32
		8/18/2020	NP NP	NP NP	71.06	5558.46
		11/17/2020	NP	NP	71.01	5558.51
		11/14/2017	NP	NP	69.10	5554.81
		1/28/2018	NP	NP	69.07	5554.84
		4/2/2018	NP	NP	68.71	5555.20
		11/13/2018	NP	NP	69.05	5554.86
	5623.91	4/16/2019	NP	NP	69.96	5553.95
MW-42		9/23/2019	NP	NP	69.35	5554.56
		10/15/2019	NP	NP	69.30	5554.61
		4/27/2020	NP	NP	69.42	5554.49
		8/18/2020	NP	NP	69.81	5554.10
		11/17/2020	NP	NP	69.91	5554.00
		11/14/2017	NP	NP	69.19	5557.25
	5626.44	1/28/2018	NP	NP	69.40	5557.04
		4/2/2018	NP	NP	68.55	5557.89
		11/13/2018	NP	NP	68.78	5557.66
MW-43		4/16/2019	NP	NP	68.63	5557.81
		9/23/2019	NP	NP	69.11	5557.33
		10/15/2019	NP	NP	69.11	5557.33
		4/27/2020	NP	NP	69.26	5557.18
		8/18/2020	NP	NP	69.74	5556.70
		11/17/2020	NP	NP	69.95	5556.49
		11/14/2017	NP	NP ND	68.31	5558.58
		1/28/2018	NP ND	NP ND	68.45	5558.44
		4/2/2018	NP ND	NP ND	68.12	5558.77
		11/13/2018	NP NP	NP NP	68.01 67.65	5558.88 5559.24
MW-44	5626.89	4/16/2019	NP NP	NP NP	67.65	5559.24 5559.10
		9/23/2019	NP NP	NP NP	67.79 67.81	5559.10
		4/27/2020	NP NP	NP NP	67.81	5559.08
		8/18/2020	NP NP	NP NP	68.48	5558.41
		11/17/2020	NP	NP	68.12	5558.77
		11/14/2017	NP	NP	73.13	5560.82
		1/28/2018	NP	NP	72.84	5561.11
		4/2/2018	NP	NP	72.35	5561.60
		11/13/2018	NP	NP	72.18	5561.77
B4347 45	F000 -=	4/16/2019	NP	NP	72.16	5561.79
MW-45	5633.95	9/23/2019	NP	NP	72.67	5561.28
		10/15/2019	NP	NP	72.69	5561.26
		4/27/2020	NP	NP	73.05	5560.90
		8/18/2020	NP	NP	73.61	5560.34
		11/17/2020	NP	NP	74.00	5559.95

Table 3
Groundwater Elevation Data
Blanco Gas Plant - North Flare Pit, Bloomfield, New Mexico

Monitoring Well	TOC Elevation (ft amsl)	Measurement Date	Depth to Product (ft btoc)	LNAPL Thickness (feet)	Depth to Water (ft btoc)	GW Elevation (ft amsl)
		11/14/2017	NP	NP	47.32	5603.67
		1/28/2018	NP	NP	46.56	5604.43
		4/2/2018	NP	NP	46.45	5604.54
		11/13/2018	NP	NP	47.38	5603.61
MW-46	5650.99	4/16/2019	NP	NP	47.15	5603.84
10100-40	3030.33	9/23/2019	NP	NP	48.49	5602.50
		10/15/2019	NP	NP	47.90	5603.09
		4/27/2020	NP	NP	46.74	5604.25
		8/18/2020	NP	NP	48.45	5602.54
		11/17/2020	NP	NP	48.10	5602.89
		11/14/2017	NP	NP	71.82	5565.92
		1/28/2018	NP	NP	62.02	5575.72
		4/2/2018	NP	NP	55.34	5582.40
		11/13/2018	NP	NP	48.22	5589.52
NAVA 47	F007.74	4/16/2019	NP	NP	47.06	5590.68
MW-47	5637.74	9/23/2019	Sheen	Sheen	46.77	5590.97
		10/15/2019	46.90	0.01	46.91	5590.83
		4/27/2020	46.71	<0.01	46.71	5591.03
		8/18/2020	46.46	<0.01	46.46	5591.28
		11/17/2020	47.50	0.03	47.53	5590.26
		11/14/2017	NP	NP	57.82	5593.58
		1/28/2018	NP	NP	55.15	5596.25
			NP	NP	54.25	5597.15
	5651.4	4/2/2018				
		11/13/2018	NP	NP ND	54.15	5597.25
MW-48		4/16/2019	NP	NP	54.13	5597.27
		9/23/2019	NP	NP	53.84	5597.56
		10/15/2019	NP	NP	53.88	5597.52
		4/27/2020	NP	NP	53.68	5597.72
		8/18/2020	NP	NP	53.62	5597.78
		11/17/2020	NP	NP	53.58	5597.82
	5631.77	9/23/2019	NP	NP NB	72.03	5559.74
MW-49		10/15/2019	NP ND	NP ND	72.27	5559.50
IVIVV-49		4/27/2020	NP NP	NP NP	72.64 73.04	5559.13 5558.73
		8/18/2020				
		11/17/2020 9/23/2019	NP NP	NP NP	73.13 75.32	5558.64 5567.72
		10/15/2019	NP	NP	75.45	5567.59
MW-50	5643.04	4/27/2020	NP	NP	75.40	5567.64
		8/18/2020	NP	NP	75.62	5567.42
		11/17/2020	NP	NP	75.64	5567.40
		9/23/2019	NP ND	NP ND	61.90	5577.60
MW-51	5639.50	10/15/2019 4/27/2020	NP NP	NP NP	58.68 51.82	5580.82 5587.68
IVIVV-31	3039.30	8/18/2020	NP	NP	51.30	5588.20
		11/17/2020	NP	NP	51.12	5588.38
		9/23/2019	NP	NP	52.41	5591.42
		10/15/2019	NP	NP	51.98	5591.85
MW-52	5643.83	4/27/2020	NP ND	NP ND	49.90	5593.93
		8/18/2020	NP ND	NP	49.90	5593.93
		11/17/2020 9/23/2019	NP NP	NP NP	49.93 59.90	5593.90 5596.27
		10/15/2019	NP NP	NP NP	59.90 47.92	5608.25
MW-53	5656.17	4/27/2020	NP	NP	43.35	5612.82
		8/18/2020	NP	NP	43.27	5612.90
		11/17/2020	NP	NP	43.29	5612.88
		9/23/2019	NP	NP	59.55	5591.75
	F6=1	10/15/2019	NP ND	NP ND	59.56	5591.74
MW-54	5651.30	4/27/2020	NP	NP	59.38	5591.92
MW-54		8/18/2020	NP	NP	59.30	5592.00

Table 3
Groundwater Elevation Data
Blanco Gas Plant - North Flare Pit, Bloomfield, New Mexico

Monitoring Well	TOC Elevation (ft amsl)	Measurement Date	Depth to Product (ft btoc)	LNAPL Thickness (feet)	Depth to Water (ft btoc)	GW Elevation (ft amsl)
		9/23/2019	NP	NP	49.96	5583.58
		10/15/2019	NP	NP	49.29	5584.25
MW-55	5633.54	4/27/2020	NP	NP	48.85	5584.69
		8/18/2020	NP	NP	48.91	5584.63
		11/17/2020	NP	NP	48.93	5584.61
		9/23/2019	NP	NP	58.11	5569.77
		10/15/2019	NP	NP	58.45	5569.43
MW-56	5627.88	4/27/2020	NP	NP	59.45	5568.43
		8/18/2020	NP	NP	59.80	5568.08
		11/17/2020	NP	NP	59.80	5568.08

Notes:

Monitoring wells abandoned prior to 2017 have been removed from the table.

ft amsl = feet above mean sea level

ft btoc = feet below top of casing

NA = Historical data not available

NM = not measured

NP = no product measured

TOC = top of casing

Table 4
Summary of LNAPL Analytical Results
Blanco Gas Plant - North Flare Pit, Bloomfield, New Mexico

Monitoring Well	Sample Date	GRO C6-C12 (mg/kg)	DRO >C12-C28 (mg/kg)	ORO >C28-C35 (mg/kg)
	11/14/2018	1,210,000	114,000	< 8,930
MW-32	4/16/2019	981,000	132,000	9,470
	10/15/2019	52,700	142,000	25,300
MW-47	10/15/2019	<22,300 J*	294,000	< 34,100

Notes:

< = not detected above listed method detection limit

DRO = diesel range organices

GRO = gasoline range organics

J = reported result is estimated. Sample analyzed outside of hold time for GRO in water.

mg/kg = milligrams per kilogram

ORO = oil range organics

LNAPL = light non-aqueous phase liquids

^{*} analytical results for GRO collected from MW-47 are reported in milligrams per liter (mg/L)

Table 5 Summary of BTEX Groundwater Analytical Results Blanco Gas Plant - North Flare Pit, Bloomfield, New Mexico

Monitoring Well	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMWQCC Standard (mg/L):	0.01	0.75	0.75	0.62
MW-23	9/25/1992	2.77	0.221	7.69	6.09
	2/1/1993	2.9	3.5	0.19	4.1
	2/25/1993	2.9	0.19	3.5	4.1
	6/8/1993	1.68	0.0301	1.85	2.906
	9/29/1993	2.133	0.216	1.807	3.823
	2/10/1994	2.09	0.151	1.15	2.66
	5/13/1994	3.53	0.255	0.852	2.15
	8/22/1994	3.27	0.212	0.353	1.176
	11/13/2000	3.7	< 0.025	0.84	1.4
	3/26/2001	7.2	< 0.025	0.52	1.3
	5/30/2002	9.3	< 0.05	0.36	1.5
=	6/2/2003	8.92	<0.010	0.337	1.45
	8/4/2003	2.25	<0.010	0.1	0.337
	9/3/2003	3.86	0.0078	0.208	0.768
F	12/16/2003	5.08	< 0.05	< 0.05	0.219
-	5/17/2004	8.02	<0.013	0.208	1.49
=	8/23/2004	4.48	<0.025	0.16	0.966
=	11/22/2004	3.36	<0.001	<0.001	< 0.002
=	2/23/2005	7.45	<0.001	0.321	1.38
=	5/23/2005	9.9	0.0365	0.27	1.65
F	8/30/2005	3.76	<0.005	0.0532	0.199
	11/17/2005	5.28	0.0026	0.203	0.863
=	2/21/2006	4.9	0.0049	0.0567	0.71
=	6/8/2006	3.47	<0.001	<0.001	0.373
=	8/15/2006	6.49	0.0266	0.165	1.27
	11/3/2006	3.92	0.0263	0.103	0.735
-	2/26/2007	8.91	0.0307	0.276	1.6
	5/29/2007	6.41	<0.011	0.276	1.24
	8/22/2007	5.11	0.0145	0.172	0.855
	11/28/2007	5.82	<0.05	0.147	1.08
=	2/20/2008	8.29 B	0.0093	0.147	1.87 B
=			<0.1	0.271	
	5/22/2008	4.86 5.92		0.146	0.891
	8/21/2008	6.59	<0.1 0.0042	0.146	1.25 1.4
=	11/6/2008	6.01	<0.05	0.100	1.52
-	2/17/2009				
-	5/11/2009	6.74	0.0054	0.162	1.53
-	8/26/2009	6.71	0.0358 J	0.278	1.72
-	2/18/2010	6.55	<0.1	0.227	1.5
-	8/25/2010	5.5	<0.025	0.152	1.22
-	2/23/2011	5.84	0.0088	0.16	1.23
-	8/31/2011	6.27	0.0038	0.174	1.38
=	12/17/2013	6.34	0.00965 J	0.101	0.964
=	6/19/2014	8.58	<0.0075	0.149	1.48
	12/17/2014	9.7	<0.0075	0.141	1.41
=	6/24/2015	7.64	<0.00396	0.224	0.983
=	12/16/2015	8.09	<0.00396	0.169	1.36
	6/29/2016	9.13	<0.00396	0.181	1.58
	12/13/2016	9.13	<0.0099	0.206	1.66
	4/27/2017	7.89	<0.0099	0.163	1.21
	11/14/2017	8.61	0.0037 J	0.166	1.13
	4/2/2018	8.13	<0.0099	0.206	1.69
	11/14/2018	9.87	<0.0099	0.174	1.16
	4/17/2019	10.5	<0.00495	0.211	1.26
	9/24/2019	10.7	0.0139	0.362	1.82
	4/28/2020	8.75	<0.00396	0.159	0.945
	11/18/2020	7.8 J-	<0.021	0.087 J-	0.51 J-

Table 5 Summary of BTEX Groundwater Analytical Results Blanco Gas Plant - North Flare Pit, Bloomfield, New Mexico

Monitoring Well	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMWQCC Standard	(ma/l):	0.01	0.75	0.75	0.62
MW-32	8/26/2009	9.05	16.3	0.48	6.39
02	2/18/2010	11.3	16.2	0.397	4.96
	2/22/2011	9.45	12.1	0.386	4.63
	12/17/2013	5.88	0.54	0.303	4.3
	6/19/2014	6.65 JH	2.24	0.324	5.41
	12/17/2014	1.57	0.736	0.098	1.57
	6/24/2015	3.91	0.0807	0.504	4.08
	12/16/2015	4.2	1.95	0.499	7.56
	6/29/2016	7.01	15	0.624	24.8
	12/13/2016	5.84	2.14	0.57	6.74
	4/27/2017	10.2	8.65	0.497	6.53
	11/14/2017	6.53	11	0.447	5.91
	4/2/2018	4.92	4.38	0.516	7.73
	11/14/2018	4.42	0.389 J	0.384	4.98
	4/17/2019			cted. PSH in well	
	10/15/2019		<u> </u>	cted. PSH in well	
	4/28/2020			cted. PSH in well	
1004.00	11/18/2020	0.0044		cted. PSH in well	2 22 4 5
MW-33	6/8/2006	0.0011	0.0042	<0.001	0.0045
	8/15/2006	0.0301	0.0377	<0.05	0.0246
	11/3/2006 2/26/2007	<0.001	0.0013	<0.001	<0.002
	5/29/2007	<0.001 <0.001	<0.001 <0.001	<0.001 <0.001	<0.002 <0.002
	8/22/2007	<0.001	<0.001	<0.001	<0.002
	11/28/2007	<0.001	<0.001	<0.001	<0.002
	2/20/2008	0.00099 UB	0.001 UB	<0.002	0.001 UB
	5/22/2008	<0.001	<0.001	<0.001	<0.002
	8/21/2008	<0.001	<0.001	<0.001	<0.003
	11/6/2008	0.0021	<0.002	<0.002	0.002 J
	2/17/2009	0.0015	0.00030 J	<0.001	0.0022
	5/11/2009	<0.002	<0.002	<0.002	<0.006
	8/26/2009	<0.001	<0.001	<0.001	<0.002
	2/18/2010	0.00098 J	<0.001	<0.001	0.00099 J
	8/25/2010	0.0004 J	<0.001	<0.001	<0.002
	2/22/2011	0.00055 J	<0.001	<0.001	<0.001
	8/31/2011	0.00045 J	<0.001	<0.001	<0.001
	12/17/2013	0.00501	0.000221 J	0.000110 J	0.000444 J
	6/19/2014	<0.0008	<0.00015	<0.00011	<0.00026
	12/17/2014	<0.00008	<0.00015	<0.00011	<0.00026
	6/24/2015	<0.000176	<0.000198	<0.000212	<0.000366
	12/16/2015	0.000185	0.000634	<0.000212	0.000422
	6/29/2016	<0.000176	0.000544 J	<0.000212	0.00131 J
	12/13/2016	<0.000176	<0.000198	<0.000212	<0.000366
	4/27/2017	<0.000176	<0.000198	<0.000212	<0.000366
	11/14/2017	<0.000176	<0.000198	<0.000212	<0.000366
	4/2/2018	<0.000176	<0.000198	<0.000212	<0.000366
	11/14/2018 4/17/2019	<0.000176 <0.000176	<0.000198	<0.000212	<0.000366
			<0.000198	<0.000212	<0.000366
	9/24/2019 4/28/2020	0.00035 J <0.000176	<0.0002 <0.000198	<0.00021 <0.000212	<0.00037 <0.000366
	11/18/2020	<0.000176	<0.000196	<0.00050	<0.000366
MW-40	11/14/2017	<0.00036	<0.00041	<0.00030	<0.0016
IVI V V =41U	4/2/2018	<0.000176	<0.000198	<0.000212	<0.000366
	11/14/2018	<0.000176	<0.000198	<0.000212	<0.000366
	4/17/2019	<0.000176	<0.000198	<0.000212	<0.000366
	9/24/2019	<0.000176	<0.000136	<0.000212	<0.00037
	4/27/2020	<0.00016	<0.000198	<0.000212	<0.000366
	11/18/2020	<0.00038	<0.00041	<0.00050	<0.0016

Table 5 Summary of BTEX Groundwater Analytical Results Blanco Gas Plant - North Flare Pit, Bloomfield, New Mexico

Monitoring Well	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
IMWQCC Standard	(mg/L):	0.01	0.75	0.75	(Hig/L) 0.62
MW-41	11/14/2017	0.000239 J	0.000536 J	<0.000212	<0.000366
	4/2/2018	<0.000176	<0.000198	<0.000212	<0.000366
	11/14/2018	< 0.000176	<0.000198	< 0.000212	< 0.000366
	4/16/2019	<0.000176	<0.000198	<0.000212	<0.000366
	9/24/2019	<0.00018	<0.0002	<0.00021	< 0.00037
	4/27/2020	< 0.000176	<0.000198	< 0.000212	< 0.000366
	11/18/2020	<0.00038	<0.00041	< 0.00050	< 0.0016
MW-42	11/14/2017	<0.000176	<0.000198	<0.000212	<0.000366
	4/2/2018	<0.000176	<0.000198	< 0.000212	< 0.000366
	11/14/2018	<0.000176	<0.000198	<0.000212	<0.000366
	4/16/2019	<0.000176	<0.000198	< 0.000212	0.000403 J
	9/23/2019	<0.00018	<0.0002	<0.00021	<0.00037
	4/27/2020	<0.000176	<0.000198	<0.000212	<0.000366
	11/18/2020	<0.00038	<0.00041	<0.00050	<0.0016
MW-43	11/14/2017	<0.000176	<0.000198	<0.000212	<0.000366
	4/2/2018	<0.000176	<0.000198	0.000226 J	<0.000366
	11/14/2018	<0.000176	<0.000198	<0.000212	0.000967 J
	4/17/2019	<0.000176	<0.000198	<0.000212	<0.000366
	9/24/2019	<0.00018	<0.0002	<0.00021	0.00059 J
	4/28/2020	<0.000176	<0.000198	<0.000212	<0.000366
	11/18/2020	<0.00038	<0.00041	<0.00050	<0.0016
MW-44	11/14/2017	0.227	0.000245 J	0.0177	0.000451 J
	4/2/2018	0.675	<0.00099	0.00198 J	<0.00183
	11/14/2018	0.646	<0.00099	0.00421 J	<0.00183
	4/16/2019	1.43	<0.00198	0.0161	<0.00366
	9/24/2019	1.32	<0.00396	0.0122 J	< 0.00732
	4/28/2020	0.796	<0.00396	0.013 J	<0.00732
	11/18/2020	0.34 J-	<0.00082	0.0058 J-	< 0.0032
Duplicate	11/18/2020 (Dup-01)	0.25 J-	<0.00041 UJ	0.0062 J-	<0.0016 UJ
MW-45	11/14/2017	1.25	0.0053	0.201	1.66
	4/2/2018	1.65	0.0116	0.254	0.0524
	11/14/2018	6.47	0.107	0.103	0.315
	4/17/2019	2.5 J	<0.00396	<0.00424	< 0.00732
	9/24/2019	2.86	0.126	0.0678	0.353
	4/28/2020	0.15	0.00143	0.000996 J	0.00465
	11/18/2020	0.32	0.0056	0.0021	0.012 J
MW-46	11/14/2017	<0.000176	<0.000198	<0.000212	<0.000366
	4/2/2018	<0.000176	<0.000198	<0.000212	<0.000366
	11/14/2018	0.000258 J	<0.000198	<0.000212	<0.000366
	4/16/2019	0.000234 J	<0.000198	<0.000212	<0.000366
	9/23/2019	<0.00018	<0.0002	<0.00021	<0.00037
	4/28/2020	<0.000176	<0.000198	<0.000212	<0.000366
	11/18/2020	<0.00038	<0.00041	<0.00050	<0.0016
MW-47	11/14/2017	0.831	0.0935	0.0529	0.327
	4/2/2018	1.33	0.0185 J	0.130	0.256
	11/14/2018	2.28	0.239	0.314	2.79
	4/16/2019	2.55	0.239	0.379	4.55
	10/15/2019			cted. PSH in well	
	4/28/2020		Sample not colle		
BBM 40	11/18/2020	0.000	Sample not colle		0.004
MW-48	11/14/2017	0.969	0.994	0.0241	0.294
	4/2/2018	1.47	0.0216	0.0440	0.107
	11/14/2018	1.21	0.00487 J	0.0346	0.00919 J
	4/16/2019	0.706	0.00164	0.0491	0.00238
	9/24/2019	1.4	0.00245 J	0.0351	0.00813 J
	4/28/2020	1.8	0.000852 J	0.0342	0.000465 J
Dunlicata	11/18/2020	1.8	<0.0041	0.019	< 0.016
Duplicate MW-49	11/18/2020 (Dup-02)	1.8 <0.00018	<0.0041	0.020	<0.016
	9/24/2019		0.0002 J	<0.00021 <0.000212	<0.00037 <0.000366
	4/28/2020	<0.000176	<0.000198 <0.00041		
	14/40/0000		<0.0041	< 0.00050	<0.0016
	11/18/2020	<0.00038		-0.00004	~U UUUU ~
MW-50	9/23/2019	<0.00018	<0.0002	<0.00021	<0.00037
	9/23/2019 4/28/2020	<0.00018 <0.000176	<0.0002 <0.000198	<0.000212	<0.000366
MW-50	9/23/2019 4/28/2020 11/18/2020	<0.00018 <0.000176 <0.00038	<0.0002 <0.000198 <0.00041	<0.000212 <0.00050	<0.000366 <0.0016
	9/23/2019 4/28/2020 11/18/2020 9/24/2019	<0.00018 <0.000176 <0.00038 0.201	<0.0002 <0.000198 <0.00041 0.0621	<0.000212 <0.00050 0.00655	<0.000366 <0.0016 0.161
MW-50	9/23/2019 4/28/2020 11/18/2020	<0.00018 <0.000176 <0.00038	<0.0002 <0.000198 <0.00041	<0.000212 <0.00050	<0.000366 <0.0016

Table 5 Summary of BTEX Groundwater Analytical Results Blanco Gas Plant - North Flare Pit, Bloomfield, New Mexico

Monitoring Well	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMWQCC Standard ((mg/L):	0.01	0.75	0.75	0.62
MW-52	9/24/2019	<0.00018	< 0.0002	0.00043 J	< 0.00037
	4/28/2020	< 0.000176	<0.000198	< 0.000212	< 0.000366
	11/18/2020	0.23 J-	< 0.00041	0.0072 J-	< 0.0016
MW-53	9/24/2019	<0.00018	< 0.0002	< 0.00021	< 0.00037
	4/27/2020	< 0.000176	<0.000198	< 0.000212	< 0.000366
	11/18/2020	<0.00038	< 0.00041	< 0.00050	< 0.0016
MW-54	9/24/2019	<0.00018	< 0.0002	< 0.00021	< 0.00037
	4/28/2020	< 0.000176	<0.000198	< 0.000212	< 0.000366
Duplicate	4/28/2020 (MD-54)	<0.000176	<0.000198	< 0.000212	< 0.000366
MW-54	11/18/2020	<0.00038	< 0.00041	< 0.00050	< 0.0016
MW-55	9/24/2019	<0.00018	<0.0002	<0.00021	0.00051 J
	4/27/2020	0.00697	0.00253	< 0.000212	0.000644 J
	11/18/2020	0.0048	0.00097 J	< 0.00050	< 0.0016
MW-56	9/24/2019	<0.00018	< 0.0002	< 0.00021	< 0.00037
	4/28/2020	<0.000176	<0.000198	< 0.000212	< 0.000366
	11/18/2020	<0.00038	<0.00041	<0.00050	<0.0016

Notes:

Analytical data from monitoring wells abandoned prior to 2017 has been removed from the table **Bolded text indicates a detected concentration**

Highlighted cells and bold text indicates the concentration exceeded NMWQCC standard

- B = Analyte detected in an associated QA/QC blank; sample result unaffected
- J = Analyte detected at concentration above instrument detection limit but below method detection limit
- J- = The analyte was positively identified; the quantitation is an estimation with a potential low bias
- JH = Estimated with a high bias, actual concentration may be lower than the concentration reported
- PSH = phase-seperated hydrocarbons
- UB = Analyte detected in an associated QA/QC blank; sample result considered non-detect
- < = The analyte was not detected above the listed method detection limit

Table 6
Summary of Nitrate Groundwater Analytical Results
Blanco Gas Plant - North Flare Pit, Bloomfield, New Mexico

Monitoring Well	Sample Date	Nitrate (mg/L)
NMWQCC Standard (mg/L):		10
	4/2/2018	<0.628
	9/24/2019	1.26 J
MW-23	4/28/2020	<0.0251
	11/18/2020	0.10
	4/2/2018	<0.628
	9/24/2019	NC
MW-32	4/28/2020	NC
	11/18/2020	NC
	12/17/2014	19
	11/14/2017	80.9
	4/2/2018	154
	11/14/2018	87.8
MW-33	4/17/2019	72
	9/24/2019	80.4
	4/28/2020	<0.0251
 	11/18/2020	54 J-
+	11/14/2017	<0.017
 	4/2/2018	<0.628
	11/14/2018	12.5
MW-40	4/17/2019	1.17
IIIIV-40	9/24/2019	0.58
	4/27/2020	15.4
	11/18/2020	40 J-
	11/14/2017	<0.017
<u> </u>	4/2/2018	<0.628
	11/14/2018	<0.026
MW-41	4/16/2019	
10100-41	9/24/2019	<0.0251
	4/27/2020	<0.0251
		<0.502
	11/18/2020	4.9
	4/2/2018	<0.628
MW-42	9/24/2019	<0.0251
	4/27/2020	<0.502
	11/18/2020	<0.033
	4/2/2018	<0.628
MW-43	9/24/2019	<0.0251
	4/28/2020	<0.0251
	11/18/2020	<0.033
<u> </u>	4/2/2018	<0.628
MW-44	9/24/2019	<0.0251
	4/28/2020	<0.0251 R
	11/18/2020	0.089 J
Dup-01 (Duplicate)	11/18/2020	0.095 J
	4/2/2018	<0.628
MW-45	9/24/2019	<0.0251
10111-40	4/28/2020	<0.0251
	11/18/2020	<0.033
	4/2/2018	<0.628
MW-46	9/23/2019	<0.0251
IVI VV -40	4/28/2020	<0.0251
	11/18/2020	< 0.033
	4/2/2018	<0.628
	9/24/2019	NC NC
MW-47	4/28/2020	NC NC
	11/18/2020	NC NC

Table 6
Summary of Nitrate Groundwater Analytical Results
Blanco Gas Plant - North Flare Pit, Bloomfield, New Mexico

Monitoring Well	Sample Date	Nitrate (mg/L)
NMWQCC Standard (mg/L):		10
	4/2/2018	<0.628
MW-48	9/24/2019	<0.0251
14144-40	4/28/2020	<0.0251
	11/18/2020	<0.033
Dup-02 (Duplicate)	11/18/2020	<0.033 UJ
	9/24/2019	<0.0251
MW-49	4/28/2020	<0.0251
	11/18/2020	<0.033
	9/23/2019	16.7 J
MW-50	4/28/2020	4.08
	11/18/2020	4.2
	9/24/2019	<0.0251
MW-51	4/28/2020	<0.0251
	4/28/2020 (MD-51)	<0.0251
	11/18/2020	<0.033
	9/24/2019	1.04
MW-52	4/28/2020	<0.0251
	11/18/2020	<0.033
	9/24/2019	<0.0251 R
MW-53	4/27/2020	<0.502 J
	11/18/2020	<0.033
	9/24/2019	<0.0251
MW-54	4/28/2020	<0.0251
"""	4/28/2020 (MD-54)	<0.0251
	11/18/2020	13 J-
	9/24/2019	<0.0251
MW-55	4/27/2020	<0.502
	11/18/2020	<0.033
	9/24/2019	<0.0251
MW-56	4/28/2020	<0.0251
	11/18/2020	0.46

Notes:

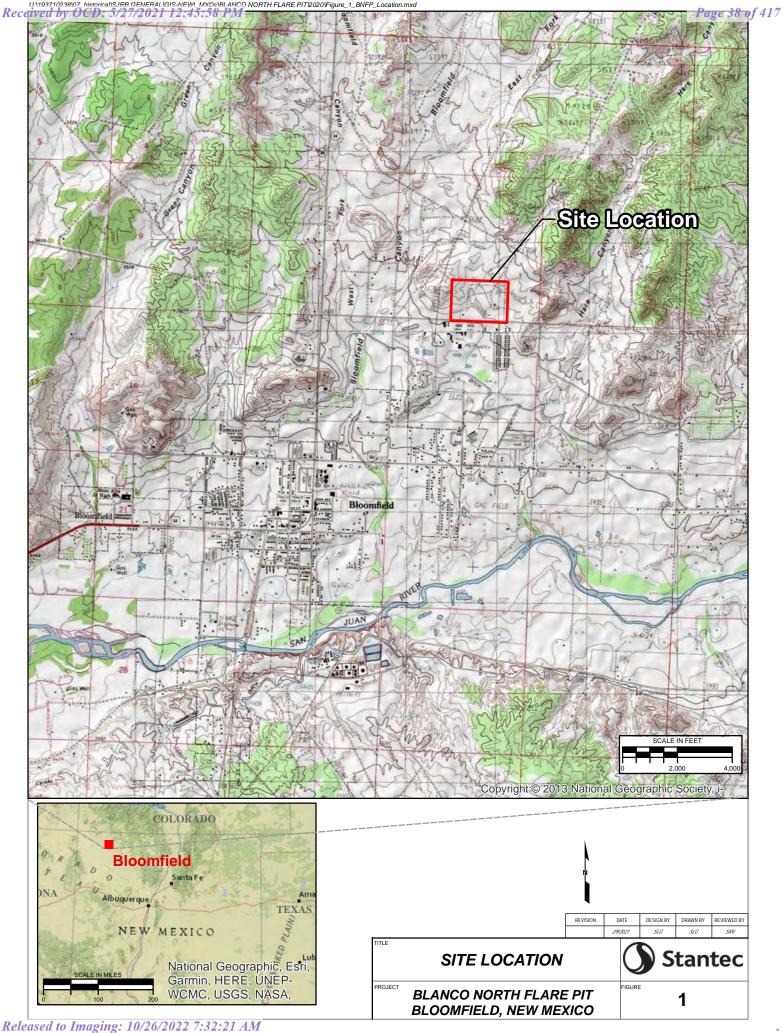
Bolded text indicates detected concentration

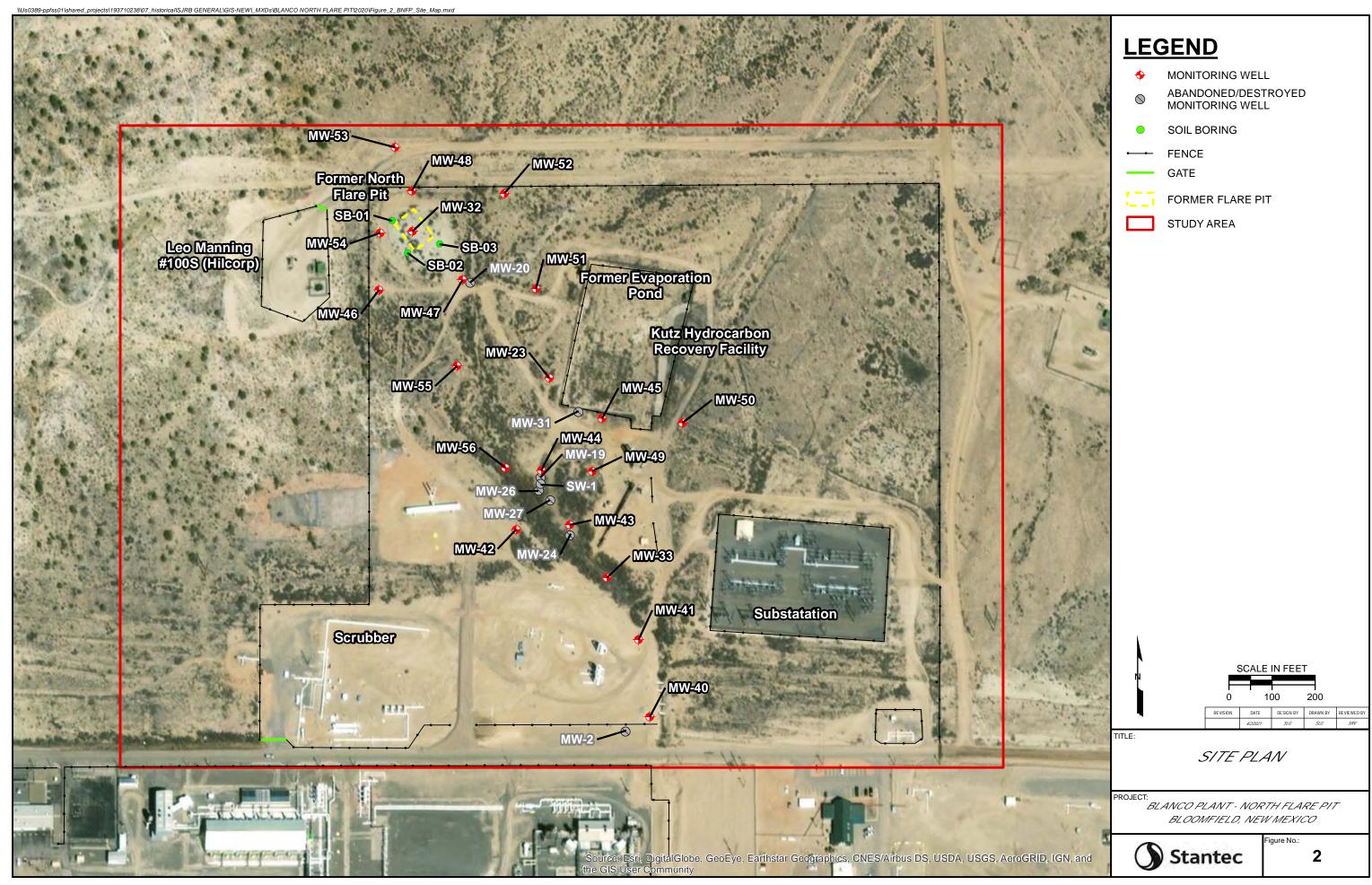
Highlighted and bold cells indicate concentration exceeded NMWQCC standard

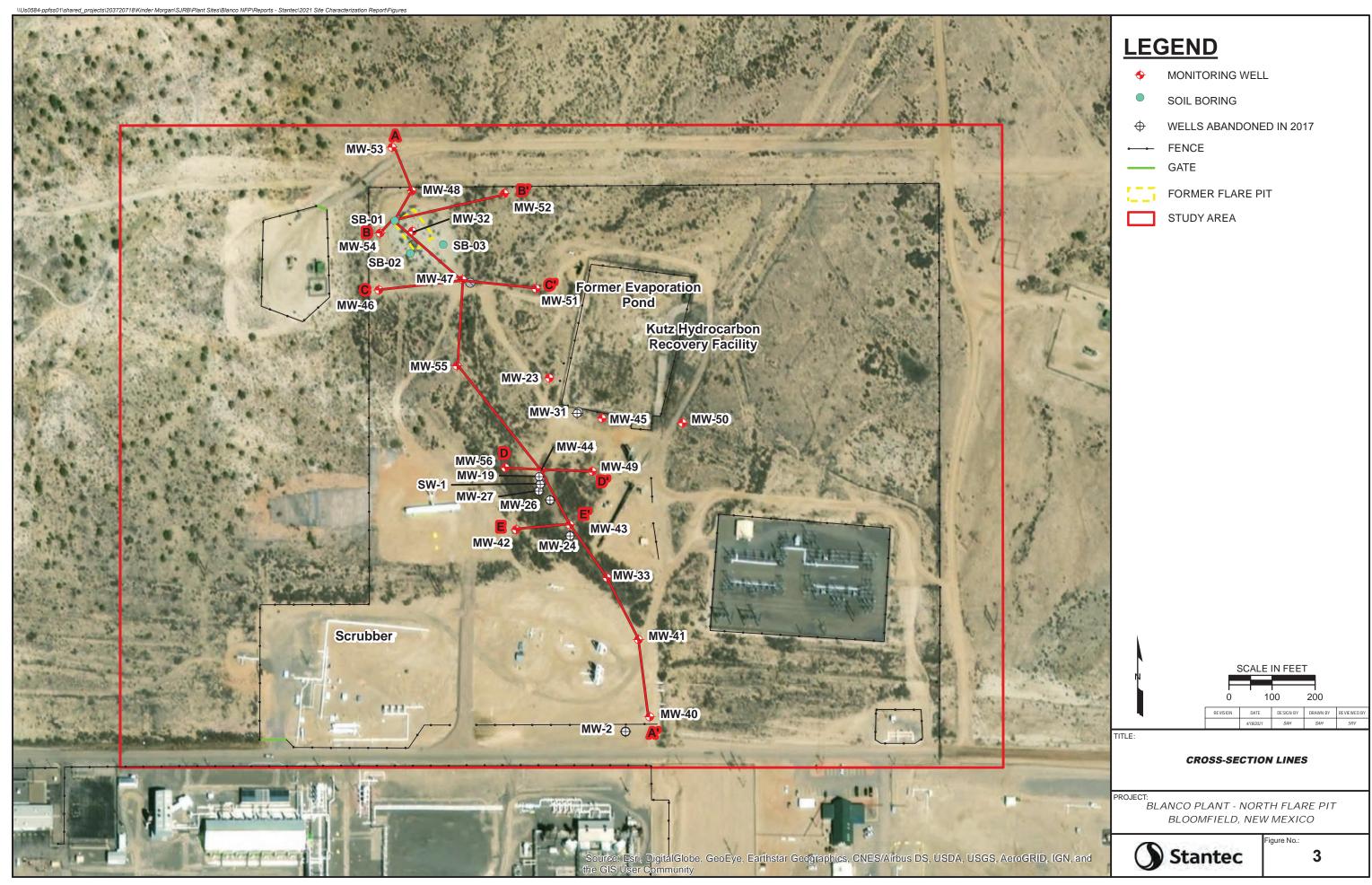
- < = analyte not detected above listed method detection limit
- J = reported result estimated
- J- = The analyte was positively identified; the quantitation is an estimation with a potential low bias
- NC = sample not collected from location

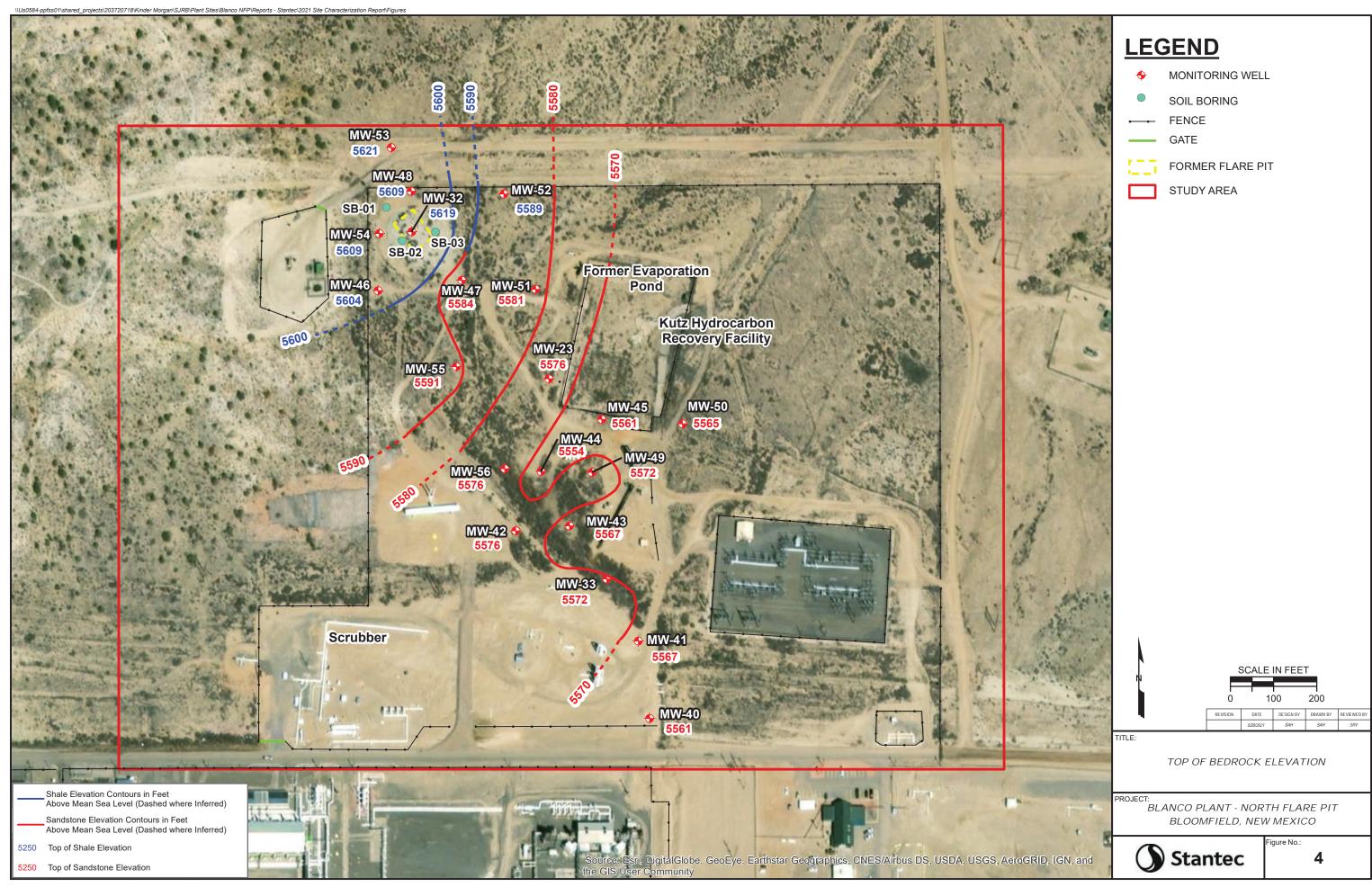
R = analytical result rejectected due to poor recovery on the matrix spike/matrix spike duplicate UJ = The method detection limit is estimated

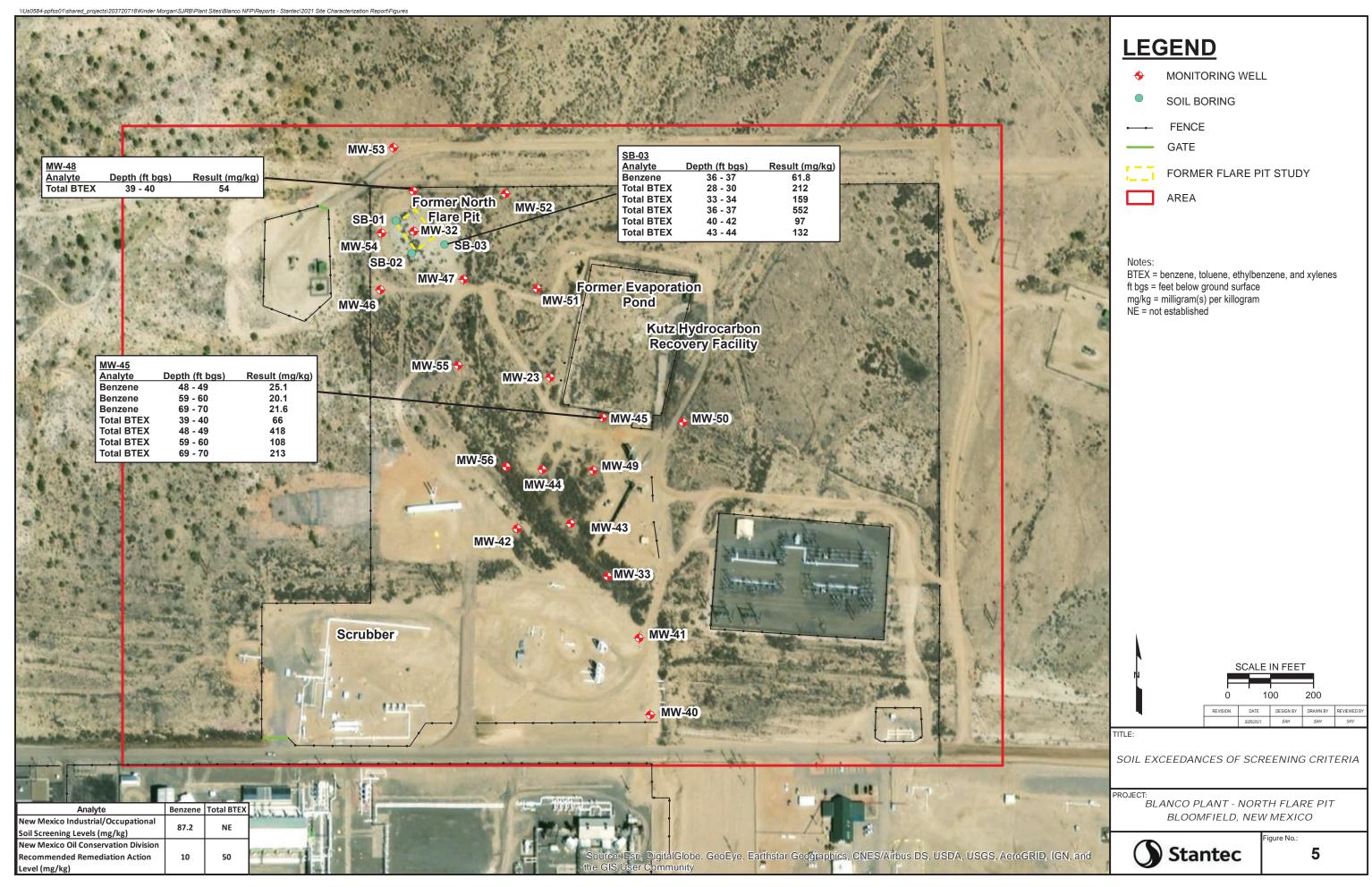
Figures

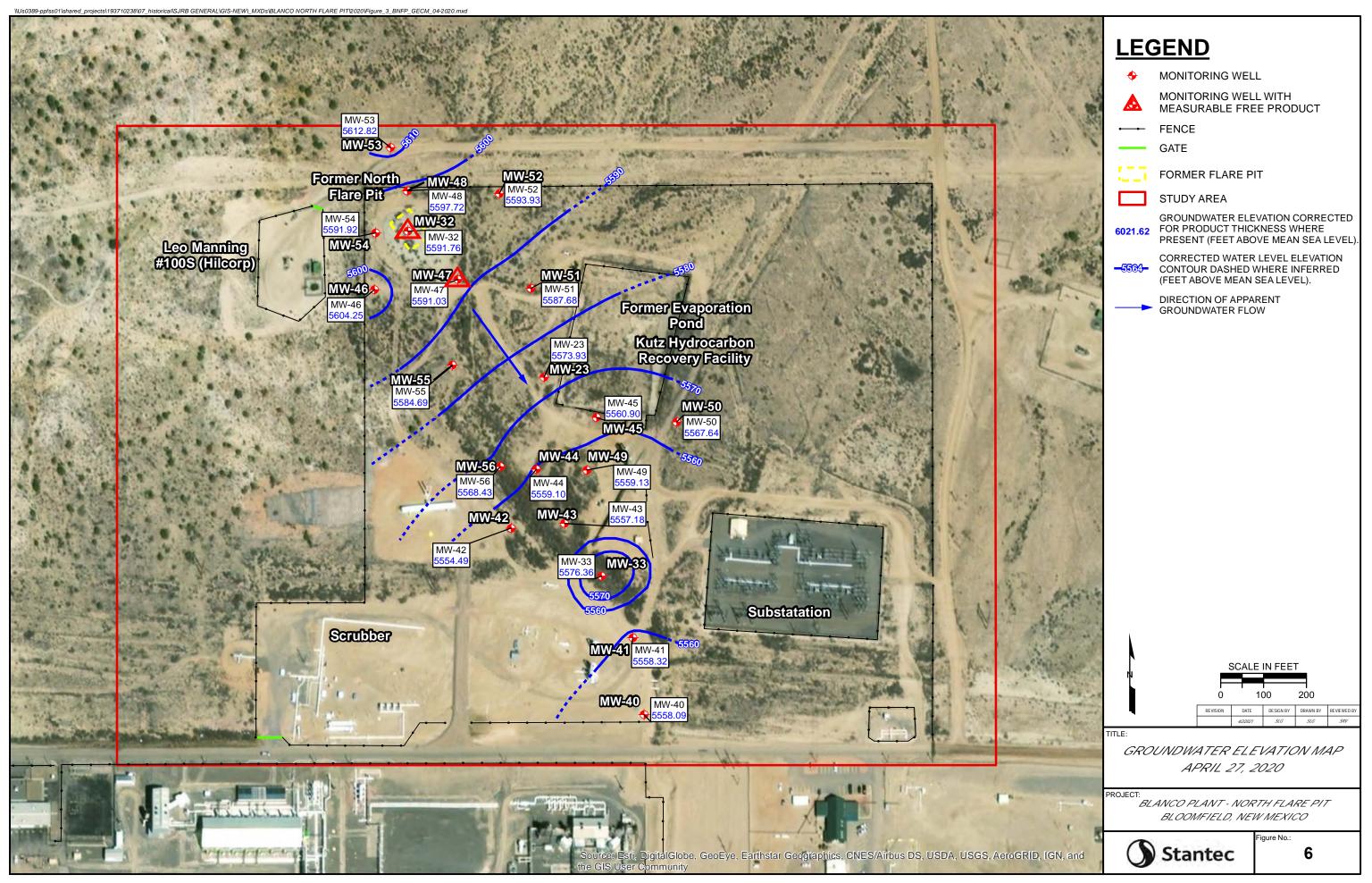


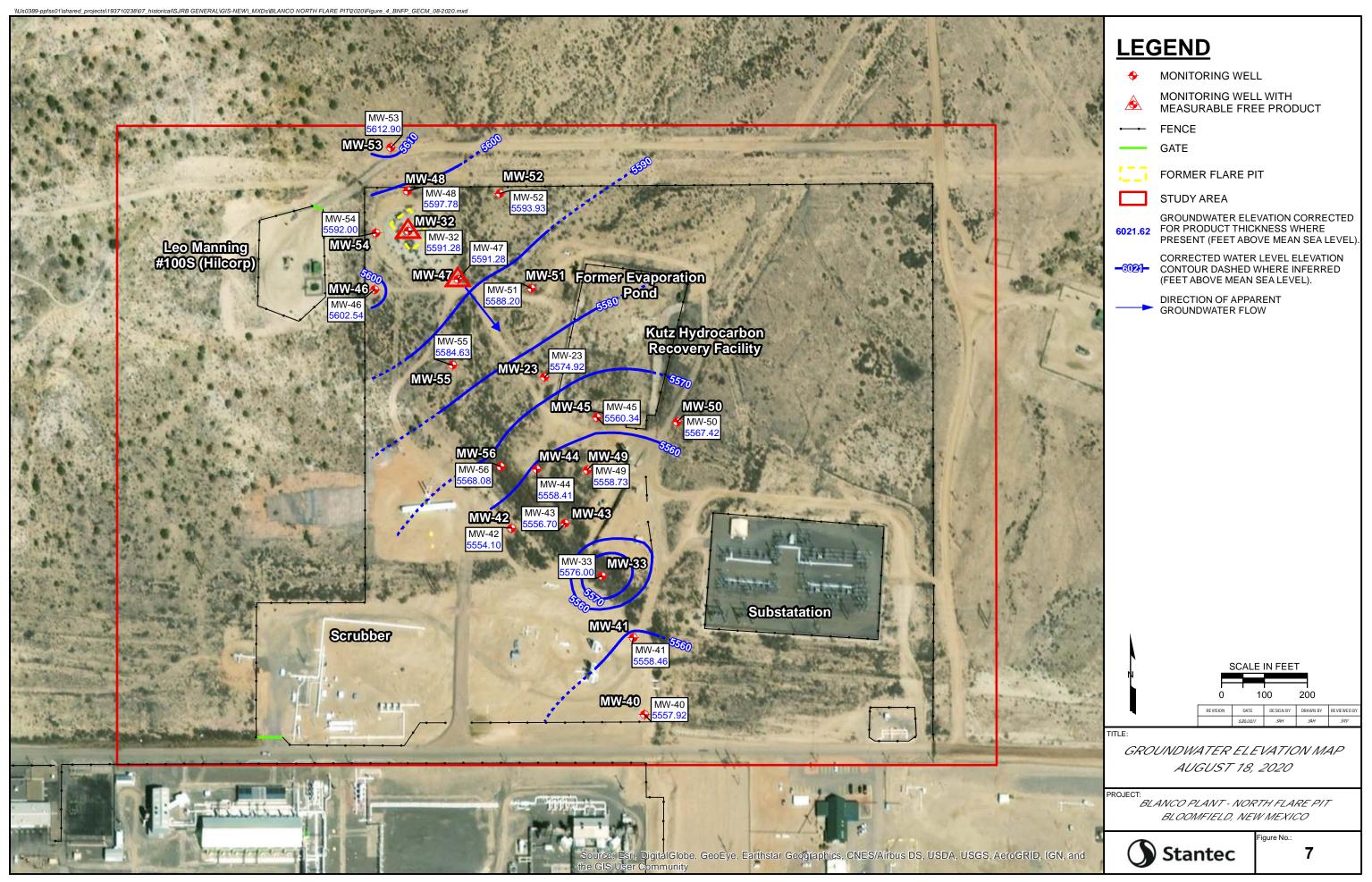


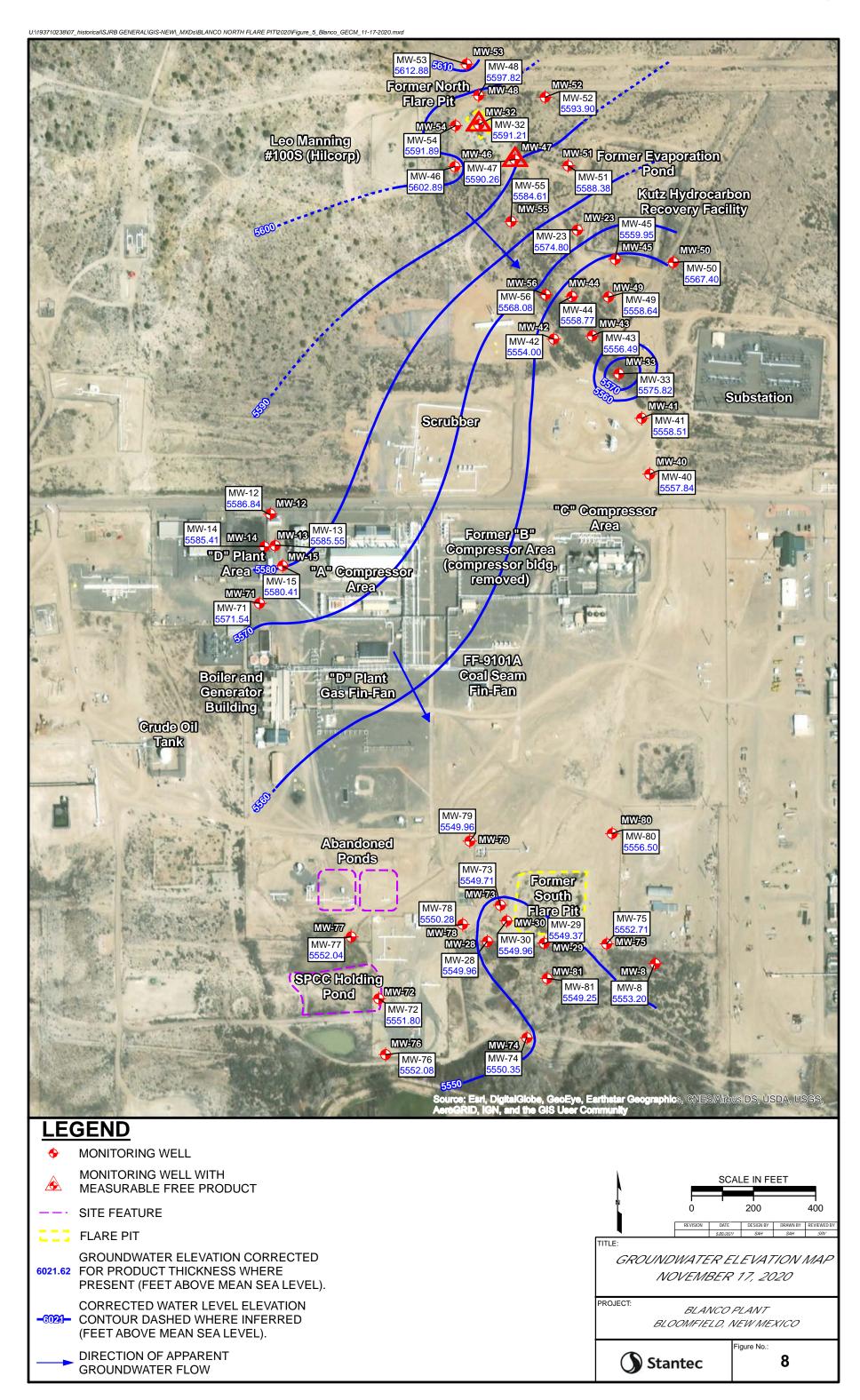


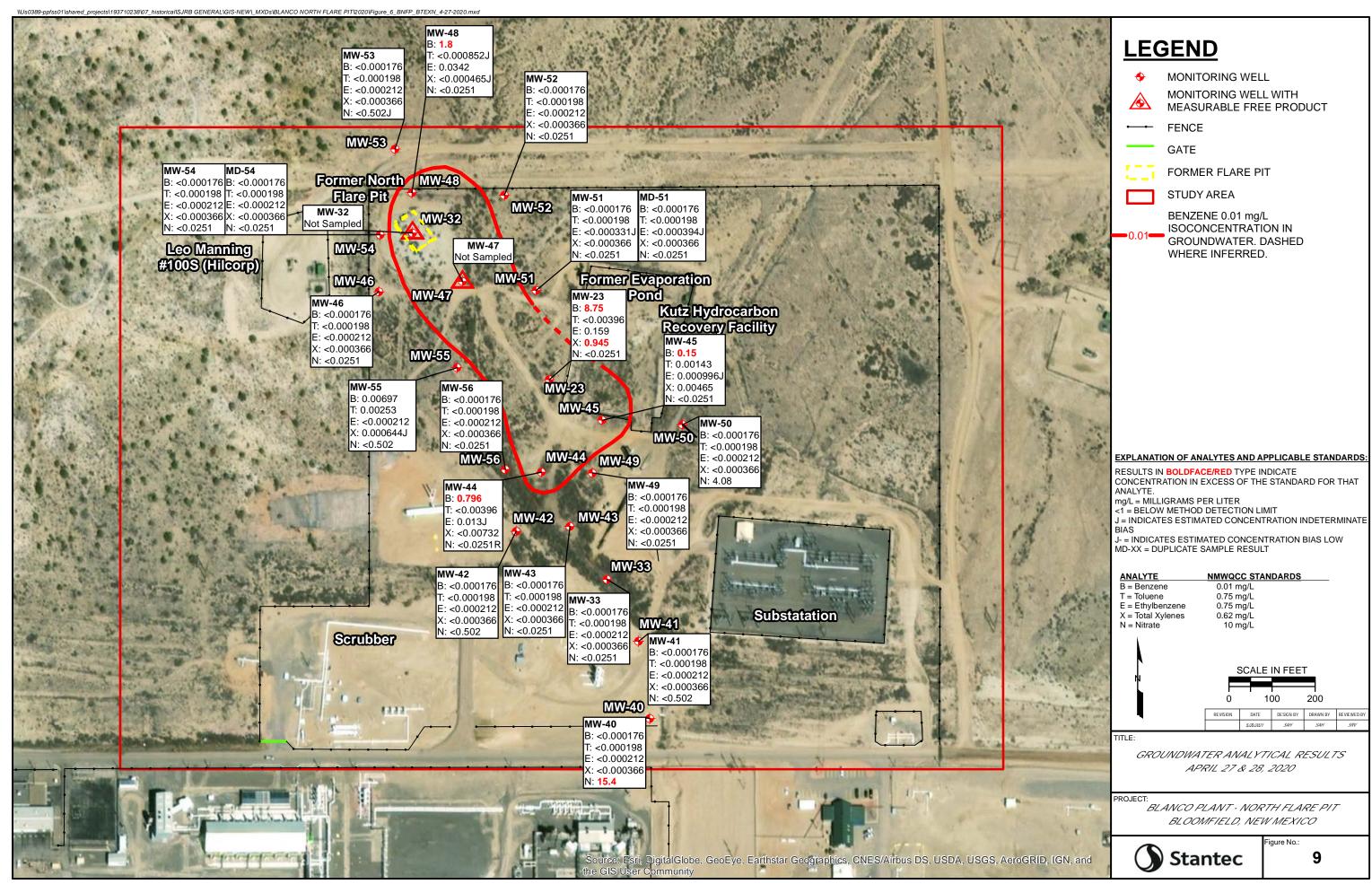


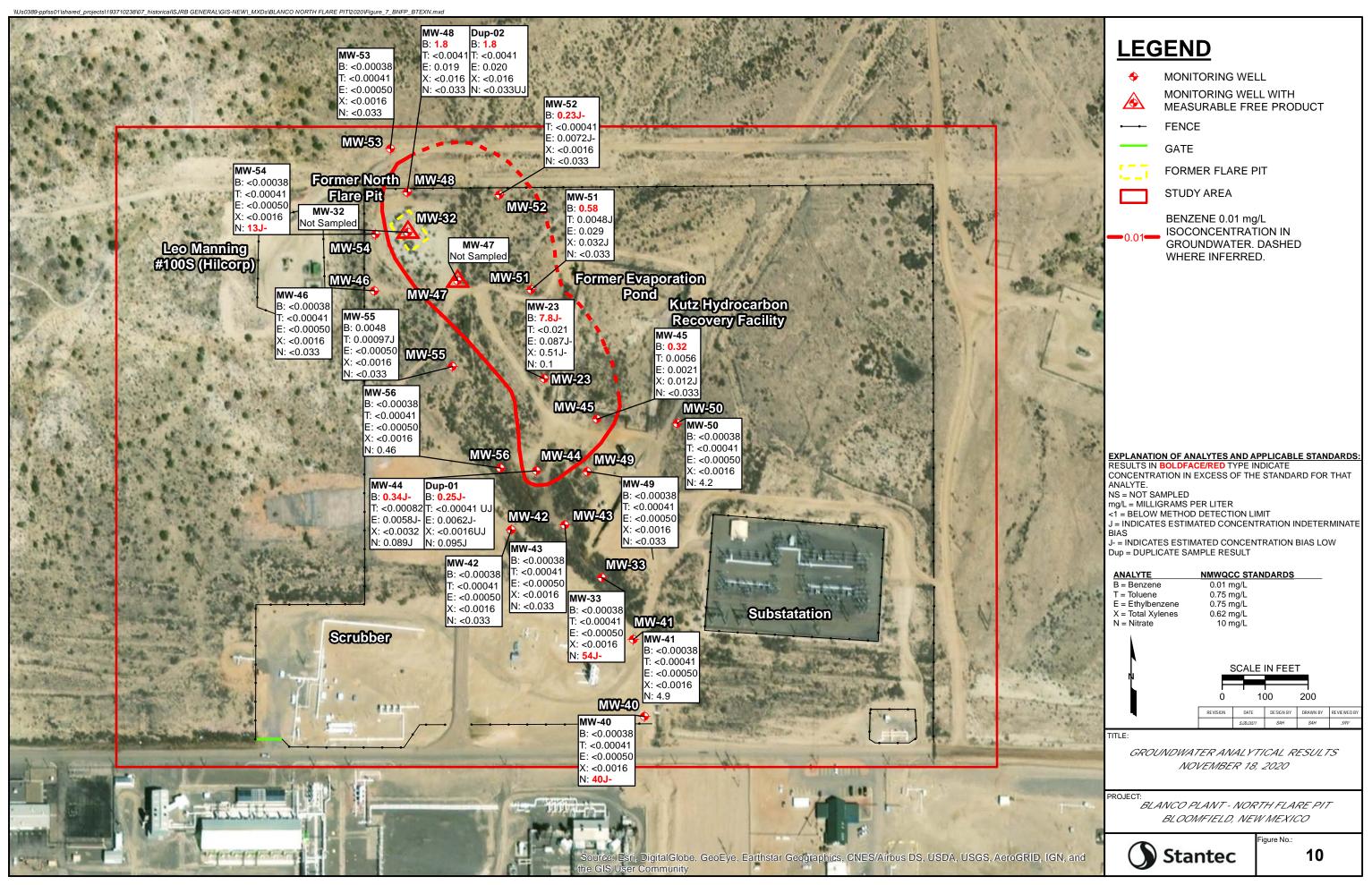












Appendix A Soil Boring Logs and Well Completion Diagrams

PROJECT : Blanco			477041.06.03	SB-01		of 2
		SM	SOIL I	BORING LOG	LOGGER: Luke Hill/CH2M	
	o Gas Plant - North	Flare Pit Site	Start Date: 9/22/2017 End Date: 9/22/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2087378.354 Easting: 2685757.531	TOTAL DEPTH OF BORING: 43 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOI	L DESCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa	
1 _	0		Soil removed via hydro-excavation	_		
2 _	1	SP	POORLY GRADED SAND (SP), 5YR non-plastic, noncohesive, loose, 5 - 7		VOCs = 0.2 ppm	
3 _						
4						
5				_		
6 _				_		
7 _	_			-		
8 _	0		Soil removed via hydro-excavation			
9				_		
10 _				-		
11 _				_		_
12				-		
13 _			SILTY SAND (SP), 2.5Y 5/3, light olivnoncohesive, predominantly fine-grain		VOCs = 8.2 ppm	
14 _						
15					VOCs = 10.1 ppm	
16 _						
17 _					VOCs = 2.5 ppm	
18 _	11	SP				
19 _				_	VOCs = 3.1 ppm	
20				_		_
21 _				_		
22 _				_		
23 _				_	VOCs = 2.0 ppm	
24 _	2	CL	LEAN CLAY (CL), 2.5Y 6/2, light brown oncohesive	vnish gray, dry, non-plastic,		
25 _	2	UL.		_	VOCs = 3.0 ppm	
-1					•	

	124	M:	PROJECT NUMBER 477041.06.03	BORING NUMBER SB-01	SHEET# 2 of 2
		SM	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M
PROJECT : Blanco nvestigation	Gas Plant - North	Flare Pit Site	Start Date: 9/22/2017 End Date: 9/22/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: TOTAL DEPTH OF BORING: Northing: 2087378.354 43 feet Easting: 2685757.531
DEPTH BELOW SURFACE	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
(FT)			LEAN CLAY (CL), 2.5Y 6/2, light brownish gray	y, dry, non-plastic, noncohesive	
26 _				-	- VOCs = 1.0 ppm
27 _				-	VOCs = 1.0 ppm
28 _	7	CL		-	
29 _				-	- VOCs = 0.3 ppm
30				_	-
31 _				-	VOCs = 0.8 ppm
32 _			LEAN CLAY (CL), 2.5Y 6/2, light brownish gra	y, dry, non-plastic, noncohesive	
33 _				_	
34 _	5	CL		_	VOCs = 0.8 ppm
35				_	_
36 _				-	VOCs = 0.3 ppm
37 _			LEAN CLAY (CL), 2.5Y 3/1, very dark gray, dr	y to moist, low plasticity, cohesive	
38 _	2	CL		-	VOCs = 0.6 ppm
40 _			SHALE , 2.5Y 3/1, and 2.5/1, very dark gray an	d black, medium hard	
40	3	Shale		_	-
42 _				-	
43 _	1	Shale	SHALE , 2.5Y 3/1 and 2.5/1, very dark gray and	d black, hard	
44 _			End of boring	-	
45				-	
46 _				_	
47				_	
48 _				_	
49 _				_	
50 _				_	
Complex Ci	gnature:	L. Hi		Date:	9/22/2017

			PROJECT NUMBER	BORING NUMBER	
	12/	M:	477041.06.03	SB-02	-
				DRING LOG DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc	COORDINATES:
PROJECT : Blanco Investigation	Gas Plant - North	Flare Pit Site	Start Date: 9/22/2017 End Date: 9/22/2017	MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	Northing: 2087303.947 Easting: 2685793.953
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DI	ESCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
1 _	0		Soil removed via hydro-excavation		
2 _	1	SP	POORLY GRADED SAND (SP), 5YR 5/2, redo noncohesive, loose, 5 - 10 % silt	POORLY GRADED SAND (SP), 5YR 5/2, reddish gray, dry, non-plastic, noncohesive, loose, 5 - 10 % silt	
3 _			Soil removed via hydro-excavation		_
4 _					
5 _				-	-
6 _				-	_
7 _	0			-	-
8 _				-	-
9 _				-	-
10				_	_
11 _				-	-
12 _			POORLY GRADED SAND (SP), 2.5Y 5/3, ligh plastic, noncohesive, predominantly fine to medical plastic, predominantly fine to medical plastic, noncohesive, predominantly fine to medical plastic, predominantly fine to medical plastic plas	t olive brown, dry, non-	_
13 _			pacies, no to to to to		- VOCs = 0.3 ppm -
14 _ 15				-	
16 _				_	_
17 _					VOCs = 0.2 ppm
18 _				-	-
19 _	13	SP			VOCs = 0.4 ppm
20				_	_
21 _				-	VOCs = 0.3 ppm -
22 _					VOCs = 1.0 ppm -
23 _					
24 _				-	VOCs = 1.1 ppm –
25 _				<u> </u>	
Sampler S	Signature:	L. Hi	II	Date:	9/22/2017

PRINCIPLE		424		PROJECT NUMBER 477041.06.03	BORING NUMBER SB-02	SHEET# 2 of 2
Security			SM SM	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M
BELOW RECOVERY USGS CODE SOL OSECRIFTON COLLECTION (ORD. Time, Sample O)	Investigation	Gas Plant - North	Flare Pit Site		MiniSonic	Northing: 2087303.947 43 feet
1 SP COUNTY (CALLES AND CAST) (2 2 2 1 2 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	BELOW SURFACE		USCS CODE	SOIL DE	SCRIPTION	
27		1	SP			VOCs = 2.1 ppm
28 29 30 CL LEAN CLAY (CL), 2.5Y 3rt, very dark gray, day, non-places, noncoheave VCCs = 85 ppm staining, strong near VCCs = 103.5 ppm staining, strong near VCCs = 24.1 ppm VCCs = 24.8 ppm	26 _			LEAN CLAY (CL), 2.5Y 7/2, light gray, dry, non	n-plastic, noncohesive	-
CLAM CLAY (CL.), 2.5Y 3/1, very dark gray, dry, non-please, noncoheave chaining, strong odor chaining, strong chaining, s	27 _	2	CL		-	VOCs = 15 ppm -
29	28 _			LEAN CLAY (CL) 25Y 3/1 very dark gray, dr		-
VOCs = 103.5 ppm staining, strong odor	29 _			(OL), 2.01 OT, VOIY dulk gray, ary	-	
Vicing	30	3	CL			
SHALE 25Y 3/1 and 2.5/1, very dark gray and black, medium hard to hard Shale					_	
33 -	31 _			LEAN CLAY (CL), 2.5Y 4/3, olive brown, dry, n	on-plastic, noncohesive	=
CEAN CLAY (CL), 2.5Y 4/3, olive brown, day, non-plastic, noncohesive	32 _	2	CL		-	VOCs = 24.1 ppm -
34 - VOCs = 24.8 ppm VOCs = 12.5 ppm VOCs = 12.5 ppm VOCs = 12.5 ppm VOCs = 15 ppm VOCs = 15 ppm VOCs = 15 ppm VOCs = 36.2 ppm	33 _			LEAN CLAY (CL), 2.5Y 4/3, olive brown, dry, n	on-plastic, noncohesive	
36 - 7 CL 37 - 7 CL 38 - VOCs = 12.5 ppm VOCs = 15 ppm VOCs = 36.2 ppm VOCs = 36.2 ppm SHALE, 2.5Y 3/1 and 2.5/1, very dark gray and black, medium hard to hard 41 - 42 - 4 Shale 43	34 _			, , , , , , , , , , , ,	-	_
7 CL 7 CL 7 CL 88 - VOCs = 15 ppm VOCs = 36.2 ppm VOCs = 36.2 ppm SHALE 2.5Y 3/1 and 2.5/1, very dark gray and black, medium hard to hard 41 - VOCs = 36.2 ppm 43 - VOCs = 36.2 ppm 44 Shale 45 - VOCs = 36.2 ppm 46 - VOCs = 36.2 ppm 47 - VOCs = 36.2 ppm 48 - VOCs = 36.2 ppm	35				_	VOCs = 24.8 ppm
7 CL 38 - VOCs = 15 ppm VOCs = 15 ppm VOCs = 36.2 ppm VOCs = 36.2 ppm VOCs = 36.2 ppm 40 - VOCs = 36.2 ppm 41 - VOCs = 36.2 ppm 42 - 4 Shale 43 - C C C C C C C C C C C C C C C C C C	36					VOCs = 12.5 ppm
38 - VOCs = 15 ppm 39 - VOCs = 36 2 ppm VOCs = 36 2 ppm 41 - Shale 43 - Gend of boring end of boring 46 - Gend of boring 47 - Gend of boring 48 - Gend of boring 49 - Gend of boring 49 - Gend of boring 40 - Gend of boring 41 - Gend of boring 42 - Gend of boring 43 - Gend of boring 44 - Gend of boring 45 - Gend of boring 46 - Gend of boring 47 - Gend of boring 48 - Gend of boring 49 - Gend of boring 49 - Gend of boring 40 - Gend of boring 41 - Gend of boring 42 - Gend of boring 43 - Gend of boring 44 - Gend of boring 45 - Gend of boring 46 - Gend of boring 47 - Gend of boring 48 - Gend of boring 49 - Gend of boring		7	CL		-	-
38	37 _				-	- VOCs = 15 nnm
VOCs = 36.2 ppm SHALE, 2.5Y 3/1 and 2.5/1, very dark gray and black, medium hard to hard SHALE, 2.5Y 3/1 and 2.5/1, very dark gray and black, medium hard to hard Shale Shale end of boring end of boring 45	38 _				-	
SHALE, 2.5Y 3/1 and 2.5/1, very dark gray and black, medium hard to hard 41	39 _				-	-
41	40 _					VOCs = 36.2 ppm —
43	41 _			SHALE , 2.5Y 3/1 and 2.5/1, very dark gray and	black, medium hard to hard	
43	40					
44	42 _	4	Shale		-	-
45 _ end of boring	43 _				-	-
45	44 _					-
47	45			end of boring	_	_
48	46 _				-	_
48	47					
49					-	-
50	48 _				-	-
	49 _				-	-
Sampler Signature: L. Hill Date: 9/22/2017	50 _					_
	Sampler S	ignature:	L. Hi	II		9/22/2017

	140	M:	PROJECT NUMBER 477041.06.03	BORING NUMBER SB-03	SHEET# 1	of 2
	NZ		SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
	Gas Plant - North		Start Date: 9/22/2017 End Date: 9/22/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2087323.734 Easting: 2685868.896	TOTAL DEPTH OF BORING: 49 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)	
1	0		Soil removed via hydro-excavation			
2	1	ML	SILTY SAND (P), 5Y 4/2, olive gray, dry, I grained sand	non-plastic, noncohesive, fine	VOCs = 0.0 ppm	_
3			Soil removed via hydro-excavation	_		_
4				-		_
5				-		_
				-		_
6 _				-		_
7 _	0			-		_
8 _				_		_
9 _				-		-
10				_		_
11 _				-		-
12 _			POORLY GRADED SAND WITH SILT (S	P-SM), 2.5Y 4/4, olive brown,	VOCs = 0.5 ppm	_
13 _			dry, non-plastic, noncohesive, fine to med	lium grained sand –	νους = 0.5 μμπ	-
14 _				-		-
15				-		_
16 _				-	VOCs = 1.5 ppm	_
17 _				-		-
18 _				-	VOCs = 4.8 ppm	-
19 _	13	SP-SM		-		-
20 _				-	VOCs = 4.6 ppm	
21 _				-		-
22 _				-		_
23 _				-		_
24 _				-	VOCs = 9.4 ppm	_
25 _				_		
Sampler S	Signature:	L. Hi	II	Date:	9/22/2017	

			PROJECT NUMBER 477041.06.03	BORING NUMBER SB-03	SHEET# 2	of 2
C	12 1	M:	SOIL B	ORING LOG	LOGGER: Luke Hill/CH2M	
PROJECT : Blanco	o Gas Plant - North	Flare Pit Site	Start Date: 9/22/2017 End Date: 9/22/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2087323.734 Easting: 2685868.896	TOTAL DEPTH OF BORING: 49 feet
DEPTH BELOW SURFACE	RECOVERY (FT)	USCS CODE	SOIL	DESCRIPTION	COMMENTS/NOTES, PID RECOLLECTION (Date, Time, Sa	
(FT)	1	SP-SM	POORLY GRADED SAND WITH SILT (SP- plastic, noncohesive, fine to medium grained		VOCs = 1.0 ppm odor	
26 _			LEAN CLAY WITH SAND (CL), 2.5Y 3/1 and moist, low plasticity, cohesive, fine to mediur		=	-
27 _					VOCs = 1,800 ppm staining, strong odor	=
28 _	4	CL			_	-
29 _					VOCs = 2,000+ ppm staining, strong odor	-
30 _			CLAY WITH SAND (CL), 2.5Y 6/4, light yello plastic, noncohesive, fine grained sand, lens		_	-
31 _			staining		VOCs = 1,600+ ppm odor	-
32 _					_	=
33 _					_	-
34 _					VOCs = 1,400+ ppm odor	-
35				-	_	_
36 _					VOCs = 1,706.2 ppm	=
37 _	14	CL			_	-
38 _					_	-
39 _					VOCs = 1,813.9 ppm	-
40 _				_	_	_
41 _						-
42 _ 43 _					=	=
43 _						-
45			SHALE, 5Y 6/3, pale olive, dry, medium hard	d to hard	=	-
46 _				_		_
47 _	5	Shale				-
48 _						-
49 _						-
50			end of boring			-
				_	-1	_
Sampler S	Signature:	L. Hi	<u> </u>	Date	9/22/2017	_

	404		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-40	SHEET# 1	of 4
		M :	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
	Gas Plant - North I		Start Date: 9/7/2017 End Date: 9/23/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2086220.888 Easting: 2686334.628	TOTAL DEPTH OF BORING: 100 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RESI COLLECTION (Date, Time, San	
1 _	0		Soil removed via hydro-excavation	_		
2 _	1	SP	POORLY GRADED SAND (SP), 5YR 5/2, reddidensity, predominately fine to medium grained s	lish gray, dry, non-plastic, noncohesive, medium sand, some silt	VOCs = 0.0 ppm	
3 _			Soil removed via hydro-excavation	_		
4 _				_		
5 _						
6 _						
7 _						
8 _	0			_		_
9 _				_		_
10				_		_
11 _				_		_
12 _				_		_
13 _			POORLY GRADED SAND WITH SILT (SP-SM non-plastic, noncohesive, predominantely fine to	1 <u>)</u> , 10YR 5/4, yellowish brown, dry, o medium grained sand –	VOCs = 0.5 ppm	=
14 _	4	SP-SM		_		_
15	·	G. G		_		_
16 _				_	VOCs = 0.3 ppm	_
17 _			LEAN CLAY (CL), 5Y 5/3, olive, dry, low plastic	city, cohesive		_
18 _	4	CL		-		=
19 _				-		-
20			LEAN OLAVANITH CAND (OLV SV.5/6 all a		VOCs = 0.2 ppm	_
21 _			LEAN CLAY WITH SAND (CL), 5Y 5/3, olive, of grained sand	rry, low plasticity, conesive, fine		-
22 _				-	VOCs = 0.0 ppm	=
23 _	5	CL		-		-
24 _				-	VOCs = 0.0 ppm	=
25 _				_		-
Sampler S	ignature:	L. Hil	1	Date:	9/7/2017	

	140		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-40	SHEET # 2 of 4
	NZ	M:	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M
PROJECT : Blanco Investigation	Gas Plant - North I	Flare Pit Site	Start Date: 9//201/	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: TOTAL DEPTH OF BORING: Northing: 2086220.888
DEPTH BELOW SURFACE	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
(FT) 26 _			LEAN CLAY WITH SAND (CL), 5Y 5/3, olive, d grained sand	lry, low plasticity, cohesive, fine	VOCs = 0.0 ppm
27 _	3	CL		-	-
28 _			POORLY GRADED SAND (SP), 10YR 5/4, yell	owish brown, dry, non-plastic,	VOCs = 0.0 ppm
29 _	2	SP	noncohesive, fine to medium grained sand	-	- VOCs = 0.0 ppm
30			LEAN CLAY (CL), 5Y 4/2, olive gray, dry to mo	ist, medium plasticity, cohesive	-
31 _ 32	2	CL		-	- VOCs = 0.5 ppm
33 _			LEAN CLAY (CL), 5Y 3/2, dark olive gray, dry t cohesive	o moist, medium plasticity,	_
34 _				-	VOCs = 0.4 ppm
35				_	_
36 _	8	CL		-	VOCs = 0.5 ppm -
37 _				-	- VOCs = 0.2 ppm
38 _ 39 _				-	-
40					VOCs = 0.2 ppm —
41 _			LEAN CLAY WITH SAND (CL), 5Y 4/2, olive graphasticity, cohesive, predominantly fine to medium		VOCs = 2.0 ppm
42 _	5	CL		-	- VOCs = 0.2 ppm
43 _	Ů	02		-	-
44 _ 45				-	VOCs = 0.2 ppm
46 _			LEAN CLAY WITH SAND (CL), 5Y 4/2, olive gr cohesive, predominately medium grained sand		
47 _				-	VOCs = 0.5 ppm
48 _	5	CL		-	- VOCs = 0.5 ppm
49 _				-	
50 _					
Sampler Si	ignature:	L. Hil	1	Date:	9/7/2017

			PROJECT NUMBER	BORING NUMBER	SHEET# 3	of 4
C	12 /	11:	477041.06.03	ORING LOG	LOGGER: Luke Hill/CH2M	
	o Gas Plant - North		Start Date: 9/7/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc	COORDINATES:	TOTAL DEPTH OF BORING:
Investigation DEPTH			End Date: 9/23/2017	MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	Northing: 2086220.888 Easting: 2686334.628	100 feet
BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL E	DESCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa	
51 _			LEAN CLAY WITH SAND (CL), 5Y 4/2, olive cohesive, predominately medium grained san		VOCs = 0.2 ppm	_
52 _				-	-	-
53 _	5	CL		-	VOCs = 0.2 ppm	-
54 _				-	- VOCs = 0.1 ppm	_
55			LEAN CLAY WITH SAND (CL), 5Y 5/3, olive	, dry to moist, low to medium	- VOC- 0.2	_
56 _			plasticity, cohesive, medium grained sand	-	VOCs = 0.3 ppm	_
57 _	3	CL		-	-	-
58 _			SANDSTONE, 5Y 7/2, light gray, fine to med	ium grained sand, hard	_	-
59 _				-	VOCs = 0.4 ppm	-
60	5	Sandstone		_	-	_
61 _ 62				-	-	_
63 _			SANDSTONE, 5Y 7/2, light gray, fine to med	ium grained sand, hard	-	_
64 _				-	-	-
65	6	Sandstone		-	-	_
66 _				-	-	-
67 _				-	-	_
68 _ 69 _			SANDSTONE, 5Y 7/2, light gray, fine to med interbedded with SHALE.	ium grained sand, hard,	=	_
70				_	-	_
71 _		Sandate /		-	-	_
72 _	7	Sandstone/ Shale		-	-	-
73 _				-	-	-
74 _				-	-	-
75 _[
Sampler S	ignature:	L. Hil	<u> </u>	Date:	9/7/2017	_

	42		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-40	SHEET # 4	of 4
C		M :		RING LOG	LOGGER: Luke Hill/CH2M	
Investigation	ico Gas Plant - No	rth Flare Pit Site	Start Date: 9/7/2017 End Date: 9/23/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket		TOTAL DEPTH OF BORING: 100 feet
DEPTH BELOW SURFACE	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RESU COLLECTION (Date, Time, Sam	
(FT)			SANDSTONE, 5Y 7/2, light gray, fine to mediu	m grained sand, hard		
76 _				-		-
77 _	5	Sandstone		-		=
78 _				-		_
79 _				-		=
80			SANDSTONE, 5Y 7/2, light gray, fine to mediu	m grained sand, hard	_	_
81 _				-		-
82 _				-		_
83 _	7	Sandstone		-		_
84 _				-		-
85				_		_
86 _				-		=
87 _	-		SANDSTONE, 5Y 7/2, light gray, fine to mediu	m grained sand, hard	-	-
88 _				-		=
89 _				-		-
90	6	Sandstone		_		_
91 _				-		_
92 _				-		_
93 _			SANDSTONE, 5Y 7/2, light gray, fine to mediu	m grained sand, hard	-	=
94 _				-		_
95 <u> </u>				_		
97 _	7	Sandstone		-		-
98 _				-		-
98 _				-		_
100 _				-	end of boring	-
	L	I		_	·I	
Sampler S	Signature:	L. Hil	<u> </u>	Date:	9/7/2017	

