Oil Conservation Division

Submit 1 Copy to appropriate District Office in AC.

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Smith, Cory, EMNRD

From: Sent: To: Cc: Subject: Smith, Cory, EMNRD Monday, November 5, 2018 9:25 AM khong@harvestmidstream.com Griswold, Jim, EMNRD; Griswold, Jim, EMNRD RE: Abatement Plan for Kutz Canyon Gas Plant AP-127

Kijun,

Just wanted to make sure Harvest received Jims letter Assigning the Kutz Canyon Gas Plant to an Abatement plan under 19.15.30 NMAC. Please make sure you review the requirements of 19.15.30 NMAC as they are more detailed, have specific timelines compared to part 29.

Since there has been an ownership change I have accepted for record the Aug 2018 report and it will be scanned into the AP online file. As mentioned in the October 30, 2018 letter Harvest has until December 30, 2018 to submit Stage 1 to OCD D3(CC Santa Fe Digitally)

For your records, please make sure all future submittals for the Kutz Canyon Gas Plant 10/5/17 release include the following numbers.

Abatement plan # AP-127 Incident # nCS1729626631

Cory Smith Environmental Specialist Oil Conservation Division Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 115 cory.smith@state.nm.us

From: Griswold, Jim, EMNRD
Sent: Tuesday, October 30, 2018 3:42 PM
To: khong@harvestmidstream.com
Cc: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Subject: Abatement Plan for Kutz Canyon Gas Plant

See attached. Original sent to Mr. Hong today via snailmail.

Jim Griswold

Environmental Bureau Chief Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505 505.476.3465 email: jim.griswold@state.nm.us



APTIM 6380 South Fiddlers Green, Suite 310 Greenwood Village, CO 80111 Tel: +1 303 741 7700 Fax: +1 303 741 7479

Soil and Groundwater Assessment Report

Kutz Canyon Gas Plant San Juan County, New Mexico

Project 6631236951

August 16, 2018

Prepared for:



Williams Four Corners LLC

Prepared by:

APTIM Environmental & Infrastructure, Inc.

6380 South Fiddlers Green, Suite 310 Greenwood Village, CO 80111 United States www.APTIM.com



Table of Contents

1.0	INTE	RODUCTION	1
	1.1	PROJECT LOCATION AND DESCRIPTION	1
	1.2	SITE CONDITIONS	2
		1.2.1 Site Geology	2
		1.2.2 Site Hydrology	2
		1.2.3 Historical Land Use	2
	1.3	SCOPE OF WORK	3
2.0	GEN	IERAL SCOPE OF WORK AND METHODOLOGY	4
	2.1	SUBSURFACE SOIL SAMPLE COLLECTION PROCEDURES	4
	2.2	TEMPORARY PIEZOMETER INSTALLATION	4
	2.3	GROUNDWATER MONITORING	5
	2.4	DECONTAMINATION PROCEDURES	5
	2.5	LEAK TESTING	5
	2.6	SURVEY	5
3.0	RES	ULTS	6
	3.1	SITE GEOLOGY AND HYDROGEOLOGY	6
	3.2	SOIL RESULTS	6
	3.3	GROUNDWATER RESULTS	7
	3.4	LEAK TESTING RESULTS	7
4.0	CON	ICLUSIONS	8
5.0	REN	IEDIAL TESTING1	0
6.0	REF	ERENCES	1

List of Tables

Table 3-1	Summary of Historic Gauging Results
Table 3-2	Summary of Soil Analytical Results
Table 3-3	Summary of Groundwater Analytical Results

List of Figures

- Figure 1-1 Site Location Map
- Figure 1-2 Site Map
- Figure 1-3 1960 Site Topographic Map
- Figure 1-4 1985 Site Topographic Map
- Figure 1-5 1962 Site Aerial
- Figure 1-6 1978 Site Aerial
- Figure 1-7 1991 Site Aerial
- Figure 1-8 1997 Site Aerial
- Figure 3-1 Cross Section A
- Figure 3-2 Cross Section B
- Figure 3-3 Potentiometric Surface Contour Map
- Figure 3-4 BTEX and TPH Concentrations in Soil
- Figure 3-5 BTEX Concentrations in Perched Water



List of Appendices

Appendix ABoring Logs and Temporary Piezometer Completion DiagramsAppendix BLaboratory Reports



1.0 INTRODUCTION

The Kutz Canyon Gas Plant (Site) is an active natural gas processing plant operated by Four Corners, LLC (Williams). Petroleum hydrocarbon impacted soils were encountered during excavation activities to install a natural gas gathering pipeline owned and operated by Gas Company of New Mexico (GCNM). The excavation was located within the GCNM pipeline right-of-way (ROW) outside of the fenced facility at the Site. GCNM notified Williams personnel upon discovery of the soil impacts. Williams personnel then reported the release to the New Mexico Oil Conservation Division (NMOCD) on October 5, 2017.

The initial testing of the soil in the trench was completed by LT Environmental, Inc. (LTE) on behalf of Williams on November 9, 2017. Two composite soil samples collected from the bottom of the trench contained total benzene, toluene, ethylbenzene, and total xylenes (BTEX) at 156.2 milligrams per kilogram (mg/kg) and 93.7 mg/kg, both above the NMOCD closure criteria of 50 mg/kg. No detectable concentrations of BTEX were noted in the water samples collected from the bottom the bottom of the excavation (LTE, 2017).

During pipeline trenching activities, the petroleum hydrocarbon impacted soil identified within the pipeline trench was excavated to the extent possible. Utilities within the highly congested pipeline corridor prevented the excavation of all petroleum hydrocarbon impacted soil within the central portion of the pipeline trench.

The NMOCD remediation action levels for soils contaminated by petroleum hydrocarbons are based on the total ranking score for a site based on the relative threat to public health, fresh waters and the environment (NMOCD, 1993). For sites with a depth to groundwater greater than 100 feet below ground surface (bgs); no water source or private domestic water source within 1,000 feet; and distance to the nearest surface water body greater than 1,000 feet, the total ranking score for a site is zero. NMOCD has indicated that due to shallow groundwater observations during the GCNM excavation and soil boring assessment work, groundwater is considered to be at depths less than 100 feet. The ranking criteria for sites with depth to groundwater of less than 50 feet bgs is a ranking score of 20. The NMOCD remediation action levels for sites with a ranking score greater than 19 is 10 parts per million (ppm) benzene, 50 ppm total BTEX, and 100 ppm total petroleum hydrocarbons (TPH).

1.1 PROJECT LOCATION AND DESCRIPTION

The Kutz Canyon Gas Plant is a natural gas processing plant located in the west ½ of the northwest quarter of Section 13 and the east ½ of the northeast ¼ of Section 14, Township 28 North, Range 11 West in San Juan County, New Mexico approximately 3 miles south of Bloomfield, New Mexico at latitude 36.66652778 degrees and a longitude of -107.96277778 degrees. Figure 1-1 is a topographic map depicting the location of the Site. The Site is located in an area of west-slopping topography at an elevation of approximately 5,780 feet above mean sea level (ft-msl). The maximum relief over the site is approximately 40 feet. Intermittent flow from the site will follow natural drainage west to Kutz Canyon. Kutz Canyon drains to the north into San Juan River. The San Juan River, approximately 4.3 miles to the northwest of the Site, is the nearest down-gradient



perennial source of surface water at an elevation of approximately 5,380 ft-msl. Figure 1-2 is a site map.

1.2 SITE CONDITIONS

1.2.1 Site Geology

The Site is located within the San Juan Basin, a geologic structural basin located in the north western corner of New Mexico. Surface geology at the Site consists of Quaternary alluvium overlying the early Paleocene Nacimiento Formation. The Nacimiento Formation is an ancient fluvial deposit that is dominated by fine-grained deposits, including mudstones and siltstones, with minor lenticular fine to coarse sandstone bodies. In the San Juan Basin, the Nacimiento Formation is as much as 500 meters thick (Williamson, 1993).

The Nacimiento Formation is exposed as a complex of badlands within the Kutz Canyon directly to the west of the Site. Unconsolidated deposits of silt, sand, and clay of recent alluvium unconformably overlie the bedrock at the Site, located directly to the east of Kutz Canyon.

1.2.2 Site Hydrology

The principal aquifer in the San Juan Basin is the Uinta-Animas aquifer. The Nacimiento Formation is part of the Unita-Animas aquifer in the area of the Site and is described as permeable conglomerate and sandstone interlayered within relatively impermeable shale and mudstone (USGS, 2001). In the San Juan Basin, groundwater generally flows toward the San Juan River and its tributaries where it discharges to alluvium locally present in the San Juan River valley (USGS, 2001).

Groundwater has been described in the Site discharge plan (GW-045) as shallow perched water with total dissolved solids (TDS) concentrations ranging from 8,000 to 18,000 mg/l and deeper groundwater at a depth of 200 feet with estimated TDS of 2,000 to 4,000 mg/l.

Field notes for previously installed corrosion control/cathodic protection wells installed at the Site to a depth of 300 feet bgs state that water was encountered at a depth of 260 feet. The logs for these two wells show surface casing set into shale bedrock to a depth of 20 feet bgs with no mention of shallow groundwater (LTE, 2017).

1.2.3 Historical Land Use

The Plant was originally constructed in 1949. Review of the historical topography figure for 1960 (see **Figure 1-3**) shows some of the original topography and surface drainage in the area of investigation. The more recent topography figure for 1985 (see **Figure 1-4**) shows storm water impoundments and surface regrading in the area of investigation west of the plant.

Aerial photographs for 1962, 1978, 1991, and 1997 (see **Figures 1-5** through **1-8**, respectively), also show the historical changes in storm water impoundments and surface regrading in the area of investigation.



1.3 SCOPE OF WORK

The additional investigation activities were performed in accordance with the procedures detailed in the Limited Soil and Groundwater Assessment Work Plan dated April 16, 2018. Data were collected and analyzed during the field investigation activities to fulfill the following objectives:

- To identify the potential occurrence of shallow perched groundwater beneath the site;
- Evaluate soils in the area of noted surface staining; and,
- Evaluatface seep located north of the flare for perched water and potential petroleum hydrocarbon sources.

The initial investigation activities were completed on November 30 and December 1, 2017. Additional field investigation activities were conducted from June 4, 2018 through August 3, 2018. The following activities were included in the investigation:

- Installation of 43 soil borings;
- Collected 46 soil samples for laboratory analysis of BTEX; TPH gasoline range organics (GRO); TPH diesel range organics (DRO); and, TPH motor oil range organics (MRO);
- Installation of 18 temporary 1-inch diameter piezometers;
- Leak testing of drain lines;
- Surveyed location and surface elevation of each soil boring;
- Surveyed the top of casing (TOC) elevation of the temporary piezometers;
- Development of the temporary piezometers;
- Collect groundwater samples from 16 of the soil borings with available water for laboratory analysis of BTEX; and,
- Collected fluid level measurements from the temporary piezometers.



2.0 GENERAL SCOPE OF WORK AND METHODOLOGY

Sampling activities were performed using the sample collection procedures presented in the Limited Soil and Groundwater Assessment Work Plan dated April 16, 2018. This section discusses general procedures used to collect and analyze soil and groundwater samples. Methodologies for the temporary piezometer installation and fluid level gauging are also presented.

The location of the soil borings and temporary piezometers are depicted on **Figure 1-2**. Soil borings BH-1 through BH-9 were completed with a truck mounted drill rig using hollow stem augers and split spoon sampler. Results of this sampling, completed November 29 through December 1, 2017, were originally reported in the Excavation, Delineation, and Stockpile Sampling Summary Report letter dated January 18, 2017.

The soil boring locations were marked and the utilities cleared before sampling activities began. Each of the drill rig or Geoprobe® soil boring locations were cleared using a hand auger to a depth of 5 to 8 feet bgs prior to any drilling or Geoprobe® sampling activities.

An LTE geologist was present to oversee the soil sampling and monitoring well installation activities. Soil observations, changes in lithology, and the presence of hydrocarbons were noted on the boring log for each location. Specific boring logs and temporary piezometer completion diagrams are included in **Appendix A**.

2.1 SUBSURFACE SOIL SAMPLE COLLECTION PROCEDURES

Soil borings BH-10 through BH-20 were completed with a Geoprobe® equipped with a 5-foot long dual tube soil sampling system. A new disposable clear polyvinyl chloride (PVC) liner was used for the collection of each 5-foot sample interval from surface to total depth of the soil boring. Soil samples were collected at 5-foot intervals and field screened for VOCs using a photoionization detector (PID).

Because of the shallow depth and access, additional soil borings BH-21 through BH-43 were installed with a 2.5-inch diameter hand auger to help define the lateral extent of impacted soil and shallow perched water.

The field geologist based the collection and sample interval for the soil sample laboratory analysis on the PID field screening results and visual inspection. The soil samples were containerized, preserved, and submitted to the laboratory for analysis of BTEX using method 8260B and TPH GRO, TPH DRO, and TPH MRO using method 8015.

Upon completion, each boring was plugged with bentonite.

2.2 TEMPORARY PIEZOMETER INSTALLATION

Temporary piezometers were constructed in each boring with noted saturated soils using 1inch diameter, flush-joint, threaded Schedule 40 polyvinyl chloride (PVC) casing and well screen. A threaded plug was placed at the bottom of the well screen before installation into



the boring. A 5 or 10-foot length of 0.01-inch factory cut slotted well screen was set in the open boring and the solid PVC casing threaded to the well screen and extended to surface.

2.3 GROUNDWATER MONITORING

Groundwater monitoring activities were performed at temporary piezometers if adequate water was available to collect a sample. Groundwater samples were obtained using new high-density polyethylene (HDPE) tubing and a check valve assembly.

Specifically, the scope of work included:

- Recording the depth to groundwater (and light non-aqueous phase liquid LNAPL if present) using an interface probe capable of measuring to 0.01 feet;
- Purging the temporary piezometer of three well volumes;
- Collecting groundwater samples and analyzing the samples for BTEX using method 8260B.

2.4 DECONTAMINATION PROCEDURES

Non-disposable sampling tools used for subsurface soil and groundwater sampling were decontaminated prior to the collection of each sample. The decontamination procedure consist of a non-phosphate soap wash, followed by a deionized water rinse.

2.5 LEAK TESTING

Leak testing was completed on the open drain system that feed the produced water tanks. This was performed by isolating all of the sources from the plant and installing PVC risers at the clean out plug locations for each line.

2.6 SURVEY

The soil boring locations were marked and the locations surveyed by a New Mexico licensed surveyor to establish locations, ground surface elevation, and top of casing elevation for the temporary piezometers, if needed.



3.0 RESULTS

3.1 SITE GEOLOGY AND HYDROGEOLOGY

Soil borings placed in the area of investigation were used to examine the surface and subsurface conditions. Characterization of the unconsolidated lithology was based on drill cuttings and soil samples collected during the investigation activities. Boring logs for the soil borings installed are provided in **Appendix A**.

- The unconsolidated lithology consist of silty sand to sand with some clay from surface to depths ranging from 3 to 24 feet bgs. The sands overlie a grey-green lean clay. The thickest sand interval of 24 feet was observed BH-10, the furthest northeast soil boring, and the thinnest sand logged in soil boring BH-25, located the furthest west. The unconsolidated lithology pinches out to the west because of surface erosion and bedrock outcrop. Refusal was encountered at a tight clay at total depths in all of the Geoprobe soil borings (BH-10 through BH-20) at depths ranging from 12 to 24 feet bgs. Cross sections from BH-10 to BH-25 (Figure 3-1) and from BH-27 to BH-25 (Figure 3-2) shows the lithology and approximate locations of former evaporation ponds in the area of investigation.
- Measurable perched water was noted in 18 of the soil borings. The saturated soils were identified in some of the soil borings as the sand on top of the grey-green clay. The average saturated thickness of perched water measured within the sands above the grey-green clay is approximately 5 feet.
- Results of fluid level gauging activities in each of temporary piezometers with measurable water, are presented in **Table 3-1**. Figure 3-3 presents potentiometric surface contour map for the fluid level gauging activities on August 3, 2018. The perched water flow in the area of investigation is to the west.
- The soil borings along the west side of the investigation area and west of the seep location that were dry included BH-25, 32, 33, 38, and 39.

3.2 SOIL RESULTS

Summaries of the soil sampling results are shown in **Table 3-2**. The sampling locations and laboratory analytical results for BTEX and TPH in soil samples collected are shown in **Figure 3-4**. The complete laboratory analytical reports are included in **Appendix B**.

- Benzene concentrations exceeded the NMOCD remediation action level of 10 mg/kg in two of the shallow soil samples collected from BH-15 and BH-16, with the highest benzene concentration detected in soil reported in BH-15 collected from 8 to 12 feet bgs at 51 mg/kg.
- Total BTEX concentrations exceeded the NMOCD remediation action level of 50 mg/kg in five of the shallow soil samples collected from BH-11, BH-14, BH-15, BH-



16, and BH-19, with the highest total BTEX concentration detected in soil reported in BH-15 collected from 8 to 12 feet bgs at 483 mg/kg.

• TPH concentrations exceeded the NMOCD remediation action level of 100 mg/kg in 14 of the shallow soil samples collected from soil borings BH-3, BH-10, BH-11, BH-13, BH-14, BH15, BH-16, BH-17, BH-19, BH-20, BH-21, BH-22, BH-24, and BH-26, with the highest TPH concentration detected in soil reported in BH-13 collected from 8 to 12 feet bgs at 30,680 mg/kg.

3.3 GROUNDWATER RESULTS

Perched water samples were collected from 16 of the soil borings. The perched groundwater analytical results for BTEX are summarized in **Table 3-3**. The complete laboratory analytical reports are included in **Appendix B**. The extent of BTEX reported in the perched water collected from the temporary piezometers and the seep are shown on **Figure 3-5**.

- Benzene concentrations exceeded the NMOCD remediation action level of 10 micrograms per liter (ug/l) in 7 of the 16 water samples collected from the soil borings, with the highest concentration reported in the sample collected from BH-34 at 17,000 ug/l.
- Toluene concentrations exceeded the NMOCD remediation action level of 750 ug/l in 3 of the 16 samples collected from the soil borings, with the highest concentration reported in the sample collected from BH-34 at 36,000 ug/l.
- Ethylbenzene concentrations exceeded the NMOCD remediation action level of 750 ug/l in 2 of the 16 water samples collected from the soil borings, with the highest concentration reported in the sample collected from BH-34 at 1,400 ug/l.
- Total xylene concentrations exceeded the NMOCD remediation action level of 620 ug/l in 5 of the 16 water samples collected from the soil borings, with the highest concentration reported in the sample collected from BH-34 at 13,000 ug/l.

3.4 LEAK TESTING RESULTS

After observing a drop of 4-inchs in the water column over a period of one hour, the piping close to the risers was exposed and wet soil was observed around a 4-inch pipe clamp and 4-inch elbow (see **Figure 1-2** for locations SS01 and SS02). The drain lines coming off the cooling tower and condensate tank were also tested and partially exposed to visually inspect the joints. No leaks were identified.



4.0 CONCLUSIONS

Data were collected and analyzed during the field investigation activities to fulfill the following objectives:

- To identify the potential occurrence of shallow perched groundwater beneath the site;
- Evaluate soils in the area of noted surface staining; and,
- Evaluate surface seep located north of the flare for perched water and potential petroleum hydrocarbon sources.

Surface geology at the Site consists of unconsolidated alluvium overlying bedrock. The unconsolidated lithology consists of silty sand to sand with some clay from surface to depths ranging from 3 to 24 feet bgs. The sands set on top of grey-green lean clay. The unconsolidated lithology is discontinuous to the west and pinches out because of surface erosion with bedrock being exposed in Kutz Canyon directly to the west of the Site. Refusal was encountered at a tight clay at total depth in the Geoprobe soil borings at depths ranging from 12 to 24 feet.

Bedrock beneath the alluvium is the Nacimiento Formation. The Nacimiento Formation is dominated by fine-grained deposits, including dark mudstones and siltstones, with minor lenticular fine to coarse sandstone bodies. The Nacimiento Formation is exposed as a complex of badlands within the Kutz Canyon directly to the west of the Site. In the San Juan Basin, the Nacimiento Formation is as much as 500 meters thick (Williamson, 1993).

Review of the historical topography figures and aerial photographs show that the original topography has been regraded in the area of investigation into a storm water impoundment to capture surface water runoff from the Site. At least three of these evaporation ponds have been closed out and the area regraded to allow placement of the existing flare.

Measurable perched water was noted in the unconsolidated sand and clayey sand setting on top of the grey-green lean clay in several of the soil borings in the area of the flare. The average saturated thickness of perched water measured within the sands above the grey-green clay is approximately 5 feet. The perched water flow in the area of investigation is to the west.

The soil borings along the west side of the investigation area and west of the seep location were dry.

Reported concentrations of TPH and total BTEX in several of the shallow soil samples collected exceeded the recommended NMOCD remediation action level. Shallow soil samples were collected mostly from unsaturated silty and clayey sands. There were no reported detections of TPH, total BTEX, or benzene in any of the deeper soil samples generally collected at the boring total depth from either unsaturated silty sand or from the moist to dry grey-green lean clay.

The highest TPH concentration was reported in the shallow (8 to 12 feet bgs) soil sample interval collected from SB-13 along the south central west side of the pipeline trench.



The highest total BTEX concentration was reported in the shallow (8 to 12 feet bgs) soil sample interval collected from SB-15 along the west side of the above ground tanks and on the west side of the pipeline trench. Concentrations of TPH and total BTEX reported in shallow soil decrease to the west towards the seep and were not detected in shallow soil samples collected from the furthest west soil borings to the west of the seep.

Concentrations of BTEX reported in several of the perched water samples collected exceed the NMOCD remediation action level. The highest BTEX concentrations in perched water were detected at BH-34, located hydraulically up gradient of the seep and north of the flare.

The perched water is discontinuous in the area of investigation. Perched water was identified in only one of the soil borings (BH-27) located in the vicinity of the pipeline trench.

The location and flow direction of the perched water appears to be affected by former surface topography, existing and former storm water impoundments. The perched water flows to the west across the top of the grey-green clay and tight clay towards the seep, and pinches out to the west due to surface erosion and bedrock outcrop.

Petroleum impacted soil and groundwater has been defined within the shallow perched water and soil above the grey-green clay and tight clays between the trench and the seep location.



5.0 REMEDIAL TESTING

Certain remedial testing is necessary for the evaluation and design of future remediation actions. Due to in-place natural gas plant processing equipment as well as the number of buried utilities associated with the Site and pipeline ROW, excavation of the entire source of petroleum impacted soil and perched water is not a feasible remedial method. Remedial alternatives to be evaluated may include limited excavation of soils in areas of BH-13 and BH-15, and enhanced bioremediation. Additional remedial testing proposed at this time includes:

- In addition to BTEX and TPH parameters, collect groundwater samples from temporary piezometers for biological process parameters. Parameters to be measured in the field include oxidation-reduction potential (ORP), pH, temperature, conductivity, dissolved oxygen (DO), and ferrous iron. Additional parameters to be included and analyzed by the laboratory include alkalinity, nitrate/nitrite, sulfate, manganese, chemical oxygen demand (COD), and biological oxygen demand (BOD).
- Perform hydraulic slug testing to help determine the hydraulic properties of the shallow perched water for remedial technology evaluation.



6.0 REFERENCES

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- U.S. Geological Survey (2001). Groundwater Atlas of the United States-Arizona, Colorado, New Mexico, Utah: HA 730C. Colorado Plateau Aquifer. http://sr6cap.er.usgs.gov/gwa/ch_c/C-test4.html.
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Tables

TABLE 3-1 HISTORIC GAUING RESULTS WILLAMS FOUR CORNERS LLC

KUTZ CANYON GAS PLANT SAN JUAN COUNTY, NEW MEXICO

SITE	DATE	MP ELEVATION (FEET)	DEPTH TO WATER (FEET)	DEPTH TO PRODUCT (FEET)	PRODUCT THICKNESS (FFET)	WATER ELEVATION (FEET)
BH-18	6/18/2018	5766.96	8.91	NP	NP	5758.05
BH-18	7/13/2018	5766.96	8.95	NP	NP	5758.01
BH-18	7/26/2018	5766.96	9.01	NP	NP	5757.95
BH-18	8/3/2018	5766.96	9.02	NP	NP	5757.94
BH-19	6/18/2018	5772.26	15.69	NP	NP	5756.57
BH-19	7/13/2018	5772.26	15.41	NP	NP	5756.85
BH-19	7/26/2018	5772.26	15.45	NP	NP	5756.81
BH-19	8/3/2018	5772.26	15.43	NP	NP	5756.83
BH-20	6/12/2018	5762.81	9.84	NP	NP	5752.97
BH-20	7/13/2018	5762.81	5.49	NP	NP	5757.32
BH-20	7/26/2018	5762.81	10.15	NP	NP	5752.66
BH-20	8/3/2018	5762.81	10.32	NP	NP	5752.49
BH-22	6/12/2018	5759.19	4.69	NP	NP	5754.50
BH-22	7/13/2018	5759.19	10.21	NP	NP	5748.98
BH-22	7/26/2018	5759.19	5.56	NP	NP	5753.63
BH-22	8/3/2018	5759.19	5.48	NP	NP	5753.71
BH-26	6/12/2018	5754.28	6.86	NP	NP	5747.42
BH-26	7/13/2018	5754.28	7.41	NP	NP	5746.87
BH-26	7/26/2018	5754.28	7.39	NP	NP	5746.89
BH-26	8/3/2018	5754.28	7.58	NP	NP	5746.70
BH-27	6/12/2018	5776.70	7.76	NP	NP	5768.94
BH-27	7/13/2018	5776.70	3.83	NP	NP	5772.87
BH-27	7/26/2018	5776.70	4.01	NP	NP	5772.69
BH-27	8/3/2018	5776.70	4.05	NP	NP	5772.65
BH-28	7/6/2018	5774.60	13.21	NP	NP	5761.39
BH-28	7/13/2018	5774.60	13.25	NP	NP	5761.35
BH-28	7/26/2018	5774.60	13.28	NP	NP	5761.32
BH-28	8/3/2018	5774.60	14.31	NP	NP	5760.29
BH-29	7/6/2018	5772.70	12.08	NP	NP	5760.62
BH-29	7/13/2018	5772.70	12.11	NP	NP	5760.59
BH-29	7/26/2018	5772.70	12.16	NP	NP	5760.54
BH-29	8/3/2018	5772.70	12.20	NP	NP	5760.50
BH-31	7/6/2018	5765.52	8.28	NP	NP	5757.24
BH-31	7/13/2018	5765.52	8.35	NP	NP	5757.17
BH-31	7/26/2018	5765.52	8.31	NP	NP	5757.21
BH-31	8/3/2018	5765.52	8.26	NP	NP	5757.26
BH-34	7/26/2018	5766.15	7.30	NP	NP	5758.85
BH-34	8/3/2018	5766.15	7.32	NP	NP	5758.83
BH-35	7/26/2018	5767.06	8.84	NP	NP	5758.22
BH-35	8/3/2018	5767.06	8.87	NP	NP	5758.19
BH-36	7/26/2018	5764.26	D	NP	NP	NA
BH-36	8/3/2018	5764.26	D	NP	NP	NA
BH-37	7/26/2018	5752.95	D	NP	NP	NA
BH-37	8/3/2018	5752.95	D	NP	NP	NA

TABLE 3-1 HISTORIC GAUING RESULTS WILLAMS FOUR CORNERS LLC

KUTZ CANYON GAS PLANT SAN JUAN COUNTY, NEW MEXICO

SITE	DATE	MP ELEVATION (FEET)	DEPTH TO WATER (FEET)	DEPTH TO PRODUCT (FEET)	PRODUCT THICKNESS (FFET)	WATER ELEVATION (FEET)
BH-40	8/3/2018	5770.19	7.68	NP	NP	5762.51
BH-41	8/3/2018	5772.81	12.65	NP	NP	5760.16
BH-42	8/3/2018	5772.57	13.19	NP	NP	5759.38
BH-43	8/3/2018	5770.27	7.74	NP	NP	5762.53

Notes:

D - Dry

NA - Not Applicable

NP - No Product

TABLE 3-2 SOIL ANALYTICAL RESULTS

KUTZ CANYON GAS PLANT SAN JUAN COUNTY, NEW MEXICO WILLIAMS FOUR CORNERS LLC

	Sample	Vanor	Chloride	Benzene	Toluene	Ethyl-	Total	Total	GRO	DRO	MRO	Total
Sample ID	Date	(nnm)	(ma/ka)	(ma/ka)	(ma/ka)	benzene	Xylenes	BTEX	(ma/ka)	(ma/ka)	(ma/ka)	TPH
	Date	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Excavation /Pipeline Trench Composite Samples												
EX-South @ 10'	11/9/2017	2,156	39	3.5	49	9.7	94	156.2	2,600	120	81	2,801
TR01 @ 8'	11/9/2017	1,878	43	1.8	19	6.9	66	93.7	1,700	370	380	2,450
TR02 @ 6'	11/9/2017	36	<30	< 0.15	< 0.29	< 0.29	< 0.58	<1.31	<29	<9.6	<48	<86.6
Pipeline Trench Stockpile Samples												
SP01	12/1/2017	0		< 0.023	< 0.047	< 0.047	< 0.094	< 0.211	<4.7	18	61	79
SP02	12/1/2017	308		< 0.12	< 0.25	< 0.25	1.2	1.2	120	1,100	640	1,860
SP03	12/1/2017	281		< 0.12	< 0.24	< 0.24	< 0.49	<1.09	<24	770	2,200	2,970
SP04	12/1/2017	0		< 0.025	< 0.049	< 0.049	<0.098	< 0.221	<4.9	<9.1	<46	<60
	11/20/2017	0.2		Bo	rehole Sa	mples			1.0			(1.0
BH-1 (0) 13' - 15'	11/30/2017	92		<0.025	< 0.049	<0.049	<0.099	<0.222	<4.9	< 9.4	<47	<61.3
BH-1 (0) 18 - 20	11/30/2017	25		< 0.024	<0.048	<0.048	<0.096	<0.210	<4.8	<10	<50	<64.8
BH-2 (0) 13 - 15	11/30/2017	833		<0.023	< 0.047	< 0.047	<0.094	<0.211	<4.7	< 9.8	<49	<03.3
BH-2 (0) 23 - 25	11/30/2017	575		<0.023	< 0.047	< 0.047	<0.094	<0.211	<4./	< 9.2	<40	< 39.9
DH-3 (W, Z - 4	11/30/2017	575		0.04	<0.040	<0.040	0.20	0.300	04	01	/30	600
BH-3 (W, 23 - 25 BH 4 @ 2' 5'	11/30/2017	126		<0.023	<0.049	< 0.049	<0.098	0.221	<4.9	< 9.8	<49	<03.7
BH 4 @ 18' 20'	11/30/2017	430		<0.024	<0.047	<0.047	<0.006	0.23	15	<9.4	<47	-62.4
BH-5 @ 3' - 5'	12/1/2017	5		<0.024	<0.048	<0.048	<0.090	<0.432	<4.0	<9.0	<40	<50.7
BH-5 @ 18' - 20'	12/1/2017	0		<0.023	<0.040	<0.040	<0.091	<0.200	<4.0	<9.1	<40	<61.3
BH-6 @ 13' - 15'	12/1/2017	0		<0.024	<0.040	<0.040	<0.098	<0.213	<4.0	<91	<45	<59
BH-6 @ 18' - 20'	12/1/2017	19		<0.023	<0.049	<0.049	<0.098	<0.220	<4.9	<95	<48	<62.4
BH-7 @ 4' - 6'	12/1/2017	436		<0.024	<0.049	<0.049	<0.098	<0.220	<4.9	<9.9	<50	<64.8
BH-7 @ 18' - 20'	12/1/2017	5		< 0.024	< 0.047	< 0.047	< 0.095	< 0.213	<4.7	< 9.7	<49	<63.4
BH-8 @ 7' - 10'	12/1/2017	76		< 0.025	< 0.049	< 0.049	< 0.099	< 0.222	38	< 9.9	<49	38
BH-8 @ 18' - 20'	12/1/2017	1		< 0.024	< 0.049	< 0.049	< 0.098	< 0.220	<4.9	< 9.5	<48	<62.4
BH-9 @ 7' - 10'	12/1/2017	17		< 0.024	< 0.048	< 0.048	< 0.095	< 0.215	<4.8	<10	<51	<65.8
BH-9 @ 18' - 20'	12/1/2017	5		< 0.023	< 0.046	< 0.046	< 0.091	< 0.206	<4.6	<9.5	<47	<61.1
BH-10 @ 12' - 16'	6/6/2018	364		< 0.12	< 0.23	0.53	3.2	3.73	540	25	100	665
BH-10 @ 20' - 24'	6/6/2018	13.6		< 0.023	< 0.046	< 0.046	< 0.092	< 0.207	<4.6	<9.9	<50	<64.5
BH-11 @ 8'	6/4/2018	3,640		< 0.47	8.4	4.2	44	56.6	1,200	160	120	1,480
BH-11 @ 16' - 18'	6/6/2018	16.4		< 0.024	< 0.048	< 0.048	< 0.097	< 0.217	<4.8	<10	<51	<65.8
BH-12 @ 8' - 12'	6/6/2018	43.8		< 0.024	< 0.048	< 0.048	< 0.095	< 0.215	<4.8	<10	<50	<64.8
BH-12 @ 12' - 16'	6/6/2018	27.2		< 0.024	< 0.048	< 0.048	< 0.096	< 0.216	<4.8	<10	<50	<64.8
BH-13 (a) 8' - 12'	6/6/2018	1,815		3.1	6.6	5.0	18	32.7	680	12,000	18,000	30,680
BH-13 (a) 16 - 18	6/6/2018	32.6		< 0.024	<0.049	<0.049	<0.097	<0.219	<4.9	< 9.9	<50	<64.8
$BH-14(0) \delta - 12$ DU 14(0) 14' 16'	6/6/2018	914		4.9	20	8.0	/8	(0.21)	2,000	300	680	2,980
BH-14 (0) 14 - 10 BH-15 (0) 8' - 12'	6/6/2018	308		51	<0.040	12	300	492	10,000	350	380	10 730
BH-15 @ 16' - 19'	6/6/2018	27.6		<0.023	<0.046	<0.046	<0.092	<0.207	<1.6	<10	<50	<61.6
BH-16 @ 8' - 12'	6/6/2018	668		11	<24	14	140	165	4 100	420	670	5 190
BH-16 @ 12' - 15'	6/6/2018	10.1		<0.024	<0.049	<0.049	<0.098	<0.220	<4.9	<10	<50	<64.9
BH-17 @ 14' - 16'	6/6/2018	437		<0.048	<0.096	0.28	3.0	33	86	41	110	237
BH-17 @ 20' - 23'	6/6/2018	3.6		<0.024	<0.048	<0.048	<0.095	<0.215	<4.8	<9.9	<49	<63.7
BH-18 @ 10' - 12'	6/6/2018	124.3		<0.021	<0.046	<0.046	<0.002	<0.213	5.2	-00	<10	5.2
BL 10 @ 14' 16'	6/7/2018	286		1 2	12	5.5	52	72 9	1,000	240	510	2.750
BH-19 @ 14 - 10	6/7/2018	61		<0.025	-0.040	-0.040	<0.000	-0.222	1,900	-0.0	510	2,750
BH-19 @ 20 - 24	6/7/2018	17.7		<0.023	<0.049	<0.049	<0.099	<0.222	<4.9	2,000	<49	<03.8
BH-20 @ 10 - 12	6/7/2018	17.7		< 0.024	< 0.049	< 0.049	< 0.097	< 0.219	7.4	2,000	<490	2,007.4
BH-20 @ 14 - 16	6/7/2018	5.1		<0.025	< 0.050	<0.050	<0.099	<0.224	< 5.0	<9.8	<49	<63.8
вн-21 @ 5'	6/5/2018	1,154		< 0.024	< 0.048	0.25	1.5	1.75	170	20	77	267
BH-22 @ 4'	6/4/2018	1,601		3.3	17	2.5	27	49.8	1,100	45	130	1,275
BH-23 @ 2'	6/4/2018	166.5		< 0.024	0.076	0.065	0.44	0.581	61	10	<50	71
BH-24 @ 8'	6/4/2018	884		1.7	8.1	3.8	36	49.6	2,000	93	260	2,353
BH-25 @ 6' - 8'	6/7/2018	1.3		< 0.024	< 0.047	< 0.047	< 0.094	< 0.212	<4.7	<9.9	<50	<64.6
BH-26 @ 4' - 6'	6/7/2018	14.1		0.54	4.3	1.8	19	25.64	1,000	26	82	1,108
BH-26 @ 10' - 12'	6/7/2018	14.1		< 0.023	< 0.047	< 0.047	< 0.094	< 0.211	<4.7	<9.9	<50	<64.8
NMOCD Remediation Action Level		evel		10	NE	NE	NE	50	NE	NE	NE	100

NOTES:

BTEX - benzene, toluene, ethylbenzene, total xylenes DRO - diesel range organics GRO - gasoline range organics MRO - motor oil range organics mg/kg - milligrams per kilogram NMOCD - New Mexico Oil Conservation Division NE - not established ppm - parts per million TPH - total petroleum hydrocarbons < - indicates result is less than the stated laboratory reporting limit

BOLD indicates result exceeds applicable standard



TABLE 3-3 GROUNDWATER ANALYTICAL RESULTS WILLAMS FOUR CORNERS LLC

KUTZ CANYON GAS PLANT SAN JUAN COUNTY, NEW MEXICO

SITE	DATE	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZENE (ug/L)	TOTAL XYLENES (ug/L)
NMWQCC Standard		10	750	750	620
Seep North of Flare	11/9/2017	51	<1.0	<1.0	210
Pipeline Trench Water	11/9/2017	<1.0	<1.0	<1.0	<1.5
BH-3	11/30/2017	1.2	1.9	<1.0	6.5
BH-18	6/18/2018	6200	1200	170	4100
BH-19	6/18/2018	940	320	64	400
BH-20	6/12/2018	2.3	6.5	1.9	13
BH-22	6/12/2018	12000	11000	670	6400
BH-26	6/12/2018	810	2.6	3.5	160
BH-27	6/12/2018	<1.0	<1.0	<1.0	<1.5
BH-28	7/6/2018	2.7	<1.0	<1.0	<1.5
BH-29	7/6/2018	<5.0	<5.0	14	230
BH-31	7/6/2018	11000	110	680	6600
BH-34	7/25/2018	17000	26000	1400	13000
BH-35	7/25/2018	4800	78	810	7600
BH-40	8/3/2018	520	<10	550	2400
BH-41	8/3/2018	<1.0	<1.0	<1.0	<1.5
BH-42	8/3/2018	<1.0	<1.0	<1.0	<1.5
BH-43	8/3/2018	<1.0	<1.0	<1.0	<1.5

Notes:

ug/L - micrograms per liter NMWQCC - New Mexico Water Quality Control Commission < - indicates result is below laboratory detection limit Bold values exceed the MCL

Figures



























Appendix A
Elevation:		Datector:				N	BORIN Boring/Web Date: 11- Logged By Drilling Me	Compliance E LT Environme 848 E. 2nd Au Durango, Col IG LOG/MONITORING INumber: BH - 1 29 to 11- Eric Carroll Ibod:	Engineering Remed ental, Inc. /e orado 81301 WELL COMPLET Project Engect Kutz C Project Number 0340 Drilled By Gen Sampling Method:	VION DIAGRAM ias Plant 17003 omat
Gravel Pack:				PID			Seal	Hollow Stem	Grout	nuous
10-20 Silica Casmg Type:	Sand						Benton Diameter	Length	Hole Dismeter:	/ Depth to Liquid:
Schedule 40 Screen Type Schedule 40	PVC		Slot:	10"			Diameter.	2" Liengeb: 2"	Total Depth	Depth to Water
Penetration Resistance Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/R	emarks	Well Completion
).3	₩₽		0 1 2 3 4 5 6 7 7				Hand Auger 10:5e It Feddish H. NO Stain jou	rown sand dos	
 	92.2	Yes	13'-15'	8 9 10 11 12 13 14	1			Silty Sand Some Stainin Slight odar	dish brown	

Image: Complexer - Ingineering - Remediation Image: Transformental, Inc. Image: Transformental, Inc. <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Boring/Well #</th> <th>BH-1</th> <th></th>										Boring/Well #	BH-1	
It Environmental, Inc. Project # Nutration of the second	1	P	Complia	ince " Er	ngineerii	ng " Rem	ediation			Project	Kutz Gas Plant	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		LZ	LT Envi	ronmer	ntal, Inc					Project #	34017003.000	
Universe Security		-								Date	11-30	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithe	ology/Remarks	Well Completion
mise 25.4 No NS-20 16 2 18 19 20 17 2 19 20 11 19 21 21 11 22 23 24 25 25 26 27 28 29 30 31 32 33 34 35 36 37 37		1				15				roma- ch la	1 C	
Molige 25.4 Mo 17 2 Mo 5 is in fodor 19 20 21 2 2 2 21 22 23 2 2 23 24 25 2 2 26 27 2 2 2 28 29 30 31 32 30 31 32 33 34 35 36 37 4 35						16				Some Silt	- brown fn sand	-
18 19 19 20 21 22 23 24 24 25 26 27 28 29 30 31 31 32 33 34 35 36 37 37		Maise	25.4	No	18'-20'	17	2			110 00		-
						18	-			100 500	sin lodor	-
						19	-					-
21 22 22 23 23 24 24 25 26 27 28 29 30 31 31 32 33 34 35 36 36 37						20	-					-
						21	-					
						22	-				-	
						23	-					
						24	-					-
						25	-				-	
						26						
						27	-					
						28	-				-	
30 31 31 32 32 33 33 34 34 35 36 37						29	-					-
$ \begin{array}{c} 31 \\ 32 \\ 33 \\ 33 \\ 34 \\ 35 \\ 36 \\ 37 \\ \end{array} $						30						-
32 33 33 34 34 35 36 37						31					-	-
						32	•					
						33	-					
						34	•					
						35						
37 T						36]	-
						37					-	-

		1		Compliance LT Environr 848 E. 2nd Durango, C	- Engineering - Reme nental, Inc. Ave olorado 81301	diation
			BORI	NG LOG/MONITORIN	G WELL COMPLE	TION DIAGRAM
			Bonad, Me	BH-2	Project: Kutz	Gas Plant
			Date:	1.29	Project Number: 034	017003
			Logged By	Eric Carroll	Drilled By:	Pomat
Elevation: Det	tector DITS		Drilling Me	alud Hollow Stem	Sampling Mathed	dimenter la
Gravel Pack:	rab		Scal	Honow Stem	Grout:	unuous
10-20 Silica Sand			Diameter.	Length	Hole Diameter	Depth to Laguid:
Schedule 40 PVC	Slot.		Diameter	2" Length	Total Depth:	Depth to Water.
Schedule 40 PVC	0.010"			2"		
Penetration Resistance Moisture Content Vapor (ppm)	Staining Sample	oth Sample gs.) Run	Recovery Soil/Rock Type	Lithology	/Remarks	Well Completion
	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14		SP SM	Hand Augor It roddish brow No Stain/o Compact Dark Brey gre Stain/o	en sund Wlara dor en silby sund dor	

$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Project: Kutz Gas Plant Project:					Boring/Well #	BH-2		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	LT Environmental, Inc. LT Environmental, Inc. U optimized and the second state of th	Compliance " E	ngineering " Rem	ediation			Project: Kutz Gas Plant		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Date 11-30 Date 11-30 Date 11-30 Date 11-30 Well Completion Moistrice Dark grey green	LT Environme	ntal, Inc.				Project #	34017003.000	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Well Completion Well Completion Moistrie 35, 7 Yes 16 Moistrie 17 Sm						Date	11-30	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	moise 35,7 yes 15 16 17 Sm Compace Dark grey green Silby Sand	Penetration Resistance Moisture Content Vapor (ppm) Staining	Herein Depth Bench and Depth (ft. bgs.	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	moi 54 35,7 Yes moi 54 35,7 Yes	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			5.M	Lompace D Silby Sand Scaining S It reddish b V Small an No Ado	arkgreygreen light Odne rown Silty Sund nount of Staining 5	

		N	L	Compliance - Eng LT Environment 848 E. 2nd Ave Durango, Color	nineering « Remedia tal, Inc. ado 81301	tion
			BORIN	G LOG/MONITORING W	ELL COMPLETIO	N DIAGRAM
			Banng/Wel	BH - 3	Kutz Gas	Plant
			Date:	1-29 to 11-36	Project Number: 034017	003
			Logged By:	Eric Carroll	Dnilled By: Geom	at
Elevation: De 6,511 ft	PID		Drilling Me	hod: Hollow Stem	Sampling Method: 5P11 Continu	t Spran Ious
Gravel Pack: 10-20 Silica Sand			Seal: Benton	ite Chips	Grout, Bentonite Slurry	
Casing Type: Schedule 40 PVC			Diameter;	2" Length	Hole Diameter:	Depth to Liquid:
Screen Type. Schedule 40 PVC	Slot 0.010"		Disumster:	2" N/A	Fotal Depth:	Depth to Water:
Penetration Resistance Moisture Content Vapor (ppm)	Statining Sample (tr. pg	n Sample s.) Run	Soil/Rock Type	Lithology/Ren	narks	Well Completion
	Ves 0 1 2 3 3 4 5 6 7 8 9 10 11 12 13 14 15		SP OL SM	Hand Augur losse reddish brown gravel Staining from 3 Strong odor block organic marker Sabarabed SS Compace dark grey Silty Sand Staining No od	down sind sind	

		,							Boring/Well #	BH-3	
	T	Complie	nce "E	ngineerii	ng "Rem	ediation			Project: Kutz Gas Plant		
		LT Envi	ronme	ntal, Inc					Project #	34017003.000	
5.0		1	1	T			_		Date	11- 30	
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
Penetration	Moisture	C. C. Vapor	o √ Staining	23'-25'	Depth (ff. bgs.) 15 16 17 18 19 20 21 22 23 24 23 24 25 26 27 28 29 30 31	Sample Run 2	Recovery	Soil/Rock Type	Lithe Dark green No Stain Compace It Saturated No Sta TD = 25 Water G	n, Silty Sand lodar brown Silty Sand in/odar	Well
					32 33 34 35 36 37						

<u> </u>						N	L	Compliance Eng LT Environment 848 E. 2nd Ave Durango, Color	gineering " Remedia tal, Inc. ado 81301	tion
							BORIN	G LOG/MONITORING W	ELL COMPLETIO	N DIAGRAM
							Boring/Wei	BH-4	Kutz Gas	Plant
							Date:	11-29	034017	003
Elevation		Detector					Deiling Ma	Eric Carroll	Geom	at
6,511 ft		Delector.		PID			Seel:	Hollow Stem	Continu	lous
10-20 Silica	Sand	n a da a da antina da serie				_	Benton	ite Chips	Bentonite Slurry	Depth to Liquid:
Schedule 40	PVC		Slat				Diameter.	2"	Total Depth:	Depth to Water:
Schedule 40	PVC		0.0	10"			Diameter:	2"		
Penetration Resistance Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
moise	436	<i>үс</i> у <u>У</u> с5	3'-5'	0 1 2 3 4 5 6 7 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - - - - - - - - - - - - -			SP SM	Mand Auger It reddish brown Staining 3' dou Strong odor Davk grey green Staining, Slight	Sand Sand Silty Sand odar (Swampy)	

	-								Boring/Well #	BH-4	
		Complia	ince " Er	ngineeri	ng _M Rem	ediation			Project:	Kutz Gas Plant	
		LT Envi	ronmei	ntal, Ind					Project #	34017003.000	
		1		,		T			Date	11-36	
Penetratior Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	logy/Remarks	Well Completion
	1				15				Compare D	-	
	4								compace De	wik grey green	
	-				16 -	H I			Silby Son	0 -	-
	1	AD	A/a	scient	17 -					-	-
	moist	0.0	100	18-20		HI				-	-
	1				18				NO Stain	lodor	-
	1]	
	-				19 _					-	-
					20		-				-
					21					-	-
					22	-			TD=2	0'	-
					23						.
					24	.				-	
					25					-	
					26					-	
					27					+	
					28					+	
				1	29					-	
					30					-	
					31					+	_
					32					-	
					33					-	
					34					+	
					35					+	
					36					+	
					37						

g Trans a gen		1 N	Ľ	Compliance ** Eng LT Environment 848 E. 2nd Ave Durango, Color	gineering " Remedia tal, Inc. ado 81301	tion
			BORIN	NG LOG/MONITORING W	ELL COMPLETIC	N DIAGRAM
	D.		Boring/Wel	RH-5	Project: Kutz Gas	Plant
			Date:	1-29	Project Number: 034017	003
			Logged By:	21	Drilled By:	003
Elevation: Detector:			Drilling Me	Eric Carroll	Sampling Method: SPITE	sper o
6,511 ft	PID		Seal	Hollow Stem	Grout	tous
10-20 Silica Sand			Benton	ite Chips	Bentonite Slurry	Doub to Liquid
Schedule 40 PVC			Diameter:	2"	Hole Diameter:	Depth to Liquid:
Screen Type: Schedule 40 PVC	Slot: 0.010"		Diameter:	Length: 2"	Total Depth:	Depth to Water:
Penetration Resistance Moisture Content Vapor (ppm) Staining	Depth Sample (ft. bgs.) Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
moise 5.4 Nrp woise 5.4 Nrp wreat 1.0 Nrp moise 0,7 Yes prey	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		SP OL	Hand Auger 1005e 1t reddish br NO Stain/odd wet <u>Aganic</u> blan Soit 55 # compact 1t reddis Silty Sand Some Staining Slight Odor	own Sand	

י 1

	2								Boring/Well #	BH-5	
	D	Complia	nce " Er	ngineerii	ng "Rem	diation			Project Kutz Gas Plant		
L	12	LT Envi	ronmei	ntal, Ind					Project fi	34017063.000	
									Date	1R-1	
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithe	ology/Remarks	Well Completion
	moist	0,0	NO YBB		15 16 17			5м	Compace It w/ grey an NO Stain	brown Silty Sand Cen Machling Nader	
					19 19 20	-				-	
					21 22 23	* * -			TD = 20) 	
					24 25	-				-	-
					26 27	-				-	-
					28 29 30	-					-
					31	-				-	-
					33 34	-				-	
					35 36 37	•				-	-

	a/								Compliance Er	ngineering " Remedi	ation
							N	L	LT Environmen 848 E. 2nd Ave	ntal, Inc. ?	
									Durango, Colo	rado 81301	
								BORIN Boring/Wel	IG LOG/MONITORING V	VELL COMPLETI	ON DIAGRAM
								Date:	RH-G	Kutz Ga	s Plant
								Longer d Day	1/- 79	03401	7003
Classica			Datata					Cugged ay.	Eric Carroll	Geo	mat
6,	,511 A	t	Deletion		PID			Dailing Mc	Hollow Stem	Contin	uous
Gravel Pack: 10-20 S	Silica	Sand						Benton	ite Chips	Bentonite Slarry	
Casing Type: Schedu	ale 40	PVC						Diameter	Length: 2"	Hole Dismater:	Depth to Laquid:
Screen Type Schedu	ile 40	PVC		Slot 0.0	10"			Diameter:	Langth 2"	Total Depth:	Depth to Water
Penetration Resistance	Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Re	marks	Well Completion
					0				Hound Augor		
					1	-					+
					2	-		50	loose le redolish	brown Sand	1
		A .			3	-					+
	10172	0.3	NO		4						T I
									No Stain lode	· ·	‡
					2						‡
					6	-					+
					7	-					Ŧ
					8 1						1
					9				I hunde at Dame		1
					10			Gin	compace bark	arey green	+
						.			Silty Sand		Ŧ
m	size	03	A/G	12'-15	12		020				†
		0.10	100		12		10		No stain/ounr		+
					13						±
					14						Į
					15						†

	Compliance "Engineering «Remediation								Boning/Well # Project.	<u>BIH-C</u> Kutz Gas Plant	
L	12	LT Envi	ronme	ntal, Ind					Project #	34017003.000	
									Date	12-1	
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock 'Type	Lithc	ology/Remarks	Well Completion
	M0151.	18.9	No	18'- 20'	15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37		100 %	5 M	Compace I Silty Sand Mottling No Stain Organic Sc TD = 20	t.reddish brown W/green Nampy odor	

goweres		1	N	Ľ	Compliance « Eng LT Environment 848 E. 2nd Ave Durango, Color	gineering " Remedia tal, Inc. ado 81301	tion
			I	BORIN Boring/Well	G LOG/MONITORING W	Project:	ON DIAGRAM
			l.	Date:	BH-7	Kutz Gas	Plant
				11	-29	034017	003
				Logged By:	Eric Carroll	Geom	nat
Elevation: 6.511 ft	Detector: PIL)	I	Drilling Met	thod: Hollow Stem	Sampling Method: 5 Plic Continu	t Slooph
Gravel Pack:			S	Seal:	ite Chine	Grout: Dentonite Slump	
Casing Type:			I	Diameter:	Length:	Hole Diameter:	Depth to Liquid:
Schedule 40 PVC	Slot:		Г	Diameter:	2" Length:	Total Depth:	Depth to Water:
Schedule 40 PVC	0.010"				2"		
Penetration Resistance Moisture Content Vapor (ppm)	Staining Sample # De	pth Sample ogs.) Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
moise 436	Yes 4'-C' 3 4 5 6 7 8 9 10 11 11 12 13 14 15		100%	5P 5m	Hand Auger 100se Itreddish b Staining at S ¹ Sliont odor 55 Dark brown Silby Grey Staining Stignt Odor	town Sand down	

	-						Baring/Well # BH-7				
M		Complie	ance Er	ngineerii	ng "Remu	ediation			Project. Kulz Gas Plant		
	1	LT Envi	ronmei	ntal, Ind					Project #	34017003.000	
	,								Date 13-1		
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithe	Well Completion	
					15					_	
					16	-			Compace	16. brown	-
	moise	4.5	NA	181-20	17	-	00	514	Silby Sor	10	-
					18 _		100		NO SERINI	ador -	-
					19					-	
					20						-
					21					-	-
					22				TD=2	o' -	-
					23					-	-
					24	-				-	-
					25	-				-	-
					27					-	-
					28					-	
					29						
					30						
					31					1	
					32					1	
					33					1	
					34					1	
					35					4	
					36					4	-
					37					-	

