NV

Memorandum

To: Nelson Velez, Environmental Bureau | EMNRD - Oil Conservation Division

From: Mitch Killough, Hilcorp Energy Company (Hilcorp)

Date: 1/5/2023

Subject: Plugging Reports – Kaufman No. 1 (Incident No. NCS1833331001) – AP-138

Background: On 11/16/18, approximately 8 barrels (bbl) of oil and 10 bbl of produced water was released from the storage tank. Enduring Resources was the operator of record at the time of the release; Hilcorp assumed operations of the Site on or about 12/1/2018. After Hilcorp assumed operations, the well was temporarily abandoned. All surface equipment within the tank battery was removed, and impacted soil within the battery was excavated and transported to off-site disposal. Initial soil abatement included an excavation approximately 50 ft by 60 ft with a depth ranging from 1 ft to 5 ft bgs. To delineate impacted groundwater, six groundwater monitoring wells (i.e., MW1 – MW6) were installed in January 2019. Subsequent soil abatement activities were conducted in November 2019. Abatement included excavating and disposal of impacted soil in and around the initial excavation (i.e., former tank battery). Soil exceeding soil-to-groundwater migration criteria and soil exceeding the ecological protective concentration limits (PCLs) was excavated and removed from the site. The excavation was backfilled following confirmation sample and analysis. In November 2019, Timberwolf began quarterly groundwater monitoring at the Site. The monitoring included evaluation of Site groundwater and a hydrological assessment of Site groundwater and its relationship to the La Plata River. Consecutive quarterly monitoring was conducted from November 2019 through September 2021. Analytical results revealed that all constituents of concern (COCs) were below regulatory criteria. On 10/20/2022, NMOCD determined that Hilcorp met the requirements of NMAC 19.15.30 and no further action is required. Additional background data can be referenced in the *Abatement Completion Report* (dated 1/22/2022).

Scope: Hilcorp is providing copies of the monitoring well plugging reports. As requested by the NMOCD on 10/20/2022, Hilcorp is required to provide the plugging reports that were submitted to the New Mexico Office of the State Engineer. Per NMOSE Permit SJ-4327 POD1 – POD6 (dated 12/31/2018), Hilcorp followed the approved plugging plan requirements in Condition 10.

Enclosures: Plugging Records
Abatement Completion Report (dated 1/22/2022, approved 10/20/2022)
NMOSE Permit Approval for Monitoring Wells, SJ-4327 POD1 – POD6 (dated 12/31/2018)

Hilcorp Energy Company
1111 Travis Street, Houston, Texas 77002
T 713.209.2400 F 713.289.2750

PLUGGING RECORD

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

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: Hilcorp Kaufman #1 Release MW#1 SJ-4327 POD 1

Well owner: Hilcorp Energy Company Phone No.: (505) 599-3400

Mailing address: 382 Road 3100

City: Aztec State: New Mexico Zip code: 87410

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: MW Electric Inc.

2) New Mexico Well Driller License No.: WD-1842 Expiration Date: 5/4/2024

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Chad Stotts

4) Date well plugging began: 12/27/22 Date well plugging concluded: 12/27/22

5) GPS Well Location: Latitude: N36 deg, 51 min, 35.604 sec
Longitude: W108 deg, 12 min, 12.06 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 15 ft below ground level (bgl), by the following manner: Ridgid Tape

7) Static water level measured at initiation of plugging: 5 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/31/2018

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

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

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	15.6 PPG Class III neat cement from 15' (TD) to surface	2.75 gallons neat cement	2.5 Gallons	Tremie	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

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

Signature of Well Driller — Date: 12/27/22

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PLUGGING RECORD

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

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: Hilcorp Kaufman #1 Release MW#2 SJ-4327 POD 2

Well owner: Hilcorp Energy Company Phone No.: (505) 599-3400

Mailing address: 382 Road 3100

City: Aztec State: New Mexico Zip code: 87410

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: MW Electric Inc.

2) New Mexico Well Driller License No.: WD-1842 Expiration Date: 5/4/2024

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Chad Stotts

4) Date well plugging began: 12/27/22 Date well plugging concluded: 12/27/22

5) GPS Well Location: Latitude: N36 deg, 51 min, 36.252 sec
Longitude: W108 deg, 12 min, 12.06 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 15 ft below ground level (bgl), by the following manner: Ridgid Tape

7) Static water level measured at initiation of plugging: 5 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/31/2018

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

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For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	15.6 PPG Class H neat cement from 15' (TD) to surface	2.75 gallons neat cmt.	2.5 Gallons	Tremie	

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2022 DEC 28 AM 9:23

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PLUGGING RECORD

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

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: Hilcorp Kaufman #1 Release MW#3 SJ-4327 POD 3

Well owner: Hilcorp Energy Company Phone No.: (505) 599-3400

Mailing address: 382 Road 3100

City: Aztec State: New Mexico Zip code: 87410

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: MW Electric Inc.