	40		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-41	SHEET # 1 of 4
		M;	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M
PROJECT : Blanco			Start Date: 9/13/2017 End Date: 9/26/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: TOTAL DEPTH OF BORING: Northing: 2086397.095 100 feet Easting: 2686317.074
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
	0		Soil removed via hydro-excavation		
1 _	1	SP-SM	POORLY GRADED SAND (SP), 2.5YR 4/4, re- noncohesive, loose, some silt	ddish brown, dry, non-plastic,	VOCs = 0.0 ppm
			Soil removed via hydro-excavation		
3 _				-	
4 _				-	
5				_	
6 _				-	
7 _	0			-	
8 _				-	
9 _				-	
10				_	
11 _				-	
12 _			POORLY GRADED SAND WITH SILT AND G yellowish brown, dry, non-plastic, noncohesive,		
13 _ 14 _			- 1.0" gravel	-	VOCs = 30 ppm
15				-	
16 _				_	VOCs = 30 ppm
17 _				-	
18 _				-	VOCs = 25 ppm
19 _	13	SP-SM		-	
20				-	VOCs = 22 ppm
21 _				_	100
22 _				-	VOCs = 10 ppm
23				-	
24 _				-	VOCs = 4.3 ppm
25				-	
					042/047
Sampler Si	gnature:	L. Hill	<u> </u>	Date:	9/13/2017

	40		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-41	SHEET # 2	of 4
C	12	M:		DRING LOG	LOGGER: Luke Hill/CH2M	
PROJECT : Blanc nvestigation	co Gas Plant - Noi	rth Flare Pit Site	Start Date: 9/13/2017 End Date: 9/26/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2086397.095 Easting: 2686317.074	TOTAL DEPTH OF BORING: 100 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL D	ESCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa	
26 _	-		POORLY GRADED SAND WITH SILT AND O yellowish brown, dry, non-plastic, noncohesive 0.5" - 1.0" gravel		VOCs = 5.0 ppm	-
27 _				-	_	-
28 _	5	SP-SM		-	VOCs = 3.5 ppm	-
29 _	-			-	_	-
30	-			_	VOCs = 2.2 ppm	_
31 _	-		POORLY GRADED SAND WITH SILT AND O yellowish brown, dry, non-plastic, noncohesive 0.5" - 1.0" gravel		-	
32 _	-				=	
33 _ 34 _	. 8	SP-SM			- VOCs = 0.5 ppm -	
35	-			-	-	_
36 _	-			-	VOCs = 8.0 ppm	
37 _				-	-	
38 _			POORLY GRADED SAND WITH SILT (SP-S		VOCs = 1.3 ppm =	-
39 _			non-plastic, noncohesive, fine to medium grain	ieu sanu -	- VOCs = 1.3 ppm	
40	-			_	VOCs = 1.1 ppm	=
41 _	-			-	-	
43 _					VOCs = 0.6 ppm	
44 _	12	SP-SM			=	
45	-	-		_	VOCs = 0.2 ppm	-
46 _	-			-	-	
47 _	-			-	VOCs = 0.4 ppm	
48 _	-			-	VOCs = 0.2 ppm	
49 _	-			-	-	
50 _				_		<u> </u>
Sampler S	Signature:	L. Hil	<u> </u>	Date:	9/13/2017	_

PROJECT: Blanco Gas Plant - North Plare Pit Site Investigation PROJECT: Blanco Gas Plant - North Plare Pit Site Investigation	LOGGER: Luke Hill/CH2M
Sign 1. Start 1. Star	Northing: 2086397.095 100 feet
SURFACE (PT)	
POORLY GRADED SAND WITH SILT (SP-SM), 10YR 43, brown, dry to moist, non-plastic, noncohesive, fine to medium grained sand	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard	VOCs = 0.2 ppm
EAN CLAY WITH SAND (CL), 2.5Y 4/2, dark gray/sh brown, dry to moist, low to medium plasticity, cohesive, fine to medium grained sand 55	-
LEAN CLAY WITH SAND (CL), 2.5Y 4/2, dark gray/sh brown, dry to moist, low to medium plasticity, cohesive, fine to medium grained sand	VOCs = 0.1 ppm
55 _	
57 - 8 CL 58 - 59 - 60 61 - 62 - 63 - 4 Sandstone 5ANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard 64 - 65 - 5ANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard 66 - 67 - 68 - 69 - 70 - 10 Sandstone	VOCs = 0.1 ppm
58	-
59 _ 60 _ 61 _ 5ANDSTONE. 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard 62 _ 63 _ 4 Sandstone 64 _ 65 _ 66 _ 67 _ 68 _ 69 _ 70 _ 10 Sandstone	VOCs = 0.3 ppm -
60	- VOCs = 0.1 ppm
SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard	-
62 _	VOCs = 0.2 ppm
64 _	-
SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard	-
SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, medium hard to hard 67 _ 68 _ 69 _ 70 _ 10 Sandstone	-
67 _ 68 _ 69 _ 70 — 10 Sandstone	
68 _ 69 _ 70 — 10 Sandstone	-
70 — 10 Sandstone	
To Salusione	-
71 _	_
	-
72 _ 73 _	-
74 _	_
75 _	
Sampler Signature: L. Hill D	

	12/	M sm	PROJECT NUMBER 477041.06.03	BORING NUMBER MW-41	SHEET # 4	of 4	
V			SOIL BO	DRING LOG	LOGGER: Luke Hill/CH2M		
PROJECT : Blanco Investigation			Start Date: 9/13/2017 End Date: 9/26/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: TOTAL DEPTH OF BORING: Northing: 2086397.095 100 feet Easting: 2686317.074		
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL D	ESCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa		
			SANDSTONE, 2.5Y 6/1, gray, fine to medium hard	grained sand, medium hard to			
76 _				-	-	_	
77 _				-	-	_	
78 _				-	-	_	
79 _				-	-	_	
80				_	-		
81 _				-	-	_	
82 _				-	-	-	
83 _				-	-	-	
84 _				-	-	-	
85				_	-	_	
86 _				-	-	_	
87 _				-	-	-	
88 _	25	Sandstone		-	-	-	
89 _				-	-	-	
90				-	-	_	
91 _				-	-	_	
92 _				-	-	_	
93 _				-	-	-	
94 _				-	-	-	
95				_	-	_	
96 _				-	-	_	
97 _				-	-	-	
98 _				-	-	-	
99 _				-	-	-	
100 _					end of boring		
Sampler Sig	nnature:	L. Hil		Data	9/13/2017		
Sampler SIQ	griature	L. FIII	<u></u>	Date:	313/2017		

ch2m	477041.06.03	MW-42	SHEET# 1	of 4
	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
PROJECT : Blanco Gas Plant - North Flare Pit Site Investigation	Start Date: 9/14/2017 End Date: 9/24/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket		OTAL DEPTH OF BORING: 00 feet
DEPTH BELOW RECOVERY SURFACE (FT) USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RESUI COLLECTION (Date, Time, Samp	
0	Soil removed via hydro-excavation			
1 SP	POORLY GRADED SAND (SP), 5YR 4/4, redcononcohesive, medium density, some silt	dish brown, dry, non-plastic,	VOCs = 0.0 ppm	_
3 _		_		_
4				
5 _		_		_
6 _		_		_
		-		-
7 - 0	Soil removed via hydro-excavation	-		-
8 _		-		_
9 _		-		_
10		_		_
11 _		-		_
12 _		-		_
13 _	SILT (ML), 10YR 6/3, pale brown, dry, non-plas	stic, noncohesive		-
14 _		-	VOCs = 0.0 ppm	-
15		_		_
16 _ 6 ML		-	VOCs = 0.0 ppm	_
17 _		-	VOCS = 0.0 ррпп	-
18 _		-	V00- 00	-
19 _	POORLY GRADED SAND WITH SILT (SP-SM		VOCs = 0.0 ppm	-
20 _	non-plastic, noncohesive, predominantly fine to	medium grained sand		_
21 _		-	VOCs = 0.0 ppm	_
22 – 6 SP-SM		-	VOCs = 0.0 ppm	-
23 _		-		-
24 _		-		_
25		_	VOCs = 0.2 ppm	
Sampler Signature: L. H	ill	Date:	9/14/2017	

OJECT : Blanco G vestigation DEPTH		th Flare Pit Site USCS CODE	Start Date: 9/14/2017 End Date: 9/24/2017		LOGGER: Luke HIII/CH2M COORDINATES: TOTAL DEPTH OF BO Northing: 2086656.211 100 feet Easting: 2686045.200 COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
DEPTH BELOW SURFACE (FT) 26	RECOVERY (FT)	USCS CODE	End Date: 9/24/2017 SOIL DE: POORLY GRADED SAND WITH SILT (SP-SM	MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket SCRIPTION 1), 10YR 7/3, very pale brown,	Northing: 2086656.211
BELOW SURFACE (FT) 26	(FT)		POORLY GRADED SAND WITH SILT (SP-SM), 10YR 7/3, very pale brown,	
26	6	SP-SM			
27	6	SP-SM		_	
28	6	SP-SM			VOCs = 0.1 ppm
29 30 31 32 33 34 35 36 36	6	SP-SM		_	VOCS = 0.1 ppm
30 31 32 33 34 35 36				-	
31				_	VOCs = 0.0 ppm
31					
32 _ 33 _ 34 _ 35 _ 36 _				_	VOCs = 0.0 ppm
33 _ 34 _ 35 36 _			SILT (ML), 2.5Y 3/1, very dark gray, dry, non-pla	astic, noncohesive	
34 _ 35 36 _				-	VOCs = 0.0 ppm
35 36 _	4	ML		-	
36 _				-	VOCs = 0.0 ppm
				_	
			SILT (ML), 2.5Y 3/1, very dark gray, dry, non-pla	astic, noncohesive	
37				=	VOCs = 0.0 ppm
				-	
38 _				-	
39 _	7	ML		-	VOCs = 0.0 ppm
40				_	
41 _					VOCs = 0.0 ppm
				_	
42 _				_	VOCs = 0.0 ppm
43 _			POORLY GRADED SAND WITH SILT (SP-SM		
44 _	2	SP-SM	to moist, non-plastic, noncohesive, predominan	tly fine to medium grained sand –	
45			CANDSTONE OF VC/A constitution of		VOCs = 0.0 ppm
46 _			SANDSTONE, 2.5Y 6/1, gray, fine to medium g	raineu sano, naro —	
47 _					
	5	Sandstone		-	
48 _				-	
49 _				-	
50 _					
Sampler Sign					

	424	M:	PROJECT NUMBER 477041.06.03	BORING NUMBER MW-42	SHEET# 3	of 4
		YY SM	SOIL BO	PRING LOG	LOGGER: Luke Hill/CH2M	
PROJECT : Blar Investigation	nco Gas Plant - Nor		Start Date: 9/14/2017 End Date: 9/24/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2086656.211 Easting: 2686045.200	TOTAL DEPTH OF BORING: 100 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RECOLLECTION (Date, Time, Sa	
			SANDSTONE, 2.5Y 6/1, gray, fine to medium of	grained sand, hard		
51 _						_
52 _						_
53 _						_
54 _						_
55						_
56 _						-
57 _						_
58 _						_
59 _						_
60						_
61 _						=
62 _						=
63 _	25	Sandstone				-
64 _						_
65						_
66 _						_
67 _						_
68 _						_
69 _						_
70						
71 _						
72 _						_
						_
73 _						_
74 _						-
75 _						_
Sampler	Signature:	L. Hi	iii	Date:	9/14/2017	

	100		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-42	SHEET# 4	of 4
	NZ	11:	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
PROJECT : Blar Investigation	nco Gas Plant - Nor		Start Date: 9/14/2017 End Date: 9/24/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2086656.211 Easting: 2686045.200	TOTAL DEPTH OF BORING: 100 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa	
			SANDSTONE, 2.5Y 6/1, gray, fine to medium g	grained sand, medium to hard		
76 _				-	-	-
77 _ 78 _				-	-	-
79 _				-		-
80				_		_
81 _				-	-	-
82 _				-	-	-
83 _				-		-
84 _				-	-	-
85	20	Sandstone		_		_
86 _				-	-	-
87 _				-		-
88 _				-		-
89 _				-	-	-
90						_
92 _				_		-
93 _				_		_
94 _				-	-	-
95			SHALE, GLEY 2 3/1, very dark bluish gray, we	t intact come fractures A+400	<u> </u>	_
96 _			SHALE, GLEY 2 3/1, very dark bluish gray, we shale becomes more friable, fractured, and dry and dry.	t, intact, some nactures. At 100, . At 102, shale is back to intact -		-
97 _				-	-	-
98 _	5	Shale		-		-
99 _				-		=
100 _					end of boring	
Sampler	Signature:	L. Hil	 I	Date:	9/14/2017	

PROJECT : Blanco Investigation DEPTH		h Flare Pit Site USCS CODE SP-ML	Start Date: 9/8/2017 End Date: 9/10/2017 SOIL DE Soil removed via hydro-excavation	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: SCRIPTION	LOGGER: Luke Hill COORDINATES: Northing: 208666 Easting: 2686176.	3.621	TOTAL DEPTH OF BORING: 100 feet
DEPTH BELOW SURFACE (FT) 1 _ 2 _ 3 _ 4 _ 5	RECOVERY (FT)	USCS CODE	Soil removed via hydro-excavation POORLY GRADED SAND (SP), 5YR 4/4, redd medium density, some silt	TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: SCRIPTION	Northing: 208666		
BELOW SURFACE (FT) 1 2 3 4 5	(FT) 0		Soil removed via hydro-excavation POORLY GRADED SAND (SP), 5YR 4/4, redd medium density, some silt				
2 _ 3 _ 4 _ 5		SP-ML	POORLY GRADED SAND (SP), 5YR 4/4, redd medium density, some silt	ish brown, dry, non-plastic,			
2 _ 3 _ 4 _ 5	1	SP-ML	medium density, some silt	lish brown, dry, non-plastic,	-		
4 _ 5			Soil removed via hydro-excavation				-
5							_
							_
6 _							_
							-
7 _	0						-
8 _							-
9 _							-
10							_
11 _							-
12 _							-
13 _							-
14			POORLY GRADED SAND WITH SILT (SP-SM brown, dry, non-plastic, noncohesive, fine to me		VOCs = 2.2 ppn	n	-
15				ŭ			_
16 _							-
17 _	6	SP-SM			VOCs = 1.3 ppn	า	-
19 _							-
20					VOCs = 0.5 ppn	n	_
21 _			POORLY GRADED SAND WITH SILT (SP-SM brown, dry, non-plastic, noncohesive, fine to me				-
22 _	4	SP-SM					-
23 _							-
24 _			LEAN CLAY WITH SAND (CL), 10YR 4/4, dark	c yellowish brown, dry. low	VOCs = 3.1 ppn	n	-
25	1	CL	plasticity, cohesive, 20 - 30% fine to medium gr				
Sampler Sig	nature:	L. Hil	l		9/8/2	2017	

	142		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-43	SHEET# 2 of 4
		11:		RING LOG	LOGGER: Luke Hill/CH2M
Investigation	nco Gas Plant - Nor	th Flare Pit Site	Start Date: 9/8/2017 End Date: 9/10/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: TOTAL DEPTH OF BORING: Northing: 2086663.621 100 feet Easting: 2686176.495
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
			LEAN CLAY WITH SAND (CL), 10YR 4/4, dar plasticity, cohesive, 20 - 30% fine to medium g		VOCs = 4.5 ppm
26 _	3	CL		-	
27 _				-	NO
28 _			LEAN CLAY WITH SAND (CL), 10YR 4/3, bro	wn dry to moist medium	VOCs = 0.6 ppm
29 _			plasticity, cohesive, 20 - 30% fine to medium g		
30					VOCs = 0.2 ppm
	5	CL		_	
31 _				_	VOCs = 0.7 ppm
32 _				-	
33 _			LEAN CLAY WITH SAND (CL), 10YR 4/3, bro	wn dry to moist medium	
34 _	1	CL	plasticity, cohesive, 10% fine to medium graine	ed sand	VOCs = 0.1 ppm
35			LEAN CLAY WITH SAND (CL), 10YR 4/3, bro cohesive, fine grained sand	wn, dry, medium plasticity,	
				_	VOCs = 0.3 ppm
36 _	4	CL		_	
37 _				-	V00 00
38 _			POORLY GRADED SAND WITH SILT (SP-SN	//) 10YR 4/4 dark vellowish	VOCs = 2.8 ppm
39 _	2	SP-SM	brown, non-plastic, noncohesive, fine to mediu		
40					VOCs = 3.0 ppm
44			POORLY GRADED SAND WITH SILT (SP-SM brown, non-plastic, noncohesive, fine to mediu		
41 _				-	VOCs = 5.3 ppm
42 _				-	
43 _	6	SP-SM		-	
44 _				-	VOCs = 3.0 ppm
45				_	
				_	VOCs = 4.3 ppm
46 _			POORLY GRADED SAND WITH SILT (SP-SN brown, non-plastic, noncohesive, fine to mediu		
47 _	3	60 614	, , , , , , , , , , , , , , , , , , , ,	-	
48 _	3	SP-SM		-	
49 _			LEAN OF AVAILABLE OF THE STATE	-	VOCs = 2.4 ppm
50 _	1	CL	LEAN CLAY WITH SAND (CL), 10YR 3/1, ver plasticity, cohesive, fine to medium grained sar		
			'	_	
Sampler	Signature:	L. Hill	<u> </u>	Date:	9/8/2017

PROJECT NUMBER SORIE SORIE SOLIE SOLIE SOLIE		1.0		PROJECT NUMBER	BORING NUMBER	SHEET# 3	of 4
MOLECT Marine Gos Pean - Numb Plane Pil Sile Son Dole 3/N/2007 Add also \$10/2007 Add also \$10/20	C	ИZ	M:	477041.06.03	MW-43		
Description of the property of			SM			COORDINATES	TOTAL DEPTH OF PODING
	nvestigation	o Gas Plant - North	Flare Pit Site		MiniSonic	Northing: 2086663.621	
	BELOW SURFACE		USCS CODE	SOIL	DESCRIPTION		
SAMDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly SANDSTONE 2.5Y 61, gray, fine to medium grained sand, hard, slightly SANDSTONE 2.5Y 61, gray, fin						VOCs = 4.5 ppm	
SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered	52 _				-		
SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathe	53 _	5	CL		-	VOCs = 6.9 ppm	
LEAN CLAY WITH SAND (CL), 10YR 5/1, gray, moist, medium plasticity, cohesive, -30 - 40% medium grained sand. WOCs = 20.5 ppm	54 _				-	VOCs = 23.0 npm	-
VCCs = 20.5 ppm VCCs = 20.				LEAN CLAY WITH SAND (CL), 10YR 5/1, cohesive, ~30 - 40% medium grained sand	gray, moist, medium plasticity,	- 20.0 pp.iii	-
SANDSTONE 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered		2	CL		-	VOCs = 20.5 ppm	
60 — 61 — 8 Sandstone 62 — 63 — 64 — 65 — SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered 67 — SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered 68 — 69 — 70 — 71 — 8 Sandstone 72 —					m grained sand, hard, slightly		
61 - 8 Sandstone	59 _				-		
8 Sandstone 62	60				_		-
63	61 _	8	Sandstone		-		
64					-		
65					-		
66 _ 2 Sandstone					_		_
SANDSTONE, 2.5Y 6/1, gray, fine to medium grained sand, hard, slightly weathered		2	Sandstone		m grained sand, hard, slightly		
69					m grained sand, hard, slightly		
71 - 8 Sandstone					-		
72	70				_		_
	71 _	8	Sandstone		-		
73 _					-		
74					-		
75 _					_		
Sampler Signature: L. Hill Date: 9/8/2017		Signature:	Uii	1	Data	9/8/2017	

	42	11:	PROJECT NUMBER 477041.06.03	BORING NUMBER MW-43	SHEET # 4	of 4
		YYU _{SM}	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
Investigation	Gas Plant - Nor	th Flare Pit Site		DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2086663.621 Easting: 2686176.495	TOTAL DEPTH OF BORING: 100 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa	
76 _			SANDSTONE, 2.5Y 6/1, gray, fine to medium gweathered	grained sand, hard, slightly		_
77 _	3	Sandstone		-		-
78 _			SHALE, 7.5YR 2.5/1 to 7.5YR 3/1, black to ver	v dark grav thinly hedded	-	-
79 _			medium hard	y dai'r gray, umny bedded, -		-
80				_		_
81 _				-		_
82 _				-		_
83 _				-		=
84 _ 85				-		=
86 _				_		
87 _	8	Shale		-		_
88 _				-		-
89 _				-		_
90				_		_
91 _				-		-
92 _				-		-
93 _ 94 _				-		_
95				_		_
96 _			SANDSTONE, 2.5Y 6/1, gray, fine to medium g	arained sand hard	_	-
97 _	2	Sandstone	STATE OF THE COMMENT OF THE COMENT OF THE COMMENT OF THE COMMENT OF THE COMMENT OF THE COMMENT O	-		-
98 _			SHALE , 7.5YR 2.5/1 to 7.5YR 3/1, black to ver	y dark gray, thinly bedded,	_	_
99 _	2	Shale	medium hard	-	end of boring	-
100 _				_	ond or borning	
Sampler Si	gnature:	L. Hil	<u> </u>	Date:	9/8/2017	-

_1			PROJECT NUMBER	BORING NUMBER	SHEET# 1	of 4
	17A		477041.06.03	MW-44		01 4
5		M:	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
Investigation	Gas Plant - North	Flare Pit Site	Start Date: 9/10/2017 End Date: 9/11/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2086793.892 Easting: 2686103.988	TOTAL DEPTH OF BORING: 100 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)	
1 _	0		Soil removed via hydro-excavation	_		_
2 _	1	SP	POORLY GRADED SAND (SP), 5YR 4/4, redo	dish brown, dry, non-plastic,	VOCs = 0.0 ppm	
3 _			Soil removed via hydro-excavation			
4				_		_
				_		_
5 _				_		_
6 _				-		=
7 _	0			-		=
8 _				-		_
9 _				-		=
10 _				_		_
11 _				-		_
12 _				-		_
13 _				-		-
14 _			POORLY GRADED SAND WITH SILT (SP-SM	al), 10YR 5/4, yellowish brown, dry,		_
15			non-plastic, noncohesive, fine to medium graine		VOCs = 100 ppm	_
16 _				-		-
17 _	6	SP-SM		-		_
18 _				-	VOCs = 115 ppm	-
19 _				-		-
20			POOPLY OR A PER CAND WITH OUT (OR OL	A) 40VD E/4	VOCs = 125 ppm	_
21 _	2	SP-SM	POORLY GRADED SAND WITH SILT (SP-SM non-plastic, noncohesive, predominantly mediu			-
22 _				_	VOCs = 38 ppm	=
23 _	2	CL	LEAN CLAY (CL), 7.5YR 4/1, dark gray, dry, hi	igh plasticity, cohesive		_
24 _		<u> </u>		_	VOCs = 9.7 ppm	_
25	1	SP-SM	POORLY GRADED SAND WITH SILT (SP-SM non-plastic, noncohesive, fine to medium graine			
Sampler S	ignature:	L. Hi	<u> </u>	Date:	9/10/2017	

SOIL BORING LOG ROJECT: Blanco Gas Plant - North Flare Pit Site Investigation Soll BORING LOG DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket DEPTH BELOW RECOVERY USCS CODE SOIL DESCRIPTION LOGGER: Luke Hill/CH2M TOTAL DEPTH OF BORING: Northing: 2086793.892 Easting: 2686103.988 COMMENTS/NOTES, PID RESULTS, SAMPLE		1.0		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-44	SHEET# 2	of 4
March Marc		ИZ	M:	SOIL BC		LOGGER: Luke Hill/CH2M	
SELON SECURITY USCS CODE SOIL DESCRIPTION COMPANY CONTROL PROPERTY COLLECTION (Date, Time, Sample ID)				Start Date: 9/10/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic	Northing: 2086793.892	
1 SP-SM	BELOW SURFACE		USCS CODE	SOIL DI	ESCRIPTION		
CL		1	SP-SM			VOCs = 30 ppm	
28				LEAN CLAY (CL), 7.5YR 4/1, dark gray, dry, h	nigh plasticity, cohesive		-
29	_	2	CL		-	VOCs = 30 ppm	-
POORLY GRADED SAND WITH SILT (SP-SM), 10VR 6/4, yellowish brown, day, 10Cs = 25 ppm		2	CL			<u>-</u>	
1	30	_				VOCs = 25 ppm	_
33 - 34 - 8 SP-SM - VOCa = 0.5 ppm - VOC	31 _						-
34 - 8 SP-SM 35	32 _				-	VOCs = 1.6 ppm	-
36 SP-SM VOCs = 0.5 ppm VOCs = 0.5	33 _				-	-	-
VOCs = 0.5 ppm VOCs = 748 ppm VOCs = 748 ppm VOCs = 1,000+ ppm	34 _	8	SP-SM		-	VOCs = 0.5 ppm	-
37	35				_		_
POORLY GRADED SAND WITH SILT (SP-SM), 10YR 5/4, yellowish brown, dry, non-plastic, noncohesive, fine to medium grained sand	36 _				-	VOCs = 0.5 ppm	-
POORLY GRADED SAND WITH SILT (SP-SM), 10YR 5/4, yellowish brown, dry, non-plastic, noncohesive, fine to medium grained sand	37 _				-	VOCs = 0.5 ppm	-
VOCs = 748 ppm oddr	38 _					- -	-
41 - 6 SP-SM 42 - VOCs = 1,000+ ppm odor 43 - VOCs = 1,000+ ppm odor 44 - VOCs = 1,000+ ppm odor 45 - VOCs = 1,000+ ppm odor 46 - 4 SP-SM 47 - VOCs = 1,000 ppm 48 - VOCs = 1,000 ppm 48 - VOCs = 1,000 ppm 49 - 2 CL LEAN CLAY WITH SAND (CL), 10YR 5/4, yellowish brown, dry, low plasticity, cohesive, fine grained sand VOCs = 1.2 ppm	39 _			non-plastic, nonconesive, line to medium grain	ied sand -		-
42	40				_	odor	_
43 -		6	SP-SM		-		-
44 _ VOCs = 1,000+ ppm odor 45 _ POORLY GRADED SAND WITH SILT (SP-SM), 10YR 5/4, yellowish brown, dry, non-plastic, noncohesive, fine to medium grained sand 46 _ 4 SP-SM					-		-
POORLY GRADED SAND WITH SILT (SP-SM), 10YR 5/4, yellowish brown, dry, non-plastic, noncohesive, fine to medium grained sand VOCs = 1,000 ppm VOCs = 1,000 ppm VOCs = 8.1 ppm LEAN CLAY WITH SAND (CL), 10YR 5/4, yellowish brown, dry, low plasticity, cohesive, fine grained sand VOCs = 1.2 ppm					-		=
46 - 4 SP-SM - VOCs = 1,000 ppm 47						-	-
47		4	SD-SW		_	VOCs = 1,000 ppm	_
48 - LEAN CLAY WITH SAND (CL), 10YR 5/4, yellowish brown, dry, low plasticity, cohesive, fine grained sand 49 - 2 CL VOCs = 1.2 ppm	47 _	4	3F-3IVI		_		-
49 - 2 CL cohesive, fine grained sand - VOCs = 1.2 ppm	48 _					VOCs = 8.1 ppm	
VOCs = 1.2 ppm	49 _	2	CL		lowish brown, dry, low plasticity,		
	50 _		-		_	VOCs = 1.2 ppm	_
Sampler Signature: L. Hill Date: 9/10/2017	Sampler	Signature:	I Hii		Nata	9/10/2017	

	40		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-44	SHEET# 3 of 4
		M:		RING LOG	LOGGER: Luke Hill/CH2M
nvestigation		North Flare Pit Site	Start Date: 9/10/2017 End Date: 9/11/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: TOTAL DEPTH OF BORING: Northing: 2086793.892 100 feet Easting: 2686103.988
DEPTH BELOW SURFACE	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
(FT)			POORLY GRADED SAND WITH SILT (SP-SN non-plastic, noncohesive, fine to medium grain		
51 _			, , , , , , , , , , , , , , , , , , ,	-	VOCs = 1.7 ppm
52 _ 53 _	5	SP-SM		-	
54 _				-	VOCs = 120 ppm odor
55					VOCs = 101 ppm odor
56 _			LEAN CLAY WITH SAND (CL), 2.5Y 4/2, dark plasticity, cohesive, fine grained sand	grayish brown, moist, low	
57 _				-	VOCs = 232 ppm odor
58 _	6	CL		-	
59 _				-	VOCs = 260 ppm strong odor
60				_	- VOCs = 235 ppm
61 _			LEAN CLAY WITH GRAVEL AND SAND (CL) medium plasticity, cohesive, medium grained s		strong odor
62 _			gravel.	-	. VOCs = 383 ppm strong odor, black staining
63 _	4	CL		-	Grong Goot, Stack Staining
64 _ 65				-	VOCs = 363 ppm strong odor, black staining
66 _			POORLY GRADED SAND WITH SILT (SP-SM non-plastic, noncohesive, fine to medium grain		_
67 _				_	
68 _	5	SP-SM		-	VOCs = 0.0 ppm
69 _				-	
70 _			SANDSTONE, 2.5Y 6/1, gray, fine to medium	grained sand, hard	VOCs = 0.0 ppm -
71 _			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	
72 _	E	Sandatana		-	
73 _	5	Sandstone		-	
74 _				-	
75 _				_	_
Sampler S	Signature:	L. Hill	<u> </u>	Date:	9/10/2017

ModelSeries		12/		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-44	SHEET # 4	of 4
Marian M			V SM	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
BELOW RECOVERY USCS CODE SOIL DESCRIPTION COMMENTATION ES, SAMPLE COLLECTION (Own, Time, Sample ID)	nvestigation		North Flare Pit Site		MiniSonic	Northing: 2086793.892	TOTAL DEPTH OF BORING: 100 feet
SAMSSTONE: 257 61, gay, the to medium granted sand, hard	BELOW SURFACE		USCS CODE	SOIL DE	ESCRIPTION		
77 - 25 Sandstone 88 - 25 Sandstone 89				SANDSTONE, 2.5Y 6/1, gray, fine to medium	grained sand, hard		
78 -					-		-
79					-	-	-
81					-		-
82 _ 83 _ 84 _ 85 _ 86 _ 87 _ 25 Sandstone 88 _ 89 _ 89 _ 89 _ 89 _ 89 _ 89 _ 89					_		_
83	81 _						-
84	82 _				-	-	-
85 _	83 _				-		-
86 -	84 _				-		-
87 - 25 Sandstone	85				_	-	_
88					-	-	-
99		25	Sandstone		-	-	-
91					_		-
92	90				_		_
93	91 _				-	-	-
94	92 _				-		-
95	93 _				-	-	-
96					-		-
97					_	-	_
98					-		-
end of boring					-		-
end of boring	99 _				-	-	-
	100 _					end of boring	_
Sampler Signature: L. Hill Date: 9/10/2017	Comple-	Signature	,		Data	0/40/2047	

	474	M:	PROJECT NUMBER 477041.06.03	BORING NUMBER MW-45	SHEET# 1	of 4
		T SM	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
	Gas Plant - Nor		Start Date: 9/11/2017 End Date: 9/12/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2086915.306 Easting: 2686248.014	TOTAL DEPTH OF BORING: 100 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RESI COLLECTION (Date, Time, Sar	
1	0		Soil removed via hydro-excavation			
2 _	1	SP	POORLY GRADED SAND (SP), 5YR 4/4, redo noncohesive, loose, some silt	dish brown, dry, non-plastic,	VOCs = 0.3 ppm	
3 _			Soil removed via hydro-excavation	_		
4 _						
5						
6 _						_
7 _	0			_		_
8 _				_		_
9 _				_		_
10				_		_
11 _				_		_
12 _			POORLY GRADED SAND WITH SILT (SP-SM non-plastic, noncohesive, fine to medium grains			_
13 _				_	VOCs = 0.5 ppm	_
14 _				-		-
15	7	SP-SM		_	VOCs = 0.4 ppm	_
16 _				-		-
17 _				-		-
18 _				-	VOCs = 0.5 ppm	_
19 _			POORLY GRADED SAND WITH SILT AND G yellowish brown, dry, non-plastic, noncohesive, - 3.0" gravel/cobbles	RAVEL (SP-SM), 10YR 5/4, fine to medium grained sand, 0.5"		-
20				_		_
21 _				-	VOCs = 0.5 ppm	-
22 _	7	SP-SM		-		-
23 _				-		-
24 _				-	VOCs = 3.6 ppm	-
25						_
Sampler S	ignature:	L. Hi	<u> </u>	Date:	9/11/2017	

	100		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-45	SHEET# 2	of 4
	NZ	M :		RING LOG	LOGGER: Luke Hill/CH2M	
PROJECT : Blai		North Flare Pit Site	Start Date: 9/11/2017 End Date: 9/12/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2086915.306 Easting: 2686248.014	TOTAL DEPTH OF BORING: 100 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, San	
26 _			POORLY GRADED SAND WITH SILT AND G yellowish brown, dry, non-plastic, noncohesive, 0.5" - 3.0" gravel/cobbles		VOCs = 2.8 ppm	-
27 _ 28 _	5	SP-SM		-	VOCs = 1.5 ppm	-
29 _				-	VOCs = 0.6 ppm	-
30 <u> </u>			LEAN CLAY WITH SAND (CL), 2.5Y 2.5/1 and dry to moist, low to medium plasticity, cohesive			_
32 _				-	VOCs = 1,000+ ppm staining, strong odor	-
33 _ 34 _				-	VOCs = 2,000+ ppm staining, strong odors	-
35 <u> </u>				_	VOCs = 2,000+ ppm staining, strong odors	
37 _ 38 _	13	CL		-	VOCs = 2,000+ ppm staining, strong odors	-
39 _				-	VOCs = 2,000+ ppm	_
40 <u> </u>				-	staining, strong odors	-
42 _ 43 _			POORLY GRADED SAND WITH SILT (SP-SM		VOCs = 2,000+ ppm staining, strong odors	-
44 _ 45			to very dark gray, dry to moist, non-plastic, non sand		VOCs = 2,000+ ppm staining, strong odors	-
46 _ 47 _	6	SP-SM		-	VOCs = 2,000+ ppm staining, strong odors	-
48 _				-	VOCs = 2,000+ ppm	-
49 _ 50 _	1	CL	LEAN CLAY WITH SAND (CL), 2.5Y 2.5/1 and low to medium plasticity, cohesive, fine to medi	I 2.5Y 3/1, black to very dark gray, dry to moist, um grained sand	staining, strong odors	_
Sampler	Signature:	L. Hil		Data:	9/11/2017	
Campier		L. 1111	<u> </u>	Date.	J/11/2011	-

010000	PROJECT NUMBER 477041.06.03	BORING NUMBER MW-45	SHEET# 3 of 4
Ch2m	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M
PROJECT : Blanco Gas Plant - North Flare Pit Sinvestigation		DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: TOTAL DEPTH OF BORING Northing: 2086915.306 100 feet Easting: 2686248.014
DEPTH BELOW SURFACE (FT) USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
51 _	LEAN CLAY WITH SAND (CL), 2.5Y 2.5/1 and dry to moist, low to medium plasticity, cohesive		100
52 _		-	VOCs = 2,000+ ppm strong odor, staining
54 _ 0 0		-	VOCs = 2,000+ ppm strong odor, staining
55 8 CL		_	
56 _		-	VOCs = 2,000+ ppm strong odor, staining
57 _ 58 _		-	VOCs = 2,000+ ppm strong odor, staining
59 _	POORLY GRADED SAND WITH SILT (SP-SN to very dark gray, dry to moist, non-plastic, nor sand		VOCs = 2,000+ ppm
60		_	strong odor, staining
61 _ 62 _		- -	VOCs = 2,000+ ppm strong odor, staining
63 _		-	VOCs = 2,000+ ppm
64 – 12 SP-SM		-	strong odor, staining
66 _		-	VOCs = 2,000+ ppm strong odor, staining
67 _		-	VOCs = 2,000+ ppm strong odor, staining
68 _ 69 _		-	
70	INTERBEDDED SANDSTONE AND SHALE, zones are moist to wet, fine to medium grained		VOCs = 2,000+ ppm strong odor, staining
71 _ 72 _	hard	_	
73 _ Sandstone/ Shale		-	
74 _		-	
Sampler Signature: L. I	4iii	Date:	9/11/2017

	40		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-45	SHEET# 4	of 4
		M:		PRING LOG	LOGGER: Luke Hill/CH2M	
PROJECT : Bla	nco Gas Plant - I	North Flare Pit Site	Start Date: 9/11/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic	COORDINATES: Northing: 2086915.306	TOTAL DEPTH OF BORING:
Investigation DEPTH	n 		End Date: 9/12/2017	DRILLING CONTRACTOR/DRILLER: Yellow Jacket	Easting: 2686248.014	
BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE		ESCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sal	
76 _			INTERBEDDED SANDSTONE/SHALE, weath are moist to wet, fine to medium grained sand,			-
77 _				_		_
78 _	5	Sandstone/ Shale		_		-
79 _				-		_
80						_
81 _			SANDSTONE, 2.5Y 6/1, gray, fine to medium of	grained sand, hard -		_
82 _				-		-
83 _				-		-
84 _				-		-
85				_		_
86 _				-		-
87 _				-		-
88 _				-		-
89 _				-		_
90	20	Sandstone		_		_
91 _				-		-
92 _				-		-
93 _				-		-
94 _				-		_
95				_		_
96 _				-		-
97 _				-		-
98 _				-		=
99 _				-	end of boring	-
100 _					l	_
Sampler	Signature:	L. Hill		Date:	9/11/2017	-

			PROJECT NUMBER 477041.06.03	BORING NUMBER MW-46	SHEET # 1	of 4
C		11:		RING LOG	LOGGER: Luke Hill/CH2M	
PROJECT : Blanc Investigation	o Gas Plant - No	rth Flare Pit Site	Start Date: 9/18/2017 End Date: 9/19/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2087221.960 Easting: 2685719.838	TOTAL DEPTH OF BORING: 86 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RESI COLLECTION (Date, Time, Sar	
1 _	0		Soil removed via hydro-excavation	_		_
2	1	SP	POORLY GRADED SAND (SP), 5YR 3/4 plastic, noncohesive, loose, 5% small gra		VOCs = 0.1 ppm	
3			Soil removed via hydro-excavation	_		
4				_		_
_				-		_
5 _				_		_
6 _				-		-
7 _	0			-		-
8 _				-		-
9 _				-		-
10 _				_		_
11 _				-		-
12 _			POORLY GRADED SAND WITH SILT (S	P-SM) 5VR 6/3 light reddish		-
13 _			brown, dry, non-cohesive, nonplastic, very medium grained sand			-
14 _				-	VOCs = 0.0 ppm	_
15	5	SP-SM		_		_
16 _				_		_
17 _				_	VOCs = 0.0 ppm	_
18 _			POORLY GRADED SAND WITH SILT (S brown, dry, non-cohesive, nonplastic, very medium grained sand, cemented potential	y loose, predominately fine to		_
19	3	SP-SM	space in soil	п сапоне ит наститез/орен	VOCs = 0.0 ppm	
20						
21			POORLY GRADED SAND WITH SILT (S brown, dry, non-plastic, noncohesive, loos	se, weakly cemented with		_
22			caliche in fractures, predominately fine to	medium grained sand -	VOCs = 0.1 ppm	_
_	5	SP-SM		_		_
23 _				_	VOCs = 0.1 ppm	_
24 _				-		_
25						
Sampler S	Signature:	L. Hi	<u> </u>	Date:	9/18/2017	

	40		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-46	SHEET# 2	of 4
	12	M :	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
			00:120	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc	COORDINATES:	TOTAL DEPTH OF BORING:
Investigation	Gas Plant - No	orth Flare Pit Site	Start Date: 9/18/2017 End Date: 9/19/2017	MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	Northing: 2087221.960 Easting: 2685719.838	86 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa	
26 _			SANDY LEAN CLAY (CL), 10YR 6/4, ligh medium plasticity, cohesive, medium den caliche		VOCs = 0.0 ppm	-
27 _				-	-	-
28 _	5	CL		-	-	-
29 _				-	VOCs = 0.0 ppm	-
30 _			SANDY LEAN CLAY (CL), 7.5YR 5/3, bro		-	_
31 _			cohesive	,	-	-
32 _	3	CL		-	VOCs = 0.0 ppm	-
33 _			LEAN CLAY (CL), 7.5YR 3/2, dark brown	, moist, medium plasticity, 3-	<u>-</u>	-
34 _			5% sand from 33.5' - 35', 0-3% sand from		VOCs = 0.0 ppm	-
35				_	-	_
36 _				-	VOCs = 0.0 ppm	_
37 _	7	CL		-	-	-
38 _				-	VOCs = 0.2 ppm	-
39 _				-		-
40			LEAN CLAY (CL), 7.5YR 3/2, dark brown		VOCs = 0.4 ppm	_
41 _			medium density	, moist, medium plasticity,	-	-
42 _	4	CL		-	-	-
43 _				-	-	-
44 _			LEAN OLAY (OL) CLEY (AND L.)		_	-
45	1	CL	LEAN CLAY (CL), GLEY 1 4/N, dark gray dense	<u> </u>	VOCs = 0.1 ppm	_
46 _	2	Shale	SHALE, GLEY 1 4/N, dark gray, wet in fra cemented	actures, fissile, weakly	-	-
47 _			CHAIF CLEVA ON THE PROPERTY	in facebook Godde world	VOCs = 0.0 ppm	-
48 _			SHALE, GLEY 1 3/N, very dark gray, wet cemented	ın ıractures, tissile, weakly	-	-
49 _	3	Shale		-	-	-
50 _						_
Sampler Sig	gnature:	L. Hi		Date:	9/18/2017	
Campier Oil	J. IGIGI	L. NI	<u> </u>	Date.	3/10/2017	_

### SHALE GLEY 1 3N, very dark gray, wat in fractures, fissile, hard Shale Shale		42	144.		BORING NUMBER MW-46	SHEET# 3	of 4
MALE STATE STATE	9			SOIL BOI	RING LOG	LOGGER: Luke Hill/CH2M	
RECOVERY SUPPLY USCS CODE SOIL DESCRIPTION COMMENTS NOTES, FID RESULTS, SAMPLE COLLECTION (One, Time, Sample ID)	PROJECT : Blai	nco Gas Plant - I		Start Date: 9/18/2017	MiniSonic	Northing: 2087221.960	TOTAL DEPTH OF BORING: 86 feet
SHALE CLEY 1 3/N, very dark gray, wet in fractures, fissile, weakly commend	BELOW SURFACE		USCS CODE	SOIL DES	SCRIPTION		
53					n fractures, fissile, weakly		_
53	52 _				_		-
SHALE, GLEY 1 3/N, very dark gray, wet in fractures, fissile, hard	53 _	5	Shale		-		-
SMALE, GLEY 1 3/N, very dark gray, wet in fractures, fissile, hard 57 58 59 60 61 62 63 64 65 20 Shale 66 67 68 69 70 71 72 73					-		-
57 _ 58 _ 59 _ 60 _ 60 _ 61 _ 62 _ 63 _ 64 _ 65 _ 20 Shale 66 _ 67 _ 68 _ 69 _ 70 _ 71 _ 72 _ 73 _ 73 _ 6				SHALE, GLEY 1 3/N, very dark gray, wet i	n fractures, fissile, hard		_
58					_		_
60 61 62 63 64 65 20	58 _				-		-
61 _ 62 _ 63 _ 64 _ 65 _ 20	59 _				-		-
62	60				_		_
63					-		-
64 _ 65 _ 20					-		-
66 _ 67 _	64 _				_		_
67 _	65	20	Shale		_		_
68 _ 69	66 _				-		-
69					-		-
70					-		-
72					_		_
_	71 _				-		-
	72 _				-		-
					-		-
75 _					-		-
Sampler Signature: L. Hill Date: 9/18/2017		Signature:	L. Hil	1	Date:	9/18/2017	_

			PROJECT NUMBER 477041.06.03	BORING NUMBER MW-46	SHEET # 4	of 4
C	NZ	11.	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
	nco Gas Plant -	North Flare Pit Site	Start Date: 9/18/2017 End Date: 9/19/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2087221.960	TOTAL DEPTH OF BORING: 86 feet
DEPTH BELOW SURFACE	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	Easting: 2685719.838 COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sai	
(FT)			SHALE, GLEY 1 3/N, very dark gray, wet	in fractures, fissile, hard		
76 _ 77 _	3	Shale		-		_
78 _				_		_
79 _			SANDSTONE, 2.5Y 6/1, gray, fine to med	dium grained sand, hard –		_
80 _				_		_
81 _				-		_
82 _	8	Sandstone		-		_
83 _				-		_
84 _				-		_
85				_		_
86 _ 87 _				_	end of boring	_
88 _				_		_
89 _				_		_
90				_		_
91 _				-		-
92 _				-		_
93 _				-		_
94 _				-		-
95				_		_
96 _ 97 _				-		_
98 _				-		=
99 _				_		_
100 _				_		
Sampler	Signature:	L. Hil	<u> </u>	Date:	9/18/2017	-

			PROJECT NUMBER 477041.06.03	BORING NUMBER MW-47	SHEET# 1	of 4
	12/	M:		RING LOG	LOGGER: Luke Hill/CH2M	
PROJECT : Bland	co Gas Plant - No	orth Flare Pit Site	Start Date: 9/19/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc	COORDINATES:	TOTAL DEPTH OF BORING:
Investigation	T		End Date: 9/24/2017	MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	Northing: 2087243.579 Easting: 2685918.631	89 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sar	
1	0		Soil removed via hydro-excavation			
2 _	1	SP	POORLY GRADED SAND (SP), 5YR 4/3, nonplastic, noncohesive, medium density.	, reddish brown, dry,	VOCs = 0.0 ppm	_
3			Soil removed via hydro-excavation			
_				-		_
4 _				_		-
5 _				_		_
6 _				_		-
7 _	0			-		-
8 _				_		_
9 _				-		-
10 _				_		_
11 _				_		_
12 _						
13			SANDY LEAN CLAY (CL), 10YR 5/4, yellononcohesive, fine to medium grained sand	d		
				-	VOCs = 3.5 ppm	_
14 _				-		_
15				_	VOCs = 0.0 ppm	_
16 _				-		-
17 _				-		_
18 _				_	VOCs = 0.0 ppm	_
19 _	13	CL		-		-
20 _				_	VOCs = 0.0 ppm	_
21 _				_		-
22 _				_	VOCs = 25 ppm	-
23 _				-		-
24 _				-	VOCs = 20 ppm	_
25						_
Sampler S	Signature:	L. Hi	II	Date:	9/19/2017	-

	42		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-47	SHEET# 2 of 4
		11:	SOIL	BORING LOG	LOGGER: Luke Hill/CH2M
DJECT : Blanc estigation	o Gas Plant - No	orth Flare Pit Site	Start Date: 9/19/2017 End Date: 9/24/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 19 MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	Northing: 2087243.579 89 feet
DEPTH BELOW URFACE (FT)	RECOVERY (FT)	USCS CODE	So	OIL DESCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
26 _			SANDY CLAY (CL), 10YR 5/4, yellononcohesive, fine to medium graine		VOCs = 32 ppm
27 _					_
28 _					VOCs = 30 ppm
29 _					-
30 _	11	CL			VOCs = 40 ppm
31 _		, , _			-
32 _ 33					VOCs = 25 ppm
34 _					_
35					_
36 _			LEAN CLAY WITH SAND (CL), 10	YR 5/3, brown, dry to moist, low	VOCs = 0.9 ppm
37 _	2	CL	plasticity, cohesive, fine grained sar		- VOCs = 7.3 ppm
38 _			LEAN CLAY WITH SAND (CL), 2.5 low to medium plasticity, cohesive,		
39 _ 40			passon, concern,	o granou cana	- VOCs = 200+ ppm staining, strong odor
41 _	5	CL			VOCs = 1,500+ ppm staining, strong odor
42 _					_
43 _			POORLY GRADED SAND WITH S	II T (SP-SM) 2 5Y 4/1 to 2 5Y 3/1	VOCs = 875.2 ppm staining, strong odor
44 _				o wet, non-plastic, noncohesive, fine	- VOCs = 822 ppm
45	4	SP-SM			staining, strong odor
46 _ 47					VOCs = 395 ppm staining, strong odor
48 _	2	CL	LEAN CLAY WITH SAND (CL), 2.5 plasticity, cohesive, fine grained san		
49 _			POORLY GRADED SAND WITH S	ILT (SP-SM), 2.5Y 4/1 dark grav	staining, strong odor
50 _	1	SP-SM	moist, non-plastic, noncohesive, fin		

	424	M:		BORING NUMBER MW-47	SHEET# 3	of 4
		SM SM	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
Investigation	co Gas Plant - No	orth Flare Pit Site		DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2087243.579 Easting: 2685918.631	TOTAL DEPTH OF BORING: 89 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sar	
	1	SP-SM	POORLY GRADED SAND WITH SILT (S moist, non-plastic, noncohesive, fine to me	P-SM), 2.5Y 4/1, dark gray, edium grained sand	VOCs = 392 ppm staining, strong odor	
51 _			SANDSTONE, 2.5Y 6/1, gray, fine to med			-
52 _	2	Sandstone		-	-	-
53 _			SHALE , 2.5Y 2.5/1, black, hard	<u>-</u>	_	-
54 _				-	-	-
55				_	_	_
56 _				_	_	_
57 _	7	Shale				
58						
				-	-	-
59 _				-	-	-
60			INTERBEDDED SHALE/SANDSTONE, 2		_	_
61 _			black and gray, sandstone is fine to mediu	ım grained, hard -	-	-
62 _				-	-	-
63 _				-	-	-
64 _				_		_
65						
66				_	-	_
				-	-	-
67 _	12	Shale/		-	-	-
68 _		Sandstone		-	-	-
69 _				-	-	-
70 _				_	-	_
71 _				-	-	-
72 _				-		_
73 _						
74				-		_
				-	-	-
75 _					_	_
Sampler S	Signature:	L. Hi	<u> </u>	Date:	9/19/2017	

	142		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-47	SHEET # 4	of 4
	NZ	M:	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
PROJECT : Bla Investigation	nco Gas Plant - I			DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2087243.579 Easting: 2685918.631	TOTAL DEPTH OF BORING: 89 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa	
			INTERBEDDED SHALE/SANDSTONE, 2 black and gray, sandstone is fine to medi	2.5Y 2.5Y/1 and 2.5Y 6/1, um grained, hard		
76 _				_		_
77 _				-		_
78 _	6	Shale/ Sandstone		-		_
79 _				-		_
80				_		_
81 _				-		-
82 _			SANDSTONE , 2.5Y 6/1, gray, sandstone	is fine grained, hard		_
83 _				_		
84						
85				_		_
	8	Sandstone		_		
86 _				_		-
87 _				-		-
88 _				-		-
89 _			end of boring			-
90				_		_
91 _				_		_
92 _				_		_
93 _				_		_
94 _				_		
95				_		_
				_		_
96 _				-		_
97 _				-		_
98 _				-		-
99 _				-		_
100 _				_		_
Sampler	Signature:	L. Hil	II	Date:	9/18/2017	_

	424	M: SM	PROJECT NUMBER 477041.06.03	BORING NUMBER MW-48	SHEET# 1	of 4
5		SM	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
Investigation		North Flare Pit Site	Start Date: 9/21/2017 End Date: 9/22/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket		TOTAL DEPTH OF BORING: 80 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RESU COLLECTION (Date, Time, Sar	
1 _	0		Soil removed via hydro-excavation	_		_
2 _	1	SP	POORLY GRADED SAND (SP), 5YR 5/2 plastic, noncohesive, 5-10% silt	, reddish gray, dry, non-	VOCs = 0.2 ppm	
3 _			Soil removed via hydro-excavation	_		
4						
5				_		_
6				_		_
7				_		_
8	0			_		_
9				=		_
_				-		_
10				_		_
11 _				-		_
12 _			POORLY GRADED SAND WITH SILT (S brown, dry, non-plastic, noncohesive, fine	P-SM), 2.5Y 5/2, grayish to medium grained sand	VOCs = 3.0 ppm	-
13 _				_		_
14 _				-	VOCs = 1.0 ppm	_
15				_		_
16 _				_	VOCs = 0.6 ppm	_
17 _	10	SP-SM		_		-
18 _				_	VOCs = 0.3 ppm	_
19 _				-		_
20				_		_
21 _				-	VOCs = 0.3 ppm	_
22 _			<u>CLAYEY SAND</u> (CL), 2.5Y 5/3, light olive noncohesive, fine grained sand	brown, dry, non-plastic,		-
23 _	3	sc	s.riosivo, nno gramou sanu	-	VOCs = 0.3 ppm	_
24 _				-	VOCs = 0.7 ppm	_
25						
Sampler	Signature:	L. Hil	<u> </u>	Date:	9/21/2017	

### SOIL BRIEF # 2 of 4 ### SO		142		PROJECT NUMBER 477041.06.03	BORING NUMBER MW-48	SHEET# 2 of 4
Ministry			TY SM	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M
SELOWER SECOLETY USCS CODE USCS CO	Investigation		North Flare Pit Site		MiniSonic	Northing: 2087441.692 80 feet
CLAY WITH SAMP (CL), 2.5Y S3. light olive brown, dy, non-plastic, non-chesive, fine grained sand	BELOW SURFACE		USCS CODE	SOIL DE	SCRIPTION	
27					brown, dry, non-plastic,	VOCs = 0.7 ppm
1					_	_
1	28 _	5	CL		-	VOCs = 0.2 ppm
1	29 _				_	_
1	30					VOCs = 0.0 ppm
32	31 _	1	CL	plasticity, cohesive	· 	VOCs = 1.6 ppm
LEAN CLAY (CL), 2.5Y 3/2, very dark gray/sh brown, moist to wet, medium plasticity, cohesive, with fine grained sand and 0.5" gravel	32 _	2	CL		sand	VOCs = 3.3 ppm -
35	33 _					_
CLAY WITH SAND (CIL, 5° Ys/2, olive gray, moist, non-plastic, non-chastic, non-chastic, from 39' - 40', 2.5 Y 3/1, very dark gray		2	CL	medium plasticity, cohesive, with fine grain		VOCs = 6.7 ppm
39 - 40 - SHALE, 2.5Y 5/1, gray, wet in fractures, hard - VOCs = 763 ppm staining, strong odor 41 - 3 Shale	36 _ 37 _	5	CL	noncohesive, fine grain sand	ay, moist, non-plastic, -	
41	39 _				- - _	petroleum odor – VOCs = 763 ppm
SHALE, 2.5Y 5/1, gray, wet in fractures, hard	42 _	3		SHALE, 2.5Y 5/1, gray, wet in fractures, h	- -	- -
47	45			SHALE, 2.5Y 5/1, gray, wet in fractures, h	nard	
	47 _ 48 _	7	Shale		- - -	-
Complex Competition 1 Hill Date: 0/24/2047	50 _					
Sampler Signature: L. Hill Date: 9/21/2017	Sampler	Signature:	L. Hil	II	Date:	9/21/2017

	12	M:	PROJECT NUMBER 477041.06.03	BORING NUMBER MW-48	SHEET# 3	of 3
		SM SM	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
Investigation		North Flare Pit Site	Start Date: 9/21/2017 End Date: 9/22/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket	COORDINATES: Northing: 2087441.692 Easting: 2685788.725	TOTAL DEPTH OF BORING: 80 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RESCOLLECTION (Date, Time, Sa	
51 _			SHALE, 2.5Y 3/1 and 2.5/1, very dark grahard	y and black, wet in fractures,		_
52 _				-		-
53 _				-		-
54 _				-		-
55				_		_
56 _				-		-
57 _				-		-
58 _	16	Shale		-		-
59 _ 60				-		-
61 _				_		_
62 _				-		-
63 _				-		-
64 _				-		-
65				-		_
66 _			INTERBEDDED SHALE/SANDSTONE, 2 gray and black, hard	.5Y 3/1 and 2.5/1, very dark		_
67 _			Sandstone is fine grained	-		-
68 _ 69 _				-		_
70 _				_		_
71 _	9	Shale/ Sandstone		-		_
72 _				-		-
73 _				-		-
74 _				-		-
75 _				_		_
Sampler	Signature:	L. Hil	<u> </u>	Date:	9/21/2017	_

	100	M :	PROJECT NUMBER 477041.06.03	BORING NUMBER MW-48	SHEET# 4	of 4
C	MZ	////	SOIL BO	RING LOG	LOGGER: Luke Hill/CH2M	
	nco Gas Plant - Nor		Start Date: 9/21/2017 End Date: 9/22/2017	DRILLING METHOD/EQUIPMENT: TerraSonic, 150 cc MiniSonic DRILLING CONTRACTOR/DRILLER: Yellow Jacket		FOTAL DEPTH OF BORING: 30 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL D	ESCRIPTION	COMMENTS/NOTES, PID RESULTS, S Time, Sample ID)	SAMPLE COLLECTION (Date,
76 _			INTERBEDDED SHALE/SANDSTONE, 2 dark gray and black, hard Sandstone is fine grained	2.5Y 3/1 and 2.5/1, very		_
77 _				_		_
78 _	5	Shale/Sandstone		_		_
79 _				_		_
80						
81 _				_	end of boring	_
82 _				_		_
83 _				_		_
84 _				_		_
85						_
86 _				_		_
87 _				_		_
88 _				-		_
89 _				-		_
90				_		_
91 _				-		_
92 _				-		_
93 _				-		_
94 _				-		_
95				_		
96 _				-		_
97 _				-		-
98 _				-		-
99 _				-		_
100 _						
Sampler	Signature:	L. Hill		Date:	9/21/2017	

	A 24	M:	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-49	SHEET # 1	of 3
5		SM	SOIL BO	RING LOG	LOGGER: A. Turkasz	
North Flare Pit	se 2 Site Investigat	ion - Blanco Plant	Start Date: 8/17/2019 End Date: 8/18/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2086796.893 Easting: 2686222.583	TOTAL DEPTH OF BORING: 73 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RES	
		SP	SILTY SAND (SP), 2.5Y 5/4, light olive brown, poorly graded fine to medium grained sand	, dry, non-plastic, stiff, compact,		
1 _			Soil removed via hydro-excavation		VOCs = 0.0 ppm.	_
2 _				-		_
3 _				-		=
4 _				-		-
5				-		-
6 _				-		=
7 _	14			-		-
8 _				_		=
9 _				_		_
10				_		
11 _						
12 _						
13 _						_
				_		=
14 _			SILTY SAND (SP), 2.5Y 5/4, light olive brown, sand, poorly graded	dry, loose, fine to medium grained	Sample (14-15) collected at 1505	_
15				_		_
16 _				-	VOCs = 0.0 ppm.	_
17 _		SP		-		-
18 _		31		-	VOCs = 0.0 ppm.	-
19 _	40			-	Sample (19-20) collected at	-
20 _	10			_	1515 VOCs = 0.0 ppm.	_
21 _			POORLY GRADED SAND (SP), 2.5Y 5/4, ligh	t olive brown, dry, loose, fine to		=
22 _			coarse grained sand, some silt	- -	VOCs = 0.0 ppm.	-
23 _		SP		-	VOCs = 0.0 ppm.	_
24 _				-		-
25 _					VOCs = 0.0 ppm.	
Sampler	Signature:	A. Turka	asz	Date:	8/17/2019	
•					-	

	42	M:	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-49	SHEET# 2	of 3
		FIF SM	SOIL BO	RING LOG	LOGGER: A. Turkasz	
ROJECT : Phas	se 2 Site Investigati	ion - Blanco Plant	Start Date: 8/17/2019 End Date: 8/18/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2086796.893 Easting: 2686222.583	TOTAL DEPTH OF BORING: 73 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa	
(11)			LEAN CLAY (CL), 2.5Y 5/3, light olive brown, obrittle, little fine grained sand, trace white veins			
26 _			3	-	VOCs = 0.0 ppm.	
27 _				-	VOCs = 0.0 ppm.	
28 _	7	CL		-	VOCs = 0.1 ppm.	
29 _				-	Sample (29-30) collected at 1525	
30 _				-	VOCs = 0.0 ppm.	
31 _			LEAN CLAY (CL), 2.5Y 5/3, light olive brown, obrittle, some fine to coarse grained sand, white			
32 _				_	VOCs = 0.0 ppm.	
33 _		CL		_	VOCs = 0.0 ppm.	
34 _				_		
35			POORLY GRADED SAND (SP), 2.5Y 6/4, light to coarse grained sand, subrounded grains	t yellowish brown, dry, loose, fine	VOCs= 0.0 ppm.	_
36 _	10			_	VOCs= 0.0 ppm.	
37 _				_	VOCs= 0.0 ppm.	
38 _		SP		-		
39 _				-	VOCs= 0.0 ppm.	
40				_	Sample (39-40) collected at 1610	-
41 _			POORLY GRADED SAND (SP), 2.5Y 6/4, light	t yellowish brown, dry, loose, fine	VOCs = 0.0 ppm.	
42 _			to coarse grained sand, subrounded grains	-		
43 _				-	VOCs = 0.0 ppm.	
44 _		SP		-		
45				_	VOCs = 0.0 ppm.	_
46 _	9			-		
47 _			POORLY GRADED SAND (SP), 2.5Y 6/4, light		VOCs = 0.0 ppm.	
48 _		SP	to coarse grained sand, subrounded grains, so	me dry clay –	VOCs = 0.0 ppm.	
49 _			LEAN CLAY (CL) 2.5Y 6/4, light yellowish brow	vn, dry, stiff, brittle, some fine	Sample (49-50) collected at	
50 _		CL	grained sand, some interbedded silt layers		1640	
Complex	Signature:	A. Turka	asz	Date:	8/17/2019	

ECT : Phase 2 Sin h Flare Pit EPTH ELOW RFACE (FT) 51 _ 52 _ 53 _ 65 _ 65 _ 65 _ 65 _ 66 _ 66 _ 66		n - Blanco Plant USCS CODE CL SP	Start Date: 8/17/2019 End Date: 8/18/2019	e yellowish brown, dry, loose, some weathered sandstone,	COORDINATES: Northing: 2086796.893 Easting: 2686222.583 COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID) VOCs = 0.0 ppm. VOCs = 0.0 ppm. VOCs = 0.0 ppm. Sample (56-57) collected at 1745 *bedrock at 57' bgs
h Flare Pit EPTH RE(EPTH RE(S1	COVERY (FT)	USCS CODE CL SP	End Date: 8/18/2019 SOIL DE LEAN CLAY (CL), 2.5Y6/4, light yellowish brow grained sand, some interbedded silt layers POORLY GRADED SAND (SP), 2.5Y 6/3, light some cementing, fine to course grained sand, so orange staining SANDSTONE, N8, white with light blue, very fire	DRILLING CONTRACTOR/DRILLER: Cascade Drilling SCRIPTION In, dry, stiff, brittle, some fine syellowish brown, dry, loose, some weathered sandstone,	Northing: 2086796.893 Easting: 2686222.583 COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID) VOCs = 0.0 ppm. VOCs = 0.1 ppm. VOCs = 0.0 ppm. VOCs = 0.0 ppm. Sample (56-57) collected at 1745
ELOW REACE (FT) 51	(FT)	CL SP	LEAN CLAY (CL), 2.5Y6/4, light yellowish brow grained sand, some interbedded silt layers POORLY GRADED SAND (SP), 2.5Y 6/3, light some cementing, fine to course grained sand, sorange staining SANDSTONE, N8, white with light blue, very fire	rn, dry, stiff, brittle, some fine ry yellowish brown, dry, loose, some weathered sandstone,	COLLECTION (Date, Time, Sample ID) VOCs = 0.0 ppm. VOCs = 0.1 ppm. VOCs = 0.0 ppm. VOCs = 0.0 ppm. Sample (56-57) collected at 1745
51 _ 52 _ 53 _ 54 _ 55 _ 55 _ 56 _ 57 _ 58 _ 60 _ 61 _ 62 _ 63 _ 63 _ 63 _ 63 _ 63 _ 63 _ 63	10	SP	grained sand, some interbedded silt layers POORLY GRADED SAND (SP), 2.5Y 6/3, light some cementing, fine to course grained sand, sorange staining SANDSTONE, N8, white with light blue, very fire	e yellowish brown, dry, loose, some weathered sandstone,	VOCs = 0.1 ppm. VOCs = 0.0 ppm. VOCs = 0.0 ppm. Sample (56-57) collected at 1745
53 _ 54 _ 55 _ 56 _ 57 _ 58 _ 59 _ 60 _ 61 _ 62 _ 63 _ 63 _ 63 _ 63 _ 63 _ 63 _ 64 _ 65 _ 65 _ 65 _ 65 _ 65 _ 65 _ 65	10		some cementing, fine to course grained sand, orange staining SANDSTONE, N8, white with light blue, very fire	some weathered sandstone,	VOCs = 0.0 ppm. VOCs = 0.0 ppm. Sample (56-57) collected at
56 57 58 59 60 61 62 63 63	10				Sample (56-57) collected at 1745
58		Sandstone			
61 _ 62 _ 63 _				-	_ VOCs = 0.0 ppm.
	6		SANDSTONE. N8, white with light blue, very fir within sandstone from 61' - 67', stiff to brittle, he		VOCs = 0.0 ppm. VOCs = 0.0 ppm.
64 _ 65 66		Sandstone		- -	VOCs = 0.0 ppm. *8/18/2019 drilling starts at 66' bgs
67 _ 68 _			SANDSTONE, N8, white with light blue, dry to less cementation, very fine to coarse grained s		VOCs = 0.0 ppm.
69 _ 70	7	Sandstone		-	VOCs = 0.0 ppm.
71 _ 72 _			SHALE, N4, dark gray, dry, brittle, trace fine to	- medium grained sand	VOCs = 0.0 ppm. VOCs = 0.0 ppm.
73 _		Shale		- -	
74 _ 75 _			End of boring	. -	* Well to be set at 67' bgs. as instructed by J. Minchak
·					-I

	42	M:	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-50	SHEET# 1 of 4
			SOIL BO	RING LOG	LOGGER: A. Turkasz
orth Flare Pit	e 2 Site Investigat	ion - Blanco Plant	Start Date: 8/18/2019 End Date: 8/18/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: TOTAL DEPTH OF BORING: Northing: 2086909.069 78 feet Easting: 2686431.759
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
		SP	SILTY SAND (SP), 2.5 Y 5/4, light olive brown, fine to coarse grained sand, poorly graded	, dry, loose, brittle, compacted,	
1 _			Soil removed via hydro-excavation		VOCs = 0.0 ppm.
2 _				-	-
3 _				-	-
4 _				-	-
5				_	_
6 _					
	12			-	-
7 _				-	-
8 _				-	-
9 _				-	-
10				-	-
11 _				-	-
12 _				_	
13 _			SANDY SILT (ML), 2.5Y 5/4, light olive brown, grained sand	dry, non-plastic, loose, fine	Sample (12-13) collected at 1345
				-	
14 _				-	_ VOCs = 0.0 ppm.
15				_	VOCs = 0.0 ppm.
16 _			SANDY SILT (ML), 2.5Y 5/4, light olive brown,	dry, non-plastic, loose, fine	<u>-</u>
17 _	10	ML	grained sand	-	VOCs = 0.0 ppm.
18 _				-	-
19 _				_	VOCs = 0.0 ppm.
20			SANDY SILT (ML), 2.5Y 5/4, light olive brown, grained sand	dry, non-plastic, loose, fine	Sample (19 - 20) collected at 1355
				_	
21 _				=	_ VOCs = 0.0 ppm.
22 _			SILTY SAND (SP), 2.5Y 5/4, light olive brown,		_
23 _			coarse grained sand, some clay, poorly graded	u -	VOCs = 0.0 ppm.
24 _		SP		-	-
25 _					VOCs = 0.0 ppm.

	100		PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-50	SHEET# 2 of 4
C	NZ	M:		RING LOG	LOGGER: A. Turkasz
PROJECT : Pha	se 2 Site Investigat t	ion - Blanco Plant	Start Date: 8/18/2019 End Date: 8/18/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: TOTAL DEPTH OF BORING: 78 feet Easting: 2686431.759
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
26 _			SILTY SAND (SP), 2.5Y 5/4, light olive brown, coarse grained sand, some clay, poorly graded		VOCs = 0.0 ppm.
27 _				-	VOCs = 0.0 ppm.
28 _ 29 _		SP		-	Sample (29 - 30) collected at 1415
30 _	10			-	VOCs = 0.0 ppm.
31 _			SILTY SAND (SP), 2.5Y 5/4, light olive brown,	dry pap plastic loose fine to	VOCa 0.0 ppm
32 _		0.0	coarse grained sand, some clay, poorly graded		VOCs = 0.0 ppm.
33 _		SP		-	VOCs = 0.1 ppm.
34 _ 35			SANDY LEAN CLAY (CL), 2.5Y 6/4, light yello medium stiff, brittle, fine to medium grained sar		VOCs = 0.0 ppm
36 _				-	VOCs = 0.0 ppm.
37 _ 38 _	8	CL		-	VOCs = 0.0 ppm.
39 _				-	Sample (39 - 40) collected at 1500
40 <u> </u>			SANDY LEAN CLAY (CL), 2.5 Y 6/4, light yello medium stiff, brittle, fine to medium grained sar		VOCs = 0.0 ppm.
42 _				-	VOCs = 0.1 ppm.
43 _ 44 _	8	CL		-	VOCs = 0.0 ppm.
45 <u> </u>				_	VOCs = 0.0 ppm.
47 _			SANDY LEAN CLAY (CL), 2.5 Y 6/4, light yello medium stiff, brittle, some fine to coarse graine		VOCs = 0.0 ppm.
48 _			SANDY LEAN CLAY (CL), 2.5 Y 6/4, light yello		_
49 _	10	CL	medium stiff, brittle, some fine to coarse graine	น รสเป	Sample (49 - 50) collected at 1510
50 _			1	<u>-</u>	VOCs = 0.0 ppm.
Sampler	Signature:	A. Turk	asz	Date:	8/18/2019

	12	11:	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-50	SHEET #	3 of 4	
		T U _{SM}	SOIL B	ORING LOG	LOGGER: A. Turkasz		
orth Flare Pit	_	ion - Blanco Plant	Start Date: 8/18/2019 End Date: 8/18/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2086909.069 Easting: 2686431.759	TOTAL DEPTH OF BORING 78 feet	
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL	DESCRIPTION	COMMENTS/NOTES, PID RES		
51 _			SANDY LEAN CLAY (CL), 2.5 Y 6/4, light y medium stiff, brittle, some fine to coarse gra		VOCs = 0.0 ppm.		
52 _				-	-		
53 _				-	VOCs = 0.0 ppm.		
54 _	10	CL	SANDY LEAN CLAY (CL), 2.5 Y 6/4, light y		<u>-</u>		
55			medium stiff, brittle, little fine to coarse grain	led sand layers -	VOCs = 0.0 ppm.		
56 _			SANDY LEAN CLAY (CL), 2.5 Y 6/4, light y medium stiff, brittle, little fine to coarse grain		VOCs = 0.0 ppm. Sample (57 - 58) collected at 1630		
57 _ 58 _				-	VOCs = 0.0 ppm. *Water at 58' bgs.		
59 _			SANDY LEAN CLAY (CL), 2.5Y 5/3, light of fine to coarse grained sand, soft to stiff	ive brown, moist, medium-plasticity	VOCs = 0.0 ppm.		
60				_	-		
61 _				-	VOCs = 0.2 ppm.		
62 _	9	CL		-			
63 _	9	OL.		-	VOCs = 0.1 ppm.		
64 _				-	VOCs = 0.0 ppm.		
65				_	-		
67 _				-	VOCs = 0.0 ppm.		
68 _			POORLY GRADED SAND (SP) 2.5Y 6/2, liq loose, fine to coarse grained sand, some we staining				
69 _				-	VOCs = 0.0 ppm.		
70	6	SP		_			
71 _				-	VOCs = 0.0 ppm.		
72 _			POORLY GRADED SAND (SP) 2.5Y 6/2, lig grained sand, some weathered sandstone w	ght brownish gray, moist to wet, loose, fine to coarse with orange staining	VOCs = 0.2 ppm.		
73 _ 74 _	5	SP	POORLY GRADED SAND (SP) 2.5Y 6/2, liq loose, fine to coarse grained sand, some we staining		VOCs = 0.1 ppm.		
75 _	-						

	42	M:	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-50	SHEET# 4 of 4
U			SOIL BO	RING LOG	LOGGER: A. Turkasz
ROJECT : Phas	se 2 Site Investigat		Start Date: 8/18/2019 End Date: 8/18/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: TOTAL DEPTH OF BORING: Northing: 2086909.069 78 feet Easting: 2686431.759
DEPTH BELOW SURFACE	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
(FT) 76 _			SANDSTONE, N8, white with slight blue, dry to sand, heavy to light cementation, stiff to medium	moist, fine to coarse grained m stiff	* bedrock at 75' bgs.
77 _	5	Sandstone		-	VOCs = 0.0 ppm.
78 _					*backfill with bentonite to set well at 73' bgs.
79 _			End of boring	g -	
80 _				-	
81 _				-	
82 _				-	
83 _				-	
84 _				-	
85				_	-
86 _ 87 _				-	
88 _				-	
89 _				_	
90 _				_	-
91 _				-	
92 _				-	
93 _				-	
94 _				-	
95				_	-
96 _ 97 _				-	
97 _				-	
99 _				-	
100 _					
Sampler	Signature:	A. Turka	asz	Date:	8/18/2019

			PROJECT NUMBER	BORING NUMBER MW-51	SHEET# 1	of 3
	NZ	11:	707467CH 01.02	RING LOG	LOGGER: A. Turkasz	
	se 2 Site Investigat		Start Date: 8/19/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2087220.549	TOTAL DEPTH OF BORING: 66 feet
DEPTH BELOW SURFACE	RECOVERY (FT)	USCS CODE		SCRIPTION	Easting: 2686092.139 COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa	
(FT)		SP	SILTY SAND (SP) 2.5Y 5/4, light olive brown, c	dry, loose, fine to coarse grained		
1 _			sand, poorly graded Soil removed via hydro-excavation		VOCs = 0.0 ppm.	_
2 _				-		_
3 _				_		_
4 _				_		_
5				-		-
6 _				=		_
7 _	13			_		_
					*0' - 13' Hydro excavated	
8 _				_		-
9 _				_		_
10				_		_
11 _				_		_
12 _						
12 -				=		_
13 _			SILTY SAND (SP), 2.5Y 5/4, light olive brown,	dry, loose, fine to coarse grained	VOCs = 0.0 ppm.	_
14 _			sand, poorly graded	_	Sample (13 - 14) collected at 1325	_
15		SP		_		_
16 _					VOCs = 0.0 ppm.	
	7			_		_
17 _			SANDY LEAN CLAY (CL), 2.5Y 6/4, light yellow fine to medium grained sand, brittle	wish brown, dry, non-plastic, soft,	VOCs = 0.0 ppm.	=
18 _			mio to medium graineu sanu, prittie	-		-
19 _		CL		=	Sample (10, 20) and field	-
20				_	Sample (19 - 20) and field duplicate collected at 1340	_
			SANDY LEAN CLAY (CL), 2.5Y 6/4, light yellow more fine grained sand, brittle	wish brown, dry, non-plastic, soft,	VOCs = 0.0 ppm.	_
21 _				_		_
22 _				-		-
23 _	10	CL		-	VOCs = 0.0 ppm.	-
24 _				_	VOCs = 0.0 ppm.	_
25					VOCs = 0.0 ppm.	
25 _[l		I	-
Sampler S	Signature:	A. Turka	ISZ	Date:	8/20/2019	<u>- </u>

	42	M:	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-51	SHEET# 2	of 3
		SM	SOIL BO	ORING LOG	LOGGER: A. Turkasz	
JECT : Phas th Flare Pit		tion - Blanco Plant	Start Date: 8/19/2019 End Date: 8/20/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2087220.549 Easting: 2686092.139	TOTAL DEPTH OF BORING
EPTH ELOW RFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL D	ESCRIPTION	COMMENTS/NOTES, PID RECOLLECTION (Date, Time, Sa	
(1.1)			SANDY LEAN CLAY (CL), 2.5Y 6/4, light yello fine grained sand, brittle	owish brown, dry, non-plastic, soft,		
26 _			and granted sarie, shale	-	VOCs = 0.1 ppm.	
27 _				-	VOCs = 0.0 ppm.	
28 _	10	CL				
29 _					VOCs = 0.0 ppm. Sample (29 - 30) collected at 1350	
30			SANDY LEAN CLAY (CL), 2.5Y 6/4, light yello 12" fine to coarse grained sand layer, brittle	owish brown, dry, non-plastic, soft,	VOCs = 0.0 ppm.	
32						
33 _		CL			VOCs = 0.0 ppm.	
34 _					_ VOCs = 0.3 ppm.	
34 _			LEAN CLAY (CL), 2.5Y 6/3 light yellowish bro medium stiff, some fine grained sand, trace w			
35	10		The didn't still, some time grained stills, trace wi	-	VOCs = 0.0 ppm.	
36 _				-	=	
37 _		CL			_ VOCs = 0.1 ppm.	
38 _						
JU _				-	Sample (39 - 40) collected at	
39 _				-	_ 1400	
40				_	VOCs = 0.2 ppm.	
41		CL	fine grained sand, trace white veins, trace ora	wn, dry to moist, non-plastic, medium stiff, some nge staining	VOCs = 0.0 ppm.	
			LEAN CLAY (CL), 2.5Y 6/3 light yellowish bromedium stiff, some fine grained sand, trace v			
42 _			trace dark dry nodules	-	_	
43 _		CL			VOCs = 0.0 ppm.	
44 _	7					
			LEAN CLAY (CL), 2.5Y 3/3, dark olive brown, grained sand, strong odor, black staining	, moist, non-plastic, soft, some fine	VOCs = 446.3 ppm.	
45		<u>.</u>		=	_	
46 _		CL		-	_	
47 _					VOCs = 387.5 ppm.	
48 _			LEAN CLAY (CL), 2.5Y 3/3, dark olive brown, grained sand, strong odor, black staining	moist, non-plastic, soft, some fine	VOCs = 701.8 ppm. *highest PID hit	
49 _	9	CL			Sample (49 - 50) collected at 1500	
50 _				_	VOCs = 505.1 ppm _ *water at 50' bgs.	
	Signature:	A. Turka			8/20/2019	

	42	144.	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-51	SHEET# 3	of 3
Ch2M:		VV _{SM}	SOIL BORING LOG		LOGGER: A. Turkasz	
North Flare Pit	_	ation - Blanco Plant	Start Date: 8/19/2019 End Date: 8/20/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2087220.549 Easting: 2686092.139	TOTAL DEPTH OF BORING: 66 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RESCOLLECTION (Date, Time, Sa	
51 _		CL	LEAN CLAY (CL), 2.5Y 3/3, dark olive brown, grained sand, strong odor, black staining	moist, non-plastic, soft, some fine	VOCs = 153.6 ppm.	-
52 _ 53 _	9		POORLY GRADED SAND (SP), 2.5Y 5/4, ligh coarse grained sand, some cementation, some odor		VOCs = 417.4 ppm. *bedrock at 53' bgs.	-
54 _ 55		SP		-	PID 17.9 ppm.	-
56 _		Sandstone	SANDSTONE, 2.5Y 6/1, gray, dry, stiff, heavy grained sand	cementation, fine to medium	PID 29.5 ppm. *resume drilling at 56' on 8/20/2019 VOCs = 2.1 ppm.	-
57 _ 58 _			SHALE, 2.5Y 3/1, very dark gray, dry to moist, grained sand, waxy texture on fracture plane w		VOCs = 0.5 ppm.	-
59 __				-	VOCs = 0.3 ppm.	-
60				_	VOCs = 0.2 ppm.	_
61 _ 62	10	Shale		-	VOCs = 0.8 ppm.	_
63 _			SHALE, 2.5Y 3/1, very dark gray, dry, stiff to m sand	nedium stiff, trace fine grained	VOCs = 2.0 ppm.	-
64 _			SHALE, 2.5Y 3/1, very dark gray, dry, stiff to m cemented fine grained sandstone layers	edium stiff, laminated interbedded	VOCs = 9.2 ppm.	-
65 66 _					VOCs = 2.0 ppm.	-
67 _			End of borin	g -	-	-
68 _ 69 _				-	-	-
70				_	-	_
71 _				-	-	_
72 _ 73 _				-	-	_
74 _				-		-
75 _				_		_
Sampler S	Signature:	A. Turka	asz	Date:	8/20/2019	_

			707467CH 01.02	MW-52	SHEET #	1 of 4
Ch2m:		W	SOIL BO	ORING LOG	LOGGER: A. Turkasz	
		tion - Blanco Plant	Start Date: 8/24/2019	DRILLING METHOD/EQUIPMENT: Rotosonic	COORDINATES:	TOTAL DEPTH OF BORING:
rth Flare Pit	•	tion - Bianco Piant	End Date: 8/24/2019	DRILLING CONTRACTOR/DRILLER: Cascade Drilling	Northing: 2087441.475 Easting: 2686018.604	79 feet
DEPTH BELOW URFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL D	DESCRIPTION	COMMENTS/NOTES, PID RE COLLECTION (Date, Time, S	
1 _		SP	SILTY SAND (SP), 2.5Y 5/4, light olive brown sand	n, dry, loose, fine to coarse grained	VOCs = 0.0 ppm.	
2			Soil removed via hydro-excavation			
3					_	
4 _					_	
5	8				_	
6 _					=	
7					-	
8 _					-	
9 _			SANDY LEAN CLAY (CL), 2.5Y 6/4, light yell very soft, fine grained sand	lowish brown, dry, medium stiff to	VOCs = 0.0 ppm.	
					VOCs = 0.0 ppm. Sample (10 - 11) collected at	
10 _				-	_ 0825 VOCs = 0.0 ppm.	
12					-	
13 _				-	VOCs = 0.0 ppm.	
14 _				-	_	
	12	CL		-	_	
15			SANDY LEAN CLAY (CL), 2.5Y 6/4, light yell soft, fine grained sand	lowish brown, dry, medium stiff to	VOCs = 0.0 ppm.	
					NOC- 00	
17 _ 18 _					_ VOCs = 0.0 ppm.	
19 _				-	_	
20					Sample (19 - 20) collected at 0835 VOCs = 0.0 ppm.	
21 _			SANDY LEAN CLAY (CL), 2.5Y 6/4, light yell soft, fine grained sand	lowish brown, dry, medium stiff to	000 – 0.0 ррпп.	
22 _		CL			VOCs = 0.0 ppm.	
23 _	10		POORLY GRADED SAND (SP), 2.5Y 6/4, lig to coarse grained sand	ht yellowish brown, dry, loose, fine		
24 _		SP			VOCs = 0.0 ppm.	
25					_ 1. 300 – 6.0 ррпп.	
_ دے			I	<u> </u>	–I	

	12	111.	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-52	SHEET# 2 of 4
Ch2m:		S	OIL BORING LOG	LOGGER: A. Turkasz	
orth Flare Pi		ation - Blanco Plant	Start Date: 8/24/2019 End Date: 8/24/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Dri	COORDINATES: TOTAL DEPTH OF BORING: Northing: 2087441.475
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE		SOIL DESCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
26 _	-		LEAN CLAY (CL), 2.5Y 4/3, olive grained sand	brown, moist, non-plastic, stiff, some fine	VOCs = 0.0 ppm.
27 _	-	CL			-
28 _	10				- VOCs = 0.1 ppm Sample (29 - 30) with MS/MSD
29 _ 30	-	CL	LEAN CLAY (CL), 2.5Y 6/3, light y fine to medium grained sand	yellowish brown, dry, non-plastic, brittle, some	collected at 0905
31 _	-		LEAN CLAY (CL), 2.5Y 6/3, light y fine to medium grained sand	yellowish brown, dry, non-plastic, brittle, some	
32 _	-				VOCs = 0.0 ppm.
33 _	-	CL			-
34 _ 35	-				-
36 _	10				VOCs = 0.0 ppm. Sample (36 - 37) collected at - 0940
37 _	-			yish brown, moist, low to medium-plasticity,	VOCs = 0.0 ppm. "water at 37' bgs.
38 _	-	CL	soft to medium stiff, fine to mediur	n grained sand	_
39 _ 40					_ VOCs = 0.0 ppm.
41 _	-		SANDY LEAN CLAY (CL), 2.5Y 5 plasticity, soft to medium stiff, fine	5/2, grayish brown, moist, low to medium- to medium grained sand	_ VOCs = 0.1 ppm.
42 _	-				-
43 _ 44 _	-	CL			- VOCs = 0.0 ppm.
45	9				_
46 _	-				VOCs = 0.8 ppm.
47 _	-		SANDY LEAN CLAY (CL), 2.5Y 5 plasticity, soft to medium stiff fine to	5/2, grayish brown, moist, low to medium- to medium grained sand, odor	VOCs = 186.7 ppm.
48 _	-	CL			-
50 _	9	CL	SANDY LEAN CLAY (CL), 2.5Y 5 medium stiff fine to medium graine	5/2, grayish brown, moist, low to medium-plasticity, soft to ed sand, odor	VOCs = 150.4 ppm.