	5 ********						N	Ľ	Compliance « Eng LT Environment 848 E. 2nd Ave Durango, Color	gineering " Remedia tal, Inc. ado 81301	tion
									NG LOG/MONITORING W	ELL COMPLETIC	N DIAGRAM
								Date:	BH-8	Kutz Gas	Plant
~								Lagrad Bu	11-29	034017	003
Election			Detector			·		Logged By.	Eric Carroll	Geom	at
6,5	11 ft		Delector		PID			Drilling Me	Hollow Stem	Sampling Method: 50115	51200 A 1005
Gravel Pack: 10-20 S	ilica	Sand						Seal: Benton	ite Chips	Bentonite Slurry	Death to Liquid:
Schedul	e 40	PVC	-	<u>.</u>				Diameter:	2"	Hole Diameter:	Depin to Liquia.
Screen Type: Schedul	e 40	PVC		Slot: 0.0	10"			Diameter:	Length: 2''	Total Depth:	Depth to Water.
Penetration Resistance Moisture	Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
Mo	15 6	4.6	No	-				SP	Hand Auger 100se 14 roldish bron gravel, Eoni 3'-3,5' NO Stain lodof Imose It reddish b;-	wn Band W/	
mg.	i56 i5€	75.g 13.g	Ycs No	7'-10'	9 10 11 12 13 14 14			SP SM	black Staining Strong odor Ss compact Dark grey green si NO Stain/odor	Ity sound	

	all Carthere
Compliance "Engineering "Remediation Project:	Kulz Leis Pinni
LIZ LT Environmental. Inc. Project #	34017003.000
Date	12-1
Penetration Resistance Moisture Content Conten	emarks Well Completion
15 (Ompart	
16 Dark greenish brow	m silby
moise 0.5 NO 18:00 17 5 SM Sand	+
18 NO Stain/odi	or _
19	1
20	-
21	
= 122 + 122 + 122 = 702	1
	+
24	+
25	-
26	1
27	-
28	-
29	-
30	1
31	+
32	+
33	+
34	-
35	Ī
36	Ī
37	Ŧ

				N	Ľ	Compliance Eng LT Environment 848 E. 2nd Ave Durango, Color	gineering " Remedia tal, Inc. rado 81301	ntion
					BORIN	G LOG/MONITORING W	ELL COMPLETI	ON DIAGRAM
					Boring/Wel	BH-9	Project: Kutz Ga	s Plant
					Date:	1-29	Project Number: 03401	7003
					Logged By:	Eric Carroll	Drilled By: Geor	nat
Elevation: 6,511 ft	Detector:	PID			Drilling Me	thod: Hollow Stem	Sampling Method: SPILE	Speen uous
Gravel Pack: 10-20 Silica Sand					Seal: Benton	ite Chips	Grout: Bentonite Slurry	
Casing Type: Schedule 40 PVC					Diameter:	Length: 2"	Hole Diameter:	Depth to Liquid:
Screen Type: Schedule 40 PVC		Slot: 0.010"			Diameter:	Length: 2"	Total Depth:	Depth to Water:
Penetration Resistance Moisture Content Vapor (ppm)	Staining	[#] d d b c c c d d d d d d d d d d d d d	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
maise 2.1	No Yes No	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14		100 90	SP SM	Hand Auger 100se It. radish brow gravei No stain/odos 100se It. radish brow 100se It. radish br black Staining Strong odor 55 Compact Dark re Silty Sand, w/ w NO Stain/odor	own Sand own Sand hite motoling	

I	P	Complia IT Envi	ince "Er	ngineerii	ng " Remi	ediation		Boring/Well # BH - 9 Project: Kutz Gas Plant Project # 34017003.000			
		21 21101	<i>ronne</i>	1101, 1110	**				Date	12-1	
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
					15					-	
					16	-			SAA	-	-
	moist	4.9	NO		17	4	20			-	-
	_				18	-	100		NO Stai	n/color	-
	-				19 -	4				-	-
	-				20		_				-
	-				21	-				-	-
	-				22						-
	-				23				TD=	20, 1	-
	-				24	.			1	-	-
					25					-	-
					26					+	-
					27					+	-
					28						-
					29					4	-
					30					4	-
					31					+	-
					32					+	
					33					1	
					34					-	
					35					-	
					36						
					37						

			The second			N Courter III and the	Boring/Well Date: Logged By:	Advancing Opportunity 848 E. 2nd Ave Durango, Colorado 81301 BORING LOG/MONITORING WELL COMPLETION DIA Boring/Well Number: Bit 10 Project: Bit 10 Canyon GP Date: Bit 10 Date: Display: Drilled By:				
Elevation: 5785		Detector:	110	PID			Drilling Me	thod: Direct Push	Sampling Method: Hand Auger/	Geoprobe		
Gravel Pack: 10-20 Silica	a Sand	1				_	Seal:	IVA	Grout: NA			
Casing Type: Schedule 40) PVC						Diameter:	2" Length:	Hole Diameter:	Depth to Liquid:		
Screen Type: Schedule 40) PVC		Slot: 0.0	10"			Diameter:	2" Length:	Total Depth: 24	Depth to Water: NA		
Penetration Resistance Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion		
Dry	3.6	NP		0 [80	SP	Compact, dry, it redo	ligh broan .			
maise	34	NO		1	-	1001	57- S.M	Sand W/grows/ laose, moist, dark brown Silt < 1590 No Stai	Sand Erace	No Well completed backfilled w/bencmine		
	2.6	NP		4 -	-		SP-SM	5'A A		Chipo		
moiss	1.7	No		6	-		SP-SM	SAN		-		
moist	1.7	No		8 - 9 -	-		SP-SC	Dark brown, compact trace clay < 15%	it sand	-		
	54.1	Yes		10 11	-	And the second	5P-50	Black compact Sand < 15%	trace fines	-		
 		NP		12 13 14 15	-	K	5P	Dark brown, 100% Sand NO Stain	coarse lodel			

	-		8					Boring/Well #	BHID		
	1-1-		Ad	innoi	na Or	nort	ini	+	Project:	KUtz Canven	GP
		2	HU	anu	ng Up	ρυπ	1111	ly	Project #	and a start of the second	
									Date	615118	
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
	wet	364	Yes	12-16'	15	12-16		SP	Dark brown,	laase course send.	
			1-1	10 0	16 _ 17	-		21	w/ black H. odor	c 560ining, Slight	-
					- 18 -	-				'	-
					19	-		SP	COMPACE Yell	ow here and	t
	mei 56	123	Yes		20	-			Some siltar	30%, Slight Stain	-
					21	-					
					22	-		512	SAA	-	-
					23	-					† I
	Dry	13.6	NO	20-24'	24	20-241		SP	SAA NO	Stain lodar	-
					25	-		CL	Greenlgray Resusal@	leon clay 24' backfilled	-
					26	-			w/ bentonin	te no well	-
					27	-			install	-	-
					28	-				-	-
					29	-				-	-
					30	-				-	-
					31					-	
					32	-				-	-
					33						
					34					-	
					34					-	-
					35					-	-
					36					_	_
					37						

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Elevation: 57 Gravel Pack: 10-20 S Casing Type:	Elevation: 5785 Gravel Pack: 10-20 Silica Sand Casing Type: Elevation:								Advancing Opportunity 848 E. 2nd Ave Durango, Colorado 81301 BORING LOG/MONITORING WELL COMPLETION DIAGR Boring/Well Number: Birley Birley Birley Direct Push Direct Push Direct Push Correct Push Diameter: Diameter: Diameter: Depth to Liq Diameter: Depth to Liq Depth to Liq					
Screen Type:	10 40	PVC		Slot:	10"			Diameter:	Length:	Total Depth:	Depth to Water:			
Penetration Resistance Moisture	Content 10	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion			
Dr	4	15.1	No		0			59	Loose, light reddish bro	wn sand -				
	0:56	7.6	NO		1	- - -		5 <i>P</i>	No Stainloder SAA		No Well Completed backstilled W/bentoniel			
W	Dist	23.1	NO		4 _	-		5P-5C	compact, light reddish trace clay < 15%	brown sand ND Stainlader	-			
	eise	327.7	NO		6	-		SP-SC	SAA	-	-			
m	iai Sb	3640	NO	6'	7 8 9 10 11			SP-SC	Compact light redd Sand with clay & No Stain Slight - Switch to Ge Green grey comp clay sand & 20%	15h brown 30% 14C odoł 20probe Dact lean				
	Di SE	1427	ŅÞ		12 13 14 15	-			y Juna 2070	SWA mpy Sdor	-			

								Boring/Well #	BHII		
	M	-	Ad	ianci	na Or	norti	ini	ity	Project:	Kutz Canyon (5P
		2	Aut	anu	ng op	φυπ	11 11	Ly	Project #		
		·							Date	616/15	
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
	maile	100	100		15			CL	SAA NO SE	ain Swampy odor -	
	Moist	623	IVD		16	-				-	-
				10	17	-			Very compact.	stren over 1 dans -	
	Dry	\$ 164	NO	16-18	18	-		CL	Clay Some So	and & 15to	
					19	-			.va stain swo	impy oder	
					20	-			Refusal @	18.5' due to	-
				4	21	-			tight clay	no Gw encountoral	_
					22	-					-
					23	-					-
					24	-				-	-
					25	-				-	-
					26	-				-	-
					27	-				-	-
					28	-				-	-
					29	-				-	
					30					-	-
					31	-				-	-
					32						-
					33					-	-
					34					-	-
					35	-				-	-
					36					-	-
					37						

							N	Advancing Opportunity 848 E. 2nd Ave Durango, Colorado 81301						
1			X	A.S.			-	BORIN	ELL COMPLETIC	ON DIAGRAM				
23	1 ale	N CON	4		1- 11 11			Boring/Wel	Project: Kutz Cany	on GP				
	A SALES	and the second	and the state	-91		n la		Date:	15/18	Project Number:	on or			
A COL		124	1 miles	Magger a	2014 a	÷.		Logged By:		Drilled By:				
Elevation:	6	in provident	Detector:	8	Ye	Cele	6. 24 S	Drilling Me	thod:	Earthw Sampling Method:	/orx			
Gravel Pac	785 k:				PID			Seal:	Direct Push	Hand Auger/ Grout:	Geoprobe			
10-2	0 Silica	Sand						Diameter	MA Length:	Mole Diameter	Depth to Liquid:			
Sche	dule 40	PVC		Slot				Diameter	2" VA	Total Danth	NA Depth to Water			
Screen Typ	dule 40	PVC		0.0	10"			Diameter:	2" MA	Total Depth:	NA NA			
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion			
	Dry	0.0	N		0			SP-SM	isose, It reddish br	own, sand -				
					1	-			trace sile < 15%	_	Nowell			
	mais	12,0	N		2	-			No Stain lo	dor	installed			
					2	-				-	backfill			
								10.00		-	hearonita			
	moiss	0.0	N		4 -	-		57-51	SAA	-	-			
					5	-				-	+			
	mail	0.3	N		6	-		S2-SM	SAR		<u>+</u>			
	marge				7	-		01-0/1		,	Ŧ			
						-				-	+			
	maig	0.3	N		8	-		SP-SM	SAA Some Stai	ning @ 10' -	±			
					9 -	-			- Switch to Geopro	be -	-			
					10	-					+			
					11	-					+			
	mais	438	Y	8-12'	12	-		CL	<15 To Sand	grey rean cay.	Ŧ I			
			,		12 -	-								
					13 _	-				-	+			
					14			CL	SAA	-	-			
					15						t			

	_							Boring/Well #	2412		
	The -		Ad						Project:	Kuts convon Gt	>
			Aa	/anci	ng Up	ροπι	Ini	ty	Project #	Rolling Charly - Of	
		1							Date	616116	
e a	Ī.	1			1			~		616119	
Penetratio Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	logy/Remarks	Well Completion
	moist	27.2	NO	12-10'	15			CL	SAA NO Sto	unlodor _	
					16					-	-
]		AND		17	-		de	-	-	-
			De		18	-			Refusal @	18' due to ttglitelay	-
	-				19 _	-			encounter.	ed -	-
					20				NO Well	installed -	_
					21					-	-
					22	-				-	-
					23	-				-	-
					24	-				-	-
					25	-				-	-
					26					-	-
					27	-				+	-
					28	-				-	-
					29	-				4	-
					30	-				4	-
					31	-				4	-
					32					-	-
					33					1	_
					34					1	_
					35					1	_
					36					-	
					37						

Elevation: 5785 Gravel Pack: 10-20 Silica Sand Casing Type: Schedule 40 PVC	Detector:	PID		N See	BORIN Boring/Wel Date: 6/5 Logged By: Drilling Met Seal: Diameter:	Advancing Opport 848 E. 2nd Ave Durango, Color IS LOG/MONITORING W. INumber: BH 13 F/18 Eric Carroll thod: Direct Push MA Length: 2" MA	tunity cado 81301 ELL COMPLETIC Project: Veroject Number: Drilled By: Earthw Sampling Method: Hand Auger/ Grout: MA Hole Diameter:	ON DIAGRAM on GP orx Geoprobe
Screen Type: Schedule 40 PVC	Slot:).010"			Diameter:	Length: 2" A/A	Total Depth:	Depth to Water: MA
Penetration Resistance Moisture Content Vapor (ppm)	HC Staining? Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
Dry 4.8 moist 665 moist 1815 moist 1815 1815 1815 1815 1815	NO YES YES E-H	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15			SP SP SP CL CL	loose, it readish brown gravel SAA SAA Loose, black, lean C < 15% Sand, Stron Staining Saturated 9.5 to - Switch to geop compact; green gre c15% Sond NO Stain, waste (Sewa	In Sand With any, trac godor, HC Jil Drobe @ 91 Y, Iton Clay Water odor ge)	NO well inscalled backfilled wi benconite

									Boring/Well #	RH13	
	15-		Ad	ionoi	ina Or	nort	m	÷+.,	Project:	Futz CANYER ist	2
			Aa	anci	ng Up	ροπι		ly	Project #	anna an tha ann an tha ann an tha ann an tha ann an tha an tha ann an tha ann an tha ann an tha an tha an tha	
		Signal I							Date	616115	
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
					15					_	
	Moise	32.6	NO	16-18	16	-		CL	SAA NO	stain -	-
					17	-			Sewag #	9 8 G 4	-
					18	-			Resusal @	is' No groundwater	-
					19	-			encountere	ed tight clay -	-
					20	-			No well	i'n stall	-
					21	-				-	_
					22	-				-	-
					23	-				-	-
					24	-				-	-
					25	-				-	-
					26	-				-	-
					27	-				-	-
					28	-				-	-
					29	-				-	-
					30	-				-	-
					31	-				-	-
					32	-				-	-
					33	-				-	-
					34	-					-
					35						
					36					-	-
					37	-				-	-
				I		4					

Elevation: 5785	Detector:	PID			BORIN Boring/Wel Date: Logged By: Drilling Me	Advancing Oppor 848 E. 2nd Ave Durango, Color NG LOG/MONITORING W INumber: BH14 S114 Eric Carroll thod: Direct Push	tunity rado 81301 ELL COMPLETIC Project: Kutz Cany Project Number: Drilled By: Earthw Sampling Method: Hand Auger/	ON DIAGRAM yon GP yorx Geoprobe
10-20 Silica Sand Casing Type:					Diameter:	MA Length:	MA Hole Diameter:	Depth to Liquid:
Schedule 40 PVC	Slot:				Diameter:	2" MA Length:	Total Depth:	MA Depth to Water:
Penetration Resistance Moisture Content Vapor (ppm)	HC Staining? Sample # :0	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	2'' ArA Lithology/Ren	narks	Well Completion
Dry 14.3 Dry 14.3 moise 444 moise 887 moise 887 moise 887 moise 887 887 887 887 887 887 887 914 914	н Мр Ус 5 У У У У	0 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 14 -			SP SP SP SP SP	Dry, It reddish brow, No Stain/odor Black, loose Sond Some organic ma Present SAA SAA SAA SAA SAA SAA SAA	n Sand W/grove Silty Sand Hc Stain tevial Scoptobe	NO Well installed back fill w/ beneonite

Advancing OpportunityProject:Kutz Conyon GlProject:Kutz Conyon GlOptimizedOptimizedNo utilizedInterventionMoistContentionMoistContentionNo utilizedInterventionNo utilizedInterventionAdvanceInterventionRunOptimizedInterventionInterventionInterventionInterventionInterventionInterventionInterventionInterventionInterventionInterventionInterventionInterventionInterventionInterventionInterventionInterventionInterventi				-						Boring/Well #	BH 14		
Advancing Opportunity Item of the transmission of transmission of the transmission of transmission of the transmissin of the transmission of the transmissintex		1-5		Ad			anaut		: . .	Project:	KULT CONJON	GP	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				Aal	anci	ng Up	ροπι	In	iy	Project #	Auge - only -		
Unitation Unita										Date	616118		
moist 64.8 N 14-16 15 16 16 17 18 19 20 21 22 23 24 25 15 15 16 16 17 18 19 20 21 22 23 24 25 15 15 15 15 15 15 15 15 15 1	Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithe	ology/Remarks	We Compl	etion
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			64.8	Str.	ILY-16	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		Re		ivery compact Clay < 15 % san Sewage Refusal Tight clay No well e	t, green grey Itan d No Stain odor 16' NO GW Encountered set		

Elevation: Gravel Pac 10-2 Casing Typ Sche	5785 k: 0 Silica pe: dule 40 pe:	Sand PVC	Detector:	Slot:	PID		N Law All Ale Line	Boring/Well Date: Cogged By: Drilling Me Seal: Diameter:	Advancing Oppor 848 E. 2nd Ave Durango, Color G LOG/MONITORING W I Number: BH 15 5/18 Eric Carroll thod: Direct Push MA Length: 2" MA	tunity ado 81301 ELL COMPLETIC Project: Kutz Can Project Number: Drilled By: Earthw Sampling Method: Hand Auger/ Grout: M Hole Diameter: I i i Total Depth:	ON DIAGRAM yon GP yorx Geoprobe Depth to Liquid: MA Deoth to Water:
Sche	dule 40	PVC	C.	0.0	10"			1	2"	19'	NA
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
	Dry	3,6	NP		0			59	ionse, it reddish brown,	sand and .	
	MOist	346	Y e 5		1 - 2 - 3 - 3	-		51	Black, loose, Sand, tra Slight odor and	HC Staining	No Well installed backfill W/
	noist	326	465		4 -	-		5P-SM	Grey, Sand trace	Silt <150%	bentenite
	moist	317	Ye5		6	-			Staining	, some HC	+
	moist	398	yes.		7			× cl	loose, black, Sandy Strong oder, HC S.	Clay, taining	- - -
	moisi	222	ye s		10	-		ĊL	SAN		+ + + +
	inoist	104.3	No		12 13 14 15	-		CL	compace, Green Brcy, <15% Sand NOS	lean clay tainjodar	

	-		2			and the statement			Boring/Well #	Bit 15	
	1-1-	_	Adu	ianci	na Or	norti	in	it.	Project:	Kutz Canyon G	P
		-	Au	anu	ing op	φυπ	1111	ly	Project #		
		Conserved and							Date	616116	
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
	Day	F.A.	10	Kall	15			11	SAA NO .	Stain	
	Dry	58.6	IVN	l'or i /	16	-		CL	Sella	a adar	+
	1				-	-			Jeway	e Davar	1
					17 -	-					+
	DN	27.6	NO	16-19	18			CL	SAA		Ŧ
	•				19 _	-			Resulat @	Int NO GIN	1
					20	-			CM out of	red Tight days	+
					21	-			No vell'	Pot	+
					22	-			100 442 0	bet	+
					23	-					Ŧ
					24	-					+
					25	.					ţ
					25	-					+
					26						+
					27	-					-
					28	-					+
					29						-
					30						1
					31						-
					32						+
					33						+
					24						†
					54 -						+
					35						+
					36						- I
					37						†

Elevation: 5785 Gravel Pack: 10-20 Silica Sand Casing Type: Schedule 40 PVC	Detector		PID		N Low I and the	BORIN Boring/Well Date: Logged By: Drilling Met Seal: Diameter:	Advancing Opport 848 E. 2nd Ave Durango, Color IS LOG/MONITORING WI INumber: BHIG S/18 Eric Carroll thod: Direct Push A Length: 2" N A	tunity ado 81301 ELL COMPLETIO Project: Kutz Cany Project Number: Drilled By: Earthwo Sampling Method: Hand Auger/ Grout: M Hole Diameter:	N DIAGRAM on GP orx Geoprobe Depth to Liquid:
Screen Type: Schedule 40 PV0	1	Slot:	10"			Diameter:	Length: 2" ATA	Total Depth:	Depth to Water:
Resistance Moisture Content	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Rem	narks	Well Completion
Dry 0.1	S No Ne Ne Ne Ne Ne S S S S S S S S S S S S S S S S S S S	8-12	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			SP SP SP CC CL	SAA SAA SAA SAA SAA SAA SAA SAA SAA SAA	lodor Jodor Strong ador Feengrev Staining	No well installed backfill bx due to well collapse

Advancing Opportunity Project Kucz Can, on GP Date GU2/19 Date GU2/17 Date		-								Boring/Well #	BH 16	
Project aProject aDetermination of the periodautomode o		1-4-		Ad	ional	na Or	nort	ini	<i>i</i> +1,	Project:	Kutz Canyon G	P
Date Galaxy Date Galaxy Well Completion oppgrave ungood answer big big big big big big big big big big				AU	anci	ng op	ροπι	1111	ly	Project #		
Notice Sample Sample Sample Sample Sample Lithology/Remarks Well Completion 00ry Iof Irr Iof Iof <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Date</td> <td>616118</td> <td></td>										Date	616118	
Dry Iai II 2-15 15 16 17 16 17 18 19 20 21 20 21 22 23 21 22 23 23 24 25 26 27 7 28 29 30 31 32 28 29 30 31 31 32 29 30 31 31 32 33 34 4 35 36 37 7	Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithc	ology/Remarks	Well Completion
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Dry	1-1	100	12-15	15			11	very compace,	greengrey, lean -	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		0.7	10,1	W G	6.0	16	-		CL	Clay 6 15%	Sand -	-
18 19 20 21 21 22 23 24 24 25 26 27 28 29 30 31 31 32 33 34 35 36 37 37						17	-			Refusal @	15' Tight clay -	-
19 19 20 21 21 22 23 24 24 25 26 27 28 29 30 31 32 33 34 35 36 37						18 _				Well Collapsed	I no well installed -	-
20 21 21 22 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37						19	-			NO GW er	ncountered	-
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37						20				Not backs	Filled W/ benconite .	-
						21	-			aut to co	-	-
22 23 23 24 24 25 26 27 28 29 30 31 31 32 33 34 35 36 37 37						22	-				-	-
							-				-	-
24 25 25 26 27 28 29 30 31 32 33 34 35 36 37 1						23 -	-				-	-
25 26 26 27 28 29 30 31 31 32 33 34 35 36 37 37						24					-	-
26 27 1 28 29 1 29 30 1 31 32 1 33 34 1 35 36 1 37 1 1						25					-	-
27 28 28 29 30 31 31 32 33 33 34 35 36 37						26						-
28 29 29 30 30 31 31 32 33 34 34 35 36 37						27					-	-
29 30 30 31 31 32 32 33 33 34 35 36 36 37						28					-	-
						29	-				-	-
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						20	-				-	-
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						30 _	-				-	-
						31	$\left \right $				-	-
						32					-	-
34						33					-	_
						34					-	
						35					-	_
37 +						36					-	-
		37									-	-

Elevation:	7 6 5		Detector:		PID			BORIN Boring/Wel Date:	Advancing Oppo 848 E. 2nd Av Durango, Cold G LOG/MONITORING V Number: Bit / 7 /S/rg Eric Carroll hod: Direct Push	e prado 81301 VELL COMPLETIC Project: Project Number: Drilled By: Earthv Sampling Method: Hand Auger/	ON DIAGRAM yon GP vorx Geoprobe
10-20 Casing Type:	Silica	Sand						Diameter:	A/A Length:	Hole Diameter:	Depth to Liquid:
Screen Type:		PVC		Slot:	10"			Diameter:	Length:	Total Depth:	Depth to Water:
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Re	emarks	Well Completion
0)ry 70i51	1.1	NI NP		0			5P 5P	1005e, 16 reddish bi Sand No Stain, SAA NO 5/0	rown, coarse Icdor	NO Well installed backfill
n	Moist	1.3	No		345	-		59	SAA Noto		w/ bentonite
77 71	noist	1, 2.	N.A N.P		6 _ 7 _ 8 _ 9 _	-		5P 5P	SAA NO 5/0		
	oist	0.3	No		10		(512	SAA NO SO		-

			>						Boring/Well #	BH 17	
	5-	-/	Adu	ianci		nnnti	Ini	itv	Project:	KUtz Canyon	GP
			/10/	unon	ng op	pont		cy	Project #	17 1	
		1	1	I	1				Date	6/6/18	
Penetratior Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
	moist	137	405	14-16	15			SP	LODSE, BIACK, C	Loarse sand -	
		437			16	-)1	Slight odar,	He Staining	-
					17	-					-
	DesiGn				18	-		CL.	compact, Gre	en Gray, lean clay	-
	1410175	11]	NO		19	-			× 15% Sand, Staining	Glight odor, no -	-
					20	-		CL	SAA	-	-
	De	21	100	20-23	21	-				-	-
	VIY	2.4	<i>IV [</i> ³	00.00	22	-		CL	SAA NOS	tain/edor	-
					23	-			Refusal @	23' NO GW	-
					24 -	-			encoun	cered Tickt day -	-
					25	-			No well s	et -	-
					26	-				-	-
					27	-				-	-
					28 _	-				-	-
					29	-				-	-
					30	-				-	-
					31	-				-	-
					32	-				-	-
					33	-				-	-
					34	-				-	-
					35	-				-	-
					36					-	-
					37	-					-

Elevation Gravel Pac 10-2 Casing Typ Schee	k: 0 Silica xe: sidule 40	Sand PVC	Detector	Slot	PID			BORIN Boring/Well Date: Cogged By: Drilling Me Seal: Diameter:	Advancing Opport 848 E. 2nd Ave Durango, Color IS LOG/MONITORING WI INumber: BH 18 5/16 Eric Carroll thod: Direct Push Length: ALA 251 Length:	tunity rado 81301 ELL COMPLETI Project: Kutz Car Project Number: Drilled By: Earth Sampling Method: Hand Auger Grout: Hole Diameter:	ON DIAGRAM hyon GP worx / Geoprobe Depth to Liquid: MA Depth to Water
Sche	dule 40	PVC		0.0	10"			1" -	2" 5'	12	7.5
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Rem	narks	Well Completion 41 Getickun
	Dry	1.3	NO		0	1		50	1005e, it reddish brow	n, coarse	
	moist moist moist	2.3 24.6	NO		1 2 3 4 5	* * * * *		SP	SAA NO Slo SAA NO Slo Biack, 1005e, Sand	Dder trace Silt	
	1-10-21	100.1	YC)		6 _	-		51	<15% Slight edo Gw encountered	7, HC Stain 7.5-8	
	wet	183.4	Yes		8	-				Gwa	
	Titleord	246.7	yes	W.h	9 10 11 12	-	-	5P CC	SAA Compact, Green grey < 15% sand	1, rean Clay	
	moist	124.3	NO	RV~1A	13 14 15				Refusal @ 12' Set	clay well	

Elevation Gravel Pace 10-2 Casing Tyr Sche	5785 k: 0 Silica c: c: c: c: c: c:	Sand PVC	Detector	Slot	PID		N Lun III chan an	BORIN Boring/Wel Date: Logged By: Drilling Me Seal: Diameter:	IS LOG/ NG LOG/ Number: B. 15/18 Eric thod: Dire N 2"	Advancing 848 E. 24 Durango /MONITOI //H/9 Carroll ect Push /A Length: //O	g Oppor nd Ave o, Color RING W	tunity rado 81301 ELL COMPLET Project: Kutz Ca Project Number: Drilled By: Eart Sampling Method: Hand Auge Grout: MA Hole Diameter:	TION DIA anyon GP hworx er/ Geopro	GRAM
Sche	dule 40	PVC		0.0	10"				2"	15	, . ,	241	16	:/
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type		Litho	logy/Ren	narks	V Com ⊑¹ S⊧	/ell pletion เเริ่มใ
	Dry	1-6	*/		0			SP	1005e,	it redd	154 6.00	urn, Sand Clearse	0	
			N		1	-			NO	Stain/ a	odor		1.1	
	MOISE	1.4	N		2	-		SP	SAA	No	5/0		+ 1	1
					3	-							+ (Ĺ
	moisr	2.2	N		4	-		5 P	SAA	No	5/0			
	moist	2.6	N		6	-		59	SAA	NO	5/0		+	
					7						ſ		1	· 1
	moist	13.4	N		8	-		5 p	5 A A	NO	510		$\frac{1}{1}$	1
						-								Ĺ
					10 -	-	-	, and the second second			An example of the second se		+	L
	moise	611	Yes		11 -	_		SP	1005e	black So	and tea	narsc)	+	
					12				JUIDA	9 1001 0	IND AC	Staining	14	
					13								+ +	
	moise	243	Yes		14	-		SP	SAA	4				1.2
					15	-							+	1
			21						Boring/Well #	BH 19				
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	M	=/	Ad	ianci	na Or	norti	ini	itv	Project:	Kutz Canyon GP				
		3	AUA	anon	ing op	port		Ly .	Project #	<i>a b a b</i>				
C		1	1	1			I 1		Date	617/18				
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithe	blogy/Remarks	Well Completion			
	wet Satur	386	Y	14-16	15				SAA Strang adar	He Crain				
	Juior				16	-		CL	iompace dark	MC Scam	Guti			
	MOISE	63.0	N		17	-			<15% sand 5	light odor no stain .				
	Drv	60.8	N		18	-			SAA					
	t.	perv	10		19	-								
					20	-								
	DA	61.0	N	20-24	21	-		()	1. 1.					
	~ /				22	-		C C	SAA					
					23	-								
					24	-			Refusal @	24' Tight clay	-1 -1			
					25	-			@ 16' Se	it I'' teno usall	+			
					26	-			P	ackfill W. sand/	+			
					27	-				6-44000000	+			
					28	-					+			
					29	-					+			
					30	-					+			
					31	-					+			
					32						+			
					33						+			
					34						+			
					35	-					+			
					36	-					+			
					37	-								

Elevation: Gravel Pack: 10-20 Casing Type: Sched Screen Type:	785 Silica hule 40	Sand PVC	Detector	Slot:	PID		N Same and Same and Same and Same	BORIT Boring/We Date: Cogged By Drilling Me Seal: Diameter: Diameter:	Advancing Opport 848 E. 2nd Ave Durango, Colo IS LOG/MONITORING W INumber: BH 2-0 4/19 Eric Carroll thod: Direct Push A/A Length: United: Direct Push	rtunity rado 81301 VELL COMPLET Project: Kutz C Project Number: Drilled By: Eart Sampling Method: Hand Aug Grout: Hole Diameter: Total Depth:	TION DIAGRAM any on GP hworx er/ Geoprobe A Depth to Liquid: MA Depth to Water:
Sched	lule 40	PVC	6	0.0	10"			1	2"	16	111
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Re	marks	Well Completion
	pry	8.7	NO		0			SP	LOOSE, light brown	Sand	
I	Dry	6.7				•			no Stain/odar		
, ,	muist	4.3			4 -	-		SP	SAA NO SO		
n	noisr	2.1			6 -	-		SP	SAN NO S/O		
h	No.St	2.0			8	-		5P	SAA NO S/o		
p	neist	1.7	5	10-12	9 - 10 - 11 -	-		5P	Loose, It. reddish i trace silt/clay	5 rown Sand < 15%	
					12	-			N& Stain/ou	101	
U 	NCt antword	17.7	γ		13 14 15	-		SP	illose, grey codrise Staining and odor	Sand, Sligne	

	-								Boring/Well #	BHZ6	
	1-9-		Ad	onoi	Or	norti	····i	4. ,	Project:	KUTZ Canyon G	P
1			AU	anci	ng op	ροπι	1111	ly	Project #		
									Date	617118	
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithe	ology/Remarks	Well Completion
Penetra	Moist-	vapo Vapo 72. 1	Staini	Sampl	Deptil (ft. bgs.) 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34		Recov	2) Soil/R Typ	Lithe COMPACE Gre < 15to Sand Refu Sal 6 Gw @ 11' Well insta W/ Sand	V green lean they NO Grain Jodon 16' Tight clay alled backfill	
	-				35 36 37	-				-	-

							N	L	Advancing Opport 848 E. 2nd Ave Durango, Color	tunity	
	1 L		Nº A		41 7-		P.	BORIN	NG LOG/MONITORING W	ELL COMPLETIO	ON DIAGRAM
	100 gr		- /	THE NEW	To an and		114	Boring/Wel	l Number:	Project:	uan C.D.
An an	1.10	and the second	And a	-			120	Date:	PHAL	Project Number:	yoll GF
	and a	1		THERE THE		-	ALL PARTY	Logged By:	015/15	Drilled By:	
Elevation:	6.000	S. 1. 56	Detector:	ф		100	- AL	Drilling Me	Eric Carroll	Earthw Sampling Method:	/orx
Gravel Pac	k.				PID			Saali	Direct Push	Hand Auger/	Geoprobe
10-2	0 Silica	Sand						Seal.	NA	NI	4
Casing Type Sche	edule 40	PVC						Diameter:	2" MA	Hole Diameter:	Depth to Liquid:
Screen Typ Sche	e: dule 40	PVC		Slot: 0.0)10"			Diameter:	Length: 2" NA	Total Depth:	Depth to Water:
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Rem	narks	Well Completion
	moise	150.8	Ne		0			SP	loose, it reddish brow	n sand.	
					1	-			No Stainloder		No well
	moist	1907	VRS		2	-		SP	Rtipose black cand	Strang oder	Installed
			107			-			in the second for		backtill
					3						Sand
	moise	1154	Ye5	21	4 -			CL	compact green grey	Sandy -	+
					5	-			lean clay, Slight	odor	‡
	Cat	1120			6	-					+
	20.0	1170	407		7	-				-	Ŧ
					, -	-		i R		-	
	maist	1095	NO		8 -	-		CI.	Compact, dark brou	vn, lean -	+
					9 -	-		04	Clay < 30% sand	No stain -	Į
					10				Slight odor	-	±
					11	·					+
					12				Stopped @ 5' du	le to	F
					12	-			Presence of Gw	-	
					13 _	-				-	-
					14					-	
					15						+

Elevation: 5785 Gravel Pack: 10-20 Silica Sand Casing Type:	Detector:	PID	AN CALL	BORIN Boring/Wel Date: Cogged By: Drilling Me Seal: Diameter:	Advancing Oppor 848 E. 2nd Ave Durango, Colo NG LOG/MONITORING W Il Number: <u>BH</u> 22 (4/14 Eric Carroll thod: Direct Push <i>M</i> /4 Length:	tunity rado 81301 ELL COMPLET Project: Verifield By: Eart Sampling Method: Hand Auge Grout:	TION DIAGRAM any on GP hworx er/ Geoprobe
Schedule 40 PVC	Slot:			Diameter:	2" <u>5</u> Length:	3' Total Depth:	Depth to Water:
Schedule 40 PVC	0.	.010"			2" 5'	8'	6'
Penetration Resistance Moisture Content Vapor (ppm	HC Staining Sample #	Depth Sample (ft. bgs.) Run	Recovery	Soil/Rock Type	Lithology/Rer	narks	Well Completion
2 2 2 5 maist 290.8 maist 341.6 Sat 1601 Sat 164 Sat 1452 Sat 1122	Yes Yes Yes 4 ¹ Yes 4 ¹ Yes 4 ¹ Yes 4 ¹	0 1 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 -	R	5 5 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7	Loose It reddish b No stain/ Black Sand Stron Gather SAA SAA Comput grey & trace black sand. SAA Stopped @ 10' dd contaminated C Set well	rown sand ador ng gdor, lean clay 'e to Gw	

Elevation: Gravel Pac 10-2	5.785 k: 20 Silica	Sand	Detector		PID		N Lune	BORIN Boring/Well Date: Logged By: Drilling Me Seal:	Advancing Oppor 848 E. 2nd Ave Durango, Color NG LOG/MONITORING W I Number: BH 2 3 74/18 Eric Carroll thod: Direct Push	tunity rado 81301 ELL COMPLETIO Project: Kutz Cany Project Number: Drilled By: Earthw Sampling Method: Hand Auger/ Grout:	on GP orx Geoprobe
Casing Typ Sche	edule 40	PVC						Diameter:	2" Length:	Hole Diameter: 3 //	Depth to Liquid: NA
Screen Typ Sche	edule 40	PVC		Slot: 0.0)10"			Diameter:	2" Length:	Total Depth:	Depth to Water:
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
	Dry	23.0	NO		0			SP	loose it readish bi	burn sand -	ACD LANELI
	Moise Wee Scit	166.5 310 659 27.6	Че5 Уе5 Уг5 N P	2'	1			59 59 CL CL	No Stainledon black, loose, Sand, SAA Compact green gr SAA	Strong odor	installed backfill W/ sun bentonite
					10 11 12 13 14 15	-			Stopped @ 6' fo Clay benath GW, Contaminating beneath clay	GW GW Soil/GW	-

Elevation: Gravel Pac 10-2 Casing Typ Schee Screen Typ	5765 k: 0 Silica he: dule 40	Sand PVC	Detector	Slot:	PID		N Lun III AND THE	BORIN Boring/Wel Date: Logged By: Drilling Me Seal: Diameter:	Advancing Opport 848 E. 2nd Ave Durango, Color NG LOG/MONITORING WI INumber: BH 24 GIGIIS Eric Carroll thod: Direct Push MA Length: Length:	tunity ado 81301 ELL COMPLETIC Project: Kutz Cany Project Number: Drilled By: Earthw Sampling Method: Hand Auger/ Grout: MA Hole Diameter: 3	ON DIAGRAM
Sche	dule 40	PVC	ċ	0.0	10"			1	2" NA	8	B
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining'	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
	Dry		NO		0	-		SP	loose, it reddish bro	wn, Sand -	ALD LEL
					1 -	-			No Scain lodor	-	- IV Q Cuell
	Moist	1982	No		2	-		SP	SAA	-	backfilled
					3	-				-	W/ benton ite
		MALL	Look		4	-		Cp	Rial K lanse Sand	siven alos -	
	MOISE	180.7	400		5	-		17	protect roote serie s		
					6	-				-	
	maist	126.0	Yes		7	-		CL	@ Compact, green	grey, lean .	F
		35.11		6'	· -	-			Clay Mi Staining	and .	-
	Sat	884	Yes	Ŭ	8 -	-			5. 9.10 00.00	-	-
					9 -	-			Stopped P G'	to limit .	-
					10	-			Vertical impact	Of contuminated	-
					11 _	-			Hao	-	-
					12	-			v	-	-
					13	-				-	-
					14	-				-	-
					15	-					

	人に		新聞ノ				N SAL	BORIN Boring/Wel	Advancing Opport 848 E. 2nd Ave Durango, Color NG LOG/MONITORING W	tunity rado 81301 ELL COMPLETIC	ON DIAGRAM
A CAR				- 1			il and	Date:	7/18	Project Number:	
A CONTRACTOR					10	19.9	the second	Logged By:	Eric Carroll	Drilled By: Earthw	orx
Elevation:	785		Detector:		PID			Drilling Me	birect Push	Sampling Method: Hand Auger/	Geoprobe
10-2	0 Silica	Sand						Diameter:	NA Length:	Hole Diameter	A Depth to Liquid:
Screen Typ	dule 40	PVC		Slot:				Diameter:	2" VA Length:	Total Depth:	Depth to Water:
Sche	dule 40	PVC	6:0	0.0	10''				2" <i>N</i> A	5(MA
Penetration Resistance	Moisture Content	Vapor (ppm	HC Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
	Dry	12	NO		0				1005e, it reddish bi	own coarse .	ALO INPIL
					1 _	-		58	Sand 10 0 Start	Wdor -	in Staned
					2	-				-	backfill
					3 _						benconite
	Dry	1.4	No		4 _	-		r I	Compace, green grey 2 15% sand and	, lean cloy	-
					5	-			N # 700	unlodor -	-
					6	-			5777		-
	Dav	12	A.00	=-8'	7	-			SAA NO SO	-	-
		1.)	101-		8 _	-				-	-
					9	-		CL	Regasor @ 6' t	ight clar -	-
					10	-			NO GW PRODU	interest -	-
					11	-			or cricad		-
					12	-				-	-
					13					-	-
					14					-	-
					15						

×

Elevation: 5785 Gravel Pack: 10-20 Silica Sand Casing Type: Schedule 40 PVC	Detector:	PID		A State of the state of the	BORIN Boring/We Date: Logged By Drilling Me Seal: Diameter:	Advancing Oppo 848 E. 2nd Av Durango, Col NG LOG/MONITORING Il Number: BH 26 G/7/18 Eric Carroll thod: Direct Push MA 2" 5 1	ortunity re orado 81301 WELL COMPLETIC Project: Kutz Can Project Number: Drilled By: Earthy Sampling Method: Hand Auger/ Grout: Hole Diameter: I ()	ON DIAGRAM iyon GP worx / Geoprobe Depth to Liquid:
Screen Type: Schedule 40 PVC	Slot: 0	.010"			Diameter:	2" Length:	Total Depth: 12	Depth to Water:
Penetration Resistance Moisture Content Vapor (ppm)	HC Staining? Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/R	emarks	Well Completion
Dry 1.2 MO: St- 43C ivet G4.3 MOist 141	NO YES 4-6 NO D-12	0 1 2 3 4 5 6 7 8 9 10 - 11 - 12 - 13 - - - - - - - - - - - - -			SP SP CL SP CL	Dry, 10050, It red No Geain SI Compact, green go KISTO Sand S HC odor Sacurated, Coarse S. trace clay 2 10% Slight Scain/ odo. Compact, greengrey, KISTO Sand NO Refusal @ 12 Gw @ 6'	brown Soud ight Odor 	

		A AN	部で	A DA			and the second	BORIN Boring/Web	Advancing Opport 848 E. 2nd Ave Durango, Color IG LOG/MONITORING W.	tunity ado 81301 ELL COMPLETIO Project: Kutz Cany Project Number:	N DIAGRAM on GP
Str.	and the second		the state	all a		E .	and	Logged By:	6-12-18	Drilled By:	
Elevation:	6-47	P 1	Detector:		DUD	ALC .	4	Drilling Me	D. Burns	Sampling Method:	
Gravel Paci	k:	Sand	I	s' on	PID 2 Dark	SPEPP	A	Seal:	Hand Auger	Grout:	
Casing Typ Sche	e: dule 40	PVC			- pear	ornee	V	Diameter:	5"] ¹¹ Length: 5 (Hole Diameter: 2.5	Depth to Liquid:
Screen Typ Sche	e: dule 40	PVC		Slot: 0.0	10"			Diameter:	2" I" Length: S'	Total Depth: 2.5'	Depth to Water:
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
	Dey).7	No		0			SP -32	-Fill material mi H. reddish brown w/ Hr. clay N - Olive H. gray fn.	xed w/ med. sand o S/o clayey sand	
	Slist	2.1	N >		4 _	-		-sc	No s/o oltue brown clay	ey med. fr.	
	Nist	3.8	No		6	-			Some moisture ou - Some moisture ou CAA No stain	a auger	
	sat.		N-		8 -	-			saturated soil @ no sheen ob:	g'served.	
	Dry-	2.7	NO		10	-			- Jean clay, dens refusal @ 9.5	e, greenigry	
					11 -	-				-	-
					12	-				-	-
					13	-				+	-
					14	-				+	-
					15						-

Elevation:		う で が は 、 炎	Detector:				at the little the	BORIN Boring/Well Date: Logged By: Drilling Met	Advancing Opport 848 E. 2nd Ave Durango, Color IG LOG/MONITORING W. INumber. RH - 28 7/3/2018 Eric Carroll	tunity rado 81301 ELL COMPLETIO Project: Kutz Cany Project Number: 034018 Drilled By: LTE Sampling Method:	on GP
Gravel Pack: 10-20 S Casing Type: Schedu	Silica ile 40	Sand PVC	fre n	RCK - 1	TID 1 Serce	m 14-9	ı,	Seal: Diameter:	MA Length: 1" 10	Grout: MA Hole Diameter: 2, 5''	Depth to Liquid:
Screen Type: Schedu	ıle 40	PVC		0.0	10"			Diameter:	1" 5 ¹	Total Depth:	Depth to Water:
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Kell Completion
	Dry 10132 10132 10132 10132 10132 10132	0.0 6 9.4 0.5 1.1 1.8 23.4	No No No No Yes	ЪÅ	$ \begin{bmatrix} 1 \\ 1 \\ 2 \\ 2 \\ 3 \\ - 4 \\ - 4 \\ - 5 \\ - 5 \\ - 7 \\ - 6 \\ - 7 \\$			SP SP	Monse, It reddish brown NO Stain no NO Stain no NO Stan I od SAA, NO SJO SAA, NO SJO SAA, NO SJO Moist, Yellow brown, white motoles no sto Wet, 1905e, Black ore Slight Hic odor	un, Sand (coord) odpr ; Course Sand pr CSarse Gand in lodor GW, Course Sand	
<u> </u>	iat	20.2	y'e h		14 15	-			SAA		

TD-14', 5' prepack screen, complete w/ boockfill

	A.		- AT				L'ST	L	PAdvancing Opport	tunity	
				13		9.07	5.5		848 E. 2nd Ave	ada 01201	
	T		19	et 	AT I		-	BORIN	G LOG/MONITORING W	ELL COMPLETIO	ON DIAGRAM
	The second	2	1	E .	1- CAR		120	Boring/Well	Number:	Project: Kutz Cany	on GP
and the		C. T	the second	~ 1			-	Date:	7/3/2018	Project Number:	
A.				and a	ar and	1		Logged By:	Frie Corroll	Drilled By:	7
Elevation:			Detector:	1.	DID			Drilling Me	bod:	Sampling Method:	ucer
Gravel Pac	k:	Grad	Pa	Pa	PID		_	Seal:		Grout:	uger
Casing Typ		Sand	FICI	OCK S	in ser	len.		Diameter:	Length:	Hole Diameter:	Depth to Liquid:
Screen Typ	e:	PVC		Slot:	1.0.1			Diameter:		Total Depth:	Depth to Water:
Sche	dule 40	PVC F	lg?	0.0	10"			~		75	1
tratio	isture ntent	r (ppi	tainir	ple #	Depth	Sample	overy	/Rocl ype	Lithology/Ren	narks	Well
Pene Resi	Mo	Vapo	HC S	San	(ft. bgs.)	Run	Rec	Soil T			Completion
	Dry	0.0	NP		0	I			loose, it reddish brown,	Coar Se Sand .	+
					1	-		SB	no Stain/oder		±
	moise	01.2	400		2	-			1966 11 Certific han a	Anally Court	
			10.		3	-			no stain/ ada		+
						-			CAR an als		
	moist	0.2	NO			-			SAM NO YO		†
								ca			±
	maisa	0.4	No		6 -	-		54	SAA NO SO		+ $ $ $ $
				NA	7	NA					\downarrow $ $ $ $
	moist	29	NO		8				SAA NO SO		I
			10 -		9						
	milt	97	ACO		10				ioose dark brown s	and frace silb .	t Eh l
		0.1	190.		11			Sp	zisto no stainledo	r	+ HGw
					12	F			have black in the	r. 1	- iEi
	Sat	86.8	yes			-			Strong odd Hr	Staining.	
		802			13 -	-			and y contrained		
	Sut	00.1	Y25		14 -	Η			losse, grey, coorse.	Sand	- [1]
					15	[]			Stron, odor t	Ic Staining	4

				:							
	AR AN		Calle 1	· · · ·		H	N.	L	Advancing Oppor	tunity	
	100	100		a .	in the second	153	E.s.		848 E. 2nd Ave Durango, Color	ado 81301	
	A PART		V			1-43	1	BORIN	G LOG/MONITORING W	ELL COMPLETIO	N DIAGRAM
E entre	. Tale		1 de	10	THE STO		- 10 - 12	Boring/Wel	Number: Ru - 30	Project:	on GP
art is	1	T	A.	~到		and the second		Date:	7/2/2018	Project Number:	
R			1	Same A		et.	1.2.	Logged By:	//3/2018	Drilled By:	
Elevation:		- J	Detector:	13 201		A. S. S. S.	8 412	Drilling Me	Eric Carroll	Sampling Method:	
Gravel Pac	k:				PID			Seal:	Hand Auger	Hand Au Grout:	uger
10-2	0 Silica	Sand						Diameter	MA	NA.	Depth to Liquid:
Sche	dule 40	PVC		<u>01-4</u>				Diameter.	1"	2.5"	Depth to Equid.
Screen Typ	dule 40	PVC		Slot: 0.()10"			Diameter:	Length: 1"	Total Depth:	Depth to Water:
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
	Dry	0.0	NO		0				loose, it reddish brow	n, coarse sand _	
					1	-		SP	No Stain Jodo		[NO
	Dry	0.0	NO		2	-	*		SAM		Well
					3	-					installed
					-	-				-	-
	Dry	0.7	NO		4 -			SP	SAA	-	-
					5 -	-		1		-	-
	Dry	8.7	NP		6				SAA	-	
					7	-			refusal Q6		-
					8	-			encountered debris,	bounders -	-
						-			that Stopped hand a	auger -	-
					9	-			alcempier sour	a rocarrors	
					10 -	-				-	-
					11					-	-
					12	-					
					13	- 48					-
					14	-				-	-
					14 -					-	-
		I			15						

	たとう			A		ALL ALL	at the lite	BORIN Boring/Wel	Advancing Opport 848 E. 2nd Ave Durango, Color IG LOG/MONITORING WI	tunity ado 81301 ELL COMPLETIO Project: Kutz Cany	ON DIAGRAM
Flevation			Detector			5	in the	Date: Logged By:	7/3/2018 Eric Carroll	Project Number: Drilled By: LTE	3
Gravel Paci	k:				PID			Seal:	Hand Auger	Hand A	uger
10-2 Casing Typ	0 Silica	Sand						Diameter:	NA Length:	M/A Hole Diameter:	Depth to Liquid:
Screen Typ	dule 40	PVC		Slot:	101			Diameter:	1" 5 Length: ;	Total Depth:	Depth to Water:
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
	Dry Dry	0.0 0.0	No		0			49	Very 100se, It reddigh ba No Stor lodor SAA	own, Croatse Sand - - -	
	maist	27.6	yes		3 _ 4 _ 5	-		SP	10050, HUCK, CON SE GO	rd, Slipht odor	
	Sout	213-3	уес	NA	6	NA		SP	Konse, It grey, course S. Sutwated Sheen o	and, Gtiongodor- n Wäter	Ew .
	moist	31.3	NO		89 910 1112 1314 15			СН	Dense, green/grey, 1 < 15% Sand	ean clay	

Elevation: Gravel Pack: 10-20	Silica	Sand	Detector		PID		at the fill of a set	BORIN Boring/Well Date: Logged By: Drilling Met Seal:	Advancing Opport 848 E. 2nd Ave Durango, Color GLOG/MONITORING W. Number: BH - 3 2 7/3/2018 Eric Carroll thod: Hand Auger	tunity rado 81301 ELL COMPLETIO Project: Kutz Cany Project Number: Drilled By: LTE Sampling Method: Hand Ai Grout:	ON DIAGRAM
Casing Type: Schedu	ule 40	PVC						Diameter:	Length: 1"	Hole Diameter:	Depth to Liquid:
Screen Type: Schedu	ule 40	PVC		Slot: 0.0	10"			Diameter:	Length:	Total Depth: 101	Depth to Water: NA
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
I	DA.	00	Nº		0				compace, readish bio	wn, sond -	
<u>Ţ</u>	Dry	0	No		1 2 3	-		SP	54.4		No Well
[];.	nry -	CC	No	NA	4 _			SP	compact, Yellow red, S no stain /od	and -	Installed
k	7	0.0	NO	Nr4	6			CL	compact, dark brown, < 30% sand	, leanciay	- - -
	DIY	0.0	N0 Ne		9 10	-		CL	SAA NO SO SAA NO SO	-	- - - -
					11 12 13 14 15	-				-	

	the and		A lite		The state	1.1.1		L	P	Advanci	ng Oppor	tunity	
* *		A	5.00	200	176		5.0			848 E.	2nd Ave	1 04004	
	10		N.	a. t	11-12		e de la	BORIN	IG LOC	Jurang MONIT	ORING W	ELL COMPLETI	ON DIAGRAM
2	物產		- 2	T	F A TOP			Boring/Wel	I Number:	11-27		Project:	CD CD
100 A	S. M. S.		A	1. 11		AT-2	(a).	Date:	0	H-7-		Project Number:	yon GP
and the second	Wh X	e generalit		to zotal		and a		Logged By:	7.	/3/2018		Drilled By:	
Elevation:	15.00	ور مترجد	Detector	<u>ę</u> , ,	304) ·	19-21	1 24	Drilling Me	Eri	c Carroll		LT Sampling Method:	E
Gravel Pac	k:				PID			Seal	Ha	nd Auger		Hand A	Auger
10-2	0 Silica	Sand						Seal.					
Sche	edule 40	PVC						Diameter:	1"	Length:	-	Hole Diameter: 2.5"	Depth to Liquid:
Screen Typ Sche	e: edule 40	PVC		Slot: 0.0	10"			Diameter:	1"	Length:	~	Total Depth:	Depth to Water:
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type		Lit	hology/Ren	narks	Well Completion
	DM	0.0	NO		0				Compa	ct, It redu	lish brou	in, Sand	
					1			SP	ne ne	Stal	10205		t Dry
	nn	0.0	NI		2	-			SAA	No	5/0		- Well
	D. 1				3								T NOB
						-			1		1		Installed
	pry	1.1	NO		4 -			CL	dense	friable	, aark b	rown lean clay	+
				NA	5 _	- MA			~ 30	NG SCOL	tainla	la.	ļ
	Dry	06	ND		6				SAA	100 5	10 100		±
					7	-							+
					8 -	-				NOG	ts/p		Ţ
	Dry	0.6	NO			-			SAA	1 d	10		±
					9								+
					10 -	-							I
					11								1
					12	•							†
					13	-							Ŧ
					14	-						7	†
					14	-							\pm
					15								

Elevation: Gravel Pack: 0-20 Silica Sa Casing Type: Schedule 4 Screen Type:	0 PVC	Detector	Slot:	PID		at the part of the	BORIN Boring/Well Date: Logged By: Drilling Mer Seal: N Diameter: Diameter:	Advancing Opport 848 E. 2nd Ave Durango, Color IG LOG/MONITORING WI INumber: BH 34 7/23/2018 Eric Carroll thod: Hand Auger VA 1" Length: 5 f Length: 4	tunity ado 81301 ELL COMPLET Project: Kutz Ca Project Number: Drilled By: L' Sampling Method: Hand Grout: NA Hole Diameter: 2.5'' Total Depth:	ION DIAGRAM inyon GP TE Auger Depth to Liquid: AVA Depth to Water:
Schedule 4	0 PVC		0.0	10"				<u>1"</u> 5'	9'	7.5
Penetration Resistance Moisture	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion 1.05'
Dry	1.3	NO		0	- Annual Contraction		SP	Loose, Reddisin brown, c	course Sand	
mais mais mais	+ 12.3 = 163 + 1506 - 1231	NO NO YES YES		1 2 3 4 5 6 7 8 9 10			SP SP SP SPBM CL	SAA NO Stain/ SAA NO Stain/ SAA NO Stain/ Loose, black grey, c tvace silt <15% HC Stain ng, St SAA	oder oder ourse Sand rong Oder	
5ci t		YC5		11 - 12 - 13 - 14 - 15 - 15 - 15 - 15 - 15 - 15 - 15			Q.	Resusci Q 91' du Compact green le No Stain, Slight C Resusci Q 91' du Clay	can clay odor e to tishs	