2) New Mexico Well Driller License No.: WD-1842 Expiration Date: 5/4/2024

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Chad Stotts

4) Date well plugging began: 12/27/22 Date well plugging concluded: 12/27/22

5) GPS Well Location: Latitude: N36 deg, 51 min, 35.82 sec
Longitude: W108 deg, 12 min, 11.124 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 15 ft below ground level (bgl), by the following manner: Ridgid Tape

7) Static water level measured at initiation of plugging: 5 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/31/2018

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

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For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	15.6 PPG Class H neat cement from 15' (TD) to surface	2.5 gallons	2.5 Gallons	Tremie	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

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Signature of Well Driller — Date: 12/27/22

Version: September 8, 2009
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PLUGGING RECORD

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

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: Hilcorp Kaufman #1 Release MW#4 SJ-4327 POD 4

Well owner: Hilcorp Energy Company Phone No.: (505) 599-3400

Mailing address: 382 Road 3100

City: Aztec State: New Mexico Zip code: 87410

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: MW Electric Inc.

2) New Mexico Well Driller License No.: WD-1842 Expiration Date: 5/4/2024

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Chad Stotts

4) Date well plugging began: 12/27/22 Date well plugging concluded: 12/27/22

5) GPS Well Location: Latitude: N36 deg, 51 min, 35.28 sec
Longitude: W108 deg, 12 min, 12.06 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 15 ft below ground level (bgl), by the following manner: Ridgid Tape

7) Static water level measured at initiation of plugging: 5 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/31/2018

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

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For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	15.6 PPG Class III neat cement from 15' (TD) to surface	2.75 gallons 15.2 PPG class III neat cement	2.5 Gallons	Tremie	

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2022 DEC 28 AM 9 24

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

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

Signature of Well Driller — Date: 12/27/22

Version: September 8, 2009
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PLUGGING RECORD

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

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: Hilcorp Kaufman #1 Release MW#5 SJ-4327 POD 5

Well owner: Hilcorp Energy Company Phone No.: (505) 599-3400

Mailing address: 382 Road 3100

City: Aztec State: New Mexico Zip code: 87410

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: MW Electric Inc.

2) New Mexico Well Driller License No.: WD-1842 Expiration Date: 5/4/2024

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Chad Stotts

4) Date well plugging began: 12/27/22 Date well plugging concluded: 12/27/22

5) GPS Well Location: Latitude: N36 deg, 51 min, 35.172 sec
Longitude: W108 deg, 12 min, 12.995 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 15 ft below ground level (bgl), by the following manner: Ridgid Tape

7) Static water level measured at initiation of plugging: 5 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/31/2018

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

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For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	15.6 PPG Class III neat cement from 15' (TD) to surface	2.75 gallons 15.2 PPG Class II neat cat	2.5 Gallons	Tremie	

STATE ENGINEER OFFICE
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2022 DEC 28 AM 9 24

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
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Chad Stotts — Signature of Well Driller

12/27/22 — Date

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PLUGGING RECORD

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

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: Hilcorp Kaufman #1 Release MW#6 SJ-4327 POD 6

Well owner: Hilcorp Energy Company Phone No.: (505) 599-3400

Mailing address: 382 Road 3100

City: Aztec State: New Mexico Zip code: 87410

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: MW Electric Inc.

2) New Mexico Well Driller License No.: WD-1842 Expiration Date: 5/4/2024

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Chad Stotts

4) Date well plugging began: 12/27/22 Date well plugging concluded: 12/27/22

5) GPS Well Location: Latitude: N36 deg, 51 min, 35.532 sec
Longitude: W108 deg, 12 min, 13.175 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 15 ft below ground level (bgl), by the following manner: Ridgid Tape

7) Static water level measured at initiation of plugging: 5 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/31/2018

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

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For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	15.6 PPG Class G neat cement from 15' (TD) to surface	2.75 gallons 15.2 PPG Slurry	2.5 Gallons	Tremie	

STATE ENGINEER OFFICE
AZTEC, NEW MEXICO
2022 DEC 28 AM 9 24

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
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Chad Stotts — 12/27/22

Signature of Well Driller — Date

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ABATEMENT COMPLETION REPORT

KAUFMAN NO. 1
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO

OCD No.: AP-0138

January 22, 2022

Prepared for:
New Mexico Oil Conservation Division – District 3
1000 Rio Brazos Road
Aztec, New Mexico 87410

Prepared by:

TIMBERWOLF ENVIRONMENTAL, LLC
1920 W. Villa Maria, Suite 205
Bryan, Texas 77807
979-324-2139

On behalf of:

HILCORP ENERGY COMPANY
1111 Travis Street
Houston, Texas 77002
713-209-2400

ABATEMENT COMPLETION REPORT

KAUFMAN NO. 1
HILCORP ENERGY COMPANY
SAN JUAN COUNTY, NEW MEXICO
OCD No.: AP-0138

January 22, 2022

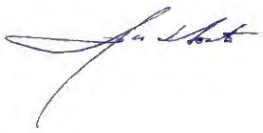
On behalf of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this report which documents soil and groundwater abatement, groundwater monitoring activities, and request for site closure.