DEFINITION OF THE COVERY STATE OF THE STATE		42		PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-52	SHEET# 3 of 4
SINUALE STATE OF THE INTERPRETATION AND AND THE STATE OF				SOIL BO	DRING LOG	LOGGER: A. Turkasz
SILLE 25Y 65, light yellowish brown, motic finances, still, some shale present, little Shale Shale	North Flare Pit		ion - Blanco Plant			Northing: 2087441.475 79 feet
SAMOY LEAK CLAY (C.C., 20 Yes, grayeth strong, most, per to mechanismosis) enterior processors and consistency, strong modulus of the processors and consistency. The consistency of the period and strong period	BELOW SURFACE		USCS CODE	SOIL D	ESCRIPTION	
SHALE 257 64, light olve break, most in fractures, self, some shale present, little for grand send Shale						VOCs = 52.2 ppm.
Shale			CL		-	
Shale Sh	J2 _				actures, stiff, some siltstone, little	VOCs = 2.3 ppm.
SHALE 287 64. Ighty vallowesh brown, dry, stiff, britis, some shale present, linite fine grained sand VOCs = 1.6 ppm. Shale SHALE 287 64. Ighty vallowesh brown, most, stiff, britis, some shale present, linite fine grained sand, some weathered sandstone VOCs = 0.4 ppm. SHALE 287 64. Ighty vallowesh brown, most, stiff, britis, some shale present, little fine grained sand, some weathered sandstone VOCs = 0.1 ppm. SHALE Gley N4. dark gray, moist within fractures, stiff, some fine grained sand. VOCs = 0.0 ppm. SHALE Gley N4. dark gray, moist within fractures, stiff, some fine grained sand. VOCs = 0.0 ppm. SHALE Gley N4. dark gray, moist within fractures, stiff, some fine grained sand. VOCs = 0.0 ppm. VOCs = 0.0 ppm. SHALE Gley N4. dark gray, wet, stiff, some fine grained sand, interbedded fine grained sandstone layers VOCs = 0.1 ppm. VOCs = 0.1 ppm. SHALE Gley N4. dark gray, wet, stiff, some fine grained sand, interbedded fine grained sandstone layers VOCs = 0.0 ppm. VOCs = 0.0 ppm. VOCs = 0.0 ppm.	53 _		Shale		-	- VOCs = 0.9 ppm.
Shale Sh	54 _	9			tiff, brittle, some shale present, little	<u>-</u>
Shale	55				-	- VOCs = 1.6 ppm.
SHALE Stay N4, dark gray, moist within fractures, stiff, some line grained sand, interbedded line grained sand, some layers Shale Sha	56 _		Shale		-	-
SHALE, 2.5Y 6/4, light yellowish brown, moist, stiff, brittle, some shale present, little fine grained sand, some weathered sandstone Shale Shale SHALE, Gley N4, dark gray, moist within fractures, stiff, some fine grained sand VCCs = 0.0 ppm. SHALE, Gley N4, dark gray, moist within fractures, stiff, some fine grained sand. VCCs = 0.0 ppm. VCCs = 0.0 ppm. VCCs = 0.0 ppm. Shale Shale Shale Shale Shale SHALE, Gley N4, dark gray, wet, stiff, some fine grained sand, interbedded fine grained sandstone layers VCCs = 0.0 ppm. VCCs = 0.1 ppm.	57 _				-	- VOCs = 0.4 ppm.
Shale Shale Shale SHALE Gley N4, dark gray, moist within fractures, stiff, some fine grained sand VCCs = 0.0 ppm. SHALE Gley N4, dark gray, moist within fractures, stiff, some fine grained sand. VCCs = 0.0 ppm. SHALE Gley N4, dark gray, moist within fractures, stiff, some fine grained sand. VCCs = 0.0 ppm. VCCs = 0.0 ppm. VCCs = 0.0 ppm. VCCs = 0.1 ppm.	58 _					-
SHALE. Gley N4, dark gray, moist within fractures, stiff, some fine grained sand VOCs = 0.0 ppm. SHALE. Gley N4, dark gray, moist within fractures, stiff, some fine grained sand, interbedded fine grained sandsistone layers Shale	59 _			little fine grained sand, some weathered sand	stone -	- VOCs = 0.1 ppm.
SHALE, Gley N4, dark gray, moist within fractures, stiff, some fine grained sand VOCs = 0.0 ppm. SHALE, Gley N4, dark gray, moist within fractures, stiff, some fine grained sand, interbedded fine grained sandstone layers Shale Sh	60		Shale		_	-
SHALE Gley N4, dark gray, moist within fractures, stiff, some fine grained sand, interbedded fine grained sandstone layers Shale Shal	61 _			SHALE, Gley N4, dark gray, moist within fract	ures, stiff, some fine grained sand	VOCs = 0.0 ppm.
SHALE, Gley N4, dark gray, moist within fractures, stiff, some fine grained sand, interbedded fine grained sandstone layers Shale Sha	62 _				-	
Interbedded fine grained sandstone layers	63 _			SHALE, Gley N4, dark gray, moist within fract	ures, stiff, some fine grained sand,	VOCs = 0.0 ppm.
Shale Shale Shale Shale SHALE, Gley N4, dark gray, wet, stiff, some fine grained sand, interbedded fine grained sandstone layers VOCs = 0.1 ppm. VOCs = 0.1 ppm. VOCs = 0.0 ppm.	64 _	12		interbedded fine grained sandstone layers	-	-
SHALE Gley N4, dark gray, wet, stiff, some fine grained sand, interbedded fine grained sandstone layers VOCs = 0.1 ppm.	65				_	
grained sandstone layers VOCs = 0.1 ppm. VOCs = 0.1 ppm. VOCs = 0.0 ppm.	66 _		Shale	SHALE Glev N4 dark gray wet stiff some fi	ne grained sand, interhedded fine	- -
68 _	67 _				-	- VOCs = 0.1 ppm.
VOCs = 0.0 ppm. SHALE, Gley N4, dark gray, wet, stiff, some fine grained sand, interbedded fine grained sandstone layers VOCs = 0.0 ppm. VOCs = 0.0 ppm. VOCs = 0.0 ppm. VOCs = 0.0 ppm.	68 _				-	-
70	69 _				-	- VOCs = 0.0 ppm
71 _ grained sandstone layers	70 _			SHALE, Gley N4, dark gray, wet, stiff, some fi	ne grained sand, interbedded fine	_
72 _ 9 Shale 73	71 _				-	- VOCs = 0.0 ppm.
73	72 _				-	
74	73 _	9	Shale		-	VOCs = 0.0 ppm
	74 _				-	-
Sampler Signature: A. Turkasz Date: 8/24/2019	75 _				-	_
	Sampler	Signature:	A. Turk	asz	Date	8/24/2019

	42	11:	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-52	SHEET# 4 of 4
			SOIL BO	RING LOG	LOGGER: A. Turkasz
PROJECT : Pha North Flare Pi	se 2 Site Investigat		Start Date: 8/24/2019 End Date: 8/24/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: TOTAL DEPTH OF BORING: Northing: 2087441.475 79 feet Easting: 2686018.604
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
76 _		Shale	SHALE, Gley N4, dark gray, wet, stiff, some fin grained sandstone layers	e grained sand, interbedded fine	
77 _			SANDSTONE, Gley N7, light gray, dry to moist medium grained sand	, heavily cemented, fine to	VOCs = 0.0 ppm.
78 _	9	Sandstone		_	VOCs = 0.0 ppm.
79 _					VOCs = 0.0 ppm.
80			End of boring	9	_
81 _				_	_
82 _				-	_
83 _				-	-
84 _				-	-
85				_	-
86 _				-	-
87 _				-	-
88 _				-	-
89 _				-	-
90				_	-
91 _				-	-
92 _				-	-
93 _				-	-
94 _				-	-
95				_	-
96 _				-	-
97 _				-	-
98 _				-	-
99 _				-	-
			I .	-	-1
Sampler	Signature:	A. Turk	asz	Date:	8/24/2019

	1		PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-53	SHEET #	L of 4
Ch2m:			SOIL BO	ORING LOG	LOGGER: A. Turkasz	
th Flare Pit	e 2 Site Investigat	ion - Blanco Plant	Start Date: 8/22/2019 End Date: 8/23/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2087548.049 Easting: 2685764.767	TOTAL DEPTH OF BORING 86 feet
EPTH ELOW JRFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL D	DESCRIPTION	COMMENTS/NOTES, PID RE COLLECTION (Date, Time, S	
1 _		SP	SILTY SAND (SP), 2.5Y 5/44, light olive brow coarse grained sand	n, dry, loose, poorly graded, fine to	VOCs = 0.0 ppm.	
2 _			Soil removed via hydro-excavation	-	=	
3 _				-	-	
4 _	9			-	-	
5 _	3			-	_	
6 _ 7				-	-	
8 _				-	- -	
9 _			SANDY LEAN CLAY (CL), 2.5Y 6/3, light yell	lowish brown dry non-plastic	 VOCs = 0.0 ppm.	
10 _			medium stiff, fine to coarse grained sand, sor		Sample (9 - 10) collected at 1205 with duplicate	
11 _				-	- VOCs = 0.0 ppm.	
12 _		CL		-	-	
14 _				-	VOCs = 0.0 ppm.	
15 _	11			_	- VOCs = 0.0 ppm.	
16 _			LEAN CLAY (CL), 2.5Y 4/3, olive brown, dry,		==	
17 _			grained sand, some weathered sandstone flo	at, some weathered shale float -	- VOCs = 0.0 ppm.	
18 _		CL		-	-	
19 _ 20 _				- _	Sample (19-20) collected at 1225 VOCs = 0.0 ppm.	
21 _		CL	LEAN CLAY (CL), 2.5Y 4/3, olive brown, dry, sand, some weathered sandstone float, some		-	
22 _	10		CLAYEY SAND (SC), 2.5Y 5/3 light yellowish medium grained sand, some weathered sand		VOCs = 0.1 ppm.	
23 _ 24 _		sc		-	VOCs = 0.0 ppm.	
25 _					_	
Sampler S	2	A. Turk		Date:	8/23/2019	

	42	144.	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-53	SHEET # 2	of 4
Ch2m:		SM	SOIL BO	RING LOG	LOGGER: A. Turkasz	
North Flare Pit	_		Start Date: 8/22/2019 End Date: 8/23/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2087548.049 Easting: 2685764.767	TOTAL DEPTH OF BORING: 86 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RES	
2 6 _			CLAYEY SAND (SC), 2.5Y 5/3 light yellowish t medium grained sand, some weathered sands		VOCs = 0.0 ppm.	-
27 _ 28 _	10	sc		-	VOCs = 0.1 ppm.	-
29 _ 30				-	Sample (29 - 30) collected at 1235 VOCs = 0.0 ppm.	-
31 _			SANDY LEAN CLAY (CL), 2.5Y 5/4, light olive stiff, fine grained sand, little weathered shale	brown, dry, non-plastic, medium	_ vocs = 0.0 ppm.	-
32 _		CL		-	VOCs = 0.0 ppm Sample (32 - 33) collected at 1330	-
33 _ 34 _	8	01-1-	SHALE, 2.5Y 6/1, gray, dry, stiff, moist in fractu	ures, some siltstone	VOCs = 0.1 ppm.	-
35 <u> </u>		Shale			VOCs = 0.1 ppm.	-
37 _		Shale	SHALE, 2.5Y 6/1, gray, dry, medium stiff, brittle shale and fine grained sand layers	a, moist in fractures, occasional	-	-
38 _ 39 _			SHALE, 2.5Y 6/1, gray, dry, moist in fractures, grained sand layers	brittle, occasional shale and fine	_ VOCs = 0.0 ppm.	-
40 <u> </u>				_	_ VOCs = 0.0 ppm.	-
42 _	7	Shale		-	VOCs = 0.2 ppm.	
44 _			SHALE, 2.5Y 6/1, gray, dry, moist in fractures,	- hrittle occasional shale and fine	VOCs = 0.2 ppm.	
45 <u> </u>			grained sand layers SHALE (SH), 2.5Y 4/1, dark gray, dry to moist siltstone	_		_
47 _		Chalc		-	- 1.300 = 0.1 pp	
48 _ 49 _	9	Shale		-	VOCs = 0.0 ppm.	
50 _					VOCs = 0.1 ppm.	-
Sampler S	Signature:	A. Turka	SZ	Date:	8/23/2019	

	of 4
COUCH Phase 2 Site Investigation - Blance Plant Surf Doice 9/21/2019 Soil Disc 9/21/2019 Soil Des CHING ONTINCIDATION Description Soil Disc 9/21/2019 Soil Des CHING CONTINCIDATION Description Desc	
RECOVERY (CT) RECOVERY (CT) SHALE 2.5Y 41, dark gray, dry to moist in fractures, self, brille, some sitistone SHALE 2.5Y 41, dark gray, dry to moist in fractures, self, brille, some sitistone VOCs = 0.1 ppm. VOCs = 0.0 ppm.	TOTAL DEPTH OF BORING 86 feet
Shale Shal	
Shale Shal	
SHALE 2.57 41, dark gray, dry to might in fractures, stiff, brittle, some sitistone VOCs = 0.1 ppm.	
SHALE 25Y 41, dark gray, dry to slightly moist in fractures, stiff, brittle, some sillistone VCCs = 0.1 ppm.	
SHALE 2.5Y 4/1, dark gray, dry to most in fractures, saff, brittle, some sitistone	
Shale Shal	
VOCs = 0.0 ppm. VOCs = 0.0	
Shale Shal	
Shale Shale Shale VOCs = 0.0 ppm.	
60	
VOCs = 0.0 ppm. VOCs = 0.0 ppm.	
SHALE, 2.5Y 4/1, dark gray, dry to moist in fractures, stiff, brittle, some silistone, some layers of cemented fine grained sandstone 7 Shale SHALE, 2.5Y 4/1, dark gray, dry to moist in fractures, stiff, brittle, some silistone, some layers of cemented fine grained sandstone VOCs = 0.0 ppm. VOCs = 0.1 ppm. VOCs = 0.1 ppm. VOCs = 0.0 ppm.	
SHALE, 2.5Y 4/1, dark gray, dry to moist in fractures, stiff, brittle, some siltstone, some layers of cemented fine grained sandstone 7 Shale SHALE, 2.5Y 4/1, dark gray, dry to moist in fractures, stiff, brittle, some siltstone, some layers of cemented fine grained sandstone VOCs = 0.0 ppm. VOCs = 0.0 ppm. VOCs = 0.0 ppm. VOCs = 0.0 ppm. VOCs = 0.1 ppm. Shale SHALE, 2.5Y 4/1, dark gray, dry to moist in fractures, stiff, brittle, some siltstone, occasional sandstone VOCs = 0.1 ppm. VOCs = 0.1 ppm. VOCs = 0.1 ppm. Shale SANDY SHALE, Gley N4, dark gray, wet within fractures, stiff, brittle, fine to medium grained sand, unconsolidated wet fine to medium grained sand between shale fractures VOCs = 0.0 ppm.	
some layers of cemented fine grained sandstone VOCs = 0.0 ppm. Shale Shale Shale Question occasional sandstone Shale Shale Question occasional sandstone Shale Shale Shale Shale Question occasional sandstone Shale Shale Shale Shale Shale Shale VOCs = 0.0 ppm.	
Shale Sh	
7 Shale SHALE, 2.5Y 4/1, dark gray, dry to moist in fractures, stiff, brittle, some siltstone, some layers of cemented fine grained sandstone VOCs = 0.0 ppm. VOCs = 0.1 ppm. Shale	
SHALE, 2.5Y 4/1, dark gray, dry to moist in fractures, stiff, brittle, some siltstone, some layers of cemented fine grained sandstone TO	
some layers of cemented fine grained sandstone Some layers of cemented fine grained sandstone	
70	
Shale Sh	
Shale occasional sandstone SANDY SHALE, Gley N4, dark gray, wet within fractures, stiff, brittle, fine to medium grained sand, unconsolidated wet fine to medium grained sand between shale fractures Shale Shale VOCs = 0.0 ppm.	
medium grained sand, unconsolidated wet fine to medium grained sand between shale fractures 73 - Shale Shale medium grained sand, unconsolidated wet fine to medium grained sand between shale fractures - VOCs = 0.0 ppm.	
73 – Shale – VOCs = 0.0 ppm.	
75	

Selection Sele		42	444.	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-53	SHEET# 4 of 4
Sect			SOI	L BORING LOG	LOGGER: A. Turkasz	
SELOW SINGLE COOR SOLD	North Flare Pit		tion - Blanco Plant			Northing: 2087548.049 86 feet
SHALE Glay N 41. dark gray, dry to most in fractures, some fine grained sand VCCs = 0.1 ppm.	BELOW SURFACE		USCS CODE		SOIL DESCRIPTION	
78 Shale VOCs = 0.1 ppm. Shale Gley N 4/1, dark gray, moist, some fine grained sand VOCs = 0.0 ppm. Shale Gley N 4/1, dark gray, moist, some fine grained sand VOCs = 0.0 ppm. VOCs = 0.0 ppm. VOCs = 0.1 ppm. VOCs = 0.0 ppm. VOCs = 0.0 ppm. Poc VOCs = 0.0					y to moist in fractures, some fine	VOCs = 0.1 ppm.
78 - SHALE Cley N 4/1, dank gray, moist, some fine grained sand VOCs = 0.0 ppm.	77 _	6	Shale			_
SHALE Gley N 4/1, dark gray, moist, some fine grained sand VOCs = 0.0 ppm. Page 1	78 _					VOCs = 0.1 ppm.
81	79 _			SHALE, Gley N 4/1, dark gray, mo	oist, some fine grained sand	
82 - VOCe = 0.0 ppm. VOCe						-
83						VOCs = 0.0 ppm.
84						
86	84 _					
86	85					
88	86 _					VOCs = 0.0 ppm.
89	87 _					_
90 91 92 93 94 95 96 97 98 99						_
91						-
93						
94 -	92 _					_
95	93 _					-
96	94 _					_
97	95					_
98						-
99						-
100						
Sampler Signature: A. Turkasz Date: 8/23/2019						
	Sampler S	Signature:	A. Turka	ISZ	Dat	e:8/23/2019

			PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-54	SHEET# 1 of 3
		M :	SOIL BORING LOG		LOGGER: A. Turkasz
PROJECT : Phase 2 Site Investigation - Blanco Plant North Flare Pit		ation - Blanco Plant	Start Date: 8/20/2019 End Date: 8/21/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade D	
DEPTH BELOW RE SURFACE (FT)	COVERY (FT)	USCS CODE	5	SOIL DESCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
1 _		SP	SILTY SAND (SP), 2.5Y 5/4, light olive fine to coarse grained sand	brown, dry, loose, brittle, poorly graded,	VOCs = 0.0 ppm.
2 _			Soil removed via hydro-excavation		
3 _					
4 _					
5	10				_
6 _					-
7 _					_
8 _					-
9 _					-
10			CLAYEY SAND (SP), 2.5Y 5/4, light ol	ive brown, dry, non-plastic, loose, fine to	
11 _			coarse grained sand, some silt, some v	weathered sandstone and shale float	VOCs = 0.0 ppm.
12 _					_ *Sample (10 - 11) collected at 1440 with MS/MSD
13 _		SC			_ VOCs = 0.0 ppm
14 _					- VOCs = 0.1 ppm.
15	10				_
17					VOCs = 0.0 ppm.
18 _			SANDY LEAN CLAY (CL), 2.5Y 6/2, liq plastic, medium stiff, trace weathered s	ght brownish gray, dry to moist, non- andstone float, little orange staining	
19 _		CL			VOCs = 0.0 ppm -
20			SANDY LEAN CLAY (CL), 2.5Y 6/2, liq	abt brownish gray, day to maint non	*Sample (19 - 20) collected at 1450 with duplicate
21 _			plastic, medium stiff, trace weathered s		-
22 _					VOCs = 0.0 ppm.
23 _	9	CL		ght brownish gray, dry to moist, brittle, non-	
24 _			plastic, trace weathered sandstone floa	at, little orange staining	-
25 _					VOCs = 0.1 ppm.

	42	M:	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-54	SHEET# 2 of 3	
		YY S M	SOIL BORING LOG		LOGGER: A. Turkasz	
orth Flare Pit	_	ation - Blanco Plant	Start Date: 8/20/2019 DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling		COORDINATES: TOTAL DEPTH OF BORING: Northing: 2087349.776 75 feet Easting: 2685729.638	
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	so	IL DESCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)	
26 _			SANDY LEAN CLAY (CL), 2.5Y 6/2, light plastic, medium stiff, trace weathered san		VOCs = 0.0 ppm.	
27 _	9	CL			VOCs = 0.0 ppm.	
28 _	3	GE.	SANDY LEAN CLAY (CL), 2.5Y 6/2, light plastic, medium stiff, trace weathered san grained sand		-	
29 _					VOCs = 0.0 ppm.	
30		CL	SANDY LEAN CLAY (CL), 2.5Y 6/2, light plastic, medium stiff, trace weathered san grained sand		*Sample (29 - 30) collected at 1507	
31 _				<u> </u>	VOCs = 0.0 ppm.	
32 _			SANDY LEAN CLAY (CL), 2.5Y 4/1, dark grained sand, medium stiff to stiff	s gray, dry, non-plastic, some fine	- VOCs = 0.0 ppm.	
33 _	0				-	
34 _	9	CL			VOCs = 0.0 ppm.	
35 <u> </u>			SANDY LEAN CLAY (CL), 2.5Y 4/1, dark grained sand, medium stiff to stiff	gray, dry, non-plastic, some fine	<u>-</u> -	
37 _					VOCs = 0.0 ppm.	
38 _			SANDY LEAN CLAY (CL), 2.5Y 4/1, dark	. grav. drv. non-plastic. some fine	=	
39 _		CL	grained sand, medium stiff to stiff SANDY LEAN CLAY (CL), 2.5Y 4/1, dark	v grav, dry pop plastic come fine	VOCs = 0.0 ppm.	
40			grained sand, medium stiff to stiff, occasion	onal pieces of shale	*Sample (39 - 40) collected at 1605 =	
41 _			SHALE, 2.5Y 6/1, gray, dry, medium stiff, shale, occasional fine grained sandstone	some fine grained sand, occasional	*bedrock at 40' bgs *Boring begins at 41' bgs	
40					8/21/2019	
42 _ 43 _	9				VOCs = 0.0 ppm.	
44 _		Shale			VOCs = 0.0 ppm.	
45				-	VOCs = 0.0 ppm	
46 _					-	
47 _			SHALE, 2.5Y 6/1, gray, moist, softer, som	ne fine grained sand, occasional shale,	VOCs = 0.0 ppm.	
48 _			occasional fine grained sandstone, moisturock		- *Water at 48' bgs.	
49 _	6	Shale			VOCs = 0.0 ppm.	
50 _				_		
Sampler S	Signature:	A. Turka	067	D-1	: 8/21/2019	

			PROJECT NUMBER	BORING NUMBER	SHEET# 3	of 3
	12	M:	707467CH 01.02	MW-54	LOGGER: A. Turkasz	
		SM	SOIL BO	RING LOG		
North Flare Pi		gation - Blanco Plant	Start Date: 8/20/2019 End Date: 8/21/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2087349.776 Easting: 2685729.638	TOTAL DEPTH OF BORING: 75 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sar	
51 _			SHALE, 2.5Y 6/1, gray, moist, soft, some fine goccasional fine grained sandstone, moisture wi		VOCs = 0.0 ppm.	_
52 _	6	Shale		_		_
53 _				_	VOCs = 0.0 ppm.	_
54 _			SHALE, 2.5Y 6/1, gray, moist, soft, some fine goccasional fine grained sandstone, moisture wi			_
55		Shale		_	VOCs = 0.0 ppm.	_
56 <u> </u>	6			_		_
57 _			SHALE, 2.5Y 4/1, dark gray, dry, stiff, medium slightly moist within fractures	stiff, little fine grained sand,		_
58 _		Shale		_	VOCs = 0.0 ppm.	_
59 _				_		_
60			SHALE, 2.5Y 4/1, dark gray, dry, moist within fr fine grained sand	actures, stiff, some brittle, little	VOCs = 0.0 ppm.	_
61 _	3	Shale		_	VOCs = 0.0 ppm.	-
62 _				_		-
63 _			INTERBEDDED SANDSTONE/SHALE, 2.5Y 5 shale fractures, fine grained sandstone, shale is and heavily cemented		VOCs = 0.0 ppm.	-
64 _	3	Sandstone/ Shale		-		-
65					VOCs = 0.0 ppm.	_
66 _			fine grained sandstone, shale is stiff, brittle, sar	•	VOCs = 0.1 ppm.	=
67 _		Sandstone/ Shale	INTERBEDDED SANDSTONE/SHALE, 2.5Y 5 shale fractures, fine grained sandstone, shale is sandstone is stiff and heavily cemented	/1, gray, moist to dry, moisture in s stiff, brittle, less consolidated, —		-
68 _	5				VOCs = 0.0 ppm.	-
69 _		Sandstone	SANDSTONE, Gley N8/, white, dry, very stiff, h grained sand	eavily cemented, fine to medium -		-
70				_	VOCs = 0.0 ppm.	_
71 _			SANDSTONE, Gley N8/, white, dry, very stiff, h grained sand	eavily cemented, fine to medium -	VOCs = 0.0 ppm.	_
72 _				-		-
73 _	5	Sandstone		-	VOCs = 0.0 ppm.	_
74 _				-		_
75 _			End of Boring	9	VOCs = 0.0 ppm.	
	,			-	-	_
Sampler S	Signature:	A. Turk	asz	Date:	8/21/2019	

	42	M:	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-55	SHEET# 1 of 3
		V SM	SOI	L BORING LOG	LOGGER: A. Turkasz
ROJECT : Phase 2 Site Investigation - Blanco Plant Jorth Flare Pit		ation - Blanco Plant	Start Date: 8/15/2019 End Date: 8/15/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilli	COORDINATES: TOTAL DEPTH OF BORING: Northing: 2087040.904
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE		SOIL DESCRIPTION	COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)
1 _		SP	POORLY GRADED SAND (SP), 2.5YI coarse grained sand, trace clay, sub-re	R 5/3, light olive brown, dry, loose, fine to ounded grains, some silt	VOCs = 0.0 ppm.
2 _			Soil removed via hydro-excavation		_
3 _					-
4 _					-
5	10				-
6 _					-
7 _					-
8 _					_
9 _					_
10 _			CLAYEY SAND (SC), 2.5YR 5/4, light graded, fine to medium grained sub-ro	t olive brown, dry, non-plastic, loose, well bunded sand, some silt	*Sample (10 - 11) collected at 1100
11 _ 12					VOCs = 0.0 ppm.
13 _					
14 _		sc			VOCs = 0.0 ppm.
15	10				_
16 _					-
17 _					VOCs = 0.0 ppm.
18 _				olive brown, dry, non-plastic, loose, well	
19 _		sc	graded, fine to medium grained sub-ro	ourided saild, some siit, more day	- *Sample (19 - 20) collected at 1115
20			CLAYEY SAND (SC), 2.5YR 5/4, light graded, fine to medium grained sub-ro	t olive brown, dry, non-plastic, loose, well bunded sand, some silt, more clay	VOCs = 0.0 ppm.
21 _					- VOCs = 0.0 ppm.
23 _	9	sc			
24 _					VOCs = 0.0 ppm.
25 _					

d	12	144.	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-55	SHEET #	2 of 3
	Ch2m:		SOIL BORING LOG		LOGGER: A. Turkasz	
ROJECT : Pha		gation - Blanco Plant	Start Date: 8/15/2019 End Date: 8/15/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2087040.904 Easting: 2685908.668	TOTAL DEPTH OF BORING: 52 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	so	DIL DESCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa	
26 _				SANDY LEAN CLAY (CL), 2.5Y 5/3, light olive brown, dry, non-plastic, stiff to very soft, fine to medium grained sand, slight cementing, veins present		
27 _	9	CL			-	
28 _					-	
29 _			SANDY I FAN CLAY (CL) 2 5Y 5/3 light	t olive brown, dry, non-plastic, stiff to very soft, fine to	VOCs = 0.0 ppm. *Sample (29 - 30) collected at	
30		CL	medium grained sand, slight cementing, v		1125	
31 _			LEAN CLAY (CL), 2.5Y 4/3, olive brown, medium stiff to very soft, some fine grains mineral deposit		VOCs = 0.0 ppm.	
32 _		CL			- VOCs = 0.0 ppm.	
33 _ 34 _	9				-	
35			LEAN CLAY (CL), 2.5Y 3/2, very dark grastiff, little fine grained sand, trace nodules		*sample (34 - 35) collected at 1210	-
36 _		CL			VOCs = 3.7 ppm. *Significant moisture at 36' bgs.	
37 _					-	
38 _			LEAN CLAY (CL), 2.5Y 3/2, very dark gra	avish brown, moist, non-plastic, medium	_	
39 _		CL	stiff, little fine grained sand, trace nodules interbedded mudstone		VOCs = 5.7 ppm.	
40			SANDSTONE, 2.5Y 6/3, light yellowish bi	rown dry to moist very stiff to medium	*Bedrock at 40' bgs.	
41 _	6		stiff, slight odor, fine grained sand, trace t banding *Moist areas have a mild odor		_ VOCs = 3.3 ppm.	
42 _ 43		Sandstone			VOCs = 0.4 ppm.	
44						
44 _ 45			SHALE, 2.5Y 5/1, gray, dry to moist, very sand	stiff to medium stiff, little fine grained	VOCs = 0.2 ppm.	
46 _			SHALE, 2.5Y 5/1, gray, moist, medium st	iff, fine to medium grained sand	=	
47 _	8	Shale	SHALE, 2.5Y 5/1, gray, moist, medium st	iff, fine to medium grained sand	VOCs = 0.0 ppm.	
48 _					VOCs = 0.0 ppm.	
50 _					VOCs = 0.0 ppm.	
Sampler S	Signature:	A. Turka	ISZ	Date	8/15/2019	

MW-SS	<u> </u>	42		PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-55	SHEET# 3 of 3
Part	U		SM SM	SOI	L BORING LOG	LOGGER: A. Turkasz
## SECOVERY USCS CODE SOIL DESCRIPTION COMMENTANCITS, PIO RESULTS, SAMPLE	North Flare Pit		gation - Blanco Plant			Northing: 2087040.904 52 feet
SANSETION No. white, dry, nor-plants, eyer giff to resident still, white owners are still with the content still, white owners are still to content provided and VCC= 0.4 ppm.	BELOW SURFACE		USCS CODE		SOIL DESCRIPTION	
Section Substitute Section Sec						VOCs = 0.4 ppm.
End of boring 53	51 _	8	Sandstone			- VOCs = 0.3 ppm.
54 _ 55 _ 56 _ 56 _ 57 _ 58 _ 59 _ 60 _ 61 _ 61 _ 62 _ 63 _ 64 _ 65 _ 66 _ 67 _ 68 _ 67 _ 68 _ 69 _ 70 _ 71 _ 72 _ 73 _ 74 _ 64 _ 65 _ 67 _ 67 _ 68 _ 67 _ 68 _ 67 _ 68 _ 67 _ 68 _ 67 _ 68 _ 67 _ 68 _ 67 _ 68 _ 67 _ 68 _ 67 _ 68 _ 67 _ 68 _ 67 _ 68 _ 68	52 _			End	of boring	
55	53 _					-
56	54 _					_
57 _	55					-
58 _ 59 _ 60 _ 61 _ 62 _ 63 _ 64 _ 65 _ 66 _ 67 _ 68 _ 69 _ 70 _ 71 _ 72 _ 73 _ 74 _	56 _					_
59	57 _					
59	58					
60 — 61 — 62 — 63 — 64 — 65 — 66 — 67 — 68 — 69 — 70 — 71 — 72 — 73 —						
61 _ 62						
62 - 63 - 64 - 65 - 66 - 67 - 68 - 69 - 70 - 71 - 72 - 73 - 74 -						_
63						-
64 _ 65 _ 66 _ 66 _ 67 _ 68 _ 69 _ 70 _ 71 _ 72 _ 73 _ 74 _ 6	62 _					-
65 _	63 _					-
66 _ 67 _ 68 = 69 _ 69 _ 70 _ 71 _ 72 _ 73 _ 74 = 67 _ 67 _ 67 _ 67 _ 67 _ 67 _ 67 _ 67	64 _					-
67	65					_
68 _ 69 70 71 72 73 74 74 74 74 74 74 75 _	66 _					-
69	67 _					-
70	68 _					-
71	69 _					_
72	70					_
73	71 _					-
74 _	72 _					-
	73 _					_
75 _	74 _					-
	75 _					_
Sampler Signature: A. Turkasz Date: 8/15/2019	Samala- 0	ianatura	A T! -	907		Data: 9/45/2040

	100		PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-56	SHEET# 1	of 3
	NZ	M:	SOIL BO	ORING LOG	LOGGER: A. Turkasz	
PROJECT : Phase 2 Site Investigation - Blanco Plant North Flare Pit		gation - Blanco Plant		DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2086804.857 Easting: 2686020.212	TOTAL DEPTH OF BORING: 60 feet
DEPTH BELOW SURFACE	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RES	
(FT)		SM	WELL GRADED SAND (SW), 2.5YR 5/3, light loose, predominantly fine grained sand, some		VOCs = 0.0 ppm.	
1 _			Soil removed via hydro-excavation			-
2 _				-	-	-
3 _				-	=	-
4						
				-	-	-
5	10			-	-	-
6 _				-	-	-
7 _				-	-	-
8 _				-	-	-
9						
				-	-	-
10			POORLY GRADED SAND (SP), 2.5Y 6/3, light coarse grained sand, fine grained sub-rounder		*Sample (10 - 11) collected at 1405	_
11 _			coarse grained saird, fine grained sub-rounder	u gravernear bottom -	VOCs = 0.0 ppm.	-
12 _		SP		-	-	-
13 _				_	_	_
14 _					VOCs = 0.0 ppm.	
17 _			SANDY LEAN CLAY (CL) 2.5Y 6/3, light yellowedium stiff, fine grained sand, some silt, trace		-	-
15	10			_	VOCs = 0.0 ppm.	_
16 _				-	-	=
17 _		CL		-	-	-
18 _				_	VOCs = 0.0 ppm.	_
19 _						
19 _				-	*Sample (19 - 20) collected at 1410 with duplicate	-
20			SANDY LEAN CLAY (CL) 2.5Y 6/3, light yellor		-	_
21 _			medium stiff, fine grained sand, some silt, trace minor white veins present	e iine grained sub-rounded gravei, -	VOCs = 0.0 ppm.	=
22 _				-	-	-
23 _	10	CL			VOCs = 0.0 ppm.	
				-		-
24 _				-	-	-
25 _						-
Sampler S	signature:	A. Turka	asz	Date:	8/17/2019	

	42	11:	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-56	SHEET# 2	of 3
		SM SM	SOIL BORING LOG		LOGGER: A. Turkasz	
=		ation - Blanco Plant	Start Date: 8/16/2019 End Date: 8/17/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2086804.857 Easting: 2686020.212	TOTAL DEPTH OF BORING: 60 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	SCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa	
26 _			SANDY LEAN CLAY (CL) 2.5Y 6/3, light yellow medium stiff, fine grained sand, some silt, trace minor white veins present		VOCs = 0.0 ppm.	
27 _	10	CL		-	VOCs = 0.0	
28 _ 29				-	*Sample (29 - 30) collected at 1425	
30			SANDY LEAN CLAY (CL) 2.5Y 6/3, light yellow grained sand, some silt, trace fine grained graw	v brown, dry, non-plastic, stiff to medium stiff, fine rel, iron like pieces, minor white veins present		
31 _			grained sand, some silt, trace fine grained grav			
32 _		CL	*32' - 33' dark red iron like staining with fine to color	coarse grained gravel of same	VOCs = 0.0 ppm.	
33 _			LEAN CLAY (CL) 2.5Y 3/1, very dark gray, mo	ist, non to low-plasticity, soft,	VOCs = 0.0 ppm.	
34 _	9		trace fine grained sand, little shale pieces	-	VOCs = 0.0 ppm.	
35 <u> </u>		CL		_	-	=
37 _				-	VOCs = 0.0 ppm.	
38 _		SP	POORLY GRADED SAND WITH GRAVEL (SI brown, dry to moist, loose, fine to coarse graine sub-rounded gravel, some clay, some subroun	ed sand, fine to coarse grained	VOCs = 0.0 ppm.	
39 _ 40			LEAN CLAY (CL) 2.5Y 4/3 olive brown, dry, no interbedded silt	on-plastic, medium stiff, little	*8/17/2019 begin boring at 40' bgs.	
41 _		CL		_	VOCs = 0.0 ppm.	-
42 _			LEAN CLAY (CL) 10YR 3/3, dark brown, moist	medium to high plasticity soft	*Sample (41 - 42) collected at 0920	
43 _			slow dilatancy, little fine to medium grained san gravel, trace black staining		VOCs = 0.0 ppm. *water at 42' bgs	
44 _	9	CL		-	VOCs = 0.0 ppm.	
45 <u> </u>			LEAN CLAY (CL) 10YR 3/3, dark brown, moist low dilatancy, more fine to medium grained san		_	-
46 _			gravel, trace black staining		VOCs = 0.0 ppm.	
48 _		CL	some weathered sandstone (light gray with ligh	ounded fine grained gravel, trace black staining, it orange staining)		
49 _	6	CL	some weathered sandstone (light gray with ligh	ounded fine grained gravel, trace black staining, it orange staining)	VOCs = 0.0 ppm.	
50 _		Sandstone	SANDSTONE, N8/ white with slight light blue, of cemented heavily, stiff to medium stiff	ary to moist, fine to medium grained sand,	*Bedrock at 49' bgs.	
	signature:	A. Turka	397	Date:	8/17/2019	

	40	444	PROJECT NUMBER 707467CH 01.02	BORING NUMBER MW-56	SHEET # 3	of 3
J		M :	SOIL BO	RING LOG	LOGGER: A. Turkasz	
PROJECT : Phas North Flare Pit	se 2 Site Investig	ation - Blanco Plant	Start Date: 8/16/2019 End Date: 8/17/2019	DRILLING METHOD/EQUIPMENT: Rotosonic DRILLING CONTRACTOR/DRILLER: Cascade Drilling	COORDINATES: Northing: 2086804.857 Easting: 2686020.212	TOTAL DEPTH OF BORING: 60 feet
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DE	ESCRIPTION	COMMENTS/NOTES, PID RES COLLECTION (Date, Time, Sa	
51 _			SANDSTONE, N8/, white with slight light blue, grained sand, heavily cemented	dry to moist, fine to medium	VOCs = 0.0 ppm.	_
52 _	6	Sandstone		-		-
53 _				-	VOCs = 0.0 ppm.	-
54 _ 55			SANDSTONE, N8/, white with slight light blue, sand, medium cementing, stiff to medium stiff	moist, fine to coarse grained	VOCs = 0.0 ppm.	=
56 _				-	-	- -
57 _	6	Sandstone		-	VOCs = 0.0 ppm.	-
58 _				-	-	=
59 _ 60				- _	-	_
61 _			End of borin	g -		-
62 _				-	-	-
63 _				-		_
64 _ 65				- _		_
66 _				-	-	_
67 _				-		-
68 _ 69 _				-	-	-
70				- -	-	- -
71 _				-	-	-
72 _				-	-	-
73 _ 74 _				-	-	-
75 _						_
Sampler S	ignature:	A. Turka	isz	Date:	8/17/2019	_



WELL NUMBER: PROJECT NUMBER: 477041.06.03 MW-40

Well Completion Diagram

101.6 BOTTOM OF BOREHOLE

PROJECT : Blanco Gas Plant - North Flare Pit LOCATION: Bloomfield, New Mexico ELEVATION: 5619.59 ft amsl TOC: 5621.43 ft amsl DRILLING CONTRACTOR AND DRILL RIG: Yellow Jacket Drilling, 150 cc TerraSonic Rig COORDINATES: 2686334.64 ft E, 2086220.46 ft N DRILLING METHOD AND EQUIPMENT: 8-inch casing w/continuous core WATER LEVEL: 64.25 ft btoc START: 9/7/2017 END: 9/16/2017 LOGGER : Luke Hill TOP OF PROTECTIVE CASING 3 ft ags -Well pad is 3 ft. x 3 ft. wide, 6 inches thick TOP OF CASING 2.5 ft ags **2.5** TOP OF GROUT, Portland with bentonite Cement gel NOTES: **WELL CONSTRUCTION & SCREEN DETAILS** ALL DEPTHS ARE REPORTED AS **DEPTH IN FEET BELOW BOREHOLE DIAMETER: 8 inches** GROUND SURFACE UNLESS OTHERWISE NOTED. FILTER PACK TYPE: 10-20 silica sand CASING STICKUPS ARE REPORTED AS DISTANCE WELL CASING: 4-in. SCH40 PVC ABOVE GROUND SURFACE (ags). SCREEN LENGTH: 50 feet Well bailed dry, approximately 55 gallons removed. SCREEN DESCRIPTION: 4-in. SCH40 PVC 0.010-in. mill-slot 47.1 TOP OF SEAL, 3/8-in. bentonite chips 49.1 TOP OF FILTER PACK, 10-20 silica sand TOP OF SCREEN 51.1 _ BOTTOM OF SCREEN 101.1 _ BOTTOM OF SUMP 101.6 _____



Well Completion Diagram

102 BOTTOM OF BOREHOLE

PROJECT : Blanco Gas Plant - North Flare Pit

LOCATION : Bloomfield, New Mexico

ELEVATION : 5627.88 ft amsl

TOC : 5629.52 ft amsl

DRILLING CONTRACTOR AND DRILL RIG : Yellow Jacket Drilling, 150 cc TerraSonic Rig

COORDINATES : 2686317. 46 ft E, 2086395.91 ft N

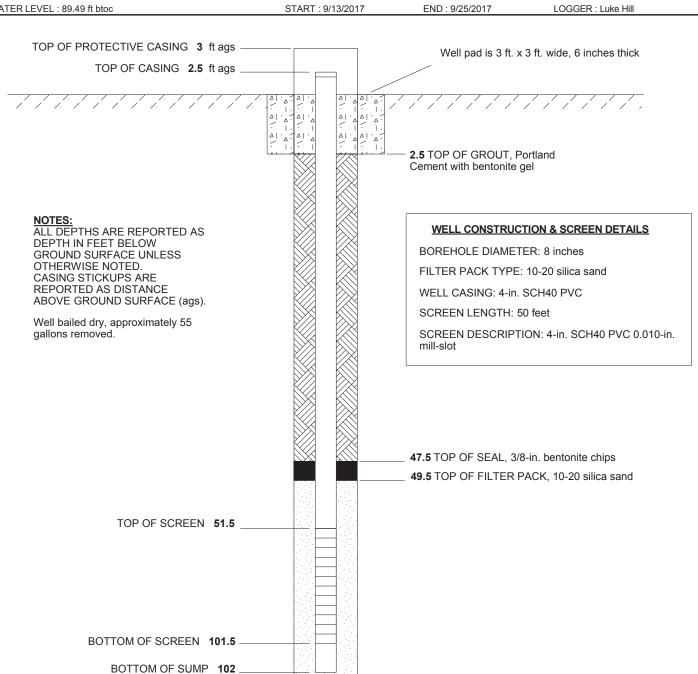
DRILLING METHOD AND EQUIPMENT : 8-inch casing w/continuous core

WATER LEVEL : 89.49 ft btoc

START : 9/13/2017

END : 9/25/2017

LOGGER : Luke Hill





WELL NUMBER: PROJECT NUMBER: 477041.06.03 MW-42

Well Completion Diagram

PROJECT: Blanco Gas Plant - North Flare Pit LOCATION: Bloomfield, New Mexico TOC: 5623.91 ft amsl ELEVATION: 5621.26 ft amsl DRILLING CONTRACTOR AND DRILL RIG: Yellow Jacket Drilling, 150cc TerraSonic Rig COORDINATES: 2686044.29 ft N, 2086655.56 ft N DRILLING METHOD AND EQUIPMENT: 8-inch casing w/continuous core WATER LEVEL : 69.10 ft btoc START: 9/15/2017 END: 9/17/2017 LOGGER: Luke Hill TOP OF PROTECTIVE CASING 3 ft ags Well pad is 3 ft. x 3 ft. wide, 6 inches thick TOP OF CASING 2.5 ft ags 2.5 TOP OF GROUT, Portland Cement wtih bentonite gel NOTES: **WELL CONSTRUCTION & SCREEN DETAILS** ALL DEPTHS ARE REPORTED AS **DEPTH IN FEET BELOW BOREHOLE DIAMETER:8 inches GROUND SURFACE UNLESS** OTHERWISE NOTED. FILTER PACK TYPE: 10-20 silica sand CASING STICKUPS ARE REPORTED AS DISTANCE WELL CASING: 4-in. SCH40 PVC ABOVE GROUND SURFACE (ags). SCREEN LENGTH: 50 feet Well bailed dry, approximately 55 gallons removed. SCREEN DESCRIPTION: SCREEN, 4-in. SCH40 PVC 0.010-in. mill-slot 32 TOP OF SEAL, 3/8-in. bentonite chips 34 TOP OF FILTER PACK. 10-20 silica sand TOP OF SCREEN 36 BOTTOM OF SCREEN 86 BOTTOM OF SUMP 86.5 _ 86.5 BOTTOM OF FILTER PACK TOP OF SEAL, 3/8-in bentonite chips 100 BOTTOM OF BOREHOLE



Well Completion Diagram

98.9 BOTTOM OF BOREHOLE

PROJECT : Blanco Gas Plant - North Flare Pit

LOCATION : Bloomfield, New Mexico

ELEVATION : 5623.89 ft amsl

TOC : 5626.44 ft amsl

DRILLING CONTRACTOR AND DRILL RIG : Yellow Jacket Drilling, 150cc TerraSonic Rig

COORDINATES : 2686175.90 ft E, 2086662.18 ft N

DRILLING METHOD AND EQUIPMENT : 8-inch casing w/continuous core

WATER LEVEL : 69.19 ft btoc

START : 9/8/2017

END : 9/10/2017

LOGGER : Luke Hill

TOP OF PROTECTIVE CASING 3 ft ags -Well pad is 3 ft. x 3 ft. wide, 6 inches thick TOP OF CASING 2.5 ft ags 2.5 TOP OF GROUT, Portland Cement wtih bentonite gel NOTES: **WELL CONSTRUCTION & SCREEN DETAILS** ALL DEPTHS ARE REPORTED AS **DEPTH IN FEET BELOW BOREHOLE DIAMETER: 8 inches** GROUND SURFACE UNLESS OTHERWISE NOTED. FILTER PACK TYPE: 10-20 silica sand CASING STICKUPS ARE REPORTED AS DISTANCE WELL CASING: 4-in. SCH40 PVC ABOVE GROUND SURFACE (ags). SCREEN LENGTH: 50 feet Well bailed dry, approximately 55 gallons removed. SCREEN DESCRIPTION: 4-in. SCH40 PVC 0.010-in. mill-slot 44.4 TOP OF SEAL, 3/8-in. bentonite chips 46.4 TOP OF FILTER PACK, 10-20 silica sand TOP OF SCREEN 48.4 _ BOTTOM OF SCREEN 98.4 _ BOTTOM OF SUMP 98.9



Well Completion Diagram

PROJECT : Blanco Gas Plant - North Flare Pit

LOCATION : Bloomfield, New Mexico

ELEVATION : 5624.36 ft amsl

TOC : 5626.89 ft amsl

DRILLING CONTRACTOR AND DRILL RIG : Yellow Jacket Drilling, 150cc TerraSonic Rig

COORDINATES : 2686104 ft E, 2086792.65 ft N

DRILLING METHOD AND EQUIPMENT : 8-inch casing w/continuous core

WATER LEVEL : 68.31 ft btoc

START : 9/10/2017

END : 9/11/2017

LOGGER : Luke Hill

TOP OF PROTECTIVE CASING 3 ft ags Well pad is 3 ft. x 3 ft. wide, 6 inches thick TOP OF CASING 2.5 ft ags 2.5 TOP OF GROUT, Portland Cement with bentonite gel NOTES: **WELL CONSTRUCTION & SCREEN DETAILS** ALL DEPTHS ARE REPORTED AS **DEPTH IN FEET BELOW BOREHOLE DIAMETER: 8 inches** GROUND SURFACE UNLESS OTHERWISE NOTED. FILTER PACK TYPE: 10-20 silica sand CASING STICKUPS ARE REPORTED AS DISTANCE WELL CASING: 4-in. SCH40 PVC ABOVE GROUND SURFACE (ags). SCREEN LENGTH: 50 feet Well bailed dry, approximately 55 gallons removed. SCREEN DESCRIPTION: 4-in. SCH40 PVC 0.010-in. mill-slot 46 TOP OF SEAL, 3/8-in. bentonite chips 48 TOP OF FILTER PACK, 10-20 silica sand TOP OF SCREEN 50 BOTTOM OF SCREEN 100 _ BOTTOM OF SUMP 100.5 __ 100.5 BOTTOM OF BOREHOLE



Well Completion Diagram

PROJECT : Blanco Gas Plant - North Flare Pit

LOCATION : Bloomfield, New Mexico

ELEVATION : 5631.59 ft amsl

TOC : 56.33.95 ft amsl

DRILLING CONTRACTOR AND DRILL RIG : Yellow Jacket Drilling, 150cc TerraSonic Rig

COORDINATES : 2686247.97 ft E, 2086914.12 ft N

DRILLING METHOD AND EQUIPMENT : 8inch casing w/continuous core

WATER LEVEL : 79.13 ft btoc

START : 9/11/2017

END : 9/13/2017

LOGGER : Luke Hill

TOP OF PROTECTIVE CASING 3 ft ags -Well pad is 3 ft. x 3 ft. wide, 6 inches thick TOP OF CASING 2.5 ft ags 2.5 TOP OF GROUT, Portland Cement with bentonite gel NOTES: **WELL CONSTRUCTION & SCREEN DETAILS** ALL DEPTHS ARE REPORTED AS **DEPTH IN FEET BELOW BOREHOLE DIAMETER: 8 inches** GROUND SURFACE UNLESS OTHERWISE NOTED. FILTER PACK TYPE: 10-20 silica sand CASING STICKUPS ARE REPORTED AS DISTANCE WELL CASING: 4-in. SCH40 PVC ABOVE GROUND SURFACE (ags). SCREEN LENGTH: 50 feet Well bailed dry, approximately 55 gallons removed. SCREEN DESCRIPTION: 4-in. SCH40 PVC 0.010-in. mill-slot 46.6 TOP OF SEAL, 3/8-in. bentonite chips 48.6 TOP OF FILTER PACK, 10-20 silica

46.6 TOP OF SEAL, 3/8-in. bentonite chips
48.6 TOP OF FILTER PACK, 10-20 silica
sand

TOP OF SCREEN 50.6

BOTTOM OF SCREEN 100.6

101.1 BOTTOM OF BOREHOLE

WELL DIAGRAM IS NOT TO SCALE

BOTTOM OF SUMP 101.1



Well Completion Diagram

PROJECT : Blanco Gas Plant - North Flare Pit LOCATION : Bloomfield, New Mexico

ELEVATION : 5648.61 ft amsl TOC : 5633.95 ft amsl DRILLING CONTRACTOR AND DRILL RIG : Yellow Jacket Drilling, 150cc TerraSonic Rig

COORDINATES : 2685719.83 ft E, 2087220.84 ft N DRILLING METHOD AND EQUIPMENT : 8-inch casing w/continuous core

WATER LEVEL : 47.32 ft btoc START : 9/18/2017 END : 9/19/2017 LOGGER : Luke Hill

TOP OF PROTECTIVE CASING 3 ft ags Well pad is 3 ft. x 3 ft. wide, 6 inches thick TOP OF CASING 2.5 ft ags 2.5 TOP OF GROUT, Portland Cement with bentonite gel NOTES: **WELL CONSTRUCTION & SCREEN DETAILS** ALL DEPTHS ARE REPORTED AS **DEPTH IN FEET BELOW BOREHOLE DIAMETER: 8 inches GROUND SURFACE UNLESS** OTHERWISE NOTED. FILTER PACK TYPE: 10-20 silica sand CASING STICKUPS ARE REPORTED AS DISTANCE WELL CASING: 4-in. SCH40 PVC ABOVE GROUND SURFACE (ags). SCREEN LENGTH: 50 feet Well bailed dry, approximately 55 gallons removed. SCREEN DESCRIPTION: 4-in. SCH40 PVC 0.010-in. mill-slot 31.25 TOP OF SEAL, 3/8-in. bentonite chips 33.25 TOP OF FILTER PACK, 10-20 silica sand TOP OF SCREEN 35.25 _

BOTTOM OF SCREEN 85.25

BOTTOM OF SUMP 85.75 _

85.75 BOTTOM OF BOREHOLE



Well Completion Diagram

89 BOTTOM OF BOREHOLE

PROJECT : Blanco Gas Plant - North Flare Pit

LOCATION : Bloomfield, New Mexico

ELEVATION : 5635.18 ft amsl

TOC : 5637.74 ft amsl

DRILLING CONTRACTOR AND DRILL RIG : Yellow Jacket Drilling, 150cc TerraSonic Rig

DRILLING METHOD AND EQUIPMENT : 8-inch casing w/continuous core

WATER LEVEL : 71.82 ft btoc

START : 9/19/2017

END : 9/20/2017

LOGGER : Luke Hill

END: 9/20/2017 TOP OF PROTECTIVE CASING 3 ft ags -Well pad is 3 ft. x 3 ft. wide, 6 inches thick TOP OF CASING 2.5 ft ags 2.5 TOP OF GROUT, Portland Cement with bentonite gel NOTES: **WELL CONSTRUCTION & SCREEN DETAILS** ALL DEPTHS ARE REPORTED AS **DEPTH IN FEET BELOW BOREHOLE DIAMETER: 8 inches** GROUND SURFACE UNLESS OTHERWISE NOTED. FILTER PACK TYPE: 10-20 silica sand CASING STICKUPS ARE REPORTED AS DISTANCE WELL CASING: 4-in. SCH40 PVC ABOVE GROUND SURFACE (ags). SCREEN LENGTH: 50 feet Well bailed dry, approximately 55 gallons removed. SCREEN DESCRIPTION: 4-in. SCH40 PVC 0.010-in. mill-slot 34.5 TOP OF SEAL, 3/8-in. bentonite chips 36.5 TOP OF FILTER PACK, 10-20 silica sand TOP OF SCREEN 38.5 _ BOTTOM OF SCREEN 88.5 _

WELL DIAGRAM IS NOT TO SCALE

BOTTOM OF SUMP 89



Well Completion Diagram

79.5 BOTTOM OF BOREHOLE

PROJECT : Blanco Gas Plant - North Flare Pit LOCATION : Bloomfield, New Mexico

ELEVATION : 5648.99 ft amsl TOC : 5651.40 ft amsl DRILLING CONTRACTOR AND DRILL RIG : Yellow Jacket Drilling, 150cc TerraSonic Rig

COORDINATES : 2685788.6 ft E, 2087440.51 ft N DRILLING METHOD AND EQUIPMENT : 8-inch Casing w/continuous core

WATER LEVEL : 57.82 ft btoc START : 9/21/2017 END : 9/22/2017 LOGGER : Luke Hill

TOP OF PROTECTIVE CASING 3 ft ags Well pad is 3 ft. x 3 ft. wide, 6 inches thick TOP OF CASING 2.5 ft ags 2.5 TOP OF GROUT, Portland Cement with bentonite gel NOTES: **WELL CONSTRUCTION & SCREEN DETAILS** ALL DEPTHS ARE REPORTED AS **DEPTH IN FEET BELOW BOREHOLE DIAMETER: 8 inches GROUND SURFACE UNLESS** OTHERWISE NOTED. FILTER PACK TYPE: 10-20 silica sand CASING STICKUPS ARE REPORTED AS DISTANCE WELL CASING: 4-in. SCH40 PVC ABOVE GROUND SURFACE (ags). SCREEN LENGTH: 50 feet Well bailed dry, approximately 55 gallons removed. SCREEN DESCRIPTION: 4-in. SCH40 PVC 0.010-in. mill-slot 25 TOP OF SEAL, 3/8-in. bentonite chips 27 TOP OF FILTER PACK, 10-20 silica sand TOP OF SCREEN 29

BOTTOM OF SCREEN 79 _

BOTTOM OF SUMP 79.5

PROJECT NUMBER **707467CH.01.02**

WELL NUMBER
MW-49

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT: Blanco Plant North Flare Pit - Phase 2 Site Investigation LOCATION: Bloomfield, NM DRILLING CONTRACTOR: Cascade Drilling COORDINATES: 2686222.583 ft E, 2086796.893 ft N DRILLING METHOD AND EQUIPMENT USED Rotosonic DRILLER: Josh Parks START: 8/17/2019 END: 8/18/2019 WATER LEVEL: 61' bgs. LOGGER Alex Turkasz 1- Ground elevation at well 5,629.14 5,631.77 2- Top of PVC casing elevation a) protective cover elevation 5,632.23 3- Wellhead protection cover type Monument a) weep hole? N/A b) concrete pad dimensions 3' x 3' x 6" 4- Dia./type of well casing 4" Schedule-40 PVC 5- Type/slot size of screen 0.010" mill slot screen 46' - 71' bgs. 6- Type screen filter 12/20 silica sand 41.5' a) calculated volume NM b) actual volume installed 7 bags 44' c) placement Pour 46 Type of seal 3/8" hydrated bentonite chips 73' a) calculated volume NM b) actual volume installed 1 bag Pour c) placement 8- Type of seal Portland/bentonite grout mix a) calculated volume NM b) actual volume installed 25 bags/1.5 bags c) placement Tremie pipe 9- Cement a) cement mix used 4,000 PSI concrete b) calculated volume NM c) actual volume installed NM 5 d) placement 0' - 1.5' bgs Development method 6 swab, surge, bail Estimated purge volume > 26 gallons Development time N/A Comments: Development: Due to minimal water within the screened interval, approximately 25 gallons of water were added to the well to swab, well bailed dry. 8" Not to scale

Ch2m:

PROJECT NUMBER 707467CH.01.02

WELL NUMBER
MW-50

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT: Blanco Plant North Flare Pit LOCATION: Bloomfield, NM DRILLING CONTRACTOR: Cascade Drilling COORDINATES: 2686431.759 ft E, 2086909.069 ft N DRILLING METHOD AND EQUIPMENT USED Rotosonic DRILLER: Josh Parks START: 8/18/2019 END: 8/18/2019 WATER LEVEL: 58' bgs. LOGGER Alex Turkasz 1- Ground elevation at well 2- Top of PVC casing elevation a) protective cover elevation 3- Wellhead protection cover type Monument a) weep hole? N/A b) concrete pad dimensions 3' x 3' x 6" 4- Dia./type of well casing 4" Schedule-40 PVC 5- Type/slot size of screen 0.010" mill slot screen 48' - 73' bgs. 6- Type screen filter 12/20 silica screen a) calculated volume NM b) actual volume installed 7 bags 46' c) placement 46' - 74' bgs. 8 48' Type of seal 3/8" hydrated bentonite chips 74' a) calculated volume NM b) actual volume installed 3/4 bag 42' - 46' c) placement 8- Type of seal Portland/bentonite grout mix a) calculated volume NM b) actual volume installed 15 bags(94 lbs) / 1 bag c) placement 2' - 42' bgs. 9- Cement a) cement mix used 4,000 PSI concrete b) calculated volume NM c) actual volume installed NM 5 d) placement 0' - 2' bgs Development method 6 swab, surge, bail Estimated purge volume > 26 gallons Development time N/A Comments: Backfilled from 78' to 74' with one bag of 3/8" bentonite chips Development: Due to minimal water within the screened interval about 25 gallons of water were added to the well to swab and purged dry. 8" Not to scale

PROJECT NUMBER 707467CH.01.02

WELL NUMBER
MW-51

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT: Blanco Plant North Flare Pit LOCATION: Bloomfield, NM DRILLING CONTRACTOR: Cascade Drilling COORDINATES: 2686092.139 ft E, 2087220.549 ft N DRILLING METHOD AND EQUIPMENT USED Rotosonic DRILLER: Josh Parks START: 8/19/2019 END: 8/20/2019 WATER LEVEL: 50' bgs. LOGGER Alex Turkasz 1- Ground elevation at well 2- Top of PVC casing elevation a) protective cover elevation -1.5' 3- Wellhead protection cover type Monument a) weep hole? N/A b) concrete pad dimensions 3' x 3' x 6" 4- Dia./type of well casing 4" Schedule-40 PVC 5- Type/slot size of screen 0.010" mill slot screen 40' - 65' bgs. 6- Type screen filter 12/20 silica sand 35' a) calculated volume NM b) actual volume installed 10 bags 38' c) placement 38' - 66' bgs 8 40' Type of seal 3/8" hydrated bentonite chips 66' a) calculated volume NM b) actual volume installed 1 bag 35' - 38' bgs c) placement 8- Type of seal Portland/bentonite grout mix a) calculated volume NM NM b) actual volume installed c) placement 1.5' - 35' bgs. 9- Cement a) cement mix used 4,000 PSI concrete b) calculated volume NM c) actual volume installed NM 5 d) placement 0' - 1.5' bgs. Development method 6 swab, surge, bail Estimated purge volume > 26 gallons Development time N/A Development: Due to minimal water within the screened interval about 25 gallons of water were added to the well to swab and purged dry. 8" Not to scale

PROJECT NUMBER 707467CH.01.02

WELL NUMBER
MW-52

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT: Blanco Plant North Flare Pit LOCATION: Bloomfield, NM DRILLING CONTRACTOR: Cascade Drilling COORDINATES: 2686018.604 ft E, 2087441.475 ft N DRILLING METHOD AND EQUIPMENT USED Rotosonic DRILLER: Josh Parks WATER LEVEL: 37' bgs. START: 8/24/2019 END: 8/24/2019 LOGGER Alex Turkasz 1- Ground elevation at well 2- Top of PVC casing elevation a) protective cover elevation 3- Wellhead protection cover type Monument a) weep hole? N/A b) concrete pad dimensions 3' x 3' x 6" 4- Dia./type of well casing 4" Schedule-40 PVC 5- Type/slot size of screen 0.010" mill slot screen 27' - 52' bgs. 6- Type screen filter 12/20 silica sand 23.5' a) calculated volume NM b) actual volume installed NM 25' c) placement 25' - 53' bgs 8 27 Type of seal 3/8" hydrated bentonite chips 53' a) calculated volume NM b) actual volume installed 1 bag 23.5' - 25' bgs c) placement 8- Type of seal Portland/bentonite grout mix a) calculated volume NM NM b) actual volume installed c) placement 1' - 23.5' bgs. 9- Cement a) cement mix used 4,000 PSI concrete b) calculated volume NM c) actual volume installed NM 5 d) placement 0' - 1' bgs Development method 6 swab, surge, bail Estimated purge volume > 26 gallons Development time N/A Development: Due to minimal water within the screened interval about 25 gallons of water were added to the well to swab and purged dry. 8" Not to scale

PROJECT NUMBER 707467CH.01.02

WELL NUMBER
MW-53

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT: Blanco Plant North Flare Pit LOCATION: Bloomfield, NM DRILLING CONTRACTOR: Cascade Drilling COORDINATES: 2685764.767 ft E, 2087548.049 ft N DRILLING METHOD AND EQUIPMENT USED Rotosonic DRILLER: Josh Parks START: 8/22/2019 END: 8/23/2019 WATER LEVEL: 71' bgs. LOGGER Alex Turkasz 1- Ground elevation at well 2- Top of PVC casing elevation a) protective cover elevation 3- Wellhead protection cover type Monument a) weep hole? N/A b) concrete pad dimensions 3' x 3' x 6" 4- Dia./type of well casing 4" Schedule-40 PVC 5- Type/slot size of screen 0.010" mill slot screen 60' - 85' bgs. 6- Type screen filter 12/20 silica sand 54.5' a) calculated volume NM b) actual volume installed 12 bags 57.5' c) placement 57.5' - 86' bgs. 8 60' Type of seal 3/8" hydrated bentonite chips 86' a) calculated volume NM b) actual volume installed 1 bag 54.5' - 57.5' bgs c) placement 8- Type of seal Portland/bentonite grout mix a) calculated volume NM NM b) actual volume installed c) placement 1.5' - 54.5' bgs. 9- Cement a) cement mix used 4,000 PSI concrete b) calculated volume NM c) actual volume installed NM 5 d) placement 0' - 1.5' bgs. Development method 6 swab, surge, bail Estimated purge volume about 30 gallons Development time N/A Development: Due to minimal water within the screened interval about 25 gallons of water were added to the well to swab and purged dry. 8" Not to scale

PROJECT NUMBER **707467CH.01.02**

WELL NUMBER
MW-54

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT: Blanco Plant North Flare Pit LOCATION: Bloomfield, NM DRILLING CONTRACTOR: Cascade Drilling COORDINATES: 2685729.638 ft E, 2087349.776 ft N DRILLING METHOD AND EQUIPMENT USED Rotosonic DRILLER: Josh Parks START: 8/20/2019 END: 8/21/2019 WATER LEVEL: 48' bgs. LOGGER Alex Turkasz 1- Ground elevation at well 2- Top of PVC casing elevation a) protective cover elevation 3- Wellhead protection cover type Monument a) weep hole? N/A b) concrete pad dimensions 3' x 3' x 6" 4- Dia./type of well casing 4" Schedule-40 PVC 5- Type/slot size of screen 0.010" mill slot screen 38' - 63' bgs. 6- Type screen filter 12/20 silica sand a) calculated volume NM b) actual volume installed 16 bags 36' c) placement 36' - 64' bgs 8 Type of seal 3/8" hydrated bentonite chips 38 64' a) calculated volume NM b) actual volume installed 1 bag 34' - 36' bgs c) placement 8- Type of seal Portland/bentonite grout mix a) calculated volume NM NM b) actual volume installed c) placement 1.5' - 34' bgs. 9- Cement a) cement mix used 4,000 PSI concrete b) calculated volume NM c) actual volume installed NM 5 d) placement 0' - 1.5' bgs. Development method 6 swab, surge, bail Estimated purge volume ~ 30 gallons Development time N/A Development: Due to minimal water within the screened interval about 25 gallons of water were added to the well to swab and purged dry. 8" Not to scale

PROJECT NUMBER 707467CH.01.02

WELL NUMBER

MW-55

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT: Blanco Plant North Flare Pit LOCATION: Bloomfield, NM DRILLING CONTRACTOR: Cascade Drilling COORDINATES: 2685908.668 ft E, 2087040.904 ft N DRILLING METHOD AND EQUIPMENT USED Rotosonic DRILLER: Josh Parks START: 8/15/2019 END: 8/15/2019 WATER LEVEL: 36' bgs. LOGGER Alex Turkasz 1- Ground elevation at well 2- Top of PVC casing elevation a) protective cover elevation 3- Wellhead protection cover type Monument a) weep hole? N/A b) concrete pad dimensions 3' x 3' x 6" 4- Dia./type of well casing 4" Schedule-40 PVC 5- Type/slot size of screen 0.010" mill slot screen 26' - 51' bgs. 6- Type screen filter 12/20 silica sand 22' a) calculated volume NM b) actual volume installed 13.5 bags 24' c) placement 24' - 52' bgs. 8 26' Type of seal 3/8" bentonite chips 52' a) calculated volume NM b) actual volume installed 1 bag 22' - 24' bgs c) placement 8- Type of seal Portland/bentonite grout mix a) calculated volume NM 18 bags b) actual volume installed c) placement 2' - 22' bgs 9- Cement a) cement mix used 4,000 PSI concrete b) calculated volume NM c) actual volume installed NM 5 d) placement 0' - 2' bgs Development method 6 swab, surge, bail Estimated purge volume > 26 gallons Development time N/A Development: Due to minimal water within the screened interval about 25 gallons of water were added to the well to swab and purged dry. 8" Not to scale

PROJECT NUMBER **707467CH.01.02**

WELL NUMBER

MW-56

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT: Blanco Plant North Flare Pit LOCATION: Bloomfield, NM DRILLING CONTRACTOR: Cascade Drilling COORDINATES: 2686020.212 ft E, 2086804.857 ft N DRILLING METHOD AND EQUIPMENT USED Rotosonic DRILLER: Josh Parks START: 8/16/2019 END: 8/17/2019 WATER LEVEL: 42' bgs. LOGGER Alex Turkasz 1- Ground elevation at well 2- Top of PVC casing elevation a) protective cover elevation 3- Wellhead protection cover type Monument a) weep hole? N/A b) concrete pad dimensions 3' x 3' x 6" 4- Dia./type of well casing 4" Schedule-40 PVC 5- Type/slot size of screen 0.010" mil slot screen 32' - 57' bgs. 6- Type screen filter 12/20 silica sand 27.5' a) calculated volume NM b) actual volume installed 12 bags 29.5' c) placement 29.5' - 60' bgs. 8 32' Type of seal 3/8" hydrated bentonite chips 60' a) calculated volume NM b) actual volume installed 1 bag 27.5' - 29.5' bgs. c) placement 8- Type of seal Portland/bentonite grout mix a) calculated volume 19 bags / 1.25 bags b) actual volume installed c) placement 1.5' - 27.5' bgs. 9- Cement a) cement mix used 4,000 PSI concrete b) calculated volume NM c) actual volume installed NM 5 d) placement 0' - 1.5' bgs Development method 6 swab, surge, bail Estimated purge volume > 26 gallons Development time N/A Development: Due to minimal water within the screened interval about 25 gallons of water were added to the well to swab and purged dry. 8" Not to scale

Appendix B NMOSE Plugging Forms



PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GEN	NERAL / WELL OWNERSHIP:	
	ngineer Well Number: SB-01	
	wner: El Paso CGP Company, LLC Phone N	o.: 713-420-3475
_	address: 1001 Louisiana Street, Room 956	
City: <u></u>	Houston State: Texas	Zip code: 77002
		•
II. WE	LL PLUGGING INFORMATION:	
1)	Name of well drilling company that plugged well: Yellow Jacket Drilling Se	rvices, LLC
2)	New Mexico Well Driller License No.: WD-1458	Expiration Date: 10/31/18
3)	Well plugging activities were supervised by the following well driller(s)/rig supe Carlos Hemandez	rvisor(s):
4)	Date well plugging began: 9/22/17 Date well plugging cond	oluded: 9/23/17
5)	GPS Well Location: Latitude: 36 deg, 44 min, Longitude: 107 deg, 57 min,	10.64 sec sec, WGS 84
6)	Depth of well confirmed at initiation of plugging as: ft below ground by the following manner: manual tag line measurement ft below ground	level (bgl),
7)	Static water level measured at initiation of plugging:n/a ft bgl	
8)	Date well plugging plan of operations was approved by the State Engineer:8/	16/17
9)	Were all plugging activities consistent with an approved plugging plan? YE differences between the approved plugging plan and the well as it was plugged (a	If not, please describe ttach additional pages as needed):
_		

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Page 1 of 2

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	Cement bentonite grout	112.93 gallons	112.93 gallons	Tremie pipe	Soil boring drilled and abandoned, no casing installed
		MULTIPLY B cubic feet x 7.48	Y AND OBTAIN 805 = gallons		

III. SIGNATURE:

I, Richard LeBlanc, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date

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PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

GENERAL / WELL OWNERSHIP:	
ate Engineer Well Number: SB-02	
Vell owner: El Paso CGP Company, LLC Phone No.: 713-420-3475	
failing address: 1001 Louisiana Street, Room 956	
Houston State: Texas Zip code: 77002	
. WELL PLUGGING INFORMATION:	
Name of well drilling company that plugged well: Yellow Jacket Drilling Services, LLC	
New Mexico Well Driller License No.: WD-1458 Expiration Date: 10/31/18	
Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):	
Date well plugging began: 9/22/17 Date well plugging concluded: 9/23/17	
GPS Well Location: Latitude:	
Depth of well confirmed at initiation of plugging as:44 ft below ground level (bgl), by the following manner:manual tag line measurement	
Static water level measured at initiation of plugging:n/aft bgl	
Date well plugging plan of operations was approved by the State Engineer: 8/16/17	
Were all plugging activities consistent with an approved plugging plan? YES If not, please des differences between the approved plugging plan and the well as it was plugged (attach additional pages as neede	cribe d):

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of <u>Material Placed</u> (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
(ft bgl)	(include any additives used) Cement bentonite grout	(gallons) 115.56 gallons	(gallons) 115.56 gallons	(tremie pipe,	("casing perforated first", "open
		MULTIPLY B cubic feet x 7.46 cubic yards x 201.97	305 = gallons		
			3		

III. SIGNATURE:

I, Richard LeBlanc, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date

Version: September 8, 2009 Page 2 of 2



PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GEN	ERAL / WELL OWNERSHIP:
	gineer Well Number: SB-03
	ner: El Paso CGP Company, LLC Phone No.: 713-420-3475
Mailing	address: 1001 Louisiana Street, Room 956
City: F	ouston State: Texas Zip code: 77002
II. WE	L PLUGGING INFORMATION:
1)	Name of well drilling company that plugged well: Yellow Jacket Drilling Services, LLC
2)	New Mexico Well Driller License No.: WD-1458 Expiration Date: 10/31/18
3)	Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):
4)	Date well plugging began: 9/22/17 Date well plugging concluded: 9/23/17
5)	GPS Well Location: Latitude: 36 deg, 44 min, 10.16 sec Longitude: 107 deg, 57 min, 37.35 sec, WGS 84
6)	Depth of well confirmed at initiation of plugging as:49 ft below ground level (bgl), by the following manner:tag line measurement
7)	Static water level measured at initiation of plugging:n/a ft bgl
8)	Date well plugging plan of operations was approved by the State Engineer:8/16/17
9)	Were all plugging activities consistent with an approved plugging plan? YES If not, please described differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):
!	

Version: September 8, 2009

Page 1 of 2

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	Cement bentonite grout	128.69 gallons	128.69 gallons	Tremie pipe	Soil boring drilled and abandoned, no casing installed
		MULTIPLY B cubic feet x 7.4 cubic yards x 201.9	BO5 = gallons		

III. SIGNATURE:

I, Richard LeBlanc , say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date

Version: September 8, 2009 Page 2 of 2



PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GEN	NERAL / WELL OWNERSHIP:	
State E	ngineer Well Number: SW-1	
Well ov	wner: El Paso CGP Company, LLC Phone No.: 71	3-420-3475
Mailing	address: 1001 Louisiana Street, Room 956	
City: L	Houston State: Texas	Zip code:
II. WE	LL PLUGGING INFORMATION:	
1)	Name of well drilling company that plugged well: Yellow Jacket Drilling Services	, LLC
2)	New Mexico Well Driller License No.: WD-1458 Expire	
3)	Well plugging activities were supervised by the following well driller(s)/rig supervisor(s	e):
4)	Date well plugging began: 9/12/17 Date well plugging concluded:	9/13/17
5)	GPS Well Location: Latitude: 36 deg, 44 min, 04.86 Longitude: 107 deg, 57 min, 35.40	_ sec _ sec, WGS 84
6)	Depth of well confirmed at initiation of plugging as: ft below ground level (by the following manner: manual tag line measurement	bgl),
7)	Static water level measured at initiation of plugging:n/a ft bgl	
8)	Date well plugging plan of operations was approved by the State Engineer: 8/21/17	_
9)	Were all plugging activities consistent with an approved plugging plan? YES differences between the approved plugging plan and the well as it was plugged (attach activities consistent with an approved plugging plan?	_ If not, please describe dditional pages as needed):

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10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	Cement bentonite grout	9.35 gallons	9.35 gallons	other) Tremie pipe	This well was not permitted and is being plugged pursuant a plugging plan submitted 8/23/17
	,	MULTIPLY B' cubic feet x 7.48 cubic yards x 201.97	305 = gallons	ı	
		201.3r	- gallulis		

III. SIGNATURE:

I, Richard LeBlanc , say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date

Version: September 8, 2009 Page 2 of 2



PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWN						
State Engineer Well Number: MW-2						
Well owner: El Paso CGP Company, LLC Phone No.: 713-420-3475						3-420-3475
Mailing address: 1001 Louisi	ana Street, Room 95	6				
City: Houston	S	tate: Texas				Zip code: 77002
						-
II. WELL PLUGGING INFO	RMATION:					
	ompany that plugged we	ll: Yellow J	acket Dril	lling Ser	vices,	LLC
	ler License No.: WD-1					tion Date: 10/31/18
Well plugging activities Carlos Hernandez	were supervised by the	following wel	l driller(s)/	rig super	visor(s)):
4) Date well plugging bega	an: 9/13/17、	Date	well plugg	ging concl	luded: _	9/14/17
5) GPS Well Location:	Latitude: 36 Longitude: 107	deg, deg,	43 1 57 1	min, min,	59.19 32.04	_ sec _ sec, WGS 84
	d at initiation of plugging		ft below	w ground	level (b	ogl),
7) Static water level measu	ared at initiation of plugg	_{ging:} n/a	ft bgl			
8) Date well plugging plan	of operations was appro	oved by the Sta	ate Enginee	er: 8/2	21/17	
	ities consistent with an a approved plugging plan				- /	If not, please describe ditional pages as needed):
						U.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	Cement bentonite grout	36.80 gallons	36.80 gallons	Tremie pipe	This well was not permitted and is being plugged pursuant a plugging plan submitted 8/23/17
	'	MULTIPLY E cubic feet x 7.4 cubic yards x 201.9	Y AND OBTAIN 805 = gallons 7 = gallons	'	

III. SIGNATURE:

I. Richard LeBlanc _, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date

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NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

	NERAL / WELL OWNER									
State Er	ngineer Well Number: <u>MV</u> _{vner:} El Paso CGP Co	mpany, LLC				Dhone 1	No. 71	3-420-34	 75	
	address: 1001 Louisian		om 956		_	1 Hone 1	.10			
City: F				Texas				_ Zip cod	le: 7700	2
•										
II. WE	LL PLUGGING INFOR									
1)	Name of well drilling cor	npany that plug	ged well: 👱	rellow J	acket D	Orilling S	ervices,	, LLC		
2)	New Mexico Well Driller							ation Date:	10/31/1	8
3)	Well plugging activities v	were supervised	by the follo	wing wel	l driller((s)/rig sup	ervisor(s):		
4)	Date well plugging began	9/12/17		_ Date	well plu	igging coi	ncluded:	9/13/17		
5)	GPS Well Location:	Latitude: Longitude:	36 107	_deg, _deg,	44 57	min, min,	03.73 33.67	_ sec _ sec, WG	S 84	
6)	Depth of well confirmed by the following manner:			67	ft bel	low groun	ıd level (l	bgl),		
7)	Static water level measure	ed at initiation o	of plugging:	n/a	ft bg	1				
8)	Date well plugging plan of	of operations wa	s approved	by the Sta	ate Engi	neer:8	/21/17	-		
9)	Were all plugging activiti differences between the a						ES attach ac		please d	

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Page 1 of 2

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	Cement bentonite grout	43.99 gallons	43.99 gallons	Tremie pipe	This well was not permitted and is being plugged pursuant a plugging plan submitted 8/23/17
			BY AND OBTAIN 4805 = gallons	l	
		cubic feet x 7.4 cubic yards x 201.9			

III. SIGNATURE:

I, Richard LeBlanc , say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date

Version: September 8, 2009 Page 2 of 2





NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

State E	ineer Well Number: MW-27	
	er: El Paso CGP Company, LLC Phone No.: 713-420-3475	
	ddress: 1001 Louisiana Street, Room 956	
City: <u>I</u>	ouston State: Texas Zip code: 77002	
II. WE	L PLUGGING INFORMATION:	
1)	Name of well drilling company that plugged well: Yellow Jacket Drilling Services, LLC	
2)	New Mexico Well Driller License No.: WD-1458 Expiration Date: 10/31/18	.
3)	Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):	
4)	Date well plugging began: 9/12/17 Date well plugging concluded: 9/13/17	
5)	GPS Well Location: Latitude: 36 deg, 44 min, 04.70 sec Longitude: 107 deg, 57 min, 34.54 sec, WGS 84	
6)	Depth of well confirmed at initiation of plugging as:65 ft below ground level (bgl), y the following manner:manual tag line measurement	
7)	tatic water level measured at initiation of plugging:n/a ft bgl	
8)	ate well plugging plan of operations was approved by the State Engineer: 8/21/17	
9)	Vere all plugging activities consistent with an approved plugging plan? YES If not, please desifferences between the approved plugging plan and the well as it was plugged (attach additional pages as needed)	scribe ed):

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of <u>Material Placed</u> (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	Cement bentonite grout	42.71 gallons	42.71 gallons	other) Tremie pipe	This well was not permitted and is being plugged pursuant a plugging plan submitted 8/23/17
	'	MULTIPLY B' cubic feet x 7.48 cubic yards x 201.97	305 = gallons	ı	
		201.01	34.10110		

III. SIGNATURE:

I, Richard LeBlanc, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date

Version: September 8, 2009 Page 2 of 2





NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

	WERAL / WELL OWNERSHIP:
State En	ngineer Well Number: MW-31 Vener: El Paso CGP Company, LLC Phone No.: 713-420-3475
	address: 1001 Louisiana Street, Room 956
	Houston State: Texas Zip code: 77002
	24p code
H. WE	LL PLUGGING INFORMATION:
1)	Name of well drilling company that plugged well: Yellow Jacket Drilling Services, LLC
2)	New Mexico Well Driller License No.: WD-1458 Expiration Date: 10/31/18
3)	Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):
4)	Date well plugging began: 9/12/17 Date well plugging concluded: 9/13/17
5)	GPS Well Location: Latitude: 33 deg, 44 min, 06.49 sec Longitude: 107 deg, 57 min, 33.42 sec, WGS 84
	Depth of well confirmed at initiation of plugging as:
7)	Static water level measured at initiation of plugging:n/a ft bgl
8)	Date well plugging plan of operations was approved by the State Engineer: 8/21/17
	Were all plugging activities consistent with an approved plugging plan? \underline{YES} If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

Version: September 8, 2009 Page 1 of 2

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
- - -	Cement bentonite grout	46.60 gallons	46.60 gallons	Tremie pipe	This well is being plugged pursuant to plugging plan
1					
-					
- - - -					
		MULTIPLY E cubic feet x 7.4 cubic yards x 201.9	BY AND OBTAIN B05 = gallons 7 = gallons		

III. SIGNATURE:

I, Richard LeBlanc, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date





NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

	NERAL / WELL OWNERSHIP:	
	ngineer Well Number: MW-19	
	wner: El Paso CGP Company, LLC Phone No.: 713-	420-3475
_	g address: 1001 Louisiana Street, Room 956	
City: H	Houston State: Texas	Zip code: 77002
II. WEI	ELL PLUGGING INFORMATION:	
	Name of well drilling company that plugged well: Yellow Jacket Drilling Services, L	LC
2)	New Mexico Well Driller License No.: WD-1458 Expiration	on Date: 10/31/18
3)	Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Carlos Hernandez	
4)	Date well plugging began: 9/12/17 Date well plugging concluded: 9/	13/17
5)	GPS Well Location: Latitude: 36 deg, 44 min, 04.06 s Longitude: 107 deg, 57 min, 36.63 s	sec sec, WGS 84
6)	Depth of well confirmed at initiation of plugging as:ft below ground level (bgl by the following manner:manual tag line measurement),
7)	Static water level measured at initiation of plugging:n/a ft bgl	
8)	Date well plugging plan of operations was approved by the State Engineer: 8/21/17	
9)	Were all plugging activities consistent with an approved plugging plan? YES differences between the approved plugging plan and the well as it was plugged (attach addit	If not, please describe ional pages as needed):

Version: September 8, 2009 Page 1 of 2

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
_	Cement bentonite grout	10.85 gallons	10.85 gallons	Tremie pipe	OSE Permit approval #SJ-2466
_					
-					
_					
- -					
 - -	į				
-					
	ļ	MULTIPLY E cubic feet x 7.4	BY AND OBTAIN 805 = gallons		

III. SIGNATURE:

I, Richard LeBlanc, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

201.97

Signature of Well Driller

Version: September 8, 2009

Date

Page 2 of 2





NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:	
State Engineer Well Number: MW-26	
Well owner: El Paso CGP Company, LLC Phone No.: 713-420-3475	
Mailing address: 1001 Louisiana Street, Room 956	
City: Houston State: Texas Zip code: 77002	2
I. WELL PLUGGING INFORMATION:	
Name of well drilling company that plugged well: Yellow Jacket Drilling Services, LLC	
New Mexico Well Driller License No.: WD-1458 Expiration Date: 10/31/18	}
Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Carlos Hernandez	
Date well plugging began: 9/12/17 Date well plugging concluded: 9/13/17	
Description: Latitude: 36 deg, 44 min, 04.13 sec Longitude: 107 deg, 57 min, 35.64 sec, WGS 84	
Depth of well confirmed at initiation of plugging as: 65 ft below ground level (bgl), by the following manner: manual tag line measurement	
Static water level measured at initiation of plugging:n/a ft bgl	
Date well plugging plan of operations was approved by the State Engineer: 8/21/17	
Were all plugging activities consistent with an approved plugging plan? YES If not, please de differences between the approved plugging plan and the well as it was plugged (attach additional pages as need	scribe ed):

Version: September 8, 2009

Page 1 of 2

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging <u>Material Used</u> (include any additives used)	Volume of <u>Material Placed</u> (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
-	Cement bentonite grout	10.70 gallons	10.70 gallons	Tremie pipe	OSE Permit approval #SJ-2466-S
-					
-					
_				·	
-					
-					
-					
		MULTIPLY BY cubic feet x 7.48	Y AND OBTAIN 05 = gallons	1	

III, SIGNATURE:

I, Richard LeBlanc, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

201.97

Signature of Well Driller

Date

Version: September 8, 2009 Page 2 of 2 Appendix C Investigation-Derived Waste Disposal Paperwork

NON-HAZARDOUS WASTE

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)				
NON-HAZARDOUS WASTE MANIFEST 1. Generator's US EP		Manifest Document No.	004	2. Page 1 of
3. Generator's Name and Mailing Address EL PASO CGP (10014 Louisian Houston, TX 7-4. Generator's Phone (713) 420-3475	company, LLC			
10014 Louisian	na st ste as bi			
1 Communication 112 Min - 3475	ATTAC TO MALO			
5. Transporter 1 Company Name	6. US EPA ID Number	A. State Trans	porter's ID	
MARTMICKING	1		1 Phone 505 32	05541
7. Transporter 2 Company Name	US EPA ID Number	C. State Trans	10- 2	
		D. Transporter	2 Phone	
Designated Facility Name and Site Address	10. US EPA ID Number	E. State Facilit		
EnviroTech Inc. Soil Remediation Faulity #43 Road 7175, South	£		01-0011	
Bloomfield MH 67413		F. Facility's Ph	632 0615	
11. WASTE DESCRIPTION		12. Containers	13.	14.
		No. Type	Total Quantity	Unit Wt./Vol.
*Nonhazardous soil		, Poll		
MONTH MACHINES SON	T , 11 1994	off	10	1.20
	Truck # 1006	, Pox	12	Cyds
G b. E				
N				
R c.				
A				
0				
R d.				
G. Additional Descriptions for Materials Listed Above		H. Handling Co	odes for Wastes Listed Ab	ove
Blanco North Flare Pit ev	Virginmental			
shout the heart	[V II O III O III I			
Investigation waste				
15. Special Handling Instructions and Additional Information				
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of	this shipment are fully and accurately described	and are in all respects		
in proper condition for transport. The materials described on this manife on behalf of En Paso CGP company	st are not subject to federal hazardous waste re	gulations.		
out doublet at the form contraction	1.			Date
Printed/Typed Name	Signature //			onth Day Year
T 17 Transporter 1 Asknowledgement of Descript of Materials	J. HW		- 1	1-11
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name 18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name	Signature		**	Date onth Day Year
IS March John Son	CONTRACTOR OF THE PARTY OF THE	*	- 11	120 1/7
18. Transporter 2 Acknowledgement of Receipt of Materials				Date
Printed/Typed Name	Signature		M	onth Day Year
R 10 Disconsport Indication Space				
F 19. Discrepancy Indication Space				
A C				
20. Facility Owner or Operator; Certification of receipt of the waste materials	s covered by this manifest, except as noted in ite	em 19.		
L				Date
T Printed/Typed Name O	Signature	1 m M 1 -	Me 1	onth Day Year
1 Gary rounson	Day rom	noon		1 10 11/1

NON-HAZARDOUS WASTE

NON-HAZARDOUS WASTE MANIFEST

NON-HAZARDOUS WASTE MANIFEST 1. Generator's US EPA ID No. WASTE MANIFEST 3. Generator's Name and Mailing Address T PASO CGP Company, WE 100 14 LOUIS I ANA ST. SEC 9561 HOW TON TX 17622 4. Generator's Phone (113) 420-3415 5. Transporter 1 Company Name MAR TYWENG 7. Transporter 2 Company Name 8. US EPA ID Number 9. Designated Facility Name and Site Address BASIN DISPOSAL NE 200 HUTTAN BLOOMFIELD, NH S1413 (505) 632-8936 11. WASTE DESCRIPTION a. NMAZAR AGUS PWGE (CRUMTAMINATION NAW) b.	A. State Ti B. Transpo C. State Ti D. Transpo E. State Fi	ransporter's ID orter 1 Phone 505 3 ransporter's ID orter 2 Phone acility's ID 1 - 0 - 0 - 0 - 0 - 0	2. Page 1 of 1
4. Generator's Phone (7/3) 420-3475 5. Transporter 1 Company Name Mark Trucking 7. Transporter 2 Company Name 9. Designated Facility Name and Site Address Basin Disposal No. 200 Hintain Bloomfield NH 87413 (505) 632-8936 11. WASTE DESCRIPTION a. NMMARAN dows pingle decemtamination Nator	A. State Ti B. Transpo C. State Ti D. Transpo E. State Fi F. Facility:	orter 1 Phone 5 05 3 ransporter's ID orter 2 Phone acility's ID 1 - 0 - 0.05 s Phone 13. Total Quantity	14. Unit Wt./Vol.
4. Generator's Phone (7/3) 420-3475 5. Transporter 1 Company Name Mark Trucking 7. Transporter 2 Company Name 9. Designated Facility Name and Site Address Basin Disposal No. 200 Hintain Bloomfield NH 87413 (505) 632-8936 11. WASTE DESCRIPTION a. NMMARAN dows pingle decemtamination Nator	A. State Ti B. Transpo C. State Ti D. Transpo E. State Fi F. Facility:	orter 1 Phone 5 05 3 ransporter's ID orter 2 Phone acility's ID 1 - 0 - 0.05 s Phone 13. Total Quantity	14. Unit Wt./Vol.
4. Generator's Phone (7/3) 420-3475 5. Transporter 1 Company Name Mark Trucking 7. Transporter 2 Company Name 9. Designated Facility Name and Site Address Basin Disposal No. 200 Hintain Bloomfield NH 87413 (505) 632-8936 11. WASTE DESCRIPTION a. NMMARAN dows pingle decemtamination Nator	A. State Ti B. Transpo C. State Ti D. Transpo E. State Fi F. Facility:	orter 1 Phone 5 05 3 ransporter's ID orter 2 Phone acility's ID 1 - 0 - 0.05 s Phone 13. Total Quantity	14. Unit Wt./Vol.
5. Transporter 1 Company Name Mark Trucking 7. Transporter 2 Company Name 8. US EPA ID Number 9. Designated Facility Name and Site Address Basin Disposal Not 200 Hintain Bloomfield NH 87413 (505) 632-8936 11. WASTE DESCRIPTION a. Nonaradous purge (deumtamination Nator) Nator Nator	A. State Ti B. Transpo C. State Ti D. Transpo E. State Fi F. Facility:	orter 1 Phone 5 05 3 ransporter's ID orter 2 Phone acility's ID 1 - 0 - 0.05 s Phone 13. Total Quantity	14. Unit Wt./Vol.
7. Transporter 2 Company Name 8. US EPA ID Number 9. Designated Facility Name and Site Address 10. US EPA ID Number BASIN 71600501 INC 200 HUNTAIN BOOMFIELD, NH 81413 (505) 632-8936 11. WASTE DESCRIPTION a. NOMMATAN ADUS PINGE (Accomtamination Nature) NATURE 1 STOCK 1 STOC	B. Transpo	orter 1 Phone 5 05 3 ransporter's ID orter 2 Phone acility's ID 1 - 0 - 0.05 s Phone 13. Total Quantity	14. Unit Wt./Vol.
7. Transporter 2 Company Name 9. Designated Facility Name and Site Address 10. US EPA ID Number 11. WASTE DESCRIPTION 12. NMMATAR ADUS PWGE (Accomtamination Nature) 13. Nature 14. Nature 15. Nature 16. Nature 17. Transporter 2 Company Name 18. US EPA ID Number 10. US EPA ID Number 10. US EPA ID Number 10. US EPA ID Number 11. WASTE DESCRIPTION 11. WASTE DESCRIPTION 11. WASTE DESCRIPTION 12. Nature 13. Nature 14. Nature 15. Nature 16. Nature 17. Let # 3367	C. State To D. Transport E. State For F. Facility's 12. Containers	ransporter's ID orter 2 Phone acility's ID 1 - D - D - D - D - S s Phone 13. Total Quantity	14. Unit Wt./Vol.
Basin Disposal Inc 200 Huntaha Bloomfield, NH 87413 (505) 632-8936 11. WASTE DESCRIPTION a. Nonhazardous purge (decontamination Natur Truck # 3367) b.	D. Transpo	acility's ID 1 - D - D - S s Phone 13. Total Quantity	Unit Wt./Vol.
Basin Disposal Inc 200 Huntaha Bloomfield, NH 87413 (505) 632-8936 11. WASTE DESCRIPTION a. Nonhazardous purge (decontamination Natur Truck # 3367) b.	F. Facility's	s Phone 13. Total Quantity	Unit Wt./Vol.
a. nonhazardous purge (decontamination Nater b.	F. Facility's	s Phone 13. Total Quantity	Unit Wt./Vol.
a. nonhazardous purge (decontamination Nater b.	12. Containers	13. Total Quantity	Unit Wt./Vol.
a. nonhazardous purge (decontamination Nater Truck # 3367)		Total Quantity	Unit Wt./Vol.
*nonhazardous purge (decontamination Truck # 3367)		Total Quantity	Unit Wt./Vol.
b.			
b.		20	BAL
b.		20	BAL
b.			
G.			
C.			
**			
Ir I			
d.			
Blanco North Flure put environmental Investigation waste			
Basin ReJected Load Went to E		tech	and Fi
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described a in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regular to be the push of the p	and are in all respects ulations.		Date fonth Day Yea
Luke Hill Luke /fr	N		1 20 1
17. Transporter 1 Acknowledgement of Receipt of Materials			Date
Printed/Typed Name Signature		M	fonth Day Yea
18. Transporter 2 Acknowledgement of Receipt of Materials			1 20 12
		4/	Date fonth Day Yea
			Day Tea
19. Discrepancy Indication Space			
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item	n 19.	_	
Carted/Tuned Name 4	1		Date
Printed/Typed Name Signature Signature	in	7	The Say Yes
19. Discrepancy Indication Space	n 19.	N	flonth Day Ye

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M-See	7		- Antherson		- Barrier A			Sea of Life	E W TANK	0100
DA GE HA		o. M &	AL 17 150 2 R Exempt Oilfiel	505-632-8936 OPEN 24 Hour	Bloomfield, NM 87413 or 505-334-3013	DEL. BILL DRIV	TKT#. 12 TO:/ (Print Full ting/Completi	9 3 2 9 Pa 5 0 Name)	5	it
ST	NO.	NM	co 🗆 AZ 🗀 u	T TREA	TMENT/DISPOSAL N	COST	EVAPORA H2S	COST	JECTION TRE	ATING PLANT
	1	3369	Olario Noi	th Flore	80/	760	HZS	COST	17 NOU 20	SF41AM
	2	069	Binaco	Vode Flore	40	76			72NQU 26	MAPEE
	3					6	6	5:6		
	4									
107	5		7							
				ording to the Resource Contact that the above described w		y Act (RCF	(A) and the L		rized agent for mental Protecti	
1	Approv	ved	☐ Denied	ATTENDANT SIG	GNATURE	16	1/6		W C.H.	production 168-6
Lynn									4.	