	SAL SAL		ANT		THE REAL	-	N.A.F.	L	P	Advand	ing Oppor	tunity	
17.	1 and	1		-			53			848 E.	2nd Ave	ada 01201	
1.13	1 Th	4	N		11. 23		1	BORIN	G LOG	MONIT	ORING W	ELL COMPLET	ION DIAGRAM
	相思		1	-10	- CENTRE	TIE	10-47 	Boring/Wel	l Number:	RU JE		Project:	anyon GP
		na Tr				NAL SA		Date:		217 33		Project Number:	
	i de	1. 3 al. 7 al. 9	No.	Tran I.		-		Logged By:	11.	23/2018		Drilled By:	
Elevation:	C-MER	97. AS	Detector:		Ser e		6.24	Drilling Me	thod:	c Carroll		L Sampling Method:	TE
Gravel Pac	5/70 k:				PID			Seal:	Hai	nd Auger		Hand Grout:	Auger
0-20 Sil Casing Typ	ica Sanc	Pre Pa	C					Diameter:	NA	Length:		NA Hole Diameter:	Depth to Liquid:
Sche Screen Typ	dule 40 e:	PVC		Slot:				Diameter:	1"	Length:	5'	2.5" Total Depth:	NA Depth to Water:
Sche	dule 40	PVC	6	0.0	10"			1	1" I		5'	8'	6.5
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type		L	ithology/Ren	narks	Well Completion 3-37
	Dry	1.3	NO		0	1		SP	Laose,	Reddig	h brown,	Course sand	
					1				N	ro stai	n/oder		
	MOIGL	14.0	NC		2	-		SP	SAA	NO	Stainle	dor	
					3	-							
	-					-				0.1		1 1/4	T. H.
	moise	487	xes		-			SP	Loose	cainin.	CODASE S	iona pds-r	
					5 -	+)	,	- · · · ·
	Sat	364	ye5		6	-		SP	SAA				Gw
					7	-							
			0.00		8			CL	Comp	act, gr	een, ican	ciay < 15%	- 2
	Maise	73	100		9	-			Sand	1 10 9	stain / po	lor	+
					10	-							Ŧ
					11	-							+
						-							±
					12 -	-							+
					13								1
					14	-							1
					15	-							†

Elevation: 5 77/0 Gravel Pack: 0-20 Silica Sand Pre Pa Casing Type: Schedule 40 PVC	Detector:	PID		at the second se	BORIN Boring/Wel Date: Logged By: Drilling Me Seal: Diameter: Diameter:	Advancing Opport 848 E. 2nd Ave Durango, Color G LOG/MONITORING WI Number: BH 36 7/23/2018 Eric Carroll thod: Hand Auger NA Length: 5 /	ado 81301 ELL COMPLETIC Project: Kutz Cany Project Number: Drilled By: LTE Sampling Method: Hand A Grout: NA Hole Diameter: 2.5''	on GP
Schedule 40 PVC	5101	0.010"			maneter:	1" 5'	10tar Deptil: 91	Bepur to water:
Penetration Resistance Moisture Content Vapor (ppm)	HC Staining?	# Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
Dry 0.3	NO	0			SP	Locse, It readish brow	n, coarse sand.	
Moise 0.7 Moise 0.7 Moise 1.1 Sat 0.8 Moise 0.4	NO NO NO	1 2 3 4 5 6 7 8 9 10 11 12 13 14			SP SP SP CL	No Stainlodor SAA No Stainl SAA No Stainl LOOSE, Yellow brown Ne Stainlodor Locse; dark brown, c Some gravel No Stainlod Compace, green, lean Sand No Stainlod	odor odor n, coarse Sand tain/odor chy & 15%	

Elevation: Gravel Pac 0-20 Sill Casing Typ Schee Screen Typ	k: ica Sand re: dule 40 re:	I Pre Pau PVC	Detector:	Slot:	PID		at the life of the	BORIN Boring/Wel Date: Logged By: Drilling Me Seal: Diameter: Diameter:	Advancing Opport 848 E. 2nd Ave Durango, Colora GLOG/MONITORING WE INumber: BH 37 7/23/2018 Eric Carroll thod: Hand Auger NA Length: Length: Eric Saria	unity ado 81301 ELL COMPLETIO Project: Kutz Cany Project Number: Drilled By: LTE Sampling Method: Hand Au Grout: NA Hole Diameter: 2.5 ⁽¹⁾ Total Depth:	N DIAGRAM on GP lger Depth to Liquid:
Sche	dule 40	PVC	C.	0.0	10"				1" 5 "	6'	4'
Penetration Resistance	Moisture Content	Vapor (ppm	HC Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Rem	arks	Well Completion 1,4'
	Dry	0.6	NS		0			SP	Loose, It redish brown NO Stainfodor	, coarse sand -	12 0
	mci5 c	1.4	NO		1	-		SP	S.A.A NO Stain/oder		
	Seit	14.6	NP		4	-		SP	1005e, grey, coarse 5 No Stainlodor	and, saturated -	av H.
	proist-	12.3	N		6 7 8 9 10 11 12 13 14 15			CL	compact, green; lean X ISto Sangl No Stain/oder	n ciay	

		BORIN Boring/Well Date:	Advancing Opport 848 E. 2nd Ave Durango, Color IG LOG/MONITORING WI Number: BH 38	tunity ado 81301 ELL COMPLETIO Project: Kutz Cany Project Number:	ON DIAGRAM on GP
Elevation: Detector:		Logged By: Drilling Met	7/23/2018 Eric Carroll	Drilled By: LTE Sampling Method:	3
Gravel Pack: 0-20 Silica Sand Pre Pac Casing Type: Schedule 40 PVC	PID	Seal: N Diameter:	Hand Auger NA Length: 1"	Hand Ai Grout: NA Hole Diameter: 2 - 5 ' '	Depth to Liquid:
Screen Type: Schedule 40 PVC	Slot: 0.010"	Diameter:	Length: 1" A/A	Total Depth:	Depth to Water:
Penetration Resistance Moisture Content Vapor (ppm) HC Staining?	[#] ^a ^a ^b ^c ^c ^c ^c ^c ^c ^c ^c	Recovery Soil/Rock Type	Lithology/Ren	larks	Well Completion
Dry 0.0 MP Dry 0.0 MP Dry 0.0 MP Dry 0.0 MP Dry 0.0 MO	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	CL CL CL	Loose, friable, greenloke <30% Sand NO Scain/och SAA NO Stain/ SAA NO Stain SAA NO Stain	y, lean elay ior iodor iodor iodor i odor i ered	N.P. Well Inscalled

	BORII Boring/We Date: Logged By	Durango, Color NG LOG/MONITORING WI II Number: BH 39 7/23/2018 Eric Carroll	rado 81301 ELL COMPLETIO Project: Kutz Cany Project Number: Drilled By: LTE	N DIAGRAM on GP
Gravel Pack:	Seal	Hand Auger	Hand Au	ıger
0-20 Silica Sand Pre Pac	Diamatar	NA	NA Hole Diameter	Depth to Liquid:
Schedule 40 PVC	Diameter	1" MA	2.5"	NA Depth to Water
Schedule 40 PVC 0.010"	Diameter:	1"	Total Depth: 91	NA
Penetration Resistance Moisture Content Content HC Staining? HC Staining? Nuble	Kecovery Soil/Rock Type	Lithology/Ren	narks	Well Completion
Dry 0.0 MP 0	CL	1005e, 500 grey, san 409e sand 160% de	ly Clay	Ne
2 1 3 1	CL	1005, greengrey, les <15% Sand NO St	ia in, light dor	installed
moise 54,4 NP 5	CL	SAR No Stain	lodor -	-
moise 48,6 NP 6 7	CL	SAA NO Stain	loder -	-
MOISE 12.1 N.P. 8 9 10	CL	Compact hard, green <15% sand No St	, lean clavi tain <i>lodor</i>	-
		Boring refusal @" to tight clay	9' due	-
		no well installed		-

	ALL AND		新田				N	11	Advancing Opport 848 E. 2nd Ave Durango, Color	'unity ado 81301	
en	Sec.		大学	1000		ger?	- 33	BORIN	G LOG/MONITORING WI	ELL COMPLETIO	N DIAGRAM
			* F		AL PLAN			Boring/Well	Number: BH 40	Project: Kutzs Can	on GP
				「製」			ak-	Date:	8/1/2018	Project Number:	
A.				Same and		(Chi)	4	Logged By:	Eric Carroll	Drilled By:	
Elevation:	5770	100	Detector		DID		1	Drilling Me	hod:	Sampling Method:	
Gravel Pac	5770 k:		L		PID			Seal:	Hand Auger	Grout:	uger
10-2 Casing Typ	0 Silica	Sand	Pre	PULK				Diameter:	Length:	Hole Diameter:	Depth to Liquid:
Scher Screen Typ	dule 40	PVC		Slot:			aan bar gerik	Diameter:	Length:	2.5" Total Depth:	Depth to Water:
Sche	dule 40	PVC		0.0	10"			1"	5	7.5	5.5'
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining'	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion 45%
	Dry	0.0	NO		0			SP	Loose, It reddish brow	n, coarse sand _	
					1	-			No stain/odor		
	moisz	0.2	NO		2 -	$\left \right $		SP	SAA NO Stain/odo	r	+
					3	F					
						H					
	moist	12.1	NO		4 -			SP-SC	fines NO Stainlado	r 21ay 21570 -	
					5	Į.				-	tin Fr
	Cat	894	405		6			10	Loose, Black, coarse Sc	and, HC Staining	
					7	ł		51	and oder, Heavy she	en	-
					8				compact, green arev.		
	moist	601	NO					CL	sand. No stain, Slip	nt oder	‡
					9 -	H			/	-	-
					10	Ħ				_	Į
					11					-	t I
					12	ł					ł
					13	$\left[\right]$					-
						Ħ				-	t
					14 -	Η					-
					15	TI					Ť

	1/2 m		ALLER /M			- The second		1	Advancing Opport 848 E. 2nd Ave Durango, Color	tunity ado 81301	
	AT SOL	到于	No.	- Cart	-10-10-1	4	- 10	BORIN	G LOG/MONITORING W	ELL COMPLETIO	N DIAGRAM
e entre		1.52	1 T.	-	al ceres		「日日	Boring/Well	BH 41	Kutzs Can	yon GP
	5	- FL				AN AN		Date:	8/1/2018	Project Number:	
A CAR				Same?	an love .	This .	A R	Logged By:	Esis Comell	Drilled By:	
Elevation:		100	Detector	10		1.1.1.1.1	1000	Drilling Met	hod:	Sampling Method:	
Gravel Pac	5770 k:				PID			Seal:	Hand Auger	Grout:	uger
10-2	0 Silica	Sand	Pre	Paci	K			Diamatan	NA	NA.	Depth to Liquid:
Sche	edule 40	PVC							2" 10'	2.5"	NA NA
Screen Typ Sche	edule 40	PVC		Slot: 0.0	10"			Diameter:	Length: 5 1	Total Depth: 11.5'	Depth to Water:
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
	Dry	0.0	NP		0	1		SP	Loose, it reddish brown	1, COOTSE Sand -	
					1			11	No stains plan		
	moiss	0.0	NO		2	-		57	SAA NO Stainled,		
					3	•				-	
	Maise	02	NO		4 _			57	SAA NO Stainlods	-	$\lfloor $
					5					-	
	moist	6.8	ND		6	-		10	LOOSE, 15 rodd. Sh bro.	wh, coarsesand	+
	1							SP	grey mottles, Np 50	tainlodad	
					' -					-	
	Sat	17.4	No		8 -	\mathbf{H}		17	Loose, It reddish brown,	coarse sand -	an
					9			SC	trace clay «15% fi no odor, Saturat	nes no Stain .	
	moise	276.3	yes		10				SANENO	-	
					11			SP	LOOSE, Black, Sand, 1	HC Stain	
	-				12	-			>1'9ht 00'9/		
					13				Refusar @ 211-	12' due	
					14	-			to gravel	-	+
					15						+

	The state				and the second		N CAT	11	Advancing Opport	tunity	
-	- Berly	, EY	in the	AS	- PAR	E.C.	50		848 E. 2nd Ave	ado 81301	
			Va	1. 1	A.1 2-		5	BORIN	G LOG/MONITORING W	ELL COMPLETIO	N DIAGRAM
A STATE	and the		4	1	HEES		111	Boring/Well	RH 4D	Project: Kutzs Can	on GP
		- The second	A.	人間		A State	-	Date:	8/2/2018	Project Number:	
ALC: N	1	and a start	P. Maria	the second		E.	T. A.	Logged By:	5/5/2018	Drilled By:	
Elevation:		1.68	Detector:	1		TEMPOR	1.20	Drilling Me	thod:	Sampling Method:	
Gravel Pac	5770 k:		L		PID			Seal:	Hand Auger	Grout:	iger
10-2 Casing Typ	0 Silica	Sand		P	re-Pack			Diameter:	Length:	Hole Diameter:	Depth to Liquid:
Screen Typ	dule 40	PVC		Slot:				Diameter:	1" 5' Length: 5 /	2.5" Total Depth:	MA Depth to Water:
Sche	dule 40	PVC	C.	0.0	10"				1" 5'	+09.5'	8'
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Ren	narks	Well Completion
	pry	00	Ne		0			68	Loose, It reddish brown	n coarse sand_	
					1			76	WI gravel < 20%	NO Stuin/odoc -	
					2			. 0	SAA NO Stain ad	-	-
	moist	0.0	Ne		3	-		SI		-	
					4	-		~^	LOOSE, dark reddish t	rown, Coolse	
	moist	1.3	Ne		5	-		SP	sand No Stain/	odor	
	moitz	1.4	NP		6	-			SAA NO Stainlod		
					7			58		-	
	Sat hadit	24.3	NP		8	-		11	Loose, Saturated, 9	rey, course sand	Giv E
					9	-			No stain slight	odor -	
	moiss	41.1	NO		10	-		CI	Compace, friable, gre	en, lean clay -	- FL
					11	-		~	Callo Sand, No S	itain Slight	_
					12	-				-	-
					13	-				-	-
					14	-					-
					15	-				-	-

		BORIN Boring/Wel Date: Logged By:	Advancing Opport 848 E. 2nd Ave Durango, Color NG LOG/MONITORING W INumber: BH 43 8/3/2018	tunity rado 81301 ELL COMPLETIC Project: Kutzs Can Project Number: Drilled By:	DN DIAGRAM yon GP
Elevation: Detector:	DID	Drilling Me	thod:	Sampling Method:	110.07
Gravel Pack:	PID	Seal:	Hand Auger	Grout:	A
10-20 Silica Sand Casing Type:	Pre-Pack	Diameter:	Length:	Hole Diameter:	Depth to Liquid:
Schedule 40 PVC Screen Type: Schedule 40 PVC	Slot: 0.010"	Diameter:	1" 10' Length: 5'	2.5" Total Depth: 12.5'	NA Depth to Water:
Penetration Resistance Moisture Content Vapor (ppm) HC Staining?	# Depth Sample (ft. bgs.) Run	Recovery Soil/Rock Type	Lithology/Rer	narks	Well Completion
Dry D.O NO Dry D.O NO Dry O.O NO MOISH D.I NO MOISH D.I NO MOISH D.N ND Scht D.N NO Scht D.N NO MOISH D.Y NO MOISH P.8 NO	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	SP SP CL	Loose, It raddish br No Stain/odor SAA No Stain/G SAA NO Stain/G SAA NO Stain/G SAA NO Stain/G SAA NO Stain/G LOOSE, grey, coarse No Stain/Odo Compact, green, lean Sound No Stain/G	own, course some odor dor dor dor sand v clay, 21570 odor	
	15				+

Appendix B



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

November 14, 2017

Kijun Hong Williams Four Corners 188 CR 4900 Bloomfield, NM 87413 TEL: (505) 632-4442 FAX

RE: Kutz GCNM ROW

OrderNo.: 1711594

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 3 sample(s) on 11/10/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

		and the second					and the balance of the second s	
CLIENT:	Williams Four Corners			С	lient Sam	ple ID: EX	-South@10'	
Project:	Kutz GCNM ROW				Collection	n Date: 11/	/9/2017 3:00:00 PM	1
Lab ID:	1711594-001	Matrix: N	MEOH (SO	IL)	Receive	d Date: 11/	/10/2017 7:30:00 A	М
Analyses		Result	PQL (Qual	Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS						Ana	lyst: MRA
Chloride		39	30		mg/Kg	20	11/10/2017 12:31:22	2 PM 34942
EPA MET	HOD 8015M/D: DIESEL RAM	IGE ORGANICS					Anal	yst: TOM
Diesel Ra	ange Organics (DRO)	120	9.4		mg/Kg	1	11/10/2017 10:06:3	7 AM 34939
Motor Oil	Range Organics (MRO)	81	47		mg/Kg	1	11/10/2017 10:06:3	7 AM 34939
Surr: E	DNOP	109	70-130		%Rec	1	11/10/2017 10:06:3	7 AM 34939
EPA MET	HOD 8015D: GASOLINE RA	NGE					Anal	yst: NSB
Gasoline	Range Organics (GRO)	2600	78		mg/Kg	20	11/10/2017 12:34:09	9 PM 34930
Surr: E	BFB	477	15-316	S	%Rec	20	11/10/2017 12:34:09	9 PM 34930
EPA MET	HOD 8021B: VOLATILES						Anal	yst: NSB
Benzene		3.5	0.39		mg/Kg	20	11/10/2017 12:34:09	9 PM 34930
Toluene		49	0.78		mg/Kg	20	11/10/2017 12:34:09	9 PM 34930
Ethylben	zene	9.7	0.78		mg/Kg	20	11/10/2017 12:34:09	9 PM 34930
Xylenes,	Total	94	1.6		mg/Kg	20	11/10/2017 12:34:09	9 PM 34930
Surr: 4	I-Bromofluorobenzene	142	80-120	S	%Rec	20	11/10/2017 12:34:09	9 PM 34930

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	Е	Value above quantitation range
Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 7
ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified
	* H ND PQL S	 Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix Holding times for preparation or analysis exceeded Not Detected at the Reporting Limit Practical Quanitative Limit % Recovery outside of range due to dilution or matrix 	* Value exceeds Maximum Contaminant Level. B D Sample Diluted Due to Matrix E H Holding times for preparation or analysis exceeded J ND Not Detected at the Reporting Limit P PQL Practical Quanitative Limit RL S % Recovery outside of range due to dilution or matrix W

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 1711594 Date Reported: 11/14/2017

						Analytical Report	
						Lab Order 1711594	
Hall Environmental Analysis	s Labora	atory, In	c.			Date Reported: 11/14	/2017
CLIENT: Williams Four Corners			(lient Samp	le ID: TR	x01@8'	
Project: Kutz GCNM ROW				Collection	Date: 11	/9/2017 3:15:00 PM	
Lab ID: 1711594-002	Matrix:	MEOH (SC	DIL)	Received	Date: 11/	/10/2017 7:30:00 Al	М
Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analy	st: MRA
Chloride	43	30		mg/Kg	20	11/10/2017 12:43:46	PM 34942
EPA METHOD 8015M/D: DIESEL RANGI		s				Analy	st: TOM
Diesel Range Organics (DRO)	370	10		mg/Kg	1	11/10/2017 10:30:54	AM 34939
Motor Oil Range Organics (MRO)	380	50		mg/Kg	1	11/10/2017 10:30:54	AM 34939
Surr: DNOP	106	70-130		%Rec	1	11/10/2017 10:30:54	AM 34939
EPA METHOD 8015D: GASOLINE RANG	E					Analy	/st: NSB
Gasoline Range Organics (GRO)	1700	78		mg/Kg	20	11/10/2017 12:57:51	PM 34930
Surr: BFB	416	15-316	S	%Rec	20	11/10/2017 12:57:51	PM 34930
EPA METHOD 8021B: VOLATILES						Analy	/st: NSB
Benzene	1.8	0.39		mg/Kg	20	11/10/2017 12:57:51	PM 34930
Toluene	19	0.78		mg/Kg	20	11/10/2017 12:57:51	PM 34930
Ethylbenzene	6.9	0.78		mg/Kg	20	11/10/2017 12:57:51	PM 34930
Xylenes, Total	66	1.6		mg/Kg	20	11/10/2017 12:57:51	PM 34930
Surr: 4-Bromofluorobenzene	137	80-120	S	%Rec	20	11/10/2017 12:57:51	PM 34930

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order 1711594
Date Reported: 11/14/2017

Analyst: MRA

Analyst: TOM

Analyst: NSB

Analyst: NSB

11/10/2017 1:20:58 PM 34942

11/10/2017 10:55:28 AM 34939

11/10/2017 10:55:28 AM 34939

11/10/2017 10:55:28 AM 34939

11/10/2017 1:21:35 PM 34930

Hall Environmental Analysis Laboratory, Inc.

EPA METHOD 8015M/D: DIESEL RANGE ORGANICS

EPA METHOD 300.0: ANIONS

Diesel Range Organics (DRO)

Motor Oil Range Organics (MRO)

Gasoline Range Organics (GRO)

EPA METHOD 8021B: VOLATILES

Surr: 4-Bromofluorobenzene

EPA METHOD 8015D: GASOLINE RANGE

Chloride

Surr: DNOP

Surr: BFB

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch
Lab ID:	1711594-003	Matrix:	MEOH (SOIL)	Receive	d Date: 11/10/2017 7:30:00 AM	
Project:	Kutz GCNM ROW			Collectio	n Date: 11/9/2017 3:30:00 PM	
CLIENT:	Williams Four Corners		(Client San	nple ID: TR02@6'	
	and a second					

30

9.6

48

29

70-130

15-316

0.15

0.29

0.29

0.58

80-120

mg/Kg

mg/Kg

mg/Kg

%Rec

mg/Kg

%Rec

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%Rec

20

1

1

1

5

5

5

5

5

5

5

ND

ND

ND

102

ND

113

ND

ND

ND

ND

110

Refer to the OC Summary report an	d sample login checklist for flag	goed OC data and r	preservation information
Neiter to the OC Summary report an	a sample login checking for ma		JICSCI VALIOII IIIIOIIIIALIOII

			and an and the second second	
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1711594

14-Nov-17

Client:	Williams Four Corners

Project: Kutz GCNM ROW

Sample ID MB-34942	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 34942	RunNo: 47043		
Prep Date: 11/10/2017	Analysis Date: 11/10/2017	SeqNo: 1501826	Units: mg/Kg	
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID LCS-34942	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Sample ID LCS-34942 Client ID: LCSS	SampType: Ics Batch ID: 34942	TestCode: EPA Method RunNo: 47043	300.0: Anions	
Sample ID LCS-34942 Client ID: LCSS Prep Date: 11/10/2017	SampType: Ics Batch ID: 34942 Analysis Date: 11/10/2017	TestCode: EPA Method RunNo: 47043 SeqNo: 1501827	300.0: Anions Units: mg/Kg	
Sample ID LCS-34942 Client ID: LCSS Prep Date: 11/10/2017 Analyte	SampType: Ics Batch ID: 34942 Analysis Date: 11/10/2017 Result PQL SPK valu	TestCode: EPA Method RunNo: 47043 SeqNo: 1501827 le SPK Ref Val %REC LowLimit	300.0: Anions Units: mg/Kg HighLimit %RPD	RPDLimit Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 4 of 7

Client:	William	s Four Corners								
Project:	Kutz GC	CNM ROW								
Sample ID	LCS-34939	SampType:	LCS	Tes	tCode: EP	A Method	8015M/D: Die	esel Rang	e Organics	
Client ID:	LCSS	Batch ID:	34939	F	RunNo: 47	029				
Prep Date:	11/10/2017	Analysis Date:	11/10/2017	S	SeqNo: 15	00662	Units: mg/K	g		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	49	10 50.00	0	98.7	73.2	114			
Surr: DNOP	• • •	4.8	5.000		96.0	70	130			
Sample ID	MB-34939	SampType:	MBLK	Tes	tCode: EP	A Method	8015M/D: Die	esel Range	e Organics	
Client ID:	PBS	Batch ID:	34939	R	RunNo: 47	029				
Prep Date:	11/10/2017	Analysis Date:	11/10/2017	S	eqNo: 15	00664	Units: mg/K	g		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	ND	10							
Motor Oil Rang	e Organics (MRO)	ND	50							
Surr: DNOP		10	10.00		101	70	130			
Sample ID	LCS-34925	SampType:	LCS	Test	tCode: EP	A Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch ID:	34925	R	unNo: 47	029				
Prep Date:	11/9/2017	Analysis Date:	11/10/2017	S	eqNo: 15	02323	Units: %Red	;		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.6	5.000		92.6	70	130			
Sample ID	MB-34925	SampType:	MBLK	Test	Code: EP	A Method	8015M/D: Die	sel Range	e Organics	
Client ID:	PBS	Batch ID:	34925	R	unNo: 47	029				
Prep Date:	11/9/2017	Analysis Date:	11/10/2017	S	eqNo: 15	02324	Units: %Red	;		
Analyte		Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		9.9	10.00		99.2	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 5 of 7

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Williams Four Corners

Project: Kutz GCNM ROW

Sample ID MB-34930	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8015D: Gase	line Rang	e	
Client ID: PBS	Batch	n ID: 34	930	F	RunNo: 4	7044				
Prep Date: 11/9/2017	Analysis D	ate: 11	1/10/2017	5	SeqNo: 1	501473	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		108	15	316			
	the second s			And the second se						
Sample ID LCS-34930	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D: Gase	line Rang	e	
Sample ID LCS-34930 Client ID: LCSS	SampT Batch	ype: LC	S 930	Tes F	tCode: El	PA Method 7044	8015D: Gaso	oline Rang	e	
Sample ID LCS-34930 Client ID: LCSS Prep Date: 11/9/2017	SampT Batch Analysis D	ype: LC 1 ID: 34 Date: 11	:S 930 1/10/2017	Tes F	tCode: El RunNo: 4 SeqNo: 1	PA Method 7044 501474	8015D: Gaso Units: mg/P	bline Rang	e	
Sample ID LCS-34930 Client ID: LCSS Prep Date: 11/9/2017 Analyte	SampT Batch Analysis D Result	ype: LC n ID: 34 Date: 11 PQL	: S 930 I/10/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 7044 501474 LowLimit	8015D: Gaso Units: mg/P HighLimit	oline Rang Kg %RPD	e RPDLimit	Qual
Sample ID LCS-34930 Client ID: LCSS Prep Date: 11/9/2017 Analyte Gasoline Range Organics (GRO)	SampT Batch Analysis D Result 26	ype: LC n ID: 34 Date: 11 PQL 5.0	ss 930 1/10/2017 SPK value 25.00	Tes F S SPK Ref Val 0	tCode: El RunNo: 4 SeqNo: 1 %REC 105	PA Method 7044 501474 LowLimit 75.9	8015D: Gaso Units: mg/H HighLimit 131	Soline Rang	e RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: 1711594 14-Nov-17

Page 6 of 7

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Williams Four Corners

Kutz GCNM ROW **Project:**

International Action of the Ac			and the second se			Contraction of the local data and the local data an				
Sample ID MB-34930	Samp	Гуре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batc	h ID: 34	930	F	RunNo: 4	7044				
Prep Date: 11/9/2017	Analysis [Date: 11	1/10/2017	S	SeqNo: 1	501482	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			
Sample ID LCS-34930	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Volat	iles		
Sample ID LCS-34930 Client ID: LCSS	Samp ⁻ Batc	Type: LC h ID: 349	S 930	Tes	tCode: El	PA Method 7044	8021B: Volat	iles		
Sample ID LCS-34930 Client ID: LCSS Prep Date: 11/9/2017	Samp Batc Analysis [Type: LC h ID: 349 Date: 11	:S 930 1/10/2017	Tes F S	tCode: El RunNo: 4 SeqNo: 1	PA Method 7044 501483	8021B: Volat	iles g		
Sample ID LCS-34930 Client ID: LCSS Prep Date: 11/9/2017 Analyte	Samp Batc Analysis I Result	Fype: LC h ID: 34 Date: 11 PQL	:S 930 I/10/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 7044 501483 LowLimit	8021B: Volat Units: mg/K HighLimit	iles g %RPD	RPDLimit	Qual
Sample ID LCS-34930 Client ID: LCSS Prep Date: 11/9/2017 Analyte Benzene	Samp Batc Analysis I Result 0.98	Fype: LC h ID: 349 Date: 11 PQL 0.025	S 930 1/10/2017 SPK value 1.000	Tes F S SPK Ref Val 0	tCode: El RunNo: 4 SeqNo: 1 %REC 97.8	PA Method 7044 501483 LowLimit 77.3	8021B: Volat Units: mg/K HighLimit 128	illes g %RPD	RPDLimit	Qual
Sample ID LCS-34930 Client ID: LCSS Prep Date: 11/9/2017 Analyte Benzene Toluene	Samp Batc Analysis I Result 0.98 1.0	Fype: LC h ID: 349 Date: 11 PQL 0.025 0.050	S 930 1/10/2017 SPK value 1.000 1.000	Tes F S SPK Ref Val 0 0	tCode: El RunNo: 4 SeqNo: 1 %REC 97.8 101	PA Method 7044 501483 LowLimit 77.3 79.2	8021B: Volat Units: mg/K HighLimit 128 125	iles g %RPD	RPDLimit	Qual
Sample ID LCS-34930 Client ID: LCSS Prep Date: 11/9/2017 Analyte Benzene Toluene Ethylbenzene	Samp Batc Analysis E Result 0.98 1.0 1.0	Fype: LC h ID: 349 Date: 11 PQL 0.025 0.050 0.050	S 930 1/10/2017 SPK value 1.000 1.000 1.000	Tes F S SPK Ref Val 0 0 0	tCode: E RunNo: 4 SeqNo: 1 %REC 97.8 101 101	PA Method 7044 501483 LowLimit 77.3 79.2 80.7	8021B: Volat Units: mg/K HighLimit 128 125 127	illes /g %RPD	RPDLimit	Qual
Sample ID LCS-34930 Client ID: LCSS Prep Date: 11/9/2017 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Samp Batcl Analysis E Result 0.98 1.0 1.0 3.0	Type: LC h ID: 349 Date: 11 PQL 0.025 0.050 0.050 0.10	S 930 1/10/2017 SPK value 1.000 1.000 1.000 3.000	Tes F SPK Ref Val 0 0 0 0 0	tCode: E RunNo: 4 SeqNo: 1 %REC 97.8 101 101 98.9	PA Method 7044 501483 LowLimit 77.3 79.2 80.7 81.6	8021B: Volat Units: mg/K HighLimit 128 125 127 129	illes G %RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Page 7 of 7

WO#: 1711594

14-Nov-17

ANALYSIS LABORATORY	4901 Hawkins NF 4901 Hawkins NF 41buquergise, NM 87109 505-245-3975 FAX: 505-345-4107 bsite: Www.hallenvaronmental.com																			
Client Name: WILLIAMS FOUR CORN Wor	rder Number: 1711594 RoptNo: 1																			
Received By: Richie Eriacho 11/10/	7 7:30:00 AM																			
Completed By: Erin Melendrez 11/10/	78:31:00 AM ULUT																			
Reviewed By. 2 2 11/10																				
Chain of Custody																				
1. Custody seals intact on sample bottles?	Yes No Not Present 🗹																			
2. Is Chain of Custody complete?	Yes 🗹 No 🗌 Not Present 🗌																			
3. How was the sample delivered?	Courier																			
Log In																				
4. Was an attempt made to ccol the samples?	Yes 🗹 No 🗌 NA 🗌																			
5. Were all samples received at a temperature of $>0^\circ$	0 6.0°C Yes ✓ No 🗌 NA 🗌																			
6. Sample(s) in proper container(s)?	Yes 🗹 No 🗌																			
7. Sufficient sample volume for indicated test(s)?	Yes 🔽 No 🗌																			
Are samples (except VOA and ONG) properly prese	d7 Yes 🗹 No 🗌																			
B. Was preservative added to bottles?	Yes No V NA																			
10.VOA vials have zero headspace?	Yes 🗌 No 🗌 No VOA Vials 🗹																			
11 Were any sample containers received broken?	Yes No 🗹 # of preserved																			
 Does paperwork match bottle labels? (Note discrepancies on chain of custody) 	Yes M No for pH: (<2 or >12 unless n																			
13, Are matrices correctly identified on Chain of Custod	Yes 🗸 No 🗌 Adjusted?																			
14. Is it clear what analyses were requested?	Yes 🗹 No 🗌																			
 Were all holding times able to be met? (If no, notify customer for authorization.) 	Ves 🗹 No 🗋 Checked by																			
Special Handling (if applicable)																				
16, Was client notified of all discrepancies with this order	Yes No NA 🗹																			
Person Notified:	Date:																			
By Whom:	Via: eMail Phone Fax In Person																			
Regarding																				
Client Instructions:																				
17. Additional remarks:																				
18. Cooler Information	Seat No. Seal Date Simont Pu																			
1 3.9 Good Yes	ogenito pearizate oligined by																			
Client: Mailing Phone :	Hain Willin Address B	of-Cu uns F Webr 1785 1004	e Arroyo Dr. ield, NM 32-4442	Turn-Around ☐ Standard Project Name Kut 2 Project #:	Time: X Rush : GCN	same notice day, 11-10-17 IM ROW		4901 Tel. !	Hawk	HA www tins N 45-3	LL v.hal NE - 975	El YS Itenvi Alb	NV SIS	FIF SL ment arqu 505- Reg	AL Lal.co e, Ni -345-	NI 30 0m M 87 -410	7109		AL	Y
---	--	--	--	--	--	--	-------------------	------------------------	------------	-----------------------------	----------------------------	---------------------------	--------------------	--	--------------------------------	--------------------------------	---------	----	-----	-------------
email o QA/QC I I Stan Accredi □ NEL I NEL	r Fax#: Package idard itation AP	malt.v □ Othe PDF	Ebre@w.∥1am5 Corn □ Level 4 (Full Validation)	Project Mana LTE-D Sampler.) On Ice: Sample Tem	iger: Willia unwy Burn D Burns SCYes perature: 3-5	ms-Kijun Hory 15 (ceci) -9727 ⊡NO 8+0-1=2.9	BE + TMB*5 (8021)	BE + TPH (Gas only)	d 418.1)	d 504.1)) or 8270 SIMS)	tals	(NO3 NO2, PO4 SO4)	des / 8082 PCB's	2	VOA)	e			(Y or N)
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX) MF	BTEX + MT TPH 8015B	TPH (Metho	EDB (Metho	PAH's (8310	RCRA 8 Me	Anlans (F.C	6081 Pestici	8260B (VO/	8270 (Semi-	Chlorid			Air Bubbles
11-9	1500	S	EX-South@10'	2.202	cool	-001	X	X									X			
+	1530	1	TRO1 @ 8. TRO2@6'			-002	X	X	-								X		+	
Date:	Time:	Relinguishe	ed by:	Received by:	last	Date Time	Rem	arks:	jun	i.h	ona	6	wil	lian	3	25	and a	F		_
Date:	Time: 2045		to Valle	Received by:	4	Date Time 11/10/17 0730		da	ron	. 5° Q	ler Ite	e	w.ll	icyu m	5.0	om	ager	01	ten	V,Can

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited isboratones. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the enalytical report.

(wuripr



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

November 16, 2017

Danny Burns Williams Four Corners 188 CR 4900 Bloomfield, NM 87413 TEL: (505) 632-4442 FAX

RE: Kutz Gas Plant

OrderNo.: 1711647

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 3 sample(s) on 11/11/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

CLIENT: Williams Four Corners Client Sample ID: Seep North of Flare Collection Date: 11/9/2017 5:00:00 PM **Project:** Kutz Gas Plant Matrix: AQUEOUS Received Date: 11/11/2017 10:26:00 AM Lab ID: 1711647-001 Result **POL Oual Units** Analyses **DF** Date Analyzed Batch EPA METHOD 300.0: ANIONS Analyst: MRA Fluoride 0.65 0.50 11/14/2017 3:54:47 PM R47134 mg/L 5 Chloride 50 11/15/2017 10:12:50 AM R47167 1100 mg/L 100 0.50 Bromide 13 mg/L 5 11/14/2017 3:54:47 PM R47134 Phosphorus, Orthophosphate (As P) ND 2.5 mg/L 5 11/14/2017 3:54:47 PM R47134 H Sulfate 71 2.5 5 11/14/2017 3:54:47 PM R47134 mg/L Nitrate+Nitrite as N 11/14/2017 5:34:04 PM R47134 3.8 1.0 mg/L 5 EPA METHOD 200.7: METALS Analyst: pmf Calcium 130 10 11/15/2017 2:30:40 PM 34982 mg/L 10 Magnesium 80 1.0 mg/L 1 11/15/2017 2:28:57 PM 34982 Potassium 11 1.0 mg/L 1 11/15/2017 2:28:57 PM 34982 Sodium 2900 50 mg/L 50 11/15/2017 4:00:05 PM 34982 EPA METHOD 8015M/D: DIESEL RANGE Analyst: TOM 11/15/2017 1:53:38 PM 34994 Diesel Range Organics (DRO) ND 1.0 mg/L 1 Motor Oil Range Organics (MRO) 11/15/2017 1:53:38 PM 34994 ND 5.0 mg/L 1 Surr: DNOP %Rec 11/15/2017 1:53:38 PM 34994 102 77.5-161 1 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) 11/13/2017 3:16:48 PM G47078 52 0.050 P ma/L 1 Surr: BFB 128 69.3-150 P %Rec 11/13/2017 3:16:48 PM G47078 1 EPA METHOD 8260B: VOLATILES Analyst: RAA Benzene 11/14/2017 5:33:00 AM A47088 51 1.0 P µg/L 1 P Toluene ND 1.0 µg/L 1 11/14/2017 5:33:00 AM A47088 Ethylbenzene ND P 1.0 1 11/14/2017 5:33:00 AM A47088 µg/L Methyl tert-butyl ether (MTBE) ND 1.0 P 11/14/2017 5:33:00 AM A47088 µg/L 1 1,2,4-Trimethylbenzene 11 1.0 P 11/14/2017 5:33:00 AM A47088 µg/L 1 1,3,5-Trimethylbenzene P 10 1.0 µg/L 1 11/14/2017 5:33:00 AM A47088 P 1,2-Dichloroethane (EDC) ND 1.0 µg/L 1 11/14/2017 5:33:00 AM A47088 P 1,2-Dibromoethane (EDB) ND 11/14/2017 5:33:00 AM A47088 1.0 µg/L 1 P Naphthalene ND 2.0 µg/L 1 11/14/2017 5:33:00 AM A47088 P 1-Methylnaphthalene ND 4.0 µg/L 1 11/14/2017 5:33:00 AM A47088 P 2-Methylnaphthalene ND 4.0 µg/L 1 11/14/2017 5:33:00 AM A47088 P Acetone 25 10 µg/L 1 11/14/2017 5:33:00 AM A47088 P Bromobenzene ND 1.0 µg/L 1 11/14/2017 5:33:00 AM A47088 ND Ρ Bromodichloromethane 1.0 1 11/14/2017 5:33:00 AM A47088 µg/L Bromoform ND 1.0 P µg/L 1 11/14/2017 5:33:00 AM A47088 Bromomethane ND 3.0 P µg/L 1 11/14/2017 5:33:00 AM A47088 2-Butanone ND 10 P 1 11/14/2017 5:33:00 AM A47088 µg/L Carbon disulfide 10 P 11/14/2017 5:33:00 AM A47088 ND µg/L 1

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

 Qualifiers:
 *
 Value exceeds Maximum Contaminant Level.
 B
 Analy

 D
 Sample Diluted Due to Matrix
 E
 Value

 H
 Holding times for preparation or analysis exceeded
 J
 Analy

 ND
 Not Detected at the Reporting Limit
 P
 Sample

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 18
- P Sample pH Not In Range
- RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 1711647 Date Reported: 11/16/2017

Date Reported: 11/16/2017 **CLIENT:** Williams Four Corners Client Sample ID: Seep North of Flare **Project:** Kutz Gas Plant Collection Date: 11/9/2017 5:00:00 PM Matrix: AQUEOUS Received Date: 11/11/2017 10:26:00 AM Lab ID: 1711647-001 Analyses Result **POL Qual Units DF** Date Analyzed Batch EPA METHOD 8260B: VOLATILES Analyst: RAA Carbon Tetrachloride ND 1.0 Ρ µg/L 1 11/14/2017 5:33:00 AM A47088 Chlorobenzene ND 1.0 P µg/L 1 11/14/2017 5:33:00 AM A47088 Chloroethane ND 2.0 P µg/L 1 11/14/2017 5:33:00 AM A47088 Chloroform ND 1.0 Ρ µg/L 1 11/14/2017 5:33:00 AM A47088 Chloromethane ND 3.0 Ρ 11/14/2017 5:33:00 AM A47088 µg/L 1 Ρ 2-Chlorotoluene ND 1.0 µg/L 1 11/14/2017 5:33:00 AM A47088 Ρ 4-Chlorotoluene ND 1.0 1 11/14/2017 5:33:00 AM A47088 µg/L Ρ ND cis-1,2-DCE 1.0 µg/L 1 11/14/2017 5:33:00 AM A47088 ND Ρ 11/14/2017 5:33:00 AM A47088 cis-1,3-Dichloropropene 1.0 µg/L 1 ND 2.0 Ρ 11/14/2017 5:33:00 AM A47088 1,2-Dibromo-3-chloropropane µg/L 1 Ρ Dibromochloromethane ND 1.0 µg/L 1 11/14/2017 5:33:00 AM A47088 Dibromomethane ND 1.0 P 1 11/14/2017 5:33:00 AM A47088 µg/L ND 1.0 P 11/14/2017 5:33:00 AM A47088 1.2-Dichlorobenzene µg/L 1 ND 1.0 Ρ 11/14/2017 5:33:00 AM A47088 1,3-Dichlorobenzene µg/L 1 ND 1.0 Ρ 1.4-Dichlorobenzene µg/L 1 11/14/2017 5:33:00 AM A47088 Dichlorodifluoromethane ND 1.0 Ρ µg/L 1 11/14/2017 5:33:00 AM A47088 1,1-Dichloroethane ND 1.0 P 1 11/14/2017 5:33:00 AM A47088 ua/L 1,1-Dichloroethene ND 1.0 P 11/14/2017 5:33:00 AM A47088 µg/L 1 ND 1.0 P 11/14/2017 5:33:00 AM A47088 1,2-Dichloropropane µg/L 1 ND 1.0 P 11/14/2017 5:33:00 AM A47088 1,3-Dichloropropane µg/L 1 2.0 Ρ 2,2-Dichloropropane ND µg/L 1 11/14/2017 5:33:00 AM A47088 Ρ 1,1-Dichloropropene ND 10 µg/L 1 11/14/2017 5:33:00 AM A47088 ND 1.0 Ρ Hexachlorobutadiene 1 11/14/2017 5:33:00 AM A47088 µg/L Ρ 2-Hexanone ND 10 µg/L 11/14/2017 5:33:00 AM A47088 1 Isopropylbenzene ND 1.0 P 11/14/2017 5:33:00 AM A47088 µg/L 1 ND 1.0 P 11/14/2017 5:33:00 AM A47088 4-Isopropyltoluene µg/L 1 4-Methyl-2-pentanone ND 10 Ρ 11/14/2017 5:33:00 AM A47088 µg/L 1 ND 3.0 P Methylene Chloride 1 11/14/2017 5:33:00 AM A47088 µg/L P n-Butylbenzene ND 3.0 µg/L 1 11/14/2017 5:33:00 AM A47088 n-Propylbenzene ND P 11/14/2017 5:33:00 AM A47088 1.0 µg/L 1 sec-Butylbenzene ND 1.0 Ρ 11/14/2017 5:33:00 AM A47088 µg/L 1 11/14/2017 5:33:00 AM A47088 Styrene ND 1.0 P µg/L 1 11/14/2017 5:33:00 AM A47088 tert-Butylbenzene ND 1.0 P µg/L 1 ND Ρ 1,1,1,2-Tetrachloroethane 1.0 µg/L 1 11/14/2017 5:33:00 AM A47088 1,1,2,2-Tetrachloroethane ND 2.0 P µg/L 1 11/14/2017 5:33:00 AM A47088 Tetrachloroethene (PCE) ND 1.0 Ρ µg/L 1 11/14/2017 5:33:00 AM A47088 trans-1.2-DCE ND 1.0 P 11/14/2017 5:33:00 AM A47088 µg/L 1 trans-1,3-Dichloropropene ND 1.0 P µg/L 1 11/14/2017 5:33:00 AM A47088 1,2,3-Trichlorobenzene ND 1.0 P 11/14/2017 5:33:00 AM A47088 µg/L 1

Analytical Report Lab Order 1711647

Hall Environmental Analysis Laboratory, Inc.

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers: * Value exceeds Maximum Contaminant Level B Analyte detected in the associated Method Blank D Sample Diluted Due to Matrix E Value above quantitation range Analyte detected below quantitation limits Page 2 of 18 Н Holding times for preparation or analysis exceeded J ND Not Detected at the Reporting Limit P Sample pH Not In Range PQL Practical Quanitative Limit RL. Reporting Detection Limit % Recovery outside of range due to dilution or matrix Sample container temperature is out of limit as specified S W

Analytical Report Lab Order 1711647 Date Reported: 11/16/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners			0	lient Sam	ple ID: Se	ep North of Flare	
Project: Kutz Gas Plant				Collectio	n Date: 11	/9/2017 5:00:00 PM	
Lab ID: 1711647-001	Matrix:	AQUEOUS		Receive	d Date: 11	/11/2017 10:26:00 AM	[
Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst	RAA
1,2,4-Trichlorobenzene	ND	1.0	Ρ	µg/L	1	11/14/2017 5:33:00 AM	A47088
1,1,1-Trichloroethane	ND	1.0	Ρ	µg/L	1	11/14/2017 5:33:00 AM	A47088
1,1,2-Trichloroethane	ND	1.0	Ρ	µg/L	1	11/14/2017 5:33:00 AM	A47088
Trichloroethene (TCE)	ND	1.0	Ρ	µg/L	1	11/14/2017 5:33:00 AM	A47088
Trichlorofluoromethane	ND	1.0	Ρ	µg/L	1	11/14/2017 5:33:00 AM	A47088
1,2,3-Trichloropropane	ND	2.0	Ρ	µg/L	1	11/14/2017 5:33:00 AM	A47088
Vinyl chloride	ND	1.0	Ρ	µg/L	1	11/14/2017 5:33:00 AM	A47088
Xylenes, Total	210	1.5	Ρ	µg/L	1	11/14/2017 5:33:00 AM	A47088
Surr: 1,2-Dichloroethane-d4	120	70-130	Ρ	%Rec	1	11/14/2017 5:33:00 AM	A47088
Surr: 4-Bromofluorobenzene	108	70-130	Ρ	%Rec	1	11/14/2017 5:33:00 AM	A47088
Surr: Dibromofluoromethane	118	70-130	Ρ	%Rec	1	11/14/2017 5:33:00 AM	A47088
Surr: Toluene-d8	102	70-130	Ρ	%Rec	1	11/14/2017 5:33:00 AM	A47088

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 18
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1711647 Date Reported: 11/16/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Project:

Lab ID:

Kutz Gas Plant

1711647-002

Client Sample ID: API Water Outlet Collection Date: 11/9/2017 5:15:00 PM Received Date: 11/11/2017 10:26:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	MRA
Fluoride	ND	0.50		mg/L	5	11/14/2017 4:19:36 PM	R47134
Chloride	95	2.5		mg/L	5	11/14/2017 4:19:36 PM	R47134
Bromide	ND	0.50		mg/L	5	11/14/2017 4:19:36 PM	R47134
Phosphorus, Orthophosphate (As P)	ND	2.5	н	mg/L	5	11/14/2017 4:19:36 PM	R47134
Sulfate	74	2.5		mg/L	5	11/14/2017 4:19:36 PM	R47134
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/14/2017 5:46:29 PM	R47134
EPA METHOD 200.7: METALS						Analyst:	pmf
Calcium	28	1.0		mg/L	1	11/15/2017 2:32:23 PM	34982
Magnesium	3.9	1.0		mg/L	1	11/15/2017 2:32:23 PM	34982
Potassium	2.3	1.0		mg/L	1	11/15/2017 2:32:23 PM	34982
Sodium	81	1.0		mg/L	1	11/15/2017 2:32:23 PM	34982
EPA METHOD 8015M/D: DIESEL RANGI	E			-		Analyst:	том
Diesel Range Organics (DRO)	20	1.0		mg/L	1	11/15/2017 2:21:42 PM	34994
Motor Oil Range Organics (MRO)	6.5	5.0		ma/L	1	11/15/2017 2:21:42 PM	34994
Surr: DNOP	108	77.5-161		%Rec	1	11/15/2017 2:21:42 PM	34994
EPA METHOD 8015D: GASOLINE RANG	E					Analyst:	NSB
Gasoline Range Organics (GRO)	240	5.0		ma/L	10	0 11/13/2017 4:27:55 PM	G47078
Surr: BFB	138	69.3-150		%Rec	10	0 11/13/2017 4:27:55 PM	G47078
EPA METHOD 8260B: VOLATILES						Analyst:	RAA
Benzene	24000	1000		ua/L	1E	11/14/2017 6:30:00 PM	R47131
Toluene	40000	1000		ua/L	1E	11/14/2017 6:30:00 PM	R47131
Ethylbenzene	1200	50		ua/L	50	11/14/2017 5:57:00 AM	A47088
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	11/14/2017 5:57:00 AM	A47088
1.2.4-Trimethylbenzene	440	50		ua/L	50	11/14/2017 5:57:00 AM	A47088
1,3,5-Trimethylbenzene	190	50		µg/L	50	11/14/2017 5:57:00 AM	A47088
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	11/14/2017 5:57:00 AM	A47088
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	11/14/2017 5:57:00 AM	A47088
Naphthalene	ND	100		µg/L	50	11/14/2017 5:57:00 AM	A47088
1-Methylnaphthalene	ND	200		µg/L	50	11/14/2017 5:57:00 AM	A47088
2-Methylnaphthalene	ND	200		µg/L	50	11/14/2017 5:57:00 AM	A47088
Acetone	32000	10000		µg/L	1E	11/14/2017 6:30:00 PM	R47131
Bromobenzene	ND	50		µg/L	50	11/14/2017 5:57:00 AM	A47088
Bromodichloromethane	ND	50		µg/L	50	11/14/2017 5:57:00 AM	A47088
Bromoform	ND	50		µg/L	50	11/14/2017 5:57:00 AM	A47088
Bromomethane	ND	150		µg/L	50	11/14/2017 5:57:00 AM	A47088
2-Butanone	6100	500		µg/L	50	11/14/2017 5:57:00 AM	A47088
Carbon disulfide	1400	500		µg/L	50	11/14/2017 5:57:00 AM	A47088

Matrix: AQUEOUS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers: * Value exceeds Maximum Contaminant Level. D

- Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 18 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1711647

Hall Environmental Analysis Laboratory, Inc. Date Reported: 11/16/2017 CLIENT: Williams Four Corners Client Sample ID: API Water Outlet **Project:** Kutz Gas Plant Collection Date: 11/9/2017 5:15:00 PM Matrix: AQUEOUS Lab ID: 1711647-002 Received Date: 11/11/2017 10:26:00 AM Analyses Result PQL Qual Units **DF** Date Analyzed Batch EPA METHOD 8260B: VOLATILES Analyst: RAA Carbon Tetrachloride ND 50 µg/L 50 11/14/2017 5:57:00 AM A47088 Chlorobenzene ND 50 µg/L 50 11/14/2017 5:57:00 AM A47088 Chloroethane ND 100 11/14/2017 5:57:00 AM A47088 50 µg/L Chloroform ND 50 µg/L 50 11/14/2017 5:57:00 AM A47088 Chloromethane ND 150 µg/L 50 11/14/2017 5:57:00 AM A47088 2-Chlorotoluene ND 50 50 11/14/2017 5:57:00 AM A47088 µg/L 4-Chlorotoluene ND 50 11/14/2017 5:57:00 AM A47088 µg/L 50 ND 50 11/14/2017 5:57:00 AM A47088 cis-1 2-DCE 50 µg/L cis-1,3-Dichloropropene ND 50 µg/L 50 11/14/2017 5:57:00 AM A47088 1.2-Dibromo-3-chloropropane ND 100 50 11/14/2017 5:57:00 AM A47088 µg/L Dibromochloromethane ND 50 µg/L 50 11/14/2017 5:57:00 AM A47088 Dibromomethane ND 50 11/14/2017 5:57:00 AM A47088 µg/L 50 ND 50 11/14/2017 5:57:00 AM 1,2-Dichlorobenzene µg/L 50 A47088 1,3-Dichlorobenzene ND 50 µg/L 50 11/14/2017 5:57:00 AM A47088 1,4-Dichlorobenzene ND 50 50 11/14/2017 5:57:00 AM A47088 µg/L 50 11/14/2017 5:57:00 AM A47088 Dichlorodifluoromethane ND 50 µg/L 1.1-Dichloroethane ND 50 50 11/14/2017 5:57:00 AM A47088 µg/L 1.1-Dichloroethene ND 50 µg/L 50 11/14/2017 5:57:00 AM A47088 ND 50 11/14/2017 5:57:00 AM A47088 1,2-Dichloropropane µg/L 50 50 11/14/2017 5:57:00 AM A47088 1,3-Dichloropropane ND µg/L 50 100 ND 11/14/2017 5:57:00 AM A47088 2,2-Dichloropropane 50 µg/L 1,1-Dichloropropene ND 50 µg/L 50 11/14/2017 5:57:00 AM A47088 Hexachlorobutadiene ND 50 50 11/14/2017 5:57:00 AM A47088 µg/L ND 500 2-Hexanone µg/L 50 11/14/2017 5:57:00 AM A47088 Isopropylbenzene 64 50 µg/L 50 11/14/2017 5:57:00 AM A47088 4-Isopropyltoluene ND 50 11/14/2017 5:57:00 AM A47088 µg/L 50 4-Methyl-2-pentanone 500 500 µg/L 50 11/14/2017 5:57:00 AM A47088 Methylene Chloride ND 150 µg/L 50 11/14/2017 5:57:00 AM A47088 11/14/2017 5:57:00 AM A47088 n-Butylbenzene ND 150 µg/L 50 n-Propylbenzene 66 50 µg/L 50 11/14/2017 5:57:00 AM A47088 sec-Butylbenzene ND 50 11/14/2017 5:57:00 AM A47088 µg/L 50 ND 50 11/14/2017 5:57:00 AM A47088 Styrene µg/L 50 ND 50 tert-Butylbenzene µg/L 50 11/14/2017 5:57:00 AM A47088 1,1,1,2-Tetrachloroethane ND 50 µg/L 50 11/14/2017 5:57:00 AM A47088 ND 100 1,1,2,2-Tetrachloroethane 50 11/14/2017 5:57:00 AM A47088 µg/L ND Tetrachloroethene (PCE) 50 µg/L 50 11/14/2017 5:57:00 AM A47088

trans-1,2-DCE

trans-1,3-Dichloropropene

1,2,3-Trichlorobenzene

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

50

50

50

µg/L

µg/L

µg/L

50

50

50

11/14/2017 5:57:00 AM A47088

11/14/2017 5:57:00 AM A47088

11/14/2017 5:57:00 AM A47088

ND

ND

ND

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 5 of 18
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1711647 Date Reported: 11/16/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners		C	lient Samp	le ID: AF	PI Water Outlet	
Project: Kutz Gas Plant			Collection	Date: 11/	/9/2017 5:15:00 PM	
Lab ID: 1711647-002	Matrix:	AQUEOUS	Received	Date: 11/	/11/2017 10:26:00 AM	
Analyses	Result	PQL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	RAA
1,2,4-Trichlorobenzene	ND	50	µg/L	50	11/14/2017 5:57:00 AM	A47088
1,1,1-Trichloroethane	ND	50	µg/L	50	11/14/2017 5:57:00 AM	A47088
1,1,2-Trichloroethane	ND	50	µg/L	50	11/14/2017 5:57:00 AM	A47088
Trichloroethene (TCE)	ND	50	µg/L	50	11/14/2017 5:57:00 AM	A47088
Trichlorofluoromethane	ND	50	µg/L	50	11/14/2017 5:57:00 AM	A47088
1,2,3-Trichloropropane	ND	100	µg/L	50	11/14/2017 5:57:00 AM	A47088
Vinyl chloride	ND	50	µg/L	50	11/14/2017 5:57:00 AM	A47088
Xylenes, Total	11000	75	µg/L	50	11/14/2017 5:57:00 AM	A47088
Surr: 1,2-Dichloroethane-d4	109	70-130	%Rec	50	11/14/2017 5:57:00 AM	A47088
Surr: 4-Bromofluorobenzene	105	70-130	%Rec	50	11/14/2017 5:57:00 AM	A47088
Surr: Dibromofluoromethane	106	70-130	%Rec	50	11/14/2017 5:57:00 AM	A47088
Surr: Toluene-d8	101	70-130	%Rec	50	11/14/2017 5:57:00 AM	A47088