This report was prepared by the following Timberwolf personnel:

-for-

Michael Morse — 01/22/22
Project Scientist — Date

Ryan S. Mersmann, P.G., CPSS — 01/22/22
Vice President of Operations — Date



Jim Foster — 01/22/22
President — Date

Timberwolf Project No. HEC-180061

Table of Contents

List of Figures

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List of Appendices

1.0 Overview

1.1 Introduction

On behalf of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this report documenting soil and groundwater abatement, groundwater monitoring activities, and a request for regulatory site closure at Kaufman No. 1 (Site). The Site is located approximately 9.1 miles north of Farmington in San Juan County, New Mexico (Figures 1 – 3).

1.2 Site Description and Environmental Setting

The Site is situated on Federal land (managed by the Bureau of Land Management (BLM)) and is immediately east of the La Plata River (Figures 2 and 3). The Site is comprised of approximately 1 acre, all of which is located within the La Plata River flood plain and adjacent to riparian zones and wetlands.

The Site has been temporarily abandoned following a release in November 2018. All equipment has been taken out of service including storage tanks, separators, and a glycol dehydrator. Other surface equipment at the Site includes a wellhead and gas meter.

The Site is situated in a rural area and surrounding land use is predominantly recreational use and oil and gas production. According to the U.S. Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS), the Site soil series is identified as of Walrees loam, 0 to 2 percent slope. This soil series consist of a loam underlain by stratified gravelly sand; native salinity is very slightly saline to moderately saline (2.0 to 8.0 millimhos per centimeter (mmhos/cm)).

An unnamed intermittent stream located approximately 500 feet (ft) south of the Site empties into the La Plata River flood plan and has deposited sufficient sand to form a deltaic feature. This feature extends north to within 100 ft of the Site and is visible on aerial photographs (e.g., Figure 3) and is characterized by sparse vegetation, most pronounced in the understory.

The average elevation at the Site is approximately 5,537 feet above mean sea level. Site topography is relatively flat with a slight dip west, toward the La Plata River.

1.3 Site Geology and Hydrogeology

Site geology consists of 0.5 ft of silt, underlain by approximately 3.5 ft of firm clay. Beneath the clay lies a groundwater sand which is comprised of medium to very coarse sand; sand becomes coarser with depth and contains rock inclusions ranging in size from pebbles to cobbles.

During the groundwater assessment and installation of monitor wells, the shallow groundwater aquifer was at full capacity and groundwater was typically encountered at 4.5 ft below ground surface (bgs). However, weathered petroleum hydrocarbon, consistent with a historical release,

were observed within the saturated zone at 9.0 ft bgs. This indicates that the aquifer may fluctuate seasonally and/or is influenced by drought.

The La Plata River is situated along the western edge of the Site and appears to be in communication with groundwater. The excavation dug during the initial spill response extended into the groundwater sand and is in direct communication with Site groundwater.

The potentiometric surface elevation (PSE) map created during the groundwater assessment conducted in January 2019 revealed the natural direction of groundwater flow to be west-southwest, towards the La Plata River (Figure 4).

1.4 Site History

On 11/16/18, approximately 8 barrels (bbl) of oil and 10 bbl of produced water was released from the storage tank. Enduring Resources was the operator of record at the time of the release; Hilcorp assumed operations of the Site on or about December 1, 2018.

After Hilcorp assumed operations, the well was temporarily abandoned. All surface equipment within the tank battery was removed, and impacted soil within the battery was excavated and transported to off-site disposal. The excavation was primarily along the eastern and southern portion of the tank battery. Initial soil abatement included an excavation approximately 50 ft by 60 ft with a depth ranging from 1 ft to 5 ft bgs. A safety fence was constructed along the perimeter of the excavation.

To delineate impacted groundwater, six groundwater monitoring wells (i.e., MW1 – MW6) were installed in January 2019. Groundwater delineation is documented in Timberwolf's Stage 1 Abatement Plan (pp. 12-14), dated 06/17/19.