BILL OF LADING

BDG 053752

DAYLIGHTING "			Ticket Number:	pr 4
Generator	Mater	ial Description: Mud	a. + H Pro	Duce Wolfer
Name: Street Address: City, Province or State: Postal or Zip: Phone No: Generator or Authorized Represen This is to certify that the above pamed mate	tative Certification:	Material Type: Soil/Solids Water Both hat the transporter is authorized to use the n	Excavation Lat: LSD (CN Options	on Area Coordinates: Long: at):
Authorized Signature:	Signature	Print Name: Alecca Taxs		Date:
Transporter Name: B Street Address: City, Province or State: Postal or Zip: Phone No: Authorized Signature:	Jun Miller	Badger Area:	e Keline	Date: _/
Disposition Facility Name: Street Address: City, Province or State: Postal or Zip:	Signature	Quantity/Units - Daily Total (Full Load Equivalents)	Lat:	ion Area Coordinates Long: nal):
Phone No: Authorized Signature: *Note: For unsupervised unloading areas w	Signature with the signature spot for the	Print Name: Name/Compan	SM Snvirotee Name	Date: 1-28-19 Date Shipped

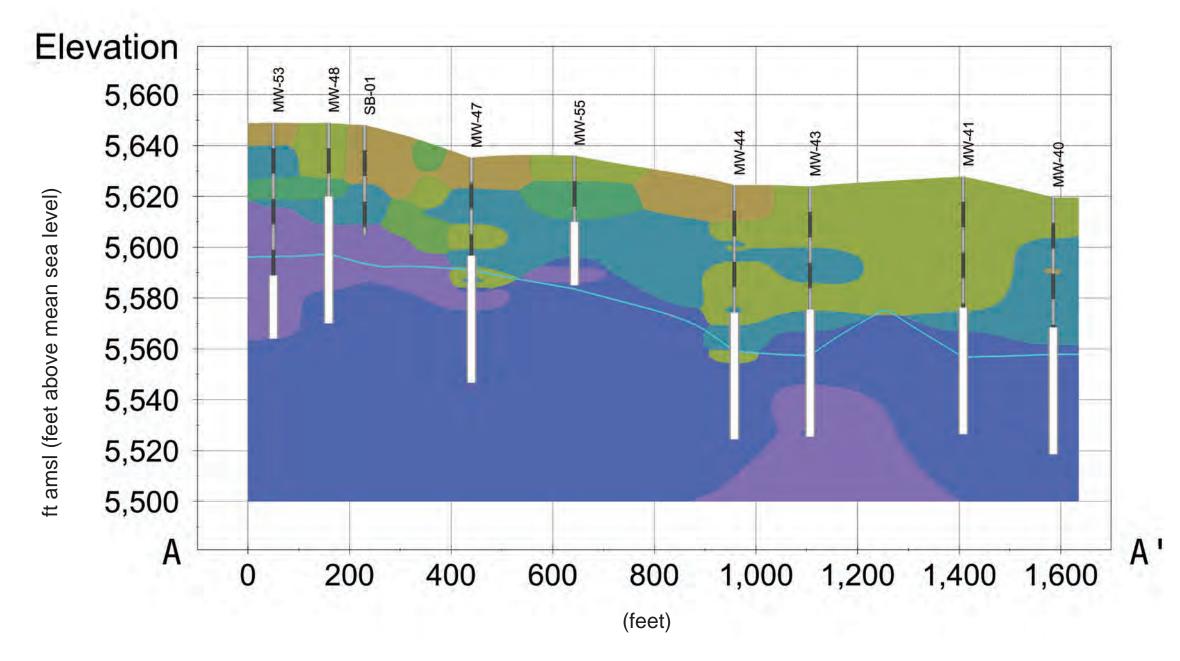
Page 160 of 417

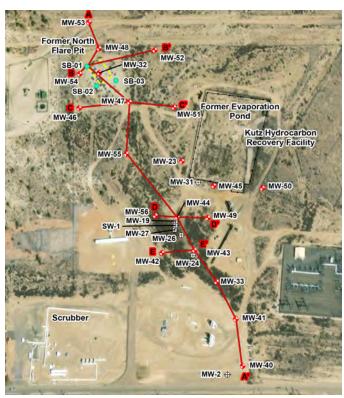
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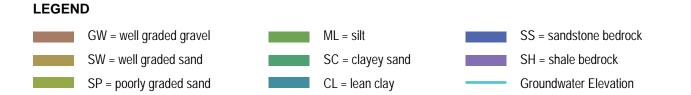
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BAS				h and Safety Excellence Bloomfield, NM 87413 or 505-334-3013	NMOC	7772 CD PERMIT: NM Id Waste Docu	A-001-0005	C138	
DISPOSAL DATE 505-632-8936 or 505-334-3013 OPEN 24 Hours per Day						DEL. TKT#.			
GENERATO	DR: (-)	Pers.			BILL	The state of the s	Ja. 1, (
HAULING O		to is oh to	Per		DRIV	(Print Full	Name)		
	10								
WASTE DE		Exempt Oilfield		Produced Wat		ing/Complet	on Fluids		
STATE:	NM [CO 🗆 AZ 🗀 UT	TREA	TMENT/DISPOSAL N	er Drill	ing/Complet		JECTION MTRE	ATING PLANT
		CO 🗆 AZ 🗀 UT			er Drill	ing/Complet		IJECTION ⊠TRE	ATING PLANT
STATE:	NM [CO 🗆 AZ 🗀 UT	TREA	TMENT/DISPOSAL N	er Drill	ing/Complet	ATION MIN		
NO.	NM [CO 🗆 AZ 🗀 UT	TREA	TMENT/DISPOSAL N	er Drill	ing/Complet	ATION MIN	TOTAL	
NO.	NM [CO 🗆 AZ 🗀 UT	TREA	TMENT/DISPOSAL N	er Drill	ing/Complet	ATION MIN		
NO. 1 2	NM [CO 🗆 AZ 🗀 UT	TREA	TMENT/DISPOSAL N	er Drill	ing/Complet	ATION MIN	TOTAL	

Appendix D Lithologic Cross-Sections Received by OCD: 5/27/2021 12:45:58 PM

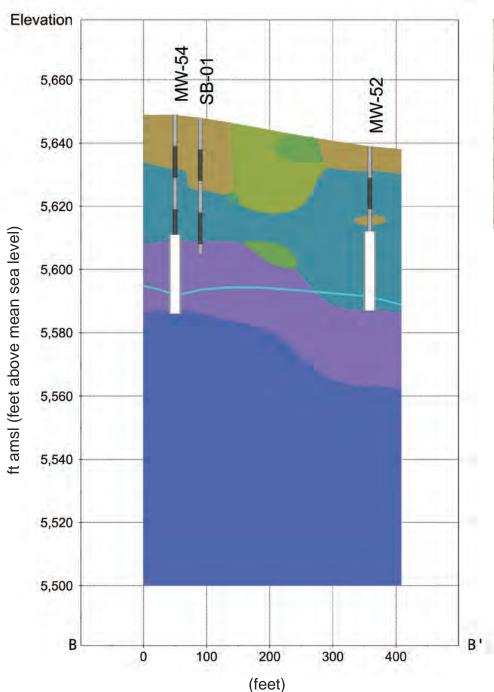






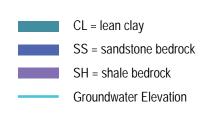
Appendix D1 - Lithologic Cross-Section A-A' Site Characterization Report Blanco Plant - North Flare Pit Bloomfield, New Mexico





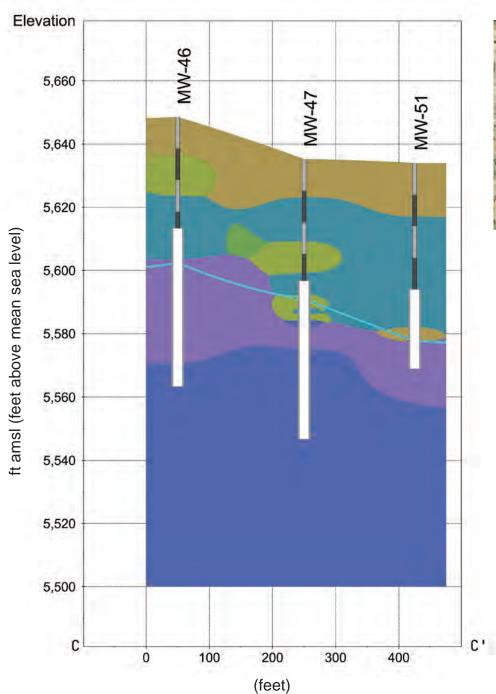


GW = well graded gravel
SW = well graded sand
SP = poorly graded sand
ML = silt
SC = clayey sand

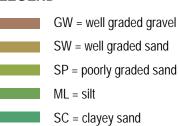


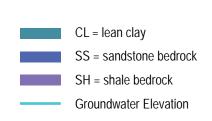
Appendix D2 - Lithologic Cross-Section B-B' Site Characterization Report Blanco Plant - North Flare Pit Bloomfield, New Mexico





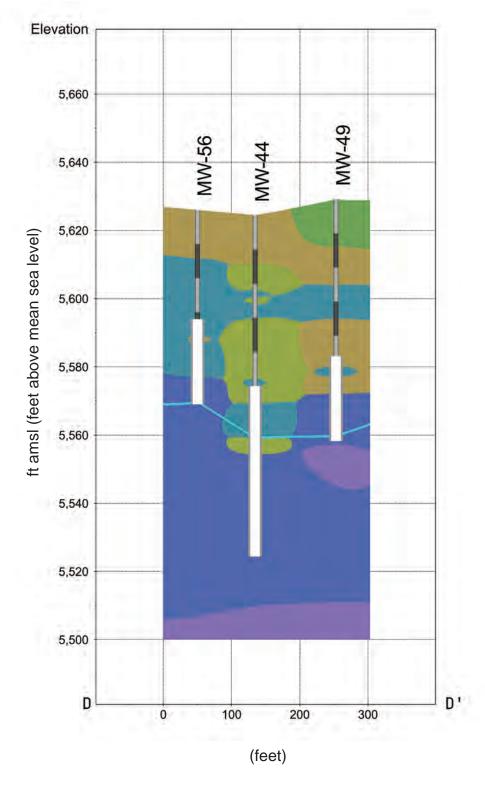






Appendix D3 - Lithologic Cross-Section C-C' Site Characterization Report Blanco Plant - North Flare Pit Bloomfield, New Mexico







GW = well graded gravel

SW = well graded sand

SP = poorly graded sand

ML = silt

SC = clayey sand

CL = lean clay

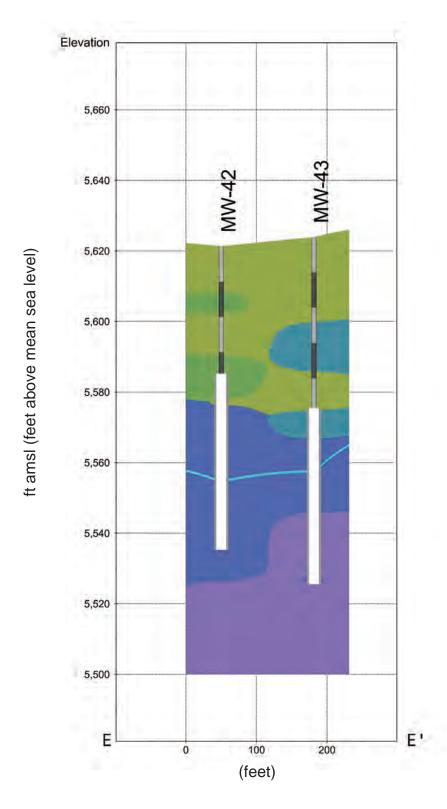
SS = sandstone bedrock

SH = shale bedrock

Groundwater Elevation

Appendix D4 - Lithologic Cross-Section D-D' Site Characterization Report Blanco Plant - North Flare Pit Bloomfield, New Mexico







GW = well graded gravel

SW = well graded sand

SP = poorly graded sand

ML = silt

SC = clayey sand

SS = sandstone bedrock
SH = shale bedrock
Groundwater Elevation

Appendix D5 - Lithologic Cross-Section E-E' Site Characterization Report Blanco Plant - North Flare Pit Bloomfield, New Mexico



Appendix E
Soil Laboratory Analytical Reports
Part 1

Data Usability Review: Data Package							
Client Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07		
Project / Affected Property:	Blanco North 2017	Project Manager:		ger:	Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:		lob #:	600-147434-1		
Reviewer:	John Ynfante/HOU						
Level of Review / Validation:	Level 3						
ITEM		YES	NO	N/A	COMMENTS		
Laboratory Data Package Signature	gnature Page included?	✓					
Date of sample collection inc	luded?	V					
Sample receipt temperature	≤ 6° C?	V					
Signed COCs included?		✓					
Field ID included?		✓					
Laboratory ID included?		✓					
Date of analysis included?		✓					
Date of sample preparation included?		✓					
Detection levels included?		✓					
Method reference included?		✓					
Sample matrix included?		✓					
Sample results included?		✓					
Case narrative included, whe	ere required?	✓					
Limit; MDL - Method Detecti		itation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection reent Recovery; RF - Response Factor; RPD - dard Deviation.		
COMMENTS							
VOCs: No DV flags applied							
		-					

Data Usability Review: VOCs (GC/MS), SW-846 8260B						
Client Name:	Kinder Morgan	Project Number:			477041.06.07	
Project / Affected Property:	Blanco North 2017		Manag		Jeff Minchak/ABQ	
Laboratory:	TestAmerica-Houston	Lab SE)G # / J	ob #:	600-147434-1	
Reviewer: John Ynfante/HOU						
Level of Review / Validation: ITEM	Level 3	YES	NO	N/A	COMMENTS	
		√			OCHIMIZATION CONTRACTOR CONTRACTO	
Preparatory/analytical hold						
Surrogate data included in lab package?		✓				
Reject %R <10%.	its listed below or specify lab limits).	V				
R5 Method blank data inclu	uded in Lab Package?	✓				
Criteria met?		✓				
QC check samples/LCS da	ata included in lab package?	>			LCS/LCSD	
%R criteria met? (specified	d limits)	✓				
Matrix spike data included		>				
%R criteria met? (laborato	ory specified limits)	✓				
RPD criteria met? (< 20% v	water, <50% soil)	V				
Initial calibration document	ation included in lab package?	✓				
RF criteria met for SPCC?		✓				
%RSD criteria met for CO RSD must have fit)	CC? (<30% RSD for CCC, >15%	>				
Calibration verification data	a included in lab package?	✓				
RF criteria met for SPCC?	RRF <0.05 rejected.	✓				
%D criteria met for CCC? ((20% Max, Qualify >25%D)	✓				
Instrument Tune document	tation included in lab package?	✓				
Instrument Tune Criteria m	net?	✓				
Internal standard data inclu	uded in lab package?	✓				
Area within limits? (within check?	-50% to +100% of last calibration	✓				
	ec. Difference from last calibration	7				
Surrogates	Control Limits				Lab Limits?	
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%					
Dibromofluoromethane	water 86-118%, soil 80-120%					
Toluene-d8 4-Bromofluorobenzene	water 88-110%, soil 81-117% water 86-115%, soil 74-121%					
Notes:	water 60-115%, SOII 74-121%					
* SPCC: chloromethane (0.1)	; 1,1-dichloroethane (0.1); bromofori	m (0.1);	chlorob	enzen	e (0.3); and 1,1,2,2-tetrachloroethane (0.3).	
					oled Plasma; IDL - Instrument Detection Limit;	
COMMENTS	MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P					
	/23-04272017 (600-147434-1)[50X],	Blanco	NFP-M	W23-04	4272017 (600-147434-1)[500X].	
BlancoNFP-MD23-04272017	(600-147434-2)[50X], BlancoNFP-N ncoNFP-MW32-04272017 (600-147	1D23-04	272017	⁷ (600-	dilution prior to analysis. The reporting limits	
TB: Trip Blank was all ND so	no flags applied					
FD: BlancoNFP-MD23-04272017 is a duplicate of BlancoNFP-MW23-04272017. Precision is within criteria so no flags applied.						

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07			
Project / Affected Property:	Blanco North 2017	Project Manager:		ger:	Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:		ob #:	600-153431-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3				T			
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Sig	gnature Page included?	✓						
Date of sample collection inc	luded?	V						
Sample receipt temperature	≤ 6° C?	V			0.9 deg C			
Signed COCs included?		V						
Field ID included?		V						
Laboratory ID included?		7						
Date of analysis included?		~						
Date of sample preparation in	ncluded?	✓						
Detection levels included?		✓						
Method reference included?		~						
Sample matrix included?		~						
Sample results included?		✓						
Case narrative included, whe	ere required?	V						
Limit; MDL - Method Detection		titation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection reent Recovery; RF - Response Factor; RPD - dard Deviation.			
COMMENTS								
VOCs: No DV flags applied								

Data Usability Re	view: VOCs (GC/MS)	, SW	-846	826	0B		
Client Name:	Kinder Morgan	Project Number:			477041.06.07		
Project / Affected Property:	Blanco North 2017	Project Manager:			Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SI	Lab SDG # / Job #: 600-153431-1				
Reviewer: John Ynfante/HOU							
Level of Review / Validation:	Level 3						
ITEM		YES	NO	N/A	COMMENTS		
Preparatory/analytical holding time met?		✓					
Surrogate data included in lab package?		✓					
%R criteria met? (use limits listed below or specify lab limits). Reject %R <10%.			V				
R5 Method blank data inclu	uded in Lab Package?	V					
Criteria met?		✓					
QC check samples/LCS da	ata included in lab package?	✓					
%R criteria met? (specifie	d limits)	V					
Matrix spike data included	in lab package?	V					
%R criteria met? (laborato	ory specified limits)	V					
RPD criteria met? (< 20%	water, <50% soil)	V					
Initial calibration document	ation included in lab package?	V					
RF criteria met for SPCC?		✓					
%RSD criteria met for Co	CC? (<30% RSD for CCC, >15%	✓					
Calibration verification data	a included in lab package?	✓					
RF criteria met for SPCC?	RRF <0.05 rejected.	V					
%D criteria met for CCC? ((20% Max, Qualify >25%D)	✓					
Instrument Tune documen	tation included in lab package?	✓					
Instrument Tune Criteria m	net?	✓					
Internal standard data inclu	, ě	✓					
check?	-50% to +100% of last calibration						
check?	ec. Difference from last calibration	✓					
Surrogates	Control Limits				Lab Limits?		
1,2-Dichloroethane-d4 Dibromofluoromethane Toluene-d8	water 80-120%, soil 80-120% water 86-118%, soil 80-120% water 88-110%, soil 81-117%						
4-Bromofluorobenzene	water 86-115%, soil 74-121%						
Notes:							
					e (0.3); and 1,1,2,2-tetrachloroethane (0.3). pled Plasma; IDL - Instrument Detection Limit;		
					ry; RF - Response Factor; RPD - Relative P		
COMMENTS							
FD: MD04-NFP-1-2-0905201	7 is a field duplicate of MW40-NFP-	1-2-090	52017 -	both w	vere all ND so precision met criteria.		
TB: Trip blank TB01-NFP-090	052017 was all ND so no flags were	applied					
l—————————————————————————————————————							

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07			
Project / Affected Property:	Blanco North 2017	Project Manager:		ger:	Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:		ob #:	600-153515-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Sig	gnature Page included?	✓						
Date of sample collection inc	luded?	V						
Sample receipt temperature :	≤ 6° C?	V			0.2 deg C			
Signed COCs included?		✓						
Field ID included?		✓						
Laboratory ID included?		✓						
Date of analysis included?		✓						
Date of sample preparation included?		✓						
Detection levels included?		✓						
Method reference included?		✓						
Sample matrix included?		V						
Sample results included?		✓						
Case narrative included, whe	ere required?	✓						
Limit; MDL - Method Detection		itation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection cent Recovery; RF - Response Factor; RPD - dard Deviation.			
COMMENTS								
VOCs: No DV flags applied								

	Data Usability Review: VOCs (GC/MS), SW-846 8260B							
С	lient Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07		
Pı	roject / Affected Property:	Blanco North 2017		Project Manager: Jeff Minchak/ABQ				
Laboratory: TestAmerica-Houston		Lab SE)G # / J	ob #:	600-153515-1			
Reviewer: John Ynfante/HOU								
		Level 3	VEC	NO	NI/A	COMMENTS		
•	EM I		YES	NO	N/A	COMMENTS		
Preparatory/analytical holding time met?			✓					
	Surrogate data included in	, ,	✓					
%R criteria met? (use limits listed below or specify lab limits). Reject %R <10%.		V						
	R5 Method blank data inclu	uded in Lab Package?	V					
	Criteria met?		V					
	QC check samples/LCS da	ata included in lab package?	V			LCS/LCSD		
	%R criteria met? (specified	d limits)	V					
	Matrix spike data included	in lab package?		V				
	%R criteria met? (laborato	ory specified limits)			\			
	RPD criteria met? (< 20% v	water, <50% soil)	V			LCS/LCSD		
	Initial calibration document	ation included in lab package?	V					
	RF criteria met for SPCC?		V					
	%RSD criteria met for CORSD must have fit)	CC? (<30% RSD for CCC, >15%	7					
	Calibration verification data	a included in lab package?	V					
	RF criteria met for SPCC?	RRF <0.05 rejected.	✓					
	%D criteria met for CCC? ((20% Max, Qualify >25%D)	V					
	Instrument Tune document	tation included in lab package?	V					
	Instrument Tune Criteria m	net?	V					
	Internal standard data inclu	uded in lab package?	✓					
	check?	-50% to +100% of last calibration						
	RRT within limits? (<30 s check?	ec. Difference from last calibration	V					
	Surrogates	Control Limits				Lab Limits?		
	1,2-Dichloroethane-d4	water 80-120%, soil 80-120%						
	Dibromofluoromethane Toluene-d8	water 86-118%, soil 80-120% water 88-110%, soil 81-117%						
	4-Bromofluorobenzene	water 86-115%, soil 74-121%						
Ν	otes:		I					
						e (0.3); and 1,1,2,2-tetrachloroethane (0.3).		
						pled Plasma; IDL - Instrument Detection Limit; ry; RF - Response Factor; RPD - Relative P		
С	OMMENTS							
FI	D: MD01-NFP-1-2-0906201	7 is a field duplicate of SB01-NFP-1	-2-0906	2017 - I	both we	ere all ND so precision met criteria.		
TI	B: Trip blank TB: TB02-NFP	P-1-2-09062017 was all ND so no fla	gs appli	ed.				
Ĺ								

Data Usability Review: Data Package							
Client Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07		
Project / Affected Property:	Blanco North 2017	Project Manager:		ger:	Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:		lob #:	600-153582-1		
Reviewer:	John Ynfante/HOU						
Level of Review / Validation:	Level 3						
ITEM		YES	NO	N/A	COMMENTS		
Laboratory Data Package Si	gnature Page included?	✓					
Date of sample collection inc	cluded?	✓					
Sample receipt temperature	≤6° C?	✓			0.6 deg F		
Signed COCs included?		~					
Field ID included?		~					
Laboratory ID included?		~					
Date of analysis included?		~					
Date of sample preparation included?		✓					
Detection levels included?		~					
Method reference included?		✓					
Sample matrix included?		V					
Sample results included?		V					
Case narrative included, who	ere required?	~					
Limit; MDL - Method Detecti		titation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection reent Recovery; RF - Response Factor; RPD - dard Deviation.		
COMMENTS							
VOCs: No DV flags applied							

Data Usability Review: VOCs (GC/MS), SW-846 8260B						
Client Name: Kinder Morgan		Project Number:			477041.06.07	
Project / Affected Property: Blanco North 2017		Project Manager:			Jeff Minchak/ABQ	
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:		ob #:	600-153582-1	
Reviewer: John Ynfante/HOU						
Level of Review / Validation: Level 3		YES	NO	NI/A	COMMENTS	
ITEM		ŢE3	NO	N/A	COMMENTS	
Preparatory/analytical holding time met?				Ш		
Surrogate data included in lab package?		~				
%R criteria met? (use limits listed below or specify lab limits). Reject %R <10%.		>				
R5 Method blank data included in Lab Package?		✓				
Criteria met?		✓				
QC check samples/LCS da	ata included in lab package?	✓			LCS/LCSD	
%R criteria met? (specifie	d limits)	✓				
Matrix spike data included	in lab package?		<			
%R criteria met? (laborato	ory specified limits)			✓		
RPD criteria met? (< 20%	water, <50% soil)	>			LCS/LCSD	
Initial calibration document	ation included in lab package?	>				
RF criteria met for SPCC?	RRF <0.05 rejected.	✓				
%RSD criteria met for CCC? (<30% RSD for CCC, >15% RSD must have fit)		V				
Calibration verification data	a included in lab package?	✓				
RF criteria met for SPCC?	RRF <0.05 rejected.	✓				
%D criteria met for CCC? ((20% Max, Qualify >25%D)	V				
Instrument Tune documen	tation included in lab package?	✓				
Instrument Tune Criteria m	net?	\				
Internal standard data included in lab package?		✓				
Area within limits? (within check?	-50% to +100% of last calibration		<			
RRT within limits? (<30 sec. Difference from last calibration check?		7				
Surrogates	Control Limits				Lab Limits?	
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%					
Dibromofluoromethane	water 86-118%, soil 80-120%					
Toluene-d8 water 88-110%, soil 81-117%						
4-Bromofluorobenzene water 86-115%, soil 74-121% Notes:						
* SPCC: chloromethane (0.1); 1,1-dichloroethane (0.1); bromoform (0.1); chlorobenzene (0.3); and 1,1,2,2-tetrachloroethane (0.3).						
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit;						
MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P						
COMMENTS						
OT: Sample MW40-NFP-29-30-09072017 (600-153582-5) received one of the vials with the stir bar broken: MW40-NFP-29-30-09072017. Other vials for the sample were uncompromised and were sifficient for analysis.						
IS: The 1,4-Dichlorobenzene-d4 Internal standard responses were above acceptance criteria for samples MW40-NFP-11-12-						
09072017 (600-153582-3) and MW40-NFP-19-20-09072017 (600-153582-4). This ISTD does not correspond to any of the requested target compounds; therefore no data were qualified.						
TB: TB03-NFP-09072017 was all ND so no flags applied.						

FD: MD05-NFP-57-58-09072017 is a duplicate of MW40-NFP-57-58-09072017 and both were all ND so no flags applied	

Data Usability Review: Data Package					
Client Name:	Kinder Morgan	Project Number:		er:	477041.06.07
Project / Affected Property:	Blanco North 2017	Project Manager:		ger:	Jeff Minchak/ABQ
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:		lob #:	600-153598-1
Reviewer:	John Ynfante/HOU				
Level of Review / Validation:	Level 3				
ITEM		YES	NO	N/A	COMMENTS
Laboratory Data Package Signature Page included?		✓			
Date of sample collection included?		V			
Sample receipt temperature ≤ 6° C?		V			1.8 deg F
Signed COCs included?		✓			
Field ID included?		✓			
Laboratory ID included?		✓			
Date of analysis included?		✓			
Date of sample preparation included?		✓			
Detection levels included?		V			
Method reference included?		V			
Sample matrix included?		V			
Sample results included?		V			
Case narrative included, where required?		✓			
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.					
COMMENTS					
VOCs: UJ-MS					

Data Usability Review: VOCs (GC/MS), SW-846 8260B						
Client Name:	Kinder Morgan	Project Number:			477041.06.07	
Project / Affected Property:	Blanco North 2017	Project Manager:			Jeff Minchak/ABQ	
Laboratory: TestAmerica-Houston		Lab SE)G#/J	ob #:	600-153598-1	
Reviewer: John Ynfante/HOU						
Level of Review / Validation: Level 3		VEO	NO	NI/A	COMMENTO	
ITEM		YES	NO	N/A	COMMENTS	
Preparatory/analytical holding time met?		V				
Surrogate data included in	lab package?	✓				
%R criteria met? (use limits listed below or specify lab limits). Reject %R <10%.		V				
R5 Method blank data included in Lab Package?		V				
Criteria met?		✓				
QC check samples/LCS da	ata included in lab package?	~			LCS/LCSD	
%R criteria met? (specifie	d limits)	~				
Matrix spike data included	in lab package?	V				
%R criteria met? (laborato			✓			
RPD criteria met? (< 20%	water, <50% soil)	V			LCS/LCSD	
Initial calibration document	ation included in lab package?	V				
RF criteria met for SPCC?	RRF <0.05 rejected.	~				
%RSD criteria met for CCC? (<30% RSD for CCC, >15% RSD must have fit)		V				
Calibration verification data	a included in lab package?	V				
RF criteria met for SPCC? RRF <0.05 rejected.		V				
%D criteria met for CCC? ((20% Max, Qualify >25%D)	V				
Instrument Tune documen	tation included in lab package?	V				
Instrument Tune Criteria m	net?	V				
Internal standard data included in lab package?		✓				
`	-50% to +100% of last calibration	V				
check? RRT within limits? (<30 sec. Difference from last calibration check?		V				
Surrogates	Control Limits	Lab Limits?				
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%					
Dibromofluoromethane	water 86-118%, soil 80-120%					
Toluene-d8	water 88-110%, soil 81-117%					
4-Bromofluorobenzene water 86-115%, soil 74-121% Notes:						
* SPCC: chloromethane (0.1); 1,1-dichloroethane (0.1); bromoform (0.1); chlorobenzene (0.3); and 1,1,2,2-tetrachloroethane (0.3).						
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit;						
MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P						
COMMENTS limits in MS for all analytes and in MSD for two analytes. Associated LCS/LCSD met the acceptance criteria. No analytes detected in parent sample. Flagged ethylbenzene and toluene results in parents sample as UJ-MS.						
parent dample. I lagged difficultizatio and toldene results in parents sample as outline.						
TB: Trip blank TB04-NFP-090	TB: Trip blank TB04-NFP-09082017 was all ND so no flags applied					
FD: MD08-NFP-54-55-09082 flags were applied.	017 is a duplicate of MW43-NFP-54	-55-090	82017 -	RPDs	for detections were < 30% or < +/-MQL so no	

Data Usability Review: Data Package					
Client Name:	Kinder Morgan	Project Number:		er:	477041.06.07
Project / Affected Property:	Blanco North 2017	Project Manager:		ger:	Jeff Minchak/ABQ
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:		lob #:	600-153701-1
Reviewer:	John Ynfante/HOU				
Level of Review / Validation:	Level 3	•			
ITEM		YES	NO	N/A	COMMENTS
Laboratory Data Package Signature Page included?		✓			
Date of sample collection included?		V			
Sample receipt temperature ≤ 6° C?		V			3.4 deg F
Signed COCs included?		V			
Field ID included?		✓			
Laboratory ID included?		✓			
Date of analysis included?		~			
Date of sample preparation included?		✓			
Detection levels included?		V			
Method reference included?		V			
Sample matrix included?		V			
Sample results included?		V			
Case narrative included, where required?		✓			
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.					
COMMENTS					
VOCs: No DV flags applied					

Data Usability Review: VOCs (GC/MS), SW-846 8260B							
Client Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07		
Project / Affected Property:	Blanco North 2017	Project	Manag	er:	Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SD)G # / J	ob #:	600-153701-1		
Reviewer:	John Ynfante/HOU						
	Level 3	\/F0	NO	N1/A	COMMENTO		
ITEM		YES	NO	N/A	COMMENTS		
Preparatory/analytical hold	ing time met?	✓		Ш			
Surrogate data included in	lab package?	✓					
%R criteria met? (use limi Reject %R <10%.	ts listed below or specify lab limits).	~					
R5 Method blank data inclu	ıded in Lab Package?	✓					
Criteria met?		✓					
QC check samples/LCS da	ta included in lab package?	>			LCS/LCSD		
%R criteria met? (specified	d limits)	✓					
Matrix spike data included		\					
%R criteria met? (laborato	1 0	>					
RPD criteria met? (< 20% v	vater. <50% soil)	✓			LCS/LCSD		
,	ation included in lab package?	V					
RF criteria met for SPCC?	RRF <0.05 rejected.	✓					
	CC? (<30% RSD for CCC, >15%	7					
Calibration verification data	included in lab package?	>					
RF criteria met for SPCC?	RRF <0.05 rejected.	✓					
%D criteria met for CCC? (20% Max, Qualify >25%D)	7					
Instrument Tune document	ation included in lab package?	✓					
Instrument Tune Criteria m	et?	✓					
Internal standard data inclu	ided in lab package?	✓					
check?	-50% to +100% of last calibration	V					
RRT within limits? (<30 sincheck?	ec. Difference from last calibration	V					
Surrogates	Control Limits				Lab Limits?		
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%						
Dibromofluoromethane	water 86-118%, soil 80-120%						
Toluene-d8 4-Bromofluorobenzene	water 88-110%, soil 81-117% water 86-115%, soil 74-121%						
Notes:	Water 66 11670, 361174 12170						
* SPCC: chloromethane (0.1)	; 1,1-dichloroethane (0.1); bromoform	m (0.1);	chlorob	enzen	e (0.3); and 1,1,2,2-tetrachloroethane (0.3).		
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P							
COMMENTS							
TB: Trip blank TB05-NFP-09102017 was all ND so no flags applied							
FD: MD09-NFP-14-16-09102017 is a duplicate of MW44-NFP-14-16-09102017. Precision within criteria so no flags applied							

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07			
Project / Affected Property:	Blanco North 2017	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SE)G#/J	ob #:	600-153854-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Sig	gnature Page included?	✓						
Date of sample collection inc	luded?	✓						
Sample receipt temperature :	≤ 6° C?	✓			0.9 deg F			
Signed COCs included?		✓						
Field ID included?		✓						
Laboratory ID included?		✓						
Date of analysis included?		✓						
Date of sample preparation in	ncluded?	✓						
Detection levels included?		✓						
Method reference included?		✓						
Sample matrix included?		V						
Sample results included?		✓						
Case narrative included, whe	ere required?	✓						
Limit; MDL - Method Detection	Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.							
COMMENTS								
VOCs: J-LR	VOCs: J-LR							

Data Usability Review: VOCs (GC/MS), SW-846 8260B							
Client Name:	Kinder Morgan	Project Number:		er:	477041.06.07		
Project / Affected Property:	Blanco North 2017	-,	Manag	_	Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:		ob #:	600-153854-1		
Reviewer:	John Ynfante/HOU						
Level of Review / Validation: ITEM	Level 3	YES	NO	N/A	COMMENTS		
		□			OCHMIEI (10		
Preparatory/analytical hold	ling time met?						
Surrogate data included in	<u> </u>	✓					
%R criteria met? (use limi Reject %R <10%.	its listed below or specify lab limits).	7					
R5 Method blank data inclu	uded in Lab Package?	✓					
Criteria met?		✓					
QC check samples/LCS da	ata included in lab package?	✓			LCS/LCSD		
%R criteria met? (specified	d limits)	✓					
Matrix spike data included			✓				
%R criteria met? (laborato	ory specified limits)			~			
RPD criteria met? (< 20% v	water, <50% soil)	7			LCS/LCSD		
Initial calibration document	ation included in lab package?	✓					
RF criteria met for SPCC?		✓					
%RSD criteria met for C0 RSD must have fit)	CC? (<30% RSD for CCC, >15%	7					
Calibration verification data	a included in lab package?	~					
RF criteria met for SPCC?	RRF <0.05 rejected.	✓					
%D criteria met for CCC? ((20% Max, Qualify >25%D)	V					
Instrument Tune document	tation included in lab package?	✓					
Instrument Tune Criteria m	net?	>					
Internal standard data inclu	uded in lab package?	✓					
Area within limits? (within check?	-50% to +100% of last calibration	7					
	ec. Difference from last calibration	7					
Surrogates	Control Limits				Lab Limits?		
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%						
Dibromofluoromethane	water 86-118%, soil 80-120%						
Toluene-d8 4-Bromofluorobenzene	water 88-110%, soil 81-117% water 86-115%, soil 74-121%						
Notes:	Water 00-11376, 301174-12176						
					e (0.3); and 1,1,2,2-tetrachloroethane (0.3).		
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P							
LR: All analytical values in sample MW45-NFP-35-36-09122017 (600-153854-9) were reported as Estimated (E) as the result was above the Upper Calibration Level. The sample(s) was re-analyzed from the medium level (methanol) vial, but was not reported due to the result being below the RL at this dilution. The nature of prep method 5035A negates the ability to run the samples at an intermediate dilution to achieve a result within the calibration range, so the "E" values are the best analytical results achievable and were flagged J-LR							
TB: Trip blank TB06-NFP-09122017 had headspace but was analyzed and was all ND so no flags applied.							

DL: The following samples required a medium level dilution to bring the concentration of target analytes within the calibration range: MW45-NFP-39-40-09122017 (600-153854-5), MW45-NFP-48-49-09122017 (600-153854-6), MW45-NFP-59-60-09122017 (600-153854-7) and MW45-NFP-69-70-09122017 (600-153854-8). Elevated reporting limits (RLs) are provided.
FD: MD10-NFP-23-24-09122017 is a duplicate of MW45-NFP-23-24-09122017. Precision was within criteria so no flags applied.

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07			
Project / Affected Property:	Blanco North 2017	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SE)G#/J	ob #:	600-153884-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3				T			
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Sig	gnature Page included?	✓						
Date of sample collection inc	luded?	V						
Sample receipt temperature :	≤ 6° C?	V			5.4 deg C			
Signed COCs included?		V						
Field ID included?		7						
Laboratory ID included?		~						
Date of analysis included?		~						
Date of sample preparation included?		✓						
Detection levels included?		~						
Method reference included?		7						
Sample matrix included?		V						
Sample results included?		✓						
Case narrative included, whe	ere required?	V						
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.								
COMMENTS								
VOCs: No DV flags applied								

Data Usability Review: VOCs (GC/MS), SW-846 8260B									
Client Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07				
Project / Affected Property:	Blanco North 2017		Manag		Jeff Minchak/ABQ				
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:		ob #:	600-153884-1				
Reviewer:	John Ynfante/HOU								
Level of Review / Validation:	Level 3	YES	NO	N/A	COMMENTS				
		\[\frac{1}{2}\]			COMMENTS				
Preparatory/analytical hold	ing time met?								
Surrogate data included in	<u> </u>	✓							
%R criteria met? (use limi Reject %R <10%.	its listed below or specify lab limits).	7							
R5 Method blank data inclu	uded in Lab Package?	\ 							
Criteria met?		✓							
QC check samples/LCS da	ata included in lab package?	>			LCS/LCSD				
%R criteria met? (specifie	d limits)	<							
Matrix spike data included		V							
%R criteria met? (laborato	1 0	✓							
RPD criteria met? (< 20%)	,	✓							
Initial calibration document	ation included in lab package?	7							
RF criteria met for SPCC?	RRF <0.05 rejected.	<							
	CC? (<30% RSD for CCC, >15%	7							
Calibration verification data	a included in lab package?	7							
RF criteria met for SPCC?	RRF <0.05 rejected.	✓							
%D criteria met for CCC? ((20% Max, Qualify >25%D)	V							
Instrument Tune documen	tation included in lab package?	✓							
Instrument Tune Criteria m	net?	✓							
Internal standard data inclu	uded in lab package?	✓							
Area within limits? (within check?	-50% to +100% of last calibration	~							
RRT within limits? (<30 s check?	ec. Difference from last calibration	>							
Surrogates	Control Limits				Lab Limits?				
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%								
Dibromofluoromethane	water 86-118%, soil 80-120%								
Toluene-d8 4-Bromofluorobenzene	water 88-110%, soil 81-117% water 86-115%, soil 74-121%								
Notes:	Water 66 11070, 301174 12170								
* SPCC: chloromethane (0.1)	; 1,1-dichloroethane (0.1); bromofori	n (0.1);	chlorob	enzen	e (0.3); and 1,1,2,2-tetrachloroethane (0.3).				
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P									
COMMENTS									
TB: Trip blank TB07-NFP-09132017 (600-153884-1) had headspace but was analyzed and was all ND so no flags applied.									
FD: MD06-NFP-12-14-09132017 is a field duplicate of MW41-NFP-12-14-09132017. Both were all ND so precision within criteria.									

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07			
Project / Affected Property:	Blanco North 2017	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SE)G#/J	ob #:	600-153982-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3				T			
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Sig	gnature Page included?	✓						
Date of sample collection inc	luded?	V						
Sample receipt temperature	≤ 6° C?	V			2.1 deg F			
Signed COCs included?		✓						
Field ID included?		✓						
Laboratory ID included?		✓						
Date of analysis included?		~						
Date of sample preparation included?		~						
Detection levels included?		V						
Method reference included?		~						
Sample matrix included?		✓						
Sample results included?		✓						
Case narrative included, whe	ere required?	V						
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.								
COMMENTS								
VOCs: No DV flags applied								

Data Usability Review: VOCs (GC/MS), SW-846 8260B							
Client Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07		
Project / Affected Property:	Blanco North 2017	Project	Manag	er:	Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:		ob #:	600-153982-1		
Reviewer:	John Ynfante/HOU						
Level of Review / Validation:	Level 3	VEC	NO	NI/A	COMMENTS		
IIEW		YES	NO	N/A	COMMENTS		
Preparatory/analytical holdi	ing time met?	✓	Ш	Ш			
Surrogate data included in	<u> </u>	✓					
%R criteria met? (use limit Reject %R <10%.	ts listed below or specify lab limits).	V					
R5 Method blank data inclu	uded in Lab Package?	✓					
Criteria met?		√					
QC check samples/LCS da	ta included in lab package?	✓			LCS/LCSD		
%R criteria met? (specified	d limits)	✓					
Matrix spike data included	in lab package?		✓				
%R criteria met? (laborato				V			
RPD criteria met? (< 20% v	vater, <50% soil)	✓			LCS/LCSD		
Initial calibration document	ation included in lab package?	7					
RF criteria met for SPCC?		✓					
%RSD criteria met for CC RSD must have fit)	CC? (<30% RSD for CCC, >15%	>					
Calibration verification data	included in lab package?	V					
RF criteria met for SPCC?	RRF <0.05 rejected.	✓					
%D criteria met for CCC? (20% Max, Qualify >25%D)	✓					
Instrument Tune document	ation included in lab package?	✓					
Instrument Tune Criteria m	et?	<u></u>					
Internal standard data inclu	<u> </u>	✓					
Area within limits? (within check?	-50% to +100% of last calibration	✓					
RRT within limits? (<30 seconds)	ec. Difference from last calibration	V					
Surrogates	Control Limits				Lab Limits?		
	water 80-120%, soil 80-120%						
	water 86-118%, soil 80-120%						
Toluene-d8 4-Bromofluorobenzene	water 88-110%, soil 81-117% water 86-115%, soil 74-121%						
Notes:	Water 00 11070, 301174 12170						
* SPCC: chloromethane (0.1);	; 1,1-dichloroethane (0.1); bromoform	m (0.1);	chlorob	enzen	e (0.3); and 1,1,2,2-tetrachloroethane (0.3).		
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P							
COMMENTS							
TB: Trip blank TB08-NFP-09152017 was all ND so no flags applied							
FD: MD07-NFP-20-21-09152017 is a duplicate of MD07-NFP-20-21-09152017 - both were all ND so no flags applied							

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07			
Project / Affected Property:	Blanco North 2017	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SI)G#/J	ob #:	600-154065-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Si	gnature Page included?	✓						
Date of sample collection inc	cluded?	✓						
Sample receipt temperature	≤6° C?	✓			4.7 deg F			
Signed COCs included?		~						
Field ID included?		~						
Laboratory ID included?		~						
Date of analysis included?		~						
Date of sample preparation i	ncluded?	✓						
Detection levels included?		~						
Method reference included?		✓						
Sample matrix included?		V						
Sample results included?		V						
Case narrative included, who	ere required?	~						
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detectio Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.								
COMMENTS								
VOCs: No DV flags applied								

Data Usability Review: VOCs (GC/MS), SW-846 8260B								
Client Name:	Kinder Morgan	Project Number:		er:	477041.06.07			
Project / Affected Property:	Blanco North 2017	Project Manager:		er:	Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:		ob #:	600-154065-1			
Reviewer:	John Ynfante/HOU							
	Level 3	\/=o						
ITEM		YES	NO	N/A	COMMENTS			
Preparatory/analytical hold	ing time met?							
Surrogate data included in	<u> </u>	✓						
%R criteria met? (use limi Reject %R <10%.	its listed below or specify lab limits).	7						
R5 Method blank data inclu	uded in Lab Package?	✓						
Criteria met?		✓						
QC check samples/LCS da	ata included in lab package?	>			LCS/LCSD			
%R criteria met? (specifie	d limits)	V						
Matrix spike data included			>					
%R criteria met? (laborato	ory specified limits)			✓				
RPD criteria met? (< 20%	water, <50% soil)	V			LCS/LCSD			
Initial calibration document	ation included in lab package?	V						
RF criteria met for SPCC?		>						
%RSD criteria met for Co	CC? (<30% RSD for CCC, >15%	V						
Calibration verification data	a included in lab package?	V						
RF criteria met for SPCC?	RRF <0.05 rejected.	✓						
%D criteria met for CCC? ((20% Max, Qualify >25%D)	V						
Instrument Tune documen	tation included in lab package?	✓						
Instrument Tune Criteria m	net?	✓ 						
Internal standard data inclu	, ,	✓						
check?	-50% to +100% of last calibration	✓						
RRT within limits? (<30 s check?	ec. Difference from last calibration	7						
Surrogates	Control Limits				Lab Limits?			
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%							
Dibromofluoromethane	water 86-118%, soil 80-120%							
Toluene-d8 4-Bromofluorobenzene	water 86-110%, soil 74-121%	88-110%, soil 81-117%						
Notes:	Water 00 11070, 301174 12170							
* SPCC: chloromethane (0.1); 1,1-dichloroethane (0.1); bromoform (0.1); chlorobenzene (0.3); and 1,1,2,2-tetrachloroethane (0.3).								
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P								
COMMENTS								
TB: Trip blank TB-09182017 was all ND so no flags were applied								

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Numbe	er:	477041.06.07			
Project / Affected Property:	Blanco North 2017	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SE)G#/J	ob #:	600-154152-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3				T			
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Signature	gnature Page included?	✓						
Date of sample collection inc	luded?	V						
Sample receipt temperature	≤ 6° C?	V			4.8 deg F			
Signed COCs included?		V						
Field ID included?		✓						
Laboratory ID included?		~						
Date of analysis included?		~						
Date of sample preparation included?		~						
Detection levels included?		~						
Method reference included?		✓						
Sample matrix included?		V						
Sample results included?		✓						
Case narrative included, whe	ere required?	V						
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.								
COMMENTS								
VOCs: No DV flags applied								

Data Usability Review: VOCs (GC/MS), SW-846 8260B							
Client Name:	Kinder Morgan	Morgan Project Number:		er:	477041.06.07		
Project / Affected Property:	Blanco North 2017	-,	Manag		Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:		ob #:	600-154152-1		
Reviewer:	John Ynfante/HOU						
Level of Review / Validation: ITEM	Level 3	YES	NO	N/A	COMMENTS		
		√					
Preparatory/analytical hold	ing time met?						
Surrogate data included in	<u> </u>	✓					
Reject %R <10%.	its listed below or specify lab limits).	✓					
R5 Method blank data inclu	uded in Lab Package?	✓					
Criteria met?		✓					
QC check samples/LCS da	ata included in lab package?	✓			LCS/LCSD		
%R criteria met? (specifie	d limits)	✓					
Matrix spike data included	in lab package?		>				
%R criteria met? (laborato	ory specified limits)			>			
RPD criteria met? (< 20%	water, <50% soil)	V			LCS/LCSD		
Initial calibration document	ation included in lab package?	✓					
RF criteria met for SPCC?		✓					
%RSD criteria met for Co RSD must have fit)	CC? (<30% RSD for CCC, >15%	V					
Calibration verification data	a included in lab package?	✓					
RF criteria met for SPCC?	RRF <0.05 rejected.	✓					
%D criteria met for CCC? (20% Max, Qualify >25%D)	✓					
Instrument Tune document	tation included in lab package?	✓					
Instrument Tune Criteria m	net?	✓					
Internal standard data inclu	uded in lab package?	✓					
Area within limits? (within check?	-50% to +100% of last calibration	✓					
RRT within limits? (<30 s check?	ec. Difference from last calibration	V					
Surrogates	Control Limits				Lab Limits?		
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%						
Dibromofluoromethane	water 86-118%, soil 80-120%						
Toluene-d8	water 88-110%, soil 81-117%						
4-Bromofluorobenzene water 86-115%, soil 74-121% Notes:							
* SPCC: chloromethane (0.1); 1,1-dichloroethane (0.1); bromoform (0.1); chlorobenzene (0.3); and 1,1,2,2-tetrachloroethane (0.3).							
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit;							
MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P COMMENTS							
DL: The following samples was diluted due to the nature of the sample matrix: MW47-NFP-44-45-09192017 (600-154152-6) and MW47-NFP-47-49-09192017 (600-154152-8). Elevated reporting limits (RLs) are provided.							
	(600-154152-8). Elevated reporting		xus) are	s brovio	ieu.		
7.5. THE DIGHT TO THE T-03	102017 Was all 112 30 no hags applie	<i>,</i> <u> </u>					

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Project Number:		477041.06.07			
Project / Affected Property:	Blanco North 2017	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SI)G#/J	lob #:	600-154335-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Signature	gnature Page included?	✓						
Date of sample collection inc	cluded?	V						
Sample receipt temperature	≤ 6° C?	✓			0.8 deg F			
Signed COCs included?		✓						
Field ID included?		✓						
Laboratory ID included?		✓						
Date of analysis included?		✓						
Date of sample preparation i	ncluded?	✓						
Detection levels included?		V						
Method reference included?		✓						
Sample matrix included?		✓						
Sample results included?		✓						
Case narrative included, who	ere required?	✓						
Limit; MDL - Method Detecti		itation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection cent Recovery; RF - Response Factor; RPD - dard Deviation.			
COMMENTS								
VOCs: No DV flags applied								

Data Usability Review: VOCs (GC/MS), SW-846 8260B							
Client Name: Kinder Morgan P		Project	Project Number: 477041.06.07				
Project / Affected Property:	Blanco North 2017	-,	Manag	_	Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SE)G # / J	ob #:	600-154335-1		
Reviewer:	John Ynfante/HOU						
Level of Review / Validation: ITEM	Level 3	YES	NO	N/A	COMMENTS		
		√			OCHIMIZATION CONTRACTOR CONTRACTO		
Preparatory/analytical hold	ing time met?						
Surrogate data included in lab package? %R criteria met? (use limits listed below or specify lab limits).		✓					
Reject %R <10%.	ts listed below or specify lab limits).	✓					
R5 Method blank data inclu	uded in Lab Package?	✓					
Criteria met?		✓					
QC check samples/LCS da	ata included in lab package?	✓			LCS/LCSD		
%R criteria met? (specifie	d limits)	✓					
Matrix spike data included	in lab package?		>				
%R criteria met? (laborato	ory specified limits)			>			
RPD criteria met? (< 20%	water, <50% soil)	V			LCS/LCSD		
Initial calibration document	ation included in lab package?	✓					
RF criteria met for SPCC?		✓					
%RSD criteria met for Co RSD must have fit)	CC? (<30% RSD for CCC, >15%	V					
Calibration verification data	a included in lab package?	✓					
RF criteria met for SPCC?	RRF <0.05 rejected.	✓					
%D criteria met for CCC? ((20% Max, Qualify >25%D)	✓					
Instrument Tune document	tation included in lab package?	✓					
Instrument Tune Criteria m	net?	✓					
Internal standard data inclu	uded in lab package?	✓					
Area within limits? (within check?	-50% to +100% of last calibration	✓					
	ec. Difference from last calibration	7					
Surrogates	Control Limits				Lab Limits?		
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%						
Dibromofluoromethane	water 86-118%, soil 80-120%						
Toluene-d8	water 88-110%, soil 81-117%						
4-Bromofluorobenzene Notes:	water 86-115%, soil 74-121%						
	; 1,1-dichloroethane (0.1); bromofori	n (0.1);	chlorob	enzen	e (0.3); and 1,1,2,2-tetrachloroethane (0.3).		
	•				oled Plasma; IDL - Instrument Detection Limit; y; RF - Response Factor; RPD - Relative P		
COMMENTS	t, MQL - Method Quantitation Elmit,	701X - 1 C	ercent iv	<u>kecovei</u>	y, Nr Nesponse i acioi, Nr. D - Neialive i		
DL: Method(s) 8260B: The fo	DL: Method(s) 8260B: The following sample was diluted due to the nature of the sample matrix: MW48-NFP-39-40-09212017 (600-154335-5). Elevated reporting limits (RLs) are provided.						
	212017 was all ND so no flags applie	ed					
,							
L							

Data Usability Re	view: Data Packa	ge			
Client Name:	Kinder Morgan	Project	Project Number:		477041.06.07
Project / Affected Property:	Blanco North 2017	Project	Manag	ger:	Jeff Minchak/ABQ
Laboratory:	TestAmerica-Houston	Lab SE)G#/J	ob #:	600-154372-1
Reviewer:	John Ynfante/HOU				
Level of Review / Validation:	Level 3				
ITEM		YES	NO	N/A	COMMENTS
Laboratory Data Package Sig	gnature Page included?	✓			
Date of sample collection inc	luded?	V			
Sample receipt temperature :	≤ 6° C?	V			3.4 deg C
Signed COCs included?		✓			
Field ID included?		✓			
Laboratory ID included?		✓			
Date of analysis included?		✓			
Date of sample preparation included?		✓			
Detection levels included?		✓			
Method reference included?		V			
Sample matrix included?		V			
Sample results included?		✓			
Case narrative included, whe	ere required?	✓			
Limit; MDL - Method Detection		itation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection cent Recovery; RF - Response Factor; RPD - dard Deviation.
COMMENTS					
VOCs: UJ-MD					
	_				

Data Usability Re	view: VOCs (GC/MS)	, SW	-846	826	0B		
Client Name:	ent Name: Kinder Morgan Project Number:		er:	477041.06.07			
Project / Affected Property:	Blanco North 2017	Project Manager:			Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SE	Lab SDG # / Job #: 600-154372-1				
Reviewer:	John Ynfante/HOU						
Level of Review / Validation:	Level 3	VEO	NO	NI/A	COMMENTO		
ITEM		YES	NO	N/A	COMMENTS		
Preparatory/analytical hold	ling time met?	7					
· · ·	Surrogate data included in lab package? %R criteria met? (use limits listed below or specify lab limits).						
R5 Method blank data inclu	uded in Lab Package?	V					
Criteria met?		✓					
QC check samples/LCS da	ata included in lab package?	V			LCS/LCSD		
%R criteria met? (specifie		V					
Matrix spike data included	,	V					
%R criteria met? (laborato			✓				
RPD criteria met? (< 20%	· ·		>				
Initial calibration document	ation included in lab package?	V					
RF criteria met for SPCC?		✓					
%RSD criteria met for Co	CC? (<30% RSD for CCC, >15%	✓					
Calibration verification data	Calibration verification data included in lab package?						
RF criteria met for SPCC?	RRF <0.05 rejected.	V					
%D criteria met for CCC? ((20% Max, Qualify >25%D)	V					
Instrument Tune documen	tation included in lab package?	V					
Instrument Tune Criteria m	net?	V					
Internal standard data inclu		V					
check?	-50% to +100% of last calibration	✓					
RRT within limits? (<30 s check?	ec. Difference from last calibration	V					
Surrogates	Control Limits				Lab Limits?		
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%						
Dibromofluoromethane	water 86-118%, soil 80-120%						
Toluene-d8 4-Bromofluorobenzene	water 88-110%, soil 81-117% water 86-115%, soil 74-121%						
Notes:	water 60-115%, S0II 74-121%						
	; 1,1-dichloroethane (0.1); bromofori	m (0.1);	chlorob	enzen	e (0.3); and 1,1,2,2-tetrachloroethane (0.3).		
	•			-	pled Plasma; IDL - Instrument Detection Limit;		
	t; MQL - Method Quantitation Limit;	%R - Pe	ercent R	Recove	ry; RF - Response Factor; RPD - Relative P		
	54372-2 MSD failed the RPD criteria	for Eth	ylbenze	ene, To	luene and Xylenes, Total. Flagged results UJ-		
MD.	llowing samples required a medium	וסעמן איו	ution to	hring +	he concentration of target analytics within the		
calibration range: SB03-NFP-	·28-30-09222017 (600-154372-5), S B03-NFP-40-42-09222017 (600-154	B03-NF	P-33-34	1-09222	he concentration of target analytes within the 2017 (600-154372-6), SB03-NFP-36-37-P-43-44-09222017 (600-154372-9). Elevated		
-	222017 was all ND so no flags applie	ed					

MS: Method(s) 8260B: 600-154372-2 MS recovered all analytes below criteria but they all passed in the MSD and the LCS/LCSD so no flags were applied.

Data Usability Re	view: Data Packa	ge			
Client Name:	Kinder Morgan	Project	Project Number:		477041.06.07
Project / Affected Property:	Blanco North 2017	Project	Project Manager:		Jeff Minchak/ABQ
Laboratory:	TestAmerica-Houston	Lab SE)G#/J	lob #:	600-154374-1
Reviewer:	John Ynfante/HOU				
Level of Review / Validation:	Level 3				T
ITEM		YES	NO	N/A	COMMENTS
Laboratory Data Package Sig	gnature Page included?	✓			
Date of sample collection inc	luded?	V			
Sample receipt temperature :	≤ 6° C?	V			2.6 deg F
Signed COCs included?		V			
Field ID included?		V			
Laboratory ID included?		7			
Date of analysis included?		<			
Date of sample preparation included?		~			
Detection levels included?		✓			
Method reference included?		7			
Sample matrix included?		V			
Sample results included?		✓			
Case narrative included, whe	re required?	V			
Limit; MDL - Method Detection		titation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection cent Recovery; RF - Response Factor; RPD - dard Deviation.
COMMENTS					
VOCs: J-MD, UJ-MD					

	Data Usability Review: VOCs (GC/MS), SW-846 8260B						
Client Name: Kinder Morgan		Project	Numbe	er:	477041.06.07		
Ρ	roject / Affected Property:	Blanco North 2017	Project Manager:			Jeff Minchak/ABQ	
Lá	aboratory:	TestAmerica-Houston	Lab SD)G # / J	ob #:	600-154374-1	
R	eviewer:	John Ynfante/HOU					
Le	evel of Review / Validation:	Level 3					
IT	EM		YES	NO	N/A	COMMENTS	
	Preparatory/analytical hold	ing time met?	V				
	Surrogate data included in	lah package?	✓				
		ts listed below or specify lab limits).		\			
	R5 Method blank data inclu	ıded in Lab Package?	7				
	Criteria met?		V				
	QC check samples/LCS da	ta included in lab package?	✓			LCS/LCSD	
	%R criteria met? (specified	d limits)	✓				
	Matrix spike data included	in lab package?	✓				
	%R criteria met? (laborato	ry specified limits)	V				
	RPD criteria met? (< 20% v	vater, <50% soil)		✓			
-	Initial calibration document	ation included in lab package?	V				
	RF criteria met for SPCC?		~				
	%RSD criteria met for CORSD must have fit)	CC? (<30% RSD for CCC, >15%	7				
	Calibration verification data	included in lab package?	V				
	RF criteria met for SPCC?	RRF <0.05 rejected.	V				
	%D criteria met for CCC? (20% Max, Qualify >25%D)	V				
	Instrument Tune document	ation included in lab package?	V				
	Instrument Tune Criteria m	et?	✓				
	Internal standard data inclu	, ,	V				
	Area within limits? (within check?	-50% to +100% of last calibration	~				
	RRT within limits? (<30 scheck?	ec. Difference from last calibration	7				
	Surrogates	Control Limits	Lab Limits?				
	1,2-Dichloroethane-d4	water 80-120%, soil 80-120%					
	Dibromofluoromethane	water 86-118%, soil 80-120%					
	Toluene-d8	water 88-110%, soil 81-117%					
4-Bromofluorobenzene water 86-115%, soil 74-121%							
	Notes:						
	* SPCC: chloromethane (0.1); 1,1-dichloroethane (0.1); bromoform (0.1); chlorobenzene (0.3); and 1,1,2,2-tetrachloroethane (0.3).						
		•				oled Plasma; IDL - Instrument Detection Limit; ry; RF - Response Factor; RPD - Relative P	
С	OMMENTS						
S	SS: Surrogate recovees were outside control limits in the MSD on sample SB01-NFP-19-21-09222017 (600-154374-3[MSD]).						

SS: Surrogate recovees were outside control limits in the MSD on sample SB01-NFP-19-21-09222017 (600-154374-3[MSD]). Surrogates passed in MS and parent sample. No flags were applied

TB: Trip blank TB12-NFP-09222017 was all ND so no flags were applied.

MD: The sample size used in the preparation of the MS/MSD associated with batch 222044 was outside the 10% difference. As the RPD calculation is based upon the MS/MSD concentration as opposed to the MS/MSD percent recovery, elevated %RPD values were obtained for ethylbenzene and xylenes but due to differing masses imprecision was actually likely minimal but ND results were flagged UJ-MD and detection flagged J-MD.

Data Usability Review: Data Package							
Client Name:	Kinder Morgan	Project	t Numbe	er:	477041.06.07		
Project / Affected Property:	Blanco North 2017	Project	t Manag	ger:	Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SE	OG # / J	ob #:	600-154375-1		
Reviewer:	John Ynfante/HOU						
Level of Review / Validation:	Level 3						
ITEM		YES	NO	N/A	COMMENTS		
Laboratory Data Package Signature	gnature Page included?	✓		Ш			
Date of sample collection inc	luded?	V					
Sample receipt temperature	≤ 6° C?	V			0.6 deg F		
Signed COCs included?		V					
Field ID included?		✓					
Laboratory ID included?		~					
Date of analysis included?		~					
Date of sample preparation included?		~					
Detection levels included?		~					
Method reference included?		✓					
Sample matrix included?		V					
Sample results included?		✓					
Case narrative included, whe	ere required?	V					
Limit; MDL - Method Detection	Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.						
COMMENTS							
VOCs: No DV flags applied							

Data Usability Review: VOCs (GC/MS), SW-846 8260B								
С	lient Name:	Kinder Morgan	Project	Project Number: 477041.06.07				
Pı	roject / Affected Property:	Blanco North 2017	Project	Project Manager: Jeff Minchak/ABQ				
La	aboratory:	TestAmerica-Houston	Lab SD	_ab SDG # / Job #: 600-154375-1				
_	eviewer:	John Ynfante/HOU						
_	evel of Review / Validation:	Level 3	YES	NO	N/A	COMMENTS		
••			□ □ □			COMMENTS		
	Preparatory/analytical hold	ing time met?						
	Surrogate data included in	<u> </u>	✓					
	%R criteria met? (use limi Reject %R <10%.	ts listed below or specify lab limits).	V					
	R5 Method blank data inclu	uded in Lab Package?	V					
	Criteria met?		✓					
	QC check samples/LCS da	ata included in lab package?	\			LCS/LCSD		
	%R criteria met? (specified	d limits)	✓					
	Matrix spike data included	in lab package?		y				
	%R criteria met? (laborato	, ,			V			
	RPD criteria met? (< 20% v	water, <50% soil)	✓			LCS/LCSD		
	Initial calibration document	ation included in lab package?	>					
	RF criteria met for SPCC?		✓					
	%RSD criteria met for CORSD must have fit)	CC? (<30% RSD for CCC, >15%	>					
	Calibration verification data	a included in lab package?	✓					
	RF criteria met for SPCC? RRF <0.05 rejected.		✓					
	%D criteria met for CCC? (20% Max, Qualify >25%D)	✓					
	Instrument Tune document	tation included in lab package?	✓					
_	Instrument Tune Criteria m	et?	V					
	Internal standard data inclu	, ,	✓					
	check?	-50% to +100% of last calibration	7					
	RRT within limits? (<30 s check?	ec. Difference from last calibration	✓					
	Surrogates	Control Limits				Lab Limits?		
	1,2-Dichloroethane-d4	water 80-120%, soil 80-120%						
	Dibromofluoromethane	water 86-118%, soil 80-120%						
	Toluene-d8 4-Bromofluorobenzene	water 88-110%, soil 81-117% water 86-115%, soil 74-121%						
Ν	otes:	Water 66 11070, 301174 12170						
						e (0.3); and 1,1,2,2-tetrachloroethane (0.3).		
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P								
COMMENTS								
TB: Trip blank TB13-NFP-09222017 was all ND so no flags were applied.								
FI	D: MD02-NFP-12-14-09222	017 is a duplicate of SB02-NFP-12-	14-0922	2017.	Both we	ere all ND so precision within criteria.		
L								

Data Usability Re	view: Data Packa	ge					
Client Name:	Kinder Morgan	Project	Project Number:		477041.06.07		
Project / Affected Property:	Blanco North 2017	Project	Project Manager:		Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SE)G#/J	ob #:	600-157080-1		
Reviewer:	John Ynfante/HOU						
Level of Review / Validation:	Level 3						
ITEM		YES	NO	N/A	COMMENTS		
Laboratory Data Package Sig	gnature Page included?	✓					
Date of sample collection inc	luded?	✓					
Sample receipt temperature	≤ 6° C?	\			5.1 deg F		
Signed COCs included?		✓					
Field ID included?		✓					
Laboratory ID included?		✓					
Date of analysis included?		~					
Date of sample preparation in	ncluded?	7					
Detection levels included?		~					
Method reference included?		7					
Sample matrix included?		V					
Sample results included?		V					
Case narrative included, whe	ere required?	\ \					
Limit; MDL - Method Detection		titation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection cent Recovery; RF - Response Factor; RPD - dard Deviation.		
COMMENTS							
VOCs: J-SS							
Nitrate: No DV flags applied							

Data Usability Review: VOCs (GC/MS), SW-846 8260B							
С	lient Name: Kinder Morgan Project Number:		er:	477041.06.07			
Pı	roject / Affected Property:	Blanco North 2017	Project Manager:			Jeff Minchak/ABQ	
La	aboratory:	TestAmerica-Houston	Lab SD	ab SDG # / Job #: 600-157080-1			
	eviewer:	John Ynfante/HOU					
_	evel of Review / Validation:	Level 3	YES	NO	N/A	COMMENTS	
••			√			COMMINICATO	
	Preparatory/analytical hold	-					
	Surrogate data included in		✓				
	%R criteria met? (use limit Reject %R <10%.	ts listed below or specify lab limits).		✓			
	R5 Method blank data inclu	uded in Lab Package?	✓				
	Criteria met?		✓				
	QC check samples/LCS da	ita included in lab package?	✓				
	%R criteria met? (specified	d limits)	✓				
	Matrix spike data included	in lab package?	✓				
	%R criteria met? (laborato	ry specified limits)	<				
	RPD criteria met? (< 20% v	water, <50% soil)	V				
	Initial calibration document	ation included in lab package?	✓				
	RF criteria met for SPCC? RRF <0.05 rejected.		\checkmark				
	%RSD criteria met for CCC? (<30% RSD for CCC, >15% RSD must have fit)		V				
	Calibration verification data included in lab package?		✓				
	RF criteria met for SPCC? RRF <0.05 rejected.		✓				
	%D criteria met for CCC? (20% Max, Qualify >25%D)	✓				
	Instrument Tune document	tation included in lab package?	✓				
	Instrument Tune Criteria m	et?	✓				
	Internal standard data inclu	uded in lab package?	✓				
	Area within limits? (within check?	-50% to +100% of last calibration	>				
	RRT within limits? (<30 secheck?	ec. Difference from last calibration	\				
	Surrogates	Control Limits				Lab Limits?	
	1,2-Dichloroethane-d4	water 80-120%, soil 80-120%					
	Dibromofluoromethane	water 86-118%, soil 80-120%					
Toluene-d8 water 88-110%, soil 81-117% 4-Bromofluorobenzene water 86-115%, soil 74-121%							
N	otes:	water 50-11376, 30ii 74-12176					
		; 1,1-dichloroethane (0.1); bromoform	n (0.1);	chlorob	enzen	e (0.3); and 1,1,2,2-tetrachloroethane (0.3).	
	Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P						
С	OMMENTS						
(6 sı	00-157080-11). Samples we irrogates were qualified J-S	ere re-analyzed at a dilution with pas S.	sing su	rrogates	s. The	0-157080-6) and BlancoNFP-MW23-11142017 detections from the straight run with the failing	
ΤI	TB, OT: Trip blank BlancoNFP-TB01-11142017 (600-157080-15) had headspace. No analytes were detected.						

DL: The following samples were diluted to bring the concentration of target analytes within the calibration range:Blan coNFP-MW44-11142017 (600-157080-6), BlancoNFP-MW45-11142017 (600-157080-9), BlancoNFP-MW47-11142017 (600-157080-9), BlancoNFP-MW48-11142017 (600-157080-10), BlancoNFP-MW23-11142017 (600-157080-12) and BlancoNFP-MD32-11142017 (600-157080-13). Elevated reporting limits (RLs) are provided.
FD: BlancoNFP-MD40-11142017 is a duplicate of BlancoNFP-MW40-11142017 - both were all ND so precision within criteria.
FD: BlancoNFP-MD32-11142017 is a duplicate of BlancoNFP-MW32-11142017 and precision was within criteria.

Data Usability Review: General Chemistry									
Client Name: Kinder Morgan		Kinder Morgan	Project	Numbe	er:	477041.06.07			
Project / Affected Property: Blanco North 2017		Blanco North 2017	Project	Manag	ger:	Jeff Minchak/ABQ			
Laboratory: TestAmerica-Houston		Lab SE)G#/J	lob #:	600-157080-1				
_	viewer:	John Ynfante/HOU							
	vel of Review / Validation:	Level 3	1			Ta			
ITE	E M		YES	NO	N/A	COMMENTS			
	Preparatory/analytical holdi	ng time met?	✓						
	Method blank data included	d in Lab Package?	V						
	Criteria met? (<mql)< td=""><td></td><td>✓</td><td></td><td></td><td></td></mql)<>		✓						
	QC check samples/LCS da	ta included in lab package?	V						
	%R criteria met?		V						
	Matrix spike data included i	n lab package?	V						
	%R criteria met? (AA/ICP 7	'5-125%, Hg 85-115%)	~						
	Sample duplicate data inclu	uded in lab package?	7						
	RPD criteria met? (RPD < 2	20%)	V						
	Initial calibration documentation included in lab package?		V						
	Calibration verification data	included in lab package?	V						
	%R criteria met? (Initial 90-	110%)	✓						
No	tes:								
						upled Plasma; IDL - Instrument Detection Limit;			
		MQL - Method Quantitation Limit	t; %R - F	Percent	Recov	ery; RF - Response Factor; RPD - Relative P			
CC	MMENTS								
FD	: BlancoNFP-MD40-111420	17 is a duplicate of BlancoNFP-N	/W40-1	114201	7 - both	were all ND so precision within criteria.			

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Project Number:		707470CH 01.05			
Project / Affected Property:	Blanco NFP Soil Inv 2019	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SE)G#/J	lob #:	600-190242-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Signature	gnature Page included?	✓						
Date of sample collection inc	luded?	V						
Sample receipt temperature	≤ 6° C?	V			5.4 deg C			
Signed COCs included?		✓						
Field ID included?		✓						
Laboratory ID included?		✓						
Date of analysis included?		V						
Date of sample preparation included?		✓						
Detection levels included?		V						
Method reference included?		✓						
Sample matrix included?		✓						
Sample results included?		✓						
Case narrative included, who	ere required?	✓						
	itation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection cent Recovery; RF - Response Factor; RPD - dard Deviation.				
COMMENTS								
VOCs: UJ-IS								

Data Usability Review: VOCs (GC/MS), SW-846 8260B						
Client Name:	Kinder Morgan	Project	Numbe	er:	707470CH 01.05	
Project / Affected Property: Blanco NFP Soil Inv 2019		Project Manager:			Jeff Minchak/ABQ	
Laboratory: TestAmerica-Houston		Lab SE)G # / J	ob #:	600-190242-1	
Reviewer:	John Ynfante/HOU					
Level of Review / Validation:	Level 3	VEC	NO	NI/A	COMMENTS	
		YES	NO	N/A	COMMENTS	
Preparatory/analytical hold	ing time met?					
Surrogate data included in	<u> </u>	✓				
%R criteria met? (use limi Reject %R <10%.	ts listed below or specify lab limits).	✓				
R5 Method blank data inclu	uded in Lab Package?	✓				
Criteria met?		✓				
QC check samples/LCS da	ata included in lab package?	✓				
%R criteria met? (specifie	d limits)	✓				
Matrix spike data included	in lab package?	V				
%R criteria met? (laborato	ory specified limits)	~				
RPD criteria met? (< 20%	water, <50% soil)	✓				
Initial calibration document	ation included in lab package?	~				
RF criteria met for SPCC?		✓				
%RSD criteria met for Co	CC? (<30% RSD for CCC, >15%	V				
Calibration verification data	a included in lab package?	V				
RF criteria met for SPCC?	RRF <0.05 rejected.	✓				
%D criteria met for CCC? ((20% Max, Qualify >25%D)	V				
Instrument Tune document	tation included in lab package?	✓				
Instrument Tune Criteria m	net?	✓				
Internal standard data inclu	uded in lab package?	✓				
	-50% to +100% of last calibration		V			
	ec. Difference from last calibration	V				
Surrogates	Surrogates Control Limits				Lab Limits?	
1,2-Dichloroethane-d4 water 80-120%, soil 80-120%						
Dibromofluoromethane water 86-118%, soil 80-120%						
Toluene-d8 water 88-110%, soil 81-117% 4-Bromofluorobenzene water 86-115%, soil 74-121%						
Notes:						
* SPCC: chloromethane (0.1); 1,1-dichloroethane (0.1); bromoform (0.1); chlorobenzene (0.3); and 1,1,2,2-tetrachloroethane (0.3).						
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P						
COMMENTS	,					
TB: No target analytes detect						
FD: Precision between sample NFP-MW52-1-2-08142019 and its field duplicate NFP-MW52-1-2-08142019-2 was within acceptance criteria.						

IS: One internal standard recovered slightly below 50% in sample NFP-MW50-1-2-08142019 (600-190242-7) so the sample was reanalyzed, but the reanlysis had carryover contamination of Toluene and Xylene from the previous run so the initial results were used and qualified as UJ (IS). No analytes were detected and the MS/MSD was performed on this sample and all values were within acceptance criteria.