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 6 of 18
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1711647 Date Reported: 11/16/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

1711647-003

Project: Kutz Gas Plant

Lab ID:

Client Sample ID: Pipeline Trench Water Collection Date: 11/9/2017 5:30:00 PM Received Date: 11/11/2017 10:26:00 AM

Analyses	Result	PQL (Qual	Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: MRA
Fluoride	ND	0.50		mg/L	5 11/14/2017 5:09:15 PM	A R47134
Chloride	450	100	*	mg/L	200 11/15/2017 10:25:15 A	M R47167
Bromide	8.2	0.50		mg/L	5 11/14/2017 5:09:15 PM	A R47134
Phosphorus, Orthophosphate (As P)	ND	10	Н	mg/L	20 11/14/2017 5:21:39 PM	A R47134
Sulfate	6900	100	*	mg/L	200 11/15/2017 10:25:15 A	M R47167
Nitrate+Nitrite as N	3.6	1.0		mg/L	5 11/14/2017 5:58:54 PM	A R47134
EPA METHOD 200.7: METALS					Analys	t: pmf
Calcium	490	10		mg/L	10 11/15/2017 2:37:28 PM	1 34982
Magnesium	140	10		mg/L	10 11/15/2017 2:37:28 PM	1 34982
Potassium	3.2	1.0		mg/L	1 11/15/2017 2:35:40 PM	1 34982
Sodium	2800	50		mg/L	50 11/15/2017 4:01:09 PM	1 34982
EPA METHOD 8015M/D: DIESEL RANGE					Analys	t: TOM
Diesel Range Organics (DRO)	1.3	1.0		mg/L	1 11/15/2017 2:49:48 PM	1 34994
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1 11/15/2017 2:49:48 PM	1 34994
Surr: DNOP	101	77.5-161		%Rec	1 11/15/2017 2:49:48 PM	1 34994
EPA METHOD 8015D: GASOLINE RANG	E				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1 11/13/2017 5:15:12 PM	G47078
Surr: BFB	111	69.3-150		%Rec	1 11/13/2017 5:15:12 PM	G47078
EPA METHOD 8260B: VOLATILES					Analys	t: RAA
Benzene	ND	1.0		µg/L	1 11/14/2017 6:53:00 PM	A R47131
Toluene	ND	1.0		µg/L	1 11/14/2017 6:53:00 PM	A R47131
Ethylbenzene	ND	1.0		µg/L	1 11/14/2017 6:53:00 PM	A R47131
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1 11/14/2017 6:53:00 PM	R47131
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1 11/14/2017 6:53:00 PM	R47131
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1 11/14/2017 6:53:00 PM	R47131
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1 11/14/2017 6:53:00 PM	R47131
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1 11/14/2017 6:53:00 PM	A R47131
Naphthalene	ND	2.0		µg/L	1 11/14/2017 6:53:00 PM	R47131
1-Methylnaphthalene	ND	4.0		µg/L	1 11/14/2017 6:53:00 PM	R47131
2-Methylnaphthalene	ND	4.0		µg/L	1 11/14/2017 6:53:00 PM	R47131
Acetone	23	10		µg/L	1 11/14/2017 6:53:00 PM	R47131
Bromobenzene	ND	1.0		µg/L	1 11/14/2017 6:53:00 PM	A R47131
Bromodichloromethane	ND	1.0		µg/L	1 11/14/2017 6:53:00 PM	I R47131
Bromoform	ND	1.0		µg/L	1 11/14/2017 6:53:00 PM	A R47131
Bromomethane	ND	3.0		µg/L	1 11/14/2017 6:53:00 PM	1 R47131
2-Butanone	ND	10		µg/L	1 11/14/2017 6:53:00 PM	R47131
Carbon disulfide	ND	10		µg/L	1 11/14/2017 6:53:00 PM	R47131

Matrix: AQUEOUS

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 7 of 18
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Lab Order 1711647 Hall Environmental Analysis Laboratory, Inc. Date Reported: 11/16/2017 **CLIENT:** Williams Four Corners Client Sample ID: Pipeline Trench Water **Project:** Kutz Gas Plant Collection Date: 11/9/2017 5:30:00 PM 1711647-003 Matrix: AOUEOUS Received Date: 11/11/2017 10:26:00 AM Lab ID: Analyses Result **PQL** Qual Units **DF** Date Analyzed Batch EPA METHOD 8260B: VOLATILES Analyst: RAA Carbon Tetrachloride ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 Chlorobenzene ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 ND 2.0 Chloroethane 1 11/14/2017 6:53:00 PM R47131 µg/L Chloroform ND 1.0 11/14/2017 6:53:00 PM R47131 µg/L 1 Chloromethane ND 3.0 11/14/2017 6:53:00 PM R47131 1 µg/L 2-Chlorotoluene ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 4-Chlorotoluene ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 cis-1,2-DCE ND 1.0 11/14/2017 6:53:00 PM R47131 µg/L 1 cis-1,3-Dichloropropene ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 1,2-Dibromo-3-chloropropane ND 2.0 11/14/2017 6:53:00 PM R47131 µg/L 1 Dibromochloromethane ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 Dibromomethane ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 1.2-Dichlorobenzene ND 1.0 11/14/2017 6:53:00 PM R47131 µg/L 1 1,3-Dichlorobenzene ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 1.4-Dichlorobenzene ND 1.0 1 11/14/2017 6:53:00 PM R47131 µg/L Dichlorodifluoromethane ND 1.0 1 11/14/2017 6:53:00 PM R47131 µg/L 1,1-Dichloroethane ND 1.0 11/14/2017 6:53:00 PM R47131 µg/L 1 1.1-Dichloroethene ND 1.0 11/14/2017 6:53:00 PM R47131 µg/L 1 1,2-Dichloropropane ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 1.3-Dichloropropane ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 ND 2.0 11/14/2017 6:53:00 PM R47131 2,2-Dichloropropane µg/L 1 1,1-Dichloropropene ND 1.0 11/14/2017 6:53:00 PM R47131 µg/L 1 Hexachlorobutadiene ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 2-Hexanone ND 10 µg/L 1 11/14/2017 6:53:00 PM R47131 Isopropylbenzene ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 4-Isopropyltoluene ND 1.0 11/14/2017 6:53:00 PM R47131 1 µg/L 4-Methyl-2-pentanone ND 10 µg/L 1 11/14/2017 6:53:00 PM R47131 Methylene Chloride ND 3.0 11/14/2017 6:53:00 PM R47131 µg/L 1 n-Butylbenzene ND 3.0 11/14/2017 6:53:00 PM R47131 µg/L 1 n-Propylbenzene ND 1.0 µg/L 11/14/2017 6:53:00 PM R47131 1 sec-Butylbenzene ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 Styrene ND 1.0 11/14/2017 6:53:00 PM R47131 1 µg/L tert-Butylbenzene ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 1,1,1,2-Tetrachloroethane ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 1,1,2,2-Tetrachloroethane ND 2.0 1 11/14/2017 6:53:00 PM R47131 µg/L Tetrachloroethene (PCE) ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 trans-1.2-DCE ND 1.0 11/14/2017 6:53:00 PM R47131 µg/L 1 trans-1,3-Dichloropropene ND 1.0 11/14/2017 6:53:00 PM R47131 µg/L 1 1,2,3-Trichlorobenzene 11/14/2017 6:53:00 PM R47131 ND 1.0 µg/L 1

Analytical Report

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 8 of 18
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1711647 Date Reported: 11/16/2017

11/14/2017 6:53:00 PM R47131

Hall Environmental Analysis Laboratory, Inc.

Surr: Toluene-d8

CLIENT: Williams Four Corners Client Sample ID: Pipeline Trench Water **Project:** Kutz Gas Plant Collection Date: 11/9/2017 5:30:00 PM Lab ID: 1711647-003 Matrix: AQUEOUS Received Date: 11/11/2017 10:26:00 AM **PQL** Qual Units Analyses Result **DF** Date Analyzed Batch EPA METHOD 8260B: VOLATILES Analyst: RAA 1,2,4-Trichlorobenzene ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 1,1,1-Trichloroethane ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 1,1,2-Trichloroethane ND 1.0 11/14/2017 6:53:00 PM R47131 µg/L 1 Trichloroethene (TCE) ND 1.0 11/14/2017 6:53:00 PM R47131 µg/L 1 Trichlorofluoromethane ND 1.0 11/14/2017 6:53:00 PM R47131 µg/L 1 1,2,3-Trichloropropane ND 2.0 µg/L 1 11/14/2017 6:53:00 PM R47131 Vinyl chloride ND 1.0 µg/L 1 11/14/2017 6:53:00 PM R47131 Xylenes, Total ND 1.5 µg/L 1 11/14/2017 6:53:00 PM R47131 Surr: 1,2-Dichloroethane-d4 112 70-130 %Rec 11/14/2017 6:53:00 PM R47131 1 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 11/14/2017 6:53:00 PM R47131 Surr: Dibromofluoromethane 110 70-130 %Rec 1 11/14/2017 6:53:00 PM R47131

70-130

%Rec

1

96.9

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 9 of 18
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Client: Williams Four Corners

Project: Kutz Gas Plant

Sample ID	MB-34982	Samp	Гуре: МЕ	BLK	Tes	tCode: E	PA Method	200.7: Metals				
Client ID:	PBW	Batc	h ID: 34	982	RunNo: 47156							
Prep Date:	11/14/2017	Analysis [Date: 11	1/15/2017	S	SeqNo: 1	504301	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Calcium		ND	1.0									
Magnesium		ND	1.0									
Potassium		ND	1.0									
Sodium		ND	1.0									
Sample ID	LLLCS-34982	Samp	Type: LC	SLL	Tes	tCode: E	PA Method	200.7: Metals				
Client ID:	BatchQC	Batc	h ID: 34	982	RunNo: 47156							
Prep Date:	Prep Date: Analysis Date: 11/15/2017						504302	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Calcium		ND	1.0	0.5000	0	102	50	150				
Magnesium		ND	1.0	0.5000	0	108	50	150				
Potassium		ND	1.0	0.5000	0	102	50	150				
Sodium		ND	1.0	0.5000	0	107	50	150				
Sample ID	LCS-34982	SampT	Type: LC	S	Tes	tCode: E	PA Method	200.7: Metals				
Client ID:	LCSW	Batc	h ID: 34	982	F	RunNo: 4	7156					
Prep Date:	11/14/2017	Analysis D	Date: 11	/15/2017	5	SeqNo: 1	504303	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Calcium		49	1.0	50.00	0	97.8	85	115				
Magnesium		51	1.0	50.00	0	101	85	115				
Potassium		50	1.0	50.00	0	100	85	115				
Sodium		51	1.0	50.00	0	101	85	115				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 10 of 18

WO#: 1711647 16-Nov-17

Williams Four Corners

Project:	Kutz Gas Plant									
Sample ID MB	Samp	Type: mb	olk	Tes	tCode: El	PA Method	300.0: Anion	S		
Client ID: PBW	Bato	h ID: R4	7134	F	RunNo: 4	7134				
Prep Date:	Analysis I	Date: 11	/14/2017	5	SeqNo: 1	503723	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosp	ohate (As P ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20				or she is the article of the second second				
Sample ID LCS	Samp	Type: Ics		Tes	tCode: El	PA Method	300.0: Anion	5		
Client ID: LCSW	Bato	hID: R4	7134	F	RunNo: 4	7134				
Prep Date:	Analysis I	Date: 11	/14/2017	S	SeqNo: 1	503724	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	98.7	90	110			
Chloride	4.7	0.50	5.000	0	94.5	90	110			
Bromide	2.4	0.10	2.500	0	97.4	90	110			
Phosphorus, Orthophosp	hate (As P 4.7	0.50	5.000	0	93.2	90	110			
Sulfate	9.6	0.50	10.00	0	96.1	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.9	90	110			
Sample ID MB	Samp	Type: mb	lk	Tes	tCode: El	PA Method	300.0: Anions	5		
Client ID: PBW	Batc	h ID: R4	7167	F	RunNo: 4	7167				
Prep Date:	Analysis [Date: 11	/15/2017	5	SeqNo: 1	504645	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Sample ID LCS	Samp	Type: Ics		Tes	tCode: El	PA Method	300.0: Anions	5		
Client ID: LCSW	Batc	h ID: R4	7167	F	RunNo: 4	7167				
Prep Date:	Analysis [Date: 11	/15/2017	5	eqNo: 1	504646	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.5	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

Qualifiers:

Client:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 11 of 18

WO#: 1711647 16-Nov-17

WO#: 1711647

16-Nov-17

Client: William	is Four Corn	ners								
Project: Kutz Ga	as Plant									
Sample ID LCS-34994	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Die	sel Rang	e	
Client ID: LCSW	Batch	1D: 34	994	F	RunNo: 4	7146				
Prep Date: 11/14/2017	Analysis D	ate: 11	1/15/2017	S	SeqNo: 1	504200	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	112	92.3	135			
Surr: DNOP	0.55		0.5000		109	77.5	161			
Sample ID MB-34994	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	sel Rang	9	
Client ID: PBW	Batch	ID: 34	994	F	RunNo: 4	7146				
Prep Date: 11/14/2017	Analysis D	ate: 11	/15/2017	S	SeqNo: 1	504201	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Sure DNOP						the star of the start of the st				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
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- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 12 of 18

WO#: 1711647

16-Nov-17

Client:	Williams	Four Corr	ners								
Project:	Kutz Gas	Plant									
Sample ID	RB	SampT	уре: М	BLK	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBW	Batch	D: G4	7078	F	unNo: 4	7078				
Prep Date:		Analysis D	ate: 1	1/13/2017	5	eqNo: 1	502249	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	ND	0.050								
Surr: BFB		23		20.00		115	69.3	150			
Sample ID	2.5UG GRO LCS	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSW	Batch	D: G4	7078	F	unNo: 4	7078				
Prep Date:		Analysis D	ate: 1	1/13/2017	S	eqNo: 1	502250	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	0.53	0.050	0.5000	0	107	75.8	123			
Surr: BFB		25		20.00		126	69.3	150			
No.											
Sample ID	1711647-001BMS	SampT	ype: MS	3	Tes	Code: E	PA Method	8015D: Gaso	line Rang	e	
Sample ID Client ID:	1711647-001BMS Seep North of Flar	SampT re Batch	ype: Ms D: G4	3 7078	Tes	Code: E	PA Method 7078	8015D: Gasol	line Rang	e	
Sample ID Client ID: Prep Date:	1711647-001BMS Seep North of Flar	SampT re Batch Analysis D	ype: MS ID: G4 ate: 11	3 7078 1/13/2017	Tes R S	Code: E tunNo: 4 seqNo: 1	PA Method 7078 502258	8015D: Gasol Units: mg/L	line Rang	e	
Sample ID Client ID: Prep Date: Analyte	1711647-001BMS Seep North of Flar	SampT re Batch Analysis D Result	ype: MS ID: G4 Pate: 11 PQL	5 17078 1/13/2017 SPK value	Tes R S SPK Ref Val	Code: E cunNo: 4 eqNo: 1 %REC	PA Method 7078 502258 LowLimit	8015D: Gasol Units: mg/L HighLimit	line Rang %RPD	e RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Gasoline Rang	1711647-001BMS Seep North of Flan ge Organics (GRO)	SampT re Batch Analysis D Result 5.7	ype: MS ID: G4 ate: 11 PQL 0.050	3 7078 1/13/2017 SPK value 0.5000	Tes R S SPK Ref Val 5.201	Code: E tunNo: 4 GeqNo: 1 %REC 103	PA Method 7078 502258 LowLimit 52.5	8015D: Gasol Units: mg/L HighLimit 149	line Rang %RPD	e RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB	1711647-001BMS Seep North of Flan ge Organics (GRO)	SampT re Batch Analysis D Result 5.7 26	ype: MS 1D: G4 ate: 11 PQL 0.050	5 7078 1/13/2017 SPK value 0.5000 20.00	Tes F S SPK Ref Val 5.201	Code: E RunNo: 4 SeqNo: 1 %REC 103 131	PA Method 7078 502258 LowLimit 52.5 69.3	8015D: Gasol Units: mg/L HighLimit 149 150	line Rang %RPD	e RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID	1711647-001BMS Seep North of Flar ge Organics (GRO) 1711647-001BMSE	SampT re Batch Analysis D Result 5.7 26 O SampT	ype: MS n ID: G4 nate: 11 PQL 0.050 ype: MS	5 17078 1/13/2017 SPK value 0.5000 20.00	Tes F S SPK Ref Val 5.201 Test	Code: E unNo: 4 eqNo: 1 %REC 103 131 Code: E	PA Method 7078 502258 LowLimit 52.5 69.3 PA Method	8015D: Gasol Units: mg/L HighLimit 149 150 8015D: Gasol	line Rang %RPD	e RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID:	1711647-001BMS Seep North of Flan ge Organics (GRO) 1711647-001BMSE Seep North of Flan	SampT re Batch Analysis D Result 5.7 26 O SampT re Batch	ype: MS 1D: G4 ate: 11 PQL 0.050 ype: MS 1D: G4	5 7078 1/13/2017 SPK value 0.5000 20.00 5D 7078	Tes F SPK Ref Val 5.201 Tes F	Code: E tunNo: 4 teqNo: 1 %REC 103 131 Code: E tunNo: 4	PA Method 7078 502258 LowLimit 52.5 69.3 PA Method 7078	8015D: Gasol Units: mg/L HighLimit 149 150 8015D: Gasol	iine Rang %RPD	e RPDLimit e	Qual
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date:	1711647-001BMS Seep North of Flar ge Organics (GRO) 1711647-001BMSE Seep North of Flar	SampT re Batch Analysis D Result 5.7 26 O SampT re Batch Analysis D	ype: MS PQL 0.050 ype: MS 1D: G4 1D: G4 1D: G4	5 1/13/2017 SPK value 0.5000 20.00 5D 57078 1/13/2017	Tes F SPK Ref Val 5.201 Test R S	Code: E RunNo: 4 ReqNo: 1 %REC 103 131 Code: E RunNo: 4 ReqNo: 1	PA Method 7078 502258 LowLimit 52.5 69.3 PA Method 7078 502259	8015D: Gasol Units: mg/L HighLimit 149 150 8015D: Gasol Units: mg/L	iine Rang %RPD	e RPDLimit e	Qual
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte	1711647-001BMS Seep North of Flan ge Organics (GRO) 1711647-001BMSE Seep North of Flan	SampT re Batch Analysis D Result 5.7 26 O SampT re Batch Analysis D Result	ype: MS D: G4 PQL 0.050 ype: MS D: G4 pqL PQL PQL	5 7078 1/13/2017 SPK value 0.5000 20.00 20.00 5D 7078 1/13/2017 SPK value	Tes R SPK Ref Val 5.201 Tes R SPK Ref Val	ACode: E AunNo: 4 AeqNo: 1 %REC 103 131 Code: E AunNo: 4 AeqNo: 1 %REC	PA Method 7078 502258 LowLimit 52.5 69.3 PA Method 7078 502259 LowLimit	8015D: Gasol Units: mg/L HighLimit 149 150 8015D: Gasol Units: mg/L HighLimit	VRPD	e RPDLimit e RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Gasoline Rang	1711647-001BMS Seep North of Flar ge Organics (GRO) 1711647-001BMSE Seep North of Flar	SampT re Batch Analysis D Result 5.7 26 O SampT re Batch Analysis D Result 5.7	ype: MS PQL 0.050 ype: MS 1D: G4 0.050 ype: MS 1D: G4 PQL 0.050	5 1/13/2017 SPK value 0.5000 20.00 5D 7078 1/13/2017 SPK value 0.5000	Tes SPK Ref Val 5.201 Tes R SPK Ref Val 5.201	Code: E 2004: 4 2007: 1 2004: 1 2004: 1 2004: 2 2004: 1 2004: 1 2004: 1 2004: 2 2005: 2 200	PA Method 7078 502258 LowLimit 52.5 69.3 PA Method 7078 502259 LowLimit 52.5	8015D: Gasol Units: mg/L HighLimit 149 150 8015D: Gasol Units: mg/L HighLimit 149	NRPD	e RPDLimit e RPDLimit 20	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 13 of 18

Client: Williams Four Corners

Kutz Gas Plant **Project:**

Sample ID 100ng Ics	SampTyp	e: LC	CS4	Tes	tCode: E	PA Method	8260B: VOL	ATILES		
Client ID: BatchQC	Batch I	D: R4	7088	F	RunNo: 4	7088				
Prep Date:	Analysis Dat	e: 1	1/13/2017	S	SeqNo: 1	502364	Units: %Red	:		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	11		10.00		112	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			
Sample ID RB	SampTyp	e: M	BLK	Tes	tCode: E	PA Method	8260B: VOL	ATILES		
Client ID: PBW	Batch II	D: R4	7088	F	RunNo: 4	7088				
Prep Date:	Analysis Dat	e: 1	1/13/2017	5	SeqNo: 1	502370	Units: %Red	:		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	12		10.00		116	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	12		10.00		116	70	130			
Surr: Toluene-d8	9.9		10.00		99.0	70	130			
Sample ID 100ng lcs2	SampTyp	e: LC	s	Tes	tCode: E	PA Method	8260B: VOL	ATILES		
Client ID: LCSW	Batch II	D: A4	7088	F	RunNo: 4	7088				
Prep Date:	Analysis Date	e: 1	1/14/2017	S	SeqNo: 1	502423	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	70	130			
Toluene	20	1.0	20.00	0	99.5	70	130			
Chlorobenzene	20	1.0	20.00	0	98.5	70	130			
1,1-Dichloroethene	25	1.0	20.00	0	124	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	112	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		114	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.9		10.00		99.4	70	130			
Sample ID rb2	SampTyp	e: MI	BLK	Tes	tCode: E	PA Method	8260B: VOL	ATILES		
Client ID: PBW Batch ID: A47088 RunNo: 47088										
Prep Date:	Analysis Date	e: 1	1/14/2017	5	SeqNo: 1	502428	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene										
Laryibonzono	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND ND	1.0 1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Page 14 of 18

WO#: 1711647

16-Nov-17

Williams Four Corners **Client:**

Project: Kutz Gas Plant

Sample ID rb2	SampT	ype: MI	BLK	Tes	tCode: El	PA Method	8260B: VOL	ATILES		
Client ID: PBW	Batch	n ID: A4	7088	F	RunNo: 4	7088				
Prep Date:	Analysis D	ate: 1	1/14/2017	S	SeqNo: 1	502428	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								

Oualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- Analyte detected in the associated Method Blank В
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 15 of 18

WO#:

1711647 16-Nov-17

Client: Williams Four Corners

Project: Kutz Gas Plant

Sample ID rb2	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8260B: VOL	ATILES		
Client ID: PBW	Batch	ID: A4	7088	F	RunNo: 4	7088				
Prep Date:	Analysis D	ate: 11	1/14/2017	S	SeqNo: 1	502428	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		114	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	9.9		10.00		99.0	70	130			
Sample ID 100ng Ics	SampTy	pe: LC	S	Test	Code: El	PA Method	8260B: VOL	ATILES		
Client ID: LCSW	Batch	ID: R4	7131	R	unNo: 4	7131				
Prep Date:	Analysis Da	ate: 11	1/14/2017	s	eqNo: 1	503470	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Q
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	20	1.0	20.00	0	98.7	70	130			
Chlorobenzene	19	1.0	20.00	0	97.3	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	115	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		111	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			

10.00

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix

Surr: Dibromofluoromethane

H Holding times for preparation or analysis exceeded

11

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

108

J Analyte detected below quantitation limits

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

70

130

Page 16 of 18

WO#: 1711647 16-Nov-17

WO#: 1711647

16-Nov-17

Client: W	/illiams Four Corr	ners						
Project: K	utz Gas Plant							
Sample ID 100ng Ics	SampT	ype: LCS	Tes	tCode: EPA Meth	nod 8260B: VOL	ATILES		
Client ID: LCSW	Batch	h ID: R47131	F	RunNo: 47131				
Prep Date:	Analysis D	Date: 11/14/201		SeqNo: 1503470	Units: µg/L			
Analyte	Result	PQL SPK va	ue SPK Ref Val	%REC LowLir	mit HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	9.7	10	00	96.8	70 130			
Sample ID rb	SampT	ype: MBLK	Tes	tCode: EPA Meth	nod 8260B: VOL	ATILES		
Client ID: PBW	Batch	h ID: R47131	F	RunNo: 47131				
Prep Date:	Analysis D	Date: 11/14/2017		SeqNo: 1503471	Units: µg/L			
Analyte	Result	PQL SPK va	ue SPK Ref Val	%REC LowLin	mit HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0		an Canad Tay Pagendana, ann Annala a' Canada an Annala Annala Annala Annala Annala Annala Annala Annala Annala				
Toluene	ND	1.0 .						
Ethylbenzene	ND	1.0						
Methyl tert-butyl ether (MTB)	E) ND	1.0						
1,2,4-Trimethylbenzene	ND	1.0						
1.3.5-Trimethylbenzene	ND	1.0						
1.2-Dichloroethane (EDC)	ND	1.0						
1.2-Dibromoethane (EDB)	ND	1.0						
Naphthalene	ND	2.0						
1-Methylnaphthalene	ND	4.0						
2-Methylnaphthalene	ND	4.0						
Acetone	ND	10						
Bromobenzene	ND	1.0						
Bromodichloromethane	ND	1.0						
Bromoform	ND	1.0						
Bromomethane	ND	3.0						
2-Butanone	ND	10						
Carbon disulfide	ND	10						
Carbon Tetrachloride	ND	10						
Chlorobenzene	ND	1.0						
Chloroethane	ND	2.0						
Chloroform	ND	1.0						
Chloromethane	ND	3.0						
2-Chlorotoluene	ND	1.0						
4-Chlorotoluene	ND	1.0						
cis-1.2-DCE	ND	1.0						
cis-1,3-Dichloropropene	ND	1.0						
1.2-Dibromo-3-chloropropan	e ND	2.0						
Dibromochloromethane	ND	1.0						
Dibromomethane	ND	1.0						
1.2-Dichlorobenzene	ND	1.0						
1,3-Dichlorobenzene	ND	1.0						

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 17 of 18

Williams Four Corners **Client:**

Kutz Gas Plant **Project:**

Sample ID rb	SampTy	ype: MB	LK	Tes	tCode: E	PA Method	8260B: VOL	ATILES		
Client ID: PBW	Batch	ID: R47	7131	R	unNo: 4	7131				
Pren Date:	Analysis D	ato: 11	14/2017	c		503471	Unite: ua/l			
riep Date.	Analysis Di		14/2017		equito. I	505471	onits. µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		111	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.8		10.00		97.9	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- Sample Diluted Due to Matrix D
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank E
 - Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Page 18 of 18

WO#: 1711647 16-Nov-17

Client Name: WILLIAMS FOUR CORN W Received By: Anne Thome 11/1 Completed By: Erin Melendrez 11/1 Reviewed By: DDS 1 Chain of Custody 1 Custody seals intact on sample bottles? 2. Is Chain of Custody complete? 3 How was the sample delivered? Log In 4. Was an attempt made to cool the samples? 5. Were all samples received at a temperature of >	Albuque TEL: 505-345-3975 FA Website: www.hallen	901 Haw erque, Ni X: 505-3 wironme	vkins NE M 87109 45-4107 ntal.com	Sam	ple Log-In C	heck List
Received By: Anne Thome 11/1 Completed By: Erin Melendrez 11/1 Reviewed By: DDDS 1 Chain of Custody 1 1 1. Custody seals intact on sample bottles? 1 2. Is Chain of Custody complete? 1 3. How was the sample delivered? 1 4. Was an attempt made to cool the samples? 1 5. Were all samples received at a temperature of > 1	Vork Order Number: 17	11647			RcptNo:	1
 Reviewed By: DDS <u>Chain of Custody</u> Custody seals intact on sample bottles? Is Chain of Custody complete? How was the sample delivered? <u>Log In</u> Was an attempt made to cool the samples? Were all samples received at a temperature of > 	11/2017 10:26:00 AM 13/2017 8:58:47 AM		a. V	me Han	-	
 Chain of Custody Custody seals intact on sample bottles? Is Chain of Custody complete? How was the sample delivered? Log In Was an attempt made to cool the samples? Were all samples received at a temperature of > 	11/13/17					
 Custody seals intact on sample bottles? Is Chain of Custody complete? How was the sample delivered? How as the sample delivered? Was an attempt made to cool the samples? Were all samples received at a temperature of > 						
 Is Chain of Custody complete? How was the sample delivered? Log In Was an attempt made to cool the samples? Were all samples received at a temperature of > 	Y	'es 🗌		No 🗌	Not Present	
 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples? 5. Were all samples received at a temperature of > 	Y	′es 🗹		No 🗔	Not Present	
 Log In 4. Was an attempt made to cool the samples? 5. Were all samples received at a temperature of > 	<u>C</u>	ourier				
4. Was an attempt made to cool the samples?5. Were all samples received at a temperature of >					_	
5. Were all samples received at a temperature of >	٢	res 🗹		No	NA [_]	
0	>0° C to 6.0°C Y	es 🗹	1	No 🗆		
b. Sample(s) in proper container(s)?	. Y	res 🔽		No 🗌	Δ	/
7. Sufficient sample volume for indicated test(s)?	Y	'es 🗹			NA BAD	do do
8. Are samples (except VOA and ONG) properly pre	reserved? +	ee 🖌	-	No M	0/11.0	
9. Was preservative added to bottles?	Y	'es 🗹	-	NOV	NA	
10.VOA vials have zero headspace?	Y	'es 🗌		No 🗌	No VOA Vials 🗹	
11. Were any sample containers received broken?	٢	res 🗆		No 🗹	# of preserved bottles checked	1.
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Y	'es 🗸		No 🗌	for pH:	() r >12 unless noted)
13. Are matrices correctly identified on Chain of Cust	tody? Y	'es 🗸		No 🗌	Adjusted?	1es
14. Is it clear what analyses were requested?	Y	′es 🗹		No 🗌		- 1a I
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Y	'es 🖌		No 🗌	Checked by:	ENM
			2			
Special Handling (if applicable)						
16. Was client notified of all discrepancies with this of	order? Y	'es 🛄		No 🗌	NA 🗹	_
Person Notified:	Date:					
By Whom:	Via:	eMail	Phone	Fax	In Person	
Regarding:						
Client Instructions:						
17. Additional remarks: Added 4mL HN PHFOR MEHals analysis. 18. <u>Cooler Information</u> <u>Cooler No</u> Temp ℃ Condition Seal In 1 4.7 Good Yes	NO3 to -001E ENM 11/13, ntact Seal No Sea	/17 (d ImL 201005	E HN(0-3 - 00ZE +fc	or acceptable

C	hain	of-Cu	stody Record	Turn-Around	Time:	2 day			ι.									
Client:	Wille	ams 1	Four Corners	Li Standard	Rush	TAT						VGT	C 1		ли 20			
	Ma	f Wa	bre	Project Name	9:)	. 1				51		50	IK PA	OF	C T
Mailing	Address	1774	S Acourt A	Kut-	2 Gas	Plant		4001	Land	WYYW	r.nam		inen	ical.co	ш	400		
	Ala	- ortid	A NM	Project #:				4901	Hawk	ans in	E -	Albuqi	uerqu	le, Ni	N 87	109		
Phone	#- C	AS	22. 1442					i ei,	505-3	45-35	15 Ar	Fax	505 Rac	-345-	4107			
emailo	r Fax#	03-0	56- 9114	Project Mana	per Lilliam	- Kim How		26				Tary Sis	, neu	uea				
	Packade:	•	•		iger. Written	s allow cord	51	ino la				So	35					
X Stan	dard		Level 4 (Full Validation)	CIE-De	unny Bung	5 701-570-4727	s (80	(Gas			SMI	Od,	PCE	.5				
Accredi	itation			Sampler: D	Burys		MB	H	E C	≑	70 S	Ő	082	00				-
	AP	□ Othe	r	On loe;	Yes	D No	-	л - Са	18	2	82	. 0	5 / 8	>	(A)			Z Z
A EDD	(Type)		DF	Sample Tem	perature:	4.7	B	BE	od 4	Po	0 0	SI, N	cide	(Y	2	5		Ľ
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	LW + XE	EX + M) H BOISE	unew) H	0B (Meth	H's (831	RA 8 Mi ions (F, 6	B1 Pestic	OV) BOB	70 (Sem	Alow		Ruhhles
						1711647	E	1 <u>8</u>		<u>u</u>	A	A N	80	82(82	9		Air
11-9	13:00	AQ	Seep North of Flare	10	HCL HSON	-001						X		X		\times		
	17:15	AQ	API Water Outlet	10		-002		X	1			X		X	· ·	X		
2	17:30	AQ	Pipeline Trench Wat	ar 10	V	-003		X				X		X		X		
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	1/						4		-									
-																		
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Date:	^{тіте:} 0445	Rehoquish	B	Received by:	1/	Date Time 11-10-17 0945	Rem	arks: K	jun.	Hore	(C)	sollia	MS.C	01/01	 1			
Date:	Time.	Relinquish	ad by	Received by	Wat	Date Time		di	LEON .	sel	tenv	.Com	- //	ga	gerle) ten	I.con	4
.a . "	necessary.	Appoles subr	nitted to Hall Environmental may be subco	ontracted to other ad	screencede beneren	es. This serves as notice of it is	pusato 1/	iliy Any	suh nor	linctod	data w	nti be aka	inty nota	ated on	th e an	alyticiat re	iport.	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

December 08, 2017

Aaron Galer Williams Four Corners 188 CR 4900 Bloomfield, NM 87413 TEL: (505) 632-4442 FAX

RE: Kutz Canyon Gas Plant GCNM ROW

OrderNo.: 1712115

Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 12/2/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1712115 Date Reported: 12/8/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Project: Kutz Canyon Gas Plant GCNM ROW

Client Sample ID: SP01 Collection Date: 12/1/2017 1:15:00 PM Received Date: 12/2/2017 8:30:00 AM

Lab ID: 1712115-001	Matrix:	SOIL	Received l	Received Date: 12/2/2017 8:30:00 AM					
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	6			Analyst	том			
Diesel Range Organics (DRO)	18	9.2	mg/Kg	1	12/7/2017 2:10:47 PM	35365			
Motor Oil Range Organics (MRO)	61	46	mg/Kg	1	12/7/2017 2:10:47 PM	35365			
Surr: DNOP	85.6	70-130	%Rec	1	12/7/2017 2:10:47 PM	35365			
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	NSB			
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/6/2017 10:33:14 PM	35320			
Surr: BFB	107	15-316	%Rec	1	12/6/2017 10:33:14 PM	35320			
EPA METHOD 8021B: VOLATILES					Analyst	NSB			
Benzene	ND	0.023	mg/Kg	1	12/6/2017 10:33:14 PM	35320			
Toluene	ND	0.047	mg/Kg	1	12/6/2017 10:33:14 PM	35320			
Ethylbenzene	ND	0.047	mg/Kg	1	12/6/2017 10:33:14 PM	35320			
Xylenes, Total	ND	0.094	mg/Kg	1	12/6/2017 10:33:14 PM	35320			
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	12/6/2017 10:33:14 PM	35320			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1712115 Date Reported: 12/8/2017

Hall Environmental Analysis Laboratory, Inc.

 CLIENT: Williams Four Corners
 Client Sample ID: SP02

 Project:
 Kutz Canyon Gas Plant GCNM ROW
 Collection Date: 12/1/2017 1:20:00 PM

 Lab ID:
 1712115-002
 Matrix: SOIL
 Received Date: 12/2/2017 8:30:00 AM

PQL Qual Units Analyses Result **DF** Date Analyzed Batch EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: TOM Diesel Range Organics (DRO) 1100 10 12/7/2017 1:50:15 PM 91 35365 mg/Kg Motor Oil Range Organics (MRO) 640 450 mg/Kg 10 12/7/2017 1:50:15 PM 35365 Surr: DNOP %Rec 12/7/2017 1:50:15 PM 0 70-130 S 10 35365 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) 25 12/6/2017 12:40:35 PM 35320 120 mg/Kg 5 Surr: BFB %Rec 12/6/2017 12:40:35 PM 35320 305 15-316 5 EPA METHOD 8021B: VOLATILES Analyst: NSB Benzene ND 0.12 12/6/2017 12:40:35 PM 35320 mg/Kg 5 Toluene ND 0.25 mg/Kg 5 12/6/2017 12:40:35 PM 35320 Ethylbenzene ND 0.25 mg/Kg 12/6/2017 12:40:35 PM 35320 5 Xylenes, Total 1.2 0.49 mg/Kg 5 12/6/2017 12:40:35 PM 35320 12/6/2017 12:40:35 PM 35320 Surr: 4-Bromofluorobenzene 121 80-120 %Rec S 5

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method E	Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 2 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 2 01 7
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit	as specified

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Lab Order 1712115 Date Reported: 12/8/2017

Client Sample ID: SP03

Project:	Kutz Canyon Gas Plant GCN	NM ROW			Collection	Date: 12/	/1/2017 1:30:00 PM	
Lab ID:	1712115-003	Matrix: So	OIL		Received	Date: 12/	/2/2017 8:30:00 AM	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA ME	THOD 8015M/D: DIESEL RAM	IGE ORGANICS					Analyst	TOM
Diesel R	ange Organics (DRO)	770	93		mg/Kg	10	12/7/2017 2:14:51 PM	35365
Motor O	il Range Organics (MRO)	2200	470		mg/Kg	10	12/7/2017 2:14:51 PM	35365
Surr:	DNOP	0	70-130	S	%Rec	10	12/7/2017 2:14:51 PM	35365
EPA MET	THOD 8015D: GASOLINE RA	NGE					Analyst	NSB
Gasoline	e Range Organics (GRO)	ND	24	D	mg/Kg	5	12/6/2017 10:56:43 PM	35320
Surr:	BFB	111	15-316	D	%Rec	5	12/6/2017 10:56:43 PM	35320
EPA MET	THOD 8021B: VOLATILES						Analyst	NSB
Benzene	2	ND	0.12	D	mg/Kg	5	12/6/2017 10:56:43 PM	35320
Toluene		ND	0.24	D	mg/Kg	5	12/6/2017 10:56:43 PM	35320
Ethylber	nzene	ND	0.24	D	mg/Kg	5	12/6/2017 10:56:43 PM	35320
Xylenes,	, Total	ND	0.49	D	mg/Kg	5	12/6/2017 10:56:43 PM	35320
Surr:	4-Bromofluorobenzene	102	80-120	D	%Rec	5	12/6/2017 10:56:43 PM	35320

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1712115 Date Reported: 12/8/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four CornersClient Sample ID: SP04Project: Kutz Canyon Gas Plant GCNM ROWCollection Date: 12/1/2017 1:40:00 PMLab ID: 1712115-004Matrix: SOILReceived Date: 12/2/2017 8:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS		n na serie de la fair de la fair d'an ann an an an ann an Ann Ann Ann Ann A		Analyst	том
Diesel Range Organics (DRO)	ND	9.1	ma/Ka	1	12/7/2017 3:03:39 PM	35365
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	12/7/2017 3:03:39 PM	35365
Surr: DNOP	104	70-130	%Rec	1	12/7/2017 3:03:39 PM	35365
EPA METHOD 8015D: GASOLINE RA	ANGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/6/2017 11:20:13 PM	35320
Surr: BFB	106	15-316	%Rec	1	12/6/2017 11:20:13 PM	35320
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	12/6/2017 11:20:13 PM	35320
Toluene	ND	0.049	mg/Kg	1	12/6/2017 11:20:13 PM	35320
Ethylbenzene	ND	0.049	mg/Kg	1	12/6/2017 11:20:13 PM	35320
Xylenes, Total	ND	0.098	mg/Kg	1	12/6/2017 11:20:13 PM	35320
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	12/6/2017 11:20:13 PM	35320

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 4 of
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

WO#: 1712115

08-Dec-17

Client: Project:	William Kutz Ca	s Four Corners inyon Gas Plant GCNM ROW	
Sample ID	LCS-35365	SampType: LCS	TestCode: EPA Method
		D / / /D	

Sample ID LCS-35365	8015M/D: Di	esel Rang	e Organics							
Client ID: LCSS	Batch	1D: 35	365	F	RunNo: 4	7518				
Prep Date: 12/6/2017	rep Date: 12/6/2017 Analysis Date: 12/7/2017 SeqNo: 1520345									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.8	73.2	114			
Surr: DNOP	4.5		5.000		89.3	70	130			
Sample ID MB-35365	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch	n ID: 35	365	F	RunNo: 4	7518				
Prep Date: 12/6/2017	Analysis D	ate: 12	2/7/2017	S	SeqNo: 1	520346	Units: mg/M	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.2	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 5 of 7

1200

Client: Williams	Four Corn	ers								
Project: Kutz Car	1yon Gas P	lant GC	CNM ROW							
Sample ID MB-35320	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	je	
Client ID: PBS	Batch	ID: 35	320	F						
Prep Date: 12/5/2017	Analysis D	ate: 12	2/6/2017	S	SeqNo: 1	519555	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		111	15	316			
Sample ID LCS-35320	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	le	
Client ID: LCSS	Batch	ID: 35	320	R	RunNo: 4	7565				
Prep Date: 12/5/2017	rep Date: 12/5/2017 Analysis Date: 12/6/2017 SeqNo: 1519							g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	75.9	131			

124

15

316

1000

Qualifiers:

Surr: BFB

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

1712115 08-Dec-17

WO#:

Page 6 of 7

0.050

0.10

1.000

3.000

1.000

1.0

3.1

1.1

Williams Four Corners

Project: Kutz Canyon Gas Plant GCNM ROW												
Sample ID MB-35320	Samp	Туре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batc	h ID: 35	320	F	RunNo: 4							
Prep Date: 12/5/2017	Analysis [Date: 12	2/6/2017	5	SeqNo: 1	519593	Units: mg/K	g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	0.025										
Toluene	ND	0.050										
Ethylbenzene	ND	0.050										
Xylenes, Total	ND	0.10										
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120					
Sample ID LCS-35320	Samp	Type: LC	s	Tes	tCode: El	PA Method	8021B: Volat	tiles				
Client ID: LCSS	Batc	h ID: 35	320	F	RunNo: 4	7565						
Prep Date: 12/5/2017	Analysis E	Date: 12	2/6/2017	S	SeqNo: 1	519594	Units: mg/K	g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.1	0.025	1.000	0	109	77.3	128					
Toluene	1.1	0.050	1.000	0	108	79.2	125					

0

0

104

102

110

80.7

81.6

80

127

129

120

Qualifiers:

Client:

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 7 of 7

WO#: 1712115 08-Dec-17

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental A Albuq TEL: 505-345-3975 I Website: www.hal	Analysis Labo 4901 Hawki guerque, NM FAX: 505-345 lenvironmenta	ratory Ins NE 87109 Sam -4107 al.com	ple Log-In Cl	heck List
Client Name: WILLIAMS FOUR CORN	Work Order Number:	1712115		RcptNo:	1
Received By: Ashley Gallegos Completed By: Anne Thorne Reviewed By: DDS	12/2/2017 8:30:00 AM 12/4/2017 1:16:52 PM IMOU/IT		Arne H-	- · ·	
Chain of Custody			_	_	
1. Custody seals intact on sample bottles?		Yes	No	Not Present	
2. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present	
3. How was the sample delivered?		Courier			
Log In					
4. Was an attempt made to cool the samples?		Yes 🗹	No		
5. Were all samples received at a temperature	of >0° C to 6.0°C	Yes 🖌	No	NA 🗌	
6. Sample(s) in proper container(s)?		Yes 🗹	No 🗌		
7. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗌		
8. Are samples (except VOA and ONG) proper	y preserved?	Yes 🔽	No 🗌	18. 1	
9. Was preservative added to bottles?		Yes	No 🗹	NA 🗌	· 8
10.VOA vials have zero headspace?		Yes	No 🗌	No VOA Vials 🗹	
11, Were any sample containers received broke	n?	Yes	No 🗹		,
12. Does paperwork match bottle labels?		Yes 🗹	No 🗌	# of preserved bottles checked for pH:	2
(Note discrepancies on chain of custody)				(<2 or	>12 unless noted)
13. Are matrices correctly identified on Chain of	Custody?	Yes 🖌	No I	Adjusted	
14 Is it clear what analyses were requested?		Yes L⊻.	NC :	Checked by	
(If no, notify customer for authorization.)		Yes M	NC	checked by.	
Special Handling (if applicable)					
16. Was client notified of all discrepancies with t	his order?	Yes	No	NA 🗸	
Person Notified.	Date				
By Whom:	Via:	eMail	Phone Fax	In Person	
Regarding:					
17. Additional remarks				··· <u></u> ·	
18. Cooler Information			-		
Cooler No Temp C Condition Se 1 0.9 Good Yes	al Intact Seal No S	eal Date	Signed By		
Page 1 of 1					

C	hain	of-Cu	stody Record	Turn-Around	Time:		1													
Client:	Willi	awas	Four Corners LLC	* Siandard	= Rush			K .	<u> </u>	H	A		E	NV	IF	20	AN	1EN	ITA	L
1	1 1 1 1 1	7 1		Project Name	0.	r calls				P		AL	Y 2	512	5 L	At	30	KA	101	ΥY
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Marung	Abdress	17755	Arrayo Dr	ILMIZ (Lanyon U	as I lan 14	4901 Hawkins NE - Albuquerque, NM 87109													
	Bloom	Frelol	NM 8743	Project #:				Τę	el 50	5-34	5-39	975	F	ах	505-	345-	4107	,		
Phone #	¥:						Analysis Request													
email or	Fax#:	action.	galer Qwilliams, com	Project Manager:				iy)	ō					["						
QA/QC P	ackage:		ŭ	Danny U	Sums - L	πε	021	0.5	MM					S.	8.0					
Stan	dard		□ Leve 4 (Full Validation)					Ga	10			IMS		0°	PC					
Accredi	tation			Sampler: D	Buns		9	Hic	HO.	_	~	0 S		02,1	382					
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€ ∠ EDD	(Type)	PDF		Sample Tem	perature: 0.1	1+0.5(00)=0.9	1	ш	15	d 4	d 5(þ	3.5	N.	des	~	Ş			X
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Date	Time	Matrix	Sample Request ID	Container	Preservative	HEAL No.	0	+	801	(Me	N.	s (8	A 8) s(Pe	⇒ 00	S			qq
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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

December 13, 2017

Aaron Galer Williams 295 Chipeta Way Salt Lake City, UT 84105 TEL: (505) 632-4442 FAX

RE: Kutz Gas Plan

OrderNo.: 1712109

Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 19 sample(s) on 12/2/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

HALL
ANALYSIS LABORATORY

CLIENT:

Project:

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

Case Narrative

WO#: 1712109 Date: 12/13/2017

Analytical Notes	Regarding sample BH-3:	
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Kutz Gas Plan

Williams

The DRO sample was received in 40ml HCL VOA vial. DRO was analzyed past the holding time.