Subsequent soil abatement activities were conducted in November 2019. Abatement included excavating and disposal of impacted soil in and around the initial excavation (i.e., former tank battery). Soil exceeding soil-to-groundwater migration criteria and soil exceeding the ecological protective concentration limits (PCLs) was excavated and removed from the site. All excavation activities were completed on 11/08/19. The excavation was backfilled following confirmation sample and analysis. Soil abatement is documented in Timberwolf's *Stage 2 Abatement Plan* (pp. 19-21), dated 01/03/20.

In November 2019, Timberwolf began quarterly groundwater monitoring at the Site. The monitoring included evaluation of Site groundwater and a hydrological assessment of Site groundwater and its relationship to the La Plata River. Consecutive quarterly monitoring was conducted from November 2019 (i.e., 4Q19) through September 2021 (i.e., 3Q21).

On 08/11/20, Timberwolf conducted an additional groundwater investigation at the Site. The purpose of the investigation was to determine if a residual groundwater plume was present between MW1 and MW5. To evaluate the area of concern, a groundwater sample was collected by installing a temporary sampling point in lieu of proposed MW7. Analytical results revealed that all

constituents of concern (COCs) were below regulatory criteria. Findings of the additional groundwater investigation are documented in Timberwolf's *Status Report – 3rd Quarter 2020,* dated 09/20/20.

Other assessment and characterization activities included a wetlands investigation/delineation and threatened and endangered species surveys. The work conducted at the Site is documented in the following reports:

- *Site Characterization Report and Stage 1 Abatement Plan,* dated 06/18/19
- *Wetland Delineation (Revised)*, dated 10/03/19
- *Stage 2 Abatement Plan,* dated 01/03/20
- *Status Report – 1st Quarter 2020,* dated 04/28/20
- *Status Report – 2nd Quarter 2020,* dated 06/19/2020
- *Status Report – 3rd Quarter 2020,* dated 09/20/2020
- *Status Report – 4th Quarter 2020*, dated 11/25/2020
- *Status Report – 1st Quarter 2021,* dated 01/20/21
- *Status Report – 2nd Quarter 2021,* dated 07/01/21
- *Status Report – 3rd Quarter 2021, dated 10/29/21.*

1.5 Soil Assessment

In July 2019, Timberwolf conducted soil assessments to delineate impacts and characterize the vadose zone. The assessment evaluated soil-to-groundwater migration pathways and ecological risks to threatened and endangered species (i.e., Southwestern willow flycatcher).

The assessment included collection and analysis of approximately 40 soil samples from depth ranging from the surface to 4.5 ft bgs. The samples were analyzed for TPH and/or BTEX. The vadose zone and ecological assessment revealed that additional soil abatement was required at the excavation base and sidewalls to protect groundwater and/or meet ecological PCL.

Vadose zone and ecological soil assessments are documented in Timberwolf's *Stage 2 Abatement Plan* (pp. 14-18), dated 01/03/20.

1.6 Soil Abatement

Initial soil abatement was conducted during 4Q18, immediately following the release and prior to conducting the Site characterization. Subsequent soil abatement activities were conducted after Site characterization and soil delineation, in November 2019. The subsequent abatement included excavating and disposal of impacted soil in and around the initial excavation (i.e., former tank battery). Soil exceeding soil-to-groundwater migration criteria and soil exceeding the ecological

protective concentration limits (PCLs) was excavated and removed from the site.

Impacted soil was excavated and transported to Industrial Ecosystems, Inc. (IEI) for commercial disposal. The final excavation dimensions were approximately 105 ft long by 65 ft wide with an average depth of 4.5 ft bgs. The subsequent soil abatement removed approximately 784 cubic yards of soil which exceeded soil-to-groundwater migration criteria and/or soil exceeding ecological PCLs.

Soil abatement activities were completed on 11/08/19. Twenty (20) confirmation samples were collected from the abatement area to ensure that soil exceeding remedial targets had been removed from the Site prior to backfilled. The soil abatement area is depicted in Figure 5. Soil abatement activities are documented in Timberwolf's *Stage 2 Abatement Plan* (pp. 19-21), dated 01/03/20.

1.7 Groundwater Assessment

The groundwater assessment was conducted in January 2019 and included installation of six 2-inch monitor wells across the Site. Monitor Well 1 (i.e., MW1) was installed immediately adjacent to the point of release. All other wells (i.e., MW2 through MW6) were installed near the perimeter of the Site for horizontal delineation of groundwater constituents. A monitor well location map is provided in Figure 6.

The groundwater assessment revealed the following:

- COCs in Site groundwater included: benzene, total dissolved solids (TDS), and sulfate
- MW1 was impacted by benzene; the benzene plume was horizontally delineated
- Groundwater flow across the Site was to the west-southwest, towards the La Plata River
- Additional assessment was required to determine if TDS and sulfate concentrations observed in MW1 were a result of the release or is a native feature of Site groundwater.