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Project Number:		707470CH 01.05			
Project / Affected Property:	Blanco NFP Soil Inv 2019	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SE)G#/J	ob #:	600-190340-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Sig	gnature Page included?	✓						
Date of sample collection inc	luded?	✓						
Sample receipt temperature :	≤ 6° C?	✓			1 deg C			
Signed COCs included?		✓						
Field ID included?		✓						
Laboratory ID included?		✓						
Date of analysis included?		✓						
Date of sample preparation included?		✓						
Detection levels included?		✓						
Method reference included?		✓						
Sample matrix included?		V						
Sample results included?		✓						
Case narrative included, whe	re required?	✓						
Definitions: AA - Atomic Absorption; %D - Percent Difference Limit; MDL - Method Detection Limit; MQL - Method Quantitation Relative Percent Difference; RRT - Relative Retention Time; RS				R - Per	cent Recovery; RF - Response Factor; RPD -			
COMMENTS								
VOCs: No DV flags applied.								

	Data Usability Review: VOCs (GC/MS), SW-846 8260B						
Client Name: Kinder Morgan		Project Number:			707470CH 01.05		
Pr	oject / Affected Property:	Blanco NFP Soil Inv 2019	Project	Manag	jer:	Jeff Minchak/ABQ	
Laboratory: TestAmerica-Houston		TestAmerica-Houston	Lab SE)G # / J	ob #:	600-190340-1	
_	eviewer:	John Ynfante/HOU					
	evel of Review / Validation: EM	Level 3	YES	NO	N/A	COMMENTS	
••			√ √			COMMENTS	
	Preparatory/analytical hold	ing time met?	_				
	Surrogate data included in	lab package?	V				
	%R criteria met? (use limi Reject %R <10%.	ts listed below or specify lab limits).	V				
	R5 Method blank data inclu	uded in Lab Package?	✓				
	Criteria met?		✓				
	QC check samples/LCS da	ita included in lab package?	V				
	%R criteria met? (specified	d limits)	V				
	Matrix spike data included	,		7			
	%R criteria met? (laborato	ry specified limits)			✓		
	RPD criteria met? (< 20% \	water, <50% soil)	V			LCS/LCSD	
	Initial calibration document	ation included in lab package?	✓				
	RF criteria met for SPCC?	RRF <0.05 rejected.	✓				
	%RSD criteria met for C0 RSD must have fit)	CC? (<30% RSD for CCC, >15%	✓				
	Calibration verification data	a included in lab package?	V				
	RF criteria met for SPCC?	RRF <0.05 rejected.	✓				
	%D criteria met for CCC? (20% Max, Qualify >25%D)	✓				
	Instrument Tune document	tation included in lab package?	V				
	Instrument Tune Criteria m	et?	✓				
	Internal standard data inclu	ıded in lab package?	✓				
		-50% to +100% of last calibration	V				
	check? RRT within limits? (<30 sicheck?	ec. Difference from last calibration	V				
	Surrogates	Control Limits				Lab Limits?	
	1,2-Dichloroethane-d4	water 80-120%, soil 80-120%					
	Dibromofluoromethane Toluene-d8	water 86-118%, soil 80-120% water 88-110%, soil 81-117%					
	4-Bromofluorobenzene	water 86-115%, soil 74-121%					
_	Notes:						
						e (0.3); and 1,1,2,2-tetrachloroethane (0.3). pled Plasma; IDL - Instrument Detection Limit;	
						ry; RF - Response Factor; RPD - Relative P	
C	COMMENTS						
	TB: No analytes detected in trip blank NFP - TB02 - 08152019.						
	D: Precision between NFP - iteria (both were all non-det		d duplica	ate NFF	P - MW	49-01-02-08152019-2 was within acceptance	

Data Usability Review: Data Package									
Client Name:	Kinder Morgan	Project	Project Number:		707470CH 01.05				
Project / Affected Property:	Blanco NFP Soil Inv 2019	Project	Project Manager:		Jeff Minchak/ABQ				
Laboratory:	TestAmerica-Houston	Lab SI)G#/J	ob #:	600-190481-1				
Reviewer:	John Ynfante/HOU								
Level of Review / Validation:	Level 3								
ITEM		YES	NO	N/A	COMMENTS				
Laboratory Data Package Signature	gnature Page included?	✓							
Date of sample collection inc	luded?	✓							
Sample receipt temperature	≤ 6° C?	✓			3.8 deg C				
Signed COCs included?		~							
Field ID included?		~							
Laboratory ID included?		~							
Date of analysis included?		~							
Date of sample preparation included?		✓							
Detection levels included?		✓							
Method reference included?		✓							
Sample matrix included?		V							
Sample results included?		V							
Case narrative included, who	ere required?	~							
Definitions: AA - Atomic Absorption; %D - Percent Differe Limit; MDL - Method Detection Limit; MQL - Method Quant Relative Percent Difference; RRT - Relative Retention Time			imit; %	R - Per	cent Recovery; RF - Response Factor; RPD -				
COMMENTS									
VOCs: No DV flags applied.									

Data Usability Review: VOCs (GC/MS), SW-846 8260B							
Client Name: Kinder Morgan		Project	Numbe	er:	707470CH 01.05		
Project / Affected Property:	Blanco NFP Soil Inv 2019		Manag		Jeff Minchak/ABQ		
Laboratory: TestAmerica-Houston		Lab SE)G # / J	ob #:	600-190481-1		
Reviewer:	John Ynfante/HOU						
Level of Review / Validation: ITEM	Level 3	YES	NO	N/A	COMMENTS		
		□ □ □			COMMENTS		
Preparatory/analytical hold	ling time met?						
Surrogate data included in	lab package?	✓					
%R criteria met? (use limi Reject %R <10%.	its listed below or specify lab limits).	7					
R5 Method blank data incli	uded in Lab Package?	V					
Criteria met?		V					
QC check samples/LCS da	ata included in lab package?	V					
%R criteria met? (specifie	d limits)	V					
Matrix spike data included	in lab package?		>				
%R criteria met? (laborato	ory specified limits)			✓			
RPD criteria met? (< 20%	water, <50% soil)	✓			LCS/LCSD		
Initial calibration document	ation included in lab package?	V					
RF criteria met for SPCC?		✓					
%RSD criteria met for Co	CC? (<30% RSD for CCC, >15%	V					
Calibration verification data	a included in lab package?	~					
RF criteria met for SPCC?	RRF <0.05 rejected.	V					
%D criteria met for CCC?	(20% Max, Qualify >25%D)	V					
Instrument Tune documen	tation included in lab package?	V					
Instrument Tune Criteria m	net?	✓					
Internal standard data inclu	uded in lab package?	✓					
Area within limits? (within check?	-50% to +100% of last calibration		✓		See comments		
	ec. Difference from last calibration	V					
Surrogates	Control Limits				Lab Limits?		
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%						
Dibromofluoromethane	water 86-118%, soil 80-120%						
Toluene-d8 4-Bromofluorobenzene	water 88-110%, soil 81-117% water 86-115%, soil 74-121%						
Notes:							
* SPCC: chloromethane (0.1); 1,1-dichloroethane (0.1); bromoform (0.1); chlorobenzene (0.3); and 1,1,2,2-tetrachloroethane (0.3).							
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P							
COMMENTS							
08192019 (600-190481-6).ha	DL,SS: Samples NFP-MW51-13-14-08192019 (600-190481-3), NFP-MW51-19-20-08192019 (600-190481-4) and NFP-MW51-29-30-08192019 (600-190481-6).had low internal standard responses in the straight runs (5g) so they were diluted due to the nature of the sample matrix and reanalyzed with acceptable internal standards. Only the reanalyzed runs were reported - elevated reporting limits						
	ed in the trip blank NFP-TB05-0819	2019.					
	cted in the equipment blank NFP-EB		92019.				

FD: Precision between sample NFP-MW51-19-20-08192019 and its field duplicate NFP-MW51-19-20-08192019-2 was within acceptance criteria (both samples were all ND).

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Project Number:		707470CH 01.05			
Project / Affected Property:	Blanco NFP Soil Inv 2019	Project Manager:		ger:	Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SE	OG # / J	ob #:	600-190487-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3				T			
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Sig	gnature Page included?	✓						
Date of sample collection inc	luded?	V						
Sample receipt temperature	≤ 6° C?	V			-9.9° C and 3.8° C			
Signed COCs included?		✓						
Field ID included?		>						
Laboratory ID included?		~						
Date of analysis included?		✓						
Date of sample preparation included?		✓						
Detection levels included?		~						
Method reference included?		>						
Sample matrix included?		7						
Sample results included?		✓						
Case narrative included, whe	ere required?	V						
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument De Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.								
COMMENTS								
VOCs: No DV flags applied.								

		Data Usability Review: VOCs (GC/MS), SW-846 8260B						
Client Name: Kinder Morgan		Project	Numbe	er:	707470CH 01.05			
Project / Affected Property:	Blanco NFP Soil Inv 2019	Project	Manag	er:	Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SE)G # / J	ob #:	600-190487-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3	\/F0	NO	11/A	COMMENTO			
ITEM		YES	NO	N/A	COMMENTS			
Preparatory/analytical holdi	ing time met?	✓						
Surrogate data included in	lab package?	✓						
%R criteria met? (use limit Reject %R <10%.	ts listed below or specify lab limits).	>						
R5 Method blank data inclu	uded in Lab Package?	7						
Criteria met?		V						
QC check samples/LCS da	ta included in lab package?	>						
%R criteria met? (specified	d limits)	>						
Matrix spike data included i	in lab package?		✓					
%R criteria met? (laborato	ry specified limits)			>				
RPD criteria met? (< 20% v	vater, <50% soil)	V			LCS/LCSD			
Initial calibration document	ation included in lab package?	V						
RF criteria met for SPCC?		✓						
%RSD criteria met for CC RSD must have fit)	CC? (<30% RSD for CCC, >15%	>						
Calibration verification data	included in lab package?	V						
RF criteria met for SPCC?	RRF <0.05 rejected.	✓						
%D criteria met for CCC? (20% Max, Qualify >25%D)	V						
Instrument Tune document	ation included in lab package?	V						
Instrument Tune Criteria m	et?	V						
Internal standard data inclu		✓						
Area within limits? (within check?	-50% to +100% of last calibration	✓						
RRT within limits? (<30 section)	ec. Difference from last calibration	7						
Surrogates	Control Limits	Lab Limits?						
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%							
Dibromofluoromethane	water 86-118%, soil 80-120%							
Toluene-d8 4-Bromofluorobenzene	water 88-110%, soil 81-117%							
4-Bromofluorobenzene water 86-115%, soil 74-121% Notes:								
	1,1-dichloroethane (0.1); bromoform	m (0.1);	chlorob	enzene	e (0.3); and 1,1,2,2-tetrachloroethane (0.3).			
					pled Plasma; IDL - Instrument Detection Limit; ry; RF - Response Factor; RPD - Relative P			
COMMENTS								
TB: No target analytes detected	TB: No target analytes detected in the trip blank NFP-TB04-08172019.							
	quipment blank NFP-EB02-081720		000258	J mg/L	but was not detected in any associated			

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Project Number:		707470CH 01.05			
Project / Affected Property:	Blanco NFP Soil Inv 2019	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SE)G#/J	lob #:	600-190504-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Signature	gnature Page included?	✓						
Date of sample collection inc	luded?	V						
Sample receipt temperature	≤ 6° C?	V			-9.9° C and 3.8° C.			
Signed COCs included?		✓						
Field ID included?		✓						
Laboratory ID included?		✓						
Date of analysis included?		V						
Date of sample preparation included?		✓						
Detection levels included?		V						
Method reference included?		✓						
Sample matrix included?		✓						
Sample results included?		✓						
Case narrative included, who	ere required?	✓						
	itation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection reent Recovery; RF - Response Factor; RPD - dard Deviation.				
COMMENTS								
VOCs: No DV flags applied.								

Data Usability Review: VOCs (GC/MS), SW-846 8260B						
Client Name:		Kinder Morgan	Project	Numbe	er:	707470CH 01.05
Project / Affected Prope	erty:	Blanco NFP Soil Inv 2019	Project	Manag	jer:	Jeff Minchak/ABQ
Laboratory:		TestAmerica-Houston	Lab SE)G # / J	ob #:	600-190504-1
Reviewer:		John Ynfante/HOU				
Level of Review / Validation	ation:	Level 3	YES	NO	N/A	COMMENTS
			□			OCHIMETOTO .
Preparatory/analytica	al hold	ing time met?	7			
Surrogate data inclu						
%R criteria met? (u Reject %R <10%.	se limi	ts listed below or specify lab limits).	✓			
R5 Method blank da	ta incl	uded in Lab Package?	V			
Criteria met?			V			
QC check samples/L	CS da	ita included in lab package?	✓			
%R criteria met? (sp	oecifie	d limits)	V			
Matrix spike data inc	luded	in lab package?		✓		
%R criteria met? (la	borato	ry specified limits)			✓	
RPD criteria met? (<	20%	water, <50% soil)	✓			LCS/LCSD
Initial calibration doc	ument	ation included in lab package?	✓			
RF criteria met for S	PCC?	RRF <0.05 rejected.	V			
%RSD criteria met RSD must have fit)	for C	CC? (<30% RSD for CCC, >15%	>			
Calibration verification	on data	a included in lab package?	V			
RF criteria met for S	PCC?	RRF <0.05 rejected.	7			
%D criteria met for C	CCC? (20% Max, Qualify >25%D)	V			
Instrument Tune doc	cumen	tation included in lab package?	✓			
Instrument Tune Crit	teria m	et?	✓			
Internal standard da	ta inclu	uded in lab package?	✓			
Area within limits? check?	(within	-50% to +100% of last calibration	V			
RRT within limits? (check?	(<30 s	ec. Difference from last calibration	V			
Surrogates 1.2-Dichloroethane-o	41	Control Limits				Lab Limits?
Dibromofluorometha Toluene-d8		water 80-120%, soil 80-120% water 86-118%, soil 80-120% water 88-110%, soil 81-117%				
4-Bromofluorobenze	ne	water 86-115%, soil 74-121%				
Notes:	(0.4)		(0.4)			(0.0)
						e (0.3); and 1,1,2,2-tetrachloroethane (0.3).
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P						
COMMENTS						
EB: No target analytes	detect	ed in equipment blank NFP-EB03-08	3182019	9.		

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Numbe	er:	707470CH 01.05			
Project / Affected Property:	Blanco NFP Soil Inv 2019	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SI)G#/J	lob #:	600-190551-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Sig	gnature Page included?	✓						
Date of sample collection inc	luded?	✓						
Sample receipt temperature	≤ 6° C?	✓			3.4 deg C			
Signed COCs included?		~						
Field ID included?		~						
Laboratory ID included?		~						
Date of analysis included?		~						
Date of sample preparation i	ncluded?	✓						
Detection levels included?		✓						
Method reference included?		✓						
Sample matrix included?		V						
Sample results included?		V						
Case narrative included, who	ere required?	~						
Limit; MDL - Method Detecti		titation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection cent Recovery; RF - Response Factor; RPD - dard Deviation.			
COMMENTS								
VOCs: No DV flags applied.								

Data Usability Review: VOCs (GC/MS), SW-846 8260B							
Client Name:	Kinder Morgan	Project	Numbe	er:	707470CH 01.05		
Project / Affected Property:	Blanco NFP Soil Inv 2019		Manag		Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SE	ab SDG # / Job #: 600-190551-1				
Reviewer:	John Ynfante/HOU						
Level of Review / Validation:	Level 3	VEC	NO	NI/A	COMMENTS		
ITEM		YES	NO	N/A	COMMENTS		
Preparatory/analytical hold	ing time met?	✓		Ш			
Surrogate data included in	lab package?	>					
%R criteria met? (use limi Reject %R <10%.	ts listed below or specify lab limits).	V					
R5 Method blank data inclu	ıded in Lab Package?	V					
Criteria met?		>					
QC check samples/LCS da	ta included in lab package?	V					
%R criteria met? (specified	d limits)	V					
Matrix spike data included	in lab package?	✓					
%R criteria met? (laborato	ry specified limits)	✓					
RPD criteria met? (< 20% v	vater, <50% soil)	✓					
Initial calibration document	ation included in lab package?	✓					
RF criteria met for SPCC?		✓					
%RSD criteria met for CO RSD must have fit)	CC? (<30% RSD for CCC, >15%	>					
Calibration verification data	included in lab package?	✓					
RF criteria met for SPCC?	RRF <0.05 rejected.	✓					
%D criteria met for CCC? (20% Max, Qualify >25%D)	✓					
Instrument Tune document	ation included in lab package?	7					
Instrument Tune Criteria m	et?	\					
Internal standard data inclu		~					
Area within limits? (within check?	-50% to +100% of last calibration	✓					
RRT within limits? (<30 s check?	ec. Difference from last calibration	>					
Surrogates	Control Limits				Lab Limits?		
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%						
Dibromofluoromethane Toluene-d8	water 86-118%, soil 80-120% water 88-110%, soil 81-117%						
4-Bromofluorobenzene	water 86-115%, soil 74-121%						
Notes:							
Definitions: AA - Atomic Abs	sorption; %D - Percent Difference,	CP - In	ductive	ly Cou	e (0.3); and 1,1,2,2-tetrachloroethane (0.3). Died Plasma; IDL - Instrument Detection Limit;		
	t; MQL - Method Quantitation Limit;	%R - Pe	ercent R	Recover	y; RF - Response Factor; RPD - Relative P		
COMMENTS							
	ed in trip blank NFP-TB06-08202019		_				
	ed in equipment blank NFP-EB05-08						
FD: Precision between sampl acceptance criteria (both were		its field	duplica	ate NF	P-MW54-19-20-08202019-2 was within		

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Numbe	er:	707470CH 01.05			
Project / Affected Property:	Blanco NFP Soil Inv 2019	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SE)G#/J	ob #:	600-190733-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Sig	gnature Page included?	✓						
Date of sample collection inc	luded?	✓						
Sample receipt temperature	≤ 6° C?	V			3.2 deg C			
Signed COCs included?		V						
Field ID included?		~						
Laboratory ID included?		>						
Date of analysis included?		✓						
Date of sample preparation in	ncluded?	✓						
Detection levels included?		✓						
Method reference included?		~						
Sample matrix included?		~						
Sample results included?		✓						
Case narrative included, whe	ere required?	V						
Limit; MDL - Method Detection		titation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection reent Recovery; RF - Response Factor; RPD - dard Deviation.			
COMMENTS								
VOCs: No DV flags applied.								

Data Usability Review: VOCs (GC/MS), SW-846 8260B							
Client Name:	Kinder Morgan	Project	Numbe	er:	707470CH 01.05		
Project / Affected Property:	Blanco NFP Soil Inv 2019	Project	Manag	er:	Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SE	ab SDG # / Job #: 600-190733-1				
Reviewer:	John Ynfante/HOU						
Level of Review / Validation:	Level 3	\/F0	NO	N1/A	COMMENTO		
ITEM		YES	NO	N/A	COMMENTS		
Preparatory/analytical hold	ing time met?	✓					
Surrogate data included in	lab package?	✓					
	its listed below or specify lab limits).	>					
		V					
R5 Method blank data inclu	uded in Lab Package?						
Criteria met?		✓					
QC check samples/LCS da	ata included in lab package?	>					
%R criteria met? (specifie	d limits)	V					
Matrix spike data included	in lab package?		✓				
%R criteria met? (laborato				✓			
RPD criteria met? (< 20%	,	7			LCS/LCSD		
Initial calibration document	ation included in lab package?	~					
RF criteria met for SPCC?	RRF <0.05 rejected.	V					
	CC? (<30% RSD for CCC, >15%	7					
Calibration verification data	a included in lab package?	7					
RF criteria met for SPCC?	RRF <0.05 rejected.	V					
%D criteria met for CCC? ((20% Max, Qualify >25%D)	✓					
Instrument Tune documen	tation included in lab package?	✓					
Instrument Tune Criteria m	et?	V					
Internal standard data inclu	uded in lab package?	✓					
Area within limits? (within check?	-50% to +100% of last calibration	✓					
RRT within limits? (<30 s check?	ec. Difference from last calibration	V					
Surrogates	Control Limits				Lab Limits?		
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%						
Dibromofluoromethane	water 86-118%, soil 80-120%						
Toluene-d8 4-Bromofluorobenzene	water 88-110%, soil 81-117% water 86-115%, soil 74-121%						
Notes:	water 60-11376, SOII 74-12176						
	; 1,1-dichloroethane (0.1); bromoform	m (0.1);	chlorob	enzen	e (0.3); and 1,1,2,2-tetrachloroethane (0.3).		
	•				oled Plasma; IDL - Instrument Detection Limit; ry; RF - Response Factor; RPD - Relative P		
COMMENTS							
	ed in trip blank NFP - TB07 - 082220	019.					
	ed in equipment blank NFP - EB06 -		119				
				ate NF	P - MW53 -9-10- 08222019 -2 was within		
acceptance criteria (both were		. 110 HG	a dupiio	GIO 111	30 0 10 OOLLLO10 2 was within		

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Numbe	er:	707470CH 01.05			
Project / Affected Property:	Blanco NFP Soil Inv 2019	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SI)G#/J	ob #:	600-190912-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Signature	gnature Page included?	✓						
Date of sample collection inc	luded?	✓						
Sample receipt temperature	≤ 6° C?	✓			5.2 deg C			
Signed COCs included?		✓						
Field ID included?		✓						
Laboratory ID included?		✓						
Date of analysis included?		✓						
Date of sample preparation i	ncluded?	✓						
Detection levels included?		V						
Method reference included?		✓						
Sample matrix included?		✓						
Sample results included?		✓						
Case narrative included, who	ere required?	✓						
Limit; MDL - Method Detecti		itation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection cent Recovery; RF - Response Factor; RPD - dard Deviation.			
COMMENTS								
VOCs: No DV flags applied.								

Data Usability Review: VOCs (GC/MS), SW-846 8260B								
	lient Name:	Kinder Morgan Project Number:			707470CH 01.05			
Pr	roject / Affected Property:	Blanco NFP Soil Inv 2019	Project	Manag	er:	Jeff Minchak/ABQ		
La	aboratory:	TestAmerica-Houston	Lab SDG # / Job #:			600-190912-1		
_	eviewer:	John Ynfante/HOU						
	evel of Review / Validation:	Level 3	YES	NO	N/A	COMMENTS		
•			123			COMMENTS		
	Preparatory/analytical hold	ing time met?						
	Surrogate data included in	lab package?	▽					
		ts listed below or specify lab limits).	V					
	R5 Method blank data inclu	uded in Lab Package?	7					
	Criteria met?		7					
	QC check samples/LCS da	ata included in lab package?	7					
	%R criteria met? (specified	d limits)	✓					
	Matrix spike data included	in lab package?	>					
	%R criteria met? (laborato	ry specified limits)	7					
	RPD criteria met? (< 20% v	water, <50% soil)	>					
	Initial calibration document	ation included in lab package?	✓					
	RF criteria met for SPCC?		\					
	%RSD criteria met for C0 RSD must have fit)	CC? (<30% RSD for CCC, >15%	✓					
	Calibration verification data	a included in lab package?	>					
	RF criteria met for SPCC?	RRF <0.05 rejected.	>					
	%D criteria met for CCC? (20% Max, Qualify >25%D)	✓					
	Instrument Tune document	tation included in lab package?	✓					
	Instrument Tune Criteria m	et?	7					
	Internal standard data inclu	uded in lab package?	>					
	Area within limits? (within check?	-50% to +100% of last calibration	V					
	RRT within limits? (<30 so check?	ec. Difference from last calibration	>					
	Surrogates	Control Limits				Lab Limits?		
1,2-Dichloroethane-d4 water 80-120%, soil 80-120% Dibromofluoromethane water 86-118%, soil 80-120% Toluene-d8 water 88-110%, soil 81-117%								
NI	4-Bromofluorobenzene otes:	water 86-115%, soil 74-121%						
		; 1,1-dichloroethane (0.1); bromoforr	n (0.1):	chlorob	enzen	e (0.3); and 1,1,2,2-tetrachloroethane (0.3).		
De	efinitions: AA - Atomic Abs	sorption; %D - Percent Difference, I	CP - In	ductive	ly Cou	pled Plasma; IDL - Instrument Detection Limit; ry; RF - Response Factor; RPD - Relative P		
COMMENTS								
TE	3: No target analytes detect	ed in trip blank NFP- TBO8 - 082420)19.					
ΕE	3: No target analytes detect	ed in equipment blank NFP- EBO7 -	082420	019.				

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Numbe	er:	D3208100 A.PN.EV.01S			
Project / Affected Property:	Blanco North 2019	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SE)G#/J	lob #:	600-192500-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Sig	gnature Page included?	✓						
Date of sample collection inc	luded?	✓						
Sample receipt temperature	≤ 6° C?	✓			1.6 deg C			
Signed COCs included?		~						
Field ID included?		~						
Laboratory ID included?		~						
Date of analysis included?		~						
Date of sample preparation in	ncluded?	✓						
Detection levels included?		✓						
Method reference included?		✓						
Sample matrix included?		V						
Sample results included?		V						
Case narrative included, whe	ere required?	V						
Limit; MDL - Method Detection		titation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection cent Recovery; RF - Response Factor; RPD - dard Deviation.			
COMMENTS								
VOCs: No DV flags applied.								
Nitrate, Nitrite: UJ (MS)								

Data Usability Review: VOCs (GC/MS), SW-846 8260B						
	Kinder Morgan	Project	Numbe	er:	D3208100 A.PN.EV.01S	
Project / Affected Property:	Blanco North 2019	Project	Manag	er:	Jeff Minchak/ABQ	
,	TestAmerica-Houston	Lab SD)G # / J	ob #:	600-192500-1	
	John Ynfante/HOU					
	Level 3	VEC	NO	NI/A	COMMENTS	
ITEM		YES	NO	N/A	COMMENTS	
Preparatory/analytical holdi	ng time met?	✓	Ш	Ш		
Surrogate data included in	lab package?	✓				
	is listed below or specify lab limits).	>				
R5 Method blank data inclu	ided in Lab Package?	>				
Criteria met?		>				
QC check samples/LCS da	ta included in lab package?	✓			LCS/LCSD	
%R criteria met? (specified	l limits)	V				
Matrix spike data included i	,		>			
%R criteria met? (laborato	ry specified limits)			V		
RPD criteria met? (< 20% v	vater, <50% soil)	>			LCS/LCSD	
Initial calibration documenta	ation included in lab package?	✓				
RF criteria met for SPCC?	RRF <0.05 rejected.	✓				
	CC? (<30% RSD for CCC, >15%	7				
Calibration verification data	included in lab package?	7				
RF criteria met for SPCC?	RRF <0.05 rejected.	✓				
%D criteria met for CCC? (20% Max, Qualify >25%D)	✓				
Instrument Tune document	ation included in lab package?	~				
Instrument Tune Criteria m	et?	✓				
Internal standard data inclu	ded in lab package?	✓				
Area within limits? (within check?	-50% to +100% of last calibration	✓				
RRT within limits? (<30 section)	ec. Difference from last calibration	>				
Surrogates	Control Limits				Lab Limits?	
	water 80-120%, soil 80-120%					
	water 86-118%, soil 80-120%					
	water 88-110%, soil 81-117%					
	water 86-115%, soil 74-121%					
Notes: * SPCC: chloromethane (0.1):	1 1-dichloroethane (0.1): bromoforu	m (0.1)·	chlorot	enzen	e (0.3); and 1,1,2,2-tetrachloroethane (0.3).	
Definitions: AA - Atomic Abs	orption; %D - Percent Difference,	CP - In	ductive	ly Cou	pled Plasma; IDL - Instrument Detection Limit; ry; RF - Response Factor; RPD - Relative P	
COMMENTS	, mae memou quantitation elliit,	701X = F.C	JIOGIIL P	COOVE	y, At Response Facior, At D - Relative F	
	2019 and its field duplicate BlancoNI	P-MD4	2-0923	2019 p	recision was within criteria	
	ip blank BlancoNFP-TB01-0923201					
. 2. 110 analy 30 000000 111 11		~				

Data Usability Review: Nitrate, Nitrite								
Client Name:		Kinder Morgan	Project	t Numbe	er:	D3208100 A.PN.EV.01S		
Project / Affected P	roperty:	Blanco North 2019	Project	t Manag	ger:	Jeff Minchak/ABQ		
Laboratory:		TestAmerica-Houston	Lab SI)G#/J	ob #:	600-192500-1		
Reviewer:		John Ynfante/HOU						
Level of Review / V	alidation:	Level 3	•					
ITEM			YES	NO	N/A	COMMENTS		
Preparatory/ana	lytical holdi	ing time met?	✓					
Method blank da	ata included	d in Lab Package?	V					
Criteria met? (<	:MQL)		V					
QC check samp	les/LCS da	ta included in lab package?	V					
%R criteria met	?		V					
Matrix spike dat	a included i	in lab package?	V					
%R criteria met	(AA/ICP 7	'5-125%, Hg 85-115%)		V				
Sample duplicat	e data inclu	uded in lab package?	7					
RPD criteria me	t? (RPD < 2	20%)	✓					
Initial calibration	document	ation included in lab package?	V					
Calibration verif	cation data	included in lab package?	✓					
%R criteria met	? (Initial 90-	-110%)	✓					
Notes:								
MDL - Method Dete						upled Plasma; IDL - Instrument Detection Limit; ery; RF - Response Factor; RPD - Relative P		
COMMENTS			UED ME					
MS: Lab documente	ed that the	019 and its field duplicate Blanco nitrate spike was inadvertently on	nitted du	ring the	prep p	process for 600-192500-2 MS/MSD but the nitrite		
(separate spike) pa	ssed and b	oth nitrate and nitrite passed in the	e LCS s	so did n	ot rejec	t nitrate data but flagged UJ (MS)		

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Numbe	er:	D3208100 A.PN.EV.01S			
Project / Affected Property:	Blanco North 2019	Project	Project Manager:		Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SI)G#/J	lob #:	600-192564-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Sig	gnature Page included?	✓						
Date of sample collection inc	luded?	✓						
Sample receipt temperature	≤ 6° C?	✓			5.3 deg C			
Signed COCs included?		~						
Field ID included?		~						
Laboratory ID included?		~						
Date of analysis included?		~						
Date of sample preparation in	ncluded?	✓						
Detection levels included?		V						
Method reference included?		✓						
Sample matrix included?		V						
Sample results included?		V						
Case narrative included, whe	ere required?	~						
Limit; MDL - Method Detection		titation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection cent Recovery; RF - Response Factor; RPD - dard Deviation.			
COMMENTS								
VOCs: No DV flags applied								
Nitrate, Nitrite: UJ (HT), R (MS)								
_	_		•					

Data Usability Review: VOCs (GC/MS), SW-846 8260B							
Client Name:	Kinder Morgan	Project Number:			D3208100 A.PN.EV.01S		
Project / Affected Property:	Blanco North 2019	Project	Manag	jer:	Jeff Minchak/ABQ		
Laboratory:	TestAmerica-Houston	Lab SE)G # / J	ob #:	600-192564-1		
Reviewer:	John Ynfante/HOU						
Level of Review / Validation:	Level 3	YES	NO	N/A	COMMENTS		
		√			OCIMINE I TO		
Preparatory/analytical hold	ling time met?						
Surrogato data included in	lah packago?	✓					
Surrogate data included in	its listed below or specify lab limits).	7					
Reject %R <10%.		٠					
DE Mathaul blank data in al	udadio Lab Dadraga	V					
R5 Method blank data incl	uded in Lab Package?						
Criteria met?		✓					
QC check samples/LCS da	ata included in lab package?	V			LCS/LCSD		
%R criteria met? (specifie	d limits)	~					
Matrix spike data included	,		V				
·							
%R criteria met? (laborato	,	<u> </u>					
RPD criteria met? (< 20%	water, <50% soil)				LCS/LCSD		
Initial calibration document	tation included in lab package?	✓					
RF criteria met for SPCC?		✓					
%RSD criteria met for C	CC? (<30% RSD for CCC, >15%	✓					
Calibration verification data	a included in lab package?	V					
RF criteria met for SPCC?	RRF <0.05 rejected.	V					
%D criteria met for CCC?	(20% Max, Qualify >25%D)	V					
Instrument Tune documen	tation included in lab package?	V					
Instrument Tune Criteria m	net?	>					
Internal standard data incli	uded in lab package?	V					
	1 -50% to +100% of last calibration	V					
check?	Difference from Last callbration						
check?	ec. Difference from last calibration	✓					
Surrogates	Control Limits				Lab Limits?		
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%						
Dibromofluoromethane	water 86-118%, soil 80-120%						
	Toluene-d8 water 88-110%, soil 81-117%						
4-Bromofluorobenzene water 86-115%, soil 74-121% Notes:							
	; 1,1-dichloroethane (0.1); bromofori	n (0.1);	chlorob	enzen	e (0.3); and 1,1,2,2-tetrachloroethane (0.3).		
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P							
COMMENTS	in, mae mound adminiation emit,	7010 10	JIOOIIL I	1000701	y, it itemporium i delor, iti b i itemativo i		
	ere diluted to bring the concentration	of targ	et analv	tes with	nin the calibration range: BlancoNFP-MW23-		
09242019 (600-192564-1), B	lancoNFP-MW48-09242019 (600-19	2564-4), Blanc	:oNFP-l	MW45-09242019 (600-192564-14), and		
	9 (600-192564-16). Elevated reporting						
		•			IFP-MW51-09242019 (600-192564-2), 564-14), and BlancoNFP-MW44-09242019		
BlancoNFP-MW48-09242019 (600-192564-4), BlancoNFP-MW45-09242019 (600-192564-14), and BlancoNFP-MW44-09242019 (600-192564-16). Elevated reporting limits (RLs) are provided							

- TB: No analytes detected in trip blank BlancoNFP-TB02-09232019
- FD: Precision between BlancoNFP-MW43-09242019 and field duplicate BlancoNFP-MD43-09242019 was within criteria

D	ata Usability Rev	view: Nitrate, Nitrite)			
Client Name: Kinder Morgan Pro		Project	t Numbe	er:	D3208100 A.PN.EV.01S	
Pr	oject / Affected Property:	Blanco North 2019	Project	t Manag	ger:	Jeff Minchak/ABQ
Laboratory: TestAmerica-Houston		Lab SDG # / Job #:			600-192564-1	
Re	eviewer:	John Ynfante/HOU				
_	vel of Review / Validation:	Level 3				T
ITI	E M		YES	NO	N/A	COMMENTS
	Preparatory/analytical holdi	ng time met?		✓		
	Method blank data included	l in Lab Package?	V			
	Criteria met? (<mql)< td=""><td></td><td>V</td><td></td><td></td><td></td></mql)<>		V			
	QC check samples/LCS da	ta included in lab package?	V			
	%R criteria met?		V			
	Matrix spike data included i	n lab package?	V			
	%R criteria met? (AA/ICP 7	5-125%, Hg 85-115%)		V		
	Sample duplicate data inclu	ıded in lab package?	V			
	RPD criteria met? (RPD < 2	20%)	V			
	Initial calibration documenta	ation included in lab package?	V			
	Calibration verification data	included in lab package?	7			
	%R criteria met? (Initial 90-	110%)	✓			
No	otes:					
		•			-	upled Plasma; IDL - Instrument Detection Limit; ery; RF - Response Factor; RPD - Relative P
	OMMENTS		,			,
		ncoNFP-MW46-09232019 (600-1 ng time - associated results were			BlancoN	IFP-MW50-09232019 (600-192564-11) were
					nalvtica	al batch 600-275612. Recoveries were within
cri		ne initial straight run but used 50x				zed one day outside holding time) to combat
MS	S: Nitrate recovered 0% in 60	00-192564-12MS/MSD - rejected	ND resi	ult in pa	rent sa	mple R.
						1D43-09242019 was within criteria
	S: Nitrate was recovered low gs were applied.	in the MS/MSD on sample -11 bu	ut backg	round o	concent	tration in the parent sample was >4x spike so no

Data Usability Review: Data Package								
Client Name:	Kinder Morgan	Project	Project Number:		D3208100 A.PN.EV.01S			
Project / Affected Property:	Blanco North 2019	Project	Manag	ger:	Jeff Minchak/ABQ			
Laboratory:	TestAmerica-Houston	Lab SI)G#/J	ob #:	600-193913-1			
Reviewer:	John Ynfante/HOU							
Level of Review / Validation:	Level 3							
ITEM		YES	NO	N/A	COMMENTS			
Laboratory Data Package Sig	gnature Page included?	✓						
Date of sample collection incl	luded?	✓						
Sample receipt temperature s	≤ 6° C?	V			0.9 deg C			
Signed COCs included?		✓						
Field ID included?		✓						
Laboratory ID included?		V						
Date of analysis included?		V						
Date of sample preparation in	ncluded?	✓						
Detection levels included?		~						
Method reference included?		✓						
Sample matrix included?		V						
Sample results included?		~						
Case narrative included, whe	re required?	~						
Limit; MDL - Method Detection		itation L	imit; %	R - Per	Coupled Plasma; IDL - Instrument Detection cent Recovery; RF - Response Factor; RPD - dard Deviation.			
COMMENTS								
TPH: UJ (HT,OT)								

D	ata Usability Revi	ew: TPH (GC), SW-	846 8	3015	С		
CI	ient Name:	Kinder Morgan	Project	Numbe	er:	D3208100 A.PN.EV.01S	
Pr	oject / Affected Property:	Blanco North 2019	Project	Manag	ger:	Jeff Minchak/ABQ	
La	boratory:	TestAmerica-Houston	Lab SE)G # / J	ob #:	600-193913-1	
_	eviewer:	John Ynfante/HOU					
	evel of Review / Validation:	Level 3	YES	NO	N/A	COMMENTS	
	Preparatory/analytical holding	time met?		✓			
	Surrogate data included in lab			V			
	%R criteria met? (specified lin	mits) Reject <10%	V				
	Method blank data included in	n Lab Package?	V				
	Criteria met?		V				
	QC check samples/LCS data	included in lab package?	✓				
	%R criteria met? (specified lin	mits)	<u> </u>				
	Matrix spike data included in I	·					
	%R criteria met? (specified li	,					
	RPD criteria met? (< 30% wat Initial calibration documentation	,					
	%RSD/correlation criteria met		V				
	Calibration verification data in	•	V				
	%D criteria met?	, ,	V				
No	otes:						
						d Plasma; IDL - Instrument Detection Limit; MDL - Response Factor; RPD - Relative P	
	OMMENTS	nethod Quantitation Limit, 7010 - P	ercenti	<u>vecove</u>	y, Ki -	Nesponse Facion, NFD - Neiauve F	
tin a v ro DI	ne due to the sample being una water due to failure of quality c utine/product. GRO result in th	able to be analyzed as a waste we control. The container also had he be sample was flagged UJ. Ig sample was diluted due to the l	vith cons eadspac	istent re e in the	esults. ⁻ sample	ays outside of the 14 day GRO analytical holding The sample was also analyzed multiple times as a container. The matrix of the sample was non-natrix: NFP-MW32-10152019-PRODUCT	
DI thi	_,SS,MS: Sample NFP-MW32-	-10152019-PRODUCT (600-1939 and matrix spike concentration ir				to the nature of the sample matrix: Because of ced to a level where the recovery calculation	
	S: GRO was recovered low in Gere applied.	600-193913-3 MS for analytical b	atch 24	0-40847	70 but p	passed in the MSD, LCS and RPD so no flags	
M	MS: DRO recovered outside criteria in 600-193913-1 MS/MSD but background concentration in the parent sample is >4x spike so no flags applied.						
-							
<u> </u>							

Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

Laboratory Job ID: 600-153431-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP

Revision: 1

For:

CH2M Hill Constructors, Inc. 14701 St. Mary's Lane Suite 300 Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Steve A Stephenl

Authorized for release by: 12/7/2020 4:16:23 PM Steve Stepanski, Project Mgmt. Assistant (713)690-4444 steve.stepanski@Eurofinset.com

Designee for

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Released to Imaging: 10/26/2022 7:32:21 AM

Laboratory Job ID: 600-153431-1

Client: CH2M Hill Constructors, Inc. Project/Site: Kinder Morgan Bloomfield, NM NFP

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Case Narrative

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-153431-1

Job ID: 600-153431-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-153431-1

Comments

This report was revised to a level 2 deliverable per client request.

No additional comments.

Receipt

The samples were received on 9/6/2017 12:44 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Method Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

Method **Method Description** Protocol Laboratory SW846 8260B Volatile Organic Compounds (GC/MS) TAL HOU 2540B Percent Moisture SM20 TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

 $\hbox{\it Client: CH2M Hill Constructors, Inc.}\\$

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-153431-1	MW40-NFP-1-2-09052017	Solid	09/05/17 11:45	09/06/17 12:44
600-153431-2	MD04-NFP-1-2-09052017	Solid	09/05/17 11:50	09/06/17 12:44
600-153431-3	MW41-NFP-1-2-09052017	Solid	09/05/17 12:40	09/06/17 12:44
600-153431-4	TB01-NFP-09052017	Water	09/05/17 14:00	09/06/17 12:44
600-153431-5	MW45-NFP-1-2-09052017	Solid	09/05/17 14:05	09/06/17 12:44
600-153431-6	MW43-NFP-1-2-09052017	Solid	09/05/17 15:20	09/06/17 12:44

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Client Sample Results

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

Lab Sample ID: 600-153431-1

Matrix: Solid

Percent Solids: 93.6

Client Sample ID: MW40-NFP-1-2-09052017	

Date Collected: 09/05/17 11:45 Date Received: 09/06/17 12:44

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000617	U	0.00490	0.000617	mg/Kg	\$	09/06/17 19:00	09/07/17 11:21	1
Ethylbenzene	0.000999	U	0.00490	0.000999	mg/Kg	₩	09/06/17 19:00	09/07/17 11:21	1
Toluene	0.00135	U	0.00490	0.00135	mg/Kg	☼	09/06/17 19:00	09/07/17 11:21	1
Xylenes, Total	0.00111	U	0.00490	0.00111	mg/Kg	\$	09/06/17 19:00	09/07/17 11:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	67		61 - 130				09/06/17 19:00	09/07/17 11:21	1
Dibromofluoromethane	73		68 - 140				09/06/17 19:00	09/07/17 11:21	1
Toluene-d8 (Surr)	68		50 - 130				09/06/17 19:00	09/07/17 11:21	1
4-Bromofluorobenzene	90		57 - 140				09/06/17 19:00	09/07/17 11:21	1
- General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

1.0

1.0

1.0 %

1.0 %

Client Sample ID: MD04-NFP-1-2-09052017

Date Collected: 09/05/17 11:50 Date Received: 09/06/17 12:44

Percent Moisture

Percent Solids

Lab Sample ID: 600-153431-2 **Matrix: Solid**

09/07/17 18:53

09/07/17 18:53

Percent Solids: 93.7

Method: 8260B - Volatile Organic	Compounds (GC/MS)
Analyte	Result	Qualifier
Benzene	0.000637	U

6.4

93.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000637	U	0.00505	0.000637	mg/Kg	₩	09/06/17 19:00	09/07/17 11:44	1
Ethylbenzene	0.00103	U	0.00505	0.00103	mg/Kg	₽	09/06/17 19:00	09/07/17 11:44	1
Toluene	0.00139	U	0.00505	0.00139	mg/Kg	₽	09/06/17 19:00	09/07/17 11:44	1
Xylenes, Total	0.00114	U	0.00505	0.00114	mg/Kg	φ.	09/06/17 19:00	09/07/17 11:44	1

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	68	61 - 130	09/06/17 19:00	09/07/17 11:44	1
Dibromofluoromethane	73	68 - 140	09/06/17 19:00	09/07/17 11:44	1
Toluene-d8 (Surr)	68	50 - 130	09/06/17 19:00	09/07/17 11:44	1
4-Bromofluorobenzene	88	57 - 140	09/06/17 19:00	09/07/17 11:44	1

General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.3		1.0	1.0	%			09/07/17 18:53	1
Percent Solids	93.7		1.0	1.0	%			09/07/17 18:53	1

Client Sample ID: MW41-NFP-1-2-09052017

Date Collected: 09/05/17 12:40 Date Received: 09/06/17 12:44

Lab Sample ID: 600-153431-3 Matrix: Solid

Percent Solids: 96.3

Method: 8260B - Volatil	Organic	Compounds	(GC/MS)
-------------------------	---------	-----------	---------

ı	Modifica: 0200B Volume Organic Oc	inpounds i	(CO/IIIC)							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	0.000630	U	0.00500	0.000630	mg/Kg	-	09/06/17 19:00	09/07/17 12:08	1
ı	Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg	₩	09/06/17 19:00	09/07/17 12:08	1
	Toluene	0.00138	U	0.00500	0.00138	mg/Kg	₩	09/06/17 19:00	09/07/17 12:08	1
ı	Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg	φ.	09/06/17 19:00	09/07/17 12:08	1

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 09/06/17 19:00 09/07/17 12:08 68 61 - 130

Client Sample Results

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

Client Sample ID: MW41-NFP-1-2-09052017

Date Collected: 09/05/17 12:40 Date Received: 09/06/17 12:44

Lab Sample ID: 600-153431-3

Matrix: Solid

Percent Solids: 96.3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	82	68 - 140	09/06/17 19:00	09/07/17 12:08	1
Toluene-d8 (Surr)	68	50 - 130	09/06/17 19:00	09/07/17 12:08	1
4-Bromofluorobenzene	89	57 - 140	09/06/17 19:00	09/07/17 12:08	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	I	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.7		1.0	1.0	%				09/07/17 18:53	1
Percent Solids	96.3		1.0	1.0	%				09/07/17 18:53	1

Client Sample ID: TB01-NFP-09052017 Lab Sample ID: 600-153431-4

Date Collected: 09/05/17 14:00

Date Received: 09/06/17 12:44

Matrix: Water

Mothod: 9260B Volatile Organic Compounds (GC/MS)

wethod: 8260B - Volatile Organic C	ompounas ((GC/IVIS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/06/17 18:20	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/06/17 18:20	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/06/17 18:20	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/06/17 18:20	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	60		50 - 134	_		09/06/17 18:20	1
Dibromofluoromethane	68		62 - 130			09/06/17 18:20	1
Toluene-d8 (Surr)	107		70 - 130			09/06/17 18:20	1
4-Bromofluorobenzene	91		67 - 139			09/06/17 18:20	1
	1,2-Dichloroethane-d4 (Surr) Dibromofluoromethane Toluene-d8 (Surr)	1,2-Dichloroethane-d4 (Surr) 60 Dibromofluoromethane 68 Toluene-d8 (Surr) 107	1,2-Dichloroethane-d4 (Surr) 60 Dibromofluoromethane 68 Toluene-d8 (Surr) 107	1,2-Dichloroethane-d4 (Surr) 60 50 - 134 Dibromofluoromethane 68 62 - 130 Toluene-d8 (Surr) 107 70 - 130	1,2-Dichloroethane-d4 (Surr) 60 50 - 134 Dibromofluoromethane 68 62 - 130 Toluene-d8 (Surr) 107 70 - 130	1,2-Dichloroethane-d4 (Surr) 60 50 - 134 Dibromofluoromethane 68 62 - 130 Toluene-d8 (Surr) 107 70 - 130	1,2-Dichloroethane-d4 (Surr) 60 50 - 134 09/06/17 18:20 Dibromofluoromethane 68 62 - 130 09/06/17 18:20 Toluene-d8 (Surr) 107 70 - 130 09/06/17 18:20

Client Sample ID: MW45-NFP-1-2-09052017 Lab Sample ID: 600-153431-5

Date Collected: 09/05/17 14:05 Date Received: 09/06/17 12:44

Matrix: Solid Percent Solids: 95.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Welliou. 6260B - Volalile Organic (compounds	GC/IVIO)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000890	U	0.00706	0.000890	mg/Kg	\	09/06/17 19:00	09/07/17 10:11	1
Ethylbenzene	0.00144	U	0.00706	0.00144	mg/Kg	☼	09/06/17 19:00	09/07/17 10:11	1
Toluene	0.00195	U	0.00706	0.00195	mg/Kg	≎	09/06/17 19:00	09/07/17 10:11	1
Xylenes, Total	0.00160	U	0.00706	0.00160	mg/Kg	₽	09/06/17 19:00	09/07/17 10:11	1

Surrogate	%Recovery Q	Qualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73	61 - 130	09/06/17 19:00	09/07/17 10:11	1
Dibromofluoromethane	82	68 - 140	09/06/17 19:00	09/07/17 10:11	1
Toluene-d8 (Surr)	72	50 - 130	09/06/17 19:00	09/07/17 10:11	1
4-Bromofluorobenzene	90	57 - 140	09/06/17 19:00	09/07/17 10:11	1

General	Chemistry
Analyta	

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.0		1.0	1.0	%			09/07/17 18:53	1
Percent Solids	95.0		1.0	1.0	%			09/07/17 18:53	1

Client Sample Results

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

Client Sample ID: MW43-NFP-1-2-09052017 Lab Sample ID: 600-153431-6

Date Collected: 09/05/17 15:20 Matrix: Solid

Date Received: 09/06/17 12:44 Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00131	U	0.0104	0.00131	mg/Kg	₩	09/06/17 19:00	09/07/17 12:31	1
Ethylbenzene	0.00212	U	0.0104	0.00212	mg/Kg	₽	09/06/17 19:00	09/07/17 12:31	1
Toluene	0.00286	U	0.0104	0.00286	mg/Kg	₽	09/06/17 19:00	09/07/17 12:31	1
Xylenes, Total	0.00235	U	0.0104	0.00235	mg/Kg	\$	09/06/17 19:00	09/07/17 12:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		61 - 130				09/06/17 19:00	09/07/17 12:31	1
Dibromofluoromethane	83		68 - 140				09/06/17 19:00	09/07/17 12:31	1
Toluene-d8 (Surr)	71		50 - 130				09/06/17 19:00	09/07/17 12:31	1
4-Bromofluorobenzene	95		57 - 140				09/06/17 19:00	09/07/17 12:31	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.6		1.0	1.0	%			09/07/17 18:53	1
Percent Solids	89.4		1.0	1.0	%			09/07/17 18:53	1

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

Qualifiers

GC/MS VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin)

Glossary

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

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Surrogate Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

				Percent Sur	rrogate Rec
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(61-130)	(68-140)	(50-130)	(57-140)
600-153431-1	MW40-NFP-1-2-09052017	67	73	68	90
600-153431-2	MD04-NFP-1-2-09052017	68	73	68	88
600-153431-3	MW41-NFP-1-2-09052017	68	82	68	89
600-153431-5	MW45-NFP-1-2-09052017	73	82	72	90
600-153431-5 MS	MW45-NFP-1-2-09052017	71	78	76	98
600-153431-5 MSD	MW45-NFP-1-2-09052017	76	80	76	99
600-153431-6	MW43-NFP-1-2-09052017	80	83	71	95
LCS 600-220734/3	Lab Control Sample	75	85	80	90
LCSD 600-220734/4	Lab Control Sample Dup	73	88	81	90
MB 600-220734/6	Method Blank	86	89	71	79

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

_				Percent Sur	rogate Rec
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(50-134)	(62-130)	(70-130)	(67-139)
600-153431-4	TB01-NFP-09052017	60	68	107	91
LCS 600-220646/3	Lab Control Sample	69	89	109	97
LCSD 600-220646/4	Lab Control Sample Dup	72	90	107	96
MB 600-220646/6	Method Blank	64	71	107	95

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

TestAmerica Houston

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QC Sample Results

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-220646/6

Matrix: Water

Analysis Batch: 220646

Client Sample ID: Method Blank

Prep Type: Total/NA

	INID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/06/17 09:46	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/06/17 09:46	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/06/17 09:46	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/06/17 09:46	1

	IVIB	MB					
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	64		50 - 134	_		09/06/17 09:46	1
Dibromofluoromethane	71		62 - 130			09/06/17 09:46	1
Toluene-d8 (Surr)	107		70 - 130			09/06/17 09:46	1
4-Bromofluorobenzene	95		67 - 139			09/06/17 09:46	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 220646

Matrix: Water

Surrogate

Lab Sample ID: LCS 600-220646/3

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.0100 0.01121 112 70 - 130 mg/L Ethylbenzene 0.0100 0.01078 mg/L 108 70 - 130 Toluene 0.0100 0.01118 70 - 130 mg/L 112 Xylenes, Total 0.0200 0.02152 mg/L 108 70 - 130

> LCS LCS Qualifier Limits %Recovery 69 50 - 134 89 62 - 130 109 70 - 130 67 - 139 97

MD MD

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Water Analysis Batch: 220646

Lab Sample ID: LCSD 600-220646/4

1,2-Dichloroethane-d4 (Surr)

Dibromofluoromethane

4-Bromofluorobenzene

Toluene-d8 (Surr)

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0100	0.01152		mg/L		115	70 - 130	3	20
Ethylbenzene	0.0100	0.01089		mg/L		109	70 - 130	1	20
Toluene	0.0100	0.01117		mg/L		112	70 - 130	0	20
Xylenes, Total	0.0200	0.02165		mg/L		108	70 - 130	1	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	72		50 - 134
Dibromofluoromethane	90		62 - 130
Toluene-d8 (Surr)	107		70 - 130
4-Bromofluorobenzene	96		67 - 139

QC Sample Results

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

MR MR

Lab Sample ID: MB 600-220734/6

Matrix: Solid

Analysis Batch: 220734

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/07/17 09:21	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/07/17 09:21	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/07/17 09:21	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/07/17 09:21	1

MB MB Qualifier Limits Prepared %Recovery Analyzed Dil Fac 86 61 - 130 09/07/17 09:21 89 68 - 140 09/07/17 09:21 71 50 - 130 09/07/17 09:21 79 57 - 140 09/07/17 09:21

Lab Sample ID: LCS 600-220734/3

Matrix: Solid

Surrogate

Analysis Batch: 220734

1,2-Dichloroethane-d4 (Surr)

Dibromofluoromethane

4-Bromofluorobenzene

Toluene-d8 (Surr)

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Бріке	LCS	LUS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.0500	0.04230		mg/Kg	_	85	70 - 131	
Ethylbenzene	0.0500	0.04487		mg/Kg		90	66 - 130	
Toluene	0.0500	0.04351		mg/Kg		87	67 - 130	
Xylenes, Total	0.100	0.08987		mg/Kg		90	63 - 130	

LCS	LCS	
%Recovery	Qualifier	Limits
75		61 - 130
85		68 - 140
80		50 - 130
90		57 - 140
	%Recovery 75 85 80	85 80

Lab Sample ID: LCSD 600-220734/4

Matrix: Solid

Analysis Batch: 220734

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04015		mg/Kg		80	70 - 131	5	30
Ethylbenzene	0.0500	0.04059		mg/Kg		81	66 - 130	10	30
Toluene	0.0500	0.03987		mg/Kg		80	67 - 130	9	30
Xylenes, Total	0.100	0.08148		mg/Kg		81	63 - 130	10	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	73		61 - 130
Dibromofluoromethane	88		68 - 140
Toluene-d8 (Surr)	81		50 - 130
4-Bromofluorobenzene	90		57 ₋ 140

QC Sample Results

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-153431-5 MS Client Sample ID: MW45-NFP-1-2-09052017 **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 220744 Analysis Batch: 220734

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.000890	U	0.0532	0.04756		mg/Kg	\$	89	70 - 131	
Ethylbenzene	0.00144	U	0.0532	0.04750		mg/Kg	₽	89	66 - 130	
Toluene	0.00195	U	0.0532	0.04728		mg/Kg	₽	89	67 - 130	
Xylenes, Total	0.00160	U	0.106	0.09387		mg/Kg	₽	88	63 - 130	

MS MS Surrogate %Recovery Qualifier Limits 61 - 130 1,2-Dichloroethane-d4 (Surr) 71 Dibromofluoromethane 78 68 - 140 Toluene-d8 (Surr) 76 50 - 130 4-Bromofluorobenzene 98 57 - 140

Lab Sample ID: 600-153431-5 MSD Client Sample ID: MW45-NFP-1-2-09052017

Matrix: Solid Analysis Batch: 220734

Prep Batch: 220744

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.000890	U	0.0535	0.04722		mg/Kg	₩	88	70 - 131	1	30
Ethylbenzene	0.00144	U	0.0535	0.04644		mg/Kg	☼	87	66 - 130	2	30
Toluene	0.00195	U	0.0535	0.04594		mg/Kg	≎	86	67 - 130	3	30
Xylenes, Total	0.00160	U	0.107	0.09047		mg/Kg		85	63 - 130	4	30

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	76		61 - 130
Dibromofluoromethane	80		68 ₋ 140
Toluene-d8 (Surr)	76		50 - 130
4-Bromofluorobenzene	99		57 ₋ 140

Prep Type: Total/NA

QC Association Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

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GC/MS VOA

Analysis Batch: 220646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
600-153431-4	TB01-NFP-09052017	Total/NA	Water	8260B
MB 600-220646/6	Method Blank	Total/NA	Water	8260B
LCS 600-220646/3	Lab Control Sample	Total/NA	Water	8260B
LCSD 600-220646/4	Lab Control Sample Dup	Total/NA	Water	8260B

Analysis Batch: 220734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153431-1	MW40-NFP-1-2-09052017	Total/NA	Solid	8260B	220744
600-153431-2	MD04-NFP-1-2-09052017	Total/NA	Solid	8260B	220744
600-153431-3	MW41-NFP-1-2-09052017	Total/NA	Solid	8260B	220744
600-153431-5	MW45-NFP-1-2-09052017	Total/NA	Solid	8260B	220744
600-153431-6	MW43-NFP-1-2-09052017	Total/NA	Solid	8260B	220744
MB 600-220734/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-220734/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-220734/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
600-153431-5 MS	MW45-NFP-1-2-09052017	Total/NA	Solid	8260B	220744
600-153431-5 MSD	MW45-NFP-1-2-09052017	Total/NA	Solid	8260B	220744

Prep Batch: 220744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153431-1	MW40-NFP-1-2-09052017	Total/NA	Solid	5035_ASP	
600-153431-2	MD04-NFP-1-2-09052017	Total/NA	Solid	5035_ASP	
600-153431-3	MW41-NFP-1-2-09052017	Total/NA	Solid	5035_ASP	
600-153431-5	MW45-NFP-1-2-09052017	Total/NA	Solid	5035_ASP	
600-153431-6	MW43-NFP-1-2-09052017	Total/NA	Solid	5035_ASP	
600-153431-5 MS	MW45-NFP-1-2-09052017	Total/NA	Solid	5035_ASP	
600-153431-5 MSD	MW45-NFP-1-2-09052017	Total/NA	Solid	5035_ASP	

General Chemistry

Analysis Batch: 220815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153431-1	MW40-NFP-1-2-09052017	Total/NA	Solid	2540B	
600-153431-2	MD04-NFP-1-2-09052017	Total/NA	Solid	2540B	
600-153431-3	MW41-NFP-1-2-09052017	Total/NA	Solid	2540B	
600-153431-5	MW45-NFP-1-2-09052017	Total/NA	Solid	2540B	
600-153431-6	MW43-NFP-1-2-09052017	Total/NA	Solid	2540B	
600-153431-5 MS	MW45-NFP-1-2-09052017	Total/NA	Solid	2540B	
600-153431-5 MSD	MW45-NFP-1-2-09052017	Total/NA	Solid	2540B	

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TestAmerica Job ID: 600-153431-1

Client Sample ID: MW40-NFP-1-2-09052017

Date Collected: 09/05/17 11:45 Date Received: 09/06/17 12:44

Lab Sample ID: 600-153431-1

Matrix: Solid

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			220815	09/07/17 18:53	B1K	TAL HOU

Client Sample ID: MW40-NFP-1-2-09052017 Lab Sample ID: 600-153431-1

Date Collected: 09/05/17 11:45

Date Received: 09/06/17 12:44

Matrix: Solid
Percent Solids: 93.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.456 g	5 mL	220744	09/06/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220734	09/07/17 11:21	WS1	TAL HOU

Client Sample ID: MD04-NFP-1-2-09052017

Date Collected: 09/05/17 11:50

Date Received: 09/06/17 12:44

h	Prepared

Lab Sample ID: 600-153431-2

Batch Batch Dil Initial Final Batch Method Amount Number Prep Type Type Run Factor Amount or Analyzed Analyst Lab Total/NA Analysis 2540B 220815 09/07/17 18:53 B1K TAL HOU

Client Sample ID: MD04-NFP-1-2-09052017

Date Collected: 09/05/17 11:50

Date Received: 09/06/17 12:44

Lab Sample ID: 600-153431-2
Matrix: Solid
Parcent Solids: 93 7

Lab Sample ID: 600-153431-3

Lab Sample ID: 600-153431-3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.282 g	5 mL	220744	09/06/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220734	09/07/17 11:44	WS1	TAL HOU

Client Sample ID: MW41-NFP-1-2-09052017

Date Collected: 09/05/17 12:40

Date Received: 09/06/17 12:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			220815	09/07/17 18:53	B1K	TAL HOU

Client Sample ID: MW41-NFP-1-2-09052017

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			220815	09/07/17 18:53	B1K	TAL HOU

Date Collected: 09/05/17 12:40 **Matrix: Solid** Date Received: 09/06/17 12:44 Percent Solids: 96.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.19 g	5 mL	220744	09/06/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220734	09/07/17 12:08	WS1	TAL HOU

Matrix: Solid

Matrix: Solid

Percent Solids: 95.0

Lab Chronicle

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

Client Sample ID: TB01-NFP-09052017 Lab Sample ID: 600-153431-4

Date Collected: 09/05/17 14:00 Matrix: Water

Date Received: 09/06/17 12:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	220646	09/06/17 18:20	WS1	TAL HOU

Client Sample ID: MW45-NFP-1-2-09052017 Lab Sample ID: 600-153431-5

Date Collected: 09/05/17 14:05

Date Received: 09/06/17 12:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			220815	09/07/17 18:53	B1K	TAL HOU

Client Sample ID: MW45-NFP-1-2-09052017 Lab Sample ID: 600-153431-5

Date Collected: 09/05/17 14:05

Date Received: 09/06/17 12:44

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			3.728 g	5 mL	220744	09/06/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220734	09/07/17 10:11	WS1	TAL HOU

Client Sample ID: MW43-NFP-1-2-09052017 Lab Sample ID: 600-153431-6

Date Collected: 09/05/17 15:20

Date Received: 09/06/17 12:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			220815	09/07/17 18:53	B1K	TAL HOU

Client Sample ID: MW43-NFP-1-2-09052017 Lab Sample ID: 600-153431-6

Date Collected: 09/05/17 15:20

Date Received: 09/06/17 12:44

Released to Imaging: 10/26/2022 7:32:21 AM

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			2.694 g	5 mL	220744	09/06/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220734	09/07/17 12:31	WS1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

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0-153431-6 Matrix: Solid

Percent Solids: 89.4

Matrix: Solid

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153431-1

Laboratory: TestAmerica Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

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#America Houston Color Richway Street Houston, TX 77040 Phone (713) 690-6666	Ü	Chain o	of Cus	Chain of Custody Record	cord				TestA	TestAmerica	
Client Information	Sampler For Sta	sera		Lab PM Upton, Cathy I	Cathy L		Carrier Tracking No(s)	TOP COL	COC No 600-36947-10949	9.1	
Client Contact. Aleeca Forsberg	Phone 505 918	-	800	E-Mail. cethy.uj	oton@test	E-Wall. cathy upton@testamericainc.com					
Company. CH2M Hill, Inc.						Analysis	s Requested		Job #:		
Address. 3721 Rutledge Rd, NE. Suite B-1	Due Date Requested:	:pa		-					Preservation Codes	des;	
City	TAT Requested (days):	ays):							B - NaOH C - Zn Acetate	M - hexane N - None O - AsNaO2	
State, Ztp NM, 87109	10 BD Prelim; 14		BD Level3 Package (3e)	age (3e)	6 55	(600-		D - Nitric Acid E - NaHSO4	P - Na204S Q - Na2SO3	
Phone 281-721-8546(Tel)	PO# WD293112			(0	Sure.	48HR\$	15343		G - Amchlor H - Ascorbic Acid	R - Na2S2SO3 S - H2SO4 T - TSP Dodecahvdrate	
Email: Aleeca Forsberg@CH2M.com	#OM			N 10 s	(oN	ногъ-	31 Ch		1 - Ice J - Di Water	U - Acetone V - MCAA	
Project Name: Kinder Morgan Bloomfield, NM NFP	HOUSTON Project#: 60004617	#		(Yes	10 89,	тяон	ain of		L-EDA	W - ph 4-5 Z - other (specify)	
Site BTEX Soils	SSOW#			GmsS	OIFS		x		Other:		
Sample Identification	Sample Date	Sample	Sample Type (C=comp, G=arab)	Matrix (Warvater, Sasolid. Onwasteld)	M\&M mnotheq	Seccent Moistur	3TAW 3T8 - 1J_809S8		Total Number	Special Instructions Motor	
		X	Preserva	7		z	4				
HW40-NFP-1-2-09052017	MSIL	145	O	Soil		XX			*** 48Hr Holding Time	ling Time	
MWD04-NFP-1-2-09952017		183	9	Soil		XX			From Sample Collection	e Collection	
HW41-NFP-1-2-09052017		1240	9	Soil		×					
TBOI-NFP-09105297		1400	9	Soil			×				
MW45-NFP-09052017		148	9	Soil		XX					
MW45-NFP-0905-2017-NS		146	G	Soil		X					
USH-1025010-49N-54MN		1405	9	Soil		××					
WW43-NFP-09105297	-	1520	9	Soil		XX					
			9	Soil							
			9	Soil							
			9	Water							
Identification	X	Ш			Sample	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month	y be assessed if	samples are retai	ned longer than 1	month)	
Other (specify)			radiological		Special I	Special Instructions/QC Requirements	Usposar by Lab		Archive For	Months	
Empty Kit Relinquished by:		Date		T	Time:		Method	Method of Shipment			
Heighushad by Alcela Firsberra	Date/Time	1630	0	CH27	Receiv	Received by		Date/Time 117	hr:21 1	Company	
Relinquished by	DateTime			Company	Recen	Received by:		Date/Time		Company	
Reinquished by	Date/Time:			Company	Received by	ed by		Date/Time		Company	
Custody Seals Infact: Custody Seal No.: A Yes A No					Coole	Cooler Temperature(s) ^a C and Other Remarks	Other Remarks				
					1	1	1				

TestAmerica Houston

Sample Receipt Check

Loc: 600 153431



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7 SEP 6 12:443

			[ved:			717 SEP
JOB NUMBER:			CLIENT:	CH	+2M	
JNPACKED BY:	B		CARRIER/DRIVER:	+2M	1	
Custody Seal Present:	*YES	NO	Number of Coolers Re	eceived:	(
	Temp		Observed Temp	Therm	Them	Corrected Temp
Cooler ID	Blank	Trip Blank	(°C)	ID	CF	(℃)
BW	Y / N	Y / N	0,9	676	0.0	0,9
	Y / N	Y / N				
	Y / N	YIN				
	Y / N	YIN	A			1
	Y / N	Y / N	(3)			
	Y/N	Y / N	Sid			
	X N	Y / N	1613			
	YIM	Y / N				
	Y / N	Y / N			/	
Base samples are>pH 12 H paper Lot # /OA headspace acceptate		_	Acid preserved are <ph< th=""><th>H 2:</th><th>YES</th><th>□NO</th></ph<>	H 2:	YES	□NO
_						YES NO
Did samples meet the lab	oratory's stand	ard conditions	of sample acceptability up	oon receipt?		
COMMENTS: \	rip BK	inks-	- All have	head	dspo	22
			2615			

HS-SA-WI-013

THK# 7455 1165 4035

WED - US PRIORITY OVE Page 19 of 20

Rev. 3; 07/01/2014

12/7/2020 (Rev. 1)

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 600-153431-1

Login Number: 153431 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

Laboratory Job ID: 600-153515-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP

Revision: 1

For:

CH2M Hill Constructors, Inc. 14701 St. Mary's Lane Suite 300 Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Steve A Stephenl

Authorized for release by: 12/10/2020 9:59:31 AM
Steve Stepanski, Project Mgmt. Assistant (713)690-4444

Designee for

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

steve.stepanski@Eurofinset.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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Results relate only to the items tested and the sample(s) as received by the laboratory.



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Released to Imaging: 10/26/2022 7:32:21 AM

Laboratory Job ID: 600-153515-1

Client: CH2M Hill Constructors, Inc. Project/Site: Kinder Morgan Bloomfield, NM NFP

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Case Narrative

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-153515-1

Job ID: 600-153515-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-153515-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/7/2017 10:41 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.2° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Method Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153515-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

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Sample Summary

 $\hbox{\it Client: CH2M Hill Constructors, Inc.}\\$

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153515-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-153515-1	MW42-NFP-1-2-09062017	Solid	09/06/17 08:22	09/07/17 10:41
600-153515-2	MW44-NFP-1-2-09062017	Solid	09/06/17 09:25	09/07/17 10:41
600-153515-3	MW47-NFP-1-2-09062017	Solid	09/06/17 10:25	09/07/17 10:41
600-153515-4	MW46NFP-1-2-09062017	Solid	09/06/17 11:30	09/07/17 10:41
600-153515-5	TB02-NFP-1-2-09062017	Water	09/06/17 11:20	09/07/17 10:41
600-153515-6	SB02-NFP-1-2-09062017	Solid	09/06/17 12:40	09/07/17 10:41
600-153515-7	SB01-NFP-1-2-09062017	Solid	09/06/17 13:25	09/07/17 10:41
600-153515-8	MD01-NFP-1-2-09062017	Solid	09/06/17 13:30	09/07/17 10:41
600-153515-9	MW48-NFP-1-2-09062017	Solid	09/06/17 14:08	09/07/17 10:41

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Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Client Sample ID: MW42-NFP-1-2-09062017

TestAmerica Job ID: 600-153515-1

Lab Sample ID: 600-153515-1

Matrix: Solid

Date Collected: 09/06/17 08:22 Date Received: 09/07/17 10:41 Percent Solids: 92.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00131	U	0.0104	0.00131	mg/Kg	₩	09/07/17 20:17	09/08/17 09:52	1
Ethylbenzene	0.00213	U	0.0104	0.00213	mg/Kg	₽	09/07/17 20:17	09/08/17 09:52	1
Toluene	0.00288	U	0.0104	0.00288	mg/Kg	₽	09/07/17 20:17	09/08/17 09:52	1
Xylenes, Total	0.00236	U	0.0104	0.00236	mg/Kg	*	09/07/17 20:17	09/08/17 09:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		61 - 130				09/07/17 20:17	09/08/17 09:52	1
Dibromofluoromethane	82		68 ₋ 140				09/07/17 20:17	09/08/17 09:52	1
Toluene-d8 (Surr)	72		50 - 130				09/07/17 20:17	09/08/17 09:52	1
4-Bromofluorobenzene	96		57 - 140				09/07/17 20:17	09/08/17 09:52	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.1		1.0	1.0	%			09/08/17 14:36	1
Percent Solids	92.9		1.0	1.0	%			09/08/17 14:36	1

Client Sample ID: MW44-NFP-1-2-09062017 Lab Sample ID: 600-153515-2

Date Collected: 09/06/17 09:25 **Matrix: Solid** Date Received: 09/07/17 10:41 Percent Solids: 95.2

Method: 8260B - Volatile Organic Compounds (GC/MS) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Benzene 0.00120 U 0.00951 0.00120 mg/Kg Ö 09/07/17 20:17 09/08/17 10:15 Ethylbenzene 0.00194 U 0.00951 0.00194 mg/Kg 09/07/17 20:17 09/08/17 10:15 ₩ Toluene 0.00262 U 0.00951 0.00262 mg/Kg 09/07/17 20:17 09/08/17 10:15 0.00215 U 09/07/17 20:17 Xylenes, Total 0.00951 0.00215 mg/Kg 09/08/17 10:15

Surrogate	%Recovery	Qualifier	Limits	Pr	reparea	Anaiyzea	DII Fac
1,2-Dichloroethane-d4 (Surr)	79		61 - 130	09/07	7/17 20:17	09/08/17 10:15	1
Dibromofluoromethane	77		68 - 140	09/07	7/17 20:17	09/08/17 10:15	1
Toluene-d8 (Surr)	74		50 - 130	09/07	7/17 20:17	09/08/17 10:15	1
4-Bromofluorobenzene	98		57 - 140	09/07	7/17 20:17	09/08/17 10:15	1

	General Chemistry									
	Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Percent Moisture	4.8		1.0	1.0	%			09/08/17 14:36	1
L	Percent Solids	95.2		1.0	1.0	%			09/08/17 14:36	1

Client Sample ID: MW47-NFP-1-2-09062017 Lab Sample ID: 600-153515-3

Date Collected: 09/06/17 10:25 Matrix: Solid Date Received: 09/07/17 10:41 Percent Solids: 95.9

Method: 8260B - Volatile Orga	nic Compounds ((GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00106	U	0.00841	0.00106	mg/Kg		09/07/17 20:17	09/08/17 10:38	1
Ethylbenzene	0.00172	U	0.00841	0.00172	mg/Kg	₩	09/07/17 20:17	09/08/17 10:38	1
Toluene	0.00232	U	0.00841	0.00232	mg/Kg	₽	09/07/17 20:17	09/08/17 10:38	1
Xylenes, Total	0.00190	U	0.00841	0.00190	mg/Kg	φ.	09/07/17 20:17	09/08/17 10:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79	-	61 - 130				09/07/17 20:17	09/08/17 10:38	1

TestAmerica Houston

12/10/2020 (Rev. 1)

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153515-1

Client Sample ID: MW47-NFP-1-2-09062017 Lab Sample ID: 600-153515-3

Date Collected: 09/06/17 10:25 Matrix: Solid

Date Received: 09/07/17 10:41 Percent Solids: 95.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	78		68 - 140	09/07/17 20:	17 09/08/17 10:38	1
Toluene-d8 (Surr)	72		50 - 130	09/07/17 20:	17 09/08/17 10:38	1
4-Bromofluorobenzene	93		57 - 140	09/07/17 20:	17 09/08/17 10:38	1

General Chemistry

Analyte	Dogult	Qualifier	RL	RL	Unit	ъ	Prepared	Analyzed	Dil Fac
Analyte	Result	Qualifier	- KL	KL	Ullit		Frepareu	Allalyzeu	DII Fac
Percent Moisture	4.1		1.0	1.0	%			09/08/17 14:36	1
Percent Solids	95.9		1.0	1.0	%			09/08/17 14:36	1

Client Sample ID: MW46--NFP-1-2-09062017

Lab Sample ID: 600-153515-4 Date Collected: 09/06/17 11:30

Matrix: Solid Date Received: 09/07/17 10:41 Percent Solids: 97.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Michiga, 02000 - Volunic Organic C	ompounds (CO/MC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000704	U	0.00558	0.000704	mg/Kg		09/07/17 20:17	09/08/17 11:02	1
Ethylbenzene	0.00114	U	0.00558	0.00114	mg/Kg	₽	09/07/17 20:17	09/08/17 11:02	1
Toluene	0.00154	U	0.00558	0.00154	mg/Kg	₽	09/07/17 20:17	09/08/17 11:02	1
Xylenes, Total	0.00126	U	0.00558	0.00126	mg/Kg	₽	09/07/17 20:17	09/08/17 11:02	1

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83	61 - 130	09/07/17 20:17	09/08/17 11:02	1
Dibromofluoromethane	82	68 - 140	09/07/17 20:17	09/08/17 11:02	1
Toluene-d8 (Surr)	72	50 - 130	09/07/17 20:17	09/08/17 11:02	1
4-Bromofluorobenzene	94	57 - 140	09/07/17 20:17	09/08/17 11:02	1

General Chemistry

Date Received: 09/07/17 10:41

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.6		1.0	1.0	%			09/08/17 14:36	1
Percent Solids	97.4		1.0	1.0	%			09/08/17 14:36	1

Client Sample ID: TB02-NFP-1-2-09062017

Released to Imaging: 10/26/2022 7:32:21 AM

Lab Sample ID: 600-153515-5 Date Collected: 09/06/17 11:20 **Matrix: Water**

- 1			
	Method: 8260B - Volatile Organic Compounds	(GC/MS)	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/08/17 09:38	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/08/17 09:38	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/08/17 09:38	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/08/17 09:38	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	69	50 - 134		09/08/17 09:38	1
Dibromofluoromethane	83	62 - 130		09/08/17 09:38	1
Toluene-d8 (Surr)	116	70 - 130		09/08/17 09:38	1
4-Bromofluorobenzene	98	67 - 139		09/08/17 09:38	1

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153515-1

Lab Sample ID: 600-153515-6

Matrix: Solid

Percent Solids: 95.7

Client Sample ID: SB02-NFP-1-2-09062017
Data Callacted, 00/00/47 40:40

Date Collected: 09/06/17 12:40 Date Received: 09/07/17 10:41

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000585	U	0.00464	0.000585	mg/Kg	-	09/07/17 20:17	09/08/17 11:25	1
Ethylbenzene	0.000947	U	0.00464	0.000947	mg/Kg	₽	09/07/17 20:17	09/08/17 11:25	1
Toluene	0.00128	U	0.00464	0.00128	mg/Kg	₽	09/07/17 20:17	09/08/17 11:25	1
Xylenes, Total	0.00105	U	0.00464	0.00105	mg/Kg	\$	09/07/17 20:17	09/08/17 11:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130				09/07/17 20:17	09/08/17 11:25	1
Dibromofluoromethane	80		68 - 140				09/07/17 20:17	09/08/17 11:25	1
Toluene-d8 (Surr)	75		50 ₋ 130				09/07/17 20:17	09/08/17 11:25	1
4-Bromofluorobenzene	98		57 - 140				09/07/17 20:17	09/08/17 11:25	

RL

1.0

1.0

RL Unit

1.0

1.0 %

%

D

Prepared

Client Sample ID: SB01-NFP-1-2-09062017

Date Collected: 09/06/17 13:25

Date Received: 09/07/17 10:41

Released to Imaging: 10/26/2022 7:32:21 AM

General Chemistry

Percent Moisture

Percent Solids

Analyte

Lab Sample ID: 600-153515-7 Matrix: Solid

Analyzed

09/08/17 14:36

09/08/17 14:36

Percent Solids: 94.4

Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000589	U	0.00468	0.000589	mg/Kg	<u> </u>	09/07/17 20:17	09/08/17 11:48	1
Ethylbenzene	0.000954	U	0.00468	0.000954	mg/Kg	₩	09/07/17 20:17	09/08/17 11:48	1
Toluene	0.00129	U	0.00468	0.00129	mg/Kg	☼	09/07/17 20:17	09/08/17 11:48	1
Xylenes, Total	0.00106	U	0.00468	0.00106	mg/Kg	\$	09/07/17 20:17	09/08/17 11:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1.2-Dichloroethane-d4 (Surr)	89	-	61 - 130				09/07/17 20:17	09/08/17 11:48	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		61 - 130	09/07/17 20:17	09/08/17 11:48	1
Dibromofluoromethane	76		68 - 140	09/07/17 20:17	09/08/17 11:48	1
Toluene-d8 (Surr)	74		50 ₋ 130	09/07/17 20:17	09/08/17 11:48	1
4-Bromofluorobenzene	100		57 - 140	09/07/17 20:17	09/08/17 11:48	1

General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.6		1.0	1.0	%			09/08/17 14:36	1
Percent Solids	94.4		1.0	1.0	%			09/08/17 14:36	1

Client Sample ID: MD01-NFP-1-2-09062017 Lab Sample ID: 600-153515-8

Date Collected: 09/06/17 13:30

Result Qualifier

4.3

95.7

Matrix: Solid Date Received: 09/07/17 10:41 Percent Solids: 93.6

Method: 8260B - Volatile Orga	inic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000986	U	0.00783	0.000986	mg/Kg	\	09/07/17 20:17	09/08/17 12:12	1
Ethylbenzene	0.00160	U	0.00783	0.00160	mg/Kg	₽	09/07/17 20:17	09/08/17 12:12	1
Toluene	0.00216	U	0.00783	0.00216	mg/Kg	₽	09/07/17 20:17	09/08/17 12:12	1
Xylenes, Total	0.00177	U	0.00783	0.00177	mg/Kg	*	09/07/17 20:17	09/08/17 12:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130				09/07/17 20:17	09/08/17 12:12	1

TestAmerica Houston

Dil Fac

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153515-1

Lab Sample ID: 600-153515-8

Lab Sample ID: 600-153515-9

Matrix: Solid

Percent Solids: 93.6

Client Sample ID: MD01-NFP-1-2-09062017 Date Collected: 09/06/17 13:30

Date Received: 09/07/17 10:41 Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

		· · · · · · · · · · · · · · · · · · ·				
Surrogate	%Recovery	Qualifier L	imits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	82	68	8 - 140	09/07/17 20:1	7 09/08/17 12:12	1
Toluene-d8 (Surr)	76	50	0 - 130	09/07/17 20:1	7 09/08/17 12:12	1
4-Bromofluorobenzene	100	57	7 - 140	09/07/17 20:1	7 09/08/17 12:12	1

General Chemistry Analyte	Result (Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.4		1.0	1.0	%			09/08/17 14:36	1
Percent Solids	93.6		1.0	1.0	%			09/08/17 14:36	1

Client Sample ID: MW48-NFP-1-2-09062017

Date Collected: 09/06/17 14:08	Matrix: Solid
Date Received: 09/07/17 10:41	Percent Solids: 95.9
Method: 9360P. Voletile Organic Compounds (CC/MS)	

Method: 8260B - Volatile Organic Compounds (GC/MS)												
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
	Benzene	0.00107	U	0.00847	0.00107	mg/Kg	\	09/07/17 20:17	09/08/17 12:35	1		
	Ethylbenzene	0.00173	U	0.00847	0.00173	mg/Kg	₩	09/07/17 20:17	09/08/17 12:35	1		
	Toluene	0.00234	U	0.00847	0.00234	mg/Kg	₩	09/07/17 20:17	09/08/17 12:35	1		
	Xylenes, Total	0.00191	U	0.00847	0.00191	mg/Kg	\$	09/07/17 20:17	09/08/17 12:35	1		
		0/	O	1 : : 4 -				D	A I I	D# E		

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		61 - 130	09/07/17 20:17	09/08/17 12:35	1
Dibromofluoromethane	88		68 - 140	09/07/17 20:17	09/08/17 12:35	1
Toluene-d8 (Surr)	77		50 - 130	09/07/17 20:17	09/08/17 12:35	1
4-Bromofluorobenzene	101		57 - 140	09/07/17 20:17	09/08/17 12:35	1
	1,2-Dichloroethane-d4 (Surr) Dibromofluoromethane Toluene-d8 (Surr)	1,2-Dichloroethane-d4 (Surr) 95 Dibromofluoromethane 88 Toluene-d8 (Surr) 77	1,2-Dichloroethane-d4 (Surr) 95 Dibromofluoromethane 88 Toluene-d8 (Surr) 77	1,2-Dichloroethane-d4 (Surr) 95 61 - 130 Dibromofluoromethane 88 68 - 140 Toluene-d8 (Surr) 77 50 - 130	1,2-Dichloroethane-d4 (Surr) 95 61 - 130 09/07/17 20:17 Dibromofluoromethane 88 68 - 140 09/07/17 20:17 Toluene-d8 (Surr) 77 50 - 130 09/07/17 20:17	1,2-Dichloroethane-d4 (Surr) 95 61 - 130 09/07/17 20:17 09/08/17 12:35 Dibromofluoromethane 88 68 - 140 09/07/17 20:17 09/08/17 12:35 Toluene-d8 (Surr) 77 50 - 130 09/07/17 20:17 09/08/17 12:35

General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.1		1.0	1.0	%			09/08/17 14:36	1
Percent Solids	95.9		1.0	1.0	%			09/08/17 14:36	1

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153515-1

Qualifiers

GC/MS VOA

U Indicates the analyte was analyzed for but not detected.