Analytical Report Lab Order 1712109

Date Reported: 12/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Williams		Client Sample ID: BH-3 2'-4'					
Project:	Kutz Gas Plan		Collection Date: 11/30/2017 11:15:00 AM					
Lab ID:	1712109-001	Matrix: S	OIL	Received I	Date: 12/	2/2017 8:30:00 AM		
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst	TOM	
Diesel Ra	ange Organics (DRO)	61	9.7	mg/Kg	1	12/7/2017 11:48:51 AM	35332	
Motor Oil	Range Organics (MRO)	730	49	mg/Kg	1	12/7/2017 11:48:51 AM	35332	
Surr: D	DNOP	114	70-130	%Rec	1	12/7/2017 11:48:51 AM	35332	

EDA METHOD 9015D: CASOLINE DANCE							
EFA METHOD 0013D. GASOLINE RANG	-					Analyst.	NOD
Gasoline Range Organics (GRO)	64	4.6		mg/Kg	1	12/6/2017 2:21:24 PM	35319
Surr: BFB	355	15-316	S	%Rec	1	12/6/2017 2:21:24 PM	35319
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	0.040	0.023		mg/Kg	1	12/6/2017 2:21:24 PM	35319
Toluene	ND	0.046		mg/Kg	1	12/6/2017 2:21:24 PM	35319
Ethylbenzene	ND	0.046		mg/Kg	1	12/6/2017 2:21:24 PM	35319
Xylenes, Total	0.26	0.093		mg/Kg	1	12/6/2017 2:21:24 PM	35319
Surr: 4-Bromofluorobenzene	95.2	80-120		%Rec	1	12/6/2017 2:21:24 PM	35319

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 29
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1712109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams

Surr: 4-Bromofluorobenzene

Date Reported: 12/13/2017 Client Sample ID: BH-3 23'-25' Collection Date: 11/30/2017 11:30:00 AM

Project: Kutz Gas Plan 1712109-002 Lab ID: Matrix: SOIL Received Date: 12/2/2017 8:30:00 AM Analyses Result PQL Qual Units **DF** Date Analyzed Batch EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: TOM Diesel Range Organics (DRO) ND 9.8 mg/Kg 1 12/6/2017 12:39:04 PM 35332 Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/6/2017 12:39:04 PM 35332 Surr: DNOP 105 70-130 %Rec 1 12/6/2017 12:39:04 PM 35332 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/6/2017 3:31:27 PM 4.9 mg/Kg 35319 1 Surr: BFB 93.8 %Rec 12/6/2017 3:31:27 PM 15-316 1 35319 EPA METHOD 8021B: VOLATILES Analyst: NSB Benzene 0.025 12/6/2017 3:31:27 PM 35319 ND mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/6/2017 3:31:27 PM 35319 Ethylbenzene ND 0.049 mg/Kg 12/6/2017 3:31:27 PM 35319 1 Xylenes, Total ND 0.098 mg/Kg 1 12/6/2017 3:31:27 PM 35319

80-120

%Rec

1

12/6/2017 3:31:27 PM

35319

85.1

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 29
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified
Analytical Report Lab Order 1712109 Date Reported: 12/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Williams		Client Sample ID: BH-3							
Project:	Kutz Gas Plan				Collection	Date: 11/	/30/2017 11:50:00 AN	M		
Lab ID:	1712109-003	Matrix:	Matrix: AQUEOUS		Received	Date: 12/	/2/2017 8:30:00 AM			
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch		
EPA MET	HOD 8015M/D: DIESEL RA	NGE					Analys	st: TOM		
Diesel Ra	ange Organics (DRO)	31	1.0	Н	mg/L	1	12/12/2017 10:29:01	AM 35444		
Motor Oil	Range Organics (MRO)	ND	5.0	Н	mg/L	1	12/12/2017 10:29:01	AM 35444		
Surr: D	NOP	105	77.5-161	Н	%Rec	1	12/12/2017 10:29:01 /	AM 35444		
EPA MET	HOD 8015D: GASOLINE R	NGE					Analys	st: NSB		
Gasoline	Range Organics (GRO)	ND	0.10	D	mg/L	2	12/8/2017 10:45:05 AI	M G47631		
Surr: E	BFB	109	69.3-150	D	%Rec	2	12/8/2017 10:45:05 AI	M G47631		
EPA MET	HOD 8260: VOLATILES SH	ORT LIST					Analys	st: DJF		
Benzene		1.2	1.0	DP	µg/L	2	12/6/2017 5:30:43 PM	A47582		
Toluene		1.9	1.0	DP	µg/L	2	12/6/2017 5:30:43 PM	A47582		
Ethylbena	zene	ND	1.0	DP	µg/L	2	12/6/2017 5:30:43 PM	A47582		
Xylenes,	Total	6.5	1.5	DP	µg/L	2	12/6/2017 5:30:43 PM	A47582		
Surr: 1	,2-Dichloroethane-d4	83.1	70-130	DP	%Rec	2	12/6/2017 5:30:43 PM	A47582		
Surr: 4	-Bromofluorobenzene	112	70-130	DP	%Rec	2	12/6/2017 5:30:43 PM	A47582		
Surr: D	Dibromofluoromethane	87.6	70-130	DP	%Rec	2	12/6/2017 5:30:43 PM	A47582		
Surr: T	oluene-d8	99.5	70-130	DP	%Rec	2	12/6/2017 5:30:43 PM	A47582		

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 4 of 29
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report	
Lab Order 1712109	

Date Reported: 12/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	: Williams Client Sample ID: BH-4 3'-5'							
Project:	Kutz Gas Plan			Collection I	Date: 11.	/30/2017 12:10:00 PM		
Lab ID:	1712109-004	Matrix: SC	DIL	Received I	Received Date: 12/2/2017 8:30:00 AM			
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch	
EPA MET	EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst:							
Diesel Ra	ange Organics (DRO)	ND	9.4	mg/Kg	1	12/6/2017 1:03:22 PM	35332	
Motor Oil	Range Organics (MRO)	ND	47	mg/Kg	1	12/6/2017 1:03:22 PM	35332	
Surr: D	NOP	103	70-130	%Rec	1	12/6/2017 1:03:22 PM	35332	

EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	15	4.7	mg/Kg	1	12/7/2017 7:29:34 PM	35319
Surr: BFB	125	15-316	%Rec	1	12/7/2017 7:29:34 PM	35319
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	12/7/2017 7:29:34 PM	35319
Toluene	ND	0.047	mg/Kg	1	12/7/2017 7:29:34 PM	35319
Ethylbenzene	ND	0.047	mg/Kg	1	12/7/2017 7:29:34 PM	35319
Xylenes, Total	0.25	0.094	mg/Kg	1	12/7/2017 7:29:34 PM	35319
Surr: 4-Bromofluorobenzene	87.1	80-120	%Rec	1	12/7/2017 7:29:34 PM	35319

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded		Analyte detected below quantitation limits Page 5 of 29
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL Practical Quanitative Limit		RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1712109

Date Reported: 12/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Client Sample ID: BH-4 18'-20' Project: Kutz Gas Plan Collection Date: 11/30/2017 12:40:00 PM Lab ID: 1712109-005 Matrix: SOIL Received Date: 12/2/2017 8:30:00 AM Analyses Result POL Qual Units DF Date Analyzed Batch

Result	FQL Qu	al Units	Dr	Date Analyzeu	Daten
				Analyst	том
ND	9.6	mg/Kg	1	12/6/2017 1:27:49 PM	35332
ND	48	mg/Kg	1	12/6/2017 1:27:49 PM	35332
101	70-130	%Rec	1	12/6/2017 1:27:49 PM	35332
E				Analyst	NSB
ND	4.8	mg/Kg	1	12/6/2017 5:05:14 PM	35319
91.3	15-316	%Rec	1	12/6/2017 5:05:14 PM	35319
				Analyst	NSB
ND	0.024	mg/Kg	1	12/6/2017 5:05:14 PM	35319
ND	0.048	mg/Kg	1	12/6/2017 5:05:14 PM	35319
ND	0.048	mg/Kg	1	12/6/2017 5:05:14 PM	35319
ND	0.096	mg/Kg	1	12/6/2017 5:05:14 PM	35319
83.7	80-120	%Rec	1	12/6/2017 5:05:14 PM	35319
	E ND 91.3 ND ND ND ND ND ND ND ND 83.7	ND 9.6 ND 48 101 70-130 E ND 4.8 91.3 15-316 ND 0.024 ND 0.048 ND 0.048 ND 0.048 ND 0.096 83.7 80-120	ND 9.6 mg/Kg ND 48 mg/Kg 101 70-130 %Rec E ND 4.8 mg/Kg 91.3 15-316 %Rec ND 0.024 mg/Kg ND 0.048 mg/Kg ND 0.048 mg/Kg ND 0.096 mg/Kg 83.7 80-120 %Rec	Kesult FQL Quar Units Dr SORGANICS ND 9.6 mg/Kg 1 ND 48 mg/Kg 1 101 70-130 %Rec 1 IO1 70-130 %Rec 1 1 101 70-130 %Rec 1 E ND 4.8 mg/Kg 1	Result FQL Qual Onits DF Date Analyzed ND 9.6 mg/Kg 1 12/6/2017 1:27:49 PM ND 48 mg/Kg 1 12/6/2017 1:27:49 PM 101 70-130 %Rec 1 12/6/2017 1:27:49 PM Malyst: 1 12/6/2017 5:05:14 PM 101 13 15-316 %Rec 1 12/6/2017 5:05:14 PM 101 13 15-316 %Rec 1 12/6/2017 5:05:14 PM 12/6/2017 5:05:14 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded		Analyte detected below quantitation limits Page 6 of 29
	ND Not Detected at the Reporting Limit		Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report	
Lab Order 1712109	

Date Reported: 12/13/2017

CLIENT:	Williams			Client Samp	e ID: BH	I-2 13-'15'	
Project:	Kutz Gas Plan			Collection	Date: 11/	/30/2017 1:40:00 PM	
Lab ID:	1712109-006	Matrix: S	SOIL	Received	Date: 12/	/2/2017 8:30:00 AM	
Analyses		Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst	TOM
Diesel Ra	ange Organics (DRO)	ND	9.8	mg/Kg	1	12/6/2017 1:52:16 PM	35332
Motor Oil	Range Organics (MRO)	ND	49	mg/Kg	1	12/6/2017 1:52:16 PM	35332
Surr: DNOP		100	70-130	%Rec	1	12/6/2017 1:52:16 PM	35332
EPA MET	HOD 8015D: GASOLINE RAI	NGE				Analyst	NSB
Gasoline	Range Organics (GRO)	ND	4.7	mg/Kg	1	12/7/2017 7:52:32 PM	35319
Surr: E	BFB	88.8	15-316	%Rec	1	12/7/2017 7:52:32 PM	35319
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB
Benzene		ND	0.023	mg/Kg	1	12/7/2017 7:52:32 PM	35319
Toluene		ND	0.047	mg/Kg	1	12/7/2017 7:52:32 PM	35319
Ethylben	zene	ND	0.047	mg/Kg	1	12/7/2017 7:52:32 PM	35319
Xylenes,	Total	ND	0.094	mg/Kg	1	12/7/2017 7:52:32 PM	35319
Surr: 4	-Bromofluorobenzene	81.8	80-120	%Rec	1	12/7/2017 7:52:32 PM	35319

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Value above quantitation range Е
- Analyte detected below quantitation limits Page 7 of 29 J Р
 - Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Ana	alytica	al Report
Lab	Order	1712109

Date Reported: 12/13/2017 Client Sample ID: BH-2 23'-25'

CLIENT:	Williams	Client Sample ID: BH-2 23'-25'							
Project:	Kutz Gas Plan	Collection Date: 11/30/2017 2:00:00 PM							
Lab ID:	1712109-007	Matrix: S	SOIL	Received 1	Received Date: 12/2/2017 8:30:00 AM				
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch		
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	TOM		
Diesel Ra	ange Organics (DRO)	ND	9.2	mg/Kg	1	12/6/2017 2:16:42 PM	35332		
Motor Oil	Range Organics (MRO)	ND	46	mg/Kg	1	12/6/2017 2:16:42 PM	35332		
Surr: D	DNOP	100	70-130	%Rec	1	12/6/2017 2:16:42 PM	35332		
EPA MET	HOD 8015D: GASOLINE RAN	GE				Analyst	NSB		
Gasoline	Range Organics (GRO)	ND	4.7	mg/Kg	1	12/7/2017 8:15:29 PM	35319		
Surr: E	BFB	89.5	15-316	%Rec	1	12/7/2017 8:15:29 PM	35319		
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB		
Benzene		ND	0.023	mg/Kg	1	12/7/2017 8:15:29 PM	35319		
Toluene		ND	0.047	mg/Kg	1	12/7/2017 8:15:29 PM	35319		
Ethylben	zene	ND	0.047	mg/Kg	1	12/7/2017 8:15:29 PM	35319		
Xylenes,	Total	ND	0.094	mg/Kg	1	12/7/2017 8:15:29 PM	35319		
Surr: 4	-Bromofluorobenzene	84.4	80-120	%Rec	1	12/7/2017 8:15:29 PM	35319		

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 8 of 29
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report					
Lab Order 1712109					
Date Reported: 12/13/2017					

CLIENT: Williams

Project: Kutz Gas Plan

Lab ID: 1712109-008

Client Sample ID: BH-1 13'-15' Collection Date: 11/30/2017 2:20:00 PM Received Date: 12/2/2017 8:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	6			Analyst	том
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	12/6/2017 2:41:12 PM	35332
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/6/2017 2:41:12 PM	35332
Surr: DNOP	101	70-130	%Rec	1	12/6/2017 2:41:12 PM	35332
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/7/2017 8:38:27 PM	35319
Surr: BFB	87.4	15-316	%Rec	1	12/7/2017 8:38:27 PM	35319
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	12/7/2017 8:38:27 PM	35319
Toluene	ND	0.049	mg/Kg	1	12/7/2017 8:38:27 PM	35319
Ethylbenzene	ND	0.049	mg/Kg	1	12/7/2017 8:38:27 PM	35319
Xylenes, Total	ND	0.099	mg/Kg	1	12/7/2017 8:38:27 PM	35319
Surr: 4-Bromofluorobenzene	83.1	80-120	%Rec	1	12/7/2017 8:38:27 PM	35319

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 9 of 29
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

W

Sample container temperature is out of limit as specified

Hall Er	vironmental A	Analysis Laboratory, Inc.	Analytical Report Lab Order 1712109 Date Reported: 12/13/2017
CLIENT:	Williams		Client Sample ID: BH-1 18'-20'
Project:	Kutz Gas Plan		Collection Date: 11/30/2017 2:40:00 PM
Lab ID:	1712109-009	Matrix: SOIL	Received Date: 12/2/2017 8:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	1			Analyst	том
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	12/6/2017 3:05:17 PM	35332
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	12/6/2017 3:05:17 PM	35332
Surr: DNOP	95.3	70-130	%Rec	1	12/6/2017 3:05:17 PM	35332
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/7/2017 3:28:58 AM	35319
Surr: BFB	83.6	15-316	%Rec	1	12/7/2017 3:28:58 AM	35319
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	12/7/2017 3:28:58 AM	35319
Toluene	ND	0.048	mg/Kg	1	12/7/2017 3:28:58 AM	35319
Ethylbenzene	ND	0.048	mg/Kg	1	12/7/2017 3:28:58 AM	35319
Xylenes, Total	ND	0.096	mg/Kg	1	12/7/2017 3:28:58 AM	35319
Surr: 4-Bromofluorobenzene	81.3	80-120	%Rec	1	12/7/2017 3:28:58 AM	35319

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limitspace 10 of 29
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Than Environmental Analysis Laboratory, Inc. Date Reported: 12/13/2017							
CLIENT: Williams			Client Sampl	e ID: BH	I-5 3'-5'		
Project: Kutz Gas Plan			Collection I	Date: 12/	1/2017 9:15:00 AM		
Lab ID: 1712109-010	Matrix:	SOIL	Received I	Date: 12/	/2/2017 8:30:00 AM		
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	6			Analyst	TOM	
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	12/6/2017 3:29:04 PM	35332	
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	12/6/2017 3:29:04 PM	35332	
Surr: DNOP	100	70-130	%Rec	1	12/6/2017 3:29:04 PM	35332	
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	NSB	
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	12/7/2017 9:01:21 PM	35319	
Surr: BFB	84.0	15-316	%Rec	1	12/7/2017 9:01:21 PM	35319	
EPA METHOD 8021B: VOLATILES					Analyst	NSB	
Benzene	ND	0.023	mg/Kg	1	12/7/2017 9:01:21 PM	35319	
Toluene	ND	0.046	mg/Kg	1	12/7/2017 9:01:21 PM	35319	
Ethylbenzene	ND	0.046	mg/Kg	1	12/7/2017 9:01:21 PM	35319	
Xylenes, Total	ND	0.091	mg/Kg	1	12/7/2017 9:01:21 PM	35319	
Surr: 4-Bromofluorobenzene	82.2	80-120	%Rec	1	12/7/2017 9:01:21 PM	35319	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limitspace 11 of
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specifie

Hall Environmental Analysis Laboratory Inc.

Analytical Report Lab Order 1712109

29

W Sample container temperature is out of limit as specified

Analytica	al Report
Lab Order	1712109

Date Reported: 12/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Client Sample ID: BH-5 18'-20' Project: Kutz Gas Plan Collection Date: 12/1/2017 9:30:00 AM Lab ID: 1712109-011 Matrix: SOIL Received Date: 12/2/2017 8:30:00 AM Analyses Result PQL Qual Units DF Date Analyzed Batch

					·	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst:	том
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	12/6/2017 3:53:29 PM	35332
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/6/2017 3:53:29 PM	35332
Surr: DNOP	97.6	70-130	%Rec	1	12/6/2017 3:53:29 PM	35332
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/7/2017 4:14:39 AM	35319
Surr: BFB	83.4	15-316	%Rec	1	12/7/2017 4:14:39 AM	35319
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	12/7/2017 4:14:39 AM	35319
Toluene	ND	0.048	mg/Kg	1	12/7/2017 4:14:39 AM	35319
Ethylbenzene	ND	0.048	mg/Kg	1	12/7/2017 4:14:39 AM	35319
Xylenes, Total	ND	0.095	mg/Kg	1	12/7/2017 4:14:39 AM	35319
Surr: 4-Bromofluorobenzene	81.1	80-120	%Rec	1	12/7/2017 4:14:39 AM	35319

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits page 12 of 29
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1712109 Date Reported: 12/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WilliamsClient Sample ID: BH-6 13'-15'Project:Kutz Gas PlanCollection Date: 12/1/2017 9:50:00 AMLab ID:1712109-012Matrix: SOILReceived Date: 12/2/2017 8:30:00 AMAnalysesPopulationPOLOugh UnitsDE

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst	том
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	12/6/2017 4:17:45 PM	35332
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	12/6/2017 4:17:45 PM	35332
Surr: DNOP	96.8	70-130	%Rec	1	12/6/2017 4:17:45 PM	35332
EPA METHOD 8015D: GASOLINE RANG	E				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/7/2017 9:24:17 PM	35319
Surr: BFB	85.8	15-316	%Rec	1	12/7/2017 9:24:17 PM	35319
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.025	mg/Kg	1	12/7/2017 9:24:17 PM	35319
Toluene	ND	0.049	mg/Kg	1	12/7/2017 9:24:17 PM	35319
Ethylbenzene	ND	0.049	mg/Kg	1	12/7/2017 9:24:17 PM	35319
Xylenes, Total	ND	0.098	mg/Kg	1	12/7/2017 9:24:17 PM	35319
Surr: 4-Bromofluorobenzene	82.4	80-120	%Rec	1	12/7/2017 9:24:17 PM	35319

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 13 of 29
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order 1712109
Date Reported: 12/13/2017

CLIENT: Williams Client Sample ID: BH-6 18'-20' Project: Kutz Gas Plan Collection Date: 12/1/2017 10:10:00 AM Lab ID: 1712109-013 Matrix: SOIL Received Date: 12/2/2017 8:30:00 AM Analyses Result PQL Qual Units DF Date Analyzed Batch

			e mile			
EPA METHOD 8015M/D: DIESEL RANGE		5			Analyst:	том
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	12/6/2017 4:43:21 PM	35332
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/6/2017 4:43:21 PM	35332
Surr: DNOP	88.2	70-130	%Rec	1	12/6/2017 4:43:21 PM	35332
EPA METHOD 8015D: GASOLINE RANG	E				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/7/2017 9:47:11 PM	35319
Surr: BFB	90.2	15-316	%Rec	1	12/7/2017 9:47:11 PM	35319
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	12/7/2017 9:47:11 PM	35319
Toluene	ND	0.049	mg/Kg	1	12/7/2017 9:47:11 PM	35319
Ethylbenzene	ND	0.049	mg/Kg	1	12/7/2017 9:47:11 PM	35319
Xylenes, Total	ND	0.098	mg/Kg	1	12/7/2017 9:47:11 PM	35319
Surr: 4-Bromofluorobenzene	87.2	80-120	%Rec	1	12/7/2017 9:47:11 PM	35319

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit page 14 of 29
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical	Report	

Lab Order 1712109

Date Reported: 12/13/2017

12/7/2017 12:30:32 AM 35319

Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

CLIENT:	Williams		Client Sample ID: BH-7 4'-6'						
Project:	Kutz Gas Plan			Collection l	Date: 12	/1/2017 10:40:00 AM			
Lab ID:	1712109-014	Matrix: S	SOIL	Received 1	Date: 12	/2/2017 8:30:00 AM			
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch		
EPA MET	HOD 8015M/D: DIESEL RAM	NGE ORGANICS				Analyst	том		
Diesel Ra	ange Organics (DRO)	ND	9.9	mg/Kg	1	12/6/2017 5:07:33 PM	35332		
Motor Oil	Range Organics (MRO)	ND	50	mg/Kg	1	12/6/2017 5:07:33 PM	35332		
Surr: D	ONOP	103	70-130	%Rec	1	12/6/2017 5:07:33 PM	35332		
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analyst	NSB		
Gasoline	Range Organics (GRO)	ND	4.9	mg/Kg	1	12/7/2017 12:30:32 AM	35319		
Surr: E	BFB	112	15-316	%Rec	1	12/7/2017 12:30:32 AM	35319		
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB		
Benzene		ND	0.024	mg/Kg	1	12/7/2017 12:30:32 AM	35319		
Toluene		ND	0.049	mg/Kg	1	12/7/2017 12:30:32 AM	35319		
Ethylben	zene	ND	0.049	mg/Kg	1	12/7/2017 12:30:32 AM	35319		
Xylenes,	Total	ND	0.098	mg/Kg	1	12/7/2017 12:30:32 AM	35319		

80-120

%Rec

1

100

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Η	H Holding times for preparation or analysis exceeded		Analyte detected below quantitation limit Page 15 of 29
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order 1712109

Date Reported: 12/13/2017

CLIENT:	Williams		Client Sample ID: BH-7 18'-20'							
Project:	Kutz Gas Plan		Collection Date: 12/1/2017 10:50:00 AM							
Lab ID:	1712109-015	Matrix: SC	DIL	Received D	Date: 12	/2/2017 8:30:00 AM				
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch			
EPA MET	HOD 8015M/D: DIESEL F	RANGE ORGANICS				Analyst	TOM			
Diesel Ra	ange Organics (DRO)	ND	9.7	mg/Kg	1	12/6/2017 5:31:57 PM	35332			
Motor Oil	Range Organics (MRO)	ND	49	mg/Kg	1	12/6/2017 5:31:57 PM	35332			
Surr: D	NOP	92.6	70-130	%Rec	1	12/6/2017 5:31:57 PM	35332			

EPA METHOD 8015D: GASOLINE RANGE	Ξ				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/7/2017 10:10:06 PM	35319
Surr: BFB	86.6	15-316	%Rec	1	12/7/2017 10:10:06 PM	35319
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	12/7/2017 10:10:06 PM	35319
Toluene	ND	0.047	mg/Kg	1	12/7/2017 10:10:06 PM	35319
Ethylbenzene	ND	0.047	mg/Kg	1	12/7/2017 10:10:06 PM	35319
Xylenes, Total	ND	0.095	mg/Kg	1	12/7/2017 10:10:06 PM	35319
Surr: 4-Bromofluorobenzene	84.8	80-120	%Rec	1	12/7/2017 10:10:06 PM	35319

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

* Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limit Page 16 of 29 J Р
 - Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Analytical Report Lab Order 1712109

12/7/2017 1:17:22 AM 35319

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams

Surr: 4-Bromofluorobenzene

Date Reported: 12/13/2017 Client Sample ID: BH-8 7'-10'

Project:	Kutz Gas Plan				Collection	Date: 12/	/1/2017 11:30:00 AM		
Lab ID:	1712109-016	Matrix: SC	Matrix: SOIL			Received Date: 12/2/2017 8:30:00 AM			
Analyses		Result	PQL (Qual	Units	DF	Date Analyzed	Batch	
EPA ME	THOD 8015M/D: DIESEL RA	NGE ORGANICS					Analyst	TOM	
Diesel R	Range Organics (DRO)	ND	9.9		mg/Kg	1	12/6/2017 5:56:03 PM	35332	
Motor O	il Range Organics (MRO)	ND	49		mg/Kg	1	12/6/2017 5:56:03 PM	35332	
Surr:	DNOP	102	70-130		%Rec	1	12/6/2017 5:56:03 PM	35332	
EPA ME	THOD 8015D: GASOLINE R	ANGE					Analyst	NSB	
Gasoline	e Range Organics (GRO)	38	4.9		mg/Kg	1	12/7/2017 1:17:22 AM	35319	
Surr:	BFB	446	15-316	S	%Rec	1	12/7/2017 1:17:22 AM	35319	
EPA ME	THOD 8021B: VOLATILES						Analyst	NSB	
Benzene	5	ND	0.025		mg/Kg	1	12/7/2017 1:17:22 AM	35319	
Toluene		ND	0.049		mg/Kg	1	12/7/2017 1:17:22 AM	35319	
Ethylber	nzene	ND	0.049		mg/Kg	1	12/7/2017 1:17:22 AM	35319	
Xylenes,	, Total	0.14	0.099		mg/Kg	1	12/7/2017 1:17:22 AM	35319	

80-120

117

%Rec

1

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limitspace 17 of 29
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order 1712109
Date Reported: 12/13/2017

CLIENT:	Williams		(Client Samp	le ID: BH	H-8 18'-20'	
Project:	Kutz Gas Plan			Collection	Date: 12	/1/2017 11:45:00 AM	
Lab ID:	1712109-017	Matrix: So	JIL	Received	Date: 12	/2/2017 8:30:00 AM	
Analyses		Result	PQL Qua	l Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL R	ANGE ORGANICS				Analyst	том
Diesel Ra	ange Organics (DRO)	ND	9.5	mg/Kg	1	12/6/2017 6:20:10 PM	35332
Motor Oil	Range Organics (MRO)	ND	48	mg/Kg	1	12/6/2017 6:20:10 PM	35332
Surr: D	ONOP	87.0	70-130	%Rec	1	12/6/2017 6:20:10 PM	35332

Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	12/6/2017 6:20:10 PM	35332
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/6/2017 6:20:10 PM	35332
Surr: DNOP	87.0	70-130	%Rec	1	12/6/2017 6:20:10 PM	35332
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/7/2017 1:40:45 AM	35319
Surr: BFB	115	15-316	%Rec	1	12/7/2017 1:40:45 AM	35319
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
EPA METHOD 8021B: VOLATILES Benzene	ND	0.024	mg/Kg	1	Analyst: 12/7/2017 1:40:45 AM	NSB 35319
EPA METHOD 8021B: VOLATILES Benzene Toluene	ND ND	0.024 0.049	mg/Kg mg/Kg	1 1	Analyst: 12/7/2017 1:40:45 AM 12/7/2017 1:40:45 AM	NSB 35319 35319
EPA METHOD 8021B: VOLATILES Benzene Toluene Ethylbenzene	ND ND ND	0.024 0.049 0.049	mg/Kg mg/Kg mg/Kg	1 1 1	Analyst: 12/7/2017 1:40:45 AM 12/7/2017 1:40:45 AM 12/7/2017 1:40:45 AM	NSB 35319 35319 35319
EPA METHOD 8021B: VOLATILES Benzene Toluene Ethylbenzene Xylenes, Total	ND ND ND	0.024 0.049 0.049 0.098	mg/Kg mg/Kg mg/Kg mg/Kg	1 1 1 1	Analyst: 12/7/2017 1:40:45 AM 12/7/2017 1:40:45 AM 12/7/2017 1:40:45 AM 12/7/2017 1:40:45 AM	NSB 35319 35319 35319 35319

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 18 of 29
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report	
Lab Order 1712109	

Date Reported: 12/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Client Sample ID: BH-9 7'-10' Project: Kutz Gas Plan Collection Date: 12/1/2017 12:10:00 PM Lab ID: 1712109-018 Matrix: SOIL Received Date: 12/2/2017 8:30:00 AM Analyses Result PQL Qual Units DF Date Analyzed Batch

	resure	TAP An	ai Onits	DI	Date Maryzed	Daten
EPA METHOD 8015M/D: DIESEL RANGE		5			Analyst	том
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	12/6/2017 6:44:08 PM	35332
Motor Oil Range Organics (MRO)	ND	51	mg/Kg	1	12/6/2017 6:44:08 PM	35332
Surr: DNOP	102	70-130	%Rec	1	12/6/2017 6:44:08 PM	35332
EPA METHOD 8015D: GASOLINE RANG	E				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/7/2017 2:04:07 AM	35319
Surr: BFB	105	15-316	%Rec	1	12/7/2017 2:04:07 AM	35319
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	12/7/2017 2:04:07 AM	35319
Toluene	ND	0.048	mg/Kg	1	12/7/2017 2:04:07 AM	35319
Ethylbenzene	ND	0.048	mg/Kg	1	12/7/2017 2:04:07 AM	35319
Xylenes, Total	ND	0.095	mg/Kg	1	12/7/2017 2:04:07 AM	35319
Surr: 4-Bromofluorobenzene	98.4	80-120	%Rec	1	12/7/2017 2:04:07 AM	35319

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 19 of 29
 - Sample pH Not In Range
- RL Reporting Detection Limit

Р

W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1712109

Date Reported: 12/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Williams			Client Sampl	e ID: BH	I-9 18'-20'	
Project:	Kutz Gas Plan			Collection	Date: 12	/1/2017 12:20:00 PM	
Lab ID:	1712109-019	Matrix: S	SOIL	Received	Date: 12	/2/2017 8:30:00 AM	
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RAN	NGE ORGANICS				Analyst	том
Diesel R	ange Organics (DRO)	ND	9.5	mg/Kg	1	12/6/2017 7:08:16 PM	35332
Motor Oi	Range Organics (MRO)	ND	47	mg/Kg	1	12/6/2017 7:08:16 PM	35332
Surr: [DNOP	94.5	70-130	%Rec	1	12/6/2017 7:08:16 PM	35332
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline	Range Organics (GRO)	ND	4.6	mg/Kg	1	12/7/2017 10:32:59 PM	35319
Surr: E	BFB	86.2	15-316	%Rec	1	12/7/2017 10:32:59 PM	35319
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB
Benzene		ND	0.023	mg/Kg	1	12/7/2017 10:32:59 PM	35319
Toluene		ND	0.046	mg/Kg	1	12/7/2017 10:32:59 PM	35319
Ethylben	zene	ND	0.046	mg/Kg	1	12/7/2017 10:32:59 PM	35319
Xylenes,	Total	ND	0.091	mg/Kg	1	12/7/2017 10:32:59 PM	35319
Surr: 4	4-Bromofluorobenzene	84.8	80-120	%Rec	1	12/7/2017 10:32:59 PM	35319

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 20 of 29
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Client: Williams Project: Kutz Gas Plan

Sample ID LCS-35333	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 35333	RunNo: 47491
Prep Date: 12/5/2017	Analysis Date: 12/6/2017	SeqNo: 1518687 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	4.4 5.000	88.5 70 130
Sample ID MB-35333	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 35333	RunNo: 47491
Prep Date: 12/5/2017	Analysis Date: 12/6/2017	SeqNo: 1518689 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	9.6 10.00	95.5 70 130
Sample ID LCS-35332	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 35332	RunNo: 47518
Prep Date: 12/5/2017	Analysis Date: 12/6/2017	SeqNo: 1518925 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	47 10 50.00	0 93.9 73.2 114
Surr: DNOP	4.4 5.000	88.2 70 130
Sample ID MB-35332	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Sample ID MB-35332 Client ID: PBS	SampType: MBLK Batch ID: 35332	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value S	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte Diesel Range Organics (DRO)	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value S ND 10	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value S ND 10 ND 50	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value ND 10 ND 50 10 10.00	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 103 70 130
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-35334	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value ND 10 ND 50 10 10.00	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 103 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-35334 Client ID: LCSS	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value ND 10 ND 50 10 10.00 SampType: LCS Batch ID: 35334	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 103 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47491
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-35334 Client ID: LCSS Prep Date: 12/5/2017	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value ND 10 ND 50 10 10.00 SampType: LCS Batch ID: 35334 Analysis Date: 12/6/2017	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 103 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47491 SeqNo: 1520256 Units: %Rec
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-35334 Client ID: LCSS Prep Date: 12/5/2017 Analyte	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value S ND 10 ND 50 10 10.00 SampType: LCS Batch ID: 35334 Analysis Date: 12/6/2017 Result PQL SPK value S	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 103 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47491 SeqNo: 1520256 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-35334 Client ID: LCSS Prep Date: 12/5/2017 Analyte Surr: DNOP	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value S ND 10 50 ND 50 10.00 10.00 SampType: LCS Batch ID: 35334 Analysis Date: 12/6/2017 Result PQL SPK value S Analysis Date: 12/6/2017 3.6 5.000 5.0	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 103 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47491 SeqNo: 1520256 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 71.7 70 130
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-35334 Client ID: LCSS Prep Date: 12/5/2017 Analyte Surr: DNOP Sample ID MB-35334	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value ND 10 ND 50 10 10.00 SampType: LCS Batch ID: 35334 Analysis Date: 12/6/2017 Result PQL SPK value 3.6 5.000 SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 103 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47491 SeqNo: 1520256 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 71.7 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-35334 Client ID: LCSS Prep Date: 12/5/2017 Analyte Surr: DNOP Sample ID MB-35334 Client ID: PBS	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value S ND 10 10 ND 50 10 10.00 SampType: LCS Batch ID: 35334 Analysis Date: 12/6/2017 Result PQL SPK value S SampType: LCS SampType: S	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 103 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47491 SeqNo: 1520256 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 71.7 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47491
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-35334 Client ID: LCSS Prep Date: 12/5/2017 Analyte Surr: DNOP Sample ID MB-35334 Client ID: PBS Prep Date: 12/5/2017	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value S ND 10 10 10 ND 50 10.00 10.00 SampType: LCS Batch ID: 35334 Analysis Date: 12/6/2017 SPK value S Result PQL SPK value S 3.6 5.000 3.6 5.000 SampType: MBLK Batch ID: 35334 Analysis Date: 12/6/2017 S S	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 103 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47491 SeqNo: 1520256 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 71.7 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47491 SeqNo: 1520258 Units: %Rec
Sample ID MB-35332 Client ID: PBS Prep Date: 12/5/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-35334 Client ID: LCSS Prep Date: 12/5/2017 Analyte Sample ID MB-35334 Client ID: PBS Prep Date: 12/5/2017 Analyte	SampType: MBLK Batch ID: 35332 Analysis Date: 12/6/2017 Result PQL SPK value S ND 10 10 ND 50 10 10.00 SampType: LCS Batch ID: 35334 Analysis Date: 12/6/2017 S Result PQL SPK value S 3.6 5.000 S SampType: MBLK Batch ID: 35334 Analysis Date: 12/6/2017 Result PQL SampType: MBLK Batch ID: 35334 Analysis Date: 12/6/2017 Result PQL	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47518 SeqNo: 1518926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 103 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47491 SeqNo: 1520256 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 71.7 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 47491 SeqNo: 1520258 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 21 of 29

WO#: 1712109 13-Dec-17

Client: Williams Project: Kutz Gas F

Sample ID 1712109-001AMS	SampT	ype: MS	6	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: BH-3 2'-4'	Batch	ID: 35	332	F	RunNo: 4	7518				
Prep Date: 12/5/2017	Analysis D	ate: 12	2/7/2017	S	SeqNo: 1	521039	Units: mg/l	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	64	9.3	46.38	61.38	4.84	55.8	125			S
Surr: DNOP	4.8		4.638		104	70	130			
Sample ID 1712109-001AMSI	SampT	ype: MS	D	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: BH-3 2'-4'	Batch	ID: 35	332	F	RunNo: 4	7518				
Prep Date: 12/5/2017	Analysis D	ate: 12	2/7/2017	5	SeqNo: 1	521040	Units: mg/k	٢g		
Analyte	Dent	DOI	SDK value	SDK Def Val	2/ DEC	Low imit	Highl imit	%PPD	RPDI imit	Qual
7 maryto	Result	PQL	SFR value	SFR Rei vai	MREC	LOWLINIL	rightin	JOINT D	INP DEIMIL	Qual
Diesel Range Organics (DRO)	S2	9.3	46.64	61.38	-20.6	55.8	125	20.6	20	RS

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
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- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Kutz Gas Plan

WO#:

Page 22 of 29

Client: Williams Project: Kutz Gas Plan

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Sample ID LCS-35300	SampTy	pe: LC	s	Tes	tCode: E	PA Method	8015M/D: Die	sel Rang	8	
Client ID: LCSW	Batch I	ID: 35	300	F	RunNo: 4	7491				
Prep Date: 12/4/2017	Analysis Da	te: 12	2/5/2017	S	SeqNo: 1	518569	Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.49		0.5000		97.5	77.5	161			
Sample ID MB-35300	SampTy	pe: ME	BLK	Tes	tCode: E	PA Method	8015M/D: Die	sel Rang	9	
Client ID: PBW	Batch I	D: 35	300	R	RunNo: 4	7491				
Prep Date: 12/4/2017	Analysis Dat	te: 12	2/5/2017	S	SeqNo: 1	518570	Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.99		1.000		99.3	77.5	161			
	CompTu		c	Tos		PA Mathod	8015M/D: Die	col Pana	2	
Sample ID LCS-35444	Sampiy	pe. Lu	3	163	Coue. E	r A Methou	OUIDIMID. DIE	sel Rany		
Client ID: LCS-35444	Batch I	D: 35	444	R	RunNo: 4	7698	SOTSMID. DIE	sei Kaliyi	3	
Client ID: LCSW Prep Date: 12/11/2017	Batch I Analysis Dat	D: 354	444 2/12/2017	R	RunNo: 4 SeqNo: 1	7698 524686	Units: mg/L	Sel Rang	3	
Client ID: LCSW Prep Date: 12/11/2017 Analyte	Batch I Analysis Dat Result	D: 354 te: 12	444 2/12/2017 SPK value	SPK Ref Val	RunNo: 4 SeqNo: 1 %REC	7698 524686 LowLimit	Units: mg/L HighLimit	%RPD	RPDLimit	Qual
Client ID: LCS-35444 Client ID: LCSW Prep Date: 12/11/2017 Analyte Diesel Range Organics (DRO)	Batch I Analysis Dat Result 5.6	te: 12 PQL 1.0	444 2/12/2017 SPK value 5.000	SPK Ref Val	RunNo: 4 BeqNo: 1 %REC 112	7698 524686 LowLimit 92.3	Units: mg/L HighLimit 135	%RPD	RPDLimit	Qual
Client ID: LCS-35444 Client ID: LCSW Prep Date: 12/11/2017 Analyte Diesel Range Organics (DRO) Surr: DNOP	Batch I Analysis Dat Result 5.6 0.51	PQL 1.0	444 2/12/2017 SPK value 5.000 0.5000	SPK Ref Val	RunNo: 4 SeqNo: 1 <u>%REC</u> 112 102	7698 524686 LowLimit 92.3 77.5	Units: mg/L HighLimit 135 161	%RPD	RPDLimit	Qual
Client ID: LCS-35444 Client ID: LCSW Prep Date: 12/11/2017 Analyte Diesel Range Organics (DRO) Surr: DNOP	Batch I Analysis Dat Result 5.6 0.51 SampTyp	D: 35 te: 12 PQL 1.0	444 2/12/2017 SPK value 5.000 0.5000 BLK	SPK Ref Val 0 Test	RunNo: 4 SeqNo: 1 %REC 112 102	7698 524686 LowLimit 92.3 77.5 PA Method	Units: mg/L HighLimit 135 161 8015M/D: Die	%RPD	RPDLimit	Qual
Client ID: LCS-35444 Client ID: LCSW Prep Date: 12/11/2017 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID MB-35444 Client ID: PBW	SampTyj Batch I Analysis Dat Result 5.6 0.51 SampTyj Batch I	D: 35 te: 12 PQL 1.0 pe: ME	444 2/12/2017 SPK value 5.000 0.5000 BLK 444	SPK Ref Val 0 Tesi	RunNo: 4 SeqNo: 1 3/REC 112 102 tCode: El RunNo: 4	7698 524686 LowLimit 92.3 77.5 PA Method 7698	Units: mg/L HighLimit 135 161 8015M/D: Die	%RPD	RPDLimit	Qual
Sample ID LCS-35444 Client ID: LCSW Prep Date: 12/11/2017 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID MB-35444 Client ID: PBW Prep Date: 12/11/2017	Samp Tyj Batch I Analysis Dat 5.6 0.51 Samp Tyj Batch I Analysis Dat	PQL 1.0 PQL 1.0 Pe: ME D: 354	444 2/12/2017 SPK value 5.000 0.5000 BLK 444 2/12/2017	Fes F SPK Ref Val 0 Tes R S	RunNo: 4 SeqNo: 1 %REC 112 102 tCode: E RunNo: 4 SeqNo: 1	7698 524686 LowLimit 92.3 77.5 PA Method 7698 524687	Units: mg/L HighLimit 135 161 8015M/D: Die Units: mg/L	%RPD	RPDLimit	Qual
Sample ID LCS-35444 Client ID: LCSW Prep Date: 12/11/2017 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID MB-35444 Client ID: PBW Prep Date: 12/11/2017 Analyte	SampTyj Batch I Analysis Dat 5.6 0.51 SampTyj Batch I Analysis Dat Result	PQL 1.0 PQL 1.0 PE: ME D: 35 te: 12 PQL	444 2/12/2017 SPK value 5.000 0.5000 BLK 444 2/12/2017 SPK value	SPK Ref Val 0 Test R SPK Ref Val	RunNo: 4 SeqNo: 1 %REC 112 102 tCode: E RunNo: 4 SeqNo: 1 %REC	7698 524686 LowLimit 92.3 77.5 PA Method 7698 524687 LowLimit	Units: mg/L HighLimit 135 161 8015M/D: Die Units: mg/L HighLimit	%RPD sel Range	RPDLimit RPDLimit	Qual
Sample ID LCS-35444 Client ID: LCSW Prep Date: 12/11/2017 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID MB-35444 Client ID: PBW Prep Date: 12/11/2017 Analyte Diesel Range Organics (DRO)	Samp Typ Batch I Analysis Dat 5.6 0.51 Samp Typ Batch I Analysis Dat Result ND	PQL 1.0 PQL 1.0 PE: ME D: 354 te: 12 PQL 1.0	444 2/12/2017 SPK value 5.000 0.5000 BLK 444 2/12/2017 SPK value	SPK Ref Val 0 Test R SPK Ref Val	RunNo: 4 SeqNo: 1 %REC 112 102 RunNo: 4 SeqNo: 1 %REC	7698 524686 LowLimit 92.3 77.5 PA Method 7698 524687 LowLimit	Units: mg/L HighLimit 135 161 8015M/D: Die Units: mg/L HighLimit	%RPD sel Range %RPD	RPDLimit	Qual
Sample ID LCS-35444 Client ID: LCSW Prep Date: 12/11/2017 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID MB-35444 Client ID: PBW Prep Date: 12/11/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	Samp Typ Batch I Analysis Dat 5.6 0.51 Samp Typ Batch I Analysis Dat Result ND ND	PQL 1.0 PQL 1.0 Pe: ME D: 35- te: 12 PQL 1.0 5.0	444 2/12/2017 SPK value 5.000 0.5000 3LK 444 2/12/2017 SPK value	SPK Ref Val 0 Tesi SPK Ref Val	RunNo: 4 SeqNo: 1 %REC 112 102 RCode: E RunNo: 4 SeqNo: 1 %REC	7698 524686 LowLimit 92.3 77.5 PA Method 7698 524687 LowLimit	Units: mg/L HighLimit 135 161 8015M/D: Die Units: mg/L HighLimit	%RPD sel Range %RPD	RPDLimit RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range

Sample pH Not In Range

- J Analyte detected below quantitation limits
- Page 23 of 29
- RL Reporting Detection Limit

Р

W Sample container temperature is out of limit as specified

13-Dec-17

WO#: 1712109

Client: Williams

Project: Kutz Gas Plan

Sample ID MB-35330	SampType: MBL	к	Tes	tCode: E	PA Method	8015D: Gasc	oline Rang	e	
Client ID: PBS	Batch ID: 35330	0	F	RunNo: 4	7564				
Prep Date: 12/5/2017	Analysis Date: 12/6	/2017	S	SeqNo: 1	519487	Units: %Re	с		
Analyte	Result PQL S	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970	1000		97. <mark>4</mark>	15	316			
Sample ID LCS-35330	SampType: LCS		Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batch ID: 35330	0	F	RunNo: 4	7564				
Prep Date: 12/5/2017	Analysis Date: 12/6/	/2017	5	SeqNo: 1	519488	Units: %Re	С		
Analyte	Result PQL S	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100	1000		108	15	316			
Sample ID MB-35319	SampType: MBL	к	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batch ID: 35319	9	F	RunNo: 4	7564				
Prep Date: 12/5/2017	Analysis Date: 12/6/	/2017	S	SeqNo: 1	519510	Units: mg/K	g		
Analyte	Result PQL S	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND 5.0	1000							
Surr: BFB	890	1000		88.6	15	316			
Sample ID LCS-35319	SampType: LCS		Test	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: LCSS	Batch ID: 35319	9	R	RunNo: 4	7564				
Client ID: LCSS Prep Date: 12/5/2017	Batch ID: 35319 Analysis Date: 12/6/	9 /2017	R	RunNo: 4 SeqNo: 1	7564 519511	Units: mg/K	g		
Client ID: LCSS Prep Date: 12/5/2017 Analyte	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S	9 / 2017 :PK value	R S SPK Ref Val	RunNo: 4 SeqNo: 1 %REC	7564 519511 LowLimit	Units: mg/K HighLimit	∕g %RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO)	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0	9 /2017 :PK value 25.00	R S SPK Ref Val 0	RunNo: 4 SeqNo: 1 %REC 110	7564 519511 LowLimit 75.9	Units: mg/K HighLimit 131	íg %RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1100	9 /2017 :PK value 25.00 1000	R S SPK Ref Val 0	RunNo: 4 SeqNo: 1 %REC 110 114	7564 519511 LowLimit 75.9 15	Units: mg/K HighLimit 131 316	g %RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1100 SampType: MS	9 /2017 PK value 25.00 1000	R SPK Ref Val 0 Test	RunNo: 4 SeqNo: 1 %REC 110 114 tCode: El	7564 519511 LowLimit 75.9 15 PA Method	Units: mg/K HighLimit 131 316 8015D: Gaso	g %RPD	RPDLimit e	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25'	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1100 SampType: MS Batch ID: 35319	9 /2017 PK value 25.00 1000	R S SPK Ref Val 0 Test R	RunNo: 4 SeqNo: 1 %REC 110 114 tCode: El	7564 519511 LowLimit 75.9 15 PA Method 7564	Units: mg/K HighLimit 131 316 8015D: Gaso	g %RPD line Rang	RPDLimit e	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25' Prep Date: 12/5/2017	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1100 100 SampType: MS Batch ID: 35319 Analysis Date: 12/6/	9 /2017 PK value 25.00 1000 9 /2017	R SPK Ref Val 0 Test R S	RunNo: 4 SeqNo: 1 %REC 110 114 Code: El RunNo: 4 SeqNo: 1	7564 519511 LowLimit 75.9 15 PA Method 7564 519517	Units: mg/K HighLimit 131 316 8015D: Gaso Units: mg/K	g %RPD line Rang	RPDLimit e	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25' Prep Date: 12/5/2017 Analyte	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1100 SampType: MS Batch ID: 35319 Analysis Date: 12/6/ Result PQL S	9 /2017 :PK value 25.00 1000 /000 /2017 PK value	R S SPK Ref Val 0 Tesi R S SPK Ref Val	RunNo: 4 SeqNo: 1: %REC 110 114 tCode: El RunNo: 4 SeqNo: 1: %REC	7564 519511 LowLimit 75.9 15 PA Method 7564 519517 LowLimit	Units: mg/K HighLimit 131 316 8015D: Gaso Units: mg/K HighLimit	Gg %RPD Iline Rang Gg %RPD	RPDLimit e RPDLimit	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25' Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO)	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1100 100 SampType: MS Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 26 4.9 1000 100	9 /2017 PK value 25.00 1000 /2007 PK value 24.51	R SPK Ref Val 0 Test R SPK Ref Val 0	RunNo: 4 SeqNo: 1 %REC 110 114 Code: El RunNo: 4 SeqNo: 1 %REC 106	7564 519511 LowLimit 75.9 15 PA Method 7564 519517 LowLimit 77.8	Units: mg/K HighLimit 131 316 8015D: Gaso Units: mg/K HighLimit 128	g %RPD line Rang g %RPD	RPDLimit e RPDLimit	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25' Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1100 100 SampType: MS Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1000	9 /2017 PK value 25.00 1000 9 /2017 PK value 24.51 980.4	R SPK Ref Val 0 Tesi R SPK Ref Val 0	RunNo: 4 SeqNo: 1 %REC 110 114 tCode: El RunNo: 4 SeqNo: 1 %REC 106 105	7564 519511 LowLimit 75.9 15 PA Method 7564 519517 LowLimit 77.8 15	Units: mg/K HighLimit 131 316 8015D: Gaso Units: mg/K HighLimit 128 316	Sg %RPD Sline Rang Sg %RPD	RPDLimit e RPDLimit	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25' Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1100 SampType: MS Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 26 4.9 1000 D SampType: MSD	9 /2017 PK value 25.00 1000 /2007 /2017 PK value 24.51 980.4	R SPK Ref Val 0 Test SPK Ref Val 0 Test	RunNo: 4 SeqNo: 1 %REC 110 114 Code: El RunNo: 4 SeqNo: 1 %REC 106 105	7564 519511 LowLimit 75.9 15 PA Method 7564 519517 LowLimit 77.8 15 PA Method	Units: mg/K HighLimit 131 316 8015D: Gaso Units: mg/K HighLimit 128 316 8015D: Gaso	g %RPD line Rang %RPD	RPDLimit e RPDLimit	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25' Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25'	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1100 SampType: MS Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 26 4.9 1000 D SampType: MSD Batch ID: 35319	9 /2017 PK value 25.00 1000 9 /2017 PK value 24.51 980.4	R SPK Ref Val 0 Test SPK Ref Val 0 Test R R	RunNo: 4 SeqNo: 1 %REC 110 114 tCode: El RunNo: 4 %REC 106 105 tCode: El RunNo: 4	7564 519511 LowLimit 75.9 15 PA Method 7564 519517 LowLimit 77.8 15 PA Method 7564	Units: mg/K HighLimit 131 316 8015D: Gaso Units: mg/K HighLimit 128 316 8015D: Gaso	g %RPD line Rang %RPD	RPDLimit e RPDLimit	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25' Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25' Prep Date: 12/5/2017	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1100 SampType: MS Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 26 4.9 1000 D SampType: MSD Batch ID: 35319 Analysis Date: 12/6/	9 /2017 PK value 25.00 1000 9 /2017 PK value 24.51 980.4 9 /2017	R SPK Ref Val 0 Test SPK Ref Val 0 Test R S	RunNo: 4 SeqNo: 1 %REC 110 114 Code: El RunNo: 4 SeqNo: 1 %REC 106 105 Code: El RunNo: 4 SeqNo: 1	7564 519511 LowLimit 75.9 15 PA Method 7564 519517 LowLimit 77.8 15 PA Method 7564 519518	Units: mg/K HighLimit 131 316 8015D: Gaso Units: mg/K HighLimit 128 316 8015D: Gaso Units: mg/K	g %RPD line Rang %RPD line Rang	RPDLimit e RPDLimit	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25' Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25' Prep Date: 12/5/2017 Analyte	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1100 SampType: MS Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 26 4.9 1000 D SampType: MSD Batch ID: 35319 Analysis Date: 12/6/ Result PQL S	9 /2017 PK value 25.00 1000 9 /2017 PK value 9 /2017 PK value	R SPK Ref Val 0 Test SPK Ref Val 0 Test 8 SPK Ref Val SPK Ref Val	RunNo: 4 SeqNo: 1 %REC 110 114 tCode: El RunNo: 4 SeqNo: 1 %REC 105 tCode: El RunNo: 4 SeqNo: 1 SeqNo: 1	7564 519511 LowLimit 75.9 15 PA Method 7564 519517 LowLimit 77.8 15 PA Method 7564 519518 LowLimit	Units: mg/K HighLimit 131 316 8015D: Gaso Units: mg/K HighLimit 128 316 8015D: Gaso Units: mg/K HighLimit	Sg %RPD Mine Rang %RPD Mine Rang	RPDLimit e RPDLimit e RPDLimit	Qual
Client ID: LCSS Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25' Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1712109-002AMS Client ID: BH-3 23'-25' Prep Date: 12/5/2017 Analyte Gasoline Range Organics (GRO)	Batch ID: 35319 Analysis Date: 12/6/ Result PQL S 28 5.0 1100 100 SampType: MS Batch ID: 35319 Analysis Date: 12/6/ Result PQL Si 26 4.9 1000 1000 D SampType: MSD Batch ID: 35319 Analysis Date: 12/6/ Result PQL Si 25 4.8 1000	9 /2017 PK value 25.00 1000 9 /2017 PK value 24.51 980.4 9 /2017 PK value 24.51	Find Strength Strengt	RunNo: 4 SeqNo: 1: %REC 110 114 Code: El RunNo: 4 SeqNo: 1: %REC 106 105 Code: El RunNo: 4 SeqNo: 1: %REC 106 Code: El RunNo: 4 SeqNo: 1: %REC 106 Code: El RunNo: 4 SeqNo: 1: %REC 106 Code: El RunNo: 4 %REC 106 Code: El RunNo: 4 %REC 106 Code: El %REC 106 Code: El %REC 106 Code: El %REC 106 Code: El %REC 106 Code: El %REC	7564 519511 LowLimit 75.9 15 PA Method 7564 519517 LowLimit 77.8 15 PA Method 7564 519518 LowLimit 77.8	Units: mg/K HighLimit 131 316 8015D: Gaso Units: mg/K HighLimit 128 316 8015D: Gaso Units: mg/K HighLimit	Sg %RPD sline Rang %RPD sline Rang Sg %RPD 5.42	RPDLimit e RPDLimit e RPDLimit 20	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Page 24 of 29
- Sample pH Not In Range RL Reporting Detection Limit

Р

W Sample container temperature is out of limit as specified 13-Dec-17

Client: Williams Project: Kutz Gas Plan

Sample ID MB-35335	SampType: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batch ID: 35	335	R	RunNo: 4	7603				
Prep Date: 12/5/2017	Analysis Date: 12	2/7/2017	S	SeqNo: 1	521404	Units: %Rec			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	860	1000		86.4	15	316			
Sample ID LCS-35335	SampType: LC	S	Test	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Sample ID LCS-35335 Client ID: LCSS	SampType: LC Batch ID: 353	S 335	Tesi R	tCode: El RunNo: 4	PA Method 7603	8015D: Gaso	line Rang	e	
Sample ID LCS-35335 Client ID: LCSS Prep Date: 12/5/2017	SampType: LC Batch ID: 35: Analysis Date: 12	S 335 2/7/2017	Tesi R S	tCode: El RunNo: 4 SeqNo: 1	PA Method 7603 521405	8015D: Gaso Units: %Rec	line Rang	e	
Sample ID LCS-35335 Client ID: LCSS Prep Date: 12/5/2017 Analyte	SampType: LC Batch ID: 35: Analysis Date: 12 Result PQL	S 335 2/7/2017 SPK value	Test R S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 7603 521405 LowLimit	8015D: Gaso Units: %Rec HighLimit	line Rang %RPD	e RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 25 of 29

WO#: 1712109 13-Dec-17

Client: Williams Project: Kutz Gas Plan

Sample ID RB	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBW	Batc	h ID: G4	7631	F	RunNo: 4	7631				
Prep Date:	Analysis [Date: 12	2/8/2017	S	SeqNo: 1	522771	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	23		20.00		114	69.3	150			
						0010				
Sample ID 2.5UG GRO LCS	Samp	Гуре: LC	S	Tes	tCode: El	PA Method	8015D: Gasol	ine Rang	e	
Sample ID 2.5UG GRO LCS Client ID: LCSW	Samp [®] Batc	Гуре: LC h ID: G4	S	Tes	tCode: El RunNo: 4	PA Method	8015D: Gaso	ine Rang	e	
Sample ID 2.5UG GRO LCS Client ID: LCSW Prep Date:	Samp Batc Analysis [Type: LC h ID: G4 Date: 12	S 7631 2/8/2017	Tes F	tCode: El RunNo: 4 SeqNo: 1	PA Method 7631 522772	8015D: Gasol Units: mg/L	ine Rang	e	
Sample ID 2.5UG GRO LCS Client ID: LCSW Prep Date: Analyte	Samp Batc Analysis [Result	Type: LC h ID: G4 Date: 12 PQL	5 7631 2/8/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 7631 522772 LowLimit	8015D: Gasol Units: mg/L HighLimit	ine Rang	e RPDLimit	Qual
Sample ID 2.5UG GRO LCS Client ID: LCSW Prep Date: Analyte Gasoline Range Organics (GRO)	Samp Batc Analysis I Result 0.51	Fype: LC h ID: G4 Date: 12 PQL 0.050	5 5 7631 2/8/2017 SPK value 0.5000	Tes F S SPK Ref Val 0	tCode: El RunNo: 4 SeqNo: 1 %REC 103	PA Method 7631 522772 LowLimit 75.8	8015D: Gasol Units: mg/L HighLimit 123	line Rang	e RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 26 of 29

WO#: 1712109 13-Dec-17

SampType: MBLK

Batch ID: 35330

PQL

0.025

0.049

0.049

0.099

Result

0.99

0.98

0.98

3.2

Value exceeds Maximum Contaminant Level.