The benzene plume is shown in Figure 7. The groundwater assessment is documented in Timberwolf's *Site Characterization Report and Stage 1 Abatement Plan* (pp. 12-14), dated 06/17/19.

The initial groundwater assessment revealed elevated TDS and sulfate in a sample collected from MW1. In June 2019, additional groundwater assessments was conducted to determine if the elevated TDS and sulfate was native to the Site or a result of the release. Groundwater samples were collected from MW1 and MW3, which is hydrologically upgradient from MW1. Both samples were analyzed for chloride, sulfate, and TDS. Analytical results revealed that salinity in Site groundwater is consistent between samples collected from the center of the plume (i.e., MW1) and the sample collected hydrologically upgradient from the plume (i.e., MW3). The additional groundwater assessment is documented in Timberwolf's Stage 2 Abatement Plan (pp. 22-23), dated 01/03/20.

In August 2020, an additional groundwater investigation was conducted to determine if a residual groundwater plume was present between MW1 and MW5. The groundwater sample was collected by installation of a temporary sample point. The sample was analyzed for BTEX.

Analytical results revealed that all constituents of BTEX were below regulatory criteria. The additional groundwater investigation is documented in Timberwolf's *Status Report – 3rd Quarter 2020* (pp. 5), dated 09/30/20.

1.8 Groundwater Abatement

Groundwater abatement occurred between the initial soil abatement and the subsequent soil abatement (i.e., November 2018 through November 2019). The initial soil abatement consisted of excavating impacted soil which extended into the upper groundwater bearing unit encountered at approximately 4.5 ft bgs.

Groundwater filled the excavation and was subjected to the high evaporation potential the arid San Juan Basin climate provides (approximately 9 inches per month evaporation during the warm season and approximately 78 inches annually). Since benzene is mobile and hydrophilic, benzene was transported to the open excavation and subjected to volatilization and ultimately ultraviolet degradation through this evaporation process. The high evaporation rate is corroborated by the June 2019 PSE map which depicts the abrupt change in groundwater flow direction towards the excavation (Figure 8).

Groundwater abatement is additionally evidenced by the reduction in benzene concentration in MW1, decreasing from 0.074 milligrams per liter (mg/L) on 01/18/19 to less than 0.001 mg/L on 10/09/19.

2.0 COCs, Remedial Targets, and Closure Criteria

2.1 Introduction

The Site in under the jurisdiction of the New Mexico Oil Conservation Division (NMOCD) and is subject to the regulations provided under New Mexico Administrative Code (NMAC) 19.15.30, *Remediation*. The constituents of concern (COCs) for the Site, applicable remedial targets for soil and groundwater, and Site closure criteria are presented below.

2.2 COCs

Based on the Site characterization, which is documented in Timberwolf's *Site Characterization Report and Stage 1 Abatement Plan* (pp. 7-11), dated 06/17/19, the Site's COCs for soil included TPH and BTEX.

The groundwater assessment, documented in Timberwolf's *Site Characterization Report and Stage 1 Abatement Plan* (pp. 12-14), dated 06/17/19, revealed that the COC for Site groundwater is benzene.

2.3 Remedial Targets for Soil

Timberwolf developed site-specific criteria for vadose zone soil which are protective of groundwater as required under NMAC 19.15.30.9, *Abatement Standards and Requirements.* Additionally, ecological criteria which is protective of area threatened and endangered species is presented.

Groundwater Protection Criteria

In accordance with NMAC 19.15.30.9 (A), samples impacted by petroleum hydrocarbons from the base and sidewalls of the initial excavation were analyzed for synthetic precipitation leaching procedure (SPLP) to develop a site-specific soil-to-groundwater migration criteria which is protective of groundwater which may be used for human consumption. SPLP is an Environmental Protective Agency (EPA) laboratory method (i.e., Solid Waste SW-846; Test Method 1312) designed to determine the leachability and mobility of both organic and inorganic constituents in liquids, soil, and waste.

The SPLP benzene results were compared to the groundwater regulatory criteria presented in Table 4 of this report. If the SPLP results of a soil sample was lower than the groundwater regulatory criteria, then the constituent concentration from that sample is protective of groundwater. Analytical results of the SPLP benzene and corresponding BTEX results are presented in Table 1 below.