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Glossary

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Surrogate Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153515-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
		12DCE	DBFM	TOL	BFB				
b Sample ID	Client Sample ID	(61-130)	(68-140)	(50-130)	(57-140)				
0-153515-1	MW42-NFP-1-2-09062017	90	82	72	96				
-153515-2	MW44-NFP-1-2-09062017	79	77	74	98				
-153515-3	MW47-NFP-1-2-09062017	79	78	72	93				
)-153515-4	MW46NFP-1-2-09062017	83	82	72	94				
-153515-6	SB02-NFP-1-2-09062017	86	80	75	98				
153515-7	SB01-NFP-1-2-09062017	89	76	74	100				
153515-8	MD01-NFP-1-2-09062017	85	82	76	100				
153515-9	MW48-NFP-1-2-09062017	95	88	77	101				
600-220839/3	Lab Control Sample	85	81	79	103				
D 600-220839/4	Lab Control Sample Dup	87	85	79	107				
600-220839/6	Method Blank	91	76	67	96				

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

_		Percent Surrogate Recovery (Acceptance Limits)						
		12DCE	DBFM	TOL	BFB			
Lab Sample ID	Client Sample ID	(50-134)	(62-130)	(70-130)	(67-139)			
600-153515-5	TB02-NFP-1-2-09062017	69	83	116	98			
LCS 600-220838/3	Lab Control Sample	70	91	100	80			
LCSD 600-220838/4	Lab Control Sample Dup	74	96	105	87			
MB 600-220838/5	Method Blank	75	87	113	98			

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

TestAmerica Houston

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Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153515-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-220838/5

Matrix: Water

Analysis Batch: 220838

Client Sample ID: Method Blank

Prep Type: Total/NA

MB	MB							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
0.000176	U	0.00100	0.000176	mg/L			09/08/17 09:01	1
0.000212	U	0.00100	0.000212	mg/L			09/08/17 09:01	1
0.000198	U	0.00100	0.000198	mg/L			09/08/17 09:01	1
0.000366	U	0.00200	0.000366	mg/L			09/08/17 09:01	1
	Result 0.000176 0.000212 0.000198	MB Result Qualifier 0.000176 U 0.000212 U 0.000198 U 0.000366 U	Result Qualifier RL 0.000176 U 0.00100 0.000212 U 0.00100 0.000198 U 0.00100	Result Qualifier RL MDL 0.000176 U 0.00100 0.000176 0.000212 U 0.00100 0.000212 0.000198 U 0.00100 0.000198	Result Qualifier RL MDL Unit 0.000176 U 0.00100 0.000176 mg/L 0.000212 U 0.00100 0.000212 mg/L 0.000198 U 0.00100 0.000198 mg/L	Result Qualifier RL MDL Unit D 0.000176 U 0.00100 0.000176 mg/L 0.000212 U 0.00100 0.000212 mg/L 0.000198 U 0.00100 0.000198 mg/L	Result Qualifier RL MDL Unit D Prepared 0.000176 U 0.00100 0.000176 mg/L 0.000212 U 0.00100 0.000212 mg/L 0.000198 U 0.00100 0.000198 mg/L	Result Qualifier RL MDL Unit D Prepared Analyzed 0.000176 U 0.00100 0.000176 mg/L 09/08/17 09:01 0.000212 U 0.00100 0.000212 mg/L 09/08/17 09:01 0.000198 U 0.00100 0.000198 mg/L 09/08/17 09:01

	MB MB				
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	75	50 - 134		09/08/17 09:01	1
Dibromofluoromethane	87	62 - 130		09/08/17 09:01	1
Toluene-d8 (Surr)	113	70 - 130		09/08/17 09:01	1
4-Bromofluorobenzene	98	67 - 139		09/08/17 09:01	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 220838

Matrix: Water

Lab Sample ID: LCS 600-220838/3

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits 0.0100 Benzene 0.009400 mg/L 94 70 - 130 Ethylbenzene 0.0100 0.01031 mg/L 103 70 - 130 0.0100 Toluene 0.01043 mg/L 104 70 - 130 0.0200 Xylenes, Total 0.01997 mg/L 100 70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	70		50 - 134
Dibromofluoromethane	91		62 - 130
Toluene-d8 (Surr)	100		70 - 130
4-Bromofluorobenzene	80		67 - 139

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Water Analysis Batch: 220838

Lab Sample ID: LCSD 600-220838/4

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	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0100	0.009904		mg/L		99	70 - 130	5	20
Ethylbenzene	0.0100	0.01082		mg/L		108	70 - 130	5	20
Toluene	0.0100	0.01115		mg/L		111	70 - 130	7	20
Xylenes, Total	0.0200	0.02149		mg/L		107	70 - 130	7	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	74		50 - 134
Dibromofluoromethane	96		62 - 130
Toluene-d8 (Surr)	105		70 - 130
4-Bromofluorobenzene	87		67 - 139

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153515-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-220839/6

Matrix: Solid

Analysis Batch: 220839

Client Sample ID: Method Blank

Prep Type: Total/NA

мв мв MDL Unit Result Qualifier RLD Prepared Dil Fac Analyte Analyzed Benzene 0.000630 U 0.00500 0.000630 mg/Kg 09/08/17 09:05 Ethylbenzene 0.00102 U 0.00500 0.00102 mg/Kg 09/08/17 09:05 Toluene 0.00138 U 0.00500 0.00138 mg/Kg 09/08/17 09:05 Xylenes, Total 0.00113 U 0.00500 0.00113 mg/Kg 09/08/17 09:05

> MB MB %Recovery Qualifier Limits Prepared Dil Fac Analyzed 91 61 - 130 09/08/17 09:05 76 68 - 140 09/08/17 09:05 50 - 130 09/08/17 09:05 67 09/08/17 09:05 96 57 - 140

Lab Sample ID: LCS 600-220839/3

Matrix: Solid

Surrogate

Analysis Batch: 220839

1,2-Dichloroethane-d4 (Surr)

Dibromofluoromethane

4-Bromofluorobenzene

Toluene-d8 (Surr)

Client Sample ID: Lab Control Sample Prep Type: Total/NA

LCS LCS %Rec. Spike Analyte Added %Rec Limits Result Qualifier Unit Benzene 0.0500 0.04710 94 70 - 131 mg/Kg Ethylbenzene 0.0500 0.04013 mg/Kg 80 66 - 130 Toluene 0.0500 0.04171 67 - 130 mg/Kg 83 Xylenes, Total 0.100 0.08172 mg/Kg 82 63 - 130

LCS LCS Qualifier Limits Surrogate %Recovery 1,2-Dichloroethane-d4 (Surr) 85 61 - 130 Dibromofluoromethane 81 68 - 140 79 50 - 130 Toluene-d8 (Surr) 57 - 140 4-Bromofluorobenzene 103

Lab Sample ID: LCSD 600-220839/4

Matrix: Solid

Analysis Batch: 220839

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

•	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.05044		mg/Kg		101	70 - 131	7	30
Ethylbenzene	0.0500	0.04349		mg/Kg		87	66 - 130	8	30
Toluene	0.0500	0.04448		mg/Kg		89	67 - 130	6	30
Xylenes, Total	0.100	0.08709		mg/Kg		87	63 - 130	6	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		61 - 130
Dibromofluoromethane	85		68 ₋ 140
Toluene-d8 (Surr)	79		50 ₋ 130
4-Bromofluorobenzene	107		57 ₋ 140

QC Association Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153515-1

GC/MS VOA

Analysis Batch: 220838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
600-153515-5	TB02-NFP-1-2-09062017	Total/NA	Water	8260B
MB 600-220838/5	Method Blank	Total/NA	Water	8260B
LCS 600-220838/3	Lab Control Sample	Total/NA	Water	8260B
LCSD 600-220838/4	Lab Control Sample Dup	Total/NA	Water	8260B

Analysis Batch: 220839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153515-1	MW42-NFP-1-2-09062017	Total/NA	Solid	8260B	220854
600-153515-2	MW44-NFP-1-2-09062017	Total/NA	Solid	8260B	220854
600-153515-3	MW47-NFP-1-2-09062017	Total/NA	Solid	8260B	220854
600-153515-4	MW46NFP-1-2-09062017	Total/NA	Solid	8260B	220854
600-153515-6	SB02-NFP-1-2-09062017	Total/NA	Solid	8260B	220854
600-153515-7	SB01-NFP-1-2-09062017	Total/NA	Solid	8260B	220854
600-153515-8	MD01-NFP-1-2-09062017	Total/NA	Solid	8260B	220854
600-153515-9	MW48-NFP-1-2-09062017	Total/NA	Solid	8260B	220854
MB 600-220839/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-220839/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-220839/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 220854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153515-1	MW42-NFP-1-2-09062017	Total/NA	Solid	5035_ASP	
600-153515-2	MW44-NFP-1-2-09062017	Total/NA	Solid	5035_ASP	
600-153515-3	MW47-NFP-1-2-09062017	Total/NA	Solid	5035_ASP	
600-153515-4	MW46NFP-1-2-09062017	Total/NA	Solid	5035_ASP	
600-153515-6	SB02-NFP-1-2-09062017	Total/NA	Solid	5035_ASP	
600-153515-7	SB01-NFP-1-2-09062017	Total/NA	Solid	5035_ASP	
600-153515-8	MD01-NFP-1-2-09062017	Total/NA	Solid	5035_ASP	
600-153515-9	MW48-NFP-1-2-09062017	Total/NA	Solid	5035_ASP	

General Chemistry

Analysis Batch: 220903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153515-1	MW42-NFP-1-2-09062017	Total/NA	Solid	2540B	<u> </u>
600-153515-2	MW44-NFP-1-2-09062017	Total/NA	Solid	2540B	
600-153515-3	MW47-NFP-1-2-09062017	Total/NA	Solid	2540B	
600-153515-4	MW46NFP-1-2-09062017	Total/NA	Solid	2540B	
600-153515-6	SB02-NFP-1-2-09062017	Total/NA	Solid	2540B	
600-153515-7	SB01-NFP-1-2-09062017	Total/NA	Solid	2540B	
600-153515-8	MD01-NFP-1-2-09062017	Total/NA	Solid	2540B	
600-153515-9	MW48-NFP-1-2-09062017	Total/NA	Solid	2540B	

TestAmerica Houston

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TestAmerica Job ID: 600-153515-1

Client Sample ID: MW42-NFP-1-2-09062017

Date Collected: 09/06/17 08:22 Date Received: 09/07/17 10:41

Lab Sample ID: 600-153515-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			220903	09/08/17 14:36	B1K	TAL HOU

Lah Sample ID: 600-153515-1 Client Sample ID: MW42-NFP-1-2-09062017

Date Collected: 09/06/17 08:22

Date Received: 09/07/17 10:41

Lab Sample ID.	000-153515-1
	Matrix: Solid

Percent Solids: 92.9

l		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
l	Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
l	Total/NA	Prep	5035_ASP			2.581 g	5 mL	220854	09/07/17 20:17	WS1	TAL HOU
١	Total/NA	Analysis	8260B		1	5 g	5 g	220839	09/08/17 09:52	WS1	TAL HOU

Client Sample ID: MW44-NFP-1-2-09062017

Batch

Batch

Date Collected: 09/06/17 09:25

Date Received: 09/07/17 10:41

Lab Sample ID: 600-1535	515-2
Matrix:	Solid

Batch Prepared or Analyzed Analyst Lab

Lab Sample ID: 600-153515-2

Method Amount Amount Number Prep Type Type Run Factor Total/NA Analysis 2540B 220903 09/08/17 14:36 B1K TAL HOU

Initial

Final

Dil

Client Sample ID: MW44-NFP-1-2-09062017

Date Collected: 09/06/17 09:25 **Matrix: Solid** Percent Solids: 95.2 Date Received: 09/07/17 10:41

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			2.763 g	5 mL	220854	09/07/17 20:17	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220839	09/08/17 10:15	WS1	TAL HOU

Client Sample ID: MW47-NFP-1-2-09062017

Date Collected: 09/06/17 10:25

Date Received: 09/07/17 10:41

-	_										
		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
	Total/NA	Analysis	2540B		1			220903	09/08/17 14:36	B1K	TAL HOU

Lab Sample ID: 600-153515-3 Client Sample ID: MW47-NFP-1-2-09062017

Date Collected: 09/06/17 10:25

Matrix: Solid Date Received: 09/07/17 10:41 Percent Solids: 95.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			3.1 g	5 mL	220854	09/07/17 20:17	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220839	09/08/17 10:38	WS1	TAL HOU

TestAmerica Houston

Lab Sample ID: 600-153515-3 Matrix: Solid

TestAmerica Job ID: 600-153515-1

Lab Sample ID: 600-153515-4

Client Sample ID: MW46--NFP-1-2-09062017 Date Collected: 09/06/17 11:30 Matrix: Solid

Date Received: 09/07/17 10:41

		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
l	Total/NA	Analysis	2540B		1			220903	09/08/17 14:36	B1K	TAL HOU

Client Sample ID: MW46--NFP-1-2-09062017 Lab Sample ID: 600-153515-4

Date Collected: 09/06/17 11:30	Matrix: Solid
Date Received: 09/07/17 10:41	Percent Solids: 97.4

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.595 g	5 mL	220854	09/07/17 20:17	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220839	09/08/17 11:02	WS1	TAL HOU

Client Sample ID: TB02-NFP-1-2-09062017 Lab Sample ID: 600-153515-5 Matrix: Water

Date Collected: 09/06/17 11:20

Date Received: 09/07/17 10:41

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	220838	09/08/17 09:38	WS1	TAL HOU

Client Sample ID: SB02-NFP-1-2-09062017 Lab Sample ID: 600-153515-6 **Matrix: Solid**

Date Collected: 09/06/17 12:40

Date Received: 09/07/17 10:41

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			220903	09/08/17 14:36	B1K	TAL HOU

Client Sample ID: SB02-NFP-1-2-09062017 Lab Sample ID: 600-153515-6

Date Collected: 09/06/17 12:40

Date Received	i: 09/07/17 10:4	1							Percent	Solids: 9	5.7
	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Pren Tyne	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	∆nalvst	Lah	

	Datcii	Datcii		DII	IIIIIIai	rillai	Datcii	Prepareu		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.631 g	5 mL	220854	09/07/17 20:17	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220839	09/08/17 11:25	WS1	TAL HOU

Client Sample ID: SB01-NFP-1-2-09062017 Lab Sample ID: 600-153515-7

Date Collected: 09/06/17 13:25 Date Received: 09/07/17 10:41

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			220903	09/08/17 14:36	B1K	TAL HOU

TestAmerica Houston

Matrix: Solid

Matrix: Solid

Released to Imaging: 10/26/2022 7:32:21 AM

TestAmerica Job ID: 600-153515-1

Lab Sample ID: 600-153515-7

Lab Sample ID: 600-153515-8

Lab Sample ID: 600-153515-8

Lab Sample ID: 600-153515-9

Lab Sample ID: 600-153515-9

Matrix: Solid

Percent Solids: 94.4

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Percent Solids: 95.9

Percent Solids: 93.6

Client Sample ID: SB01-NFP-1-2-09062017 Date Collected: 09/06/17 13:25 Date Received: 09/07/17 10:41

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.662 g	5 mL	220854	09/07/17 20:17	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220839	09/08/17 11:48	WS1	TAL HOU

Client Sample ID: MD01-NFP-1-2-09062017

Date Collected: 09/06/17 13:30

Date Received: 09/07/17 10:41

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			220903	09/08/17 14:36	B1K	TAL HOU

Client Sample ID: MD01-NFP-1-2-09062017

Date Collected: 09/06/17 13:30

Date Received: 09/07/17 10:41

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			3.413 g	5 mL	220854	09/07/17 20:17	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220839	09/08/17 12:12	WS1	TAL HOU

Client Sample ID: MW48-NFP-1-2-09062017

Date Collected: 09/06/17 14:08

Date Received: 09/07/17 10:41

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			220903	09/08/17 14:36	B1K	TAL HOU

Client Sample ID: MW48-NFP-1-2-09062017

Date Collected: 09/06/17 14:08

Date Received: 09/07/17 10:41

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			3.079 g	5 mL	220854	09/07/17 20:17	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 q	5 q	220839	09/08/17 12:35	WS1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153515-1

Laboratory: TestAmerica Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

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5310 Rothway Street Houston, TX 77040 Phone (713) 690-444 Fax (713) 690-5646	0	Chain of Custody Record	of Cus	tody R	ecord					I GST,	estamerico	013
Client Information	SamperForsbe	Sperio		Lat P Upto	M. n. Cathy L		Lab PM: Upton, Cathy L	Carrier Tra	Carrier Tracking No(s)	COC No 600-36947-10949	0949.1	
Client Contact Aleeca Forsberg	Phothe 5.05 919	16	8	E-Ma cath	ı. /.upton@te	stamer	icainc.com	4	14 PS 11054024	VZ Page 1 of 1		
Sompany: CH2M Hill, Inc.							Analysis	is Requested		,40p #		
Address. 3721 Rutledge Rd. NE Suite B-1	Due Date Requested:	:pe								Preservation Codes	Codes:	Г
City. Albuquerque	TAT Requested (days):	ıys):								B - NaOH C - Zn Acetate	N - None O - AsNaO2	
State, Zip NM, 87109	10 BD Prelim; 14	m; 14 BD Le	BD Level3 Package (3e)	age (3e)		(D - Nifric Acid E - NaHSO4	P - Na204S Q - Na2SO3	
Phorie: 281-721-8546(Tel)	PO# WD293112				(0	eahst			_	G - Amchlor H - Ascorbic Acid	R - Na2S2SO3 S - H2SO4 Id T - TSP Dodecanvdrate	9,0
Email: Aleeca Forsberg@CH2M.com	#OM					ногр-		-		-0.20		
Project Name: Kinder Morgan Bloomfield, NM NFP	HOUSTON Project # 60004617	#				тяон				K-EDTA L-EDA	W - ph 4-5 Z - other (specify)	
Site: BTEX Soils	SSOW#					(S) X3T	e)			of con		
Sample Identification	Sample Date	Sample	Sample Type (C=comp, G=grab)	Matrix (Wawater, Sasolid, Owwastefoll, BT=Tissue, &-Aur)	Field Filtered W/SM mnohe9 S	8 - 9005_80958	Percent Moistur	31AW 318 - LL - B18		Total Number	Special Instructions/Note:	
	\bigvee	X	Preservation Code	tion Code:		z	100 601 10	4				T
LIW42-NFP-1-2-09062017	9/6/17	982	9	Soil	72	1	×			*** 48Hr H	*** 48Hr Holding Time	
NEV	-	BB	9	Soil	マス	×	X			From Sam	From Sample Collection	T
MW47-NFP-1-2-19062017		1025	9	Soil	ユマ	X	X				_	
MW46-NFP-1-2-09062017		18	9	Soil	72	×	×				1	
TRO2-NFP-1-2-09062017		1120	6	MARK	2			×		2915		T
SEO2-NF2-1-2-09062017		1240	9	Soil	ンフ	X	X				,	
SPOI-NFP-1-2-09062017		1325	9	Soil	2	×	*				pots	
M DOI-NPP-1-2-0906 2017		1330	9	Soil	2	×	×				nO Jo	
WW46-NFB-1-2-09106297		1408	9	Soil		X	×				uisu	
- 10000 FEB	+		0	Soil		×	X		9	4	091	
SEAS NFP-1-2 0006201	1		9	Wate		X	×			To the same of the	932	
,		l hand			Sampl	Dispo	sal (A fee n	Sample Disposal (A fee may be assessed if samples are retained longer	if samples are	etained longer	1-009	Γ
sted 1, II, IV, Other (specify)) allowed		annoidicai		Specia	Instruc	Special Instructions/QC Requirements	Ursposal by Lab	y Lab	AICHIVE FOR	-	T
Empty Kit Relinquished by:		Date			Time:			Meth	Method of Shipment			T
Reinquision of M. McCa Gichery	Date/Time	Crol		Company	Rec	Received by.	SIR		Date/Time	16 10.41	Company	
Relinquishled by	DateCrime			Company	Rec	Received by			Date/Time.		Company	
Relinquished by:	Date/Time			Company	Rec	Received by			Date/Time		Company	Γ
Custody Seals Intact: Custody Seal No:					Coo	ler Temp	erature(s) °C an	Cooler Temperature(s) °C and Other Remarks				Γ
						ŀ	1	1				7

TestAmerica Houston

Loc: 600 153515

Sample Receipt Checklist

THE LEADER IN ENVIRONMENTAL TESTING

			Date/Time Received:			
OB NUMBER: _		1	CLIENT:	CI	13M (4/11 ,175EP
NPACKED BY: _	Terem	y Shil	CARRIER/DRIVER:	F	ed-EX	
ustody Seal Present	YES	□ио	Number of Coolers Re	eceived:		\
Cooler ID	Temp	Trip Blank	Observed Temp (℃)	Therm	Them	Corrected Tem
GRIV	(Y I N	Y / N	- 576	0.0		
O I I	Y / N	Y / N	0.2	676	0,0	0.2
	Y / N	YIN			->	
	YIN	VIN			/	
	YTN	YIN				the second section of the second
	Y / N/	YIN		/		
	YIN	YIN			of marks to market the	1014
	Y / N	Y / N				
	Y / N	Y / N				
ABORATORY PRES	SERVATION OF		EQUIRED: 7NO		□ YES	□NO
ABORATORY PRES ase samples are>pH	SERVATION OF	SAMPLES RI	Acid preserved are <pl< th=""><th>H 2: </th><th></th><th>□ NO YES NO</th></pl<>	H 2:		□ NO YES NO
ABORATORY PRES ase samples are>pH H paper Lot # OA headspace accep	12: YES [otable (5-6mm):	SAMPLES RI	Acid preserved are <pl< td=""><td>H2:</td><td>YES</td><td></td></pl<>	H2:	YES	
ABORATORY PRES ase samples are>pH H paper Lot # OA headspace accep	12: YES [otable (5-6mm):	SAMPLES RI	Acid preserved are <pl< td=""><td>H2:</td><td>YES</td><td>YES NO</td></pl<>	H2:	YES	YES NO
ABORATORY PRES ase samples are>pH H paper Lot # OA headspace accep Did samples meet the	12: YES [otable (5-6mm):	SAMPLES RI	Acid preserved are <pl< td=""><td>H2:</td><td>YES</td><td></td></pl<>	H2:	YES	
ABORATORY PRES ase samples are>pH H paper Lot # OA headspace accept Did samples meet the	table (5-6mm):	SAMPLES RI	Acid preserved are <pl< td=""><td>pon receipt?</td><td>YES</td><td>YES NO</td></pl<>	pon receipt?	YES	YES NO
ABORATORY PRES ase samples are>pH H paper Lot # OA headspace accept Did samples meet the	table (5-6mm):	SAMPLES RI	Acid preserved are <ple>NO</ple>	P 10:30Å	YES	YES NO
	table (5-6mm):	SAMPLES RI	Acid preserved are <pl< td=""><td>P 10:30Å</td><td>YES</td><td>YES NO</td></pl<>	P 10:30Å	YES	YES NO
ABORATORY PRES ase samples are>pH H paper Lot # OA headspace accept Did samples meet the	table (5-6mm):	SAMPLES RID NO YES Dard conditions	Acid preserved are <ple>NO</ple>	pon receipt? P 10:30A ERNIGHT	YES	YES NO
ABORATORY PRES ase samples are>pH H paper Lot # OA headspace accep Did samples meet the	table (5-6mm):	SAMPLES RID NO YES Dard conditions	Acid preserved are <ple>NO</ple>	P 10:30A ERNIGHT	YES	YES NO
ABORATORY PRES ase samples are>pH H paper Lot # OA headspace accep Did samples meet the	table (5-6mm):	SAMPLES RID NO YES Dard conditions	Acid preserved are <ple>NO</ple>	P 10:30A RNIGHT	YES	YES NO

HS-SA-WI-013

Released to Imaging: 10/26/2022 7:32:21 AM

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Rev. 3; 07/01/2014 12/10/2020 (Rev. 1)

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 600-153515-1

Login Number: 153515 List Source: TestAmerica Houston

List Number: 1

Creator: Kovitch, Christina M

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.2°C IR676
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

TestAmerica Houston

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Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

Laboratory Job ID: 600-153582-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP

Revision: 1

For:

CH2M Hill Constructors, Inc. 14701 St. Mary's Lane Suite 300 Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Star A Stephul

Authorized for release by: 12/10/2020 10:01:14 AM Steve Stepanski, Project Mgmt. Assistant (713)690-4444 steve.stepanski@Eurofinset.com

Designee for

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

Total Access

Have a Question?

..... LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Released to Imaging: 10/26/2022 7:32:21 AM

Laboratory Job ID: 600-153582-1

Client: CH2M Hill Constructors, Inc. Project/Site: Kinder Morgan Bloomfield, NM NFP

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Case Narrative

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-153582-1

Job ID: 600-153582-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-153582-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/8/2017 10:22 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6° C.

Receipt Exceptions

Method(s) 5035, 8260B: For the following sample we received one of the vials with the stir bar broken: MW40-NFP-29-30-09072017 (600-153582-5). Sufficient volume remaining for analysis.

GC/MS VOA

Method(s) 8260B: The 1,4-Dichlorobenzene-d4 Internal standard responses were above acceptance criteria for samples MW40-NFP-11-12-09072017 (600-153582-3) and MW40-NFP-19-20-09072017 (600-153582-4). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

MethodMethod DescriptionProtocolLaboratory8260BVolatile Organic Compounds (GC/MS)SW846TAL HOU2540BPercent MoistureSM20TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

 $\hbox{\it Client: CH2M Hill Constructors, Inc.}\\$

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-153582-1	TB03-NFP-09072017	Water	09/07/17 08:00	09/08/17 10:22
600-153582-2	SB03-NFP-1-2-09072017	Solid	09/07/17 08:10	09/08/17 10:22
600-153582-3	MW40-NFP-11-12-09072017	Solid	09/07/17 09:30	09/08/17 10:22
600-153582-4	MW40-NFP-19-20-09072017	Solid	09/07/17 09:35	09/08/17 10:22
600-153582-5	MW40-NFP-29-30-09072017	Solid	09/07/17 09:50	09/08/17 10:22
600-153582-6	MW40-NFP-39-40-09072017	Solid	09/07/17 10:10	09/08/17 10:22
600-153582-7	MW40-NFP-50-51-09072017	Solid	09/07/17 10:50	09/08/17 10:22
600-153582-8	MW40-NFP-57-58-09072017	Solid	09/07/17 12:50	09/08/17 10:22
600-153582-9	MD05-NFP-57-58-09072017	Solid	09/07/17 12:55	09/08/17 10:22

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Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Client Sample ID: TB03-NFP-09072017

TestAmerica Job ID: 600-153582-1

Lab Sample ID: 600-153582-1

Matrix: Water

Date Collected: 09/07/17 08:00 Date Received: 09/08/17 10:22

Method: 8260B - Volatile Orga	anic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/09/17 16:34	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/09/17 16:34	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/09/17 16:34	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/09/17 16:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		50 - 134			-		09/09/17 16:34	1
Dibromofluoromethane	88		62 - 130					09/09/17 16:34	1
Toluene-d8 (Surr)	109		70 - 130					09/09/17 16:34	1
4-Bromofluorobenzene	94		67 - 139					09/09/17 16:34	1

Client Sample ID: SB03-NFP-1-2-09072017

Date Collected: 09/07/17 08:10

Date Received: 09/08/17 10:22

Lab Sample ID: 600-153582-2

Matrix: Solid Percent Solids: 88.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

ı	Wethou. 6260B - Volatile Organic C	onipounus (GC/IVIO)							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	0.000624	U	0.00495	0.000624	mg/Kg	-	09/08/17 19:00	09/11/17 14:51	1
	Ethylbenzene	0.00101	U	0.00495	0.00101	mg/Kg	₩	09/08/17 19:00	09/11/17 14:51	1
	Toluene	0.00137	U	0.00495	0.00137	mg/Kg	₩	09/08/17 19:00	09/11/17 14:51	1
	Xylenes, Total	0.00112	U	0.00495	0.00112	mg/Kg	₩	09/08/17 19:00	09/11/17 14:51	1
ı										

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88	61 - 130	09/08/17 19:00	09/11/17 14:51	1
Dibromofluoromethane	77	68 - 140	09/08/17 19:00	09/11/17 14:51	1
Toluene-d8 (Surr)	84	50 - 130	09/08/17 19:00	09/11/17 14:51	1
4-Bromofluorobenzene	101	57 - 140	09/08/17 19:00	09/11/17 14:51	1

General Chemistry Analyte	Result Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.9	1.0	1.0 %			09/11/17 16:23	1
Percent Solids	88 1	1.0	10 %			09/11/17 16:23	1

Client Sample ID: MW40-NFP-11-12-09072017

Date Collected: 09/07/17 09:30

Date Received: 09/08/17 10:22

Lab Sample II	D: 600-153582-3
---------------	-----------------

Percent Solids: 92.9

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000576	U	0.00457	0.000576	mg/Kg	₩	09/08/17 19:00	09/11/17 15:16	1
Ethylbenzene	0.000933	U	0.00457	0.000933	mg/Kg	₩	09/08/17 19:00	09/11/17 15:16	1
Toluene	0.00126	U	0.00457	0.00126	mg/Kg	₩	09/08/17 19:00	09/11/17 15:16	1
Xylenes, Total	0.00103	U	0.00457	0.00103	mg/Kg	₽	09/08/17 19:00	09/11/17 15:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		61 - 130				09/08/17 19:00	09/11/17 15:16	1
Dibromofluoromethane	77		68 - 140				09/08/17 19:00	09/11/17 15:16	1
Toluene-d8 (Surr)	85		50 - 130				09/08/17 19:00	09/11/17 15:16	1
4-Bromofluorobenzene	79	*	57 - 140				09/08/17 19:00	09/11/17 15:16	1

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

Client Sample ID: MW40-NFP-11-12-09072017

Date Collected: 09/07/17 09:30 Date Received: 09/08/17 10:22

Lab Sample ID: 600-153582-3

Matrix: Solid Percent Solids: 92.9

General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.1		1.0	1.0	%			09/11/17 16:23	1
Percent Solids	92.9		1.0	1.0	%			09/11/17 16:23	1

Client Sample ID: MW40-NFP-19-20-09072017 Lab Sample ID: 600-153582-4

Date Collected: 09/07/17 09:35 Date Received: 09/08/17 10:22

Matrix: Solid Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000593	U	0.00471	0.000593	mg/Kg	\$	09/08/17 19:00	09/11/17 15:41	1
Ethylbenzene	0.000960	U	0.00471	0.000960	mg/Kg	₽	09/08/17 19:00	09/11/17 15:41	1
Toluene	0.00130	U	0.00471	0.00130	mg/Kg	₽	09/08/17 19:00	09/11/17 15:41	1
Xylenes, Total	0.00106	U	0.00471	0.00106	mg/Kg	\$	09/08/17 19:00	09/11/17 15:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130				09/08/17 19:00	09/11/17 15:41	1
Dibromofluoromethane	76		68 - 140				09/08/17 19:00	09/11/17 15:41	1
Toluene-d8 (Surr)	86		50 - 130				09/08/17 19:00	09/11/17 15:41	1
4-Bromofluorobenzene	91		57 - 140				09/08/17 19:00	09/11/17 15:41	

General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.8		1.0	1.0	%			09/11/17 16:23	1
Percent Solids	83.2		1.0	1.0	%			09/11/17 16:23	1

Client Sample ID: MW40-NFP-29-30-09072017

Method: 8260B - Volatile Organic Compounds (GC/MS)

5.5

94.5

Date Collected: 09/07/17 09:50 Date Received: 09/08/17 10:22

Percent Moisture Percent Solids

Released to Imaging: 10/26/2022 7:32:21 AM

Lab Sample ID: 600-153582-5 **Matrix: Solid**

Percent Solids: 94.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000655	U	0.00520	0.000655	mg/Kg	₩	09/08/17 19:00	09/10/17 16:21	1
Ethylbenzene	0.00106	U	0.00520	0.00106	mg/Kg	₽	09/08/17 19:00	09/10/17 16:21	1
Toluene	0.00144	U	0.00520	0.00144	mg/Kg	₽	09/08/17 19:00	09/10/17 16:21	1
Xylenes, Total	0.00118	U	0.00520	0.00118	mg/Kg	₩	09/08/17 19:00	09/10/17 16:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		61 - 130				09/08/17 19:00	09/10/17 16:21	1
Dibromofluoromethane	87		68 - 140				09/08/17 19:00	09/10/17 16:21	1
Toluene-d8 (Surr)	88		50 - 130				09/08/17 19:00	09/10/17 16:21	1
4-Bromofluorobenzene	98		57 - 140				09/08/17 19:00	09/10/17 16:21	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

1.0

1.0

1.0 %

1.0 %

TestAmerica Houston

09/11/17 16:23

09/11/17 16:23

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

Lab Sample ID: 600-153582-6

Matrix: Solid Percent Solids: 80.3

Client Sample ID: MW40-NFP-39-40-09072017	Lab S
Date Collected: 09/07/17 10:10	

Date Received: 09/08/17 10:22

Method: 8260B - Volatile Organic (Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000627	U	0.00498	0.000627	mg/Kg	₩	09/08/17 19:00	09/11/17 16:06	1
Ethylbenzene	0.00102	U	0.00498	0.00102	mg/Kg	₽	09/08/17 19:00	09/11/17 16:06	1
Toluene	0.00137	U	0.00498	0.00137	mg/Kg	₽	09/08/17 19:00	09/11/17 16:06	1
Xylenes, Total	0.00113	U	0.00498	0.00113	mg/Kg	☼	09/08/17 19:00	09/11/17 16:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84	61 - 130	09/08/17 19:00	09/11/17 16:06	1
Dibromofluoromethane	78	68 - 140	09/08/17 19:00	09/11/17 16:06	1
Toluene-d8 (Surr)	87	50 - 130	09/08/17 19:00	09/11/17 16:06	1
4-Bromofluorobenzene	105	57 - 140	09/08/17 19:00	09/11/17 16:06	1

General Chemistry Analyte RL Result Qualifier **RL** Unit Prepared Analyzed Dil Fac 1.0 % **Percent Moisture** 19.7 1.0 09/11/17 16:23 **Percent Solids** 80.3 1.0 1.0 % 09/11/17 16:23

Client Sample ID: MW40-NFP-50-51-09072017 Lab Sample ID: 600-153582-7

Date Collected: 09/07/17 10:50 Matrix: Solid

Date Received: 09/08/17 10:22 Percent Solids: 90.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000603	U	0.00478	0.000603	mg/Kg	\	09/08/17 19:00	09/11/17 16:30	1
Ethylbenzene	0.000976	U	0.00478	0.000976	mg/Kg	₩	09/08/17 19:00	09/11/17 16:30	1
Toluene	0.00132	U	0.00478	0.00132	mg/Kg	₩	09/08/17 19:00	09/11/17 16:30	1
Xylenes, Total	0.00108	U	0.00478	0.00108	mg/Kg	₩.	09/08/17 19:00	09/11/17 16:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130	09/08/17 19:00	09/11/17 16:30	1
Dibromofluoromethane	76		68 - 140	09/08/17 19:00	09/11/17 16:30	1
Toluene-d8 (Surr)	84		50 - 130	09/08/17 19:00	09/11/17 16:30	1
4-Bromofluorobenzene	106		57 - 140	09/08/17 19:00	09/11/17 16:30	1

General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.8		1.0	1.0	%			09/11/17 16:23	1
Percent Solids	90.2		1.0	1.0	%			09/11/17 16:23	1

Client Sample ID: MW40-NFP-57-58-09072017 Lab Sample ID: 600-153582-8

Date Collected: 09/07/17 12:50 **Matrix: Solid** Date Received: 09/08/17 10:22 Percent Solids: 89.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000555	U	0.00440	0.000555	mg/Kg	\	09/08/17 19:00	09/11/17 16:55	1
Ethylbenzene	0.000898	U	0.00440	0.000898	mg/Kg	₽	09/08/17 19:00	09/11/17 16:55	1
Toluene	0.00122	U	0.00440	0.00122	mg/Kg	₽	09/08/17 19:00	09/11/17 16:55	1
Xylenes, Total	0.000995	U	0.00440	0.000995	mg/Kg	\$	09/08/17 19:00	09/11/17 16:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130				09/08/17 19:00	09/11/17 16:55	

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

Client Sample ID: MW40-NFP-57-58-09072017

Date Collected: 09/07/17 12:50 Date Received: 09/08/17 10:22

Lab Sample ID: 600-153582-8

Matrix: Solid Percent Solids: 89.7

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Dibromofluoromethane	79		68 - 140	09/08/17 19:00	09/11/17 16:55	1
	Toluene-d8 (Surr)	87		50 - 130	09/08/17 19:00	09/11/17 16:55	1
ı	4-Bromofluorobenzene	107		57 - 140	09/08/17 19:00	09/11/17 16:55	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.3		1.0	1.0	%			09/11/17 16:23	1
Percent Solids	89.7		1.0	1.0	%			09/11/17 16:23	1

Client Sample ID: MD05-NFP-57-58-09072017

Date Collected: 09/07/17 12:55

Date Received: 09/08/17 10:22

Lab Sample ID: 600-153582-9

Percent Solids: 87.8

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)											
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	Benzene	0.000564	U	0.00448	0.000564	mg/Kg		09/08/17 19:00	09/11/17 17:20	1	
	Ethylbenzene	0.000913	U	0.00448	0.000913	mg/Kg	₩	09/08/17 19:00	09/11/17 17:20	1	
	Toluene	0.00124	U	0.00448	0.00124	mg/Kg	₽	09/08/17 19:00	09/11/17 17:20	1	
	Xylenes, Total	0.00101	U	0.00448	0.00101	mg/Kg	₽	09/08/17 19:00	09/11/17 17:20	1	

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84	61 - 130	09/08/17 19:00	09/11/17 17:20	1
Dibromofluoromethane	78	68 - 140	09/08/17 19:00	09/11/17 17:20	1
Toluene-d8 (Surr)	86	50 - 130	09/08/17 19:00	09/11/17 17:20	1
4-Bromofluorobenzene	107	57 ₋ 140	09/08/17 19:00	09/11/17 17:20	1

General	Chemistry
Analyta	

	Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Percent Moisture	12.2		1.0	1.0	%			09/11/17 16:23	1
L	Percent Solids	87.8		1.0	1.0	%			09/11/17 16:23	1

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	ISTD response or retention time outside acceptable limits

Glossary

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
_OQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ИL	Minimum Level (Dioxin)
IC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

				Percent Sur	rrogate Reco
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(61-130)	(68-140)	(50-130)	(57-140)
600-153582-2	SB03-NFP-1-2-09072017	88	77	84	101
600-153582-3	MW40-NFP-11-12-09072017	83	77	85	79 *
600-153582-4	MW40-NFP-19-20-09072017	82	76	86	91 *
600-153582-5	MW40-NFP-29-30-09072017	89	87	88	98
600-153582-6	MW40-NFP-39-40-09072017	84	78	87	105
600-153582-7	MW40-NFP-50-51-09072017	86	76	84	106
600-153582-8	MW40-NFP-57-58-09072017	87	79	87	107
600-153582-9	MD05-NFP-57-58-09072017	84	78	86	107
LCS 600-220962/3	Lab Control Sample	82	89	102	106
LCS 600-220982/3	Lab Control Sample	92	82	94	120
LCSD 600-220962/4	Lab Control Sample Dup	81	85	103	108
LCSD 600-220982/4	Lab Control Sample Dup	92	84	96	122
MB 600-220962/6	Method Blank	97	89	84	95
MB 600-220982/6	Method Blank	108	86	85	111

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)						
		12DCE	DBFM	TOL	BFB				
Lab Sample ID	Client Sample ID	(50-134)	(62-130)	(70-130)	(67-139)				
600-153582-1	TB03-NFP-09072017	77	88	109	94				
LCS 600-220936/3	Lab Control Sample	80	102	104	91				
LCSD 600-220936/4	Lab Control Sample Dup	87	106	106	91				
MB 600-220936/5	Method Blank	80	91	112	97				

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

TestAmerica Houston

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Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-220936/5

Matrix: Water

Analysis Batch: 220936

Client Sample I	D: Method Blank
Pre	p Type: Total/NA

mg/L

mg/L

MB MB MDL Unit Result Qualifier RLD Prepared Dil Fac Analyte Analyzed Benzene 0.000176 U 0.00100 0.000176 mg/L 09/09/17 14:55 Ethylbenzene 0.000212 U 0.00100 0.000212 mg/L 09/09/17 14:55 Toluene 0.000198 U 0.00100 0.000198 mg/L 09/09/17 14:55 0.000366 U 0.000366 mg/L 09/09/17 14:55 Xylenes, Total 0.00200

MB MB Qualifier Surrogate Limits Prepared %Recovery Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 80 50 - 134 09/09/17 14:55 62 - 130 Dibromofluoromethane 91 09/09/17 14:55 Toluene-d8 (Surr) 70 - 130 09/09/17 14:55 112 4-Bromofluorobenzene 67 - 139 09/09/17 14:55 97

Lab Sample ID: LCS 600-220936/3

Matrix: Water

Toluene

Xylenes, Total

Analysis Batch: 220936								
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.0100	0.01067		mg/L		107	70 - 130	
Ethylbenzene	0.0100	0.01090		mg/L		109	70 - 130	

0.01134

0.02192

0.0100

0.0200

LCS LCS Qualifier Limits Surrogate %Recovery 1,2-Dichloroethane-d4 (Surr) 50 - 134 80 Dibromofluoromethane 102 62 - 130 Toluene-d8 (Surr) 104 70 - 130 67 - 139 4-Bromofluorobenzene 91

Lab Sample ID: LCSD 600-220936/4

Matrix: Water

Analysis Batch: 220936

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

113

110

Client Sample ID: Lab Control Sample

70 - 130

70 - 130

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0100	0.01107		mg/L		111	70 - 130	4	20
Ethylbenzene	0.0100	0.01161		mg/L		116	70 - 130	6	20
Toluene	0.0100	0.01186		mg/L		119	70 - 130	4	20
Xylenes, Total	0.0200	0.02327		mg/L		116	70 - 130	6	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		50 - 134
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	106		70 - 130
4-Bromofluorobenzene	91		67 - 139

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-220962/6

Lab Sample ID: LCS 600-220962/3

Matrix: Solid

Matrix: Solid

Analysis Batch: 220962

Analysis Batch: 220962

Client Sample ID: Method Blank

Prep Type: Total/NA

мв мв MDL Unit Dil Fac Analyte Result Qualifier RLD Prepared Analyzed Benzene 0.000630 U 0.00500 0.000630 mg/Kg 09/10/17 15:58 Ethylbenzene 0.00102 U 0.00500 0.00102 mg/Kg 09/10/17 15:58 Toluene 0.00138 U 0.00500 0.00138 mg/Kg 09/10/17 15:58 0.00113 mg/Kg Xylenes, Total 0.00113 U 0.00500 09/10/17 15:58

MB MB Surrogate %Recovery Qualifier Limits Prepared Dil Fac Analyzed 1,2-Dichloroethane-d4 (Surr) 97 61 - 130 09/10/17 15:58 Dibromofluoromethane 89 68 - 140 09/10/17 15:58 Toluene-d8 (Surr) 50 - 130 09/10/17 15:58 84 09/10/17 15:58 4-Bromofluorobenzene 95 57 - 140

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Limits

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Benzene 0.0500 0.03737 75 70 - 131 mg/Kg Ethylbenzene 0.0500 0.04142 mg/Kg 83 66 - 130 Toluene 0.0500 0.04005 80 67 - 130 mg/Kg Xylenes, Total 0.100 0.08134 mg/Kg 81 63 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	82		61 - 130
Dibromofluoromethane	89		68 - 140
Toluene-d8 (Surr)	102		50 - 130
4-Bromofluorobenzene	106		57 - 140

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 220962

Matrix: Solid

Lab Sample ID: LCSD 600-220962/4

LCSD LCSD %Rec. RPD Spike Analyte Added Result Qualifier %Rec Limits RPD Limit Unit Benzene 0.0500 0.04646 mg/Kg 93 70 - 131 30 22 0.0500 0.04964 99 30 Ethylbenzene 66 - 130 18 mg/Kg Toluene 0.0500 0.04828 mg/Kg 97 67 - 130 19 30 Xylenes, Total 0.100 0.09824 mg/Kg 98 63 - 130 19 30

LCSD LCSD

	LOOD	LOOD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	81		61 - 130
Dibromofluoromethane	85		68 ₋ 140
Toluene-d8 (Surr)	103		50 - 130
4-Bromofluorobenzene	108		57 ₋ 140

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-220982/6

Matrix: Solid

Analysis Batch: 220982

Client Sample ID: Method Blank

Prep Type: Total/NA

мв мв MDL Unit Analyte Result Qualifier RLD Prepared Dil Fac Analyzed Benzene 0.000630 U 0.00500 0.000630 mg/Kg 09/11/17 09:53 Ethylbenzene 0.00102 U 0.00500 0.00102 mg/Kg 09/11/17 09:53 Toluene 0.00138 U 0.00500 0.00138 mg/Kg 09/11/17 09:53 Xylenes, Total 0.00113 U 0.00500 0.00113 mg/Kg 09/11/17 09:53

MB MB Surrogate Qualifier Limits Prepared Dil Fac %Recovery Analyzed 1,2-Dichloroethane-d4 (Surr) 108 61 - 130 09/11/17 09:53 Dibromofluoromethane 86 68 - 140 09/11/17 09:53 50 - 130 Toluene-d8 (Surr) 85 09/11/17 09:53 09/11/17 09:53 4-Bromofluorobenzene 111 57 - 140

LCS LCS

0.04031

0.03920

0.03981

0.07846

Result Qualifier

mg/Kg

Spike

Added

0.0500

0.0500

0.0500

0.100

Lab Sample ID: LCS 600-220982/3

Matrix: Solid

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Analysis Batch: 220982

Client Sample ID: Lab Control Sample Prep Type: Total/NA

63 - 130

%Rec. %Rec Limits Unit 81 70 - 131 mg/Kg mg/Kg 78 66 - 130 67 - 130 mg/Kg 80

78

LCS LCS Qualifier Limits Surrogate %Recovery 1,2-Dichloroethane-d4 (Surr) 92 61 - 130 Dibromofluoromethane 82 68 - 140 50 - 130 Toluene-d8 (Surr) 94 57 - 140 4-Bromofluorobenzene 120

Lab Sample ID: LCSD 600-220982/4

Matrix: Solid

Analysis Batch: 220982

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04557		mg/Kg		91	70 - 131	12	30
Ethylbenzene	0.0500	0.04563		mg/Kg		91	66 - 130	15	30
Toluene	0.0500	0.04532		mg/Kg		91	67 - 130	13	30
Xylenes, Total	0.100	0.09170		mg/Kg		92	63 - 130	16	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		61 - 130
Dibromofluoromethane	84		68 - 140
Toluene-d8 (Surr)	96		50 ₋ 130
4-Bromofluorobenzene	122		57 - 140

QC Association Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

GC/MS VOA

Analysis Batch: 220936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
600-153582-1	TB03-NFP-09072017	Total/NA	Water	8260B
MB 600-220936/5	Method Blank	Total/NA	Water	8260B
LCS 600-220936/3	Lab Control Sample	Total/NA	Water	8260B
LCSD 600-220936/4	Lab Control Sample Dup	Total/NA	Water	8260B

Analysis Batch: 220962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153582-5	MW40-NFP-29-30-09072017	Total/NA	Solid	8260B	220966
MB 600-220962/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-220962/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-220962/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 220966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153582-2	SB03-NFP-1-2-09072017	Total/NA	Solid	5035_ASP	
600-153582-3	MW40-NFP-11-12-09072017	Total/NA	Solid	5035_ASP	
600-153582-4	MW40-NFP-19-20-09072017	Total/NA	Solid	5035_ASP	
600-153582-5	MW40-NFP-29-30-09072017	Total/NA	Solid	5035_ASP	
600-153582-6	MW40-NFP-39-40-09072017	Total/NA	Solid	5035_ASP	
600-153582-7	MW40-NFP-50-51-09072017	Total/NA	Solid	5035_ASP	
600-153582-8	MW40-NFP-57-58-09072017	Total/NA	Solid	5035_ASP	
600-153582-9	MD05-NFP-57-58-09072017	Total/NA	Solid	5035_ASP	

Analysis Batch: 220982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153582-2	SB03-NFP-1-2-09072017	Total/NA	Solid	8260B	220966
600-153582-3	MW40-NFP-11-12-09072017	Total/NA	Solid	8260B	220966
600-153582-4	MW40-NFP-19-20-09072017	Total/NA	Solid	8260B	220966
600-153582-6	MW40-NFP-39-40-09072017	Total/NA	Solid	8260B	220966
600-153582-7	MW40-NFP-50-51-09072017	Total/NA	Solid	8260B	220966
600-153582-8	MW40-NFP-57-58-09072017	Total/NA	Solid	8260B	220966
600-153582-9	MD05-NFP-57-58-09072017	Total/NA	Solid	8260B	220966
MB 600-220982/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-220982/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-220982/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

General Chemistry

Analysis Batch: 221062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153582-2	SB03-NFP-1-2-09072017	Total/NA	Solid	2540B	
600-153582-3	MW40-NFP-11-12-09072017	Total/NA	Solid	2540B	
600-153582-4	MW40-NFP-19-20-09072017	Total/NA	Solid	2540B	
600-153582-5	MW40-NFP-29-30-09072017	Total/NA	Solid	2540B	
600-153582-6	MW40-NFP-39-40-09072017	Total/NA	Solid	2540B	
600-153582-7	MW40-NFP-50-51-09072017	Total/NA	Solid	2540B	
600-153582-8	MW40-NFP-57-58-09072017	Total/NA	Solid	2540B	
600-153582-9	MD05-NFP-57-58-09072017	Total/NA	Solid	2540B	

TestAmerica Houston

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TestAmerica Job ID: 600-153582-1

Client Sample ID: TB03-NFP-09072017

Date Collected: 09/07/17 08:00 Date Received: 09/08/17 10:22

Lab Sample ID: 600-153582-1

Matrix: Water

Matrix: Solid

Batch Dil Initial Final Batch Batch Prepared Method Prep Type Type Run Factor Amount **Amount** Number or Analyzed Analyst Lab Total/NA Analysis 8260B 20 mL 20 mL 220936 09/09/17 16:34 WS1 TAL HOU

Client Sample ID: SB03-NFP-1-2-09072017 Lab Sample ID: 600-153582-2

Date Collected: 09/07/17 08:10

Date Received: 09/08/17 10:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221062	09/11/17 16:23	B1K	TAL HOU

Client Sample ID: SB03-NFP-1-2-09072017 Lab Sample ID: 600-153582-2

Date Collected: 09/07/17 08:10

Matrix: Solid Date Received: 09/08/17 10:22 Percent Solids: 88.1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.735 g	5 mL	220966	09/08/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220982	09/11/17 14:51	WS1	TAL HOU

Client Sample ID: MW40-NFP-11-12-09072017 Lab Sample ID: 600-153582-3

Date Collected: 09/07/17 09:30

Date Received: 09/08/17 10:22

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B	. ——— -	1			221062	09/11/17 16:23	B1K	TAL HOU

Client Sample ID: MW40-NFP-11-12-09072017 Lab Sample ID: 600-153582-3

Date Collected: 09/07/17 09:30

Date Received: 09/08/17 10:22

_										
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.885 g	5 mL	220966	09/08/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220982	09/11/17 15:16	WS1	TAL HOU

Lab Sample ID: 600-153582-4 Client Sample ID: MW40-NFP-19-20-09072017

Date Collected: 09/07/17 09:35 Date Received: 09/08/17 10:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221062	09/11/17 16:23	B1K	TAL HOU

TestAmerica Houston

Matrix: Solid

Matrix: Solid Percent Solids: 92.9

Matrix: Solid

Released to Imaging: 10/26/2022 7:32:21 AM

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

Client Sample ID: MW40-NFP-19-20-09072017 Date Collected: 09/07/17 09:35

Date Received: 09/08/17 10:22

Lab Sample ID: 600-153582-4 Matrix: Solid

Percent Solids: 83.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.385 g	5 mL	220966	09/08/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220982	09/11/17 15:41	WS1	TAL HOU

Client Sample ID: MW40-NFP-29-30-09072017 Lab Sample ID: 600-153582-5

Date Collected: 09/07/17 09:50 **Matrix: Solid**

Date Received: 09/08/17 10:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B	·	1			221062	09/11/17 16:23	B1K	TAL HOU

Client Sample ID: MW40-NFP-29-30-09072017 Lab Sample ID: 600-153582-5

Date Collected: 09/07/17 09:50 **Matrix: Solid**

Date Received: 09/08/17 10:22 Percent Solids: 94.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.09 g	5 mL	220966	09/08/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220962	09/10/17 16:21	WS1	TAL HOU

Client Sample ID: MW40-NFP-39-40-09072017 Lab Sample ID: 600-153582-6

Date Collected: 09/07/17 10:10 Date Received: 09/08/17 10:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	2540B					221062	09/11/17 16:23	B1K	TAL HOU	

Lab Sample ID: 600-153582-6 Client Sample ID: MW40-NFP-39-40-09072017

Date Collected: 09/07/17 10:10

Matrix: Solid Date Received: 09/08/17 10:22 Percent Solids: 80.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.251 g	5 mL	220966	09/08/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220982	09/11/17 16:06	WS1	TAL HOU

Client Sample ID: MW40-NFP-50-51-09072017 Lab Sample ID: 600-153582-7

Date Collected: 09/07/17 10:50 Matrix: Solid

Date Received: 09/08/17 10:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221062	09/11/17 16:23	B1K	TAL HOU

TestAmerica Houston

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Percent Solids: 87.8

Percent Solids: 89.7

Lab Chronicle

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Client Sample ID: MW40-NFP-50-51-09072017

TestAmerica Job ID: 600-153582-1

Lab Sample ID: 600-153582-7

Lab Sample ID: 600-153582-8

Lab Sample ID: 600-153582-9

Matrix: Solid

Date Collected: 09/07/17 10:50 Date Received: 09/08/17 10:22 Percent Solids: 90.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.796 g	5 mL	220966	09/08/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220982	09/11/17 16:30	WS1	TAL HOU

Client Sample ID: MW40-NFP-57-58-09072017

Date Collected: 09/07/17 12:50

Date Received: 09/08/17 10:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221062	09/11/17 16:23	B1K	TAL HOU

Client Sample ID: MW40-NFP-57-58-09072017 Lab Sample ID: 600-153582-8

Date Collected: 09/07/17 12:50

Date Received: 09/08/17 10:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.326 g	5 mL	220966	09/08/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220982	09/11/17 16:55	WS1	TAL HOU

Client Sample ID: MD05-NFP-57-58-09072017 Lab Sample ID: 600-153582-9

Date Collected: 09/07/17 12:55

Date Received: 09/08/17 10:22

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221062	09/11/17 16:23	B1K	TAL HOU

Client Sample ID: MD05-NFP-57-58-09072017

Date Collected: 09/07/17 12:55

Date Received: 09/08/17 10:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.36 g	5 mL	220966	09/08/17 19:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220982	09/11/17 17:20	WS1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153582-1

Laboratory: TestAmerica Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

vj 417

estAmerica Houston 310 Rothway Street ouston, TX 77040 hone (713) 690-4444 Fax (713) 690-5646	J	Chain o	of Cus	n of Custody Record	ecorc	_				TestAmeric	O
lient Information	Sampler H	1		Upto	Lab PM: Upton, Cathy L			Car	Carrier Tracking No(s)	COC No. 600-36947-10949,1	
lient Contact. Ileeca Forsberg	Phone 205	942-	-32	35 E-Mail	, upton@t	E-Mail cathy upton@testamericainc.com	пс.сош			Page Page 1 of 1	
ompany Hall, Inc.							Analysi	Analysis Requested	sted	Job #	
ddress. 721 Rutledge Rd. NE Suite B-1	Due Date Requested:	:pa								Co	
ilbuquerque Iste Zip:	TAT Requested (days): 10 BD Prelim;	Requested (days): 10 BD Prelim; 14 BD Level3 Package (3e)	evel3 Packa	age (3e)						A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S	
IM, 87109 frone. 81-273-8646(Tel)	PO#					(eAH8					E)
mail leeca Forsberg@CH2M com	#OM					⊬ -a¬o⊦				H - Ascorbic Acid 1 - Ice J - Di Water	cahydrate
roject Name Linder Morgan Bloomfield, NM NFP	HOUSTON Project # 60004617	#				н тяон				K - EDTA W - ph 4-5 L - EDA Z - other (specify)	city)
ite.	*MOSS									of con	
ample Identification	Sample Date	Sample	Sample Type (C=comp, G=grab)	Matrix (w-water, S-solid, O-waste/oil, BT-Tissue, A-Air)	Field Filtered : M\&M m1011e9	BzeoB_6036 - B		MATE - BTE	600-153582	Special Instructions Notes	lofe.
	X	X	400	Preservation Code:		12		4	Cha	Secretarian manage	lotte.
TB03-NFP-09072017	41117	0800	9	Soil	2			×	ain of	*** 48Hr Holding Time	
5803-NFP-1-2-09072017	417/17	OXIO	9	Soil	2	X				From Sample Collection	c
MW40 - NFP-11-12 - 09072017	41117	0930	O	Soil	マ	×			stody		
MW 40 - NFP-19-20-09072017	917/17	0935	9	Soil	5	×					
MW40-NFP-29-30-09072017	411/17	0990	9	Soil	2	×					
MW40 - NFP - 39-40 - 09072017	41117	0101	9	Soil	3	×					
MW40-NFP-50-51-09072017	4/1/17	1050	9	Soil	3	X			-	-	
MW 40 - NFP - 57 - 53 - 0907207	19/1/17	1250	S	Soil	2	X				22	
MD05 - NFP - 57-53 - 0907201	4/1/17	1255	9	Soil	2	×					
			9	Soil							
			9	Water							
Oossible Hazard Identification Non-Hazard Hammable Skin Irritant Poison B	оп В Жинкпомп		Radiological		Samp	e Disposal Return To ((A fee ma	y be asse	ssed if samples are re	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Abisposal By Lab Archive For Months	
Deliverable Requested: I, II, III, IV, Other (specify)					Specia	Special Instructions/QC Requirements	IS/QC Requ	irements:			
mpty Kit Relinquished by:		Date:			Time:		111		Method of Shipment	. ,2	1
Light This This Control of the Contr	Date/Time Date/Time	170	00	Company CHZ/M Company	8 8	A CONSTRAINT OF THE PARTY OF TH	ULE	B	Date/Time	17 10 Company	Rot
yelnedushed by:	Date/Time:			Company	Re	Received by			Date/Time:	Company	
Custody Seals Intact: Custody Seal No.:					CO	Cooler Temperature(s) °C and Other Remarks	ire(s) °C and	Other Remark	S		T
100						1	1	1			7

TestAmerica Houston

Loc: 600 153582

THE LEADER IN ENVIRONMENTAL TESTING

Sample Receip

11040	TERRACORES
48112	1 SEKALOCES

Date/Time Received:

CLIENT:

JOB NUMBER:

CH2M H.1/2

Custody Seal Present:

	F
V	VES
P	A I LO

NO

Number of Coolers Received:

Cooler ID	Temp Blank	Trip Blank	Observed Temp	Therm ID_	Them CF	Corrected Temp (℃)
15:W	Y / N	Y / N	0.9	549	0.3	0,6
0	Y / N	Y / N				
	Y / N	Y/N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

Base samples are>pH 12: YES NO

Acid preserved are<pH 2:

YES

☐ NO

pH paper Lot #_

VOA headspace acceptable (5-6mm): YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

NO

COMMENTS:

FRI - 08 SEP 10:30A PRIORITY OVERNIGHT

Page 21 of 22

Rev. 3; 07/01/2014

HS-SA-WI-013

Released to Imaging: 10/26/2022 7:32:21 AM

12/10/2020 (Rev. 1)

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 600-153582-1

Login Number: 153582 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey neter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Refer to Job Narrative for details.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

restamenta nouston

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Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

Laboratory Job ID: 600-153598-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP

Revision: 1

For:

CH2M Hill Constructors, Inc. 14701 St. Mary's Lane Suite 300 Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Stee A Stephul

Authorized for release by: 12/10/2020 10:03:29 AM Steve Stepanski, Project Mgmt. Assistant (713)690-4444 steve.stepanski@Eurofinset.com

Designee for

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Review your project

results through
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Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 10/26/2022 7:32:21 AM

Laboratory Job ID: 600-153598-1

Client: CH2M Hill Constructors, Inc. Project/Site: Kinder Morgan Bloomfield, NM NFP

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QC Sample Results	11
QC Association Summary	15
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Case Narrative

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-153598-1

Job ID: 600-153598-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-153598-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/9/2017 9:34 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° C.

GC/MS VOA

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 600-220967 and analytical batch 600-220962 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample/laboratory control sample duplicate (LCS/LCSD) met the acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Method Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

MethodMethod DescriptionProtocolLaboratory8260BVolatile Organic Compounds (GC/MS)SW846TAL HOU2540BPercent MoistureSM20TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-153598-1	TB04-NFP-09082017	Water	09/08/17 10:30	09/09/17 09:34
600-153598-2	MW43-NFP-14-15-09082017	Solid	09/08/17 12:00	09/09/17 09:34
600-153598-3	MW43-NFP-20-21-09082017	Solid	09/08/17 12:10	09/09/17 09:34
600-153598-4	MW43-NFP-25-26-09082017	Solid	09/08/17 12:20	09/09/17 09:34
600-153598-5	MW43-NFP-41-42-09082017	Solid	09/08/17 13:10	09/09/17 09:34
600-153598-6	MW43-NFP-54-55-09082017	Solid	09/08/17 13:30	09/09/17 09:34
600-153598-7	MD08-NFP-54-55-09082017	Solid	09/08/17 13:35	09/09/17 09:34

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Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

Client Sample ID: TB04-NFP-09082017 Lab Sample ID: 600-153598-1

Date Collected: 09/08/17 10:30 Matrix: Water

Date Received: 09/09/17 09:34

Method: 8260B - Volatile Orga	anic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/09/17 16:59	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/09/17 16:59	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/09/17 16:59	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/09/17 16:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		50 - 134			-		09/09/17 16:59	1
Dibromofluoromethane	89		62 - 130					09/09/17 16:59	1
Toluene-d8 (Surr)	107		70 - 130					09/09/17 16:59	1
4-Bromofluorobenzene	95		67 - 139					09/09/17 16:59	1

Client Sample ID: MW43-NFP-14-15-09082017

Date Collected: 09/08/17 12:00

Date Received: 09/09/17 09:34

Lab Sample ID: 600-153598-2 **Matrix: Solid**

Percent Solids: 83.2

Method: 8260B - Volatile Or	ganic Compounds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000680	U	0.00540	0.000680	mg/Kg	-	09/09/17 14:00	09/10/17 22:35	1
Ethylbenzene	0.00110	U	0.00540	0.00110	mg/Kg	₽	09/09/17 14:00	09/10/17 22:35	1
Toluene	0.00149	U	0.00540	0.00149	mg/Kg	₽	09/09/17 14:00	09/10/17 22:35	1
Xylenes, Total	0.00122	U	0.00540	0.00122	mg/Kg	₽	09/09/17 14:00	09/10/17 22:35	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91	61 - 130	09/09/17 14:00	09/10/17 22:35	1
Dibromofluoromethane	83	68 - 140	09/09/17 14:00	09/10/17 22:35	1
Toluene-d8 (Surr)	83	50 - 130	09/09/17 14:00	09/10/17 22:35	1
4-Bromofluorobenzene	101	57 - 140	09/09/17 14:00	09/10/17 22:35	1

General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.8		1.0	1.0	%			09/11/17 16:23	1
Percent Solids	83.2		1.0	1.0	%			09/11/17 16:23	1

Client Sample ID: MW43-NFP-20-21-09082017 Lab Sample ID: 600-153598-3

Date Collected: 09/08/17 12:10

Date Received: 09/09/17 09:34

• • • • • • • • • • • • • • • • • • • •	
Matrix	Solid
Percent Solids	s: 91.8

09/09/17 14:00

Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000619	U	0.00491	0.000619	mg/Kg	<u></u>	09/09/17 14:00	09/10/17 22:58	1
Ethylbenzene	0.00100	U	0.00491	0.00100	mg/Kg	₽	09/09/17 14:00	09/10/17 22:58	1
Toluene	0.00135	U	0.00491	0.00135	mg/Kg	₽	09/09/17 14:00	09/10/17 22:58	1
Xylenes, Total	0.00111	U	0.00491	0.00111	mg/Kg	\$	09/09/17 14:00	09/10/17 22:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130				09/09/17 14:00	09/10/17 22:58	1
Dibromofluoromethane	81		68 - 140				09/09/17 14:00	09/10/17 22:58	1
Toluene-d8 (Surr)	83		50 - 130				09/09/17 14:00	09/10/17 22:58	1

TestAmerica Houston

09/10/17 22:58

57 - 140

104

4-Bromofluorobenzene

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

Client Sample ID: MW43-NFP-20-21-09082017

Date Collected: 09/08/17 12:10 Date Received: 09/09/17 09:34

Lab Sample ID: 600-153598-3

Matrix: Solid Percent Solids: 91.8

General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.2		1.0	1.0	%			09/11/17 16:23	1
Percent Solids	91.8		1.0	1.0	%			09/11/17 16:23	1
_									

Client Sample ID: MW43-NFP-25-26-09082017 Lab Sample ID: 600-153598-4

Date Collected: 09/08/17 12:20 **Matrix: Solid** Date Received: 09/09/17 09:34 Percent Solids: 89.0

Compounds	(GC/MS)							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
0.000564	U	0.00447	0.000564	mg/Kg	₩	09/09/17 14:00	09/10/17 23:21	1
0.000913	U	0.00447	0.000913	mg/Kg	₽	09/09/17 14:00	09/10/17 23:21	1
0.00123	U	0.00447	0.00123	mg/Kg	₽	09/09/17 14:00	09/10/17 23:21	1
0.00101	U	0.00447	0.00101	mg/Kg	*	09/09/17 14:00	09/10/17 23:21	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
88		61 - 130				09/09/17 14:00	09/10/17 23:21	1
80		68 ₋ 140				09/09/17 14:00	09/10/17 23:21	1
83		50 - 130				09/09/17 14:00	09/10/17 23:21	1
103		57 ₋ 140				09/09/17 14:00	09/10/17 23:21	1
	Result 0.000564 0.000913 0.00123 0.00101 %Recovery 88 80 83	80 83	Result Qualifier RL 0.000564 U 0.00447 0.000913 U 0.00447 0.00123 U 0.00447 0.00101 U 0.00447 %Recovery Qualifier Limits 88 61 - 130 80 68 - 140 83 50 - 130	Result 0.000564 Qualifier RL 0.00447 MDL 0.000564 0.000913 U 0.00447 0.000913 0.00123 U 0.00447 0.00123 0.00101 U 0.00447 0.00101 %Recovery Qualifier Limits 88 61 - 130 80 68 - 140 83 50 - 130	Result Qualifier RL MDL Unit 0.000564 U 0.00447 0.000564 mg/Kg 0.000913 U 0.00447 0.000913 mg/Kg 0.00123 U 0.00447 0.00123 mg/Kg 0.00101 U 0.00447 0.00101 mg/Kg **Recovery Qualifier Limits 88 61 - 130 80 68 - 140 83 50 - 130	Result Qualifier RL MDL Unit D 0.000564 U 0.00447 0.000564 mg/Kg 5 0.000913 U 0.00447 0.000913 mg/Kg 5 0.00123 U 0.00447 0.00123 mg/Kg 5 0.00101 U 0.00447 0.00101 mg/Kg 5 88 61 - 130 68 - 140 68 - 140 68 - 140 68 - 130	Result 0.000564 Qualifier RL 0.00447 MDL 0.00564 mg/Kg D 09/09/17 14:00 0.000913 U 0.00447 0.000913 mg/Kg 09/09/17 14:00 0.00123 U 0.00447 0.00123 mg/Kg 09/09/17 14:00 0.00101 U 0.00447 0.00101 mg/Kg 09/09/17 14:00 %Recovery Qualifier Limits Prepared 88 61 - 130 09/09/17 14:00 80 68 - 140 09/09/17 14:00 83 50 - 130 09/09/17 14:00	Result 0.000564 Qualifier RL 0.000564 MDL mg/kg D 0.000564 Prepared 0.09/10/17 23:21 Analyzed 0.000564 0.000913 U 0.00447 0.000913 mg/kg 0.000917 14:00 0.09/10/17 23:21 0.00123 U 0.00447 0.00123 mg/kg 0.0009/17 14:00 0.09/10/17 23:21 0.00101 U 0.00447 0.00101 mg/kg 0.0009/17 14:00 0.09/10/17 23:21 %Recovery Qualifier Limits Prepared 0.000/17 14:00 Analyzed 0.000/17 14:00 0.000/17 14:00 0.000/17 14:00 0.000/17 14:00 0.000/17 14:00 0.000/17 14:00 0.000/17 14:00 0.000/17 14:00 0.000/17 14:00 0.000/17 14:00 0.000/10/17 23:21 0.000/17 14:00 0.00

General Chemistry							
Analyte	Result Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.0	1.0	1.0 %			09/11/17 16:23	1
Percent Solids	89.0	1.0	1.0 %			09/11/17 16:23	1

Client Sample ID: MW43-NFP-41-42-09082017 Lab Sample ID: 600-153598-5

Date Collected: 09/08/17 13:10 **Matrix: Solid** Date Received: 09/09/17 09:34 Percent Solids: 89.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000655	U	0.00520	0.000655	mg/Kg		09/09/17 14:00	09/11/17 00:31	1
Ethylbenzene	0.00106	U	0.00520	0.00106	mg/Kg	₽	09/09/17 14:00	09/11/17 00:31	1
Toluene	0.00143	U	0.00520	0.00143	mg/Kg	₽	09/09/17 14:00	09/11/17 00:31	1
Xylenes, Total	0.00117	U	0.00520	0.00117	mg/Kg	₩	09/09/17 14:00	09/11/17 00:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		61 - 130				09/09/17 14:00	09/11/17 00:31	1
Dibromofluoromethane	84		68 - 140				09/09/17 14:00	09/11/17 00:31	1
Toluene-d8 (Surr)	85		50 - 130				09/09/17 14:00	09/11/17 00:31	1
4-Bromofluorobenzene	104		57 - 140				09/09/17 14:00	09/11/17 00:31	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.9		1.0	1.0	%		-	09/11/17 16:23	1

1.0

1.0 %

TestAmerica Houston

09/11/17 16:23

89.1

Percent Solids

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

Lab Sample ID: 600-153598-6

Matrix: Solid

Percent Solids: 82.8

<u> </u>		-	
Client	Sample	ID:	MW43-NFP-54-55-09082017

Date Collected: 09/08/17 13:30 Date Received: 09/09/17 09:34

Dibromofluoromethane

Toluene-d8 (Surr)

Method: 8260B - Volatile	Organic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000583	U	0.00463	0.000583	mg/Kg	\	09/09/17 14:00	09/11/17 13:12	1
Ethylbenzene	0.00644		0.00463	0.000944	mg/Kg	₽	09/09/17 14:00	09/11/17 13:12	1
Toluene	0.00128	U	0.00463	0.00128	mg/Kg	₽	09/09/17 14:00	09/11/17 13:12	1
Xylenes, Total	0.0139		0.00463	0.00105	mg/Kg	\$	09/09/17 14:00	09/11/17 13:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97	61 - 130	09/09/17 14:00	09/11/17 13:12	1
Dibromofluoromethane	76	68 - 140	09/09/17 14:00	09/11/17 13:12	1
Toluene-d8 (Surr)	81	50 - 130	09/09/17 14:00	09/11/17 13:12	1
4-Bromofluorobenzene	114	57 - 140	09/09/17 14:00	09/11/17 13:12	1

General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.2		1.0	1.0	%			09/11/17 16:23	1
Percent Solids	82.8		1.0	1.0	%			09/11/17 16:23	1

Client Sample ID: MD08-NFP-54-55-09082017 Lab Sample ID: 600-153598-7

Date Collected: 09/08/17 13:35 **Matrix: Solid**

Date Received: 09/09/17 09:34 Percent Solids: 84.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000979	J	0.00418	0.000527	mg/Kg	₩	09/09/17 14:00	09/11/17 13:36	1
Ethylbenzene	0.00715		0.00418	0.000853	mg/Kg	₩	09/09/17 14:00	09/11/17 13:36	1
Toluene	0.00115	U	0.00418	0.00115	mg/Kg	₽	09/09/17 14:00	09/11/17 13:36	1
Xylenes, Total	0.0174		0.00418	0.000945	mg/Kg	\$	09/09/17 14:00	09/11/17 13:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		61 - 130				09/09/17 14:00	09/11/17 13:36	1

68 - 140

50 - 130

78

82

4-Bromofluorobenzene	116		57 - 140				09/09/17 14:00	09/11/17 13:36	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.5		1.0	1.0	%			09/11/17 16:23	1
Percent Solids	84.5		1.0	1.0	%			09/11/17 16:23	1

09/09/17 14:00

09/09/17 14:00

09/11/17 13:36

09/11/17 13:36

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Reporting Limit or Requested Limit (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Relative Percent Difference, a measure of the relative difference between two points

TestAmerica Job ID: 600-153598-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

RL

RPD

TEF

TEQ

These commonly used abbreviations may or may not be present in this report.
Listed under the "D" column to designate that the result is reported on a dry weight basis
Percent Recovery
Contains Free Liquid
Contains No Free Liquid
Duplicate Error Ratio (normalized absolute difference)
Dilution Factor
Detection Limit (DoD/DOE)
Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
Decision Level Concentration (Radiochemistry)
Estimated Detection Limit (Dioxin)
Limit of Detection (DoD/DOE)
Limit of Quantitation (DoD/DOE)
Minimum Detectable Activity (Radiochemistry)
Minimum Detectable Concentration (Radiochemistry)
Method Detection Limit
Minimum Level (Dioxin)
Not Calculated
Not Detected at the reporting limit (or MDL or EDL if shown)
Practical Quantitation Limit
Quality Control
Relative Error Ratio (Radiochemistry)

Surrogate Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

				Percent Su	rrogate Reco
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(61-130)	(68-140)	(50-130)	(57-140)
600-153598-2	MW43-NFP-14-15-09082017	91	83	83	101
600-153598-3	MW43-NFP-20-21-09082017	87	81	83	104
600-153598-4	MW43-NFP-25-26-09082017	88	80	83	103
600-153598-4 MS	MW43-NFP-25-26-09082017	101	89	90	109
600-153598-4 MSD	MW43-NFP-25-26-09082017	101	90	91	112
600-153598-5	MW43-NFP-41-42-09082017	89	84	85	104
600-153598-6	MW43-NFP-54-55-09082017	97	76	81	114
600-153598-7	MD08-NFP-54-55-09082017	100	78	82	116
LCS 600-220962/3	Lab Control Sample	82	89	102	106
LCS 600-220982/3	Lab Control Sample	92	82	94	120
LCSD 600-220962/4	Lab Control Sample Dup	81	85	103	108
LCSD 600-220982/4	Lab Control Sample Dup	92	84	96	122
MB 600-220962/6	Method Blank	97	89	84	95
MB 600-220982/6	Method Blank	108	86	85	111

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

				Percent Sur	rrogate Rec
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(50-134)	(62-130)	(70-130)	(67-139)
600-153598-1	TB04-NFP-09082017	77	89	107	95
LCS 600-220936/3	Lab Control Sample	80	102	104	91
LCSD 600-220936/4	Lab Control Sample Dup	87	106	106	91
MB 600-220936/5	Method Blank	80	91	112	97

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

TestAmerica Houston

4

2

3

А

5

9

11

12

14

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-220936/5

Matrix: Water

Analysis Batch: 220936

Client Sample ID: Method Blank

Prep Type: Total/NA

МВ	MB							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
0.000176	U	0.00100	0.000176	mg/L			09/09/17 14:55	1
0.000212	U	0.00100	0.000212	mg/L			09/09/17 14:55	1
0.000198	U	0.00100	0.000198	mg/L			09/09/17 14:55	1
0.000366	U	0.00200	0.000366	mg/L			09/09/17 14:55	1
	0.000176 0.000212 0.000198	MB Result Qualifier 0.000176 U 0.000212 U 0.000198 U 0.000366 U	Result Qualifier RL 0.000176 U 0.00100 0.000212 U 0.00100 0.000198 U 0.00100	Result Qualifier RL MDL 0.000176 U 0.00100 0.000176 0.000212 U 0.00100 0.000212 0.000198 U 0.00100 0.000198	Result Qualifier RL MDL Unit 0.000176 U 0.00100 0.000176 mg/L 0.000212 U 0.00100 0.000212 mg/L 0.000198 U 0.00100 0.000198 mg/L	Result Qualifier RL MDL Unit D 0.000176 U 0.00100 0.000176 mg/L 0.000212 U 0.00100 0.000212 mg/L 0.000198 U 0.00100 0.000198 mg/L	Result Qualifier RL MDL Unit D Prepared 0.000176 U 0.00100 0.000176 mg/L 0.000212 U 0.00100 0.000212 mg/L 0.000198 U 0.00100 0.000198 mg/L	Result Qualifier RL MDL Unit D Prepared Analyzed 0.000176 U 0.00100 0.000176 mg/L 09/09/17 14:55 0.000212 U 0.00100 0.000212 mg/L 09/09/17 14:55 0.000198 U 0.00100 0.000198 mg/L 09/09/17 14:55

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fa	C
1,2-Dichloroethane-d4 (Surr)	80		50 - 134	-		09/09/17 14:55		1
Dibromofluoromethane	91		62 - 130			09/09/17 14:55		1
Toluene-d8 (Surr)	112		70 - 130			09/09/17 14:55		1
4-Bromofluorobenzene	97		67 - 139			09/09/17 14:55		1

Lab Sample ID: LCS 600-220936/3 **Client Sample ID: Lab Control Sample Matrix: Water**

Analysis Batch: 220936

Prep Type: Total/NA

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.0100 0.01067 107 70 - 130 mg/L Ethylbenzene 0.0100 0.01090 mg/L 109 70 - 130 Toluene 0.0100 0.01134 70 - 130 mg/L 113 Xylenes, Total 0.0200 0.02192 mg/L 110 70 - 130

LCS LCS Qualifier Limits Surrogate %Recovery 1,2-Dichloroethane-d4 (Surr) 80 50 - 134 Dibromofluoromethane 102 62 - 130 Toluene-d8 (Surr) 104 70 - 130 67 - 139 91 4-Bromofluorobenzene

Lab Sample ID: LCSD 600-220936/4 Client Sample ID: Lab Control Sample Dup **Matrix: Water**

MB MB

Analysis Batch: 220936

-	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0100	0.01107		mg/L		111	70 - 130	4	20
Ethylbenzene	0.0100	0.01161		mg/L		116	70 - 130	6	20
Toluene	0.0100	0.01186		mg/L		119	70 - 130	4	20
Xylenes, Total	0.0200	0.02327		mg/L		116	70 - 130	6	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		50 - 134
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	106		70 - 130
4-Bromofluorobenzene	91		67 - 139

TestAmerica Houston

Prep Type: Total/NA

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

MR MR

Lab Sample ID: MB 600-220962/6

Matrix: Solid

Analysis Batch: 220962

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/10/17 15:58	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/10/17 15:58	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/10/17 15:58	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/10/17 15:58	1

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 97 61 - 130 09/10/17 15:58 68 - 140 Dibromofluoromethane 89 09/10/17 15:58 Toluene-d8 (Surr) 50 - 130 09/10/17 15:58 84 4-Bromofluorobenzene 95 57 - 140 09/10/17 15:58

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Solid Analysis Batch: 220962

Surrogate

Lab Sample ID: LCS 600-220962/3

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.0500	0.03737		mg/Kg	_	75	70 - 131	
Ethylbenzene	0.0500	0.04142		mg/Kg		83	66 - 130	
Toluene	0.0500	0.04005		mg/Kg		80	67 - 130	
Xylenes, Total	0.100	0.08134		mg/Kg		81	63 - 130	

LCS LCS Qualifier Limits %Recovery 82 61 - 130 89 68 - 140 102 50 - 130 57 - 140 106

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 220962

Lab Sample ID: LCSD 600-220962/4

1,2-Dichloroethane-d4 (Surr)

Dibromofluoromethane

4-Bromofluorobenzene

Toluene-d8 (Surr)

Matrix: Solid

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04646		mg/Kg		93	70 - 131	22	30
Ethylbenzene	0.0500	0.04964		mg/Kg		99	66 - 130	18	30
Toluene	0.0500	0.04828		mg/Kg		97	67 - 130	19	30
Xylenes, Total	0.100	0.09824		mg/Kg		98	63 - 130	19	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	81		61 - 130
Dibromofluoromethane	85		68 - 140
Toluene-d8 (Surr)	103		50 - 130
4-Bromofluorobenzene	108		57 - 140

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-153598-4 MS

Matrix: Solid

Analysis Batch: 220962

Client Sample ID: MW43-NFP-25-26-09082017

Prep Type: Total/NA Prep Batch: 220967

Sample	Sample	Spike	MS	MS				%Rec.	
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
0.000564	U	0.0509	0.03512	F1	mg/Kg	<u> </u>	69	70 - 131	
0.000913	U	0.0509	0.02921	F1	mg/Kg	₽	57	66 - 130	
0.00123	U	0.0509	0.03062	F1	mg/Kg	₩	60	67 - 130	
0.00101	U	0.102	0.06095	F1	mg/Kg	₽	60	63 - 130	
	Result 0.000564 0.000913 0.00123	Sample Sample Result Qualifier 0.000564 U 0.000913 U 0.00123 U 0.00101 U	Result Qualifier Added 0.000564 U 0.0509 0.000913 U 0.0509 0.00123 U 0.0509	Result Qualifier Added Result 0.000564 U 0.0509 0.03512 0.000913 U 0.0509 0.02921 0.00123 U 0.0509 0.03062	Result Qualifier Added Result Qualifier 0.000564 U 0.0509 0.03512 F1 0.000913 U 0.0509 0.02921 F1 0.00123 U 0.0509 0.03062 F1	Result Qualifier Added Result Qualifier Unit 0.000564 U 0.0509 0.03512 F1 mg/Kg 0.000913 U 0.0509 0.02921 F1 mg/Kg 0.00123 U 0.0509 0.03062 F1 mg/Kg	Result Qualifier Added Result Qualifier Unit D 0.000564 U 0.0509 0.03512 F1 mg/Kg T 0.000913 U 0.0509 0.02921 F1 mg/Kg T 0.00123 U 0.0509 0.03062 F1 mg/Kg T	Result Qualifier Added Result Qualifier Unit D %Rec 0.000564 U 0.0509 0.03512 F1 mg/Kg © 69 0.000913 U 0.0509 0.02921 F1 mg/Kg © 57 0.00123 U 0.0509 0.03062 F1 mg/Kg © 60	Result Qualifier Added Result Qualifier Unit D %Rec Limits 0.000564 U 0.0509 0.03512 F1 mg/Kg \$69 70 - 131 0.000913 U 0.0509 0.02921 F1 mg/Kg \$57 66 - 130 0.00123 U 0.0509 0.03062 F1 mg/Kg \$60 67 - 130

Limits

MS MS %Recovery Qualifier 1,2-Dichloroethane-d4 (Surr) 101

61 - 130 68 - 140 Dibromofluoromethane 89 Toluene-d8 (Surr) 50 - 130 90 4-Bromofluorobenzene 109 57 - 140

Client Sample ID: MW43-NFP-25-26-09082017

Prep Type: Total/NA

Prep Batch: 220967

Lab Sample ID: 600-153598-4 MSD **Matrix: Solid**

Surrogate

Analysis Batch: 220962

	Sa	mple	Sample	Spike	MSD	MSD				%Rec.		RPD
Α	nalyte R	esult	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
В	enzene 0.00	0564	U	0.0535	0.03930		mg/Kg	\	73	70 - 131	11	30
E	thylbenzene 0.00	0913	U	0.0535	0.03455	F1	mg/Kg	≎	65	66 - 130	17	30
T	oluene 0.0	0123	U	0.0535	0.03471	F1	mg/Kg	≎	65	67 - 130	13	30
X	ylenes, Total 0.0	0101	U	0.107	0.06824		mg/Kg	\$	64	63 - 130	11	30

MSD MSD Qualifier Limits Surrogate %Recovery 1,2-Dichloroethane-d4 (Surr) 101 61 - 130 Dibromofluoromethane 90 68 - 140 Toluene-d8 (Surr) 91 50 - 130 57 - 140 4-Bromofluorobenzene 112

Lab Sample ID: MB 600-220982/6 Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 220982

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/11/17 09:53	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/11/17 09:53	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/11/17 09:53	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/11/17 09:53	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		61 - 130		09/11/17 09:53	1
Dibromofluoromethane	86		68 - 140		09/11/17 09:53	1
Toluene-d8 (Surr)	85		50 - 130		09/11/17 09:53	1
4-Bromofluorobenzene	111		57 - 140		09/11/17 09:53	1

Spike Added

0.0500

0.0500

0.0500

0.100

0.07846

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-220982/3

Matrix: Solid

Analyte

Benzene

Toluene Xylenes, Total

Ethylbenzene

Analysis Batch: 220982

Client Sample ID:	Lab	Cont	trol S	amp	ole
	Prep	Тур	e: To	otal/N	NΑ

63 - 130

LCS	LCS				%Rec.
Result	Qualifier	Unit	D	%Rec	Limits
0.04031		mg/Kg		81	70 - 131
0.03920		mg/Kg		78	66 - 130
0.03981		mg/Kg		80	67 - 130

mg/Kg

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	94		50 - 130
4-Bromofluorobenzene	120		57 ₋ 140

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Client Sample ID: MW43-NFP-54-55-09082017

Matrix: Solid Analysis Batch: 220982

Lab Sample ID: LCSD 600-220982/4

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04557		mg/Kg		91	70 - 131	12	30
Ethylbenzene	0.0500	0.04563		mg/Kg		91	66 - 130	15	30
Toluene	0.0500	0.04532		mg/Kg		91	67 - 130	13	30
Xylenes, Total	0.100	0.09170		mg/Kg		92	63 - 130	16	30

LCSD LCSD %Recovery Qualifier Limits Surrogate 1,2-Dichloroethane-d4 (Surr) 92 61 - 130 Dibromofluoromethane 84 68 - 140 Toluene-d8 (Surr) 96 50 - 130 57 - 140 4-Bromofluorobenzene 122

Method: 2540B - Percent Moisture

Lab Sample ID: 600-153598-6 DU

Matrix: Solid			Prep Type: Total/NA
Analysis Batch: 221062			
	Sample Sample	DU DU	RPD

Result Qualifier **RPD** Analyte Result Qualifier Unit Limit Percent Moisture 17.2 15.8 % 8 20 Percent Solids 82.8 84.2 % 2 20

QC Association Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

GC/MS VOA

Analysis Batch: 220936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
600-153598-1	TB04-NFP-09082017	Total/NA	Water	8260B
MB 600-220936/5	Method Blank	Total/NA	Water	8260B
LCS 600-220936/3	Lab Control Sample	Total/NA	Water	8260B
LCSD 600-220936/4	Lab Control Sample Dup	Total/NA	Water	8260B