Holding times for preparation or analysis exceeded

% Recovery outside of range due to dilution or matrix

Sample Diluted Due to Matrix

PQL Practical Quanitative Limit

Not Detected at the Reporting Limit

Client: Williams Kutz Gas Plan **Project:**

PBS

Sample ID MB-35330

Client ID:

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Qualifiers:

* D

Η

ND

S

0

0

В	Analyte	detected i	n the	associated	Method	Blank
---	---------	------------	-------	------------	--------	-------

SPK value SPK Ref Val

0.03957

0.2630

0.9862

0.9862

0.9862

2.959

E Value above quantitation range

%REC

96.5

99.6

99.7

98.3

- Analyte detected below quantitation limits J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

LowLimit

80.9

79.8

79.4

78.5

HighLimit

132

136

140

142

%RPD

RPDLimit

Page 27 of 29

Qual

Prep Date:	12/5/2017	Analysis D	Date: 1	2/6/2017	S	SeqNo: 1	519530	Units: %Rec	:		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	ofluorobenzene	0.91		1.000		91.0	80	120			
Sample ID	LCS-35330	SampT	vpe: LC	s	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batch	h ID: 35	330	R	RunNo: 4	7564				
Prep Date:	12/5/2017	Analysis D	ate: 1	2/6/2017	S	SeaNo: 1	519531	Units: %Rec			
Analita		Deput	DOI			NDEC.	Loud insit	Light insit	0/ 000	DDDI imit	Quel
Surr: 1 Brom	ofluorobenzene	Result	PQL	SPK Value	SPK Ref Val	%REC	LOWLIMI	HighLimit	%RPD	RPDLIMI	Qual
	olidolobelizerie	0.35		1.000		94.0	00	120			
Sample ID	MB-35319	SampT	ype: MI	BLK	Test	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batch	n ID: 35	319	R	RunNo: 4	7564				
Prep Date:	12/5/2017	Analysis D	ate: 1	2/6/2017	S	SeqNo: 1	519534	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brome	ofluorobenzene	0.87		1.000		86.6	80	120			
Sample ID	LCS-35319	SampT	ype: LC	s	Test	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batch	n ID: 35	319	R	RunNo: 4	7564				
Prep Date:	12/5/2017	Analysis D	ate: 1	2/6/2017	S	SeqNo: 1	519535	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.95	0.025	1.000	0	95.3	77.3	128			
Toluene		0.95	0.050	1.000	0	94.9	79.2	125			
Ethylbenzene		0.94	0.050	1.000	0	93.8	80.7	127			
Xylenes, Total		2.8	0.10	3.000	0	94.6	81.6	129			
Surr: 4-Brom	ofluorobenzene	0.87		1.000		86.9	80	120			
Sample ID	1712109-001AMS	SampT	ype: MS	6	Test	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	BH-3 2'-4'	Batch	n ID: 35	319	R	RunNo: 4	7564				
Prep Date:	12/5/2017	Analysis D	ate: 1	2/6/2017	S	eqNo: 1	519540	Units: mg/K	g		

TestCode: EPA Method 8021B: Volatiles

RunNo: 47564

WO#: 1712109

13-Dec-17

OC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

Client: Williams **Project:** Kutz Gas Plan

Sample ID 1712109-001AMS SampType: MS TestCode: EPA Method 8021B: Volatiles Client ID: BH-3 2'-4' Batch ID: 35319 RunNo: 47564 Prep Date: 12/5/2017 Analysis Date: 12/6/2017 SeqNo: 1519540 Units: mg/Kg SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual Surr: 4-Bromofluorobenzene 0.90 0.9862 91.6 80 120 Sample ID 1712109-001AMSD SampType: MSD TestCode: EPA Method 8021B: Volatiles Client ID: BH-3 2'-4' Batch ID: 35319 RunNo: 47564 Prep Date: Analysis Date: 12/6/2017 12/5/2017 SeqNo: 1519541 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Analyte LowLimit 0.03957 Benzene 0.93 0.025 0.9823 91.0 80.9 132 6.04 20 Toluene 0.92 0.049 0.9823 0 93.5 79.8 136 6.66 20 Ethylbenzene 0.93 0.049 0.9823 0 94.3 794 140 5.95 20 Xylenes, Total 2.9 0.098 2.947 0.2630 90.4 142 8.05 20 78.5 Surr: 4-Bromofluorobenzene 0.90 0.9823 91.5 120 0 80 0 Sample ID MB-35335 SampType: MBLK TestCode: EPA Method 8021B: Volatiles RunNo: 47603 Client ID: PBS Batch ID: 35335 Prep Date: 12/5/2017 Analysis Date: 12/7/2017 SegNo: 1521440 Units: %Rec SPK value SPK Ref Val %RPD Analyte Result PQL %REC LowLimit HighLimit **RPDLimit** Qual Surr: 4-Bromofluorobenzene 0.81 1.000 81.4 80 120 Sample ID LCS-35335 TestCode: EPA Method 8021B: Volatiles SampType: LCS Client ID: LCSS Batch ID: 35335 RunNo: 47603 Prep Date: 12/5/2017 Analysis Date: 12/7/2017 SeqNo: 1521441 Units: %Rec SPK value SPK Ref Val %REC Analyte Result PQL LowLimit HighLimit %RPD **RPDLimit** Qual Surr: 4-Bromofluorobenzene 0.85 1.000 85.2 80 120

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- Analyte detected in the associated Method Blank в
- E Value above quantitation range
- Analyte detected below quantitation limits J
- Page 28 of 29

Sample pH Not In Range

Р

- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

1712109 13-Dec-17

WO#:

Client: Williams Project: Kutz Gas Plan

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Sample ID rb	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8260: Volatile	es Short L	.ist	
Client ID: PBW	Batch	h ID: A4	7582	F	RunNo: 4	7582				
Prep Date:	Analysis D	Date: 12	2/6/2017	S	SeqNo: 1	519841	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.0		10.00		79.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		112	70	130			
Surr: Dibromofluoromethane	8.6		10.00		86.0	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			
Sample ID 100ng Ics	SampT	ype: LC	S	Test	tCode: El	PA Method	8260: Volatile	s Short L	.ist	
Client ID: LCSW	Batch	h ID: A4	7582	R	RunNo: 4	7582				
Prep Date:	Analysis D	ate: 12	2/6/2017	S	eqNo: 1	519842	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	85.3	70	130			
Toluene	20	1.0	20.00	0	98.6	70	130			
Surr: 1,2-Dichloroethane-d4	7.9		10.00		79.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.0	70	130			
	0.0		10.00		00.0		100			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

1712109 13-Dec-17

WO#:

Page 29 of 29

LA	BORATORY	TEL: 505-345-39 Website: www.l	/5 FAX: 505-345-4 hallenvironmental.	com			
Client Nan	ne: WILLIAMS FOUR CO	RN Work Order Number	er: 1712109		RcptNo: 1		
Received I	By: Ashley Gallegos	12/2/2017 8:30:00 AI	м	AJ			
Completed	By: Anne Thome	12/4/2017 12:13:32 F	M	am the	_		
Reviewed E	ay: DPS	12/04/17					
hain of	Custody						
1. Custod	y seals intact on sample bottle	es?	Yes 🗌	No 🗌	Not Present		
2, Is Chai	n of Custody complete?		Yes 🗹	No 🗌	Not Present		
B. How wa	as the sample delivered?		Courier				
og In							
. Was ar	n attempt made to cool the sa	imples?	Yes 🔽	No 🗌	NA 🗌		
, Were a	Il samples received at a temp	erature of >0° C to 6.0°C	Yes 🗹	No 🗌			
. Sample	e(s) in proper container(s)?		Yes 🗸	No 🗌			
. Sufficie	nt sample volume for indicate	ed test(s)?	Yes 🗹	No 🗌			
. Are san	ples (except VOA and ONG)	properly preserved?	Yes 🖌	No			
. Was pre	eservative added to bottles?		Yes	No 🔽	NA 🗌		
0. VOA via	als have zero headspace?		Yes	No 🗌	No VOA Vials		
1. Were a	ny sample containers receive	d broken?	Yes	No 🗹	# of preserved		
2. Does pa (Note di	aperwork match bottle labels? screpancies on chain of custo	ody)	Yes 🗹	No 🗌	for pH:	12 unless noted)	
Are mat	rices correctly identified on C	hain of Custody?	Yes 🔽	No 🗌	Adjusted?	-	
1. Is it clea	ir what analyses were reques	ted?	Yes 🗹	No !			
5. Ware al (If no. n	I holding times able to be met otify customer for authorizatio	(? (n.)	Yes 🖌	No .	Checked by:		
ecial H	andling (if applicable)						
S. Was clie	ent notified of all discrepancie	s with this order?	Yas	No	NA 🖌		
Pe	erson Natilied:	Date					
By	/Whom:	Via:	[eMail] F	hone [Fax	In Person		
Re	egarding:				······		
CI . Addition	ent Instructions"		-	-	-		
Cooler	Information						
Cook	er No Temp °C Condition	n SealIntact Seal No	Seal Date	Signed By			

C	hain-	of-Cu	stody Record	Tum-Around	Time:					Ŀ			FI	MV	TE	20	NP	ME	МТ	- 41	
Client:	Will	ion m;		3 Standard	D Rush		[N	AI	YS	T	S I	AF	30	R/	TC	OR	Y
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email or	Fax#: c	2010/11	anter Quilliams. son	Project Mana	ger:		_	(Al	Ő					170							
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Dale	Time	Matrix	Sample Request ID	Container	Preservative	HEAL NO	4	+	801	(Mel	(Mel	s (8;	481	IS (F	Pes	30	(Sei				hddu
- Calif			Bumpio Roquoor ib	Type and #	Туре	1712 109	BTEY	3TE	HH	Hall	EDB	HVd	RCR	Anior	3081	3260	3270				Air Bl
1/2/11	11:15	50:1	BH-3 2'-4'	1400	6001	-201	X	_	x					_					-	1	-
	11:30	Seil	BH-3 23'-25'	1402	6001	-202-	X		x												
	11:50	Giv	BH-3	HUSAA	Hel	-7.03			X							X					
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	13.40	301	BH-2 13'-15'		1	-ade	×		×												
	10 m . 00	Soil	BH -7 23'-251			207	×		×												
	14:20	Seil	BH-1 13'-15'			-7.08	×	1	x												
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12/iliz	13:30	Sait	5P03	1402	Coot		X		X			Æ									
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Client w. li G. m 5 B Standard E Rush	C	hain	of-Cu	istody Record	Turn-Around	Time			S.					_								
Adv r. on Adv r. on Collect Project Name: www.hallewinormantal.com Mailing Address: 295 Chipcea Wav KUBZ Gas Plans 901 Hawkina ME - Albuquerque, NM 87109 Scill Lake Cley, U.a. 34105 Poject R C34017003 901 Hawkina ME - Albuquerque, NM 87109 Tel. Scill Sylv & Hule Scill Sylv & Hule C34017003 901 Hawkina ME - Albuquerque, NM 87109 Tel. Scill Sylv & Hule Scill Sylv & Hule C34017003 901 Hawkina ME - Albuquerque, NM 87109 Tel. Scill Sylv & Hule Scill Sylv & Hule C34017003 901 Hawkina ME - Albuquerque, NM 87109 College Will Mass Science C34017003 901 Hawkina ME - Albuquerque, NM 87109 College Science Science Cience Cience Analysis Request Date Fric Cannol Cience Cience College College College Cience Cience Cience No Type Mains Sample: Erric Cannol Cience Cience Cience College College College Cience Cience Cience	Client:	SAR. ILI	ams		K Standard	□ Rush			Ent.		H			E	NV	/IF	20		4E	NT		_
Accent Appropriate Contact KUB2 Gas Plant www.hallenvioonental.com Maing Address: 245 Chi Poesa Was V Project #: C34017003 addressi 4001 Hawkins NE - Albuguargue, NM 87103 Conto Larke City Use 9406 C34017003 Bit so 53453975 Free to 554-6172 Phone #: 521-554-63446 C34017003 Bit so 53453975 Free to 554-6172 Phone #: 521-554-63446 C34017003 Bit so 53453975 Free to 556-6176 Accereation Larel 4 (Full Validation) Lare 1: Container Bit so 53453975 Free to 50000 Bit so 53453975 NELAP Ontoo: "A trainer Ontoo: "A trainer Bit so 53453975 Bit so 53453975 Bit so 53453975 Date Time Malinx Sample Request ID Ontoiner Type and # Type and # Bit so 53453975 Bit so 53454107 Bit so 53454107 Bit	A			e	Project Name	e:					A		AL	T S	>13	5 L	At	30	KA		ж	. T
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a necessary saggives such rided to right environmentation of the analytical report and you have address of output of the transmitty and approximation card with the dealty included on the analytical report		(necessary	Samples subs	mitted to Hall Environmental may be sub-	contracted to other 34	cryst ed laboration	s. This serves as notice of this	possi	hility	Any su	b-cunti	acted	data :	will be	dear	ly neta	ited or	the ar	nalytic	al repor	t	



June 15, 2018

Aaron Galer Williams Four Corners 188 CR 4900 Bloomfield, NM 87413 TEL: (505) 632-4442 FAX

RE: Kutz Canyon GP

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

OrderNo.: 1806560

Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 28 sample(s) on 6/9/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

and

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

					1	
CLIENT: Williams Four Corners Project: Kutz Canyon GP Lab ID: 1806560-001	Matrix: SOIL	CI	ient Sample I Collection Dat Received Dat	D: BH ce: 6/6	H16 8-12' 5/2018 2:30:00 PM 9/2018 9:00:00 AM	
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	том
Diesel Range Organics (DRO)	420	9.9	mg/Kg	1	6/13/2018 11:15:00 PM	38631
Motor Oil Range Organics (MRO)	670	50	mg/Kg	1	6/13/2018 11:15:00 PM	38631
Surr: DNOP	129	70-130	%Rec	1	6/13/2018 11:15:00 PM	38631
EPA METHOD 8015D: GASOLINE RANG	θE				Analyst	NSB
Gasoline Range Organics (GRO)	4100	240	mg/Kg	50	6/12/2018 10:22:49 AM	38605
Surr: BFB	200	15-316	%Rec	50	6/12/2018 10:22:49 AM	38605
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	11	1.2	mg/Kg	50	6/12/2018 10:22:49 AM	38605
Toluene	ND	2.4	mg/Kg	50	6/12/2018 10:22:49 AM	38605
Ethylbenzene	14	2.4	mg/Kg	50	6/12/2018 10:22:49 AM	38605
Xylenes, Total	140	4.8	mg/Kg	50	6/12/2018 10:22:49 AM	38605
Surr: 4-Bromofluorobenzene	108	80-120	%Rec	50	6/12/2018 10:22:49 AM	38605

Qualifiers:

* Value exceeds Maximum Contaminant Level.

Hall Environmental Analysis Laboratory, Inc.

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
 - J Analyte detected below quantitation limits Page 1 of 34
 - P Sample pH Not In Range
 - RL Reporting Detection Limit
 - W Sample container temperature is out of limit as specified

CLIENT: Project: Lab ID:	Williams Four Corners Kutz Canyon GP 1806560-002	Matrix: SC	DIL	Client S Collec Recei	ample II tion Date ved Date): BH e: 6/6 e: 6/9	116 12-15' /2018 2:35:00 PM /2018 9:00:00 AM	
Analyses		Resu	lt PQ	L Qual	Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RANGE (ORGANICS					Analyst:	том
Diesel Ra	ange Organics (DRO)	N	ID ·	0	mg/Kg	1	6/14/2018 12:27:41 AM	38631
Motor Oil	Range Organics (MRO)	N	ID :	50	mg/Kg	1	6/14/2018 12:27:41 AM	38631
Surr: D	DNOP	10	06 70-13	30	%Rec	1	6/14/2018 12:27:41 AM	38631
EPA MET	HOD 8015D: GASOLINE RANGE						Analyst:	NSB
Gasoline	Range Organics (GRO)	N	ID 4	.9	mg/Kg	1	6/12/2018 11:46:06 PM	38605
Surr: E	3FB	86	.8 15-3	16	%Rec	1	6/12/2018 11:46:06 PM	38605
EPA MET	HOD 8021B: VOLATILES						Analyst:	NSB
Benzene		N	D 0.02	24	mg/Kg	1	6/12/2018 11:46:06 PM	38605
Toluene		N	D 0.04	19	mg/Kg	1	6/12/2018 11:46:06 PM	38605
Ethylbena	zene	N	D 0.04	19	mg/Kg	1	6/12/2018 11:46:06 PM	38605
Xylenes,	Total	N	D 0.09	98	mg/Kg	1	6/12/2018 11:46:06 PM	38605
Surr: 4	-Bromofluorobenzene	10	3 80-12	20	%Rec	1	6/12/2018 11:46:06 PM	38605

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 34
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Williams Four Corners		Cl	ient Sample II	D: BI	H17 14-16'	
Project:	Kutz Canyon GP		(Collection Dat	e: 6/6	5/2018 2:00:00 PM	
Lab ID:	1806560-003	Matrix: SOIL	_	Received Date	e: 6/9	9/2018 9:00:00 AM	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RANGE (ORGANICS				Analyst	том
Diesel Ra	ange Organics (DRO)	41	9.9	mg/Kg	1	6/14/2018 12:51:52 AM	38631
Motor Oil	Range Organics (MRO)	110	50	mg/Kg	1	6/14/2018 12:51:52 AM	38631
Surr: D	DNOP	111	70-130	%Rec	1	6/14/2018 12:51:52 AM	38631
EPA MET	HOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline	Range Organics (GRO)	86	9.6	mg/Kg	2	6/13/2018 4:20:03 PM	38605
Surr: B	3FB	307	15-316	%Rec	2	6/13/2018 4:20:03 PM	38605
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB
Benzene		ND	0.048	mg/Kg	2	6/13/2018 4:20:03 PM	38605
Toluene		ND	0.096	mg/Kg	2	6/13/2018 4:20:03 PM	38605
Ethylbenz	zene	0.28	0.096	mg/Kg	2	6/13/2018 4:20:03 PM	38605
Xylenes,	Total	3.0	0.19	mg/Kg	2	6/13/2018 4:20:03 PM	38605
Surr: 4	-Bromofluorobenzene	116	80-120	%Rec	2	6/13/2018 4:20:03 PM	38605

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	Н	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	DOI	

- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Value above quantitation range Е
- Analyte detected below quantitation limits Page 3 of 34 J
- Sample pH Not In Range Р
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

					- F	
CLIENT: Williams Four Corners Project: Kutz Canyon GP Lab ID: 1806560-004	Client Sample ID: BH17 20-23' Collection Date: 6/6/2018 2:05:00 PM Matrix: SOIL Received Date: 6/9/2018 9:00:00 AM					
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	том
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	6/14/2018 1:16:12 AM	38631
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	6/14/2018 1:16:12 AM	38631
Surr: DNOP	112	70-130	%Rec	1	6/14/2018 1:16:12 AM	38631
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	6/13/2018 12:32:41 AM	38605
Surr: BFB	85.9	15-316	%Rec	1	6/13/2018 12:32:41 AM	<u>38605</u>
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	6/13/2018 12:32:41 AM	38605
Toluene	ND	0.048	mg/Kg	1	6/13/2018 12:32:41 AM	38605
Ethylbenzene	ND	0.048	mg/Kg	1	6/13/2018 12:32:41 AM	38605
Xylenes, Total	ND	0.095	mg/Kg	1	6/13/2018 12:32:41 AM	38605
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	6/13/2018 12:32:41 AM	38605

Analytical Report Lab Order 1806560

Date Reported: 6/15/2018

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 4 of 34
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

CLIENT:	Williams Four Corners	Client Sample ID: BH18 10-12'								
Project:	Kutz Canyon GP		Collection Date: 6/6/2018 3:00:00 PM							
Lab ID:	1806560-005	Matrix: SOIL	Received Date: 6/9/2018 9:00:00 AM							
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch			
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	том			
Diesel Ra	ange Organics (DRO)	ND	9.9	mg/Kg	1	6/14/2018 1:40:29 AM	38631			
Motor Oil	Range Organics (MRO)	ND	49	mg/Kg	1	6/14/2018 1:40:29 AM	38631			
Surr: D	NOP	111	70-130	%Rec	1	6/14/2018 1:40:29 AM	38631			
EPA METHOD 8015D: GASOLINE RANGE		GE				Analyst	NSB			
Gasoline Range Organics (GRO)		5.2	4.6	mg/Kg	1	6/13/2018 4:43:46 PM	38605			
Surr: BFB		97.7	15-316	%Rec	1	6/13/2018 4:43:46 PM	38605			
EPA METHOD 8021B: VOLATILES						Analyst	NSB			
Benzene		ND	0.023	mg/Kg	1	6/13/2018 4:43:46 PM	38605			
Toluene		ND	0.046	mg/Kg	1	6/13/2018 4:43:46 PM	38605			
Ethylbenzene		ND	0.046	mg/Kg	1	6/13/2018 4:43:46 PM	38605			
Xylenes,	Total	ND	0.092	mg/Kg	1	6/13/2018 4:43:46 PM	38605			
Surr: 4	-Bromofluorobenzene	106	80-120	%Rec	1	6/13/2018 4:43:46 PM	38605			

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
H Holding times for preparation or analysis exceeded		J	Analyte detected below quantitation limits Page 5 of 34	
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

						1		
CLIENT: Project: Lab ID:	Williams Four Corners Kutz Canyon GP 1806560-006	Matrix: SOIL	Client Sample ID: BH19 14-16' Collection Date: 6/7/2018 9:40:00 AM atrix: SOIL Received Date: 6/9/2018 9:00:00 AM					
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch	
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst	том	
Diesel Ra	ange Organics (DRO)	340	10	mg/Kg	1	6/14/2018 2:04:53 AM	38631	
Motor Oil	Range Organics (MRO)	510	50	mg/Kg	1	6/14/2018 2:04:53 AM	38631	
Surr: D	DNOP	126	70-130	%Rec	1	6/14/2018 2:04:53 AM	38631	
EPA MET	HOD 8015D: GASOLINE RAM	IGE				Analyst	NSB	
Gasoline	Range Organics (GRO)	1900	240	mg/Kg	50	6/13/2018 12:55:59 AM	38605	
Surr: BFB		161	15-316	%Rec	50	6/13/2018 12:55:59 AM	38605	
EPA MET	HOD 8021B: VOLATILES					Analyst:	NSB	
Benzene		1.3	1.2	mg/Kg	50	6/13/2018 12:55:59 AM	38605	
Toluene		13	2.4	mg/Kg	50	6/13/2018 12:55:59 AM	38605	
Ethylben	zene	5.5	2.4	mg/Kg	50	6/13/2018 12:55:59 AM	38605	
Xylenes,	Total	53	4.8	mg/Kg	50	6/13/2018 12:55:59 AM	38605	
Surr: 4	-Bromofluorobenzene	107	80-120	%Rec	50	6/13/2018 12:55:59 AM	38605	

Analytical Report Lab Order 1806560

Date Reported: 6/15/2018

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank			
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range			
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 6 of 34			
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range			
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit			
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified			
CLIENT: Project: Lab ID:	Williams Four Corners Kutz Canyon GP 1806560-007	Matrix: SOIL	CI (ient Sample II Collection Date Received Date	D: BI e: 6/? e: 6/9	H19 20-24' 7/2018 9:50:00 AM 9/2018 9:00:00 AM	
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Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RANGE (ORGANICS				Analyst	том
Diesel Ra	ange Organics (DRO)	ND	9.9	mg/Kg	1	6/14/2018 2:29:04 AM	38631
Motor Oil	Range Organics (MRO)	ND	49	mg/Kg	1	6/14/2018 2:29:04 AM	38631
Surr: D	NOP	122	70-130	%Rec	1	6/14/2018 2:29:04 AM	38631
EPA MET	HOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline	Range Organics (GRO)	ND	4.9	mg/Kg	1	6/13/2018 5:07:25 PM	38605
Surr: E	BFB	83.9	15-316	%Rec	1	6/13/2018 5:07:25 PM	38605
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB
Benzene		ND	0.025	mg/Kg	1	6/13/2018 5:07:25 PM	38605
Toluene		ND	0.049	mg/Kg	1	6/13/2018 5:07:25 PM	38605
Ethylbenz	zene	ND	0.049	mg/Kg	1	6/13/2018 5:07:25 PM	38605
Xylenes,	Total	ND	0.099	mg/Kg	1	6/13/2018 5:07:25 PM	38605
Surr: 4	-Bromofluorobenzene	108	80-120	%Rec	1	6/13/2018 5:07:25 PM	38605

* Qualifiers: Value exceeds Maximum Contaminant Level.

Hall Environmental Analysis Laboratory, Inc.

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 7 of 34 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analys	is Laboratory,	Inc.			Date Reported: 6/15/20	18
CLIENT:Williams Four CornersProject:Kutz Canyon GPLab ID:1806560-008	Matrix: SOIL	C	lient Sample II Collection Dat Received Dat	D: B] e: 6/ e: 6/	H20 14-16' 7/2018 10:45:00 AM 9/2018 9:00:00 AM	
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	6/14/2018 2:53:18 AM	38631
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	6/14/2018 2:53:18 AM	38631
Surr: DNOP	106	70-130	%Rec	1	6/14/2018 2:53:18 AM	38631
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	6/13/2018 5:31:05 PM	38605
Surr: BFB	82.0	15-316	%Rec	1	6/13/2018 5:31:05 PM	38605
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	6/13/2018 5:31:05 PM	38605
Toluene	ND	0.050	mg/Kg	1	6/13/2018 5:31:05 PM	38605
Ethylbenzene	ND	0.050	mg/Kg	1	6/13/2018 5:31:05 PM	38605
Xylenes, Total	ND	0.099	mg/Kg	1	6/13/2018 5:31:05 PM	38605
Surr: 4-Bromofluorobenzene	106	80-120	%Rec	1	6/13/2018 5:31:05 PM	38605

Qualifiers: *	¢	Value exceeds	Maximum	Contaminant	Level.
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- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 8 of 34 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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CLIENT: Project: Lab ID:	Williams Four Corners Kutz Canyon GP 1806560-009	Matrix: SOIL	CI (ient Sa Collect Receiv	imple II ion Dat ved Dat	D: BH e: 6/5 e: 6/9	H21 5' 5/2018 10:00:00 AM 9/2018 9:00:00 AM	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS					Analyst	том
Diesel Ra	ange Organics (DRO)	20	9.9		mg/Kg	1	6/14/2018 3:17:35 AM	38631
Motor Oil	Range Organics (MRO)	77	49		mg/Kg	1	6/14/2018 3:17:35 AM	38631
Surr: D	DNOP	105	70-130		%Rec	1	6/14/2018 3:17:35 AM	38631
EPA MET	HOD 8015D: GASOLINE RAM	IGE					Analyst	NSB
Gasoline	Range Organics (GRO)	170	4.8		mg/Kg	1	6/13/2018 5:54:54 PM	38605
Surr: E	3FB	790	15-316	S	%Rec	1	6/13/2018 5:54:54 PM	38605
EPA MET	HOD 8021B: VOLATILES						Analyst	NSB
Benzene		ND	0.024		mg/Kg	1	6/13/2018 5:54:54 PM	38605
Toluene		ND	0.048		mg/Kg	1	6/13/2018 5:54:54 PM	38605
Ethylben	zene	0.25	0.048		mg/Kg	1	6/13/2018 5:54:54 PM	38605
Xylenes,	Total	1.5	0.096		mg/Kg	1	6/13/2018 5:54:54 PM	38605
Surr: 4	-Bromofluorobenzene	136	80-120	S	%Rec	1	6/13/2018 5:54:54 PM	38605

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
 - J Analyte detected below quantitation limits Page 9 of 34
 - P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1806560
Date Reported: 6/15/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners Project: Kutz Canvon GP		CI	ient Sample I Collection Dat	D: BF	H22 4' H/2018 9:30:00 AM	
Lab ID: 1806560-010	Matrix: SOIL		Received Dat	e: 6/9	0/2018 9:00:00 AM	
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	том
Diesel Range Organics (DRO)	45	9.9	mg/Kg	1	6/14/2018 3:41:51 AM	38631
Motor Oil Range Organics (MRO)	130	49	mg/Kg	1	6/14/2018 3:41:51 AM	38631
Surr: DNOP	111	70-130	%Rec	1	6/14/2018 3:41:51 AM	38631
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	NSB
Gasoline Range Organics (GRO)	1100	94	mg/Kg	20	6/13/2018 1:19:15 AM	38605
Surr: BFB	140	15-316	%Rec	20	6/13/2018 1:19:15 AM	38605
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	3.3	0.47	mg/Kg	20	6/13/2018 1:19:15 AM	38605
Toluene	17	0.94	mg/Kg	20	6/13/2018 1:19:15 AM	38605
Ethylbenzene	2.5	0.94	mg/Kg	20	6/13/2018 1:19:15 AM	38605
Xylenes, Total	27	1.9	mg/Kg	20	6/13/2018 1:19:15 AM	38605
Surr: 4-Bromofluorobenzene	109	80-120	%Rec	20	6/13/2018 1:19:15 AM	38605

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 10 of 34
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

CLIENT: Project: Lab ID:	Williams Four Corners Kutz Canyon GP 1806560-011	Matrix: SOIL	CI (ient Sample II Collection Date Received Date	D: BI	H23 2' 4/2018 10:40:00 AM 9/2018 9:00:00 AM	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst:	том
Diesel Ra	ange Organics (DRO)	10	10	mg/Kg	1	6/14/2018 4:06:01 AM	38631
Motor Oil	Range Organics (MRO)	ND	50	mg/Kg	1	6/14/2018 4:06:01 AM	38631
Surr: D	NOP	104	70-130	%Rec	1	6/14/2018 4:06:01 AM	38631
EPA MET	HOD 8015D: GASOLINE RAM	IGE				Analyst:	NSB
Gasoline	Range Organics (GRO)	61	4.9	mg/Kg	1	6/13/2018 7:52:54 PM	38605
Surr: E	3FB	192	15-316	%Rec	1	6/13/2018 7:52:54 PM	38605
EPA MET	HOD 8021B: VOLATILES					Analyst:	NSB
Benzene		ND	0.024	mg/Kg	1	6/13/2018 7:52:54 PM	38605
Toluene		0.076	0.049	mg/Kg	1	6/13/2018 7:52:54 PM	38605
Ethylbenz	zene	0.065	0.049	mg/Kg	1	6/13/2018 7:52:54 PM	38605
Xylenes,	Total	0.44	0.098	mg/Kg	1	6/13/2018 7:52:54 PM	38605
Surr: 4	-Bromofluorobenzene	107	80-120	%Rec	1	6/13/2018 7:52:54 PM	38605

Qualifiers: * Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Hall Environmental Analysis Laboratory, Inc.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limitsPage 11 of 34 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

		and a second second				
CLIENT: Williams Four Corners Project: Kutz Canyon GP Lab ID: 1806560-012	Matrix: SOIL	CI (ient Sample II Collection Date Received Date	D: BF e: 6/4 e: 6/9	H24 8' H2018 11:15:00 AM H2018 9:00:00 AM	
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	том
Diesel Range Organics (DRO)	93	9.9	mg/Kg	1	6/14/2018 4:30:27 AM	38631
Motor Oil Range Organics (MRO)	260	50	mg/Kg	1	6/14/2018 4:30:27 AM	38631
Surr: DNOP	116	70-130	%Rec	1	6/14/2018 4:30:27 AM	38631
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst	NSB
Gasoline Range Organics (GRO)	2000	48	mg/Kg	10	6/13/2018 1:42:39 AM	38605
Surr: BFB	277	15-316	%Rec	10	6/13/2018 1:42:39 AM	38605
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	1.7	0.24	mg/Kg	10	6/13/2018 1:42:39 AM	38605
Toluene	8.1	0.48	mg/Kg	10	6/13/2018 1:42:39 AM	38605
Ethylbenzene	3.8	0.48	mg/Kg	10	6/13/2018 1:42:39 AM	38605
Xylenes, Total	36	0.97	mg/Kg	10	6/13/2018 1:42:39 AM	38605
Surr: 4-Bromofluorobenzene	112	80-120	%Rec	10	6/13/2018 1:42:39 AM	38605

Hall Environmental Analysis Laboratory, Inc.

on information.

Refe	er to th	st for flagg	ged QC data and preservation	
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associat
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantita
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit

- S % Recovery outside of range due to dilution or matrix
- ted Method Blank
- ation limitsPage 12 of 34
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

and the second se								
CLIENT:	Williams Four Corners		C	lient Sa	ample II	D: BI	H10 12-16'	
Project:	Kutz Canyon GP			Collect	ion Dat	e: 6/0	6/2018 9:30:00 AM	
Lab ID:	1806560-013	Matrix: SOIL Received Date: 6/9/2018 9:00:00 AM						
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst	том
Diesel Ra	ange Organics (DRO)	25	10		mg/Kg	1	6/14/2018 4:54:35 AM	38631
Motor Oil	Range Organics (MRO)	100	50		mg/Kg	1	6/14/2018 4:54:35 AM	38631
Surr: E	DNOP	106	70-130		%Rec	1	6/14/2018 4:54:35 AM	38631
EPA MET	HOD 8015D: GASOLINE RANGE						Analyst	NSB
Gasoline	Range Organics (GRO)	540	23		mg/Kg	5	6/13/2018 2:05:53 AM	38605
Surr: E	BFB	484	15-316	S	%Rec	5	6/13/2018 2:05:53 AM	38605
EPA MET	HOD 8021B: VOLATILES						Analyst	NSB
Benzene		ND	0.12		mg/Kg	5	6/13/2018 2:05:53 AM	38605
Toluene		ND	0.23		mg/Kg	5	6/13/2018 2:05:53 AM	38605
Ethylben	zene	0.53	0.23		mg/Kg	5	6/13/2018 2:05:53 AM	38605
Xylenes,	Total	3.2	0.46		mg/Kg	5	6/13/2018 2:05:53 AM	38605
Surr: 4	-Bromofluorobenzene	124	80-120	S	%Rec	5	6/13/2018 2:05:53 AM	38605

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	* *	

Hall Environmental Analysis Laboratory, Inc.

- H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limit Page 13 of 34 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

CLIENT:	Williams Four Corners		Cl	ient Sample I	D: BI	H10 20-24'	
Project:	Kutz Canyon GP		(Collection Dat	e: 6/0	5/2018 9:45:00 AM	
Lab ID:	1806560-014	Matrix: SOIL		Received Dat	e: 6/9	9/2018 9:00:00 AM	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	том
Diesel Ra	ange Organics (DRO)	ND	9.9	mg/Kg	1	6/14/2018 5:18:47 AM	38631
Motor Oil	Range Organics (MRO)	ND	50	mg/Kg	1	6/14/2018 5:18:47 AM	38631
Surr: D	NOP	107	70-130	%Rec	1	6/14/2018 5:18:47 AM	38631
EPA MET	HOD 8015D: GASOLINE RANG	GE				Analyst	NSB
Gasoline	Range Organics (GRO)	ND	4.6	mg/Kg	1	6/13/2018 8:16:20 PM	38605
Surr: E	3FB	87.8	15-316	%Rec	1	6/13/2018 8:16:20 PM	38605
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB
Benzene		ND	0.023	mg/Kg	1	6/13/2018 8:16:20 PM	38605
Toluene		ND	0.046	mg/Kg	1	6/13/2018 8:16:20 PM	38605
Ethylbena	zene	ND	0.046	mg/Kg	1	6/13/2018 8:16:20 PM	38605
Xylenes,	Total	ND	0.092	mg/Kg	1	6/13/2018 8:16:20 PM	38605
Surr: 4	-Bromofluorobenzene	101	80-120	%Rec	1	6/13/2018 8:16:20 PM	38605

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limitspage 14 of 34
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Williams Four Corners	Client Sample ID: BH11 8'								
Project:	Kutz Canyon GP		Collection Date: 6/4/2018 9:45:00 AM							
Lab ID:	1806560-015	Matrix: SOIL		Receiv	ved Dat	e: 6/9	0/2018 9:00:00 AM			
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch		
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst:	том		
Diesel Range Organics (DRO)		160	10		mg/Kg	1	6/14/2018 5:42:51 AM	38631		
Motor Oil Range Organics (MRO)		120	50		mg/Kg	1	6/14/2018 5:42:51 AM	38631		
Surr: DNOP		110	70-130		%Rec	1	6/14/2018 5:42:51 AM	38631		
EPA MET	HOD 8015D: GASOLINE RANG	E					Analyst:	NSB		
Gasoline	Range Organics (GRO)	1200	93		mg/Kg	20	6/13/2018 8:39:48 PM	38605		
Surr: E	3FB	381	15-316	S	%Rec	20	6/13/2018 8:39:48 PM	38605		
EPA MET	HOD 8021B: VOLATILES						Analyst:	NSB		
Benzene		ND	0.47		mg/Kg	20	6/13/2018 8:39:48 PM	38605		
Toluene		8.4	0.93		mg/Kg	20	6/13/2018 8:39:48 PM	38605		
Ethylbenz	zene	4.2	0.93		mg/Kg	20	6/13/2018 8:39:48 PM	38605		
Xylenes,	Total	44	1.9		mg/Kg	20	6/13/2018 8:39:48 PM	38605		
Surr: 4	-Bromofluorobenzene	120	80-120		%Rec	20	6/13/2018 8:39:48 PM	38605		

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limitspage 15 of 34
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Williams Four Corners	Client Sample ID: BH11 16-18'						
Project:	Kutz Canyon GP		(Collection Date	e: 6/6	5/2018 10:40:00 AM		
Lab ID:	1806560-016	Matrix: SOIL Received Date: 6/9/2018 9:00:00 AM						
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch	
EPA MET	HOD 8015M/D: DIESEL RANGI	EORGANICS				Analyst	том	
Diesel Range Organics (DRO)		ND	10	mg/Kg	1	6/14/2018 6:06:52 AM	38631	
Motor Oil Range Organics (MRO)		ND	51	mg/Kg	1	6/14/2018 6:06:52 AM	38631	
Surr: E	DNOP	103	70-130	%Rec	1	6/14/2018 6:06:52 AM	38631	
EPA MET	HOD 8015D: GASOLINE RANG	Ε				Analyst	NSB	
Gasoline	Range Organics (GRO)	ND	4.8	mg/Kg	1	6/13/2018 9:03:14 PM	38605	
Surr: E	3FB	95.5	15-316	%Rec	1	6/13/2018 9:03:14 PM	38605	
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB	
Benzene		ND	0.024	mg/Kg	1	6/13/2018 9:03:14 PM	38605	
Toluene		ND	0.048	mg/Kg	1	6/13/2018 9:03:14 PM	38605	
Ethylben	zene	ND	0.048	mg/Kg	1	6/13/2018 9:03:14 PM	38605	
Xylenes,	Total	ND	0.097	mg/Kg	1	6/13/2018 9:03:14 PM	38605	
Surr: 4	-Bromofluorobenzene	106	80-120	%Rec	1	6/13/2018 9:03:14 PM	38605	

Hall Environmental Analysis Laboratory, Inc.

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 16 of 34
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc. Date Reported: 6/15/2018									
CLIENT: Williams Four Corners Project: Kutz Canyon GP Lab ID: 1806560-017	Client Sample ID: BH12 8-12' Collection Date: 6/6/2018 11:00:00 AM Matrix: SOIL Received Date: 6/9/2018 9:00:00 AM								
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch		
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst	том		
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/14/2018 6:30:52 AM	38631		
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/14/2018 6:30:52 AM	38631		
Surr: DNOP	107	70-130		%Rec	1	6/14/2018 6:30:52 AM	38631		
EPA METHOD 8015D: GASOLINE RANGE	Ξ					Analyst	NSB		
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/13/2018 9:26:36 PM	38605		
Surr: BFB	87.1	15-316		%Rec	1	6/13/2018 9:26:36 PM	38605		
EPA METHOD 8021B: VOLATILES						Analyst	NSB		
Benzene	ND	0.024		mg/Kg	1	6/13/2018 9:26:36 PM	38605		
Toluene	ND	0.048		mg/Kg	1	6/13/2018 9:26:36 PM	38605		
Ethylbenzene	ND	0.048		mg/Kg	1	6/13/2018 9:26:36 PM	38605		
Xylenes, Total	ND	0.095		mg/Kg	1	6/13/2018 9:26:36 PM	38605		
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/13/2018 9:26:36 PM	38605		

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limitspace 17 of 34
	ND	Not Detected at the Reporting Limit		Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1806560

CLIENT: Williams Four Corners Project: Kutz Canyon GP Lab ID: 1806560-018	Client Sample ID: BH12 12-16' Collection Date: 6/6/2018 11:05:00 AM Matrix: SOIL Received Date: 6/9/2018 9:00:00 AM								
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch			
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	том			
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	6/14/2018 6:54:53 AM	38631			
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	6/14/2018 6:54:53 AM	38631			
Surr: DNOP	112	70-130	%Rec	1	6/14/2018 6:54:53 AM	38631			
EPA METHOD 8015D: GASOLINE RANG	θE				Analyst	NSB			
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	6/13/2018 9:49:59 PM	38605			
Surr: BFB	86.9	15-316	%Rec	1	6/13/2018 9:49:59 PM	38605			
EPA METHOD 8021B: VOLATILES					Analyst	NSB			
Benzene	ND	0.024	mg/Kg	1	6/13/2018 9:49:59 PM	38605			
Toluene	ND	0.048	mg/Kg	1	6/13/2018 9:49:59 PM	38605			
Ethylbenzene	ND	0.048	mg/Kg	1	6/13/2018 9:49:59 PM	38605			
Xylenes, Total	ND	0.096	mg/Kg	1	6/13/2018 9:49:59 PM	38605			
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	6/13/2018 9:49:59 PM	38605			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 18 of 34
ND		Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL Practical Quanitative Limit		RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Project: Lab ID:	Williams Four Corners Kutz Canyon GP 1806560-019	Client Sample ID: BH13 8-12' Collection Date: 6/6/2018 11:45:00 AM Matrix: SOIL Received Date: 6/9/2018 9:00:00 AM								
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch		
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: T							том			
Diesel Range Organics (DRO)		12000	500		mg/Kg	50	6/14/2018 7:18:55 AM	38631		
Motor Oil	Range Organics (MRO)	18000	2500		mg/Kg	50	6/14/2018 7:18:55 AM	38631		
Surr: DNOP		0	70-130	S	%Rec	50	6/14/2018 7:18:55 AM	38631		
EPA MET	HOD 8015D: GASOLINE RANGE						Analyst	NSB		
Gasoline	Range Organics (GRO)	680	240		mg/Kg	50	6/13/2018 2:52:40 AM	38605		
Surr: E	BFB	95.0	15-316		%Rec	50	6/13/2018 2:52:40 AM	38605		
EPA MET	HOD 8021B: VOLATILES						Analyst	NSB		
Benzene		3.1	1.2		mg/Kg	50	6/13/2018 2:52:40 AM	38605		
Toluene		6.6	2.4		mg/Kg	50	6/13/2018 2:52:40 AM	38605		
Ethylbenz	zene	5.0	2.4		mg/Kg	50	6/13/2018 2:52:40 AM	38605		
Xylenes,	Total	18	4.7		mg/Kg	50	6/13/2018 2:52:40 AM	38605		
Surr: 4	-Bromofluorobenzene	104	80-120		%Rec	50	6/13/2018 2:52:40 AM	38605		

Qualifiers: * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

Hall Environmental Analysis Laboratory, Inc.

- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Value above quantitation range E
- Analyte detected below quantitation limit Page 19 of 34 J
 - Sample pH Not In Range
- RL Reporting Detection Limit

Р

W Sample container temperature is out of limit as specified

CLIENT: Williams Four Corners Client Sample ID: BH13 16-18'							
Project:	Kutz Canyon GP		(Collection Date	e: 6/6	5/2018 11:50:00 AM	
Lab ID:	1806560-020	Matrix: SOIL		Received Date	e: 6/9	9/2018 9:00:00 AM	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	том
Diesel Range Organics (DRO)		ND	9.9	mg/Kg	1	6/14/2018 8:07:01 AM	38631
Motor Oil Range Organics (MRO)		ND	50	mg/Kg	1	6/14/2018 8:07:01 AM	38631
Surr: [DNOP	107	70-130	%Rec	1	6/14/2018 8:07:01 AM	38631
EPA MET	HOD 8015D: GASOLINE RANG	3E				Analyst	NSB
Gasoline	Range Organics (GRO)	ND	4.9	mg/Kg	1	6/13/2018 10:13:17 PM	38605
Surr: E	3FB	85.8	15-316	%Rec	1	6/13/2018 10:13:17 PM	38605
EPA MET	HOD 8021B: VOLATILES					Analyst:	NSB
Benzene		ND	0.024	mg/Kg	1	6/13/2018 10:13:17 PM	38605
Toluene		ND	0.049	mg/Kg	1	6/13/2018 10:13:17 PM	38605
Ethylben	zene	ND	0.049	mg/Kg	1	6/13/2018 10:13:17 PM	38605
Xylenes,	Total	ND	0.097	mg/Kg	1	6/13/2018 10:13:17 PM	38605
Surr: 4	-Bromofluorobenzene	102	80-120	%Rec	1	6/13/2018 10:13:17 PM	38605

Qualifiers: * Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limit Page 20 of 34 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

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CLIENT: Project: Lab ID:	Williams Four Corners Kutz Canyon GP 1806560-021	Client Sample ID: BH14 8-12' Collection Date: 6/6/2018 12:25:00 PM Matrix: SOIL Received Date: 6/9/2018 9:00:00 AM								
Analyses		Result	PQL	Qual	Units	DF	Date Anal	lyzed	Batch	
EPA MET	HOD 8015D MOD: GASOLINE	RANGE						Analyst:	AG	
Gasoline	Range Organics (GRO)	2000	480		mg/Kg	100	6/13/2018	1:17:45 AM	38595	
Surr: E	3FB	112	70-130		%Rec	100	6/13/2018	1:17:45 AM	38595	
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS						Analyst:	том	
Diesel Ra	ange Organics (DRO)	300	10		mg/Kg	1	6/12/2018	10:56:32 PM	38610	
Motor Oil	Range Organics (MRO)	680	50		mg/Kg	1	6/12/2018	10:56:32 PM	38610	
Surr: D	NOP	133	70-130	S	%Rec	1	6/12/2018	10:56:32 PM	38610	
EPA MET	HOD 8260B: VOLATILES SHO	ORT LIST						Analyst:	AG	
Benzene		4.9	2.4		mg/Kg	100	6/13/2018	1:17:45 AM	38595	
Toluene		20	4.8		mg/Kg	100	6/13/2018	1:17:45 AM	38595	
Ethylbenz	zene	8.6	4.8		mg/Kg	100	6/13/2018	1:17:45 AM	38595	
Xylenes,	Total	78	9.6		mg/Kg	100	6/13/2018	1:17:45 AM	38595	
Surr: 4	-Bromofluorobenzene	116	70-130		%Rec	100	6/13/2018	1:17:45 AM	38595	
Surr: T	oluene-d8	104	70-130		%Rec	100	6/13/2018	1:17:45 AM	38595	

mation.

Refe	er to the	e QC Summary report and sample login checklis	st for flagg	ged QC data and preservation infor
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit

- S % Recovery outside of range due to dilution or matrix
- d Blank
- ^{ts}Page 21 of 34
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

		A DESCRIPTION OF A DESC	AND DESCRIPTION OF THE REAL		and the second second						
CLIENT: Project: Lab ID:	Williams Four Corners Kutz Canyon GP 1806560-022	Client Sample ID: BH14 14-16' Collection Date: 6/6/2018 12:30:00 PM Matrix: SOIL Received Date: 6/9/2018 9:00:00 AM									
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch				
EPA MET	HOD 8015D MOD: GASOLINE	RANGE				Analyst:	AG				
Gasoline	Range Organics (GRO)	ND	4.8	mg/Kg	1	6/13/2018 1:40:40 AM	38595				
Surr: E	3FB	121	70-130	%Rec	1	6/13/2018 1:40:40 AM	38595				
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst:	том				
Diesel Ra	ange Organics (DRO)	ND	10	mg/Kg	1	6/12/2018 11:21:02 PM	38610				
Motor Oil	Range Organics (MRO)	ND	50	mg/Kg	1	6/12/2018 11:21:02 PM	38610				
Surr: E	DNOP	74.9	70-130	%Rec	1	6/12/2018 11:21:02 PM	38610				
EPA MET	HOD 8260B: VOLATILES SHO	RT LIST				Analyst:	AG				
Benzene		ND	0.024	mg/Kg	1	6/13/2018 1:40:40 AM	38595				
Toluene		ND	0.048	mg/Kg	1	6/13/2018 1:40:40 AM	38595				
Ethylben	zene	ND	0.048	mg/Kg	1	6/13/2018 1:40:40 AM	38595				
Xylenes,	Total	ND	0.096	mg/Kg	1	6/13/2018 1:40:40 AM	38595				
Surr: 4	-Bromofluorobenzene	126	70-130	%Rec	1	6/13/2018 1:40:40 AM	38595				
Surr: T	oluene-d8	101	70-130	%Rec	1	6/13/2018 1:40:40 AM	38595				

Qualifiers:

* Value exceeds Maximum Contaminant Level.

Hall Environmental Analysis Laboratory, Inc.

- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 22 of 34 J
- Ρ Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1806560

Date Reported: 6/15/2018

CLIENT:	Williams Four Corners		CI	lient Sa	mple II): BH	15 8-12'		
Project:	Kutz Canyon GP		(Collecti	ion Dat	e: 6/6/	/2018 1:30:00 PM		
Lab ID:	1806560-023	Matrix: SOIL Received Date: 6/9/2018 9:00:00 AM							
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch	
EPA MET	HOD 8015D MOD: GASOLIN	E RANGE					Analyst	AG	
Gasoline	Range Organics (GRO)	10000	480		mg/Kg	100	6/13/2018 2:26:40 AM	38595	
Surr: E	BFB	106	70-130		%Rec	100	6/13/2018 2:26:40 AM	38595	
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS					Analyst	том	
Diesel Ra	ange Organics (DRO)	350	10		mg/Kg	1	6/12/2018 11:45:21 PM	38610	
Motor Oil	Range Organics (MRO)	380	51		mg/Kg	1	6/12/2018 11:45:21 PM	38610	
Surr: D	NOP	123	70-130		%Rec	1	6/12/2018 11:45:21 PM	38610	
EPA MET	HOD 8260B: VOLATILES SH	IORT LIST					Analyst	AG	
Benzene		51	2.4		mg/Kg	100	6/13/2018 2:26:40 AM	38595	
Toluene		ND	4.8		mg/Kg	100	6/13/2018 2:26:40 AM	38595	
Ethylbenz	zene	42	4.8		mg/Kg	100	6/13/2018 2:26:40 AM	38595	
Xylenes,	Total	390	9.6		mg/Kg	100	6/13/2018 2:26:40 AM	38595	
Surr: 4	-Bromofluorobenzene	111	70-130		%Rec	100	6/13/2018 2:26:40 AM	38595	
Surr: T	oluene-d8	113	70-130		%Rec	100	6/13/2018 2:26:40 AM	38595	

Qualifiers: * Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limit Page 23 of 34 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1806560 Date Reported: 6/15/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Williams Four Corners		CI	ient Sample II): BI	H15 16-19'						
Project:	Kutz Canyon GP		(Collection Date	e: 6/6	5/2018 1:35:00 PM						
Lab ID:	1806560-024	Matrix: SOIL	Matrix: SOIL Received Date: 6/9/2018 9:00:00 AM									
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch					
EPA MET	HOD 8015D MOD: GASOLIN	E RANGE				Analyst	AG					
Gasoline	Range Organics (GRO)	ND	4.6	mg/Kg	1	6/13/2018 1:18:03 PM	38595					
Surr: E	3FB	119	70-130	%Rec	1	6/13/2018 1:18:03 PM	38595					
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst	том					
Diesel Ra	ange Organics (DRO)	ND	10	mg/Kg	1	6/13/2018 12:09:49 AM	38610					
Motor Oil	Range Organics (MRO)	ND	50	mg/Kg	1	6/13/2018 12:09:49 AM	38610					
Surr: E	NOP	114	70-130	%Rec	1	6/13/2018 12:09:49 AM	38610					
EPA MET	HOD 8260B: VOLATILES SH	IORT LIST				Analyst	AG					
Benzene		ND	0.023	mg/Kg	1	6/13/2018 1:18:03 PM	38595					
Toluene		ND	0.046	mg/Kg	1	6/13/2018 1:18:03 PM	38595					
Ethylben	zene	ND	0.046	mg/Kg	1	6/13/2018 1:18:03 PM	38595					
Xylenes,	Total	ND	0.092	mg/Kg	1	6/13/2018 1:18:03 PM	38595					
Surr: 4	-Bromofluorobenzene	125	70-130	%Rec	1	6/13/2018 1:18:03 PM	38595					
Surr: T	oluene-d8	102	70-130	%Rec	1	6/13/2018 1:18:03 PM	38595					

*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	Е	Value above quantitation range
Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limitspace 24 of 34
ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified
	* D H ND PQL S	 * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit \$ % Recovery outside of range due to dilution or matrix 	* Value exceeds Maximum Contaminant Level. B D Sample Diluted Due to Matrix E H Holding times for preparation or analysis exceeded J ND Not Detected at the Reporting Limit P PQL Practical Quanitative Limit RL S % Recovery outside of range due to dilution or matrix W

Sample container temperature is out of limit as specified W

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Williams Four Corners	Client Sample ID: BH25 6-8'								
Project:	Kutz Canyon GP		(Collect	ion Dat	e: 6/7	7/2018 11:30:00 AM			
Lab ID:	1806560-025	Matrix: SOIL		Receiv	ved Dat	e: 6/9	9/2018 9:00:00 AM			
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch		
EPA MET	HOD 8015D MOD: GASOLIN	E RANGE					Analyst	AG		
Gasoline	Range Organics (GRO)	ND	4.7		mg/Kg	1	6/13/2018 3:12:46 AM	38595		
Surr: E	3FB	124	70-130		%Rec	1	6/13/2018 3:12:46 AM	38595		
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS					Analyst	TOM		
Diesel Ra	ange Organics (DRO)	ND	9.9		mg/Kg	1	6/13/2018 12:34:10 AM	38610		
Motor Oi	I Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2018 12:34:10 AM	38610		
Surr: [ONOP	117	70-130		%Rec	1	6/13/2018 12:34:10 AM	38610		
EPA MET	HOD 8260B: VOLATILES SH	IORT LIST					Analyst	AG		
Benzene		ND	0.024		mg/Kg	1	6/13/2018 3:12:46 AM	38595		
Toluene		ND	0.047		mg/Kg	1	6/13/2018 3:12:46 AM	38595		
Ethylben	zene	ND	0.047		mg/Kg	1	6/13/2018 3:12:46 AM	38595		
Xylenes,	Total	ND	0.094		mg/Kg	1	6/13/2018 3:12:46 AM	38595		
Surr: 4	4-Bromofluorobenzene	130	70-130	S	%Rec	1	6/13/2018 3:12:46 AM	38595		
Surr: 1	Foluene-d8	104	70-130		%Rec	1	6/13/2018 3:12:46 AM	38595		

Hall Environmental Analysis Laboratory, Inc.