Table 1. Site-Specific Soil-to-Groundwater Migration PCL for Benzene

Sample ID	Date	SPLP Benzene (mg/L)	Volatile Organic Compound (mg/kg)				Total BTEX (mg/kg)
			B	T	E	X	
EB3	07/11/19	0.12	6.2	17	35	410	468.2
ESW3 2.5-3.5'	07/11/19	0.0072	0.67	< 0.24	4.7	27	32.37
ESW4 2.5-3.5'	07/11/19	< 0.001	0.53	0.14	2.4	12	15.07
Groundwater Regulatory Criteria		**0.005**	**--**	**--**	**--**	**--**	**--**

BTEX – benzene; toluene; ethylbenzene; xylene
SPLP – synthetic precipitation leaching procedure
mg/kg – milligrams per kilograms
mg/L – milligrams per liter

The SPLP results reveal that soil concentrations from the vadose zone which have a benzene concentration of 0.53 mg/kg or less do not pose a risk of leaching and percolating into underlying groundwater. Therefore, the site-specific soil protective concentration limit (PCL) for benzene is 0.53 mg/kg.

To evaluate the threat to groundwater posed by total petroleum hydrocarbons (i.e., TPH), soil which had a TPH concentration that exceeded the NMOCD regulatory limit for the Site of 100 mg/kg were analyzed using the Texas Commission on Environmental Quality (TCEQ) Method 1006 ("Method 1006"). Method 1006 is a hydrocarbon fractionation analysis which speciates hydrocarbon chains into aliphatic and aromatic hydrocarbons with much shorter chain intervals than the EPA SW-846 Method 8015 which separates petroleum hydrocarbon chains into the following ranges: gasoline range organics (GRO) C6-C10; diesel range organics (DRO) C10-C28; motor oil range organics (ORO) C29-C35.

The results of Method 1006 analysis are compared to TCEQ soil-to-groundwater migration criteria to determine if soil TPH concentrations poses a risk to underlying groundwater. The TCEQ has established protective concentrations limits (PCL) for aliphatic and aromatic chains which protect underlying groundwater for human consumption. TCEQ soil criteria for the soil-to-groundwater migration pathway is presented in Table 2 below.

Table 2. Soil-to-Groundwater Migration PCL for TPH

Constituent	TPH PCL[1] (mg/kg)							
	C_6	C_{6-8}	C_{7-8}	C_{8-10}	C_{10-12}	C_{12-16}	C_{16-21}	C_{21-35}
Aliphatics	170	420	--	3,600	25,000	1,000,000	1,000,000	--
Aromatics	--	--	20.0	65.0	100	200	470	3,700

PCL – protective concentration limit
TPH – total petroleum hydrocarbons
[1] – PCL derived from the Texas Risk Reduction Program (TRRP)
mg/L – milligrams per liter
-- – no established criteria

Ecological Protection Criteria

According to the BLM and the United States Fish and Wildlife Services (USFWS), the area surrounding the Site is critical habitat for the Southwestern willow flycatcher (*Empidonax traillii extimus*). The Southwestern willow flycatcher ("flycatcher") is listed as a USFWS endangered species.

A review of toxicological databases revealed the following protective concentration limits PCLs for the flycatcher.

Table 3. Soil PCLs for the Southwestern Willow Flycatcher

Specie	Volatile Organic Compound (mg/kg)[1]			
	B	T	E	X
PCL for the Southwestern willow flycatcher	**26.36**	**25.98**	**97.1**	**7.7**

PCL – protective concentration limit
BTEX – benzene; toluene; ethylbenzene; xylene
mg/kg – milligrams per kilograms
[1] – Limit established by Los Alamos National Laboratory

Soil in the upper 2 ft with BTEX concentrations that exceed the PCLs presented in Table 3 pose an ecological risk to the Southwestern willow flycatcher and require mitigation or abatement.

2.4 Remedial Targets for Groundwater

Human health standards for usable groundwater (i.e., TDS less than 10,000 milligrams per kilograms (mg/L)) are established under NMAC 20.6.2§3103. Additionally, this statute provides standards for domestic water supply. These criteria provide standards for a variety of constituents, including: metals, anions, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), certain radioactive isotopes, salinity, and pH.

Based on process knowledge, a constituent list prepared for the Site includes:

- VOCs
- SVOCs
- arsenic, barium, cadmium, chromium, mercury, lead, selenium, and silver (i.e., Resource Conservation and Recovery Act (RCRA)-8 metals)
- anions (i.e., chloride and sulfate)
- TDS
- pH.

The regulatory criteria for human health or domestic water supply for these constituents are provided in Table 4.