Analysis Batch: 220962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153598-2	MW43-NFP-14-15-09082017	Total/NA	Solid	8260B	220967
600-153598-3	MW43-NFP-20-21-09082017	Total/NA	Solid	8260B	220967
600-153598-4	MW43-NFP-25-26-09082017	Total/NA	Solid	8260B	220967
600-153598-5	MW43-NFP-41-42-09082017	Total/NA	Solid	8260B	220967
MB 600-220962/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-220962/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-220962/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
600-153598-4 MS	MW43-NFP-25-26-09082017	Total/NA	Solid	8260B	220967
600-153598-4 MSD	MW43-NFP-25-26-09082017	Total/NA	Solid	8260B	220967

Prep Batch: 220967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153598-2	MW43-NFP-14-15-09082017	Total/NA	Solid	5035_ASP	
600-153598-3	MW43-NFP-20-21-09082017	Total/NA	Solid	5035_ASP	
600-153598-4	MW43-NFP-25-26-09082017	Total/NA	Solid	5035_ASP	
600-153598-5	MW43-NFP-41-42-09082017	Total/NA	Solid	5035_ASP	
600-153598-6	MW43-NFP-54-55-09082017	Total/NA	Solid	5035_ASP	
600-153598-7	MD08-NFP-54-55-09082017	Total/NA	Solid	5035_ASP	
600-153598-4 MS	MW43-NFP-25-26-09082017	Total/NA	Solid	5035_ASP	
600-153598-4 MSD	MW43-NFP-25-26-09082017	Total/NA	Solid	5035_ASP	

Analysis Batch: 220982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153598-6	MW43-NFP-54-55-09082017	Total/NA	Solid	8260B	220967
600-153598-7	MD08-NFP-54-55-09082017	Total/NA	Solid	8260B	220967
MB 600-220982/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-220982/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-220982/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

General Chemistry

Analysis Batch: 221062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153598-2	MW43-NFP-14-15-09082017	Total/NA	Solid	2540B	
600-153598-3	MW43-NFP-20-21-09082017	Total/NA	Solid	2540B	
600-153598-4	MW43-NFP-25-26-09082017	Total/NA	Solid	2540B	
600-153598-5	MW43-NFP-41-42-09082017	Total/NA	Solid	2540B	
600-153598-6	MW43-NFP-54-55-09082017	Total/NA	Solid	2540B	
600-153598-7	MD08-NFP-54-55-09082017	Total/NA	Solid	2540B	
600-153598-4 MS	MW43-NFP-25-26-09082017	Total/NA	Solid	2540B	
600-153598-4 MSD	MW43-NFP-25-26-09082017	Total/NA	Solid	2540B	
600-153598-6 DU	MW43-NFP-54-55-09082017	Total/NA	Solid	2540B	

Client Sample ID: TB04-NFP-09082017

Lab Sample ID: 600-153598-1

Matrix: Water

Date Collected: 09/08/17 10:30 Date Received: 09/09/17 09:34

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	220936	09/09/17 16:59	WS1	TAL HOU

Client Sample ID: MW43-NFP-14-15-09082017 Lab Sample ID: 600-153598-2

Date Collected: 09/08/17 12:00 Matrix: Solid

Date Received: 09/09/17 09:34

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221062	09/11/17 16:23	B1K	TAL HOU

Client Sample ID: MW43-NFP-14-15-09082017 Lab Sample ID: 600-153598-2

Date Collected: 09/08/17 12:00 **Matrix: Solid** Date Received: 09/09/17 09:34 Percent Solids: 83.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.564 g	5 mL	220967	09/09/17 14:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220962	09/10/17 22:35	WS1	TAL HOU

Client Sample ID: MW43-NFP-20-21-09082017 Lab Sample ID: 600-153598-3 **Matrix: Solid**

Date Collected: 09/08/17 12:10 Date Received: 09/09/17 09:34

	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	2540B		1			221062	09/11/17 16:23	B1K	TAL HOU	

Client Sample ID: MW43-NFP-20-21-09082017 Lab Sample ID: 600-153598-3

Date Collected: 09/08/17 12:10 **Matrix: Solid** Date Received: 09/09/17 09:34 Percent Solids: 91.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.549 g	5 mL	220967	09/09/17 14:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220962	09/10/17 22:58	WS1	TAL HOU

Lab Sample ID: 600-153598-4 Client Sample ID: MW43-NFP-25-26-09082017

Date Collected: 09/08/17 12:20 **Matrix: Solid** Date Received: 09/09/17 09:34

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221062	09/11/17 16:23	B1K	TAL HOU

Lab Chronicle

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

Client Sample ID: MW43-NFP-25-26-09082017 Lab Sample ID: 600-153598-4

Date Collected: 09/08/17 12:20 Matrix: Solid Date Received: 09/09/17 09:34 Percent Solids: 89.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.277 g	5 mL	220967	09/09/17 14:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220962	09/10/17 23:21	WS1	TAL HOU

Client Sample ID: MW43-NFP-41-42-09082017 Lab Sample ID: 600-153598-5

Date Collected: 09/08/17 13:10 Matrix: Solid

Date Received: 09/09/17 09:34

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221062	09/11/17 16:23	B1K	TAL HOU

Client Sample ID: MW43-NFP-41-42-09082017 Lab Sample ID: 600-153598-5

Date Collected: 09/08/17 13:10 **Matrix: Solid** Date Received: 09/09/17 09:34 Percent Solids: 89.1

Batch Batch Dil Initial Final Batch Prepared Method Amount Number or Analyzed Prep Type Type Run Factor Amount Analyst Lab 220967 Total/NA Prep 5035_ASP 5.402 g 5 mL 09/09/17 14:00 WS1 TAL HOU Total/NA Analysis 8260B 220962 09/11/17 00:31 WS1 TAL HOU

1

Client Sample ID: MW43-NFP-54-55-09082017 Lab Sample ID: 600-153598-6

5 g

5 g

Date Collected: 09/08/17 13:30 Date Received: 09/09/17 09:34

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1 -			221062	09/11/17 16:23	B1K	TAL HOU

Client Sample ID: MW43-NFP-54-55-09082017 Lab Sample ID: 600-153598-6

Da	te Collected: 09/08/17 13:30						Matrix: Solid
Da	te Received: 09/09/17 09:34						Percent Solids: 82.8
	Batch Batch	Dil	Initial	Final	Batch	Prepared	

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.525 g	5 mL	220967	09/09/17 14:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220982	09/11/17 13:12	WS1	TAL HOU

Lab Sample ID: 600-153598-7 Client Sample ID: MD08-NFP-54-55-09082017

Date Collected: 09/08/17 13:35 **Matrix: Solid**

Date Received: 09/09/17 09:34

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221062	09/11/17 16:23	B1K	TAL HOU

TestAmerica Houston

Matrix: Solid

Lab Chronicle

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Client Sample ID: MD08-NFP-54-55-09082017

TestAmerica Job ID: 600-153598-1

Lab Sample ID: 600-153598-7

Date Collected: 09/08/17 13:35 Matrix: Solid Date Received: 09/09/17 09:34 Percent Solids: 84.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			7.08 g	5 mL	220967	09/09/17 14:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	220982	09/11/17 13:36	WS1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153598-1

Laboratory: TestAmerica Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

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	O. Carrier					1					14 (1.60) H	M. 6.067/03/1148/11/6/14/1 TO 17 J. Aug.	Г
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lient Contact: \leeca Forsberg	Phone: 205	-24	10-32	35	y.upton@	testame	E-Mail: cathy upton@testamericainc.com	_			Page Page 1 of 1		
ompany SH2M Hill, Inc.							An	Analysis Rec	Requested		Job #.		_
ddress. 721 Rutledge Rd. NE Suite B-1	Due Date Requested:	9				E					Preservation Codes		
	TAT Requested (days):	4	BD Level3 Package (3e)	306 (36)							A - HCL B - NaOH C - Zn Acetate D - Nitric Acid	M - Hexane N - None O - AsNaO2 P - Na2O4S	
M. 87109	*00			(an) and		(s)				_	E - NaHSO4 F - MeOH	0 12	_
none: 81-721-8546(Tel)	WD293112				(0)	H84-					G - Amchlor H - Ascorbic Acid		_
тан Neeca Forsberg@CH2M.com	#OM				75 AA 30 YOU	атон					_	U - Acetone V - MCAA	
roject Name: Kinder Morgan Bloomfield, NM NFP	HOUSTON Project# 60004617				P. 14 10 10 10 10	тяон						W - ph 4-5 Z - other (specify)	
ide: 3TEX Soils	\$SOW#				y) asi	TEX (SI	a.	88	X	_	of con		
amulo Identification	Sample Date	Sample	Sample Type (C=comp,	Matrix (Wewater, Sesolid, O-wasteroil,	ield Filtered MSM myotie	Se08_5035 - B	utsioM treater	3TAW	318 - 11 <u>.</u> 8082		redmuM lato		
The second secon	\bigvee	X	7 00	Preservation Code.	-		z		8 A			opecial instructions/Note:	T
TBO4 - NFP - 0908 2017	1.118/6	0501	9	Soil	Z				×		*** 48Hr H	48Hr Holding Time	1
MW 43 - NFP - 14-15-09082017	018117	1200	0	Soil	2	×	×				From Sam	From Sample Collection	Т
MW43-NFP-20-21-090820,7	9/8/17	1210	O	Soil	2	X	X						T
MW43-NFP-25-26.09082017	0	1720	9	Soil	2	×	×						
MW43-NFP-25-26-09082017MS	6/8/17	1220	9	Soil	>	×	×						
MW43-NFP-25-26-09082017MSD	4/8/17	1220	9	Soil	N	×	X						
MW43 - NFP - 41-42 - 09082017	418117	1310	9	Soil	N	×	×						_
MW43-NFP-54-55-09082017	9/8/17	1330	9	Soil	3	×	X						
MD08-NFP-54-55-09082017	9/8/17	1335	9	Soil	2	X	X						
	,		9	Soil									
			9	Water									_
Oossible Hazard Identification Non-Hazard C Flammable Skin Irrilant Poison B	on B Unknown	Ш	Radiological		Samp	le Disp	Do Client	e may be a	ssessed if san	nples are re	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client	n 1 month) Months	
1					Speci	al Instru	ctions/QC	Special Instructions/QC Requirements	ts.				_
empty Kit Relinquished by:		Date:			Time:		1		Method of Shipment	hipment			_
Will J. II. J. Williamshed by I. H. J. J. W.	Date/Time	1700		2	Z Z	Received by	5.12	3		DateTime	f7 93	(depleto)	
(eimquished by:	Date/Time.			Сопралу	œ	Received by				Date/Time		Company	_
	Date/Time			Company	ď	Received by				Date/Time:		Company	_
Custody Seals Intact: Custody Seal No.:					Ö	ooler Temp	erature(s) °	Cooler Temperature(s) °C and Other Remarks	marks				T
					1				1				7

TestAmerica Houston

Loc: 600 153598 THE LEADER IN ENVIRONMENTAL TESTING

Sample Receip

			Date/Time Received:			
JOB NUMBER:			CLIENT:	CH:	ES	
UNPACKED BY:			CARRIER/DRIVER:	F	6 50	8
Custody Seal Present:	YES	NO	Number of Coolers R	Received: _	i	
Cooler ID	Temp Blank	Trip Blank	Observed Temp (℃)	Therm	Them	Corrected Temp (℃)
Bul	Y / N	Y / N	2.1	319	- 3	1.8
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N	A			
	Y / N	YTN	M			
and the same of th	Y / N	Y / N	CN.	-		
	Y / N /	Y / N	190	and the same of		
	YW	Y / N	(/)			
	Y/N	Y / N				
Samples received on ice		□ NO	EQUIRED: N	0	YES	
Base samples are>pH 12	2: YES [NO	Acid preserved are <p< td=""><td>)H 2:</td><td>YES</td><td>□NO</td></p<>)H 2:	YES	□NO
pH paper Lot #		_				
VOA headspace accepta	ble (5-6mm):	□ YES Q	NO NA			
Did samples meet the lal	boratory's stand	ard conditions	of sample acceptability u	ipon receipt	?	YES NO
COMMENTS: (R	s has lo	adana	28			

FedEx TRK# 7455 1165 3933

LKSA

HS-SA-WI-013

Rev. 3; 07/01/2014

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Page 21 of 22

12/10/2020 (Rev. 1)

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 600-153598-1

Login Number: 153598 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	Refer to Job Narrative for details.
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

restAmerica nouston

Released to Imaging: 10/26/2022 7:32:21 AM

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Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

Laboratory Job ID: 600-153701-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

Revision: 1

For:

CH2M Hill Constructors, Inc. 14701 St. Mary's Lane Suite 300 Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Steve A Stephenl

Authorized for release by: 12/10/2020 10:05:19 AM Steve Stepanski, Project Mgmt. Assistant (713)690-4444 steve.stepanski@Eurofinset.com

Designee for

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Released to Imaging: 10/26/2022 7:32:21 AM

Laboratory Job ID: 600-153701-1

Client: CH2M Hill Constructors, Inc. Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

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Case Narrative

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-153701-1

Job ID: 600-153701-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-153701-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/12/2017 10:44 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Method Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-153701-1	TB05-NFP-09102017	Water	09/10/17 12:00	09/12/17 10:44
600-153701-2	MW44-NFP-14-16-09102017	Solid	09/10/17 11:10	09/12/17 10:44
600-153701-3	MD09-NFP-14-16-09102017	Solid	09/10/17 11:15	09/12/17 10:44
600-153701-4	MW44-NFP-20-21-09102017	Solid	09/10/17 11:30	09/12/17 10:44
600-153701-5	MW44-NFP-31-32-09102017	Solid	09/10/17 11:40	09/12/17 10:44
600-153701-6	MW44-NFP-41-42-09102017	Solid	09/10/17 13:40	09/12/17 10:44
600-153701-7	MW44-NFP-53-54-09102017	Solid	09/10/17 14:00	09/12/17 10:44
600-153701-8	MW44-NFP-62-63-09102017	Solid	09/10/17 14:40	09/12/17 10:44
600-153701-9	MW44-NFP-69-70-09102017	Solid	09/10/17 15:40	09/12/17 10:44
600-153701-10	MW45-NFP-13-14-09112017	Solid	09/11/17 15:15	09/12/17 10:44

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Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Client Sample ID: TB05-NFP-09102017

Lab Sample ID: 600-153701-1

Matrix: Water

Date Collected: 09/10/17 12:00 Date Received: 09/12/17 10:44

Method: 8260B - Volatile Organic	Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/12/17 13:53	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/12/17 13:53	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/12/17 13:53	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/12/17 13:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		50 - 134			-		09/12/17 13:53	1
Dibromofluoromethane	91		62 _ 130					09/12/17 13:53	1
Toluene-d8 (Surr)	99		70 - 130					09/12/17 13:53	1

67 - 139

Client Sample ID: MW44-NFP-14-16-09102017

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Date Collected: 09/10/17 11:10

Lab Sample ID: 600-153701-2

Lab Sample ID: 600-153701-3

09/12/17 13:53

Matrix: Solid Percent Solids: 94.8

Date Received: 09/12/17 10:44

4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS) Analyte Result Qualifier RL MDL Unit Dil Fac D Prepared Analyzed $\overline{\varphi}$ 09/12/17 12:21 09/12/17 14:58 Benzene 0.00250 J 0.00528 0.000665 mg/Kg Ethylbenzene 0.00108 U 0.00528 09/12/17 12:21 09/12/17 14:58 0.00108 mg/Kg 0.00146 U 09/12/17 14:58 Toluene 0.00528 0.00146 mg/Kg 09/12/17 12:21 Xylenes, Total 0.00119 U 0.00528 0.00119 mg/Kg 09/12/17 12:21 09/12/17 14:58

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1,2-Dichloroethane-d4 (Surr)	87		61 - 130	09/12/17 12:21	09/12/17 14:58	1
١	Dibromofluoromethane	75		68 - 140	09/12/17 12:21	09/12/17 14:58	1
	Toluene-d8 (Surr)	80		50 - 130	09/12/17 12:21	09/12/17 14:58	1
	4-Bromofluorobenzene	119		57 - 140	09/12/17 12:21	09/12/17 14:58	1

General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.2		1.0	1.0	%			09/12/17 16:31	1
Percent Solids	94.8		1.0	1.0	%			09/12/17 16:31	1

Client Sample ID: MD09-NFP-14-16-09102017

Date Collected: 09/10/17 11:15	Matrix: Solid
Date Received: 09/12/17 10:44	Percent Solids: 96.5

Method: 8260B - Volatile Orga	anic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000652	U	0.00518	0.000652	mg/Kg	-	09/12/17 12:21	09/12/17 15:23	1
Ethylbenzene	0.00106	U	0.00518	0.00106	mg/Kg	₽	09/12/17 12:21	09/12/17 15:23	1
Toluene	0.00143	U	0.00518	0.00143	mg/Kg	₩	09/12/17 12:21	09/12/17 15:23	1
Xylenes, Total	0.00117	U	0.00518	0.00117	mg/Kg	\$	09/12/17 12:21	09/12/17 15:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130				09/12/17 12:21	09/12/17 15:23	

Dibromofluoromethane 75 68 - 140 09/12/17 12:21 09/12/17 15:23 Toluene-d8 (Surr) 83 50 - 130 09/12/17 12:21 09/12/17 15:23 4-Bromofluorobenzene 57 - 140 09/12/17 12:21 09/12/17 15:23 116

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Client Sample ID: MD09-NFP-14-16-09102017

Date Collected: 09/10/17 11:15

Lab Sample ID: 600-153701-3

Matrix: Solid

Date Received: 09/12/17 10:44 Percent Solids: 96.5

General Chemistry							
Analyte	Result Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.5	1.0	1.0 %			09/12/17 16:28	1
Percent Solids	96.5	1.0	1.0 %			09/12/17 16:28	1

Client Sample ID: MW44-NFP-20-21-09102017 Lab Sample ID: 600-153701-4

Date Collected: 09/10/17 11:30 Date Received: 09/12/17 10:44 **Matrix: Solid**

Percent Solids: 99.1

Method: 8260B - Volatile Orga	inic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000592	U	0.00469	0.000592	mg/Kg	₩	09/12/17 12:21	09/12/17 15:48	1
Ethylbenzene	0.000958	U	0.00469	0.000958	mg/Kg	≎	09/12/17 12:21	09/12/17 15:48	1
Toluene	0.00130	U	0.00469	0.00130	mg/Kg	₽	09/12/17 12:21	09/12/17 15:48	1
Xylenes, Total	0.00106	U	0.00469	0.00106	mg/Kg	₩	09/12/17 12:21	09/12/17 15:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130				09/12/17 12:21	09/12/17 15:48	1
Dibromofluoromethane	74		68 - 140				09/12/17 12:21	09/12/17 15:48	1
Toluene-d8 (Surr)	82		50 - 130				09/12/17 12:21	09/12/17 15:48	1
4-Bromofluorobenzene	114		57 ₋ 140				09/12/17 12:21	09/12/17 15:48	1
_									

Analyte Result Qualifier RL RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture 0.9 1.0 1.0 %			09/12/17 16:28	1
Percent Solids 99.1 1.0 1.0 %			09/12/17 16:28	1

Lab Sample ID: 600-153701-5 Client Sample ID: MW44-NFP-31-32-09102017

Date Collected: 09/10/17 11:40 Date Received: 09/12/17 10:44

Released to Imaging: 10/26/2022 7:32:21 AM

Matrix: Solid Percent Solids: 94.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000671	U	0.00532	0.000671	mg/Kg	₩	09/12/17 12:21	09/12/17 16:13	1
Ethylbenzene	0.00109	U	0.00532	0.00109	mg/Kg	₩	09/12/17 12:21	09/12/17 16:13	1
Toluene	0.00147	U	0.00532	0.00147	mg/Kg	₽	09/12/17 12:21	09/12/17 16:13	1
Xylenes, Total	0.00120	U	0.00532	0.00120	mg/Kg	\$	09/12/17 12:21	09/12/17 16:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130				09/12/17 12:21	09/12/17 16:13	1
Dibromofluoromethane	71		68 - 140				09/12/17 12:21	09/12/17 16:13	1
Toluene-d8 (Surr)	81		50 - 130				09/12/17 12:21	09/12/17 16:13	1
4-Bromofluorobenzene	113		57 - 140				09/12/17 12:21	09/12/17 16:13	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.3		1.0	1.0	%			09/12/17 16:28	1
Percent Solids	94.7		1.0	1.0	%			09/12/17 16:28	1

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Client Sample ID: MW44-NFP-41-42-09102017

Date Collected: 09/10/17 13:40 Date Received: 09/12/17 10:44

Lab Sample ID: 600-153701-6

Matrix: Solid

Percent Solids: 98.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000562	U	0.00446	0.000562	mg/Kg	<u> </u>	09/12/17 12:21	09/12/17 18:18	1
Ethylbenzene	0.000910	U	0.00446	0.000910	mg/Kg	₽	09/12/17 12:21	09/12/17 18:18	1
Toluene	0.00123	U	0.00446	0.00123	mg/Kg	₽	09/12/17 12:21	09/12/17 18:18	1
Xylenes, Total	0.00101	U	0.00446	0.00101	mg/Kg	\$	09/12/17 12:21	09/12/17 18:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130				09/12/17 12:21	09/12/17 18:18	1
Dibromofluoromethane	73		68 - 140				09/12/17 12:21	09/12/17 18:18	1
Toluene-d8 (Surr)	80		50 ₋ 130				09/12/17 12:21	09/12/17 18:18	1
4-Bromofluorobenzene	115		57 - 140				09/12/17 12:21	09/12/17 18:18	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1.3		1.0	1.0	%			09/12/17 16:28	1
Percent Solids	98.7		1.0	1.0	%			09/12/17 16:28	1

Client Sample ID: MW44-NFP-53-54-09102017 Lab Sample ID: 600-153701-7

Date Collected: 09/10/17 14:00

Released to Imaging: 10/26/2022 7:32:21 AM

Matrix: Solid

Date Received: 09/12/17 10:44 Percent Solids: 89.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000654	U	0.00519	0.000654	mg/Kg	₩	09/12/17 12:21	09/13/17 11:31	1
Ethylbenzene	0.00106	U	0.00519	0.00106	mg/Kg	₩	09/12/17 12:21	09/13/17 11:31	1
Toluene	0.00143	U	0.00519	0.00143	mg/Kg	₩	09/12/17 12:21	09/13/17 11:31	1
Xylenes, Total	0.00117	U	0.00519	0.00117	mg/Kg	\$	09/12/17 12:21	09/13/17 11:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		61 - 130				09/12/17 12:21	09/13/17 11:31	1
Dibromofluoromethane	72		68 - 140				09/12/17 12:21	09/13/17 11:31	1
Toluene-d8 (Surr)	82		50 ₋ 130				09/12/17 12:21	09/13/17 11:31	1
4-Bromofluorobenzene	117		57 - 140				09/12/17 12:21	09/13/17 11:31	1

General Chemistry Analyte	Result Q	ualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.8		1.0	1.0	%			09/12/17 16:28	1
Percent Solids	89.2		1.0	1.0	%			09/12/17 16:28	1

Client Sample ID: MW44-NFP-62-63-09102017 Lab Sample ID: 600-153701-8

Date Collected: 09/10/17 14:40 **Matrix: Solid** Date Received: 09/12/17 10:44 Percent Solids: 91.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000511	U	0.00406	0.000511	mg/Kg	\tilde{\pi}	09/12/17 12:21	09/13/17 11:56	1
Ethylbenzene	0.00293	J	0.00406	0.000828	mg/Kg	₽	09/12/17 12:21	09/13/17 11:56	1
Toluene	0.00112	U	0.00406	0.00112	mg/Kg	₽	09/12/17 12:21	09/13/17 11:56	1
Xylenes, Total	0.000917	U	0.00406	0.000917	mg/Kg	*	09/12/17 12:21	09/13/17 11:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82	-	61 - 130				09/12/17 12:21	09/13/17 11:56	

Client: CH2M Hill Constructors, Inc.

Date Collected: 09/10/17 14:40

Date Received: 09/12/17 10:44

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17 Client Sample ID: MW44-NFP-62-63-09102017

TestAmerica Job ID: 600-153701-1

Lab Sample ID: 600-153701-8

Matrix: Solid Percent Solids: 91.2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	75	68 - 140	09/12/17 12:21	09/13/17 11:56	1
Toluene-d8 (Surr)	86	50 - 130	09/12/17 12:21	09/13/17 11:56	1
4-Bromofluorobenzene	69	57 ₋ 140	09/12/17 12:21	09/13/17 11:56	1

General Chemistry Analyte Result Qualifier RL RL Unit Prepared Dil Fac Analyzed 1.0 % **Percent Moisture** 8.8 1.0 09/12/17 16:31 09/12/17 16:31 **Percent Solids** 1.0 1.0 % 91.2

Client Sample ID: MW44-NFP-69-70-09102017

Date Collected: 09/10/17 15:40

Date Received: 09/12/17 10:44

Lab Sample ID: 600-153701-9

Percent Solids: 90.0

Matrix: Solid

1	Method: 8260B - Volatile Organic C	ompounas	(GC/MS)							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	0.000581	U	0.00461	0.000581	mg/Kg		09/12/17 12:21	09/13/17 12:20	1
	Ethylbenzene	0.000940	U	0.00461	0.000940	mg/Kg	₩	09/12/17 12:21	09/13/17 12:20	1
	Toluene	0.00127	U	0.00461	0.00127	mg/Kg	₽	09/12/17 12:21	09/13/17 12:20	1
	Xylenes, Total	0.00104	U	0.00461	0.00104	mg/Kg	\$	09/12/17 12:21	09/13/17 12:20	1
١										

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		61 - 130	09/12/17 12:21	09/13/17 12:20	1
Dibromofluoromethane	72		68 - 140	09/12/17 12:21	09/13/17 12:20	1
Toluene-d8 (Surr)	83		50 - 130	09/12/17 12:21	09/13/17 12:20	1
4-Bromofluorobenzene	113		57 - 140	09/12/17 12:21	09/13/17 12:20	1

General Chemistry								
Analyte	Result Quali	ifier RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10	1.0	1.0	%			09/12/17 16:31	1
Percent Solids	90.0	1.0	1.0	%			09/12/17 16:31	1

Client Sample ID: MW45-NFP-13-14-09112017

Date Collected: 09/11/17 15:15

Date Received: 09/12/17 10:44

Lab Sample ID: 600-153701-10

Percent Solids: 93.4

Method: 8260B	- Volatile (Organic (Compounds	(GC/MS)
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Motifical 0200B Volutile Organie	Joinpounds ((00/1110)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000644	U	0.00511	0.000644	mg/Kg		09/12/17 12:21	09/12/17 13:24	1
Ethylbenzene	0.00104	U	0.00511	0.00104	mg/Kg	₽	09/12/17 12:21	09/12/17 13:24	1
Toluene	0.00141	U	0.00511	0.00141	mg/Kg	₽	09/12/17 12:21	09/12/17 13:24	1
Xylenes, Total	0.00116	U	0.00511	0.00116	mg/Kg	\$	09/12/17 12:21	09/12/17 13:24	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81	61 - 130	09/12/17 12:21	09/12/17 13:24	1
Dibromofluoromethane	74	68 - 140	09/12/17 12:21	09/12/17 13:24	1
Toluene-d8 (Surr)	84	50 - 130	09/12/17 12:21	09/12/17 13:24	1
4-Bromofluorobenzene	112	57 - 140	09/12/17 12:21	09/12/17 13:24	1

General	Chemistry
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Analyte	Result Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.6	1.0	1.0 %			09/12/17 16:28	1

TestAmerica Houston

Matrix: Solid

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Client Sample ID: MW45-NFP-13-14-09112017

Lab Sample ID: 600-153701-10

Matrix: Solid

Percent Solids: 93.4

Date Collected: 09/11/17 15:15

Date Received: 09/12/17 10:44 **General Chemistry (Continued)**

Analyte

Percent Solids

RL Result Qualifier RL Unit D Prepared Analyzed Dil Fac 1.0 1.0 % 93.4 09/12/17 16:28

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ИL	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC OC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recover		
		12DCE	DBFM	TOL	BFB	
Lab Sample ID	Client Sample ID	(61-130)	(68-140)	(50-130)	(57-140)	
600-153701-2	MW44-NFP-14-16-09102017	87	75	80	119	
600-153701-3	MD09-NFP-14-16-09102017	82	75	83	116	
600-153701-4	MW44-NFP-20-21-09102017	86	74	82	114	
600-153701-5	MW44-NFP-31-32-09102017	85	71	81	113	
600-153701-6	MW44-NFP-41-42-09102017	91	73	80	115	
600-153701-7	MW44-NFP-53-54-09102017	79	72	82	117	
600-153701-8	MW44-NFP-62-63-09102017	82	75	86	69	
600-153701-9	MW44-NFP-69-70-09102017	77	72	83	113	
600-153701-10	MW45-NFP-13-14-09112017	81	74	84	112	
600-153701-10 MS	MW45-NFP-13-14-09112017	93	83	90	125	
600-153701-10 MSD	MW45-NFP-13-14-09112017	79	80	95	108	
LCS 600-221092/3	Lab Control Sample	88	84	92	125	
LCS 600-221194/3	Lab Control Sample	94	89	97	134	
LCSD 600-221092/4	Lab Control Sample Dup	84	83	96	119	
LCSD 600-221194/4	Lab Control Sample Dup	78	82	95	131	
MB 600-221092/6	Method Blank	89	75	82	112	
MB 600-221194/6	Method Blank	85	74	83	110	

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

				Percent Sui	rogate Reco
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(50-134)	(62-130)	(70-130)	(67-139)
600-153701-1	TB05-NFP-09102017	91	91	99	102
LCS 600-221116/4	Lab Control Sample	96	93	95	104
LCSD 600-221116/5	Lab Control Sample Dup	97	96	97	107
MB 600-221116/7	Method Blank	93	95	100	101

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-221092/6 **Matrix: Solid**

Analysis Batch: 221092

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB Result Qualifier RL MDL Unit Dil Fac Analyte D Prepared Analyzed 0.000630 mg/Kg Benzene 0.000630 U 0.00500 09/12/17 10:55 09/12/17 10:55 Ethylbenzene 0.00102 U 0.00500 0.00102 mg/Kg 0.00500 0.00138 mg/Kg 09/12/17 10:55 Toluene 0.00138 U Xylenes, Total 0.00113 U 0.00500 0.00113 mg/Kg 09/12/17 10:55

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		61 - 130		09/12/17 10:55	1
Dibromofluoromethane	75		68 - 140		09/12/17 10:55	1
Toluene-d8 (Surr)	82		50 - 130		09/12/17 10:55	1
4-Bromofluorobenzene	112		57 ₋ 140		09/12/17 10:55	1

Lab Sample ID: LCS 600-221092/3

Matrix: Solid

Analysis Batch: 221092

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.0500 0.04720 94 70 - 131 mg/Kg Ethylbenzene 0.0500 0.04434 mg/Kg 89 66 - 130 Toluene 0.0500 0.04421 mg/Kg 88 67 - 130 0.100 Xylenes, Total 0.08279 mg/Kg 83 63 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		61 - 130
Dibromofluoromethane	84		68 - 140
Toluene-d8 (Surr)	92		50 - 130
4-Bromofluorobenzene	125		57 - 140

Lab Sample ID: LCSD 600-221092/4

Matrix: Solid

Analysis Batch: 221092

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04521		mg/Kg		90	70 - 131	4	30
Ethylbenzene	0.0500	0.04380		mg/Kg		88	66 - 130	1	30
Toluene	0.0500	0.04398		mg/Kg		88	67 - 130	1	30
Xylenes, Total	0.100	0.08367		mg/Kg		84	63 - 130	1	30
	Benzene Ethylbenzene Toluene	Analyte Added Benzene 0.0500 Ethylbenzene 0.0500 Toluene 0.0500	Analyte Added Result Benzene 0.0500 0.04521 Ethylbenzene 0.0500 0.04380 Toluene 0.0500 0.04398	Analyte Added Result Qualifier Benzene 0.0500 0.04521 Ethylbenzene 0.0500 0.04380 Toluene 0.0500 0.04398	Analyte Added Result Qualifier Unit Benzene 0.0500 0.04521 mg/Kg Ethylbenzene 0.0500 0.04380 mg/Kg Toluene 0.0500 0.04398 mg/Kg	Analyte Added Result Qualifier Unit D Benzene 0.0500 0.04521 mg/Kg Ethylbenzene 0.0500 0.04380 mg/Kg Toluene 0.0500 0.04398 mg/Kg	Analyte Added Result Qualifier Unit D %Rec Benzene 0.0500 0.04521 mg/Kg 90 Ethylbenzene 0.0500 0.04380 mg/Kg 88 Toluene 0.0500 0.04398 mg/Kg 88	Analyte Added Result Qualifier Unit D %Rec Limits Benzene 0.0500 0.04521 mg/Kg 90 70 - 131 Ethylbenzene 0.0500 0.04380 mg/Kg 88 66 - 130 Toluene 0.0500 0.04398 mg/Kg 88 67 - 130	Benzene 0.0500 0.04521 mg/Kg 90 70 - 131 4 Ethylbenzene 0.0500 0.04380 mg/Kg 88 66 - 130 1 Toluene 0.0500 0.04398 mg/Kg 88 67 - 130 1

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	84		61 - 130
Dibromofluoromethane	83		68 - 140
Toluene-d8 (Surr)	96		50 - 130
4-Bromofluorobenzene	119		57 - 140

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

MB MB

Lab Sample ID: MB 600-221116/7

Matrix: Water

Analysis Batch: 221116

Client Sample ID: Method Blank

Prep Type: Total/NA

мв мв MDL Unit Analyte Result Qualifier RLD Prepared Dil Fac Analyzed Benzene 0.000176 U 0.00100 0.000176 mg/L 09/12/17 13:27 Ethylbenzene 0.000212 U 0.00100 0.000212 mg/L 09/12/17 13:27 Toluene 0.000198 U 0.00100 0.000198 mg/L 09/12/17 13:27 Xylenes, Total 0.000366 U 0.00200 0.000366 mg/L 09/12/17 13:27

> Dil Fac Analyzed 09/12/17 13:27 09/12/17 13:27

Qualifier Limits Surrogate %Recovery Prepared 1,2-Dichloroethane-d4 (Surr) 93 50 - 134 Dibromofluoromethane 95 62 - 130 70 - 130 Toluene-d8 (Surr) 100 09/12/17 13:27 09/12/17 13:27 4-Bromofluorobenzene 101 67 - 139

Lab Sample ID: LCS 600-221116/4

Matrix: Water

Analysis Batch: 221116

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Spike LCS LCS %Rec. Analyte Added %Rec Limits Result Qualifier Unit Benzene 0.0100 0.009807 98 70 - 130 mg/L Ethylbenzene 0.0100 0.01018 mg/L 102 70 - 130 Toluene 0.0100 0.009695 70 - 130 mg/L 97 Xylenes, Total 0.0200 0.01992 mg/L 100 70 - 130

LCS LCS Qualifier Limits Surrogate %Recovery 1,2-Dichloroethane-d4 (Surr) 50 - 134 96 Dibromofluoromethane 93 62 - 130 70 - 130 Toluene-d8 (Surr) 95 67 - 139 4-Bromofluorobenzene 104

Lab Sample ID: LCSD 600-221116/5

Matrix: Water

Analysis Batch: 221116

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0100	0.009104		mg/L		91	70 - 130	7	20
Ethylbenzene	0.0100	0.009578		mg/L		96	70 - 130	6	20
Toluene	0.0100	0.009106		mg/L		91	70 - 130	6	20
Xylenes, Total	0.0200	0.01863		mg/L		93	70 - 130	7	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		50 - 134
Dibromofluoromethane	96		62 - 130
Toluene-d8 (Surr)	97		70 - 130
4-Bromofluorobenzene	107		67 - 139

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-153701-10 MS

Matrix: Solid

Analysis Batch: 221092

Client Sample ID: MW45-NFP-13-14-09112017

Prep Type: Total/NA

Prep Batch: 221140

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.000644	U	0.0467	0.04277		mg/Kg	₩	92	70 - 131	
Ethylbenzene	0.00104	U	0.0467	0.03913		mg/Kg	₽	84	66 - 130	
Toluene	0.00141	U	0.0467	0.03857		mg/Kg	₽	83	67 - 130	
Xylenes, Total	0.00116	U	0.0934	0.07300		mg/Kg	₩.	78	63 - 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		61 - 130
Dibromofluoromethane	83		68 - 140
Toluene-d8 (Surr)	90		50 - 130
4-Bromofluorobenzene	125		57 - 140

Client Sample ID: MW45-NFP-13-14-09112017

Prep Type: Total/NA

Prep Batch: 221140

Matrix: Solid

Analysis Batch: 221194

Lab Sample ID: 600-153701-10 MSD

		Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Benzene	0.000644	U	0.0538	0.05342		mg/Kg	<u> </u>	99	70 - 131	22	30
	Ethylbenzene	0.00104	U	0.0538	0.05169		mg/Kg	₩	96	66 - 130	28	30
	Toluene	0.00141	U	0.0538	0.05235		mg/Kg	₽	97	67 - 130	30	30
İ	Xylenes, Total	0.00116	U	0.108	0.09459		mg/Kg	\$	88	63 - 130	26	30

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	79		61 - 130
Dibromofluoromethane	80		68 - 140
Toluene-d8 (Surr)	95		50 - 130
4-Bromofluorobenzene	108		57 - 140

Lab Sample ID: MB 600-221194/6 Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 221194

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/13/17 10:41	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/13/17 10:41	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/13/17 10:41	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/13/17 10:41	1

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130		09/13/17 10:41	1
Dibromofluoromethane	74		68 - 140		09/13/17 10:41	1
Toluene-d8 (Surr)	83		50 - 130		09/13/17 10:41	1
4-Bromofluorobenzene	110		57 - 140		09/13/17 10:41	1

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-221194/3 **Matrix: Solid**

Analysis Batch: 221194

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Spike LCS LCS %Rec. %Rec Added Result Qualifier Limits Analyte Unit Benzene 0.0500 0.04986 mg/Kg 100 70 - 131 Ethylbenzene 0.0500 0.04809 mg/Kg 96 66 - 130 0.0500 Toluene 0.04770 mg/Kg 95 67 - 130Xylenes, Total 0.100 0.08913 mg/Kg 89 63 - 130

LCS LCS %Recovery Qualifier Limits Surrogate 1,2-Dichloroethane-d4 (Surr) 94 61 - 130 Dibromofluoromethane 89 68 - 140 Toluene-d8 (Surr) 97 50 - 130 57 - 140 4-Bromofluorobenzene 134

> Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Analysis Batch: 221194

Matrix: Solid

Lab Sample ID: LCSD 600-221194/4

LCSD LCSD %Rec. RPD Spike Added Result Qualifier %Rec Limits RPD Limit Analyte Unit Benzene 0.0500 0.04811 96 70 - 131 30 mg/Kg Ethylbenzene 0.0500 0.04531 mg/Kg 91 66 - 130 6 30 Toluene 0.0500 0.04599 67 - 130 mg/Kg 92 30 Xylenes, Total 0.100 0.08456 mg/Kg 85 63 - 1305 30

LCSD LCSD Limits Surrogate %Recovery Qualifier 1,2-Dichloroethane-d4 (Surr) 78 61 - 130 Dibromofluoromethane 82 68 - 140 50 - 130 Toluene-d8 (Surr) 95 57 - 140 4-Bromofluorobenzene 131

Method: 2540B - Percent Moisture

Lab Sample ID: 600-153701-4 DU Client Sample ID: MW44-NFP-20-21-09102017

Matrix: Solid

Analysis Batch: 221154

DU DU RPD Sample Sample Qualifier Result Qualifier Analyte Result Unit RPD Limit Percent Moisture 0.9 0.8 % 20 Percent Solids 99.1 99.2 % 20

Lab Sample ID: 600-153701-9 DU Client Sample ID: MW44-NFP-69-70-09102017

Matrix: Solid

Analysis Batch: 221154

-	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Percent Moisture	10		 10.3		%			3	20
Percent Solids	90.0		89.7		%			0.4	20

TestAmerica Houston

Prep Type: Total/NA

Prep Type: Total/NA

QC Association Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

GC/MS VOA

Analysis Batch: 221092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153701-2	MW44-NFP-14-16-09102017	Total/NA	Solid	8260B	221140
600-153701-3	MD09-NFP-14-16-09102017	Total/NA	Solid	8260B	221140
600-153701-4	MW44-NFP-20-21-09102017	Total/NA	Solid	8260B	221140
600-153701-5	MW44-NFP-31-32-09102017	Total/NA	Solid	8260B	221140
600-153701-6	MW44-NFP-41-42-09102017	Total/NA	Solid	8260B	221140
600-153701-10	MW45-NFP-13-14-09112017	Total/NA	Solid	8260B	221140
MB 600-221092/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-221092/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-221092/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
600-153701-10 MS	MW45-NFP-13-14-09112017	Total/NA	Solid	8260B	221140

Analysis Batch: 221116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153701-1	TB05-NFP-09102017	Total/NA	Water	8260B	
MB 600-221116/7	Method Blank	Total/NA	Water	8260B	
LCS 600-221116/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-221116/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Prep Batch: 221140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153701-2	MW44-NFP-14-16-09102017	Total/NA	Solid	5035_ASP	
600-153701-3	MD09-NFP-14-16-09102017	Total/NA	Solid	5035_ASP	
600-153701-4	MW44-NFP-20-21-09102017	Total/NA	Solid	5035_ASP	
600-153701-5	MW44-NFP-31-32-09102017	Total/NA	Solid	5035_ASP	
600-153701-6	MW44-NFP-41-42-09102017	Total/NA	Solid	5035_ASP	
600-153701-7	MW44-NFP-53-54-09102017	Total/NA	Solid	5035_ASP	
600-153701-8	MW44-NFP-62-63-09102017	Total/NA	Solid	5035_ASP	
600-153701-9	MW44-NFP-69-70-09102017	Total/NA	Solid	5035_ASP	
600-153701-10	MW45-NFP-13-14-09112017	Total/NA	Solid	5035_ASP	
600-153701-10 MS	MW45-NFP-13-14-09112017	Total/NA	Solid	5035_ASP	
600-153701-10 MSD	MW45-NFP-13-14-09112017	Total/NA	Solid	5035_ASP	

Analysis Batch: 221194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153701-7	MW44-NFP-53-54-09102017	Total/NA	Solid	8260B	221140
600-153701-8	MW44-NFP-62-63-09102017	Total/NA	Solid	8260B	221140
600-153701-9	MW44-NFP-69-70-09102017	Total/NA	Solid	8260B	221140
MB 600-221194/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-221194/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-221194/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
600-153701-10 MSD	MW45-NFP-13-14-09112017	Total/NA	Solid	8260B	221140

General Chemistry

Analysis Batch: 221154

	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	600-153701-2	MW44-NFP-14-16-09102017	Total/NA	Solid	2540B	
	600-153701-3	MD09-NFP-14-16-09102017	Total/NA	Solid	2540B	
	600-153701-4	MW44-NFP-20-21-09102017	Total/NA	Solid	2540B	
١	600-153701-5	MW44-NFP-31-32-09102017	Total/NA	Solid	2540B	

TestAmerica Houston

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QC Association Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

General Chemistry (Continued)

Analysis Batch: 221154 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153701-6	MW44-NFP-41-42-09102017	Total/NA	Solid	2540B	
600-153701-7	MW44-NFP-53-54-09102017	Total/NA	Solid	2540B	
600-153701-8	MW44-NFP-62-63-09102017	Total/NA	Solid	2540B	
600-153701-9	MW44-NFP-69-70-09102017	Total/NA	Solid	2540B	
600-153701-10	MW45-NFP-13-14-09112017	Total/NA	Solid	2540B	
600-153701-10 MS	MW45-NFP-13-14-09112017	Total/NA	Solid	2540B	
600-153701-10 MSD	MW45-NFP-13-14-09112017	Total/NA	Solid	2540B	
600-153701-4 DU	MW44-NFP-20-21-09102017	Total/NA	Solid	2540B	
600-153701-9 DU	MW44-NFP-69-70-09102017	Total/NA	Solid	2540B	

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Lab Chronicle

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Client Sample ID: TB05-NFP-09102017

Date Collected: 09/10/17 12:00 Date Received: 09/12/17 10:44

Lab Sample ID: 600-153701-1

Matrix: Water

Matrix: Solid

Batch Dil Initial Final Batch Batch Prepared Method Prep Type Type Run Factor Amount **Amount** Number or Analyzed Analyst Lab Total/NA Analysis 8260B 20 mL 20 mL 221116 09/12/17 13:53 YX1 TAL HOU

Client Sample ID: MW44-NFP-14-16-09102017 Lab Sample ID: 600-153701-2

Date Collected: 09/10/17 11:10

Date Received: 09/12/17 10:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221154	09/12/17 16:31	B1K	TAL HOU

Client Sample ID: MW44-NFP-14-16-09102017 Lab Sample ID: 600-153701-2

Date Collected: 09/10/17 11:10

Matrix: Solid Date Received: 09/12/17 10:44 Percent Solids: 94.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.998 g	5 mL	221140	09/12/17 12:21	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221092	09/12/17 14:58	WS1	TAL HOU

Client Sample ID: MD09-NFP-14-16-09102017 Lab Sample ID: 600-153701-3

Date Collected: 09/10/17 11:15

Date Received: 09/12/17 10:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B	. ——— -	1			221154	09/12/17 16:28	B1K	TAL HOU

Client Sample ID: MD09-NFP-14-16-09102017 Lab Sample ID: 600-153701-3

Date Collected: 09/10/17 11:15

Date Received: 09/12/17 10:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.004 g	5 mL	221140	09/12/17 12:21	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221092	09/12/17 15:23	WS1	TAL HOU

Lab Sample ID: 600-153701-4 Client Sample ID: MW44-NFP-20-21-09102017

Date Collected: 09/10/17 11:30 Date Received: 09/12/17 10:44

Released to Imaging: 10/26/2022 7:32:21 AM

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221154	09/12/17 16:28	B1K	TAL HOU

TestAmerica Houston

Matrix: Solid Percent Solids: 96.5

Matrix: Solid

Matrix: Solid

Lab Chronicle

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Client Sample ID: MW44-NFP-20-21-09102017 Lab Sample ID: 600-153701-4

Date Collected: 09/10/17 11:30 Date Received: 09/12/17 10:44

Matrix: Solid Percent Solids: 99.1

Batch Batch Dil Initial Final Batch Prepared Prep Type Type Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Prep 5035 ASP 5.374 g 5 mL 221140 09/12/17 12:21 WS1 TAL HOU 8260B 221092 WS1 Total/NA Analysis 09/12/17 15:48 TAL HOU 1 5 g 5 g

Client Sample ID: MW44-NFP-31-32-09102017 Lab Sample ID: 600-153701-5

Date Collected: 09/10/17 11:40 Date Received: 09/12/17 10:44

Matrix: Solid

Dil Batch Batch Initial Final Batch Prepared Method Amount Amount Number or Analyzed Prep Type Type Run Factor Analyst Lab Total/NA Analysis 2540B 221154 09/12/17 16:28 B₁K TAL HOU

Client Sample ID: MW44-NFP-31-32-09102017 Lab Sample ID: 600-153701-5

Date Collected: 09/10/17 11:40

Date Received: 09/12/17 10:44 Percent Solids: 94.7

Batch Dil Initial Final Batch Batch Prepared Method Factor Amount Number or Analyzed Prep Type Type Run Amount Analyst Lab 221140 Total/NA Prep 5035_ASP 4.962 g 5 mL 09/12/17 12:21 WS1 TAL HOU Total/NA Analysis 8260B 5 g 5 g 221092 09/12/17 16:13 WS1 TAL HOU 1

Client Sample ID: MW44-NFP-41-42-09102017 Lab Sample ID: 600-153701-6

Date Collected: 09/10/17 13:40

Date Received: 09/12/17 10:44

Batch Batch Dil Initial Final Batch Prepared Method Amount Number Amount or Analyzed Prep Type Type Run Factor Analyst Lab 221154 2540B 09/12/17 16:28 B1K TAL HOU Total/NA Analysis

Client Sample ID: MW44-NFP-41-42-09102017 Lab Sample ID: 600-153701-6

Date Collected: 09/10/17 13:40

Date Received: 09/12/17 10:44 Percent Solids: 98.7

Dil Batch Batch Initial Final Batch Prepared Prep Type Type Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 ASP 221140 WS1 TAL HOU Total/NA Prep 5.678 g 09/12/17 12:21 5 mL Total/NA Analysis 8260B 5 g 5 g 221092 09/12/17 18:18 WS1 TAL HOU

Client Sample ID: MW44-NFP-53-54-09102017 Lab Sample ID: 600-153701-7

Date Collected: 09/10/17 14:00

Date Received: 09/12/17 10:44

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221154	09/12/17 16:28	B1K	TAL HOU

TestAmerica Houston

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

TestAmerica Job ID: 600-153701-1

Client Sample ID: MW44-NFP-53-54-09102017

Date Collected: 09/10/17 14:00 Date Received: 09/12/17 10:44

Lab Sample ID: 600-153701-7

Matrix: Solid Percent Solids: 89.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.401 g	5 mL	221140	09/12/17 12:21	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221194	09/13/17 11:31	WS1	TAL HOU

Client Sample ID: MW44-NFP-62-63-09102017

Date Collected: 09/10/17 14:40

Date Received: 09/12/17 10:44

Lab	Sample	ID:	600-153701-8

Matrix: Solid

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221154	09/12/17 16:31	B1K	TAL HOU

Client Sample ID: MW44-NFP-62-63-09102017 Lab Sample ID: 600-153701-8

Date Collected: 09/10/17 14:40

Date Received: 09/12/17 10:44

Matrix: Solid Percent Solids: 91.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.755 g	5 mL	221140	09/12/17 12:21	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221194	09/13/17 11:56	WS1	TAL HOU

Client Sample ID: MW44-NFP-69-70-09102017 Lab Sample ID: 600-153701-9

Date Collected: 09/10/17 15:40

Date Received: 09/12/17 10:44

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221154	09/12/17 16:31	B1K	TAL HOU

Client Sample ID: MW44-NFP-69-70-09102017 Lab Sample ID: 600-153701-9

D

Date Received: 09/12/17 10:44	Percent Solids: 90.0
Date Collected: 09/10/17 15:40	Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.026 g	5 mL	221140	09/12/17 12:21	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221194	09/13/17 12:20	WS1	TAL HOU

Client Sample ID: MW45-NFP-13-14-09112017 Lab Sample ID: 600-153701-10

Date Collected: 09/11/17 15:15

Date Received: 09/12/17 10:44

	_										
l		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
	Total/NA	Analysis	2540B		1			221154	09/12/17 16:28	B1K	TAL HOU

Lab Chronicle

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

TestAmerica Job ID: 600-153701-1

Client Sample ID: MW45-NFP-13-14-09112017

Lab Sample ID: 600-153701-10

Date Collected: 09/11/17 15:15 Date Received: 09/12/17 10:44

Matrix: Solid Percent Solids: 93.4

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.232 g	5 mL	221140	09/12/17 12:21	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221092	09/12/17 13:24	WS1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

TestAmerica Job ID: 600-153701-1

Project/Site: Kinder Morgan Bloomfield, NM NFP 9/10/17

Laboratory: TestAmerica Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

orica Houston

Analy Street

Houston, TX 77040

Phone (713) 690-4444 Fax (713) 690-5646

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Chain of Custody Record

Client Information	大で	HILL		Uptor	Upton, Cathy L	٢			Carn	Carrier Tracking No(s)	COC No 600-36947-10949 1	49.1
Client Contact Aleeca Forsberg		240-37	22	E-Mail cathy	upton@	testan	E-Mail cathy upton@testamericainc.com	com			Page Page 1 of 1	-
Company CH2M Hill, Inc.	1	- 1					A	Analysis	alysis Requested	ted	Job#	
Address 3721 Rutledge Rd. NE. Suite B-1	Due Date Requested:	d:				-					Preservation Codes:	odes:
City. Albuquerque	TAT Requested (days):	ays):					_				B - NaOH	M - Hexane N - None O - Assao?
State, Zip. NM, 87109	10 BD Preli	10 BD Prelim; 14 BD Level3 Package (3e)	el3 Packag	ge (3e))					D - Nitric Acid E - NaHSO4	P - Na204S Q - Na2SO3
Phone: 281-721-8546(Tel)	PO# WD293112					18HRs					G-Amchior	R - Na2S2SO3 S - H2SO4
Email: Aleeca Forsbero@CH2M.com	WO#				CHICATON CO.	OLD-					1 - Ice	U - Acetone V - MCAA
Project Name	HOUSTON Project #	**			-	RT HO	_				K-EDTA	W - ph 4-5
Kinder Morgan Bloomfield, NM NFP	60004617	,			THE REAL PROPERTY.	HOR				9	_	Z - other (specify)
Site. BTEX Soils	SSOW#				SD (Y	DILS EX (S	•		_	1-009	Other:	
			Sample	Matrix	MS/M	035 - BT	Moisture		WATER	0269		
Sample Identification	Sample Date	Ф			CONTRACTOR OF THE PARTY OF	2608_	ercent		260B_	Chai		
A STATE OF THE PROPERTY OF THE	V Supplied in the same of the	V.	Preservation Code	1		Z 8	Z p	6	A 8	lo n	opeciai	special instructions/Note:
TB05- NFP- 09/020/7	9/10/17	1200	G	THE PERSON	2				X	pisno	*** 48Hr Hol	48Hr Holding Time
MW44-NFP-14-16-09102017	9/10/17	1110	െ	Soil	2	×	X			λpα	From Samp	From Sample Collection
MDD9-NEP-14-16-09/02017	9/10/17	1115	G	Soil	2	×	X					
MW44-NFP-20-21-09102017	9/10/17	1130	6	Soil	2	×	×					
MW44-NFP-31-32-09/0201	19/10/17	1140	6	Soil	5	×	X					
MW44-NFP-41-42-09102017	9/10/17	1340	o	Soil	2	×	×					
MW44-NFP-53-54-09102017	9/10/17	1400	G	Soil	2	X	X				10	
MW44-NFP-62-63-0910201	19/10/17	1440	G	Soil	2	×	×					
MW44-NFP-69-70-0910201	79/10/17	1540	G	Soil	5	×	X				150,0	
			6	Soil								
			9	Water								
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poi	Poison B Unknown		Radiological		Samı	Retur	le Disposal (A f Return To Client	ee may	be asses	be assessed if samples are retained longer than 1 month) Disposal By Lab Archive For Mon	stained longer than 1 Archive For	1 month) Months
ested: I, II, III, IV, Other					Speci	al Inst	Special Instructions/QC	Require	ments			
Empty Kit Relinquished by		Date:			Time:)		Method of Shipment		
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Relinquished by	Date/Time	ĺ	0,0	Company	R	Received by	by			Date/Time:		Company
Custody Seals Intact: Custody Seal No.: Δ Yes: Δ No					0	O Te	Cooler Temperature(s)	s) °C and Other Remarks	er Remarks	T		

TestAmerica

TestAtherica Houston 6310 Rothway Street Houston, TX 77040	C	hain	Chain of Custody Record	tody R	есо	<u>a</u>							Test	茅	[estAmerica
Client Information	Sampler	4:11		Upton.	m, Cathy L	۲			Can	Carrier Tracking No(s)	g No(s):		COC No 600-36947-10949	47-1094	49.1
Client Contact Aleeca Forsberg	Phone 205	- 240	-323	J	y.upton(@testai	E-Mail cathy upton@testamericainc.com	3					Page 1 of 1	of 1	
Company CH2M Hill, Inc.				- [Ana	ysis	Requested	sted			Job#		
Address: 3721 Rutledge Rd. NE Suite B-1	Due Date Requested:	27			200	-						364	Preservation Codes:	tion Coc	des:
	TAT Requested (days):	(5):							-			Te my	A - HCL B - NaOH C - Zn Acetate	at at a	M - Hexane N - None
State, Zip. NM, 87109	10 BD Prelim; 14 BD Level3 Package (3e)	1; 14 BD L	evel3 Pack	age (3e)								To the last	D - Nitric Acid		P - Na204S O - Na2SO3
Phone 281-721-8546(Tel)	PO# WD293112					ISHRS							G - Amchior		R - Na2S2SO3 S - H2SO4
Email:	WO#				200	OLD-4		-	-				I - Ice	ACIO	U - Acetone
Project Name	HOUSTON Project #					RT H						ners	K-EDTA		W-ph 4-5
Kinder Morgan Bloomfield, NM NFP	60004617				-	HOR					_	ntain	L-EDA		Z - other (specify)
Site: BTEX Soils	SSOW#					OILS TEX (S			-	_		of cor	Other:		
		Sample	Sample Type (C=comp,	Matrix (Wilwater, Sesolid, Onwasterfol),	eld Filtered rform MS/M	SOB 5035 - B	cent Moistur		WATE			tal Number			
Campia incinancianon	Variibie Date		Preserva:	Preservation Code:		Z 8			A 8			XT	U	Decial II	opecial instructions/Note:
MW45-NFP-13-14-09112017	9/11/17	515	G	Soil	Z		×						*** 48H	ir Hold	48Hr Holding Time
MW45-NFP-13-14-D9112017 MS	9	515	G	Soil	*	× \	X						From S	Sample	From Sample Collection
-NEP-13-14-0911201	0/11/10	1515	6	Soil	2		X								Control of the Control
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Possible Hazard Identification			G	Water					_						
Non-Hazard Flammable Skin Irritant Pois	Poison B Hunknown		Radiological		San	Retu	Sample Disposal (A ree may be assessed if samples are retained longer than 1 month) Return To Client Oisposal By Lab Archive For Month	e may	Dispo	ssed if s	amples ar	e retain	ive For	than 1	Months
ested: I, II, III, IV, Other	,				Spe	cial Ins	Special Instructions/QC Requirements	Require	ments:						
Empty Kit Relinquished by:	3	Date			Time:)				Method o	Method of Shipment				·
Relinquished by A.M. Relinquished by	Date/Time:	170	700	Company CH2M		Received by	2	4		1	Date/Time	7-7	74	444	Company
Reinquistred by.	Date/Time:			Company		Received by	by (7			Date/Time				Company
Custody Seals Intact Custody Seal No.: A Yes A No						Cooler	Cooles-Jemperature(s) °C and Other Remarks	and Oth	er Remark	100					

TUE - 12 SEP 10:30A	1984 7455 1165 3944 Fedex		
100.01 020 01 2112	/		
	L.M.	4	
		5/	
			COMMENTS:
S AER NO	f sample acceptability upon receipt	ory's standard conditions o	Did samples meet the laborat
	AN 🗆 OI	(2-6mm): ☐ YES ☐ N) əldstqəccs əccqsbsərl AC
		7	
			4 paper Lot #
			4 paper Lot #
LES NO	Acid preserved are <ph>P.:</ph>	LES [NO	
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		TION OF SAMPLES RE	ABORATORY PRESERVA'
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□ AE2	ONINED: NO Observed Temp	TION OF SAMPLES RETEND Temp	CF = correction factor ABORATORY PRESERVA Y Y Y Y Y Y Y Y Y Y Y Y Y
□ AE2	Vumber of Coolers Received: Observed Temp Therm OUIRED: OUIRED	TION OF SAMPLES REPLAND Y Y Y Y N Y N Y Y Y N Y Y Y Y Y Y Y Y Y	Cooler ID

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Released to Imaging: 10/26/2022 7:32:21 AM

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12/10/2020 (Rev. 1)

Login Sample Receipt Checklist

Job Number: 600-153701-1 Client: CH2M Hill Constructors, Inc.

Login Number: 153701 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

Laboratory Job ID: 600-153854-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP

Revision: 1

For:

CH2M Hill Constructors, Inc. 14701 St. Mary's Lane Suite 300 Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Stee A Stephul

Authorized for release by: 12/10/2020 10:06:49 AM Steve Stepanski, Project Mgmt. Assistant (713)690-4444 steve.stepanski@Eurofinset.com

Designee for

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

Review your project results through
Total Access

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Have a Question?



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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Released to Imaging: 10/26/2022 7:32:21 AM

Laboratory Job ID: 600-153854-1

Client: CH2M Hill Constructors, Inc. Project/Site: Kinder Morgan Bloomfield, NM NFP

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QC Sample Results	13
QC Association Summary	18
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Certification Summary	24
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Case Narrative

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-153854-1

Job ID: 600-153854-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-153854-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/13/2017 11:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9° C.

GC/MS VOA

Method(s) 8260B: All analytes were reported as Estimated (E) values in sample(s) MW45-NFP-35-36-09122017 (600-153854-9) as the result was above the Upper Calibration Level. The sample(s) was re-analyzed from the medium level (methanol) vial, but was not reported due to the result being below the RL at this dilution. The nature of prep method 5035A negates the ability to run the samples at an intermediate dilution to achieve a result within the calibration range, so the "E" value is the best analytical result achievable.

Method(s) 8260B: The following volatile sample was analyzed with significant headspace in the sample Container(s): TB06-NFP-09122017 (600-153854-1). Significant headspace is defined as a bubble greater than 6 mm in diameter.

Method(s) 8260B: The following samples required a medium level dilution to bring the concentration of target analytes within the calibration range: MW45-NFP-39-40-09122017 (600-153854-5), MW45-NFP-48-49-09122017 (600-153854-6), MW45-NFP-59-60-09122017 (600-153854-7) and MW45-NFP-69-70-09122017 (600-153854-8). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Method Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-153854-1	TB06-NFP-09122017	Water	09/12/17 08:00	09/13/17 11:45
600-153854-2	MW45-NFP-23-24-09122017	Solid	09/12/17 08:30	09/13/17 11:45
600-153854-3	MD10-NFP-23-24-09122017	Solid	09/12/17 08:35	09/13/17 11:45
600-153854-4	MW45-NFP-31-32-09122017	Solid	09/12/17 09:00	09/13/17 11:45
600-153854-5	MW45-NFP-39-40-09122017	Solid	09/12/17 09:10	09/13/17 11:45
600-153854-6	MW45-NFP-48-49-09122017	Solid	09/12/17 09:20	09/13/17 11:45
600-153854-7	MW45-NFP-59-60-09122017	Solid	09/12/17 09:50	09/13/17 11:45
600-153854-8	MW45-NFP-69-70-09122017	Solid	09/12/17 10:15	09/13/17 11:45
600-153854-9	MW45-NFP-35-36-09122017	Solid	09/12/17 10:45	09/13/17 11:45

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Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Client Sample ID: TB06-NFP-09122017

TestAmerica Job ID: 600-153854-1

Lab Sample ID: 600-153854-1

Date Collected: 09/12/17 08:00 Matrix: Water

Date Received: 09/13/17 11:45

Method: 8260B - Volatile Orga	nic Compounds ((GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/14/17 13:41	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/14/17 13:41	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/14/17 13:41	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/14/17 13:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		50 - 134			-		09/14/17 13:41	1
Dibromofluoromethane	102		62 - 130					09/14/17 13:41	1
Toluene-d8 (Surr)	102		70 - 130					09/14/17 13:41	1
4-Bromofluorobenzene	104		67 - 139					09/14/17 13:41	1

Client Sample ID: MW45-NFP-23-24-09122017

Date Collected: 09/12/17 08:30

Date Received: 09/13/17 11:45

Lab Sample ID: 600-153854-2 Matrix: Solid

Percent Solids: 97.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00110	J	0.00489	0.000616	mg/Kg	-	09/13/17 21:09	09/15/17 14:05	1
Ethylbenzene	0.000997	U	0.00489	0.000997	mg/Kg	₩	09/13/17 21:09	09/15/17 14:05	1
Toluene	0.00135	U	0.00489	0.00135	mg/Kg	₽	09/13/17 21:09	09/15/17 14:05	1
Xylenes, Total	0.00235	J	0.00489	0.00110	mg/Kg	₩	09/13/17 21:09	09/15/17 14:05	1

Surrogate	%Recovery (Qualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106	61 - 130	09/13/17 21:09	09/15/17 14:05	1
Dibromofluoromethane	95	68 - 140	09/13/17 21:09	09/15/17 14:05	1
Toluene-d8 (Surr)	89	50 - 130	09/13/17 21:09	09/15/17 14:05	1
4-Bromofluorobenzene	110	57 - 140	09/13/17 21:09	09/15/17 14:05	1

General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.9		1.0	1.0	%			09/14/17 16:02	1
Percent Solids	97.1		1.0	1.0	%			09/14/17 16:02	1

Client Sample ID: MD10-NFP-23-24-09122017 Lab Sample ID: 600-153854-3

 Date Collected: 09/12/17 08:35
 Matrix: Solid

 Date Received: 09/13/17 11:45
 Percent Solids: 97.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000655	U	0.00520	0.000655	mg/Kg	<u> </u>	09/13/17 21:09	09/15/17 14:30	1
Ethylbenzene	0.00106	U	0.00520	0.00106	mg/Kg	₽	09/13/17 21:09	09/15/17 14:30	1
Toluene	0.00143	U	0.00520	0.00143	mg/Kg	₩	09/13/17 21:09	09/15/17 14:30	1
Xylenes, Total	0.00117	U	0.00520	0.00117	mg/Kg	\$	09/13/17 21:09	09/15/17 14:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		61 - 130				09/13/17 21:09	09/15/17 14:30	1
Dibromofluoromethane	95		68 - 140				09/13/17 21:09	09/15/17 14:30	1
Toluene-d8 (Surr)	87		50 - 130				09/13/17 21:09	09/15/17 14:30	1
4-Bromofluorobenzene	106		57 - 140				09/13/17 21:09	09/15/17 14:30	

Client: CH2M Hill Constructors, Inc.

Date Received: 09/13/17 11:45

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Lab Sample ID: 600-153854-3

Client Sample ID: MD10-NFP-23-24-09122017 Date Collected: 09/12/17 08:35 **Matrix: Solid**

Percent Solids: 97.5

General Chemistry Analyte	Result Qu	alifier RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.5	1.0	1.0	%			09/14/17 16:02	1
Percent Solids	97.5	1.0	1.0	%			09/14/17 16:02	1

Client Sample ID: MW45-NFP-31-32-09122017

Date Collected: 09/12/17 09:00 Date Received: 09/13/17 11:45 Lab Sample ID: 600-153854-4 Matrix: Solid

Percent Solids: 81.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.102		0.00436	0.000549	mg/Kg	*	09/13/17 21:09	09/14/17 18:14	1
Ethylbenzene	0.101		0.00436	0.000889	mg/Kg	₽	09/13/17 21:09	09/14/17 18:14	1
Toluene	0.00120	U	0.00436	0.00120	mg/Kg	₩	09/13/17 21:09	09/14/17 18:14	1
Xylenes, Total	0.00316	J	0.00436	0.000985	mg/Kg	₩	09/13/17 21:09	09/14/17 18:14	1

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 103 61 - 130 09/13/17 21:09 09/14/17 18:14 Dibromofluoromethane 97 68 - 140 09/13/17 21:09 09/14/17 18:14 Toluene-d8 (Surr) 50 - 130 92 09/13/17 21:09 09/14/17 18:14 4-Bromofluorobenzene 113 57 - 140 09/13/17 21:09 09/14/17 18:14

	General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Percent Moisture	18.4		1.0	1.0	%			09/14/17 15:57	1
l	Percent Solids	81.6		1.0	1.0	%			09/14/17 15:57	1

Client Sample ID: MW45-NFP-39-40-09122017 Lab Sample ID: 600-153854-5

Date Collected: 09/12/17 09:10 Date Received: 09/13/17 11:45

Matrix: Solid

Percent Solids: 86.6

	anic Compounds	•	- .			_			B.: -
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.22		0.742	0.0935	mg/Kg	<u> </u>	09/13/17 21:09	09/15/17 18:27	1
Ethylbenzene	4.82		0.742	0.151	mg/Kg	₽	09/13/17 21:09	09/15/17 18:27	1
Toluene	4.87		0.742	0.205	mg/Kg	₽	09/13/17 21:09	09/15/17 18:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		61 - 130				09/13/17 21:09	09/15/17 18:27	1
Dibromofluoromethane	86		68 - 140				09/13/17 21:09	09/15/17 18:27	1
Toluene-d8 (Surr)	99		50 - 130				09/13/17 21:09	09/15/17 18:27	1
			57 - 140				09/13/17 21:09	09/15/17 18:27	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	54.8		3.71	0.839	mg/Kg	-	09/13/17 21:09	09/15/17 18:50	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		61 - 130				09/13/17 21:09	09/15/17 18:50	5
Dibromofluoromethane	91		68 - 140				09/13/17 21:09	09/15/17 18:50	5
Toluene-d8 (Surr)	95		50 - 130				09/13/17 21:09	09/15/17 18:50	5
4-Bromofluorobenzene	104		57 ₋ 140				09/13/17 21:09	09/15/17 18:50	5

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Lab Sample ID: 600-153854-5

Matrix: Solid Percent Solids: 86.6

Client Sample	ID: MW45-NFP-39-40-09122017

Date Collected: 09/12/17 09:10 Date Received: 09/13/17 11:45

General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.4		1.0	1.0	%			09/14/17 16:02	1
Percent Solids	86.6		1.0	1.0	%			09/14/17 16:02	1

Client Sample ID: MW45-NFP-48-49-09122017

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Date Collected: 09/12/17 09:20 Date Received: 09/13/17 11:45 Lab Sample ID: 600-153854-6 **Matrix: Solid**

Percent Solids: 96.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	25.1		4.53	0.570	mg/Kg	₩	09/13/17 21:09	09/15/17 20:21	10
Ethylbenzene	29.5		4.53	0.923	mg/Kg	₽	09/13/17 21:09	09/15/17 20:21	10
Toluene	45.9		4.53	1.25	mg/Kg	₽	09/13/17 21:09	09/15/17 20:21	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130				09/13/17 21:09	09/15/17 20:21	10
Dibromofluoromethane	89		68 - 140				09/13/17 21:09	09/15/17 20:21	10
Toluene-d8 (Surr)	91		50 - 130				09/13/17 21:09	09/15/17 20:21	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	317		45.3	10.2	mg/Kg	₩	09/13/17 21:09	09/15/17 20:44	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130				09/13/17 21:09	09/15/17 20:44	100
Dibromofluoromethane	81		68 - 140				09/13/17 21:09	09/15/17 20:44	100
Toluene-d8 (Surr)	97		50 - 130				09/13/17 21:09	09/15/17 20:44	100
4-Bromofluorobenzene	104		57 ₋ 140				09/13/17 21:09	09/15/17 20:44	100

General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.6		1.0	1.0	%	_		09/14/17 15:57	1
Percent Solids	96.4		1.0	1.0	%			09/14/17 15:57	1

Client Sample ID: MW45-NFP-59-60-09122017 Lab Sample ID: 600-153854-7

Date Collected: 09/12/17 09:50 **Matrix: Solid** Date Received: 09/13/17 11:45 Percent Solids: 83.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	20.1		2.92	0.368	mg/Kg	\$	09/13/17 21:09	09/15/17 19:13	5
Ethylbenzene	5.51		2.92	0.595	mg/Kg	₽	09/13/17 21:09	09/15/17 19:13	5
Toluene	4.92		2.92	0.805	mg/Kg	₽	09/13/17 21:09	09/15/17 19:13	5
Xylenes, Total	77.1		2.92	0.659	mg/Kg	\$	09/13/17 21:09	09/15/17 19:13	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130				09/13/17 21:09	09/15/17 19:13	5
Dibromofluoromethane	85		68 - 140				09/13/17 21:09	09/15/17 19:13	5
Toluene-d8 (Surr)	98		50 - 130				09/13/17 21:09	09/15/17 19:13	5
4-Bromofluorobenzene	121		57 - 140				09/13/17 21:09	09/15/17 19:13	

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Released to Imaging: 10/26/2022 7:32:21 AM

TestAmerica Job ID: 600-153854-1

Client Sample ID: MW45-NFP-59-60-09122017 Lab Sample ID: 600-153854-7

Date Collected: 09/12/17 09:50 Matrix: Solid

Date Received: 09/13/17 11:45 Matrix. Solid

Percent Solids: 83.3

General Chemistry								
Analyte	Result Qu	ualifier RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.7	1.0	1.0	%			09/14/17 15:57	1
Percent Solids	83.3	1.0	1.0	%			09/14/17 15:57	1

Client Sample ID: MW45-NFP-69-70-09122017 Lab Sample ID: 600-153854-8

 Date Collected: 09/12/17 10:15
 Matrix: Solid

 Date Received: 09/13/17 11:45
 Percent Solids: 90.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	21.6		2.27	0.286	mg/Kg	₩	09/13/17 21:09	09/15/17 19:36	5
Ethylbenzene	16.0		2.27	0.463	mg/Kg	₽	09/13/17 21:09	09/15/17 19:36	5
Toluene	20.7		2.27	0.626	mg/Kg	₽	09/13/17 21:09	09/15/17 19:36	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		61 - 130				09/13/17 21:09	09/15/17 19:36	5
Dibromofluoromethane	89		68 - 140				09/13/17 21:09	09/15/17 19:36	5
Toluene-d8 (Surr)	95		50 - 130				09/13/17 21:09	09/15/17 19:36	5

wethod: 6260B - volatile Orga	nic Compounds	(GC/IVIS) - L	/L						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	155		22.7	5.13	mg/Kg	\	09/13/17 21:09	09/15/17 19:58	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130				09/13/17 21:09	09/15/17 19:58	50
Dibromofluoromethane	85		68 - 140				09/13/17 21:09	09/15/17 19:58	50
Toluene-d8 (Surr)	100		50 - 130				09/13/17 21:09	09/15/17 19:58	50
4-Bromofluorobenzene	118		57 - 140				09/13/17 21:09	09/15/17 19:58	50

General Chemistry				_			
Analyte	Result Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10	1.0	1.0 %			09/14/17 15:57	1
Percent Solids	90.0	1.0	1.0 %			09/14/17 15:57	1

Client Sample ID: MW45-NFP-35-36-09122017 Lab Sample ID: 600-153854-9

Date Collected: 09/12/17 10:45 Matrix: Solid
Date Received: 09/13/17 11:45 Percent Solids: 85.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.224	E	0.00395	0.000498	mg/Kg	₩	09/13/17 21:09	09/19/17 19:17	1
Ethylbenzene	0.440	E	0.00395	0.000806	mg/Kg	₽	09/13/17 21:09	09/19/17 19:17	1
Toluene	0.498	E	0.00395	0.00109	mg/Kg	₽	09/13/17 21:09	09/19/17 19:17	1
Xylenes, Total	4.02		0.00395	0.000893	mg/Kg	\$	09/13/17 21:09	09/19/17 19:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		61 - 130				09/13/17 21:09	09/19/17 19:17	1
Dibromofluoromethane	98		68 ₋ 140				09/13/17 21:09	09/19/17 19:17	1
Toluene-d8 (Surr)	88		50 - 130				09/13/17 21:09	09/19/17 19:17	1
4-Bromofluorobenzene	91		57 - 140				09/13/17 21:09	09/19/17 19:17	1

TestAmerica Houston

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Client: CH2M Hill Constructors, Inc.

Percent Moisture

Percent Solids

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Lab Sample ID: 600-153854-9

09/14/17 15:57

09/14/17 15:57

Percent Solids: 85.6

Client Sample ID: MW45-NFP-35-36-09122017 Date Collected: 09/12/17 10:45 Matrix: Solid Date Received: 09/13/17 11:45

14.4

85.6

General Chemistry RL Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac

1.0

1.0

%

1.0

1.0 %

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Qualifiers

GC/MS VOA

Qual	ifier	Qualifier Description
U		Indicates the analyte was analyzed for but not detected.
J		Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Ε		Result exceeded calibration range.

Glossary

RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

TestAmerica Houston

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4.0

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Reporting Limit or Requested Limit (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Relative Percent Difference, a measure of the relative difference between two points

Surrogate Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

				Percent Sur	rrogate Reco
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(61-130)	(68-140)	(50-130)	(57-140)
600-153854-2	MW45-NFP-23-24-09122017	106	95	89	110
600-153854-3	MD10-NFP-23-24-09122017	104	95	87	106
600-153854-4	MW45-NFP-31-32-09122017	103	97	92	113
600-153854-5 - DL	MW45-NFP-39-40-09122017	94	91	95	104
600-153854-5	MW45-NFP-39-40-09122017	93	86	99	116
600-153854-6	MW45-NFP-48-49-09122017	86	89	91	114
600-153854-6 - DL	MW45-NFP-48-49-09122017	86	81	97	104
600-153854-7	MW45-NFP-59-60-09122017	91	85	98	121
600-153854-8	MW45-NFP-69-70-09122017	92	89	95	122
600-153854-8 - DL	MW45-NFP-69-70-09122017	87	85	100	118
600-153854-9	MW45-NFP-35-36-09122017	107	98	88	91
LCS 600-221289/3	Lab Control Sample	96	97	100	128
LCS 600-221380/3	Lab Control Sample	109	106	100	122
LCS 600-221428/1-A	Lab Control Sample	86	86	93	107
LCS 600-221605/3	Lab Control Sample	104	109	105	122
LCSD 600-221289/4	Lab Control Sample Dup	83	91	99	120
LCSD 600-221380/4	Lab Control Sample Dup	104	106	103	124
LCSD 600-221428/2-A	Lab Control Sample Dup	85	85	92	101
LCSD 600-221605/4	Lab Control Sample Dup	106	108	105	126
MB 600-221289/6	Method Blank	96	88	85	103
MB 600-221380/6	Method Blank	108	97	90	102
MB 600-221428/3-A	Method Blank	86	82	99	102
MB 600-221605/6	Method Blank	103	95	92	110

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

				Percent Sur	rogate Reco
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(50-134)	(62-130)	(70-130)	(67-139)
600-153854-1	TB06-NFP-09122017	108	102	102	104
LCS 600-221323/4	Lab Control Sample	100	107	100	112
LCSD 600-221323/5	Lab Control Sample Dup	100	105	99	110
MB 600-221323/6	Method Blank	107	102	102	104

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

MR MR

Lab Sample ID: MB 600-221289/6

Matrix: Solid

Analysis Batch: 221289

Client Sample ID: Method Blank

Prep Type: Total/NA

ı										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	0.000630	U	0.00500	0.000630	mg/Kg	_		09/14/17 09:53	1
ı	Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/14/17 09:53	1
	Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/14/17 09:53	1
ı	Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/14/17 09:53	1

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 96 61 - 130 09/14/17 09:53 Dibromofluoromethane 88 68 - 140 09/14/17 09:53 Toluene-d8 (Surr) 85 50 - 130 09/14/17 09:53 4-Bromofluorobenzene 57 - 140 09/14/17 09:53 103

Lab Sample ID: LCS 600-221289/3

Matrix: Solid

Analysis Batch: 221289

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.0500 0.05328 107 70 - 131 mg/Kg Ethylbenzene 0.0500 0.05043 mg/Kg 101 66 - 130 Toluene 0.0500 0.05004 100 67 - 130 mg/Kg Xylenes, Total 0.100 0.09284 mg/Kg 93 63 - 130

LCS LCS Qualifier Limits Surrogate %Recovery 1,2-Dichloroethane-d4 (Surr) 61 - 130 96 Dibromofluoromethane 97 68 - 140 Toluene-d8 (Surr) 100 50 - 130 57 - 140 4-Bromofluorobenzene 128

Lab Sample ID: LCSD 600-221289/4

Matrix: Solid

Analysis Batch: 221289

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04789		mg/Kg		96	70 - 131	11	30
Ethylbenzene	0.0500	0.04472		mg/Kg		89	66 - 130	12	30
Toluene	0.0500	0.04554		mg/Kg		91	67 - 130	9	30
Xylenes, Total	0.100	0.08361		mg/Kg		84	63 - 130	10	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	83		61 - 130
Dibromofluoromethane	91		68 - 140
Toluene-d8 (Surr)	99		50 ₋ 130
4-Bromofluorobenzene	120		57 ₋ 140

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-221323/6

Matrix: Water

Analysis Batch: 221323

Client Sample ID: Method Blank Prep Type: Total/NA

MB MB Result Qualifier RL MDL Unit Dil Fac Analyte D Prepared Analyzed Benzene 0.000176 U 0.00100 0.000176 mg/L 09/14/17 12:48 09/14/17 12:48 Ethylbenzene 0.000212 U 0.00100 0.000212 mg/L 0.000198 mg/L 0.000198 U 0.00100 09/14/17 12:48 Toluene Xylenes, Total 0.000366 U 0.00200 0.000366 mg/L 09/14/17 12:48

	MB	MB					
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		50 - 134	_		09/14/17 12:48	1
Dibromofluoromethane	102		62 - 130			09/14/17 12:48	1
Toluene-d8 (Surr)	102		70 - 130			09/14/17 12:48	1
4-Bromofluorobenzene	104		67 - 139			09/14/17 12:48	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 221323

Lab Sample ID: LCS 600-221323/4

Spike	LCS	LCS				%Rec.	
Added	Result	Qualifier	Unit	D	%Rec	Limits	
0.0100	0.01002		mg/L		100	70 - 130	
0.0100	0.01010		mg/L		101	70 - 130	
0.0100	0.009527		mg/L		95	70 - 130	
0.0200	0.01989		mg/L		99	70 - 130	
	Added 0.0100 0.0100 0.0100	Added Result 0.0100 0.01002 0.0100 0.01010 0.0100 0.009527	Added Result 0.0100 0.01002 0.0100 0.01010 0.0	Added Result Qualifier Unit 0.0100 0.01002 mg/L 0.0100 0.01010 mg/L 0.0100 0.009527 mg/L	Added Result Qualifier Unit D 0.0100 0.01002 mg/L 0.0100 0.01010 mg/L 0.0100 0.009527 mg/L	Added Result Qualifier Unit D %Rec 0.0100 0.01002 mg/L 100 0.0100 0.01010 mg/L 101 0.0100 0.009527 mg/L 95	Added Result Qualifier Unit D %Rec Limits 0.0100 0.01002 mg/L 100 70 - 130 0.0100 0.01010 mg/L 101 70 - 130 0.0100 0.009527 mg/L 95 70 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		50 - 134
Dibromofluoromethane	107		62 - 130
Toluene-d8 (Surr)	100		70 - 130
4-Bromofluorobenzene	112		67 - 139

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 221323

Lab Sample ID: LCSD 600-221323/5

•	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.0100	0.009934		mg/L		99	70 - 130	1	20	
Ethylbenzene	0.0100	0.01004		mg/L		100	70 - 130	1	20	
Toluene	0.0100	0.009387		mg/L		94	70 - 130	1	20	
Xylenes, Total	0.0200	0.01971		mg/L		99	70 - 130	1	20	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		50 - 134
Dibromofluoromethane	105		62 - 130
Toluene-d8 (Surr)	99		70 - 130
4-Bromofluorobenzene	110		67 - 139

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-221380/6

Matrix: Solid

Analysis Batch: 221380

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB Result Qualifier RL MDL Unit Dil Fac Analyte D Prepared Analyzed 0.000630 mg/Kg Benzene 0.000630 U 0.00500 09/15/17 09:58 0.00102 U 09/15/17 09:58 Ethylbenzene 0.00500 0.00102 mg/Kg Toluene 0.00500 0.00138 mg/Kg 0.00138 U 09/15/17 09:58 Xylenes, Total 0.00113 U 0.00500 0.00113 mg/Kg 09/15/17 09:58

	MB	MB					
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		61 - 130	_		09/15/17 09:58	1
Dibromofluoromethane	97		68 ₋ 140			09/15/17 09:58	1
Toluene-d8 (Surr)	90		50 ₋ 130			09/15/17 09:58	1
4-Bromofluorobenzene	102		57 - 140			09/15/17 09:58	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 221380

Lab Sample ID: LCS 600-221380/3

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.0500	0.04960		mg/Kg	_	99	70 - 131	
Ethylbenzene	0.0500	0.04443		mg/Kg		89	66 - 130	
Toluene	0.0500	0.04474		mg/Kg		89	67 - 130	
Xylenes, Total	0.100	0.08148		mg/Kg		81	63 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		61 - 130
Dibromofluoromethane	106		68 - 140
Toluene-d8 (Surr)	100		50 - 130
4-Bromofluorobenzene	122		57 ₋ 140

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 221380

Lab Sample ID: LCSD 600-221380/4

•	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.05068		mg/Kg		101	70 - 131	2	30
Ethylbenzene	0.0500	0.04485		mg/Kg		90	66 - 130	1	30
Toluene	0.0500	0.04569		mg/Kg		91	67 - 130	2	30
Xylenes, Total	0.100	0.08399		mg/Kg		84	63 _ 130	3	30

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		61 - 130
Dibromofluoromethane	106		68 - 140
Toluene-d8 (Surr)	103		50 - 130
4-Bromofluorobenzene	124		57 - 140

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-221428/3-A

Matrix: Solid

Toluene Xylenes, Total

Analysis Batch: 221430

Client Sample ID: Method Blank Prep Type: Total/NA

09/15/17 16:32

Prep Batch: 221428

	MB	MR						
Analyte	Result	Qualifier	RL	MDL	Unit	Prepared	Analyzed	Dil Fac
Benzene	0.0788	U	0.625	0.0788	mg/Kg	 09/15/17 11:30	09/15/17 16:32	1
Ethylbenzene	0.128	U	0.625	0.128	mg/Kg	09/15/17 11:30	09/15/17 16:32	1
Toluene	0.173	U	0.625	0.173	mg/Kg	09/15/17 11:30	09/15/17 16:32	1

0.141 mg/Kg

MB MB

0.141 U

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130	09	9/15/17 11:30	09/15/17 16:32	1
Dibromofluoromethane	82		68 - 140	09	9/15/17 11:30	09/15/17 16:32	1
Toluene-d8 (Surr)	99		50 - 130	09	9/15/17 11:30	09/15/17 16:32	1
4-Bromofluorobenzene	102		57 - 140	09	9/15/17 11:30	09/15/17 16:32	1

0.625

Lab Sample ID: LCS 600-221428/1-A

Matrix: Solid

Analysis Batch: 221430

Client Sample ID: Lab Control Sample

09/15/17 11:30

Prep Type: Total/NA Prep Batch: 221428

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	6.25	6.418		mg/Kg		103	70 - 131	
Ethylbenzene	6.25	6.366		mg/Kg		102	66 - 130	
Toluene	6.25	6.548		mg/Kg		105	67 - 130	
Xylenes, Total	12.5	12.95		mg/Kg		104	63 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		61 - 130
Dibromofluoromethane	86		68 - 140
Toluene-d8 (Surr)	93		50 - 130
4-Bromofluorobenzene	107		57 ₋ 140

Lab Sample ID: LCSD 600-221428/2-A

Matrix: Solid

Analysis Batch: 221430

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 221428

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	6.25	5.952		mg/Kg		95	70 - 131	8	30	
Ethylbenzene	6.25	5.781		mg/Kg		92	66 - 130	10	30	
Toluene	6.25	5.847		mg/Kg		94	67 - 130	11	30	
Xylenes, Total	12.5	11.70		mg/Kg		94	63 - 130	10	30	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		61 - 130
Dibromofluoromethane	85		68 - 140
Toluene-d8 (Surr)	92		50 - 130
4-Bromofluorobenzene	101		57 - 140

QC Sample Results

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-221605/6

Matrix: Solid

Analysis Batch: 221605

Client Sample ID: Method Blank

Prep Type: Total/NA

-	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/19/17 11:02	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/19/17 11:02	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/19/17 11:02	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/19/17 11:02	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	1	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		61 - 130			09/19/17 11:02	1
Dibromofluoromethane	95		68 - 140			09/19/17 11:02	1
Toluene-d8 (Surr)	92		50 - 130			09/19/17 11:02	1
4-Bromofluorobenzene	110		57 - 140			09/19/17 11:02	1

Client Sample ID: Lab Control Sample

%Rec.