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Value exceeds Maximum Contaminant Level.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 25 of 34
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

CLIENT: Project:	Williams Four Corners Kutz Canyon GP	Client Sample ID: BH26 4-6' Collection Date: 6/7/2018 11:55:00 AM									
Lab ID:	1806560-026	Matrix: SOIL		Receiv	ed Date	e: 6/9	/2018 9:00:00 AM				
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch			
EPA MET	HOD 8015D MOD: GASOLINE	RANGE					Analyst:	AG			
Gasoline	Range Organics (GRO)	1000	95		mg/Kg	20	6/13/2018 1:41:09 PM	38595			
Surr: E	BFB	107	70-130		%Rec	20	6/13/2018 1:41:09 PM	38595			
EPA MET	HOD 8015M/D: DIESEL RANG	BE ORGANICS					Analyst:	том			
Diesel Ra	ange Organics (DRO)	26	10		mg/Kg	1	6/13/2018 12:58:27 AM	38610			
Motor Oil	Range Organics (MRO)	82	50		mg/Kg	1	6/13/2018 12:58:27 AM	38610			
Surr: D	NOP	121	70-130		%Rec	1	6/13/2018 12:58:27 AM	38610			
EPA MET	HOD 8260B: VOLATILES SHO	ORT LIST					Analyst:	AG			
Benzene		0.54	0.47		mg/Kg	20	6/13/2018 1:41:09 PM	38595			
Toluene		4.3	0.95		mg/Kg	20	6/13/2018 1:41:09 PM	38595			
Ethylbenz	zene	1.8	0.95		mg/Kg	20	6/13/2018 1:41:09 PM	38595			
Xylenes,	Total	19	1.9		mg/Kg	20	6/13/2018 1:41:09 PM	38595			
Surr: 4	-Bromofluorobenzene	112	70-130		%Rec	20	6/13/2018 1:41:09 PM	38595			
Surr: T	oluene-d8	106	70-130		%Rec	20	6/13/2018 1:41:09 PM	38595			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
1	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 26 of 34
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Hall Environmental Analy	sis Laboratory,	Inc.			Date Reported: 6/15/201	18
CLIENT: Williams Four Corners Project: Kutz Canyon GP		CI	ient Sample II Collection Dat	D: Bl	H26 10-12' 7/2018 12:00:00 PM	
Lab ID: 1806560-027	Matrix: SOIL		Received Dat	e: 6/	9/2018 9:00:00 AM	
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLIN	IE RANGE				Analyst	AG
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	6/13/2018 3:58:43 AM	38595
Surr: BFB	121	70-130	%Rec	1	6/13/2018 3:58:43 AM	38595
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS				Analyst:	том
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	6/13/2018 1:22:46 AM	38610
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	6/13/2018 1:22:46 AM	38610
Surr: DNOP	114	70-130	%Rec	1	6/13/2018 1:22:46 AM	38610
EPA METHOD 8260B: VOLATILES SH	IORT LIST				Analyst:	AG
Benzene	ND	0.023	mg/Kg	1	6/13/2018 3:58:43 AM	38595
Toluene	ND	0.047	mg/Kg	1	6/13/2018 3:58:43 AM	38595
Ethylbenzene	ND	0.047	mg/Kg	1	6/13/2018 3:58:43 AM	38595
Xylenes, Total	ND	0.094	mg/Kg	1	6/13/2018 3:58:43 AM	38595
Surr: 4-Bromofluorobenzene	127	70-130	%Rec	1	6/13/2018 3:58:43 AM	38595
Surr: Toluene-d8	104	70-130	%Rec	1	6/13/2018 3:58:43 AM	38595

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 27 of 34

Analytical Report Lab Order 1806560

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

CLIENT:	Williams Four Corners	Client Sample ID: BH20 10-12'									
Project:	Kutz Canyon GP		(Collect	ion Date	e: 6/7	7/2018 10:40:00 AM				
Lab ID:	1806560-028	Matrix: SOIL	trix: SOIL Received Date: 6/9/2018 9:00:00 AM								
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch			
EPA MET	HOD 8015D MOD: GASOLINI	ERANGE					Analyst	AG			
Gasoline	Range Organics (GRO)	7.4	4.9		mg/Kg	1	6/13/2018 4:21:40 AM	38595			
Surr: E	3FB	128	70-130		%Rec	1	6/13/2018 4:21:40 AM	38595			
EPA MET	HOD 8015M/D: DIESEL RANG	GE ORGANICS					Analyst:	том			
Diesel Ra	ange Organics (DRO)	2000	99		mg/Kg	10	6/14/2018 1:07:48 PM	38610			
Motor Oil	Range Organics (MRO)	ND	490		mg/Kg	10	6/14/2018 1:07:48 PM	38610			
Surr: D	NOP	0	70-130	S	%Rec	10	6/14/2018 1:07:48 PM	38610			
EPA MET	HOD 8260B: VOLATILES SH	ORT LIST					Analyst:	AG			
Benzene		ND	0.024		mg/Kg	1	6/13/2018 4:21:40 AM	38595			
Toluene		ND	0.049		mg/Kg	1	6/13/2018 4:21:40 AM	38595			
Ethylbenz	zene	ND	0.049		mg/Kg	1	6/13/2018 4:21:40 AM	38595			
Xylenes,	Total	ND	0.097		mg/Kg	1	6/13/2018 4:21:40 AM	38595			
Surr: 4	-Bromofluorobenzene	132	70-130	S	%Rec	1	6/13/2018 4:21:40 AM	38595			
Surr: T	oluene-d8	104	70-130		%Rec	1	6/13/2018 4:21:40 AM	38595			

* Qualifiers: Value exceeds Maximum Contaminant Level. В Analyte detected in the associated Method Blank

- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- E Value above quantitation range
- Analyte detected below quantitation limit Page 28 of 34 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1806560 Date Reported: 6/15/2018

Hall Environmental Analysis Laboratory, Inc.

Client: Williams Four Corners

Project: Kutz Canyon GP

	and a second										
Sample ID	LCS-38610	SampTy	/pe: LC	s	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batch	ID: 38	610	F	RunNo: 5	51898				
Prep Date:	6/11/2018	Analysis Da	ate: 6/	/12/2018	9	SeqNo: 1	696744	Units: mg/l	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	50	10	50.00	0	99.4	70	130			
Surr: DNOP		4.4		5.000		87.6	70	130			
Sample ID	MB-38610	SampTy	/pe: MB	BLK	Tes	tCode: E	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID:	PBS	Batch	ID: 38	610	F	RunNo: 5	51898				
Prep Date:	6/11/2018	Analysis Da	ate: 6/	12/2018	S	SeqNo: 1	696745	Units: mg/ł	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	ND	10								
Motor Oil Rang	ge Organics (MRO)	ND	50								
Surr: DNOP		9.9		10.00		99.4	70	130			
Sample ID	1806560-001AMS	SampTy	pe: MS	6	Tes	tCode: E	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID:	BH16 8-12'	Batch	ID: 38	631	F	RunNo: 5	51922				
Prep Date:	6/12/2018	Analysis Da	ate: 6/	13/2018	5	SeqNo: 1	698863	Units: mg/H	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	190	10	50.15	418.1	-455	62	120			S
Surr: DNOP		5.8		5.015		116	70	130			
Sample ID	1806560-001AMS	SampTy	pe: MS	SD	Tes	tCode: E	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID:	BH16 8-12'	Batch	ID: 38	631	F	RunNo: 5	51922				
Prep Date:	6/12/2018	Analysis Da	ate: 6/	14/2018	5	SeqNo: 1	698864	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	150	9.8	49.21	418.1	- <mark>55</mark> 2	62	120	25.9	20	SR
Surr: DNOP		5.6		4.921		115	70	130	0	0	
Sample ID	LCS-38631	SampTy	pe: LC	s	Tes	tCode: E	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID:	LCSS	Batch	ID: 38	631	F	RunNo: 5	51922				
Prep Date:	6/12/2018	Analysis Da	ate: 6/	13/2018	S	SeqNo: 1	698884	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	47	10	50.00	0	94.0	70	130			
Surr: DNOP		4.6		5.000		92.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 29 of 34

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

1806560 15-Jun-18

WO#:

1806560

WO#:

Page 30 of 34

Client:	Williams	Four Corne	ers								
Project:	Kutz Car	nyon GP									
Sample ID	MB-38631	SampTy	pe: M	BLK	Tes	tCode:	EPA Method	8015M/D: Die	sel Rang	e Organics	
Client ID:	PBS	Batch	ID: 38	631	R	unNo:	51922				
Prep Date:	6/12/2018	Analysis Da	te: 6/	13/2018	S	eqNo:	1698885	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	ND	10								
Motor Oil Rang	e Organics (MRO)	ND	50								
Surr: DNOP		10		10.00		100	70	130			
Sample ID	LCS-38673	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID:	LCSS	Batch	ID: 38	673	R	unNo:	51922				
Prep Date:	6/14/2018	Analysis Da	te: 6/	14/2018	S	eqNo:	1699512	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.5		5.000		89.4	70	130			
Sample ID	MB-38673	SampTy	pe: ME	BLK	Test	Code: E	PA Method	8015M/D: Die	sel Range	e Organics	
Client ID:	PBS	Batch	D: 38	673	R	unNo:	51922				
Prep Date:	6/14/2018	Analysis Da	te: 6/	14/2018	S	eqNo:	1699514	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		9.5		10.00		94.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

15-Jun-18

Client: Williams Four Corners

Project: Kutz Canyon GP

Sample ID	MB-38605	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	PBS	Batch	n ID: 38	605	F	RunNo: 5	1914				
Prep Date:	6/11/2018	Analysis D	ate: 6	/12/2018	S	SeqNo: 1	696577	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	ND	5.0								
Surr: BFB		840		1000		84.1	15	316			
Sample ID	LCS-38605	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	LCSS	Batch	1 ID: 38	605	F	RunNo: 5	1914				
Prep Date:	6/11/2018	Analysis D	ate: 6/	12/2018	S	SeqNo: 1	696578	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	27	5.0	25.00	0	107	75.9	131			
Surr: BFB		980		1000		97.9	15	316			
Sample ID	1806560-002AMS	SampT	ype: M:	S	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	BH16 12-15'	Batch	1 ID: 38	605	F	RunNo: 5	1914				
Prep Date:	6/11/2018	Analysis D	ate: 6/	12/2018	S	SeqNo: 1	696581	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	33	4.9	24.61	0	133	77.8	128			S
Surr: BFB		970		984.3		98.8	15	316			
Sample ID	1806560-002AMSI	D SampT	ype: M:	SD	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	BH16 12-15'	Batch	1 ID: 38	605	F	RunNo: 5	1914				
Prep Date:	6/11/2018	Analysis D	ate: 6/	12/2018	S	SeqNo: 1	696582	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	33	4.9	24.53	0	133	77.8	128	0.277	20	S
Surr: BFB		990		981.4		100	15	316	0	0	
Sample ID	MB-38635	SampT	ype: MI	ЗLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBS	Batch	1 ID: 38	635	F	RunNo: 5	1956				
Prep Date:	6/12/2018	Analysis D	ate: 6/	13/2018	S	SeqNo: 1	698126	Units: %Re	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		890		1000		88.8	15	316			
Sample ID	LCS-38635	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	LCSS	Batch	1 ID: 38	635	F	RunNo: 5	1956				
Prep Date:	6/12/2018	Analysis D	ate: 6/	13/2018	S	SeqNo: 1	698127	Units: %Re	с		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		980		1000		97.6	15	316			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 31 of 34

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: **1806560**

15-Jun-18

Hall Er	vironme	ntal Anal	ysis I	Laborat	ory, Inc.						15-Jun-
Client: Project:	Willia Kutz	ams Four Corr Canyon GP	ners								
Sample ID	MB-38605	SampT	Гуре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID:	PBS	Batcl	h ID: 38	605	F	RunNo: 5	1914				
Prep Date:	6/11/2018	Analysis E	Date: 6/	12/2018	S	SeqNo: 1	696619	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	nofluorobenzene	1.1		1.000		108	80	120			
Sample ID	LCS-38605	SampT	Type: LC	s	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	LCSS	Batch	h ID: 38	605	R	RunNo: 5	1914				
Prep Date:	6/11/2018	Analysis D	Date: 6/	12/2018	S	SeqNo: 1	696620	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.91	0.025	1.000	0	90.7	77.3	128			
Toluene		0.95	0.050	1.000	0	94.7	79.2	125			
Ethylbenzene		0.94	0.050	1.000	0	93.5	80.7	127			
Xylenes, Total		2.9	0.10	3.000	0	95.4	81.6	129			
Surr: 4-Brom	ofluorobenzene	1.0		1.000		102	80	120			
Sample ID	MB-38635	SampT	уре: МЕ	BLK	Test	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	PBS	Batch	n ID: 38	635	R	RunNo: 5	1956				
Prep Date:	6/12/2018 Analysis Date: 6/13/2018 SeqNo: 1698170 Units: %Rec										

Surr: 4-Bromofluorobenzene	1.0	1.000		104	80	120			
Sample ID LCS-38635	SampType: L	.CS	Test	Code: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batch ID: 3	8635	Ri	unNo: 5	1956				
Prep Date: 6/12/2018	Analysis Date:	6/13/2018	Se	eqNo: 1	698171	Units: %Re	С		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0	1.000		102	80	120			

PQL SPK value SPK Ref Val %REC LowLimit

Qualifiers:

Analyte

* Value exceeds Maximum Contaminant Level.

QC SUMMARY REPORT

- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded

Result

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
 - Sample pH Not In Range
- RL Reporting Detection Limit

Р

Sample container temperature is out of limit as specified W

HighLimit

%RPD

RPDLimit

Page 32 of 34

Qual

WO#: 1806560

18

Client: Williams Four Corners

Project: Kutz Canyon GP

Sample ID Ics-38595	Samp	Гуре: LC	S4	Tes	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: BatchQC	Batc	h ID: 38	595	F	RunNo: 5	1906				
Prep Date: 6/11/2018	Analysis [Date: 6/	12/2018	S	SeqNo: 1	697066	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.5	80	120			
Toluene	0.91	0.050	1.000	0	90.6	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.6	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.8	80	120			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.49		0.5000		98.5	70	130			
Sample ID mb-38595	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8260B: Volat	iles Short	List	
Sample ID mb-38595 Client ID: PBS	Samp [¬] Batc	Гуре: МЕ h ID: 38	3LK 595	Tesi	tCode: El RunNo: 5	PA Method 1906	8260B: Volat	iles Short	List	
Sample ID mb-38595 Client ID: PBS Prep Date: 6/11/2018	Samp ⁻ Batc Analysis [Гуре: МЕ h ID: 38 Date: 6 /	3LK 595 12/2018	Tesi R S	tCode: El RunNo: 5 SeqNo: 1	PA Method 1906 697067	8260B: Volat Units: mg/K	iles Short	List	
Sample ID mb-38595 Client ID: PBS Prep Date: 6/11/2018 Analyte	Samp Batc Analysis [Result	Fype: ME h ID: 38 Date: 6 / PQL	3LK 595 12/2018 SPK value	Tesi R S SPK Ref Val	tCode: El RunNo: 5 SeqNo: 1 %REC	PA Method 1906 697067 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual
Sample ID mb-38595 Client ID: PBS Prep Date: 6/11/2018 Analyte Benzene	Samp Batc Analysis [Result ND	Type: ME h ID: 38 Date: 6 / PQL 0.025	3LK 595 12/2018 SPK value	Tesi R S SPK Ref Val	tCode: El RunNo: 5 GeqNo: 1 %REC	PA Method 1906 697067 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual
Sample ID mb-38595 Client ID: PBS Prep Date: 6/11/2018 Analyte Benzene Toluene	Samp Batc Analysis I Result ND ND	Type: ME h ID: 38 Date: 6 / PQL 0.025 0.050	BLK 595 12/2018 SPK value	Tesi R S SPK Ref Val	tCode: El RunNo: 5 GeqNo: 1 %REC	PA Method 1906 697067 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual
Sample ID mb-38595 Client ID: PBS Prep Date: 6/11/2018 Analyte Benzene Toluene Ethylbenzene	Samp Batc Analysis [Result ND ND ND	Fype: ME h ID: 38 Date: 6 PQL 0.025 0.050 0.050	BLK 595 12/2018 SPK value	Tesi R SPK Ref Val	tCode: El RunNo: 5 GeqNo: 1 %REC	PA Method 1906 697067 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual
Sample ID mb-38595 Client ID: PBS Prep Date: 6/11/2018 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Samp Batc Analysis I Result ND ND ND ND	Fype: ME h ID: 38 Date: 6 / PQL 0.025 0.050 0.050 0.10	BLK 595 12/2018 SPK value	Tesi R SPK Ref Val	tCode: El RunNo: 5 SeqNo: 1 %REC	PA Method 1906 697067 LowLimit	8260B: Volat Units: mg/K HighLimit	iles Short g %RPD	List RPDLimit	Qual
Sample ID mb-38595 Client ID: PBS Prep Date: 6/11/2018 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Sur: 4-Bromofluorobenzene	Samp Batc Analysis I Result ND ND ND ND 0.62	Fype: ME h ID: 38 Date: 6 / PQL 0.025 0.050 0.050 0.10	BLK 595 12/2018 SPK value 0.5000	Tesi R SPK Ref Val	tCode: El RunNo: 5 SeqNo: 1 %REC 124	PA Method 1906 697067 LowLimit	8260B: Volat Units: mg/K HighLimit 130	iles Short g %RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 33 of 34

WO#: **1806560**

15-Jun-18

Client: Williams Four Corners

Project: Kutz Canyon GP

Sample ID Ics-38595	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: LCSS	Batch	n ID: 38	595	F	RunNo: 5	1906				
Prep Date: 6/11/2018	Analysis D	ate: 6/	12/2018	S	SeqNo: 1	696931	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	70	130			
Surr: BFB	550		500.0		110	70	130			
Sample ID mb-38595	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: PBS	Batch	n ID: 38	595	F	RunNo: 5	1906				
Prep Date: 6/11/2018	Analysis D	ate: 6/	12/2018	S	SeqNo: 1	696932	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Sure: BEB	500		E00 0		110	70	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 34 of 34

WO#: **1806560**

15-Jun-18

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Alb H.I. 505 345-3975 Website Service in	Analys 390 Inguerg FAX Hienca	is Laborat Hawkins w. NM 87 555-145-4 onnwould (юту АЧА 109 107 годи	Sam	ple Log-In C	heck List
Ci ent Name WILLIAMS FOUR CORN	Work Order Number	1806	560			Repi N o	1
Received By Ashloy Gallagos	6/9/2018 9 QD DO AM			÷×t	1		
Completed By Erin Matendroz Reviewed By ENH LB: <u>10</u>	6/11/2018 8 29 68 AM			62	ù4	7	
Chain of Custody							
1 Is Chain of Custody complete?		Yes	¥.	No		Not Present	
2 How was the sample celivered?		<u>C</u> cu*	e/				
Log In 3. Was an attempt made to quot the samples?		Yes		No		NA	
4 Were a samples received at a temperature	of >0" C to & C"C	Yes	~	No		NA	
5 Sample(s) in proper container(s)?		Yes	2	No	_		
6 Sufficient sample volume for indicated test(s)	v.	Ye5	v.	Ne			
7. Are samples (except VOA and ONG) propert	preserved?	Yes	✓.	No			
8 Was preservative added to bottles?		Yes		No	₽.	NA	
9 VOA vials have zero headspace?		Yes .		No		No VOA Vials 🔽	/
0. Were any sample containers received broke	5 2	Yes		No	.	# uf preserved boliles checked	10
 Does paperwork match bottle labels? (Note discrepancies on chain of custody) 		Yes	V .	No		for pH (<2 gr	12 unless noteo)
2. Are mathces correctly identified on Chain of I	Cuslodyn	Yes	/	No		Adjusted?	1/1
3 Is it clear what analyses were requested?		Yes .	¥.	No			¥.
4 Were a holding times able to be mol? (If no, notify customer for authorization.)		Yes	×.	No		Coecked by	
pecial Handling (if applicable)					4		
15 Was client notified of all discrepancies with I	n sorder?	Yes	 	No		NA 🗸	
Person Not-fied	Date						
By Whom	Via	eMa	Ph	one	Fax	In Person	
Regarding							
Client Instructions							
16 Additional remarks							
Cooler Information Cooler No [Temp °C] Condition Se	at intact Seal No Se	eal Da	e s	Signed E	3y		
1 33 Good Yes	· · · · · · · · · · · · · · · · · · ·						

Chain-of-Custody Record			Record	Turn-A	round	Time:			14									15 H IS				
Client:	willia	ms Fo	ur corn	ers	Sta	Indard		Jsh				1-	1A		EI VG					DA	TO	DV
The second second second	0 (-0 (-	10.0		Project	Name	e:					2	78.8	ML			> -	-94 E	50	RM	10	PK I
Mailing	Address	. Ga	107		Kut	2 60	anyan	GP		40	n+ 🗆	mente	www	v nai	ienv	iranr	ment			100		
					Project	#:		_	-	49	017	awki	ns r	4E -	AID	uque	erqu	e. Ni	VI 67	109		
Diana		1 == = 1.	2-11-0		-					Te	el. 50	15-34	-5-39	975	H	ax	505-	345	4107		70 700	
Рпопе	#: <u>80</u>	1-554	. 6146		Durland					-	6		art-b	A	nary	515	req	uesi		de ser	Server 1	
email c	Prax#.	ad ron.g	a ier e iti	env.com	Project		ger.	williams)	3	luo	ARC					504	5					
QAVQU Q Star	Hackage:					Tonn	Burns	(LTE)	(80)	3.45	10			MS)		0	CB					
Accred	itation		Li Level 4	(Full Validadori)	Cample			call		H	DR(_	SO		02,P	821					
D NEL	AP	□ Othe	r		On Ice		X Yes	E No	- 7	LP	0	8.1	4	827(3.NC	/ 80		2			Î
N EDI	(Type)	PDF		*************	Sample	a Temp	perature.	36-0-3((F)=3-3		E.	(GR	d 41	d 50	D	als	NO	dos	-	101			X
Date	Time	Matrix	Sampl	e Request ID	Conta Type a	Container Type and # Type HEAL No.				X + MTB	180158	(Metho	3 (Metho	l's (8310	RA 8 Me	ns (F,CI	1 Postici	OB (VOA	0 (Semi-			Subbles
					13000		1700	P06560		BTE	đ	Id	EDE	PAH	RCF	Anic	808	826	8271			AirE
aldis	1430	5	BHIG	8-12'	140	25	COOL	-001	X		X											
5/6/18	1435	1	BHIG	12-15'	1		1	-002	1		1											
16119	1400		BH17	14-16'				-003			-						_					
616118	1405		BH 17	20-23				-004														
516118	1500		BH 18	10-12'				-005														
17118	0940		BH 19	14-16'				-006														
6/7/18	0950		BH 19	20-24				-007														
17/18	16.45		BH 20	14-16'				-008														
15118	1000		BH 21	5'				-009														
2/4/18	0930		BH 22	41				-010														
5/4/18	1040		BH23	2'		,		-011														
-14/18	1115	V	BH 24	8'	-	-	V	-012	1		R											
Date: Time; Relinquished by: 6/6//6 930 0000000000000000000000000000000000			11/	Received	s by: FW	at	Date Time	Rer	nark	s P	lea	55	cc	51.0	dbi	urn	15 @	PIt	env	: 00;	iu:	
2/8/18	1844	1 Cha	tothe Li	hels	E	000000000000000000000000000000000000000	0	ballb -	America	the energy		1.100				-	the					

C	Chain-of-Custody Record			Turn-Around	Time:								-								
Client.	willio	ms i	FOUR COLORS	Standard	C Rust	1				F	A		E				Nr 20	1EI		AL	
				Project Name	9:			2		<i>j</i> u	19.41	ML		>13		AE	50	RA	10	KI	
Mailing	Address	ron G	aier	KUEZ C	anyon GP						www	/.hal	lenv	Ironi	ment	al.co)m	4.50			
		6984) - 197		Project #	01		-	491	01 H	awki	ns N	E-	Alb	uqui	erque	e, Ni	M 87	109			
			-				are	Te	el, 50	5-34	5-39	975	F	ax	505-	345-	-4107	7			
Phone	#: 80	- 554-	6746					Sec. in)	- Contario	and and a	4	A	naly	/sis	Req	uest		1 and	and the second		
email o	r Fax#:			Project Mana	iger:		=	(ylu	RO					O4)							
Q.A/QC	Package:			Aaron	Galer (w	illiams)	302	o se	WI			5		4.S	CB,						
🕼 Stan	idard		□ Level 4 (Full Validation)	Danny	BURNS (E)	(E)		Ö	S S			SIM		PC	2 19(
Accred	itation			Sampler Er	ic corroll		1	Ha	0	=	E	70		NO'	3082						5
L NEL	АР	D Othe	۲	On Ice:	X Yes		+	+	RO	118	504	r 82	\$	0.34	s/s		2				à
Ø EDD	(Type)	PDF	r	Sample Tem	perature: 3.(p-0.3(cF)=3.3	開	BE	0	po	po	00	etal	N'IS	cide	(A	2				3
				Container	Preservative		W	X	15E	teth	leth	(83	8 M	(F,(esti	2	CIT				bles
Date	Time	Matrix	Sample Request ID	Type and #	Type	HEAL No.	12	X	180	2 F	N N	1s	SA S	SUC	1 1	08	0 (S				Bub
						1806560	E	BTE	1 d	TP	E	PAI	RCI	Anic	808	826	827				Air
id6119	0930	5	BH 10 12-16'	1402	C001	-013	X		x												
GIGIIS	0845	1	BH 10 20-24"	1		-014	1		1												
24/18	0945		BH 11 81			-015															
516118	1040		BH11 16-18'			-016															
516115	1100		BH12 8-12'			-017															
6/6/15	1105		BH 12 12 - 16'			-018															
516115	1145		BH 13 5' - 12'			-019			June												
616/18	1150		BH13 16'-18'			-020			and the second												
616/18	1775		BH 14 8-12'			-021															
6/6/18	1230		BH14 14-16'			-022															
SIGIIS	1330	Y	BH15 8-12'			-023															
616118	1335		BH15 16-19'	1	Y	-024	\overline{n}		1												
Date;	Time;	Relinquishe	ed by:	Received by:	11	Date Time	Ren	narks	S.												
13/15	1330	912	i un	1 Wer	Nat	18/18 1730		P	100	SP	~	- 1	dbi	Aver	50	211	t Par	Ve	017		
Date:	Time:	Relinquish	ed by:	Received by:	_	Date Time		1		10	-(5 P 1		- 6		- 011		µ1.1		
4/8/15	1844	1.JUL	othe Wallets	NO 81 80/00 18 DE																	
	f necessary,	amples subr	nitted to Hall Environmental may be sub-	contracted to other ad	offeidited laboratori	es. This serves as notice of this	s passit	bility /	Any su	b-cont	racted	data :	will be	e clear	ly nota	ted or	the ar	halytica	report		

Client:	Mient: Williams Four corners				Turn-Around	Time:					ŀ	AF	LL	E	NV	/IF	so	NP	1EP	4TP	L
-	WILLIA	ms Fou	ir corner	5	Project Name	- Rusn					1	AN	AL	.Ys	519	S L	A	30	RA	го	RY
	Aaros	Gala	r		1/1/1/2	Caning 1	0					WW	v.hal	llenv	iron	ment	tal.c	om			
Mailing	Address	C.			nuice	Conyon G			49	01 H	awk	ins I	VE -	Alb	uqu	erqu	e, N	M 87	109		
					Project #:				Te	1.50)5-3	45-3	975	F	ax	505-	345	-4107	,		
Phone	#: 801	- 554 -	6746										A	nah	sis	Rea	ues	t			
email o	r Fax#.				Project Mana	ider.			(7)	6					(1)				COMP COM		
QA/QC	Package:				Aaran 6	baler (will	(ans)	121	to u	MR			-		SO	3				and the second	
🗹 Stan	idard		🗆 Level 4 (Full Validation)	Danny	Burns (LTE)	9(8)	Gas	0	Ę,		WS		PO	PC					
Accred	itation				Sampler E	ric corroll		雪	Hd	HU	t	10	0.5		0	082					-
D NEL	AP	C Othe	۲		On Ice:	Y Yes	D No		+	2	18	04	827		O3iN	6/8		(A)			N N
S EDD	(Type)	PDF			Sample Tem	perature: 3-(0-03(nF)= 3.3	1	BE	Ē	44	5 PC	0 or	tals	NY.	ides	it	5			X
Date	Time	Matrix	Sample	Request ID	Container Type and #	Preservative Type	HEAL NO.	STEX)+ ME	3TEX + MT	IPH 8015B	FPH (Metho	EDB (Metho	AH's (831)	RCRA 8 Me	Anions (F.C	3081 Pestic	3260B (VO/	3270 (Semi-			vir Bubbles
27/19	1130	5	BH 25	6-8'	1 402	COOL	-025	×		X	X			-	4	3	8	80		-	<
1	1155	1	BH 26	4-61	1	1	-026			1	1										
Y	1200	¥	BH 26	10-12'	1	<u> </u>	-077	V		1	4										
17/18	1040	S	BH 20	10-12'	1 402	Cogi	-028	×		Y	X										
																				-	
																			_		
Date:	Time.	Rel-nquish	ed by:		Received by:	1	Date Time	Rer	nark	S:											
3/6/15	13/30	An	10	/	Perenver by	/at	4/8/18 1738			P	iea.	se	Ċ	π	20	: 0	d bei	rnsG) Iter	N. COJ	54
1/8/18	1844	AM	atheld	aller S	Lange Dy.	109/18 0900															
tell 1	f necessary,	samples subr	nilted to Hail Envi	ironmental may be subo	ontracted to other ad	perited laborations	as. This serves as notice of th	is possi	oility.	Ary su	ib-con	tracte	d data	will be	r clear	ly nota	nted ior	n the an	alyticas r	eport.	

11



June 25, 2018

Aaron Galer Williams Four Corners 188 CR 4900 Bloomfield, NM 87413 TEL: (505) 632-4442 FAX

RE: Kutz Canyon GP

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

OrderNo.: 1806A96

Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/19/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analys	sis Laboratory,	Inc.		1	Date Reported: 6/25/20	18
CLIENT: Williams Four Corners		Client	t Sample II	D: BF	[19	
Project: Kutz Canyon GP		Coll	ection Dat	e: 6/1	8/2018 1:20:00 PM	
Lab ID: 1806A96-001	ceived Dat	e: 6/1	9/2018 7:20:00 AM			
Analyses	Result	PQL Qu	ial Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHO	ORT LIST				Analyst	AG
Benzene	940	10	µg/L	10	6/20/2018 5:24:12 AM	B52084
Toluene	320	10	µg/L	10	6/20/2018 5:24:12 AM	B52084
Ethylbenzene	64	10	µg/L	10	6/20/2018 5:24:12 AM	B52084
Xylenes, Total	400	15	µg/L	10	6/20/2018 5:24:12 AM	B52084
Surr: 4-Bromofluorobenzene	110	70-130	%Rec	10	6/20/2018 5:24:12 AM	B52084
Surr: Toluene-d8	101	70-130	%Rec	10	6/20/2018 5:24:12 AM	B52084

Analytical Report Lab Order 1806A96

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 3
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

		is Lucoratory,				Date Reported. 0/25/201	0					
CLIENT: Project: Lab ID:	NT: Williams Four Corners Client Sample ID: BH 18 ct: Kutz Canyon GP Collection Date: 6/18/2018 1:30:00 PM D: 1806A96-002 Matrix: GROUNDWA Received Date: 6/19/2018 7:20:00 AM											
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch					
EPA MET	HOD 8260: VOLATILES SHO	RT LIST				Analyst	AG					
Benzene		6200	100	μg/L	100	6/20/2018 12:21:32 PM	B52124					
Toluene		1200	100	µg/L	100	6/20/2018 12:21:32 PM	B52124					
Ethylbenz	zene	170	10	μg/L	10	6/20/2018 5:47:12 AM	B52084					
Xylenes,	Total	4100	150	µg/L	100	6/20/2018 12:21:32 PM	B52124					
Surr: 4	-Bromofluorobenzene	101	70-130	%Rec	10	6/20/2018 5:47:12 AM	B52084					
Surr: T	oluene-d8	101	70-130	%Rec	10	6/20/2018 5:47:12 AM	B52084					

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank			
	D	Sample Diluted Due to Matrix	uted Due to Matrix E Valu				
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 3			
	ND	Not Detected at the Reporting Limit	P Sample pH Not In Range				
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit			
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified			

Hall Environmental Analysis Laboratory, Inc.

Client: Williams Four Corners

Project: Kutz Canyon GP

Sample ID RB2	Sample ID RB2 SampType: MBLK TestCode: EPA Method 8260: Volatiles Short List											
Client ID: PBW	Batch ID: B52084			RunNo: 52084								
Prep Date:	Analysis Date: 6/19/2018		SeqNo: 1705076 Units: µg/L									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	1.0										
Toluene	ND	1.0										
Ethylbenzene	ND	1.0										
Xylenes, Total	ND	1.5										
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130					
Surr: Toluene-d8	10		10.00		104	70	130					
Sample ID 100ng btex lcs2	SampType: LCS4			TestCode: EPA Method 8260: Volatiles Short List								
Client ID: BatchQC	Batch ID: B52084			RunNo: 52084								
Prep Date:	Analysis I	Date: 6/	19/2018	5	SeqNo: 1	705179	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	22	1.0	20.00	0	111	80	120					
Toluene	20	1.0	20.00	0	102	80	120					
Ethylbenzene	21	1.0	20.00	0	104	80	120					
Xylenes, Total	61	1.5	60.00	0	102	80	120					
Surr: 4-Bromofluorobenzene	10		10.00		99.6	70	130					
Surr: Toluene-d8	10		10.00		103	70	130					
Sample ID 100ng btex lcs	SampType: LCS4 TestCode: EPA Method 8260: Volatiles Short List											
Client ID: BatchQC	Batch ID: B52124			RunNo: 52124								
Prep Date:	Analysis [Date: 6/	20/2018	S	SeqNo: 1	706505	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	22	1.0	20.00	0	110	80	120					
Toluene	21	1.0	20.00	0	103	80	120					
Xylenes, Total	61	1.5	60.00	0	101	80	120					
Surr: 4-Bromofluorobenzene	9.7		10.00		96.6	70	130					
Surr: Toluene-d8	10		10.00		102	70	130					
Sample ID rb	Samp	Type: ME	BLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: B52124			RunNo: 52124								
Prep Date:	Analysis [Date: 6/	20/2018	5	SeqNo: 1	706536	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	1.0										
Toluene	ND	1.0										
Xylenes, Total	ND	1.5										
Surr: 4-Bromofluorobenzene	12		10.00		115	70	130					
Surr: Toluene-d8	10		10.00		104	70	130					

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

1806A96 25-Jun-18

WO#:

Page 3 of 3
	HALL ENVIR ANAL LABOI	TONMENTAL YSIS RATORY	Hall Environmental -tib TEL, 505-345-3973 Website work.ht	Analysis L 4901 H. hquerque FAX 505- illenv/rohm	abaratory nokitu NE 81487409 345-4107 ental.com	Sample Log-In Check List					
¢	llient Name	WILLIAMS FOUR CORN	Work Order Number	1806A99	5		Rootho	1			
R	eceived By ompleted By: eviewed By: /	Isaiah Ortiz Isaiah Ortiz FAIM	6/19/2018 7-20:00 AM 6/19/2018 8:02:01 AM (0/19/2018 8:02:01 AM		IC IC		and de	3 66/848			
<u>CI</u> 1. 2.	hain of Cus Is Chain of Cu How was the	tody ustody complete? sample delivered?	411 1210	Yes ⊻ <u>Courier</u>	(/I): No		Not Present	<u>}</u>			
<u>ل</u> ع	og In Was an atlem	ip) made to cool the sample:	2	Yea 🔽	No						
4.	Were all samp	ples received at a temperatur	re of >0° C to 6 0°C	Yes 🔽	No		NA				
5.	Sample(s) in p	proper container(s)?		Yes 🗹	No						
6	Sufficient sam	ple volume for indicated test	(z) ^{.,}	Yes: 🔽	No						
7.	Are samples (i	except VOA and ONG) propr	erly preserved?	Yes Y	No						
8	Was preserval	live added to bottles?		Yes	No	N	NA L				
9	VQA viais havi	e zero headspace?		Yes	No	5.	No VOA Vials 🗹				
10.	Were any sam	nple containers received brol	ken?	Yes	No	2	# of preserved	-14			
11,	Dões paperwo (Note discrepa	rk match bottle labels? Incles on chain of custody}		Yes 🟹	No		bottles checked [or pH (<2 or	-12 uniess (routin)			
12.	Are matrices c	orrectly identified on Chair o	f Custody?	Yes 🕅	No	<u></u>	Adjusted?	- O Ol			
13.	is it dear what	analyses were requested?		Yes 🖌	No	L	1	15			
14.	Were all holdin (If no, notify cu	ig limes able to be met? uscomer for authorization.)		Yes 🗹	No	1	Checked by	50			
Spe	ecial Handli	ing (if applicable)					1				
15	Was client not	lified of all discrepancies with	n this order?	Yes 🗌	No		NA W				
	Person	Notified:	Date								
	By Who	m.	Via	EMail]	Phone	Fax [in Person				
	Regardi	ng:					a canada and a construction of the				
	Client In	istructions:									
16	Additional ren	narks:									
17	Cooler Inform	Temp °C Condition 1 0 1 Gooc Y	Seal Intact Seal No S	eal Date	Signed	Ву					

Chain-of-Custody Record	Turn-Around	Time:				1.1				-							
Client:	Standard	🖄 Rush	6/2/18				H	N		Er	VV TC	16	AF				
An and A ala	Project Name	E		www.hallenvironmental.com													
Mailing Address:	KILLE O	annon Gi	0	4001 Heidles NE Albuquerque NM 97100													
	Project #			4901 Hawkins NE - Albuquerque, NM 87 109													
Phase # 201 pill 1210	-				Tel. 505-345-3975 Fax 505-345-4107												
Phone #: 401- 044-1414	Project Manager																
ONOD Package	Li Diece maria	aron Gale	r-Williams	121)	luo	MKG			_		80	ŝ					
Standard □ Level 4 (Full Validation)	De	anny Burns	· LTE	(80	Gas	0			SWI		0 ⁴	PO					
Accreditation	Sampler	ENT COM	czall	AB's	H	B	~	-	0.8		02	082					
NELAP Other	On Ice:	SkYes.	E No	F +	F +	20	100	04.	827		N ³ C	5/8		A)			Or N
EDD (Type) PDF	Sample Temperature: 1.1-1.0/rc)(0.1			HE	н Ш	(Gł	pd 4	od 5	0.01	stals	N.N	des	A)	20			X
Date Time Matrix Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	RTEX)+ MT	BTEX + MT	TPH 80158	TPH (Metho	EDB (Metho	PAH's (831	RCRA 8 Me	Anions (F,C	8081 Pestic	8260B (VO)	8270 (Semi			Air Bubbles
G18/14 1320 GN BH 19	3 VOA	COOL		X													
G/18/18 1330 GW BH 18	BUDA	6001	002	X													
									_								
		ļ															
Dale: Time. Reinquished by: //8//S 1434 2-200 /200	Raceived by	Ja.t	4/18/18/1430	Ren	nark	9:											
Date: Time: Relinguished by: 2/18/15 1820 CMALLTAN, WALLER	Received by:	L 6	Date Time														
If necessary samples submitted to Hall Environmental may be sub	contracted to other a	coredited isborator	s. This serves as notice of thi	s possi	hitty	Any se	in-comb	racied	data v	vil be	clear	ly nots	eted or	i the ar	nalytical	report.	



June 18, 2018

Danny Burns Williams Four Corners 188 CR 4900 Bloomfield, NM 87413 TEL: (505) 632-4442 FAX

RE: Kutz GP

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

OrderNo.: 1806791

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/13/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analys	Date Reported: 6/18/201	18								
CLIENT: Williams Four Corners		Clie	Client Sample ID: BH-26							
Project: Kutz GP	Collection Date: 6/12/2018 2:50:00 PM									
Lab ID: 1806791-001 Matrix: AQUEOUS Received Date: 6/13/2018 7:00:00 AM										
Analyses	Result	PQL Q	Qual Units	DF	Date Analyzed	Batch				
EPA METHOD 8260: VOLATILES SHOP	RT LIST				Analyst	AG				
Benzene	810	20	µg/L	20	6/15/2018 3:40:11 PM	C52018				
Toluene	2.6	1.0	µg/L	1	6/14/2018 4:30:32 PM	D51966				
Ethylbenzene	3.5	1.0	µg/L	1	6/14/2018 4:30:32 PM	D51966				
Xylenes, Total	160	1.5	µg/L	1	6/14/2018 4:30:32 PM	D51966				
Surr: 4-Bromofluorobenzene	104	70-130	%Rec	1	6/14/2018 4:30:32 PM	D51966				
Surr: Toluene-d8	106	70-130	%Rec	1	6/14/2018 4:30:32 PM	D51966				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	
	D	Sample Diluted Due to Matrix E Value above quantitation range			
	H Holding times for preparation or analysis exceeded		J	Analyte detected below quantitation limits Page 1 of 6	
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit	
	S % Recovery outside of range due to dilution or matrix		W	Sample container temperature is out of limit as specified	

Than Environmental Analysis Laboratory, Inc. Date Reported: 6/18/2018												
CLIENT: Williams I Project: Kutz GP	Four Corners	Client Sample ID: BH-20 Collection Date: 6/12/2018 3:25:00 PM										
Lab ID: 1806791-0	002	Matrix:	AQUE	OUS	Receiv	ved Dat	e: 6/1	3/2018 7:00:00 4	AM			
Analyses		R	esult	PQL	Qual	Units	DF	Date Analyzed		Batch		
EPA METHOD 8260	VOLATILES SHO	RT LIST						Ar	nalyst	AG		
Benzene			2.3	1.0		µg/L	1	6/15/2018 4:03:28	3 PM	C52018		
Toluene			6.5	1.0		µg/L	1	6/15/2018 4:03:28	3 PM	C52018		
Ethylbenzene			1.9	1.0		µg/L	1	6/15/2018 4:03:28	3 PM	C52018		
Xylenes, Total			13	1.5		µg/L	1	6/15/2018 4:03:28	3 PM	C52018		
Surr: 4-Bromofluor	obenzene		109	70-130		%Rec	1	6/15/2018 4:03:28	3 PM	C52018		
Surr: Toluene-d8			105	70-130		%Rec	1	6/15/2018 4:03:28	3 PM	C52018		

Qualifiers: * Value exceeds Maximum Contaminant Level. В Analyte detected in the associated Method Blank Sample Diluted Due to Matrix D Е Value above quantitation range Analyte detected below quantitation limits Page 2 of 6 H Holding times for preparation or analysis exceeded J ND Not Detected at the Reporting Limit Ρ Sample pH Not In Range PQL Practical Quanitative Limit RL Reporting Detection Limit S % Recovery outside of range due to dilution or matrix W Sample container temperature is out of limit as specified

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 1806791 Date Reported: 6/18/2018

Hall Environmental Analysis	s Laboratory, I	nc.		Date Reported: 6/18/20	18			
CLIENT: Williams Four Corners		Cli	ient Sample II	D: BH-22				
Project: Kutz GP Collection Date: 6/12/2018 3:30:00 PM								
Lab ID: 1806791-003	e: 6/13/2018 7:00:00 AM							
Analyses	Result	PQL	Qual Units	DF Date Analyzed	Batch			
EPA METHOD 8260: VOLATILES SHOR	T LIST			Analyst	AG			
Benzene	12000	500	μg/L	500 6/15/2018 4:26:48 PM	C52018			
Toluene	11000	500	µg/L	500 6/15/2018 4:26:48 PM	C52018			
Ethylbenzene	670	500	μg/L	500 6/15/2018 4:26:48 PM	C52018			
Xylenes, Total	6400	750	µg/L	500 6/15/2018 4:26:48 PM	C52018			
Surr: 4-Bromofluorobenzene	109	70-130	%Rec	500 6/15/2018 4:26:48 PM	C52018			
Surr: Toluene-d8	107	70-130	%Rec	500 6/15/2018 4:26:48 PM	C52018			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	H Holding times for preparation or analysis exceeded		J	Analyte detected below quantitation limits Page 3 of 6
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S % Recovery outside of range due to dilution or ma		W	Sample container temperature is out of limit as specified

And and an and an and	J	J				Bute reported. 0/10/20	10
CLIENT: Project:	Williams Four Corners Kutz GP	Mateira AOU	Client Coll	Sample II ection Dat	D: BI e: 6/	H-27 12/2018 4:00:00 PM	
Lab ID:	1806791-004	Matrix: AQUE	cous Re	ceived Dat	e: 0/	13/2018 /:00:00 AM	
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA MET	HOD 8260: VOLATILES SHO	DRT LIST				Analyst	AG
Benzene		ND	1.0	µg/L	1	6/15/2018 9:53:25 AM	C52018
Toluene		ND	1.0	µg/L	1	6/15/2018 9:53:25 AM	C52018
Ethylben	zene	ND	1.0	µg/L	1	6/15/2018 9:53:25 AM	C52018
Xylenes,	Total	ND	1.5	µg/L	1	6/15/2018 9:53:25 AM	C52018
Surr: 4	-Bromofluorobenzene	111	70-130	%Rec	1	6/15/2018 9:53:25 AM	C52018
Surr: T	Foluene-d8	102	70-130	%Rec	1	6/15/2018 9:53:25 AM	C52018

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 1806791 Date Reported: 6/18/2018

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 1 of 6
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 4 01 0
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of lim	it as specified

Client: Williams Four Corners

Project: Kutz GP

											and the latter with a second sec
Sample ID 1	Sample ID 100NG BTEX LCS SampType: LCS4 TestCode: EPA Method 8260: Volatiles Short List										
Client ID: B	BatchQC	Batc	h ID: D5	51966	F	RunNo: 5	1966				
Prep Date:		Analysis [Date: 6/	14/2018	S	SeqNo: 1	700193	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene		21	1.0	20.00	0	106	80	120			
Ethylbenzene		21	1.0	20.00	0	105	80	120			
Xylenes, Total		62	1.5	60.00	0	103	80	120			
Surr: 4-Bromofl	fluorobenzene	9.7		10.00		96.5	70	130			
Surr: Toluene-d	d8	10		10.00		104	70	130			
Sample ID 1806791-001ams SampType: MS4 TestCode: EPA Method 8260: Volatiles Short List											
Client ID: BH-26 Batch ID: D51966 RunNo: 51966											
Prep Date:		Analysis [Date: 6/	14/2018	5	SeqNo: 1	700202	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene		23	1.0	20.00	2.626	99.5	80	120			
Ethylbenzene		23	1.0	20.00	3.496	99.3	80	120			
Xylenes, Total		220	1.5	60.00	163.0	97.4	80	120			
Surr: 4-Bromofl	fluorobenzene	9.8		10.00		97.6	70	130			
Surr: Toluene-d	d8	11		10.00		108	70	130			
Sample ID 1806791-001amsd SampType: MSD4 TestCode: EPA Method 8260: Volatiles Short List								and the second se			
Sample ID 18	806791-001amsd	Samp	Гуре: МЗ	SD4	Tes	tCode: EF	PA Method	8260: Volatil	es Short L	.ist	
Sample ID 18 Client ID: B	806791-001amsd 3H-26	Samp ⁻¹ Batcl	Гуре: МS h ID: D5	SD4 1966	Tes F	tCode: EF RunNo: 51	PA Method	8260: Volatil	es Short L	ist	
Sample ID 18 Client ID: B Prep Date:	806791-001amsd 3H-26	SampT Batcl Analysis E	Гуре: М h ID: D5 Date: 6/	SD4 1966 14/2018	Tes F S	tCode: EF RunNo: 5ª SeqNo: 17	PA Method 1966 700203	8260: Volatile Units: μg/L	es Short L	ist	
Sample ID 18 Client ID: B Prep Date: Analyte	806791-001amsd 3H-26	Samp Batcl Analysis E Result	Type: MS h ID: D5 Date: 6/ PQL	6D4 1966 14/2018 SPK value	Tes F SPK Ref Val	tCode: EF RunNo: 54 SeqNo: 17 %REC	PA Method 1966 700203 LowLimit	8260: Volatil α Units: μ g/L HighLimit	es Short L %RPD	.ist RPDLimit	Qual
Sample ID 18 Client ID: B Prep Date: Analyte Toluene	806791-001amsd 3H-26	SampT Batcl Analysis E Result 22	Fype: MS h ID: D5 Date: 6/ PQL 1.0	SD4 1966 14/2018 SPK value 20.00	Tes F SPK Ref Val 2.626	tCode: EF RunNo: 5 SeqNo: 17 %REC 96.6	PA Method 1966 700203 LowLimit 80	8260: Volatile Units: μg/L HighLimit 120	%RPD 2.56	ist RPDLimit 20	Qual
Sample ID 18 Client ID: BI Prep Date: Analyte Toluene Ethylbenzene	806791-001amsd 3H-26	Samp Batcl Analysis E Result 22 23	Type: MS h ID: D5 Date: 6/ PQL 1.0 1.0	5D4 1966 14/2018 SPK value 20.00 20.00	Tes F SPK Ref Val 2.626 3.496	tCode: EF RunNo: 5 ⁴ BeqNo: 17 <u>%REC</u> 96.6 99.2	PA Method 1966 700203 LowLimit 80 80	8260: Volatile Units: μg/L HighLimit 120 120	%RPD 2.56 0.139	ist RPDLimit 20 20	Qual
Sample ID 18 Client ID: BI Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total	806791-001amsd 3H-26	Samp Batcl Analysis E Result 22 23 220	Type: MS h ID: D5 Date: 6/ PQL 1.0 1.0 1.5	5D4 1966 14/2018 SPK value 20.00 20.00 60.00	Tes F SPK Ref Val 2.626 3.496 163.0	tCode: EF RunNo: 5' SeqNo: 17 %REC 96.6 99.2 97.2	PA Method 1966 700203 LowLimit 80 80 80	8260: Volatile Units: μg/L HighLimit 120 120 120	%RPD 2.56 0.139 0.0337	ist RPDLimit 20 20 20 20	Qual
Sample ID 18 Client ID: BI Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofil	806791-001amsd 3H-26 fluorobenzene	SampT Batcl Analysis E Result 22 23 220 9.9	Type: MS h ID: D5 Date: 6/ PQL 1.0 1.0 1.5	5D4 1966 14/2018 SPK value 20.00 20.00 60.00 10.00	Tes F S SPK Ref Val 2.626 3.496 163.0	tCode: EF RunNo: 5' SeqNo: 17 %REC 96.6 99.2 97.2 98.6	PA Method 1966 700203 LowLimit 80 80 80 70	8260: Volatile Units: μg/L HighLimit 120 120 120 130	%RPD 2.56 0.139 0.0337 0	ist RPDLimit 20 20 20 20 0	Qual
Sample ID 18 Client ID: B Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofit Surr: Toluene-d	806791-001amsd 3H-26 fluorobenzene d8	SampT Batcl Analysis E Result 22 23 220 9.9 10	Fype: MS h ID: D5 Date: 6 / PQL 1.0 1.0 1.5	5D4 1966 14/2018 SPK value 20.00 20.00 60.00 10.00 10.00	Tes F SPK Ref Val 2.626 3.496 163.0	tCode: EF RunNo: 5' SeqNo: 17 %REC 96.6 99.2 97.2 98.6 103	PA Method 1966 700203 LowLimit 80 80 80 70 70 70	8260: Volatili Units: μg/L HighLimit 120 120 120 130 130	%RPD 2.56 0.139 0.0337 0 0	INTERD RPDLimit 20 20 0 0 0 0	Qual
Sample ID 18 Client ID: BI Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total Surr: Toluene-d Sample ID rb	806791-001amsd 3H-26 fluorobenzene d8	SampT Batcl Analysis E Result 22 23 220 9.9 10 SampT	Fype: MS h ID: D5 Date: 6 / PQL 1.0 1.0 1.5	SD4 1966 14/2018 SPK value 20.00 20.00 60.00 10.00 10.00 3LK	Tes F S SPK Ref Val 2.626 3.496 163.0 Tes	tCode: EF RunNo: 57 SeqNo: 17 %REC 96.6 99.2 97.2 98.6 103 tCode: EF	PA Method 1966 700203 LowLimit 80 80 80 70 70 70 24 Method	8260: Volatile Units: μg/L HighLimit 120 120 120 130 130 8260: Volatile	%RPD 2.56 0.139 0.0337 0 0 0 0	ist RPDLimit 20 20 20 0 0 0 0 0 ist	Qual
Sample ID 18 Client ID: B Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofil Surr: Toluene-d Sample ID rb Client ID: PI	806791-001amsd 3H-26 fluorobenzene d8 b	SampT Batcl Analysis E Result 22 23 220 9.9 10 SampT Batcl	Fype: MS h ID: D5 Date: 6 / PQL 1.0 1.0 1.5 Fype: ME h ID: D5	SD4 1966 14/2018 SPK value 20.00 20.00 60.00 10.00 10.00 3LK 1966	Tes F SPK Ref Val 2.626 3.496 163.0 Tes F	tCode: EF RunNo: 5' SeqNo: 17 %REC 96.6 99.2 97.2 98.6 103 tCode: EF RunNo: 51	PA Method 1966 700203 LowLimit 80 80 80 70 70 70 70 2A Method	8260: Volatili Units: μg/L HighLimit 120 120 130 130 8260: Volatili	%RPD 2.56 0.139 0.0337 0 0 0 0	ist RPDLimit 20 20 20 0 0 0 ist	Qual
Sample ID 18 Client ID: BI Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total Surr: Toluene-d Sample ID rb Client ID: PI Prep Date:	806791-001amsd 3H-26 fluorobenzene d8 b PBW	SampT Batcl Analysis E 22 23 220 9.9 10 SampT Batcl Analysis E	Fype: MS h ID: D5 Date: 6/ PQL 1.0 1.0 1.5 Fype: ME h ID: D5 Date: 6/	SD4 1966 14/2018 SPK value 20.00 20.00 60.00 10.00 10.00 3LK 1966 14/2018	Tes F S SPK Ref Val 2.626 3.496 163.0 Tes F S	tCode: EF RunNo: 57 SeqNo: 17 %REC 96.6 99.2 97.2 98.6 103 tCode: EF RunNo: 51 SeqNo: 17	PA Method 1966 700203 LowLimit 80 80 80 70 70 70 70 70 70 70 70 70 7	8260: Volatili Units: μg/L HighLimit 120 120 120 130 130 8260: Volatili Units: μg/L	%RPD 2.56 0.139 0.0337 0 0 0 0	ist RPDLimit 20 20 20 0 0 0 ist	Qual
Sample ID 18 Client ID: B Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromoffu Surr: Toluene-d Sample ID rb Client ID: PI Prep Date: Analyte	806791-001amsd 3H-26 fluorobenzene d8 b b	SampT Batcl Analysis E 22 23 220 9.9 10 SampT Batcl Analysis E Result	Fype: MS h ID: D5 Date: 6/ PQL 1.0 1.0 1.5 Fype: ME h ID: D5 Date: 6/ PQL	SD4 1966 14/2018 SPK value 20.00 20.00 60.00 10.00 10.00 3LK 1966 14/2018 SPK value	Tes F SPK Ref Val 2.626 3.496 163.0 Tes F SPK Ref Val	tCode: EF RunNo: 5' SeqNo: 17 %REC 96.6 99.2 97.2 98.6 103 tCode: EF RunNo: 51 SeqNo: 17 %REC	PA Method 1966 700203 LowLimit 80 80 80 70 70 PA Method 1966 700208 LowLimit	8260: Volatili Units: μg/L HighLimit 120 120 130 130 8260: Volatili Units: μg/L HighLimit	<pre>%RPD</pre>	ist RPDLimit 20 20 0 0 0 ist RPDLimit	Qual
Sample ID 18 Client ID: B Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromoffu Surr: Toluene-d Sample ID rb Client ID: PI Prep Date: Analyte Toluene	806791-001amsd 3H-26 fluorobenzene d8 b PBW	SampT Batcl Analysis E Result 22 23 220 9.9 10 SampT Batcl Analysis E Result ND	Fype: MS h ID: D5 Date: 6/ PQL 1.0 1.0 1.5 Fype: ME h ID: D5 Date: 6/ PQL 1.0	SD4 1966 14/2018 SPK value 20.00 20.00 60.00 10.00 10.00 3LK 1966 14/2018 SPK value	Tes F SPK Ref Val 2.626 3.496 163.0 Tes F SPK Ref Val	tCode: EF RunNo: 5' SeqNo: 17 %REC 96.6 99.2 97.2 98.6 103 tCode: EF RunNo: 51 SeqNo: 17 %REC	PA Method 1966 700203 LowLimit 80 80 80 70 70 PA Method 1966 700208 LowLimit	8260: Volatili Units: μg/L HighLimit 120 120 120 130 130 8260: Volatili Units: μg/L HighLimit	<pre>%RPD</pre>	ist RPDLimit 20 20 0 0 0 ist RPDLimit	Qual
Sample ID 18 Client ID: B Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromoffu Surr: Toluene-d Sample ID rb Client ID: PI Prep Date: Analyte Toluene Ethylbenzene	806791-001amsd 3H-26 fluorobenzene d8 b PBW	Samp Batcl Analysis E Result 22 23 220 9.9 10 Samp Batcl Analysis E Result ND ND	Fype: MS h ID: D5 Date: 6/ PQL 1.0 1.5 Fype: ME h ID: D5 Date: 6/ PQL 1.0 1.0 1.0	SD4 1966 14/2018 SPK value 20.00 20.00 60.00 10.00 10.00 3LK 1966 14/2018 SPK value	Tes F SPK Ref Val 2.626 3.496 163.0 Tes F SPK Ref Val	tCode: EF RunNo: 5' SeqNo: 17 %REC 96.6 99.2 97.2 98.6 103 tCode: EF RunNo: 51 SeqNo: 17 %REC	PA Method 1966 700203 LowLimit 80 80 80 70 70 PA Method 1966 700208 LowLimit	8260: Volatili Units: μg/L HighLimit 120 120 130 130 8260: Volatili Units: μg/L HighLimit	<pre>%RPD 2.56 0.139 0.0337 0 0 es Short L %RPD</pre>	ist RPDLimit 20 20 0 0 0 ist RPDLimit	Qual
Sample ID 18 Client ID: B Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofit Surr: Toluene-d Sample ID rb Client ID: PI Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total	806791-001amsd 3H-26 Auorobenzene d8 b PBW	SampT Batcl Analysis I Result 22 23 220 9.9 10 SampT Batcl Analysis I Result ND ND ND	Fype: MS h ID: D5 Date: 6/ PQL 1.0 1.5 Fype: ME h ID: D5 Date: 6/ PQL 1.0 1.0 1.0 1.0 1.5	SD4 1966 14/2018 SPK value 20.00 20.00 60.00 10.00 10.00 3LK 1966 14/2018 SPK value	Tes F SPK Ref Val 2.626 3.496 163.0 Tes F SPK Ref Val	tCode: EF RunNo: 5' SeqNo: 17 %REC 96.6 99.2 97.2 98.6 103 tCode: EF RunNo: 51 SeqNo: 17 %REC	PA Method 1966 700203 LowLimit 80 80 80 70 70 PA Method 1966 700208 LowLimit	8260: Volatili Units: μg/L HighLimit 120 120 120 130 130 8260: Volatili Units: μg/L HighLimit	<pre>%RPD 2.56 0.139 0.0337 0 0 es Short L %RPD</pre>	ist RPDLimit 20 20 0 0 0 0 ist RPDLimit	Qual
Sample ID 18 Client ID: B Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofit Surr: Toluene-d Sample ID rb Client ID: Pl Prep Date: Analyte Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofit	806791-001amsd 3H-26 Auorobenzene d8 b PBW	SampT Batcl Analysis E Result 22 23 220 9.9 10 SampT Batcl Analysis E Result ND ND ND ND 11	Fype: MS h ID: D5 Date: 6/ PQL 1.0 1.0 1.5 Fype: ME h ID: D5 Date: 6/ PQL 1.0 1.0 1.5	5D4 1966 14/2018 SPK value 20.00 20.00 60.00 10.00 3LK 1966 14/2018 SPK value 10.00	Tes F SPK Ref Val 2.626 3.496 163.0 Tes F SPK Ref Val	tCode: EF RunNo: 57 SeqNo: 17 96.6 99.2 97.2 98.6 103 tCode: EF RunNo: 51 SeqNo: 17 %REC	PA Method 1966 700203 LowLimit 80 80 80 70 70 70 70 70 70 70 70 70 7	8260: Volatili Units: μg/L HighLimit 120 120 120 130 8260: Volatili Units: μg/L HighLimit	%RPD 2.56 0.139 0.0337 0 0 es Short L %RPD	ist RPDLimit 20 20 20 0 0 0 ist RPDLimit	Qual