Table 4. Groundwater Regulatory Criteria

Constituent	Regulatory Criteria (mg/L)
Metals	
Arsenic	0.10[1]
Barium	1.00[1]
Cadmium	0.01[1]
Chromium	0.05[1]
Lead	0.05[1]
Mercury	0.0002[1]
Selenium	0.05[1]
Silver	0.05[1]
VOCs	
Benzene	0.01[1]
Toluene	0.75[1]
Ethylbenzene	0.75[1]
Xylenes	0.62[1]
PAHs (Total Naphthalene)	0.03[1]
SVOCs	
Phenols	0.005[2]
General Water Chemistry	
Total Dissolved Solids	1,000[2]
Chloride	250[2]
Sulfate	600[2]
pH (units – s.u.)	6 – 9[2]

[1]New Mexico human health standard
[2]New Mexico Standard for domestic water supply wells
mg/L – milligrams per liter
s.u. – standard units
VOCs – volatile organic compounds
SVOCs – semi-volatile organic compounds

The state of New Mexico has not established human health criteria for TPH in groundwater. Therefore, Timberwolf utilized the TCEQ Texas Risk Reduction Program (TRRP) groundwater ingestion pathway as a PCL for the Site. TPH PCLs for groundwater are presented in Table 5 below.

Table 5. PCL for Human Ingestion of Groundwater

Constituent	PCL for Human Ingestion[1] (mg/L)[1]
TPH (C6-C12)	0.98
TPH (C12-C28)	0.73
TPH (C28-C35)	0.73

PCL – protective concentration limit mg/L – milligrams per liter
TPH – total petroleum hydrocarbons
[1] – PCL derived from the Texas Risk Reduction Program (TRRP)

2.5 Site Closure Criteria

As specified in NMAC 19.15.30.9 *Abatement Standards and Requirements*, the following site closure conditions are applicable for the Site and must be completed prior to submitting a abatement completion report:

- Abate the vadose zone so that water contaminants in the vadose zone will not, with reasonable probability, contaminate groundwater or surface water
- Abate groundwater with TDS of less than 10,000 mg/L to the standards provided in Table 4 of this report
- Conduct eight consecutive quarterly groundwater monitoring events in which COCs at all sampling stations (i.e., MW 1 – MW6) are below remedial targets for groundwater (i.e., BTEX concentrations in Table 4).

3.0 Site Monitoring

3.1 Introduction

Quarterly groundwater monitoring began October 2019. Eight consecutive quarters of groundwater monitoring have been completed at the Site. Prior to each event, the OCD District 3 Office was provided with 2-day advance notice of all field activities. Gauging and sampling methodology, as well as results, are documented below.

3.2 Groundwater Gauging Methodology

Prior to sample collection, well caps were removed to allow water within each well to equilibrate. Each well was gauged to determine depth to water and presence or absence of phase-separated hydrocarbons (PSH) using an oil-water interface probe capable of measuring to the nearest one-hundredth foot. The interface probe and measurement tape were properly decontaminated between each well using deionized water and Alconox®. Additionally, the La Plata River water elevation was measured relative to two steel stakes. On 11/19/19, NCE Survey, Inc. of Farmington, NM surveyed the elevations of tops of each monitor well casing and the two steel stakes. Depths to groundwater were calculated for each well during each gauging event; additionally, the depth to the river water was calculated.

3.3 Results of Gauging Data and Hydrological Assessment of the La Plata River

PSH was not observed at any monitor station during any of the eight monitoring events. PSE maps were prepared from gauging data collected. The PSE maps reveal groundwater flow is to the west-southwest, towards the La Plata River. PSE maps for each quarterly monitoring event provided in Appendix A.

Groundwater flow rates were calculated from quarterly gauging data. The flow rates are presented in the following Table 6 below.

Table 6. Annualized Groundwater Flow Rate

Monitoring Event	Flow Rate (ft/yr)
4Q19	25.0
1Q20	32.6
2Q20	38.7
3Q20	38.7
4Q20	48.5
1Q21	21.2
2Q21	34.1
3Q21	19.7

ft/yr – feet per year

The PSE maps also depict La Plata River elevation relative to the two steel stakes. In each quarterly PSE map, groundwater flow was toward the La Plata River. This suggests that seasonal changes in hydrology (e.g., snow melt, flooding, drought, etc.) do not appear to influence the trajectory of groundwater, only the flow rate as shown in Table 6 above.

3.4 Groundwater Sample Methodology

Except for one monitoring event (i.e., 3Q21), all six sampling stations (i.e., MW1 – MW6) were sampled using the EPA low-flow technique. A submersible pump was placed within the screened interval of each well. Water was extracted from each well and pumped through a flow-through cell equipped with a YSI probe. Field water quality parameters were analyzed and recorded, which included: dissolved oxygen, conductivity, pH, temperature, and oxidation reduction potential (ORP). After water quality parameters stabilized, the YSI flow-through cell was bypassed, and samples were collected directly into laboratory-provided sample containers.