Limits

70 - 131

%Rec

104

Prep Type: Total/NA

Analysis Batch: 221605

Matrix: Solid

Lab Sample ID: LCS 600-221605/3

LCS LCS Spike Analyte Added Result Qualifier Unit 0.0500 Benzene 0.05180 mg/Kg

Ethylbenzene 0.0500 0.04818 mg/Kg 96 66 - 130 Toluene 0.0500 0.04833 mg/Kg 97 67 - 130 0.100 Xylenes, Total 0.08881 mg/Kg 63 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		61 - 130
Dibromofluoromethane	109		68 - 140
Toluene-d8 (Surr)	105		50 - 130
4-Bromofluorobenzene	122		57 ₋ 140

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 221605

Lab Sample ID: LCSD 600-221605/4

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04991		mg/Kg		100	70 - 131	4	30
Ethylbenzene	0.0500	0.04535		mg/Kg		91	66 - 130	6	30
Toluene	0.0500	0.04602		mg/Kg		92	67 - 130	5	30
Xylenes, Total	0.100	0.08443		mg/Kg		84	63 - 130	5	30

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		61 - 130
Dibromofluoromethane	108		68 - 140
Toluene-d8 (Surr)	105		50 - 130
4-Bromofluorobenzene	126		57 - 140

TestAmerica Houston

12/10/2020 (Rev. 1)

QC Association Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

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GC/MS VOA

Analysis Batch: 221289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153854-4	MW45-NFP-31-32-09122017	Total/NA	Solid	8260B	221316
MB 600-221289/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-221289/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-221289/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 221316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153854-2	MW45-NFP-23-24-09122017	Total/NA	Solid	5035_ASP	
600-153854-3	MD10-NFP-23-24-09122017	Total/NA	Solid	5035_ASP	
600-153854-4	MW45-NFP-31-32-09122017	Total/NA	Solid	5035_ASP	
600-153854-9	MW45-NFP-35-36-09122017	Total/NA	Solid	5035_ASP	

Analysis Batch: 221323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153854-1	TB06-NFP-09122017	Total/NA	Water	8260B	
MB 600-221323/6	Method Blank	Total/NA	Water	8260B	
LCS 600-221323/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-221323/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 221380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153854-2	MW45-NFP-23-24-09122017	Total/NA	Solid	8260B	221316
600-153854-3	MD10-NFP-23-24-09122017	Total/NA	Solid	8260B	221316
MB 600-221380/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-221380/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-221380/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 221424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153854-5	MW45-NFP-39-40-09122017	Total/NA	Solid	5035	
600-153854-5 - DL	MW45-NFP-39-40-09122017	Total/NA	Solid	5035	
600-153854-6	MW45-NFP-48-49-09122017	Total/NA	Solid	5035	
600-153854-6 - DL	MW45-NFP-48-49-09122017	Total/NA	Solid	5035	
600-153854-7	MW45-NFP-59-60-09122017	Total/NA	Solid	5035	
600-153854-8	MW45-NFP-69-70-09122017	Total/NA	Solid	5035	
600-153854-8 - DL	MW45-NFP-69-70-09122017	Total/NA	Solid	5035	

Prep Batch: 221428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-221428/3-A	Method Blank	Total/NA	Solid	5030B	
LCS 600-221428/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 600-221428/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 221430

Released to Imaging: 10/26/2022 7:32:21 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153854-5	MW45-NFP-39-40-09122017	Total/NA	Solid	8260B	221424
600-153854-5 - DL	MW45-NFP-39-40-09122017	Total/NA	Solid	8260B	221424
600-153854-6	MW45-NFP-48-49-09122017	Total/NA	Solid	8260B	221424
600-153854-6 - DL	MW45-NFP-48-49-09122017	Total/NA	Solid	8260B	221424
600-153854-7	MW45-NFP-59-60-09122017	Total/NA	Solid	8260B	221424
600-153854-8	MW45-NFP-69-70-09122017	Total/NA	Solid	8260B	221424

TestAmerica Houston

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QC Association Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

GC/MS VOA (Continued)

Analysis Batch: 221430 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153854-8 - DL	MW45-NFP-69-70-09122017	Total/NA	Solid	8260B	221424
MB 600-221428/3-A	Method Blank	Total/NA	Solid	8260B	221428
LCS 600-221428/1-A	Lab Control Sample	Total/NA	Solid	8260B	221428
LCSD 600-221428/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	221428

Analysis Batch: 221605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153854-9	MW45-NFP-35-36-09122017	Total/NA	Solid	8260B	221316
MB 600-221605/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-221605/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-221605/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

General Chemistry

Analysis Batch: 221355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153854-2	MW45-NFP-23-24-09122017	Total/NA	Solid	2540B	
600-153854-3	MD10-NFP-23-24-09122017	Total/NA	Solid	2540B	
600-153854-4	MW45-NFP-31-32-09122017	Total/NA	Solid	2540B	
600-153854-5	MW45-NFP-39-40-09122017	Total/NA	Solid	2540B	
600-153854-6	MW45-NFP-48-49-09122017	Total/NA	Solid	2540B	
600-153854-7	MW45-NFP-59-60-09122017	Total/NA	Solid	2540B	
600-153854-8	MW45-NFP-69-70-09122017	Total/NA	Solid	2540B	
600-153854-9	MW45-NFP-35-36-09122017	Total/NA	Solid	2540B	

Client Sample ID: TB06-NFP-09122017 Lab Sample ID: 600-153854-1 Date Collected: 09/12/17 08:00

Matrix: Water

Matrix: Solid

Date Received: 09/13/17 11:45

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	221323	09/14/17 13:41	YX1	TAL HOU

Client Sample ID: MW45-NFP-23-24-09122017 Lab Sample ID: 600-153854-2

Date Collected: 09/12/17 08:30 Matrix: Solid

Date Received: 09/13/17 11:45

ſ	_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
	Total/NA	Analysis	2540B		1			221355	09/14/17 16:02	B1K	TAL HOU

Client Sample ID: MW45-NFP-23-24-09122017 Lab Sample ID: 600-153854-2

Date Collected: 09/12/17 08:30 **Matrix: Solid** Date Received: 09/13/17 11:45 Percent Solids: 97.1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.272 g	5 mL	221316	09/13/17 21:09	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221380	09/15/17 14:05	WS1	TAL HOU

Client Sample ID: MD10-NFP-23-24-09122017 Lab Sample ID: 600-153854-3

Date Collected: 09/12/17 08:35 Date Received: 09/13/17 11:45

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221355	09/14/17 16:02	B1K	TAL HOU

Client Sample ID: MD10-NFP-23-24-09122017 Lab Sample ID: 600-153854-3

Date Collected: 09/12/17 08:35 **Matrix: Solid** Date Received: 09/13/17 11:45 Percent Solids: 97.5

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.935 g	5 mL	221316	09/13/17 21:09	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221380	09/15/17 14:30	WS1	TAL HOU

Lab Sample ID: 600-153854-4 Client Sample ID: MW45-NFP-31-32-09122017

Date Collected: 09/12/17 09:00 **Matrix: Solid** Date Received: 09/13/17 11:45

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221355	09/14/17 15:57	B1K	TAL HOU

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Client Sample ID: MW45-NFP-31-32-09122017

Date Collected: 09/12/17 09:00 Date Received: 09/13/17 11:45 Lab Sample ID: 600-153854-4

Matrix: Solid Percent Solids: 81.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			7.03 g	5 mL	221316	09/13/17 21:09	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221289	09/14/17 18:14	WS1	TAL HOU

Client Sample ID: MW45-NFP-39-40-09122017

Date Collected: 09/12/17 09:10

Date Received: 09/13/17 11:45

Lab Sample ID:	600-153854-5

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221355	09/14/17 16:02	B1K	TAL HOU

Client Sample ID: MW45-NFP-39-40-09122017 Lab Sample ID: 600-153854-5 Date Collected: 09/12/17 09:10 **Matrix: Solid**

Date Received: 09/13/17 11:45 Percent Solids: 86.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.889 g	10 mL	221424	09/13/17 21:09	KLV	TAL HOU
Total/NA	Analysis	8260B		1	100 uL	5 mL	221430	09/15/17 18:27	KLV	TAL HOU
Total/NA	Prep	5035	DL		3.889 g	10 mL	221424	09/13/17 21:09	KLV	TAL HOU
Total/NA	Analysis	8260B	DL	5	100 uL	5 mL	221430	09/15/17 18:50	KLV	TAL HOU

Client Sample ID: MW45-NFP-48-49-09122017 Lab Sample ID: 600-153854-6 **Matrix: Solid**

Date Collected: 09/12/17 09:20 Date Received: 09/13/17 11:45

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221355	09/14/17 15:57	B1K	TAL HOU

Client Sample ID: MW45-NFP-48-49-09122017 Lab Sample ID: 600-153854-6

Released to Imaging: 10/26/2022 7:32:21 AM

Date Collected: 09/12/17 09:20 **Matrix: Solid** Date Received: 09/13/17 11:45 Percent Solids: 96.4

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.733 g	10 mL	221424	09/13/17 21:09	KLV	TAL HOU
Total/NA	Analysis	8260B		10	100 uL	5 mL	221430	09/15/17 20:21	KLV	TAL HOU
Total/NA	Prep	5035	DL		5.733 g	10 mL	221424	09/13/17 21:09	KLV	TAL HOU
Total/NA	Analysis	8260B	DL	100	100 uL	5 mL	221430	09/15/17 20:44	KLV	TAL HOU

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Client Sample ID: MW45-NFP-59-60-09122017

Date Collected: 09/12/17 09:50 Date Received: 09/13/17 11:45

Lab Sample ID: 600-153854-7

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Total/NA Analysis 2540B 221355 09/14/17 15:57 B1K TAL HOU

Client Sample ID: MW45-NFP-59-60-09122017 Lab Sample ID: 600-153854-7

Date Collected: 09/12/17 09:50 Date Received: 09/13/17 11:45

Matrix: Solid Percent Solids: 83.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	туре Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.143 g	10 mL	221424	09/13/17 21:09	KLV	TAL HOU
Total/NA	Analysis	8260B		5	100 uL	5 mL	221430	09/15/17 19:13	KLV	TAL HOU

Client Sample ID: MW45-NFP-69-70-09122017 Lab Sample ID: 600-153854-8 **Matrix: Solid**

Date Collected: 09/12/17 10:15

Date Received: 09/13/17 11:45

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221355	09/14/17 15:57	B1K	TAL HOU

Client Sample ID: MW45-NFP-69-70-09122017 Lab Sample ID: 600-153854-8

Date Collected: 09/12/17 10:15 Date Received: 09/13/17 11:45

Matrix: Solid Percent Solids: 90.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.118 g	10 mL	221424	09/13/17 21:09	KLV	TAL HOU
Total/NA	Analysis	8260B		5	100 uL	5 mL	221430	09/15/17 19:36	KLV	TAL HOU
Total/NA	Prep	5035	DL		6.118 g	10 mL	221424	09/13/17 21:09	KLV	TAL HOU
Total/NA	Analysis	8260B	DL	50	100 uL	5 mL	221430	09/15/17 19:58	KLV	TAL HOU

Client Sample ID: MW45-NFP-35-36-09122017 Lab Sample ID: 600-153854-9

Date Collected: 09/12/17 10:45

Date Received: 09/13/17 11:45

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B	· -			-	221355	09/14/17 15:57	B1K	TAL HOU

Client Sample ID: MW45-NFP-35-36-09122017 Lab Sample ID: 600-153854-9

Date Collected: 09/12/17 10:45 Date Received: 09/13/17 11:45

Released to Imaging: 10/26/2022 7:32:21 AM

Matrix: Solid Percent Solids: 85.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			7.391 g	5 mL	221316	09/13/17 21:09	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221605	09/19/17 19:17	WS1	TAL HOU

TestAmerica Houston

Matrix: Solid

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Job ID: 600-153854-1

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Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153854-1

Laboratory: TestAmerica Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

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TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646	Chain	Chain of Custody Record	tody R	ecord					TestAn	TestAmerica
Client Information	Sampler Hil		Lab 34 Uptor	Lab M Upton, Cathy L			Carrier Tracking No(s	(s) No(s)	COC No. 600-36947-10949.1	-
Client Contact: Aleeca Forsberg	Phone 205-240	3.325		upton@te	E-Mail cathy upton@testamericainc.com	moo	ſ		Page: Page 1 of 1	
Company CH2M Hill, Inc.						Analysis Requested	quested		Job #	
Address: 3721 Rutledge Rd, NE Suite B-1	Due Date Requested								Code	100
City. Albuquerque	TAT Requested (days):			Jeg k			_	_	B - NaOH	M - Hexane N - None O - AsnaO2
Slate, Zlp. NM, 87109	10 BD Prelim; 14 BD	BD Level3 Package (3e)	age (3e)		(- Na2O4S 2 - Na2SO3
Phone. 281-721-8546(Tei)	PO# WD293112			(0	eЯН8≱				G - Amchlor S H - Ascorbic Acid T	R - Na2S2SO3 S - H2SO4 T - TSP Dodecahydrate
Email: Aleeca Forsberg@CH2M.com	WO#.				ногр-			_	1 - Ice J - DI Water	U - Acetone V - MCAA
Project Name. Kinder Morgan Bioornfield, NM NFP	HOUSTON Project # 60004617				тяон				K - EDTA L - EDA	V - ph 4-5 other (specify)
Site BTEX Soils	SSOW#					58:			of con	
and the solid section of the section	03	Sample Type (C=comp,		erform MS/N	260B_6036 - B	ataw.	318 - 77 ⁻ 809		JedmuM Isto	
oampie identification	Sample Date	Preserva	1		12		8 4			Special Instructions/Note:
TBOK- NFP. 09122017	9/12/17 0800	0	wespill	2			×		*** 48Hr Holding Time	ig Time
MWH5.NFP-23-24-09122017	9/12/17 0830	9 0	Soil	ママ	X				From Sample Collection	Collection
MD10- NFP- 23-24-09122017	9/12/17 0835	0	Soil	2	×					
MW45-NFP- 31-32-09122017	9/11/10	9	Soil	2	X			A;		
MW 45 - NFP - 39-40 - 0912 2017	9/12/17/09/10	9 0	Soil	2	X			ootsn		
MW45-NFP-48-49-09122017	19/12/17 0920	9	Soil	3	X			0€ C	-	
MW45 - NFP - 59 - 60 - 09122017	19/11/17/0950	o 0	Soil	2	X			uieų;	part of	
MW45-NFP- 69-70-09122017	9/12/17 1615	G	Soil	2	X			754		
MW45 - NFP - 35-36-09122017	9/12/17 104	5 6	Soil	2	XX			1238		
		9	Soil					-009		
		9	Water				-			
Possible Hazard Identification Non-Hazard Plammable Skin Irritant Poison B	Unknown	Radiological		Sample	le Disposal (A f Return To Client	A fee may be	assessed if san Disposal By Lab	amples are ret	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Mon	onth) Months
Other (specify)				Special	Special Instructions/QC	QC Requirements	ents:			
Empty Kit Relinquished by:	Date			Time:			Method o	Method of Shipment		
Relinquished by YMM Relinquished by	Date/Time 1700	2	Company CH2M Company	Reco	Received by.	gueryn	Tay MA	Date/Time 3	17 11.45	Company H
Reinquished by.	Date/Time		Company	Rece	Received by.			Date/Time		Company
Custody Seals Intact Custody Seal No.:				Coo	er Temperature	Cooler Temperature(s) °C and Other Remarks	Remarks			
				1	1					

TestAmerica Houston

Loc: 600 153854

THE LEADER IN ENVIRONMENTAL TESTING

Rev. 3; 07/01/2014 12/10/2020 (Rev. 1)

Sample	Receipt	Checklist
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	Date/Time Received:	175EP 13 11
JOB NUMBER:	CLIENT:	721VI HIII
UNPACKED BY:	CARRIER/DRIVER:	20 ex
Custody Seal Present: ✓ YES NO	Number of Coolers Received:	
Cooler ID Blank Trip B P P P P P P P P P P P P P P P P P P	Observed Temp Therm ID N 1.2 540 N N N N N N N N N N N N N N N N N N N	Them Corrected Temp (°C)
YINYI	N N	
Samples received on ice? YES NO LABORATORY PRESERVATION OF SAMPLE Base samples are>pH 12: YES NO pH paper Lot # VOA headspace acceptable (5-6mm): YES	Acid preserved are <ph 2:<="" td=""><td>YES NO</td></ph>	YES NO
Did samples meet the laboratory's standard condi	tions of sample accentability upon receir	YES NO
Did Samples meet the laboratory's standard condi-	tions of sample acceptability upon receip	
COMMENTS:		
IAIL trip blank you	75 have headsp	ace
THE DIVINE VOI		
THE DIVINE WIT		

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FedEx TRK# 7455 1165 3955

XH LKSA



WED - 13 SEP 10:30A PRIORITY OVERNIGHT

TX-US

77040 IAH

#292852 09/12 549J1/FF19/104C



Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 600-153854-1

Login Number: 153854 List Source: TestAmerica Houston

List Number: 1

Creator: Kovitch, Christina M

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9°C IR 549
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

restAmerica nouston

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Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

Laboratory Job ID: 600-153884-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP

Revision: 1

For:

CH2M Hill Constructors, Inc. 14701 St. Mary's Lane Suite 300 Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Star A Stephul

Authorized for release by: 12/10/2020 10:09:34 AM Steve Stepanski, Project Mgmt. Assistant (713)690-4444 steve.stepanski@Eurofinset.com

Designee for

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Released to Imaging: 10/26/2022 7:32:21 AM

Laboratory Job ID: 600-153884-1

Client: CH2M Hill Constructors, Inc. Project/Site: Kinder Morgan Bloomfield, NM NFP

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Case Narrative

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-153884-1

Job ID: 600-153884-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-153884-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/14/2017 11:18 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.4° C.

GC/MS VOA

Method(s) 8260B: The following volatile sample was analyzed with significant headspace in the sample Container(s): TB07-NFP-09132017 (600-153884-1). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Method Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Method Description

Percent Moisture

Volatile Organic Compounds (GC/MS)

TestAmerica Job ID: 600-153884-1

TAL HOU

Protocol	Laboratory
SW846	TAL HOU

SM20

Protocol References:

Method

8260B

2540B

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: CH2M Hill Constructors, Inc. Project/Site: Kinder Morgan Bloomfield, NM NFP TestAmerica Job ID: 600-153884-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-153884-1	TB07-NFP-09132017	Water	09/13/17 08:00	09/14/17 11:18
600-153884-2	MW41-NFP-12-14-09132017	Solid	09/13/17 11:10	09/14/17 11:18
600-153884-3	MD06-NFP-12-14-09132017	Solid	09/13/17 11:15	09/14/17 11:18
600-153884-4	MW41-NFP-20-22-09132017	Solid	09/13/17 11:20	09/14/17 11:18
600-153884-5	MW41-NFP-35-36-09132017	Solid	09/13/17 12:50	09/14/17 11:18
600-153884-6	MW41-NFP-40-41-09132017	Solid	09/13/17 13:05	09/14/17 11:18
600-153884-7	MW41-NFP-50-51-09132017	Solid	09/13/17 13:20	09/14/17 11:18
600-153884-8	MW41-NFP-60-61-09132017	Solid	09/13/17 13:45	09/14/17 11:18
600-153884-9	MW41-NFP-64-65-09132017	Solid	09/13/17 13:55	09/14/17 11:18

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Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

Client Sample ID: TB07-NFP-09132017

Lab Sample ID: 600-153884-1 Date Collected: 09/13/17 08:00 **Matrix: Water**

Date Received: 09/14/17 11:18

Method: 8260B - Volatile C	lethod: 8260B - Volatile Organic Compounds (GC/MS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/14/17 15:48	1		
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/14/17 15:48	1		
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/14/17 15:48	1		
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/14/17 15:48	1		
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac		
1,2-Dichloroethane-d4 (Surr)	101		50 - 134			•		09/14/17 15:48	1		
Dibromofluoromethane	101		62 - 130					09/14/17 15:48	1		
Toluene-d8 (Surr)	101		70 - 130					09/14/17 15:48	1		
4-Bromofluorobenzene	103		67 - 139					09/14/17 15:48	1		

Client Sample ID: MW41-NFP-12-14-09132017

Date Collected: 09/13/17 11:10

Matrix: Solid

Lab Sample ID: 600-153884-2

Date Received: 09/14/17 11:18 Percent Solids: 94.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000662	U	0.00525	0.000662	mg/Kg	₽	09/14/17 14:57	09/18/17 12:03	1
Ethylbenzene	0.00107	U	0.00525	0.00107	mg/Kg	₩	09/14/17 14:57	09/18/17 12:03	1
Toluene	0.00145	U	0.00525	0.00145	mg/Kg	₩	09/14/17 14:57	09/18/17 12:03	1
Xylenes, Total	0.00119	U	0.00525	0.00119	mg/Kg		09/14/17 14:57	09/18/17 12:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier Li	mits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106	61	- 130	09/14/17 14:57	09/18/17 12:03	1
Dibromofluoromethane	100	68	3 - 140	09/14/17 14:57	09/18/17 12:03	1
Toluene-d8 (Surr)	95	50) - 130	09/14/17 14:57	09/18/17 12:03	1
4-Bromofluorobenzene	105	57	' - 140	09/14/17 14:57	09/18/17 12:03	1

General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.6		1.0	1.0	%			09/14/17 16:02	1
Percent Solids	94.4		1.0	1.0	%			09/14/17 16:02	1

Lab Sample ID: 600-153884-3 Client Sample ID: MD06-NFP-12-14-09132017

Date Collected: 09/13/17 11:15 **Matrix: Solid** Date Received: 09/14/17 11:18 Percent Solids: 94.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000673	U	0.00534	0.000673	mg/Kg	<u> </u>	09/14/17 14:57	09/18/17 12:28	1
Ethylbenzene	0.00109	U	0.00534	0.00109	mg/Kg	☼	09/14/17 14:57	09/18/17 12:28	1
Toluene	0.00147	U	0.00534	0.00147	mg/Kg	☼	09/14/17 14:57	09/18/17 12:28	1
Xylenes, Total	0.00121	U	0.00534	0.00121	mg/Kg	☼	09/14/17 14:57	09/18/17 12:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 130				09/14/17 14:57	09/18/17 12:28	1
Dibromofluoromethane	100		68 - 140				09/14/17 14:57	09/18/17 12:28	1

TestAmerica Houston

09/14/17 14:57 09/18/17 12:28

09/14/17 14:57 09/18/17 12:28

50 - 130

57 - 140

105

Toluene-d8 (Surr)

4-Bromofluorobenzene

Client Sample Results

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

Client Sample ID: MD06-NFP-12-14-09132017 Lab Sample ID: 600-153884-3 Date Collected: 09/13/17 11:15

Matrix: Solid

Date Received: 09/14/17 11:18 Percent Solids: 94.2

General Chemistry Analyte	Result Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.8	1.0	1.0 %			09/14/17 15:57	1
Percent Solids	94.2	1.0	1.0 %			09/14/17 15:57	1

Client Sample ID: MW41-NFP-20-22-09132017 Lab Sample ID: 600-153884-4

Date Collected: 09/13/17 11:20 **Matrix: Solid**

Date Received: 09/14/17 11:18 Percent Solids: 98.0

Method: 8260B - Volati	Method: 8260B - Volatile Organic Compounds (GC/MS)										
Analyte	Result (Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Benzene	0.000649	U	0.00515	0.000649	mg/Kg	<u> </u>	09/14/17 14:57	09/18/17 12:53	1		
Ethylbenzene	0.00105 l	U	0.00515	0.00105	mg/Kg	₽	09/14/17 14:57	09/18/17 12:53	1		
Toluene	0.00142 l	U	0.00515	0.00142	mg/Kg	☼	09/14/17 14:57	09/18/17 12:53	1		
Xylenes, Total	0.00116 l	Ú	0.00515	0.00116	mg/Kg		09/14/17 14:57	09/18/17 12:53	1		

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103	61 - 130	09/14/17 14:57	09/18/17 12:53	1
Dibromofluoromethane	101	68 - 140	09/14/17 14:57	09/18/17 12:53	1
Toluene-d8 (Surr)	94	50 - 130	09/14/17 14:57	09/18/17 12:53	1
4-Bromofluorobenzene	106	57 - 140	09/14/17 14:57	09/18/17 12:53	1

General Chemistry Analyte	Result Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.0	1.0	1.0	%			09/14/17 16:02	1
Percent Solids	98.0	1.0	1.0	%			09/14/17 16:02	1

Client Sample ID: MW41-NFP-35-36-09132017 Lab Sample ID: 600-153884-5

Date Collected: 09/13/17 12:50 **Matrix: Solid** Date Received: 09/14/17 11:18 Percent Solids: 97.8

Method: 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	0.000583 U	0.00462	0.000583	mg/Kg	<u> </u>	09/14/17 14:57	09/18/17 10:49	1	
Ethylbenzene	0.000943 U	0.00462	0.000943	mg/Kg	₽	09/14/17 14:57	09/18/17 10:49	1	
Toluene	0.00128 U	0.00462	0.00128	mg/Kg	₽	09/14/17 14:57	09/18/17 10:49	1	
Xylenes, Total	0.00105 U	0.00462	0.00105	mg/Kg	₽	09/14/17 14:57	09/18/17 10:49	1	

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100	61 - 130	09/14/17 14:57	09/18/17 10:49	1
Dibromofluoromethane	101	68 - 140	09/14/17 14:57	09/18/17 10:49	1
Toluene-d8 (Surr)	98	50 - 130	09/14/17 14:57	09/18/17 10:49	1
4-Bromofluorobenzene	107	57 - 140	09/14/17 14:57	09/18/17 10:49	1

General Chemistry Analyte	Result Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.2	1.0	1.0	%			09/14/17 15:57	1
Percent Solids	97.8	1.0	1.0	%			09/14/17 15:57	1

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

Client Sample ID: MW41-NFP-40-41-09132017

Date Collected: 09/13/17 13:05 Date Received: 09/14/17 11:18

Percent Moisture

Released to Imaging: 10/26/2022 7:32:21 AM

Percent Solids

Lab Sample ID: 600-153884-6

Matrix: Solid Percent Solids: 92.8

09/14/17 16:02

09/14/17 16:02

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000660	U	0.00524	0.000660	mg/Kg	<u> </u>	09/14/17 14:57	09/18/17 13:17	1
Ethylbenzene	0.00107	U	0.00524	0.00107	mg/Kg	☼	09/14/17 14:57	09/18/17 13:17	1
Toluene	0.00145	U	0.00524	0.00145	mg/Kg	☼	09/14/17 14:57	09/18/17 13:17	1
Xylenes, Total	0.00118	Ü	0.00524	0.00118	mg/Kg		09/14/17 14:57	09/18/17 13:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		61 - 130				09/14/17 14:57	09/18/17 13:17	1
Dibromofluoromethane	99		68 - 140				09/14/17 14:57	09/18/17 13:17	1
Toluene-d8 (Surr)	94		50 - 130				09/14/17 14:57	09/18/17 13:17	1
4-Bromofluorobenzene	105		57 - 140				09/14/17 14:57	09/18/17 13:17	1
General Chemistry									
Analyte	Result	Qualifier	RL	RI	Unit	D	Prepared	Analyzed	Dil Fac

Lab Sample ID: 600-153884-7 Client Sample ID: MW41-NFP-50-51-09132017 Matrix: Solid

1.0

1.0

1.0 %

1.0 %

Date Collected: 09/13/17 13:20 Date Received: 09/14/17 11:18 Percent Solids: 92.4

7.2

92.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000808	Ū	0.00642	0.000808	mg/Kg	<u> </u>	09/14/17 14:57	09/18/17 13:42	1
Ethylbenzene	0.00131	U	0.00642	0.00131	mg/Kg	☼	09/14/17 14:57	09/18/17 13:42	1
Toluene	0.00177	U	0.00642	0.00177	mg/Kg	☼	09/14/17 14:57	09/18/17 13:42	1
Xylenes, Total	0.00145	U	0.00642	0.00145	mg/Kg		09/14/17 14:57	09/18/17 13:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		61 - 130				09/14/17 14:57	09/18/17 13:42	1
Dibromofluoromethane	98		68 - 140				09/14/17 14:57	09/18/17 13:42	1
Toluene-d8 (Surr)	92		50 - 130				09/14/17 14:57	09/18/17 13:42	1
4-Bromofluorobenzene	108		57 - 140				09/14/17 14:57	09/18/17 13:42	1
General Chemistry									
		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result Qualifier	RL	RL Unit	D Prepared	Analyzed	Dil Fac
Percent Moisture	7.6	1.0	1.0 %	<u> </u>	09/14/17 15:57	1
Percent Solids	92.4	1.0	1.0 %		09/14/17 15:57	1

Lab Sample ID: 600-153884-8 Client Sample ID: MW41-NFP-60-61-09132017 Date Collected: 09/13/17 13:45 **Matrix: Solid**

Date Received: 09/14/17 11:18 Percent Solids: 88.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000573	U	0.00455	0.000573	mg/Kg	<u> </u>	09/14/17 14:57	09/18/17 14:07	1
Ethylbenzene	0.000928	U	0.00455	0.000928	mg/Kg	☼	09/14/17 14:57	09/18/17 14:07	1
Toluene	0.00126	U	0.00455	0.00126	mg/Kg	☼	09/14/17 14:57	09/18/17 14:07	1
Xylenes, Total	0.00103	U	0.00455	0.00103	mg/Kg	₩	09/14/17 14:57	09/18/17 14:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		61 - 130				09/14/17 14:57	09/18/17 14:07	1

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

Client Sample ID: MW41-NFP-60-61-09132017

Date Collected: 09/13/17 13:45 Date Received: 09/14/17 11:18

Lab Sample ID: 600-153884-8

Matrix: Solid Percent Solids: 88.7

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	100		68 - 140	09/14/17 14:57	09/18/17 14:07	1
Toluene-d8 (Surr)	91		50 - 130	09/14/17 14:57	09/18/17 14:07	1
4-Bromofluorobenzene	103		57 - 140	09/14/17 14:57	09/18/17 14:07	1

General Chemistry Analyte Result Qualifier RL **RL** Unit Prepared Analyzed Dil Fac **Percent Moisture** 1.0 1.0 % 09/14/17 15:57 11.3 **Percent Solids** 1.0 1.0 % 09/14/17 15:57 88.7

Client Sample ID: MW41-NFP-64-65-09132017

Date Collected: 09/13/17 13:55

Lab Sample ID: 600-153884-9 **Matrix: Solid**

Date Received: 09/14/17 11:18 Percent Solids: 89.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000631	\overline{U}	0.00500	0.000631	mg/Kg	<u>₩</u>	09/14/17 14:57	09/18/17 14:31	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg	₩	09/14/17 14:57	09/18/17 14:31	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg	☼	09/14/17 14:57	09/18/17 14:31	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg	.	09/14/17 14:57	09/18/17 14:31	1

Surrogate	%Recovery	Qualifier L	imits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104	6	11 - 130	09/14/17 14:57	09/18/17 14:31	1
Dibromofluoromethane	100	6	88 - 140	09/14/17 14:57	09/18/17 14:31	1
Toluene-d8 (Surr)	93	5	50 ₋ 130	09/14/17 14:57	09/18/17 14:31	1
4-Bromofluorobenzene	109	5	i7 - 140	09/14/17 14:57	09/18/17 14:31	1

General Chemistry Analyte	Result Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.1	1.0	1.0 %	— <u> </u>		09/14/17 15:57	1
Percent Solids	89.9	1.0	1.0 %			09/14/17 15:57	1

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

Qualifiers

GC/MS VOA

Qualifier **Qualifier Description**

IJ Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier **Qualifier Description**

F3 Duplicate RPD exceeds the control limit

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight bar

asis

%R Percent Recovery CFL Contains Free Liquid **CNF** Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin)

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

PQL Practical Quantitation Limit

Quality Control QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ**

Surrogate Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

			Pe	ercent Surre	ogate Rec
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(61-130)	(68-140)	(50-130)	(57-140)
600-153884-2	MW41-NFP-12-14-09132017	106	100	95	105
600-153884-3	MD06-NFP-12-14-09132017	101	100	95	105
600-153884-4	MW41-NFP-20-22-09132017	103	101	94	106
600-153884-5	MW41-NFP-35-36-09132017	100	101	98	107
600-153884-5 MS	MW41-NFP-35-36-09132017	101	109	108	120
600-153884-5 MSD	MW41-NFP-35-36-09132017	105	110	106	119
600-153884-6	MW41-NFP-40-41-09132017	103	99	94	105
600-153884-7	MW41-NFP-50-51-09132017	100	98	92	108
600-153884-8	MW41-NFP-60-61-09132017	104	100	91	103
600-153884-9	MW41-NFP-64-65-09132017	104	100	93	109
LCS 600-221519/3	Lab Control Sample	111	114	108	123
LCSD 600-221519/4	Lab Control Sample Dup	106	112	109	125
MB 600-221519/6	Method Blank	109	101	96	106

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

			Pe	ercent Surre	ogate Rec
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(50-134)	(62-130)	(70-130)	(67-139)
600-153884-1	TB07-NFP-09132017	101	101	101	103
LCS 600-221323/4	Lab Control Sample	100	107	100	112
LCSD 600-221323/5	Lab Control Sample Dup	100	105	99	110
MB 600-221323/6	Method Blank	107	102	102	104

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-221323/6

Matrix: Water

Analysis Batch: 221323

Client Sam	ple ID	: Meth	od B	ank
	Prep	Type:	Total	/NA

MB MB Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 0.000176 mg/L Benzene 0.000176 U 0.00100 09/14/17 12:48 Ethylbenzene 0.000212 U 0.00100 0.000212 mg/L 09/14/17 12:48 0.000198 mg/L Toluene 0.000198 U 0.00100 09/14/17 12:48 Xylenes, Total 0.000366 U 0.00200 0.000366 mg/L 09/14/17 12:48

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		50 - 134		09/14/17 12:48	1
Dibromofluoromethane	102		62 - 130		09/14/17 12:48	1
Toluene-d8 (Surr)	102		70 - 130		09/14/17 12:48	1
4-Bromofluorobenzene	104		67 - 139		09/14/17 12:48	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 221323

Lab Sample ID: LCS 600-221323/4

-	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.0100	0.01002		mg/L		100	70 - 130	
Ethylbenzene	0.0100	0.01010		mg/L		101	70 - 130	
Toluene	0.0100	0.009527		mg/L		95	70 - 130	
Xylenes, Total	0.0200	0.01989		mg/L		99	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		50 - 134
Dibromofluoromethane	107		62 - 130
Toluene-d8 (Surr)	100		70 - 130
4-Bromofluorobenzene	112		67 - 139

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 221323

Matrix: Water

Lab Sample ID: LCSD 600-221323/5

- man, or 2000 m = 2000	Spike	LCSD LCSD				%Rec.		RPD
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0100	0.009934	mg/L		99	70 - 130	1	20
Ethylbenzene	0.0100	0.01004	mg/L		100	70 - 130	1	20
Toluene	0.0100	0.009387	mg/L		94	70 - 130	1	20
Xylenes, Total	0.0200	0.01971	mg/L		99	70 - 130	1	20

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		50 - 134
Dibromofluoromethane	105		62 - 130
Toluene-d8 (Surr)	99		70 - 130
4-Bromofluorobenzene	110		67 - 139

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-153884-5 MS Client Sample ID: MW41-NFP-35-36-09132017 **Matrix: Solid Prep Type: Total/NA Analysis Batch: 221519 Prep Batch: 221410**

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.000583	U	0.0450	0.04308		mg/Kg	₩	96	70 - 131	
Ethylbenzene	0.000943	U	0.0450	0.04196		mg/Kg	≎	93	66 - 130	
Toluene	0.00128	U	0.0450	0.04114		mg/Kg	≎	91	67 - 130	
Xylenes, Total	0.00105	U	0.0899	0.07796		mg/Kg	₽	87	63 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		61 - 130
Dibromofluoromethane	109		68 - 140
Toluene-d8 (Surr)	108		50 - 130
4-Bromofluorobenzene	120		57 - 140

Client Sample ID: MW41-NFP-35-36-09132017

Prep Type: Total/NA

Lab Sample ID: 600-153884-5 MSD **Matrix: Solid**

Analysis Ratch: 221510

Analysis Batch: 221519									Ргер ва	tcn: Z	21410
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.000583	U	0.0477	0.04459		mg/Kg	₽	93	70 - 131	3	30
Ethylbenzene	0.000943	U	0.0477	0.04187		mg/Kg	≎	88	66 - 130	0	30
Toluene	0.00128	U	0.0477	0.04136		mg/Kg	☼	87	67 - 130	1	30
Xylenes, Total	0.00105	U	0.0955	0.07862		mg/Kg	₩.	82	63 - 130	1	30

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		61 - 130
Dibromofluoromethane	110		68 - 140
Toluene-d8 (Surr)	106		50 - 130
4-Bromofluorobenzene	119		57 - 140

Lab Sample ID: MB 600-221519/6 **Client Sample ID: Method Blank Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 221519

	MB	INIR								
Analyte	Result	Qualifier	RL	MDL	Unit	D I	Prepared	Analyzed	Dil Fac	
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/18/17 10:24	1	
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/18/17 10:24	1	
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/18/17 10:24	1	
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/18/17 10:24	1	

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		61 - 130		09/18/17 10:24	1
Dibromofluoromethane	101		68 - 140		09/18/17 10:24	1
Toluene-d8 (Surr)	96		50 - 130		09/18/17 10:24	1
4-Bromofluorobenzene	106		57 - 140		09/18/17 10:24	1

QC Sample Results

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-221519/3

Matrix: Solid

Analysis Batch: 221519

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	эріке	LUS	LUS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.0500	0.04815		mg/Kg	_	96	70 - 131	
Ethylbenzene	0.0500	0.04567		mg/Kg		91	66 - 130	
Toluene	0.0500	0.04526		mg/Kg		91	67 - 130	
Xylenes, Total	0.100	0.08407		mg/Kg		84	63 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	111		61 - 130
Dibromofluoromethane	114		68 - 140
Toluene-d8 (Surr)	108		50 - 130
4-Bromofluorobenzene	123		57 - 140

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 221519

Lab Sample ID: LCSD 600-221519/4

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04706		mg/Kg		94	70 - 131	2	30
Ethylbenzene	0.0500	0.04405		mg/Kg		88	66 - 130	4	30
Toluene	0.0500	0.04418		mg/Kg		88	67 - 130	2	30
Xylenes, Total	0.100	0.08092		mg/Kg		81	63 - 130	4	30

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		61 - 130
Dibromofluoromethane	112		68 - 140
Toluene-d8 (Surr)	109		50 - 130
4-Bromofluorobenzene	125		57 - 140

Method: 2540B - Percent Moisture

Lab Sample ID: 600-153884-6 DU Client Sample ID: MW41-NFP-40-41-09132017 **Prep Type: Total/NA**

Matrix: Solid

Analysis Batch: 221355

Alialysis Datcil. 22 1000									
	Sample	Sample	DU	DU				RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit	
Percent Moisture	7.2		 5.8	F3	%		 22	20	
Percent Solids	92.8		94.2		%		2	20	

QC Association Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

GC/MS VOA

Analysis Batch: 221323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
600-153884-1	TB07-NFP-09132017	Total/NA	Water	8260B
MB 600-221323/6	Method Blank	Total/NA	Water	8260B
LCS 600-221323/4	Lab Control Sample	Total/NA	Water	8260B
LCSD 600-221323/5	Lab Control Sample Dup	Total/NA	Water	8260B

Prep Batch: 221410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153884-2	MW41-NFP-12-14-09132017	Total/NA	Solid	5035_ASP	
600-153884-3	MD06-NFP-12-14-09132017	Total/NA	Solid	5035_ASP	
600-153884-4	MW41-NFP-20-22-09132017	Total/NA	Solid	5035_ASP	
600-153884-5	MW41-NFP-35-36-09132017	Total/NA	Solid	5035_ASP	
600-153884-6	MW41-NFP-40-41-09132017	Total/NA	Solid	5035_ASP	
600-153884-7	MW41-NFP-50-51-09132017	Total/NA	Solid	5035_ASP	
600-153884-8	MW41-NFP-60-61-09132017	Total/NA	Solid	5035_ASP	
600-153884-9	MW41-NFP-64-65-09132017	Total/NA	Solid	5035_ASP	
600-153884-5 MS	MW41-NFP-35-36-09132017	Total/NA	Solid	5035_ASP	
600-153884-5 MSD	MW41-NFP-35-36-09132017	Total/NA	Solid	5035_ASP	

Analysis Batch: 221519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153884-2	MW41-NFP-12-14-09132017	Total/NA	Solid	8260B	221410
600-153884-3	MD06-NFP-12-14-09132017	Total/NA	Solid	8260B	221410
600-153884-4	MW41-NFP-20-22-09132017	Total/NA	Solid	8260B	221410
600-153884-5	MW41-NFP-35-36-09132017	Total/NA	Solid	8260B	221410
600-153884-6	MW41-NFP-40-41-09132017	Total/NA	Solid	8260B	221410
600-153884-7	MW41-NFP-50-51-09132017	Total/NA	Solid	8260B	221410
600-153884-8	MW41-NFP-60-61-09132017	Total/NA	Solid	8260B	221410
600-153884-9	MW41-NFP-64-65-09132017	Total/NA	Solid	8260B	221410
MB 600-221519/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-221519/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-221519/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
600-153884-5 MS	MW41-NFP-35-36-09132017	Total/NA	Solid	8260B	221410
600-153884-5 MSD	MW41-NFP-35-36-09132017	Total/NA	Solid	8260B	221410

General Chemistry

Analysis Batch: 221355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153884-2	MW41-NFP-12-14-09132017	Total/NA	Solid	2540B	_
600-153884-3	MD06-NFP-12-14-09132017	Total/NA	Solid	2540B	
600-153884-4	MW41-NFP-20-22-09132017	Total/NA	Solid	2540B	
600-153884-5	MW41-NFP-35-36-09132017	Total/NA	Solid	2540B	
600-153884-6	MW41-NFP-40-41-09132017	Total/NA	Solid	2540B	
600-153884-7	MW41-NFP-50-51-09132017	Total/NA	Solid	2540B	
600-153884-8	MW41-NFP-60-61-09132017	Total/NA	Solid	2540B	
600-153884-9	MW41-NFP-64-65-09132017	Total/NA	Solid	2540B	
600-153884-5 MS	MW41-NFP-35-36-09132017	Total/NA	Solid	2540B	
600-153884-5 MSD	MW41-NFP-35-36-09132017	Total/NA	Solid	2540B	
600-153884-6 DU	MW41-NFP-40-41-09132017	Total/NA	Solid	2540B	

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

Lab Sample ID: 600-153884-1

Client Sample ID: TB07-NFP-09132017 Date Collected: 09/13/17 08:00 Matrix: Water

Date Received: 09/14/17 11:18

Batch Batch Dil Initial Final Batch Prepared Amount Prep Type Method Factor Amount Number or Analyzed Analyst Type Run Lab Total/NA Analysis 8260B 20 mL 20 mL 221323 09/14/17 15:48 YX1 TAL HOU

Lab Sample ID: 600-153884-2 Client Sample ID: MW41-NFP-12-14-09132017 Matrix: Solid

Date Collected: 09/13/17 11:10

Date Received: 09/14/17 11:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221355	09/14/17 16:02	B1K	TAL HOU

Client Sample ID: MW41-NFP-12-14-09132017 Lab Sample ID: 600-153884-2

Date Collected: 09/13/17 11:10 **Matrix: Solid** Date Received: 09/14/17 11:18 Percent Solids: 94.4

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.043 g	5 mL	221410	09/14/17 14:57	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221519	09/18/17 12:03	WS1	TAL HOU

Lab Sample ID: 600-153884-3 Client Sample ID: MD06-NFP-12-14-09132017

Date Collected: 09/13/17 11:15 Date Received: 09/14/17 11:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	2540B		1			221355	09/14/17 15:57	B1K	TAL HOU	

Lab Sample ID: 600-153884-3 Client Sample ID: MD06-NFP-12-14-09132017

Date Collected: 09/13/17 11:15 **Matrix: Solid** Date Received: 09/14/17 11:18 Percent Solids: 94.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.968 g	5 mL	221410	09/14/17 14:57	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221519	09/18/17 12:28	WS1	TAL HOU

Lab Sample ID: 600-153884-4 Client Sample ID: MW41-NFP-20-22-09132017

Date Collected: 09/13/17 11:20 Matrix: Solid

Date Received: 09/14/17 11:18

Released to Imaging: 10/26/2022 7:32:21 AM

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221355	09/14/17 16:02	B1K	TAL HOU

TestAmerica Houston

Matrix: Solid

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

Lab Sample ID: 600-153884-4

Client Sample ID: MW41-NFP-20-22-09132017 Date Collected: 09/13/17 11:20

Matrix: Solid Date Received: 09/14/17 11:18 Percent Solids: 98.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.953 g	5 mL	221410	09/14/17 14:57	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221519	09/18/17 12:53	WS1	TAL HOU

Client Sample ID: MW41-NFP-35-36-09132017

Lab Sample ID: 600-153884-5 Date Collected: 09/13/17 12:50 **Matrix: Solid**

Date Received: 09/14/17 11:18

Batch Batch Dil Initial Final **Batch** Prepared **Prep Type** Type Method Run **Factor Amount** Amount Number or Analyzed Analyst Lab Total/NA Analysis 2540B 221355 09/14/17 15:57 B1K TAL HOU

Client Sample ID: MW41-NFP-35-36-09132017 Lab Sample ID: 600-153884-5

Date Collected: 09/13/17 12:50 **Matrix: Solid**

Date Received: 09/14/17 11:18 Percent Solids: 97.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.528 g	5 mL	221410	09/14/17 14:57	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221519	09/18/17 10:49	WS1	TAL HOU

Client Sample ID: MW41-NFP-40-41-09132017 Lab Sample ID: 600-153884-6

Date Collected: 09/13/17 13:05 Date Received: 09/14/17 11:18

Batch Batch Dil Initial Final Batch Prepared Type **Prep Type** Method **Factor Amount** Amount Number or Analyzed Analyst Run I ab 221355 09/14/17 16:02 B1K Total/NA Analysis 2540B TAL HOU

Client Sample ID: MW41-NFP-40-41-09132017 Lab Sample ID: 600-153884-6

Date Collected: 09/13/17 13:05 **Matrix: Solid** Date Received: 09/14/17 11:18 Percent Solids: 92.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.143 g	5 mL	221410	09/14/17 14:57	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221519	09/18/17 13:17	WS1	TAL HOU

Client Sample ID: MW41-NFP-50-51-09132017 Lab Sample ID: 600-153884-7

Date Collected: 09/13/17 13:20

Date Received: 09/14/17 11:18

_											
	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	2540B					221355	09/14/17 15:57	B1K	TAL HOU	

TestAmerica Houston

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Percent Solids: 89.9

Percent Solids: 88.7

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153884-1

Lab Sample ID: 600-153884-7

Lab Sample ID: 600-153884-8

Lab Sample ID: 600-153884-8

Lab Sample ID: 600-153884-9

Lab Sample ID: 600-153884-9

Date Collected: 09/13/17 13:20 Matrix: Solid Date Received: 09/14/17 11:18 Percent Solids: 92.4

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.219 g	5 mL	221410	09/14/17 14:57	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221519	09/18/17 13:42	WS1	TAL HOU

Client Sample ID: MW41-NFP-60-61-09132017

Client Sample ID: MW41-NFP-50-51-09132017

Date Collected: 09/13/17 13:45 Date Received: 09/14/17 11:18

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221355	09/14/17 15:57	B1K	TAL HOU

Client Sample ID: MW41-NFP-60-61-09132017

Date Collected: 09/13/17 13:45 Date Received: 09/14/17 11:18

	Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
	Total/NA	Prep	5035_ASP			6.191 g	5 mL	221410	09/14/17 14:57	WS1	TAL HOU
l	Total/NA	Analysis	8260B		1	5 g	5 g	221519	09/18/17 14:07	WS1	TAL HOU

Client Sample ID: MW41-NFP-64-65-09132017

Date Collected: 09/13/17 13:55

Date Received: 09/14/17 11:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221355	09/14/17 15:57	B1K	TAL HOU

Client Sample ID: MW41-NFP-64-65-09132017

Date Collected: 09/13/17 13:55

Date Received: 09/14/17 11:18

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.555 g	5 mL	221410	09/14/17 14:57	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221519	09/18/17 14:31	WS1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

TestAmerica Job ID: 600-153884-1

Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory: TestAmerica Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

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TestAmerica Houston 3310 Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646	Chain	Chain of Custody Record	ody Rec	ord				Test ^A	TestAmerica	
Client Information	Sampler L. Hill		Upton, C	athy L		Carrier T	Carrier Tracking No(s);	COC No 600-36947-10949	349.1	
Silent Contact: Aleeca Forsberg	Phone 205-240	3.335	E-Mail cathy up	ton@test	E. Mail cathy, upton@testamericainc.com			Page 1 of 1		
Sompany: CH2M Hill, Inc.					Analysis	Analysis Requested	70	Job#		
Address. 3721 Rutledge Rd. NE Suite B-1	Due Date Requested:							Preservation Codes	1	
								A - HCL B - NaOH C - Zn Acetate	M - Hexane N - None O - AsNaO2	
State, Zrp VM, 87109	0 BD Prelim; 14	BD Level3 Package (3e)	e (3e)		(1			D - Nitric Acid E - NaHSO4	P - Na204S Q - Na2SO3	
Phone: 281-721-8546(Tel)	PO#. WD293112		(0	es.	•AH8•			G - Amchior H - Ascorbic Acid	R - NaZSZSO3 S - HZSO4 T - TSP Dodecahvdrate	
Email. Neeca Forsberg@CH2M.com	WO #		N 10 8	(ON	ногр			:	U - Acetone V - MCAA	
² roject Name. Kinder Morgan Bloomfield, NM NFP	HOUSTON Project # 60004617		eY) əl	10 89	тяон			r-EDIA	W - ph 4-5 Z - other (specify)	
itie. 3TEX Soils	\$SOW#		dmeS	OITS				of cor		
Sometie Idontification	Sample	Sample Type (C=comp,	Matrix (Wewater, Smolld, Owwaste/oil	M/SM mrohe	2608_5035 - B	318 - JJ_8082		rədmuM lato		
Sample Identification	1	00	1	A	12	8 <	-		Special Instructions/Note;	
TBOT. NFP. 09132017	9/13/17 0800	9	S TOTAL S	3		×	60	*** 48Hr Holding Time	Iding Time	
MW41-NFP-12-14-09132017	9113/17/11/10	9	Soil	2	×		0-15	From Samp	From Sample Collection	
MD06-NFP-12-14-09132017	9113/17/115	9	Soil	5	X		3884			
MW41-NFP-20-22-09132017	9/13/17 1/20	9	Soil	2	XX		Cha			
MW41-NFP-35-36-09132017	9/13/17 1250	9 (Soil	2	XX		in of			
MW41-NFP-35-36-04132017 MS		9	Soil	>	XX		Cust			
MWY1- NFP-35-36-09132017 MSD	9/13/17 1250	9 6	Soil	7	X		ody			
MW41- NFP-40-41-09/32017	9/13/17 1305	O	Soil	2	X					
MW41-NFP-50-51-09132017	9/13/17 1320	9	Soil	3	XX					
MW41-NFP-60-61-09132017	9 (13/17 1345	9	Soil	2	X					
MW41 - NFP-64-65-09 132017	19/13/17 1355	9	Water N	3	X		_			
Possible Hazard Identification Non-Hazard Planmable Skin Irritant Poison B	Munknown	Radiological		Sample I	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Month	be assesse	d if samples are re	tained longer than Archive For	1 month) Months	
ested. I. II, III, IV, Other (specify)				Special Ir	Special Instructions/QC Requirements	ements:				
Empty Kit Relinquished by	Date		Time			Me	Method of Shipment:			
Relinquished by A.M.	DaterTime DaterTime	700	Company CH2M Company	Received by	The sea by		Date/Time 9/14/1 Date/Time	7 11:18	Company	
Reinquished by	Date/Time:	8	Company	Received by	ed by		Date/Time		Сотрапу	
sals				Cooler	Cooler Temperature(s) °C and Other Remarks	er Remarks:				
A Yes A No				-	1 1 1	1				

TestAmerica Houston

Loc: 600 153884

Sample Receipt Chec

Tes	An	ner	ica
THE LEADS	ER IN ENVIR	ONMENTA	L TESTING

			Date/Time Received:			'17 SEP 14
JOB NUMBER:			CLIENT:	CH	ZM Hi	U
					ZM Hi Fed-E	×
UNPACKED BY:	/		CARRIER/DRIVER:		1	
Custody Seal Present:	YES	□NO	Number of Coolers Re	eceived:		
	Temp		Observed Temp	Therm	Them	Corrected Temp
Cooler ID	Blank	Trip Blank	(°C)	ID 549	CF 43	(°C)
BW	Y / N	Y / N	51/	317	39.07	
	Y / N	Y / N Y / N				
	Y / N Y / N	YHN		1		
	Y / N	YIN		/		
	YIN	Y/N		/		1 1
	Y/N	YIN				0011
	Y / N	YIN				
T.	Y / N	Y / N				
Base samples are>pH 12 pH paper Lot# VOA headspace accepta		_	Acid preserved are <pl na<="" no="" th=""><th></th><th>□YES [</th><th>VEQ. NO</th></pl>		□YES [VEQ. NO
Did samples meet the lal	boratory's stand	dard conditions	of sample acceptability up	pon receipt	?	YES NO
COMMENTS:						
						1
			A Comment			
			Giv.			
			91417			

HS-SA-WI-013

Rev. 3; 07/01/2014

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12/10/2020 (Rev. 1)

Released to Imaging: 10/26/2022 7:32:21 AM





600-153884 Wayt

FedEx TRK# 7455 1165 4002

XH LKSA

77040 IAH

Uncorrected temp Thermometer ID

Initials

Page 22 of 23

Login Sample Receipt Checklist

Job Number: 600-153884-1 Client: CH2M Hill Constructors, Inc.

Login Number: 153884 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

Laboratory Job ID: 600-153982-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP

Revision: 1

For:

CH2M Hill Constructors, Inc. 14701 St. Mary's Lane Suite 300 Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Stee A Stephenl

Authorized for release by: 12/10/2020 10:16:14 AM
Steve Stepanski, Project Mgmt. Assistant (713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Review your project results through

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Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 10/26/2022 7:32:21 AM

Laboratory Job ID: 600-153982-1

Client: CH2M Hill Constructors, Inc. Project/Site: Kinder Morgan Bloomfield, NM NFP

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QC Association Summary	15
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Certification Summary	18
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Case Narrative

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-153982-1

Job ID: 600-153982-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-153982-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/16/2017 8:49 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.1° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Method Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153982-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

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Sample Summary

 $\hbox{\it Client: CH2M Hill Constructors, Inc.}\\$

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153982-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-153982-1	TB08-NFP-09152017	Water	09/15/17 08:00	09/16/17 08:49
600-153982-2	MW42-NFP-13-15-09152017	Solid	09/15/17 09:00	09/16/17 08:49
600-153982-3	MW42-NFP-20-21-09152017	Solid	09/15/17 09:05	09/16/17 08:49
600-153982-4	MD07-NFP-20-21-09152017	Solid	09/15/17 09:10	09/16/17 08:49
600-153982-5	MW42-NFP-30-31-09152017	Solid	09/15/17 09:15	09/16/17 08:49
600-153982-6	MW42-NFP-40-41-09152017	Solid	09/15/17 10:45	09/16/17 08:49

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Client Sample Results

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

Client Sample ID: TB08-NFP-09152017

TestAmerica Job ID: 600-153982-1

Lab Sample ID: 600-153982-2

09/19/17 18:03

09/19/17 18:03

09/16/17 12:00

09/16/17 12:00

Matrix: Solid

Lab Sample ID: 600-153982-1

Matrix: Water

Date Collected: 09/15/17 08:00 Date Received: 09/16/17 08:49

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/18/17 13:01	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/18/17 13:01	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/18/17 13:01	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/18/17 13:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		50 - 134			_		09/18/17 13:01	1
Dibromofluoromethane	102		62 - 130					09/18/17 13:01	1
Toluene-d8 (Surr)	99		70 - 130					09/18/17 13:01	1
4-Bromofluorobenzene	104		67 - 139					09/18/17 13:01	

Client Sample ID: MW42-NFP-13-15-09152017

Date Collected: 09/15/17 09:00

Toluene-d8 (Surr)

4-Bromofluorobenzene

15/17 09:00

Date Received: 09/16/17 08:49 Percent Solids: 92.9

– Method: 8260B - Volatile Orga	anic Compounds	(GC/MS)							
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000663	U	0.00526	0.000663	mg/Kg	\$	09/16/17 12:00	09/19/17 18:03	1
Ethylbenzene	0.00107	U	0.00526	0.00107	mg/Kg	₽	09/16/17 12:00	09/19/17 18:03	1
Toluene	0.00145	U	0.00526	0.00145	mg/Kg	₽	09/16/17 12:00	09/19/17 18:03	1
Xylenes, Total	0.00119	U	0.00526	0.00119	mg/Kg	\$	09/16/17 12:00	09/19/17 18:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 130				09/16/17 12:00	09/19/17 18:03	1
Dibromofluoromethane	93		68 ₋ 140				09/16/17 12:00	09/19/17 18:03	1

General Chemistry Analyte	Result Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.1	1.0	1.0 %			09/18/17 16:34	1
Percent Solids	92 9	1.0	1.0 %			09/18/17 16:34	1

50 - 130

57 - 140

85

111

Client Sample ID: MW42-NFP-20-21-09152017 Lab Sample ID: 600-153982-3

 Date Collected: 09/15/17 09:05
 Matrix: Solid

 Date Received: 09/16/17 08:49
 Percent Solids: 98.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000658	U	0.00522	0.000658	mg/Kg	\$	09/16/17 12:00	09/19/17 18:28	1
Ethylbenzene	0.00106	U	0.00522	0.00106	mg/Kg	₽	09/16/17 12:00	09/19/17 18:28	1
Toluene	0.00144	U	0.00522	0.00144	mg/Kg	₽	09/16/17 12:00	09/19/17 18:28	1
Xylenes, Total	0.00118	U	0.00522	0.00118	mg/Kg	\$	09/16/17 12:00	09/19/17 18:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		61 - 130				09/16/17 12:00	09/19/17 18:28	1
Dibromofluoromethane	89		68 - 140				09/16/17 12:00	09/19/17 18:28	1
Toluene-d8 (Surr)	84		50 - 130				09/16/17 12:00	09/19/17 18:28	1
4-Bromofluorobenzene	107		57 - 140				09/16/17 12:00	09/19/17 18:28	

Client Sample Results

Client: CH2M Hill Constructors, Inc.

Date Received: 09/16/17 08:49

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153982-1

Lab Sample ID: 600-153982-3

Client Sample ID: MW42-NFP-20-21-09152017 Date Collected: 09/15/17 09:05 **Matrix: Solid**

Percent Solids: 98.3

General Chemistry Dil Fac Analyte Result Qualifier RL **RL** Unit D Prepared Analyzed **Percent Moisture** 1.0 1.0 % 09/18/17 16:34 1.7 1.0 1.0 % 09/18/17 16:34 **Percent Solids** 98.3

Client Sample ID: MD07-NFP-20-21-09152017 Lab Sample ID: 600-153982-4

Date Collected: 09/15/17 09:10 **Matrix: Solid** Date Received: 09/16/17 08:49 Percent Solids: 98.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000653	U	0.00519	0.000653	mg/Kg	\$	09/16/17 12:00	09/19/17 18:52	1
Ethylbenzene	0.00106	U	0.00519	0.00106	mg/Kg	₽	09/16/17 12:00	09/19/17 18:52	1
Toluene	0.00143	U	0.00519	0.00143	mg/Kg	₽	09/16/17 12:00	09/19/17 18:52	1
Xylenes, Total	0.00117	U	0.00519	0.00117	mg/Kg	\$	09/16/17 12:00	09/19/17 18:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		61 - 130				09/16/17 12:00	09/19/17 18:52	1
Dibromofluoromethane	90		68 - 140				09/16/17 12:00	09/19/17 18:52	1
Toluene-d8 (Surr)	84		50 - 130				09/16/17 12:00	09/19/17 18:52	1
4-Bromofluorobenzene	109		57 - 140				09/16/17 12:00	09/19/17 18:52	

	General Chemistry									
	Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Percent Moisture	1.8		1.0	1.0	%			09/18/17 16:34	1
l	Percent Solids	98.2		1.0	1.0	%			09/18/17 16:34	1

Client Sample ID: MW42-NFP-30-31-09152017 Lab Sample ID: 600-153982-5

Date Collected: 09/15/17 09:15 **Matrix: Solid** Date Received: 09/16/17 08:49 Percent Solids: 93.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000666	U	0.00529	0.000666	mg/Kg	\$	09/16/17 12:00	09/20/17 13:31	1
Ethylbenzene	0.00108	U	0.00529	0.00108	mg/Kg	₽	09/16/17 12:00	09/20/17 13:31	1
Toluene	0.00146	U	0.00529	0.00146	mg/Kg	₩	09/16/17 12:00	09/20/17 13:31	1
Xylenes, Total	0.00119	U	0.00529	0.00119	mg/Kg	\$	09/16/17 12:00	09/20/17 13:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		61 - 130				09/16/17 12:00	09/20/17 13:31	1
Dibromofluoromethane	92		68 - 140				09/16/17 12:00	09/20/17 13:31	1
Toluene-d8 (Surr)	85		50 - 130				09/16/17 12:00	09/20/17 13:31	1
4-Bromofluorobenzene	96		57 - 140				09/16/17 12:00	09/20/17 13:31	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.6		1.0	1.0	%			09/18/17 16:34	1

1.0

1.0 %

09/18/17 16:34

93.4

TestAmerica Houston

Percent Solids

Client Sample Results

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153982-1

Percent Solids: 85.7

Client Sample ID: MW42-NFP-40-41-09152017	Lab Sample ID: 600-153982-6
Date Collected: 09/15/17 10:45	Matrix: Solid

Date Received: 09/16/17 08:49

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000645	U	0.00512	0.000645	mg/Kg	₽	09/16/17 12:00	09/20/17 13:55	1
Ethylbenzene	0.00104	U	0.00512	0.00104	mg/Kg	₽	09/16/17 12:00	09/20/17 13:55	1
Toluene	0.00141	U	0.00512	0.00141	mg/Kg	₽	09/16/17 12:00	09/20/17 13:55	1
Xylenes, Total	0.00116	U	0.00512	0.00116	mg/Kg	\$	09/16/17 12:00	09/20/17 13:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		61 - 130				09/16/17 12:00	09/20/17 13:55	1
Dibromofluoromethane	89		68 - 140				09/16/17 12:00	09/20/17 13:55	1
Toluene-d8 (Surr)	84		50 - 130				09/16/17 12:00	09/20/17 13:55	1
4-Bromofluorobenzene	96		57 - 140				09/16/17 12:00	09/20/17 13:55	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.3		1.0	1.0	%			09/18/17 16:34	1
Percent Solids	85.7		1.0	1.0	%			09/18/17 16:34	1

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153982-1

Qualifiers

GC/MS VOA

U Indicates the analyte was analyzed for but not detected.

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Glossary

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Surrogate Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153982-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

				Percent Sur	rrogate Recov	ery (Accepta
		12DCE	DBFM	TOL	BFB	
Lab Sample ID	Client Sample ID	(61-130)	(68-140)	(50-130)	(57-140)	
600-153982-2	MW42-NFP-13-15-09152017	101	93	85	111	-
600-153982-3	MW42-NFP-20-21-09152017	104	89	84	107	
600-153982-4	MD07-NFP-20-21-09152017	99	90	84	109	
600-153982-5	MW42-NFP-30-31-09152017	100	92	85	96	
600-153982-6	MW42-NFP-40-41-09152017	97	89	84	96	
LCS 600-221605/3	Lab Control Sample	104	109	105	122	
LCS 600-221694/10	Lab Control Sample	92	96	93	106	
LCSD 600-221605/4	Lab Control Sample Dup	106	108	105	126	
LCSD 600-221694/1011	Lab Control Sample Dup	88	90	89	99	
MB 600-221605/6	Method Blank	103	95	92	110	
MB 600-221694/13	Method Blank	84	86	87	97	

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

_	Percent Surrogate Recovery (Acceptance Limit								
		12DCE	DBFM	TOL	BFB				
Lab Sample ID	Client Sample ID	(50-134)	(62-130)	(70-130)	(67-139)				
600-153982-1	TB08-NFP-09152017	111	102	99	104				
LCS 600-221538/4	Lab Control Sample	97	105	99	111				
LCSD 600-221538/5	Lab Control Sample Dup	98	102	96	106				
MB 600-221538/7	Method Blank	107	103	100	104				

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153982-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-221538/7

Matrix: Water

Analysis Batch: 221538

Client Sample ID: Method Blank

Prep Type: Total/NA

мв мв RL MDL Unit Dil Fac Analyte Result Qualifier D Prepared Analyzed Benzene 0.000176 U 0.00100 0.000176 mg/L 09/18/17 12:34 Ethylbenzene 0.000212 U 0.00100 0.000212 mg/L 09/18/17 12:34 Toluene 0.000198 U 0.00100 0.000198 mg/L 09/18/17 12:34 09/18/17 12:34 Xylenes, Total 0.000366 U 0.00200 0.000366 mg/L

MB MB Surrogate Qualifier Limits Prepared Dil Fac %Recovery Analyzed 50 - 134 1,2-Dichloroethane-d4 (Surr) 107 09/18/17 12:34 62 - 130 Dibromofluoromethane 103 09/18/17 12:34 70 - 130 09/18/17 12:34 Toluene-d8 (Surr) 100 67 - 139 09/18/17 12:34 4-Bromofluorobenzene 104

Lab Sample ID: LCS 600-221538/4

Matrix: Water

Analysis Batch: 221538

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.0100 0.009712 97 70 - 130 mg/L Ethylbenzene 0.0100 0.01001 mg/L 100 70 - 130 Toluene 0.0100 0.009407 70 - 130 mg/L 94 Xylenes, Total 0.0200 0.01984 mg/L 99 70 - 130

	LCS	LUS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		50 - 134
Dibromofluoromethane	105		62 - 130
Toluene-d8 (Surr)	99		70 - 130
4-Bromofluorobenzene	111		67 - 139

Lab Sample ID: LCSD 600-221538/5

Matrix: Water

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Analysis Batch: 221538

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

LCSD LCSD %Rec. RPD Spike Added Result Qualifier Limits RPD Limit Unit %Rec 0.0100 0.009712 97 70 - 130 20 mg/L 0 0.0100 0.009818 98 70 - 130 20 mg/L 2 0.0100 0.009223 mg/L 92 70 - 130 2 20 0.0200 0.01957 mg/L 98 70 - 130 20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		50 - 134
Dibromofluoromethane	102		62 - 130
Toluene-d8 (Surr)	96		70 - 130
4-Bromofluorobenzene	106		67 - 139

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153982-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

110

Lab Sample ID: MB 600-221605/6

Matrix: Solid

Analysis Batch: 221605

Client Sample ID: Method Blank

Prep Type: Total/NA

мв мв MDL Unit Result Qualifier RLD Prepared Dil Fac Analyte Analyzed Benzene 0.000630 U 0.00500 0.000630 mg/Kg 09/19/17 11:02 Ethylbenzene 0.00102 U 0.00500 0.00102 mg/Kg 09/19/17 11:02 Toluene 0.00138 U 0.00500 0.00138 mg/Kg 09/19/17 11:02 Xylenes, Total 0.00113 U 0.00500 0.00113 mg/Kg 09/19/17 11:02

> MB MB Qualifier Limits Dil Fac %Recovery Prepared Analyzed 103 61 - 130 09/19/17 11:02 95 68 - 140 09/19/17 11:02 50 - 130 92 09/19/17 11:02

Lab Sample ID: LCS 600-221605/3

Matrix: Solid

Surrogate

Analysis Batch: 221605

1,2-Dichloroethane-d4 (Surr)

Dibromofluoromethane

4-Bromofluorobenzene

Toluene-d8 (Surr)

Client Sample ID: Lab Control Sample Prep Type: Total/NA

09/19/17 11:02

LCS LCS %Rec. Spike Added %Rec Analyte Result Qualifier Unit Limits Benzene 0.0500 0.05180 70 - 131 mg/Kg 104 Ethylbenzene 0.0500 0.04818 mg/Kg 96 66 - 130 0.0500 0.04833 97 67 - 130 Toluene mg/Kg Xylenes, Total 0.100 0.08881 mg/Kg 89 63 - 130

Spike

Added

0.0500

0.0500

0.0500

0.100

LCSD LCSD

0.04991

0.04535

0.04602

0.08443

Result Qualifier

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

57 - 140

LCS LCS Qualifier Limits Surrogate %Recovery 1,2-Dichloroethane-d4 (Surr) 61 - 130 104 Dibromofluoromethane 109 68 - 140 105 50 - 130 Toluene-d8 (Surr) 57 - 140 4-Bromofluorobenzene 122

Lab Sample ID: LCSD 600-221605/4

Matrix: Solid

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Analysis Batch: 221605

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

84

%Rec. RPD Limits RPD Limit %Rec 100 70 - 131 30 91 66 - 130 30 6 92 67 - 130 5 30

63 - 130

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		61 - 130
Dibromofluoromethane	108		68 - 140
Toluene-d8 (Surr)	105		50 - 130
4-Bromofluorobenzene	126		57 ₋ 140

TestAmerica Houston

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153982-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-221694/13

Matrix: Solid

Analysis Batch: 221694

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/20/17 13:03	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/20/17 13:03	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/20/17 13:03	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/20/17 13:03	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		61 - 130		09/20/17 13:03	1
Dibromofluoromethane	86		68 - 140		09/20/17 13:03	1
Toluene-d8 (Surr)	87		50 - 130		09/20/17 13:03	1
4-Bromofluorobenzene	97		57 - 140		09/20/17 13:03	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 221694

Lab Sample ID: LCS 600-221694/10

	Spike	LCS	LCS			%Rec.	
Analyte	Added	Result	Qualifier	Unit I	D %Rec	Limits	
Benzene	0.0500	0.04780		mg/Kg	96	70 - 131	
Ethylbenzene	0.0500	0.04740		mg/Kg	95	66 - 130	
Toluene	0.0500	0.04650		mg/Kg	93	67 - 130	
Xylenes, Total	0.100	0.09419		mg/Kg	94	63 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		61 - 130
Dibromofluoromethane	96		68 - 140
Toluene-d8 (Surr)	93		50 - 130
4-Bromofluorobenzene	106		57 - 140

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 221694

Lab Sample ID: LCSD 600-221694/1011

•	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04896		mg/Kg		98	70 - 131	2	30
Ethylbenzene	0.0500	0.04998		mg/Kg		100	66 - 130	5	30
Toluene	0.0500	0.04777		mg/Kg		96	67 - 130	3	30
Xylenes, Total	0.100	0.09896		mg/Kg		99	63 _ 130	5	30

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		61 - 130
Dibromofluoromethane	90		68 - 140
Toluene-d8 (Surr)	89		50 - 130
4-Bromofluorobenzene	99		57 - 140

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153982-1

Method: 2540B - Percent Moisture

Lab Sample ID: 600-153982-3 DU

Matrix: Solid

Analysis Batch: 221580

Client Sample ID: MW42-NFP-20-21-091520	17
Prep Type: Total/N	IA

	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Moisture	1.7		1.7		%		 0.2	20
Percent Solids	98.3		98.3		%		0	20

QC Association Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153982-1

GC/MS VOA

Analysis Batch: 221538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
600-153982-1	TB08-NFP-09152017	Total/NA	Water	8260B
MB 600-221538/7	Method Blank	Total/NA	Water	8260B
LCS 600-221538/4	Lab Control Sample	Total/NA	Water	8260B
LCSD 600-221538/5	Lab Control Sample Dup	Total/NA	Water	8260B

Analysis Batch: 221605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153982-2	MW42-NFP-13-15-09152017	Total/NA	Solid	8260B	221636
600-153982-3	MW42-NFP-20-21-09152017	Total/NA	Solid	8260B	221636
600-153982-4	MD07-NFP-20-21-09152017	Total/NA	Solid	8260B	221636
MB 600-221605/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-221605/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-221605/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 221636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153982-2	MW42-NFP-13-15-09152017	Total/NA	Solid	5035_ASP	- <u> </u>
600-153982-3	MW42-NFP-20-21-09152017	Total/NA	Solid	5035_ASP	
600-153982-4	MD07-NFP-20-21-09152017	Total/NA	Solid	5035_ASP	
600-153982-5	MW42-NFP-30-31-09152017	Total/NA	Solid	5035_ASP	
600-153982-6	MW42-NFP-40-41-09152017	Total/NA	Solid	5035_ASP	

Analysis Batch: 221694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153982-5	MW42-NFP-30-31-09152017	Total/NA	Solid	8260B	221636
600-153982-6	MW42-NFP-40-41-09152017	Total/NA	Solid	8260B	221636
MB 600-221694/13	Method Blank	Total/NA	Solid	8260B	
LCS 600-221694/10	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-221694/1011	Lab Control Sample Dup	Total/NA	Solid	8260B	

General Chemistry

Analysis Batch: 221580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-153982-2	MW42-NFP-13-15-09152017	Total/NA	Solid	2540B	
600-153982-3	MW42-NFP-20-21-09152017	Total/NA	Solid	2540B	
600-153982-4	MD07-NFP-20-21-09152017	Total/NA	Solid	2540B	
600-153982-5	MW42-NFP-30-31-09152017	Total/NA	Solid	2540B	
600-153982-6	MW42-NFP-40-41-09152017	Total/NA	Solid	2540B	
600-153982-3 DU	MW42-NFP-20-21-09152017	Total/NA	Solid	2540B	

Client Sample ID: TB08-NFP-09152017

Lab Sample ID: 600-153982-1

Date Collected: 09/15/17 08:00 Date Received: 09/16/17 08:49

Matrix: Water

Matrix: Solid

Batch Dil Initial Batch Final Prepared Batch **Prep Type** Type Method Run Factor Amount Amount Number or Analyzed **Analyst** Lab 8260B 221538 09/18/17 13:01 YX1 TAL HOU Total/NA Analysis 20 mL 20 mL

Client Sample ID: MW42-NFP-13-15-09152017 Lab Sample ID: 600-153982-2

Date Collected: 09/15/17 09:00 Matrix: Solid

Date Received: 09/16/17 08:49

Batch Batch Dil Initial Final Batch Prepared Method or Analyzed Type Run Factor Amount Amount Number **Prep Type** Analyst Lab 221580 TAL HOU 2540B 09/18/17 16:34 B1K Total/NA Analysis

Client Sample ID: MW42-NFP-13-15-09152017 Lab Sample ID: 600-153982-2

Date Collected: 09/15/17 09:00 **Matrix: Solid** Date Received: 09/16/17 08:49 Percent Solids: 92.9

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Factor Amount Amount Number or Analyzed Analyst Run 221636 Total/NA Prep 5035 ASP 5.116 a 5 mL 09/16/17 12:00 WS1 TAL HOU Total/NA Analysis 8260B 1 5 g 5 g 221605 09/19/17 18:03 WS1 TAL HOU

Client Sample ID: MW42-NFP-20-21-09152017 Lab Sample ID: 600-153982-3

Date Collected: 09/15/17 09:05

Date Received: 09/16/17 08:49

Batch Ratch Dil Initial Final Batch Prepared Prep Type Method Run Amount Number or Analyzed Type Factor Amount Analyst Lab Total/NA Analysis 2540B 221580 09/18/17 16:34 B1K TAL HOU

Client Sample ID: MW42-NFP-20-21-09152017 Lab Sample ID: 600-153982-3

Date Collected: 09/15/17 09:05

Date Received: 09/16/17 08:49

Matrix: Solid Date Received: 09/16/17 08:49 Percent Solids: 98.3

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Prep 5035 ASP 4.873 g 5 mL 221636 09/16/17 12:00 WS1 TAL HOU Total/NA Analysis 8260B 5 g 5 g 221605 09/19/17 18:28 WS1 TAL HOU

Lab Sample ID: 600-153982-4 Client Sample ID: MD07-NFP-20-21-09152017

Date Collected: 09/15/17 09:10 Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Number Method Amount Amount Lab

Prep Type Type Run Factor or Analyzed Analyst Total/NA Analysis 2540B 221580 09/18/17 16:34 B1K TAL HOU

Client Sample ID: MD07-NFP-20-21-09152017

Date Collected: 09/15/17 09:10

Lab Sample ID: 600-153982-4

Matrix: Solid

Matrix: Solid

Matrix: Solid

TAL HOU

Date Received: 09/16/17 08:49 Percent Solids: 98.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.908 g	5 mL	221636	09/16/17 12:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221605	09/19/17 18:52	WS1	TAL HOU

Client Sample ID: MW42-NFP-30-31-09152017 Lab Sample ID: 600-153982-5

Date Collected: 09/15/17 09:15 **Matrix: Solid**

Date Received: 09/16/17 08:49

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221580	09/18/17 16:34	B1K	TAL HOU

Client Sample ID: MW42-NFP-30-31-09152017 Lab Sample ID: 600-153982-5

Date Collected: 09/15/17 09:15 **Matrix: Solid**

Date Received: 09/16/17 08:49 Percent Solids: 93.4

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.063 g	5 mL	221636	09/16/17 12:00	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221694	09/20/17 13:31	WS1	TAL HOU

Client Sample ID: MW42-NFP-40-41-09152017 Lab Sample ID: 600-153982-6

Date Collected: 09/15/17 10:45

Date Received: 09/16/17 08:49

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221580	09/18/17 16:34	B1K	TAL HOU

Lab Sample ID: 600-153982-6 Client Sample ID: MW42-NFP-40-41-09152017

Date Collected: 09/15/17 10:45

Analysis

Released to Imaging: 10/26/2022 7:32:21 AM

Date Received: 09/16/17 08:49											
	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Prep	5035_ASP			5.704 g	5 mL	221636	09/16/17 12:00	WS1	TAL HOU	

5 g

5 g

221694

09/20/17 13:55

WS1

Laboratory References:

Total/NA

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

8260B

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-153982-1

Laboratory: TestAmerica Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

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TestAir-erica Houston 6510 Rothway Street	Cha	ain of	Custo	in of Custody Record	Cord					Test/	TestAmerica	
Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646				in fac						341 115.00.10.	Service (Alexandria)	
Client Information	Like	HIII		Lab PM Upton,	Lab PM: Upton, Cathy L			Carrier Tracking No(s)	(8)	COC Nc 600-36947-10949.1	1949.1	
Client Contact. Alecca Forsberg	Phone 205 - 2	240-3	235	E-Mail cathy, i	upton@tes	E-inail cathy upton@testamericainc com	тос			Page 1 of 1		
Company CH2M Hill, Inc.						4	Analysis Requested	hested		Job #		
Address. 3721 Rutledge Rd. NE Suite B-1	Due Date Requested:									Preservation Codes:	100	T -
City	TAT Requested (days):					_			- 1 HV	B - NaOH C - Zn Acetate	N - None O - AsNaO2	
State, Z.p. NM, 87109	10 BD Prelim; 14		BD Level3 Package (3e)	e (3e)	11111	(D - Nitric Acid E - NaHSO4	P - Na204S Q - Na2SO3	
Phone 281-721-8546(Tel)	PO# WD293112				10	48HRs				G - Amchior H - Ascorbic Acid		
Email. Aleeca. Forsberg@CH2M.com	#OM			Naos		ногр		_	_ _ _	1 - Ice J - Di Water		
Project Name: Kinder Morgan Bloomfield, NM NFP	HOUSTON Project # 60004617			1		тяон				_	W - ph 4-5 Z - other (specify)	_
Site: BTEX Soils	SSOW#.			lame2			583			Other:		_
Commission identification		Sample (C		Matrix (wwwater, Sesolid, Owwesteloii, Jeld	Werform MS/W	2608_6035 - B	BITAW	53982 Chai				
Sample Identification	Sample Date		Preservation Code	AIL)		12		H		Specia	Special Instructions/Note:	
TBO8 - NFP 09152017	9/18/17	0800	9	2 110803	2			1		*** 48Hr Hc	** 48Hr Holding Time	1
MW47-14FP-13-15-09/57017	5	0900	9	Soil	2	×		ody		From Sam	From Sample Collection	
2-NFP-	9115117	0905	9	Soil	2	X						
- 12-02 -	79115117	0160	9	Soil	2	X						_
- NFP-30-31-	9115117	0915	0	Soil	3	X			١			
MW42 - NFP - 40 - 41 - 0915201	4/15/17	1045	O	Soil	2	X						
			9	Soil								
			O	Soil					In the second			_
			9	Soil					200			
			9	Soil								_
			9	Water								
Possible Hazard Identification Non-Hazard Planmable Skin Initant Poison B	son B Unknown	Ш	Radiological		Sample	le Disposal (A I Return To Client	fee may be a	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Mon	les are retain	etained longer than Archive For	1 1 month) Months	
ested: I, III, IV. Other (specify)					Special	nstructions/C	Requirem	ıts.				Т
Empty Kit Relinquished by:	П	Date			ime	A	VV	Method of Shipment	oment			
Reinquished by	Date/Time	1700	00	Company		ON Jon	3	FO	Partille 15	549	Nedweg-	
Reinquished by	Date/Time		S	Сотрапу		Received by.		Da	Date/Time:		Company	_
	Date/Time		00	Company	Rece	Received by		Da	Date/Time:		Company	
Custody Seals Intact: Custody Seal No.:					Cool	rr Temperature(s	Cooler Temperature(s) °C and Other Remarks	smarks				
					1	1	1					7

TestAmerica Houston

JOB NUMBER:

UNPACKED BY:

Custody Seal Present:

CF = correction factor

Samples received on ice? YES

pH paper Lot #_____

Base samples are>pH 12: YES NO

Cooler IQ

Loc: 600

NO

Y

Trip Blank

N

N

N

N

N

N

Date/Time Received:

CARRIER/DRIVER:

Observed Temp

 (\mathcal{C})

Number of Coolers Received:

CLIENT:

Sample R 153982 cklist

YES

Y

Y

Y

Y

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

Temp

Blank

N

N

N

N

N

N



KZM

Them

YES

YES

NO

Therm

549

MO

Acid preserved are<pH 2:

NG

EP	16	8:49	

Corrected Temp

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		YES	N
samples meet the laboratory's sta	andard conditions of sample acceptability upon receipt?		
		1	
COMMENTS:			
	(A)		
	64	1	
	6	1	
	6/2		
			_
	,		

HS-SA-WI-013

Rev. 3; 07/01/2014

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12/10/2020 (Rev. 1)

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 600-153982-1

Login Number: 153982 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

restAmerica nouston

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District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 29497

CONDITIONS

Operator:	OGRID:
El Paso Natural Gas Company, L.L.C	7046
1001 Louisiana Street	Action Number:
Houston, TX 77002	29497
	Action Type:
	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created	Condition	Condition Date
Ву		
nvelez	Accepted for the record. See app ID 94607 for most updated status.	10/26/2022