Qualifiers:

D

- * Value exceeds Maximum Contaminant Level.
 - Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Η
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank E

Value above quantitation range

- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 5 of 6

WO#: 1806791

18-Jun-18

Client: Williams Four Corners

Project: Kutz GP

Sample ID 100ng btex lcs SampType: LCS4 TestCode: EPA Method 8260: Volatiles Short List										
Client ID: BatchQC	Batcl	n ID: C5	2018	F	RunNo: 5	2018				
Prep Date:	Analysis E	Date: 6/	15/2018	S	SeqNo: 1	701902	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	80	120			
Toluene	22	1.0	20.00	0	108	80	120			
Ethylbenzene	21	1.0	20.00	0	107	80	120			
Xylenes, Total	64	1.5	60.00	0	106	80	120			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.8	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			
Sample ID rb	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8260: Volatile	es Short L	ist	
Client ID: PBW	Batch	n ID: C5	2018	R	RunNo: 5	2018				
Prep Date:	Analysis D	ate: 6/	15/2018	S	SeqNo: 1	701907	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	0		10.00		0	70	130			S
Surr: 4-Bromofluorobenzene	11		10.00		114	70	130			
Surr: Dibromofluoromethane	0		10.00		0	70	130			S
0 7 1 10	10		10.00		101	70	100			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: **1806791**

18-Jun-18

Page 6 of 6

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albi TEL: 505-345-3975 Website: www.ha	Analysis Laboratory 4901 Hawkins NJ, uquerque, NM 87109 FAX: 505-345-4107 illenvironmental com	Sample Log-In Check List					
Client Name WILLIAMS FOUR CO	RN Work Order Number	1806791		RoptiNo 1	and an and a second second			
Received By: Anne Thome	6/13/2018 7:00:00 AM	ć.	Don An	-				
Completed By: Erin Melendrez	6/13/2018 1:37 04 PM	U	int,					
Reviewed By. ENM LB: JBOC/14/1	8 6/14/18							
Chain of Custody								
1. Is Chain of Custody complete?		Үез 🗸	NgLi	Not Present				
How was the sample delivered?		Couner						
Log in 3. Was an attempt made to cool the sam	relqn	Yes 🖌	No	NA []				
4 Were all samples received at a tempe	rature of >0° C to 6.0°C	Yes 🖌	No 📙	NA				
5. Sample(s) in proper container(s)?		Yes 🗹	No 🗋					
6. Sufficient sample volume for indicated	test(s)?	Yes 🗹	No 🗌					
7. Are samples (except VOA and ONG)	properly preserved?	Yes M	No					
8. Was preservative added to bottles?		Yes	Na 🛃	NA 🗌				
9. VOA vials have zero headspace?		Yes 💉	Nolin	No VOA Vialis	1			
10. Were any sample containers received	broken?	Yes .]	No 🗹		18			
11. Does paperwork match bottle labels? (Note discrepancies on chain of custor	fy)	Yes 🖌	ND h	or pH. (<2 or >)/2	upleas poted)			
12. Are matrices correctly identified on Ch	ain of Custody?	Yes 🖌 🔰	No	Adjusted?	$)^{\vee}$			
13. Is it clear what analyses were requested	ed?	Yes 🗹 🛛	No [B				
14. Were all holding times able to be met? (If no, notify customer for authorization	,)	Yes 🗹	No	Checksdoy,	·			
Special Handling (if applicable)			. /					
15. Was client notified of all discrepancies	s with this order?	Yes	No 🗍	NA 🗸.				
Person Notified	Date:			_				
By Whom	Via:	eMail Phone	Fax [] In Person				
Regarding:								
Client Instructions				····				
16. Additional remarks								
17. <u>Cooler Information</u> Cooler No Temp °C Condition	Seel Intact	eal Date	ed By .					

Cooler No	Temp °C	Condition	Seel Intact,	Seal No	Seal Date	Signed By .
1	13	Good	Not Present			
						New Wildowskiewski, Amerika, President

С	hain	of-Cu	istody Record	Turn-Around	Time:			. 1												
Client: 1	Will	ame	Four Corners	K Standard	🗆 Rush						IA N		Y		5 I 5 I		717 30	IEF RA	TO	AL . RY
				Project Name	2		1 1													
Mailing	Address	.,770	C Arris NE	Kut	2 (F))					www	r.nai	lienv	ironi	meni	lai.co	m			
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				10,000 #.				Te	1. 50	5-34	5-39	975	F	ax	505-	345-	4107	r		
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email or	Fax#: (acon.	galer wwilliams, com	Project Mana	ger:	P	E.	(fund	RO					04)	67					
QA/QC F	Package:			LTE	- Dann	1 Durins	802	aso	Ň			5		04.S	CB					
X Stan	dard		☐ Level 4 (Full Validation)	K	5		10	Ŷ	22			SIN		Dd'a	2 P		ł			
Accredi	tation			Sampler:)	Burns		Æ	H	2	÷.	÷.	20		0 N	808					17
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J.EDD	(Type)	1.81		Sample Tem	perature: 2.	3-CF-10=113	1	1BE	0	8	8	0	etal	N I	cide	(Y	i-V			
				Container	Preservative	1	3	Z	150	Aeth	Vet	(83	8 M	E)	esti	S	Sem			ple
Date	Time	Matrix	Sample Request ID	Type and #	Туре	HEAL No.	X)×	180	2	€ m		RA	Suc	1 P	8	00			gub
						1806791	BT	E G	đ	T D	Ē	PA	RCI	Anic	808	826	827			Air
6-12-18	1450	GW	BH-2.6	3- WAS	NONE	-001	X											-		
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	1530		BH-22			-003	X										-+		+	
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratoriles. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

July 11, 2018

Aaron Galer Williams Four Corners 188 CR 4900 Bloomfield, NM 87413 TEL: (505) 632-4442 FAX

RE: Kutz Canyon GP

OrderNo.: 1807273

Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 3 sample(s) on 7/7/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 7/11/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Williams Four Corners	Client Sample ID: BH 28												
Project:	Kutz Canyon GP		Collection Date: 7/6/2018 11:40:00 AM											
Lab ID:	1807273-001	Matrix:	GRC	DUNDWA	Re	eceived I	Date: 7	7/7	/2018 10:50:00 AM					
Analyses		R	esult	PQL	Q	ual Uni	ts D	F	Date Analyzed	Batch				
EPA MET	HOD 8260: VOLATILES SHOP	RT LIST							Analyst:	AG				
Benzene			2.7	1.0)	µg/L	. 1	1	7/10/2018 11:46:15 AM	B52594				
Toluene			ND	1.0)	µg/L	. 1	1	7/10/2018 11:46:15 AM	B52594				
Ethylbenz	zene		ND	1.0)	µg/L	. 1		7/10/2018 11:46:15 AM	B52594				
Xylenes,	Total		ND	1.5	5	µg/L	. 1		7/10/2018 11:46:15 AM	B52594				
Surr: 4	-Bromofluorobenzene		113	70-130)	%Re	ec 1	1	7/10/2018 11:46:15 AM	B52594				
Surr: T	oluene-d8		99.0	70-130)	%Re	ec 1		7/10/2018 11:46:15 AM	B52594				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 4
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix		W	Sample container temperature is out of limit as specified

Date Reported: 7/11/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Williams Four Corners		Client Sample ID: BH 29												
Project:	Kutz Canyon GP				Colle	ction Date	: 7/6	5/2018 12:00:00 PM							
Lab ID:	1807273-002	Matrix:	Matrix: GROUNDWA Received Date: 7/7/2018 10:50:00 AM												
Analyses		R	esult	PQL	Qua	al Units	DF	Date Analyzed	Batch						
EPA MET	HOD 8260: VOLATILES SHO	RT LIST						Analyst:	AG						
Benzene			ND	5.0	1	µg/L	5	7/10/2018 12:32:34 PM	B52594						
Toluene			ND	5.0	1	µg/L	5	7/10/2018 12:32:34 PM	B52594						
Ethylbenz	zene		14	5.0		µg/L	5	7/10/2018 12:32:34 PM	B52594						
Xylenes,	Total		230	7.5		µg/L	5	7/10/2018 12:32:34 PM	B52594						
Surr: 4	-Bromofluorobenzene		103	70-130		%Rec	5	7/10/2018 12:32:34 PM	B52594						
Surr: T	oluene-d8		100	70-130		%Rec	5	7/10/2018 12:32:34 PM	B52594						

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 4
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix		W	Sample container temperature is out of limit as specified

Date Reported: 7/11/2018

20 7/9/2018 3:40:50 PM

20 7/9/2018 3:40:50 PM

R52555

R52555

Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

Surr: Toluene-d8

CLIENT: Williams Four Corners Client Sample ID: BH 31 **Project:** Kutz Canyon GP Collection Date: 7/6/2018 12:20:00 PM 1807273-003 Lab ID: Matrix: GROUNDWA Received Date: 7/7/2018 10:50:00 AM Analyses Result PQL Qual Units DF Date Analyzed Batch EPA METHOD 8260: VOLATILES SHORT LIST Analyst: AG Benzene 11000 200 µg/L 200 7/10/2018 12:55:40 PM B52594 Toluene 110 20 µg/L 20 7/9/2018 3:40:50 PM R52555 Ethylbenzene 680 20 µg/L 20 7/9/2018 3:40:50 PM R52555 Xylenes, Total 6600 300 µg/L 200 7/10/2018 12:55:40 PM B52594

99.0

102

70-130

70-130

%Rec

%Rec

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 4
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		Sample container temperature is out of limit as specified

Client: Williams Four Corners

Kutz Canyon GP **Project:**

Sample ID 100ng btex lcs	SampT	ype: LC	S4	Tes	tCode: E	PA Method	8260: Volatile	es Short L	ist		
Client ID: BatchQC	Batcl	n ID: R5	2555	F	RunNo: 🚦	52555					
Prep Date:	Analysis E	ate: 7	9/2018	5	SeqNo: 1	1723888	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Toluene	21	1.0	20.00	0	104	80	120				
Ethylbenzene	21	1.0	20.00	0	104	80	120				
Surr: 4-Bromofluorobenzene	9.9		10.00		99.2	70	130				
Surr: Toluene-d8	10		10.00		101	70	130				
Sample ID at	Sampl	WDO: MI		Too	tCada: E	DA Mathad	8260. Veletil	Chart I	lat		
	Sampi	ype. wit		Tes		PA Method	6260: Volatile	es Short L	list		
Client ID: PBW	Batch	1 ID: R5	2555	н	RunNo: 5	52555					
Prep Date:	Analysis D	ate: 7/	9/2018	S	SeqNo: 1	1723904	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Toluene	ND	1.0									
Ethylbenzene	ND	1.0									
Surr: 4-Bromofluorobenzene	12		10.00		116	70	130				
Surr: Toluene-d8	10		10.00		99.8	70	130				
Sample ID rb	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8260: Volatile	es Short L	.ist		
Client ID: PBW	Batch	n ID: B5	2594	F	RunNo: 5	52594					
Prep Date:	Analysis D	ate: 7/	10/2018	S	SeqNo: 1	1725914	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	1.0									
Toluene	ND	1.0									
Ethylbenzene	ND	1.0									
Xylenes, Total	ND	1.5									
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130				
Surr: Toluene-d8	9.9		10.00		99.0	70	130				
Sample ID 100ng btex lcs	SampT	vpe: LC	:S4	Tes	tCode: E	PA Method	8260: Volatile	es Short L	.ist		
Client ID: BatchQC	Batch	D: B5	2594	R	RunNo: 5	52594					
Prep Date:	Apolygia D	Ch ID: B52594 RunNo: 52594 Data: 7/40/2048 SacNa: 472545			SegNo: 1	1726156	Units: µg/L				
	Analysis L	ale. II				qivo: 1726156 Unit					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HiahLimit	%RPD	RPDLimit	Qual	
Analyte Benzene	Result 20	PQL 1.0	SPK value 20.00	SPK Ref Val	%REC 101	LowLimit 80	HighLimit 120	%RPD	RPDLimit	Qual	
Analyte Benzene Toluene	Result 20 21	PQL 1.0 1.0	SPK value 20.00 20.00	SPK Ref Val 0 0	%REC 101 104	LowLimit 80 80	HighLimit 120 120	%RPD	RPDLimit	Qual	
Analyte Benzene Toluene Ethylbenzene	Result 20 21 21	PQL 1.0 1.0 1.0	SPK value 20.00 20.00 20.00	SPK Ref Val 0 0	%REC 101 104 106	LowLimit 80 80 80	HighLimit 120 120 120	%RPD	RPDLimit	Qual	
Analyte Benzene Toluene Ethylbenzene Xvlenes, Total	Result 20 21 21 62	PQL 1.0 1.0 1.0 1.0	SPK value 20.00 20.00 20.00 60.00	SPK Ref Val 0 0 0 0	%REC 101 104 106 104	LowLimit 80 80 80 80	HighLimit 120 120 120 120	%RPD	RPDLimit	Qual	
Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene	Result 20 21 21 62 10	PQL 1.0 1.0 1.0 1.0 1.5	SPK value 20.00 20.00 20.00 60.00 10.00	SPK Ref Val 0 0 0 0	%REC 101 104 106 104 100	LowLimit 80 80 80 80 70	HighLimit 120 120 120 120 120 130	%RPD	RPDLimit	Qual	
Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8	Result 20 21 21 62 10 9.8	PQL 1.0 1.0 1.0 1.5	SPK value 20.00 20.00 20.00 60.00 10.00 10.00	SPK Ref Val 0 0 0	%REC 101 104 106 104 100 98 1	LowLimit 80 80 80 80 70 70	HighLimit 120 120 120 120 120 130	%RPD	RPDLimit	Qual	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits J
- Р Sample pH Not In Range
- Reporting Detection Limit RL
- W Sample container temperature is out of limit as specified

Page 4 of 4

WO#: 11-Jul-18

1807273

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environments Al TEL: 505-345-395 Website: www.l	al Anulysis Laboro 4901 Hawkan Ibuquerque, NM 8. 75 FAX: 505-345-v hallenvironmental	4107y 3 NB 7149 Sam 7107 .com	iple Log-In Cl	neck List
Client Name: WILLIAMS FOUR CORN	Work Order Numbe	arc 1807273		ReptNo:	1
Received By Anne Thorne	7/7/2018 10:50:00 AM	v	ame A.		
Completed By: Isaiah Ortiz	7/9/2018 9.10.30 AM		IGh	_	
Reviewed By: 50 UB. ENH 7A/18	7 9 18				
Chain of Custody					
 Is Chain of Custody complete? 		Yes У	No _	Not Present	
How was the sample delivered?		Courier			
Log In 3 Was an attempt made to cool the samples?	?	Yes 🗹	No 🗌		
4. Were all samples received at a temperature	e of >0* C to 5 D*C	Yes 🗹	No	NA 🗍	
5. Sample(s) in proper container(s)?		Yes 🖌	No		
6 Sufficient sample volume for indicated test(s)?	Yes 🖌	No L_		
7. Are samples (except VOA and ONG) proper	ty preserved?	Yes 🖌	No l'		
8. Was preservative added to bollies?		Yes 🗌	No 🗹	NA 🗆	
9. VOA vials have zero headspace?		Yes 🗌	No 🗹	No VOA Vials 🗌	
10. Were any sample containers received broke	?пе	Yes []	No 🗹	# of preserved	/
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes ⊻	No	for pH.	Zunless noted)
12. Are matrices correctly identified on Chain of	Custody?	Yes 🗹	No C	Adjusteo	_
13 is it clear what analyses were requested?		Yes 🖌	No .	EN C	
 Were all holding times able to be met? (If no, notify customer for authorization.) 		Yes 🖌	NO	Checked by	
Special Handling (if applicable)					
15 Was client notified of all discrepancies with	this order?	Yes 🗌	No . 1	NA 💅	
Person Notified By Whom Regarding Client Instructions:	Oate: Via:		uone [Fax]	¹ In Person	
Non 1 of 2 for some the first hard					
17. Cooler Information	ris present. All voas have	e headspace pres	sent for sample	-003.	

Cooler No Temp *C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1 4.4	Good	Yes			C. LU

Page 1 of 1

-

C	Chain-of-Custody Record			Turn-Around Time:						н			E	MV	TE	20	NR	4 E N	ата		
Client:	willi	ams	Four corners	by Standard	🗆 Rush				_		N		YS	ST	51	AF	30	RA	TOI	RY	
/	0.000	60	10.1	Project Name	li -						MANA	, hal	lenv	iron	ment	al co	m				
Mailing	Address	:		KUEZC	onyon Gi	ρ	4901 Hawkins NE - Albuquerque, NM 87109														
				Project #:			Tel. 505-345-3975 Fax 505-345-4107														
Phone	#: 801	- 244	- 1219	1			Analysis Request														
email o	r Fax#:	AGron.o	aler@williams.com	Project Manager: anona Grater - Williams			~	(Å	ô					("							
QAVQC	Package:	0		Danny Burns Frier Parriel - LTF			3021	IS OF	/WE			6		4'S(B's						
Gr Stan	idard		Level 4 (Full Validation)					ğ	8			SIM		PO	2 P(
Accred	itation		-	Sampler: Eric Correll				H	2	(1)	£.1	270		NON.	808						ź
		Pac	۲	On Ice:	K Yes	L NO DE LA	+ w	+ ш	ğ	416	507	or 8	als	No.	es /		OA)				Y OF
	(TAbe)			Panikikie rem		South and the second for the	MTB	MTB	SB	thod	thod	310	Meta	Ū,	iticid	(A)	mi-V				1 20
Date	Time	Matrix	Sample Request ID	Container	Preservative	HEAL No.	T	÷	801	(Me	(Me	3 (B	A 8	ns (F	Pe	B	(Se				Rddin
				Type and #	Гуре	191723		BTE	H	TPH	EDB	PAH	RCR	Anio	3081	3260	8270				Air R
7/C/R	1140	Giv	BH 28	3 VOA	HCI	001	X	_		-											-
1	1200	1	RH 29	1.1	1	002	X														
¥	1220	V	BH 31	1 k	<u>v</u>	003	X												-		
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Date:	Time:	Relinquish	eď by:	Received by:)	Date Time Time	Ren	narks	5:												
1/19	1530	4	-20		2	- 21050			Pie	ense	e d	-c :	d	bur	n 5 6	2 lt	env	con	n		
Date:	Time:	Retinquish	ed by:	Received by		Date Time															

If necessary, samples submitted to Holl Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

July 27, 2018

Aaron Galer Williams Four Corners 188 CR 4900 Bloomfield, NM 87413 TEL: (505) 632-4442 FAX

RE: Kutz Canyon GP

OrderNo.: 1807C97

Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/25/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1807C97 Date Reported: 7/27/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners	Client Sample ID: BH 34													
Project: Kutz Canyon GP		(Collection Da	ate: 7/2	24/2018 11:30:00 AM									
Lab ID: 1807C97-001	Matrix: AQUEO	US	JS Received Date: 7/25/2018 7:20:00 AM											
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch								
EPA METHOD 8260: VOLATILES SHOR	T LIST				Analyst	AG								
Benzene	17000	1000	µg/L	1E	7/26/2018 4:04:45 PM	C53000								
Toluene	26000	1000	µg/L	1E	7/26/2018 4:04:45 PM	C53000								
Ethylbenzene	1400	1000	µg/L	1E	7/26/2018 4:04:45 PM	C53000								
Xylenes, Total	13000	1500	µg/L	1E	7/26/2018 4:04:45 PM	C53000								
Surr: 4-Bromofluorobenzene	103	70-130	%Red	: 1E	7/26/2018 4:04:45 PM	C53000								
Surr: Toluene-d8	91.9	70-130	%Red	: 1E	7/26/2018 4:04:45 PM	C53000								

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 4
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1807C97

Date Reported: 7/27/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Williams Four Corners		C	lient Sample	D:BE	I 35	
Project:	Kutz Canyon GP		,	Collection Da	te: 7/2	4/2018 12:00:00 PM	
Lab ID:	1807C97-002	Matrix: AQ	UEOUS	Received Da	te: 7/2	5/2018 7:20:00 AM	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA MET	HOD 8260: VOLATILES SHOR	TLIST				Analys	AG
Benzene	1	4800	100	μg/L	100	7/26/2018 4:28:26 PM	C53000
Toluene		78	50	µg/L	100	7/26/2018 4:28:26 PM	C53000
Ethylben	zene	810	100	µg/L	100	7/26/2018 4:28:26 PM	C53000
Xylenes,	Total	7600	150	µg/L	100	7/26/2018 4:28:26 PM	C53000
Surr: 4	4-Bromofluorobenzene	107	70-130	%Rec	100	7/26/2018 4:28:26 PM	C53000
Surr: 1	Foluene-d8	94.3	70-130	%Rec	100	7/26/2018 4:28:26 PM	C53000

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 4
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Williams Four Corners **Client:**

Project: Kutz Canyon GP

							And in Arrest state and in Arrestation	the second s	Name of Concession, Name of Street, or other	
Sample ID 100ng btex Ics	SampType: LCS4 TestCode: EPA Method 8260: Volatiles Short List									
Client ID: BatchQC	Batc	h ID: C5	3000	F	RunNo: 5	3000				
Prep Date:	Analysis [Date: 7/	26/2018	5	SeqNo: 1	742978	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	80	120			
Toluene	22	1.0	20.00	0	110	80	120			
Ethylbenzene	22	1.0	20.00	0	111	80	120			
Xylenes, Total	64	1.5	60.00	0	107	80	120			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.1	70	130			
Surr: Toluene-d8	9.1		10.00		91.3	70	130			
Sample ID 1807c97-001ams	Samp	Type: MS	64	Tes	tCode: El	PA Method	8260: Volatile	es Short L	.ist	
Client ID: BH 34	Batc	h ID: C5	3000	F	RunNo: 5	3000				
Prep Date:	Analysis [Date: 7/	26/2018	5	SeqNo: 1	742981	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	40000	1000	20000	16820	118	80	120			
Toluene	58000	1000	20000	25850	162	80	120			S
Ethylbenzene	24000	1000	20000	1356	112	80	120			
Xylenes, Total	92000	1500	60000	13140	132	80	120			S
Surr: 4-Bromofluorobenzene	9700		10000		97.5	70	130			
Curry Taluana d0	0400		10000		044	70	120			
Surf: Toluene-da	9400		10000		94.4	70	130			
Sample ID 1807c97-001amsc	9400 I Samp1	Гуре: МS	5D4	Tes	tCode: EF	PA Method	8260: Volatile	es Short L	ist	
Sample ID 1807c97-001amsc Client ID: BH 34	I Samp Batc	Гуре: МS h ID: C5	3000	Tes	tCode: EF	PA Method 3000	8260: Volatile	es Short L	ist	
Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date:	I Samp Batcl Analysis [Гуре: МS h ID: C5 Date: 7 /	3000 26/2018	Tes F	tCode: EF RunNo: 5: SeqNo: 1	PA Method 3000 742982	8260: Volatile	es Short L	ist	
Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte	Samp Batcl Analysis E Result	Type: MS h ID: C5 Date: 7 PQL	5D4 3000 26/2018 SPK value	Tes F S SPK Ref Val	tCode: EF RunNo: 5 SeqNo: 1 %REC	PA Method 3000 742982 LowLimit	8260: Volatile Units: µg/L HighLimit	es Short L %RPD	ist RPDLimit	Qual
Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene	Samp Batcl Analysis E Result 40000	Type: MS h ID: C5 Date: 7 PQL 1000	5D4 3000 26/2018 SPK value 20000	Tes F S SPK Ref Val 16820	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116	PA Method 3000 742982 LowLimit 80	8260: Volatile Units: µg/L HighLimit 120	%RPD 1.32	ist RPDLimit 20	Qual
Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene Toluene	I Samp Batcl Analysis E Result 40000 59000	Type: MS h ID: C5 Date: 7 PQL 1000 1000	5D4 3000 26/2018 SPK value 20000 20000	Tes F SPK Ref Val 16820 25850	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116 165	70 PA Method 3000 742982 LowLimit 80 80	B260: Volatile Units: µg/L HighLimit 120 120	%RPD 1.32 0.855	ist RPDLimit 20 20	Qual
Surr: Toluene-ds Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene Toluene Ethylbenzene	9400 I Samp Batcl Analysis E Result 40000 59000 23000	Type: MS h ID: C5 Date: 7 PQL 1000 1000 1000	5D4 3000 26/2018 SPK value 20000 20000 20000	Tes F SPK Ref Val 16820 25850 1356	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116 165 109	70 PA Method 3000 742982 LowLimit 80 80 80	8260: Volatile Units: μg/L HighLimit 120 120 120	%RPD 1.32 0.855 2.56	ist RPDLimit 20 20 20 20	Qual
Surr: Toluene-ds Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	9400 I Samp Batcl Analysis E Result 40000 59000 23000 86000	Type: MS h ID: C5 Date: 7/ PQL 1000 1000 1500	5D4 3000 26/2018 SPK value 20000 20000 20000 60000	Tes F SPK Ref Val 16820 25850 1356 13140	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116 165 109 121	70 PA Method 3000 742982 LowLimit 80 80 80 80 80	8260: Volatile Units: µg/L HighLimit 120 120 120 120	%RPD 1.32 0.855 2.56 7.28	ist RPDLimit 20 20 20 20 20 20 20 20	Qual S S
Surr: Toluene-ds Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene	9400 I Samp Batcl Analysis E Result 40000 59000 23000 86000 9500	Type: MS h ID: C5 Date: 7 / PQL 1000 1000 1000 1500	3000 26/2018 29K value 20000 20000 20000 60000 10000	Tes F S SPK Ref Val 16820 25850 1356 13140	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116 165 109 121 94.9	70 PA Method 3000 742982 LowLimit 80 80 80 80 70	8260: Volatile Units: μg/L HighLimit 120 120 120 120 130	%RPD 1.32 0.855 2.56 7.28 0	ist RPDLimit 20 20 20 20 20 0	Qual S S
Surr: Toluene-ds Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8	9400 I Samp Batcl Analysis E Result 40000 59000 23000 86000 9500 9500 9400	Type: MS h ID: C5 Date: 7 / PQL 1000 1000 1000 1500	3000 26/2018 26/2018 20000 20000 20000 60000 10000 10000	Tes F SPK Ref Val 16820 25850 1356 13140	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116 165 109 121 94.9 93.6	70 PA Method 3000 742982 LowLimit 80 80 80 80 80 70 70	8260: Volatile Units: μg/L HighLimit 120 120 120 120 130 130	%RPD 1.32 0.855 2.56 7.28 0 0	ist <u>RPDLimit</u> 20 20 20 20 0 0 0	Qual S S
Surr: Toluene-da Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID rb	9400 Batcl Analysis E Result 40000 59000 23000 86000 9500 9500 9400 Samp1	Type: MS h ID: C5 Date: 7 / 1000 1000 1000 1500	3000 26/2018 26/2018 20000 20000 20000 60000 10000 10000 3LK	Tes F SPK Ref Val 16820 25850 1356 13140 Tes	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116 165 109 121 94.9 93.6 tCode: EF	PA Method 3000 742982 LowLimit 80 80 80 80 70 70 PA Method	8260: Volatile Units: μg/L HighLimit 120 120 120 130 130 130	%RPD 1.32 0.855 2.56 7.28 0 0 0	ist <u>RPDLimit</u> 20 20 20 20 0 0 0 0 0 0	Qual S S
Surr: Toluene-ds Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID rb Client ID: PBW	9400 Batcl Analysis E Result 40000 59000 23000 86000 9500 9400 SampT Batcl	Type: MS h ID: C5 Date: 7 / PQL 1000 1000 1000 1500 Type: ME h ID: C5	3000 26/2018 26/2018 20000 20000 20000 20000 60000 10000 10000 38LK 3000	Tes F SPK Ref Val 16820 25850 1356 13140 Tes F	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116 165 109 121 94.9 93.6 tCode: EF RunNo: 5:	PA Method 3000 742982 LowLimit 80 80 80 80 70 70 PA Method 3000	8260: Volatile Units: μg/L HighLimit 120 120 120 130 130 130	%RPD 1.32 0.855 2.56 7.28 0 0 0	ist <u>RPDLimit</u> 20 20 20 20 0 0 0 0 0	Qual S S
Surr: Toluene-da Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-da Sample ID rb Client ID: PBW Prep Date:	Samp ¹ Batcl Analysis I Result 40000 59000 23000 86000 9500 9500 9400 Samp ¹ Batcl Analysis I	Type: MS h ID: C5 Date: 7/ PQL 1000 1000 1000 1500 Type: ME h ID: C5 Date: 7/	3000 26/2018 SPK value 20000 20000 20000 60000 10000 3LK 3000 26/2018	Tes F SPK Ref Val 16820 25850 1356 13140 Tes F S	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116 165 109 121 94.9 93.6 tCode: EF RunNo: 5: SeqNo: 1:	70 PA Method 3000 742982 LowLimit 80 80 80 80 70 70 PA Method 3000 742985	8260: Volatile Units: μg/L HighLimit 120 120 120 120 130 130 8260: Volatile Units: μg/L	%RPD 1.32 0.855 2.56 7.28 0 0 0 es Short L	ist <u>RPDLimit</u> 20 20 20 20 0 0 0 0	Qual S S
Surr: Toluene-da Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-da Sample ID rb Client ID: PBW Prep Date: Analyte	Samp ¹ Batcl Analysis D Result 40000 59000 23000 86000 9500 9400 Samp ¹ Batcl Analysis D Result	Type: MS h ID: C5 Date: 7 / PQL 1000 1000 1000 1500 Type: ME h ID: C5 Date: 7 / PQL	3000 26/2018 26/2018 20000 20000 20000 20000 60000 10000 10000 38LK 3000 26/2018 SPK value	Tes 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116 165 109 121 94.9 93.6 tCode: EF RunNo: 5: SeqNo: 1: %REC	70 PA Method 3000 742982 LowLimit 80 80 80 80 80 70 70 PA Method 3000 742985 LowLimit	8260: Volatile Units: μg/L HighLimit 120 120 120 120 130 130 8260: Volatile Units: μg/L HighLimit	%RPD 1.32 0.855 2.56 7.28 0 0 es Short L %RPD	ist RPDLimit 20 20 20 0 0 0 0 ist RPDLimit	Qual S S
Surr: Toluene-da Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID rb Client ID: PBW Prep Date: Analyte Benzene	I Samp Batcl Analysis E Result 40000 59000 23000 86000 9500 9400 Samp Batcl Analysis E Result ND	Type: MS h ID: C5 Date: 7/ PQL 1000 1000 1000 1500 Type: ME h ID: C5 Date: 7/ PQL 1.0	3000 26/2018 26/2018 20000 20000 20000 20000 10000 10000 3LK 3000 26/2018 SPK value	Tes F SPK Ref Val 16820 25850 1356 13140 Tes F SPK Ref Val	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116 165 109 121 94.9 93.6 tCode: EF RunNo: 5: SeqNo: 1: %REC	PA Method 3000 742982 LowLimit 80 80 80 80 80 70 70 PA Method 3000 742985 LowLimit	8260: Volatile Units: μg/L HighLimit 120 120 120 120 130 130 8260: Volatile Units: μg/L HighLimit	%RPD 1.32 0.855 2.56 7.28 0 0 0 es Short L %RPD	ist RPDLimit 20 20 20 0 0 0 ist RPDLimit	Qual S S Qual
Surr: Toluene-da Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-da Sample ID rb Client ID: PBW Prep Date: Analyte Benzene Toluene	Analysis E Result 40000 59000 23000 86000 9500 9400 SampT Batcl Analysis E Result ND ND	Type: MS h ID: C5 Date: 7/ PQL 1000 1000 1000 1500 Type: ME h ID: C5 Date: 7/ PQL 1.0 1.0	3000 26/2018 SPK value 20000 20000 20000 60000 10000 10000 38LK 3000 26/2018 SPK value	Tes F SPK Ref Val 16820 25850 1356 13140 Tes F SPK Ref Val	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116 165 109 121 94.9 93.6 tCode: EF RunNo: 5: SeqNo: 1: %REC	70 PA Method 3000 742982 LowLimit 80 80 80 80 70 70 PA Method 3000 742985 LowLimit	8260: Volatile Units: µg/L HighLimit 120 120 120 130 130 8260: Volatile Units: µg/L HighLimit	<pre>%RPD 1.32 0.855 2.56 7.28 0 0 es Short L %RPD</pre>	ist RPDLimit 20 20 20 20 0 0 0 0 0 0 ist	Qual S S Qual
Surr: Toluene-da Sample ID 1807c97-001amsc Client ID: BH 34 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-da Sample ID rb Client ID: PBW Prep Date: Analyte Benzene Toluene Ethylbenzene	I Samp Batcl Analysis E Result 40000 59000 23000 86000 9500 9500 9400 Samp Batcl Analysis E Result ND ND ND	Type: MS h ID: C5 Date: 7/. PQL 1000 1000 1000 1500 Type: ME h ID: C5 Date: 7/. PQL 1.0 1.0 1.0	3000 26/2018 SPK value 20000 20000 20000 20000 10000 10000 3LK 3000 26/2018 SPK value	Tes F SPK Ref Val 16820 25850 1356 13140 Tes SPK Ref Val	94.4 tCode: EF RunNo: 5: SeqNo: 1: %REC 116 165 109 121 94.9 93.6 tCode: EF RunNo: 5: SeqNo: 1: %REC	70 PA Method 3000 742982 LowLimit 80 80 80 80 70 70 PA Method 3000 742985 LowLimit	8260: Volatile Units: µg/L HighLimit 120 120 120 130 130 8260: Volatile Units: µg/L HighLimit	** Short L %RPD 1.32 0.855 2.56 7.28 0 0 0	ist RPDLimit 20 20 20 20 0 0 0 0 ist RPDLimit	Qual S S Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 3 of 4

WO#: 27-Jul-18

1807C97

Client:Williams Four CornersProject:Kutz Canyon GP

Sample ID rb	SampType:	IBLK	Tes	tCode: E	PA Method	8260: Volatile	es Short I	_ist					
Client ID: PBW	Batch ID: 0	Batch ID: C53000 RunNo: 53000											
Prep Date:	Analysis Date: 7/26/2018 SeqNo: 1742985 Units: µg/L												
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Surr: 4-Bromofluorobenzene	12	10.00		116	70	130							
Surr: Toluene-d8	9.3	10.00		93.0	70	130							

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 4 of 4

WO#: **1807C97** 27-Jul-18

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Esservenemen. A TEL: 505-345-39 Website: www.	tal Analysis Labor 4901 Hawku Ubuquerque, NM & 175 FAX: 505-345- hallervironmenta	atory 15 NE 17109 Samp 14107 Leam	ole Log-In Check Lis	st
Client Name: WILLIAMS FOUR CORN	Work Order Numb	er: 1607C97		RoptNo. 1	
Received By: Isaiah Onla	7/25/2018 7:20:00 A	M.	I		
Reviewed By: _TC	7/25/2018 7:25:27 A	label	led be	1: JAB 07/	25/18
Chain of Custody				, ,	
1. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present)	
2. How was the sample delivered?		Courier			
<u>Log In</u> 3. Was an attempt made to cool the samples'	,	Yes .✔	No	NA []	
4. Were all samples received at a temperature	of >0° C to 5.0°C	Yes 🔽	No 🗆	NA .	
5. Sample(s) in proper container(s)?		Yes 🗹	No 🗌		
 Sufficient sample volume for indicated test(: 	5)?	Yes 🗹	No 📃		
7. Are samples (except VOA and ONG) proper	ly preserved?	Yes 🖌	No		
8. Was preservative added to bottles?		Yes	No 🗹	NA	
9. VOA vials have zero headspace?		Yes []	NoIN	lo VOA Vials 🔽	
10. Were any sample containars received broke	an?	Yes	No 🔽		
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🔽	No	of preserved ortiles checked or pH: (<2 or >12 unless no	125/18
12. Are matrices correctly identified on Chain of	Custody?	Yes ⊻	No	Adjusted?	
13. Is it clear what analyses were requested?		Yes 🗹	No	Charles N R	
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗸	No	Chiedres ey A15	-
Special Handling (if applicable)					
15. Was client notified of all discrepancies with	this order?	Yes	No 1	NA 🗹	
Person Notified:	Date				
By Whom:	Via:	🗌 eMail 🗍 F	hone Fax	In Person	
Regarding:				terre a secondada consta	
Client Instructions:	_				
16. Additional remarks:					
17. <u>Cooler Information</u> <u>Cooler No. Temp ºC. Condition S</u> 1 2.3 Good Ye	ea) Intact Seal No s	Seal Date	Signed By		

-

a.

С	hain	-of-Cu	stody Record	Turn-Around	Time:				1.5					NIM	TC	20	D.I.B.	AE	NT		
Client:	Will	ams	Four corners	🕱 Standard	🗆 Rush				H	4			Y	SIS	5 L	AE	30	R/	TC	R	Y
	1	a (las	Project Name) :					-		u hal	lanu	iren	-						-
Mailing	Address	17 Go	1er	Kutz	CONYON	GP					*****	Y,1121	INGH IV	II QI II	1 ier i	(81.55					
				Ornigot #				49	01 H	awk	ns N	1E -	Alb	มนุนเ	erqu	e, N	M 87	109			
				r i ¢jçci #.				Te	el. 50	5-34	15-39	975	F	ах	505-	345	-4101	7	- 10 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		ten telep
Phone	#: 8 <u>01</u>	- 244	- 1219					-				A	naly	/sis	Req	uest					
email o	r Fax#: <u>∢</u>	aaron.	aler @ Iteny. Com	Project Mana	iger:	to a statute serve	=	yInd	P Q					(°	6						
QA/QC I	Package:				Danny Burns - LTE							SI:		S.,S	CB						
0¥ Stan	darð		Level 4 (Full Validation)		Donny Bu	m>- 11E	5.8	Q	80		a.	SIN		PLC:	2 P						
Accredi	ilation			Sampler: E	vic carro	pif	μ	LPH	0	F	÷.	270		0 Z	808						Î
	AP	C Othe	r	Onlice	S-Yes with	ONOS MALLAN	Ŧ	+	RO	418	504	r 82	۶0	õ	- Si		(AC				'n
D: EDD	(Type)	PDF		Sample Temperature: 5. 5 - (8(cr) 2.5					3 (G	B	po	10 0	etal	N.	cide	(A)	>-!				Σ
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	3HEAL NO 1807097	BTEX M	BTEX + M	TPH 8015E	TPH (Meth	EDB (Meth	PAH's (831	RCRA 8 M	Anions (F,(8081 Pesti	8260B (VO	8270 (Sem				Air Bubble:
712415	1130	Gin	BH 34	3 VOA	Her	-001	x									1					
1/24/18	1200	Gw	BH 35	3VOA	HCI	-002	×														
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7/24//15 Date:	1245 Trme:	Relinquish	ed by:	Received by:	ullalt	Date Time		P	lea.	se	C	5:	di ecc	nur Arro	ns(HG	e le ? le	en, erv	V. С . сі	רייק ס רייק כ		
24/18	1814	Chu	stimbles	102	Courier	7/25/18 0720		Lilia	Anur	th ror	here a first	d duin	unil by	0.0100	lu ash	ated e	e the e	nahein		-	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accreditud laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

August 10, 2018

Aaron Galer Williams Four Corners 188 CR 4900 Bloomfield, NM 87413 TEL: (505) 632-4442 FAX

RE: Kutz Canyon GP

OrderNo.: 1808252

Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/4/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Envi	ronmental Analysis L	aboratory,	Inc.		general in contract spinor	I I	Lab Order: 1808252 Date Reported: 8/10	/2018	8
CLIENT: Project:	Williams Four Corners Kutz Canyon GP				I	.ab C)rder: 18082	252	
Lab ID:	1808252-001	ne line anna anna tharain ann am ambailte	C	ollecti	on Date	: 8/3	3/2018 12:15:00 PI	М	
Client Sample	e ID: BH 40				Matrix	: A0	QUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Ba	ntch ID
EPA METHO	D 8260: VOLATILES SHORT L	ST					Ana	alyst:	RAA
Benzene		520	10		µg/L	20	8/8/2018 11:50:00	AM	SL5329
Toluene		ND	10		µg/L	20	8/8/2018 11:50:00	AM	SL5329
Ethylbenzene	9	550	10		µg/L	20	8/8/2018 11:50:00	AM	SL5329
Xylenes, Tota	al	2400	20		µg/L	20	8/8/2018 11:50:00	AM	SL5329
Surr: 4-Bro	omofluorobenzene	102	70-130		%Rec	20	8/8/2018 11:50:00	AM	SL5329
Surr: Tolue	ene-d8	99.2	70-130		%Rec	20	8/8/2018 11:50:00	AM	SL5329
Lab ID:	1808252-002		C	ollecti	on Date	: 8/3	3/2018 12:25:00 PM	М	
Client Sample	e ID: BH 41				Matrix	: A(QUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHO	D 8260: VOLATILES SHORT LI	ST					Ana	alyst:	RAA
Benzene		ND	1.0	Р	µg/L	1	8/8/2018 1:27:00 P	M	SL5329
Toluene		ND	1.0	Ρ	µg/L	1	8/8/2018 1:27:00 P	M	SL5329
Ethylbenzene		ND	1.0	Ρ	µg/L	1	8/8/2018 1:27:00 P	M	SL5329
Xylenes, Tota	al	ND	1.5	Ρ	µg/L	1	8/8/2018 1:27:00 P	M	SL5329
Surr: 4-Bro	omofluorobenzene	99.6	70-130	Ρ	%Rec	1	8/8/2018 1:27:00 P	M	SL5329
Surr: Tolue	ene-d8	94.8	70-130	Ρ	%Rec	1	8/8/2018 1:27:00 P	Μ	SL5329
Lab ID:	1808252-003		C	ollecti	on Date	: 8/3	3/2018 12:35:00 PM	М	
Client Sample	e ID: BH 43				Matrix	: A(QUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHO	D 8260: VOLATILES SHORT LI	ST					Ana	alyst:	RAA
Benzene		ND	1.0		µg/L	1	8/8/2018 1:52:00 P	M	SL5329
Toluene		ND	1.0		µg/L	1	8/8/2018 1:52:00 P	M	SL5329
Ethylbenzene	3	ND	1.0		µg/L	1	8/8/2018 1:52:00 P	M	SL5329
Xylenes, Tota	al	ND	1.5		µg/L	1	8/8/2018 1:52:00 P	M	SL5329
Surr: 4-Bro	omofluorobenzene	104	70-130		%Rec	1	8/8/2018 1:52:00 P	M	SL5329
Surr: Tolue	ene-d8	91.7	70-130		%Rec	1	8/8/2018 1:52:00 P	M	SL5329

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Qualifiers: *
- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 3

Analytical Report

- P Sample pH Not In Range
- RL Reporting Detection Limit

vironmental Analysis Laboratory, Inc.									
			1	Lab C)rder: 1803	8252			
ny ny harana ilay any dia kaodim-paositra ang ang ang ang ang ang ang ang ang an	C	ollecti	on Date	e: 8/3	8/2018 12:45:00	PM			
			Matrix	A	QUEOUS				
Result	PQL	Qual	Units	DF	Date Analyzed	Ba	itch ID		
					A	nalyst	RAA		
ND	1.0	P	µg/L	1	8/8/2018 2:16:00	PM	SL5329		
ND	1.0	P	µg/L	1	8/8/2018 2:16:00	PM	SL5329		
ND	1.0	Р	µg/L	1	8/8/2018 2:16:00	PM	SL5329		
ND	1.5	P	µg/L	1	8/8/2018 2:16:00	PM	SL5329		
103	70-130	Ρ	%Rec	1	8/8/2018 2:16:00	PM	SL5329		
92.6	70-130	Ρ	%Rec	1	8/8/2018 2:16:00	PM	SL5329		
	Result ND ND ND ND 103 92.6	ND 1.0 ND 1.5 103 70-130 92.6 70-130	ND 1.0 P ND 1.5 P 103 70-130 P 92.6 70-130 P	ND 1.0 P µg/L ND 1.5 P µg/L 103 70-130 P %Rec 92.6 70-130 P %Rec	ND 1.0 P μg/L 1 ND 1.5 P μg/L 1 103 70-130 P %Rec 1 92.6 70-130 P %Rec 1	Collection Date: 8/3/2018 12:45:00 I Lab Order: 1803 Collection Date: 8/3/2018 12:45:00 I Matrix: AQUEOUS Result PQL Qual Units DF Date Analyzed ND 1.0 P µg/L 1 8/8/2018 2:16:00 Ai ND 1.0 P µg/L 1 8/8/2018 2:16:00 Ai ND 1.0 P µg/L 1 8/8/2018 2:16:00 Ai ND 1.0 P µg/L 1 8/8/2018 2:16:00 ND 1.5 P µg/L 1 8/8/2018 2:16:00 ND 1.5 P µg/L 1 8/8/2018 2:16:00 92.6 70-130 P %Rec 1 8/8/2018 2:16:00	Collection Date: 8/3/2018 12:45:00 PM Lab Order: 1808252 Collection Date: 8/3/2018 12:45:00 PM Matrix: AQUEOUS Result PQL Qual Units DF Date Analyzed Bate ND 1.0 P µg/L 1 8/8/2018 2:16:00 PM ND 1.0 P µg/L 1 8/8/2018 2:16:00 PM ND 1.5 P </td		

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*

- Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- Analyte detected in the associated Method Blank В
- E Value above quantitation range
- Analyte detected below quantitation limits J Page 2 of 3
- Р Sample pH Not In Range RL Reporting Detection Limit

Lab Order: 1808252

Analytical Report

Client: Williams Four Corners

Project: Kutz Canyon GP

Sample ID 100ng Ics	SampT	ype: LC	s	Tes	tCode: E	PA Method	8260: Volatile	es Short L	_ist	
Client ID: LCSW	Batch	n ID: SL	53292	F	RunNo: 5	3292				
Prep Date:	Analysis D	ate: 8/	8/2018	S	SeqNo: 1	754168	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	19	1.0	20.00	0	97.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.5		10.00		94.7	70	130			
Sample ID rb	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8260: Volatile	s Short L	.ist	
Client ID: PBW	Batch	n ID: SL	53292	F	RunNo: 5	3292				
Prep Date:	Analysis D	ate: 8/	8/2018	S	SeqNo: 1	754169	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.1	70	130			
0 7 1 10	0.4		10.00		010	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: **1808252**

10-Aug-18

Page 3 of 3

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Alb TEL: 505-345-397 Website: www.ha	l Analysis Laboratory 4991 Hawkins NE uquarque, NM 87109 5 F.AX: 505-345-4107 ullenvironmental com	Sam	ple Log-In Check List
Client Name: WILLIAMS FOUR CORN	Work Order Number	: 1808252	inados do Tricado a Mida d	RcptNo: 1
Received By. Erin Melendrez	8/4/2018 10:15:00 AM	U	Lat	7
Completed By: Ashley Gallegos	e/6/2018 9:08:37 AM	5	ANT	
Reviewed By: JAB 08/06/18	/	labele	or b	4: 08 08/04/18
Chain of Custody				0
1. Is Chain of Custody complete?		Yes 🗹	No .	Not Present
2. How was the sample delivered?		Courier		
Log In				
3. Was an attempt made to cool the samples?		Yes 🖌	No 🗌	NA 🛄
4, Were all samples received at a temperature	of >0°C to 6.0°C	Yes 🖌	Noll	NA L
5. Sample(s) in proper container(s)?		Yes 🔽	No 🗄	
6. Sufficient sample volume for indicated test(si)?	Yes 🗹	No	
7. Are samples (except VOA and ONG) propert	y preserved?	Yes M.	No []	
8. Was preservative added to bottles?		Yes 🚍	No 🔽	NA 🗔
9. VOA viais have zero headspace? See - M	marks	Yes	No 🗹	No VOA Vials 🗹 ····
10, Were any sample containers received broke	n?	Yes	NO M. 1	# of presented
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No _	for pH:
12. Are matrices correctly identified on Chain of I	Custody?	Yes 🗹	No 🗌	Adjusted?
13, is it clear what analyses were requested?		Yes ⊻	No 1	algull "
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🕅	No _	Checked by OD V
Special Handling (if applicable)				
15. Was client notified of all discrepancies with t	his order?	Yes []	No _	NA 🗹
Person Notified:	Data			
By Whom:	Via: 1) eMsil [; Phone	e (" Fax	🗋 In Person
Regarding:				
Client Instructions:	····			an a
16. Additional remarks: ALL VDQS	for - ool have	henton	ro -ni	02-2 VOQS VARAN
17 Wineadspace ut	OSINI.LIO			e ceiveoi
Cooler No Terro % Condition Se	al Intact Seal No. 5	eal Oate Sim	ned By	
1 4.6 Good Not	Present			
2 4.4 Good Not	Present			
4 0.8 Good Not	Present			

Mailing	W:111 AC(70) Address #: 801-	ams 1 Ga,	-047 CAINAIS ICT	Turn-Around Time:				HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request											
email o QA/QC Star Accreo 1 NEL R* EDI	Package. Dadard Litation .AP D (Type) Time	() Othe <i>PDF</i> Matrix	□ Level 4 (Full Validation)	Project Mana Ac Dan Sampler: <u>F</u> On Ice: Sample:Tem Container Type and #	ger: con Galer pric Carris perature Preservative Type	- Williams - LTE 107Nover 2000 - Remarks HEAL No.	EX) MTBE + TMB's (8021)	EX + MTBE + TPH (Gas only)	H 8015B (GRO / DRO / MRO)	H (Method 418.1)	B (Method 504.1)	H's (8310 or 8270 SIMS)	ons (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	31 Pesticides / 8082 PCB's	30B (VOA)	70 (Semi-VOA)			D. Libelan (V. s.r. NI)
\$ <u>7</u>	1215 1225 1225 1235 1245	GW	ВН 40 ВН 41 ВН 43 ВН 4 3	320A	HCI	1808252 -001 -002 -003 -004	A X X X	BT					An	80	82	82			
Date.	Time: /515 Time:	Relinquishe	ed by:	Received by:	<u>t</u> Just	Date Time Blif 1575 Ag Date Time	Rer	nark: C(3: 2.	45	-0.3		214	en	V. e	i on	n .r L		0.3(0)

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited taburatories. This serves as notice of this possibility. Any sub-contracted data will be dearly notated on the applytical report.