During the 3Q21 groundwater monitoring event, a YSI malfunction precluded using the EPA low-flow sampling technique. Therefore, during this event, the six sampling stations were sampled by purging three well volumes prior to sampling; this sample method is also an EPA approved technique for groundwater sampling. The depths to water measurement for each well were subtracted from the well total depth to determine to length of the water column and well volumes for each well. A minimum of three times each well volume was extracted from each well prior to sample collection. Dedicated tubing and a submersible pump were placed within each well's screened interval and used to produce water from each well.

Groundwater samples were collected immediately following well purging in laboratory provided sample containers with appropriate preservative. Sample jars were labeled, stored on ice, and transported under proper chain-of-custody protocol to Hall Environmental Analytical Laboratories, Inc. (HEAL) in Albuquerque, New Mexico and Pace Analytical (Pace) of Mt. Juliet, Tennessee for chemical analysis.

3.5 Analytical Results of Quarterly Groundwater Monitoring

Groundwater samples submitted to HEAL were analyzed for the following constituents: benzene, toluene, ethylbenzene, and xylenes (BTEX); samples submitted to Pace were analyzed for TPH by Method TX 1005. Analytical methods are documented on the attached laboratory reports in Appendix B. Cumulative analytical results for the eight consecutive quarters of groundwater monitoring are presented in Table 7 below.

Table 7. Cumulative Groundwater Analytical Results

Sample ID	Date	Volatile Organic Compounds (mg/L)				TPH (mg/L)		
		B	T	E	X	GRO (C6-C12)	DRO (C12-C28)	ORO C28-C35)
MW-1	10/09/19	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	01/16/20	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
	04/09/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60
	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600
	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606
	01/11/21	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60
	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
MW-2	10/09/19	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	01/16/20	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
	04/09/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60
	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600
	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600
	01/11/21	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606
	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
MW-3	10/09/19	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	01/16/20	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
	04/09/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60
	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600
	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606
	01/11/21	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606
	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
MW-4	10/09/19	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	01/16/20	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
	04/09/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60
	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600
	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600
	01/11/21	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606
	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
Regulatory Criteria		**0.01**	**0.75**	**0.75**	**0.62**	**0.98**	**0.73**	**0.73**

BTEX – benzene, toluene, ethylbenzene, and xylenes
TPH – total petroleum hydrocarbons
mg/L – milligrams per liter
– exceeds regulatory criteria
GRO – gasoline range organics
DRO – diesel range organics
ORO – oil range organics

Table 7. Cumulative Groundwater Analytical Results *(continued)*

Sample ID	Date	Volatile Organic Compounds (mg/L)				TPH (mg/L)		
		B	T	E	X	GRO (C6-C12)	DRO (C12-C28)	ORO C28-C35)
MW-5	10/09/19	0.0041	< 0.001	< 0.001	< 0.001	0.0041	< 0.001	< 0.001
	01/16/20	0.0012	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
	04/09/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60
	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.600	< 0.600	< 0.600
	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606
	01/11/21	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606
	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
MW-6	10/09/19	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	01/16/20	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
	04/09/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.60	< 0.60	< 0.60
	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.630	< 0.630	< 0.630
	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.606	< 0.606	< 0.606
	01/11/21	< 0.001	< 0.001	< 0.001	< 0.0015	< 0.642	< 0.642	< 0.642
	05/26/21	< 0.001	< 0.001	< 0.001	0.0038	0.644[J]	< 0.60	< 0.60
	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002	< 0.60	< 0.60	< 0.60
Regulatory Criteria		**0.01**	**0.75**	**0.75**	**0.62**	**0.98**	**0.73**	**0.73**

BTEX – benzene, toluene, ethylbenzene, and xylenes
TPH – total petroleum hydrocarbons
mg/L – milligrams per liter
– exceeds regulatory criteria
GRO – gasoline range organics
DRO – diesel range organics
ORO – oil range organics

The analytical results generated form quarterly monitoring reveal that:

- Concentrations of constituents of BTEX in all samples were below regulatory criteria for eight consecutive quarters
- Concentrations of TPH (GRO, DRO, and ORO) were below human ingestion PCLs.

3.6 Quality Assurance Program

To provide quality assurance in laboratory data, Timberwolf collected a field duplicate sample and utilized a Trip Blank during each monitor event. A field duplicated ("Dup") was collected from a monitor well to evaluate laboratory reproducibility. The field duplicate was collected immediately after the monitor well sample to ensure homogeneity between the sample and the field duplicate. The Trip Blank was maintained with the sampling kit to evaluate the potential for in-field contaminations or contaminants encountered traveling to and from the laboratory.

Both the field duplicate and trip blank were analyzed for BTEX. Analytical results are documented in the attached laboratory report provided in Appendix B and summarized in Table 8 below.

Table 8. Quality Assurance Results

Monitoring Event	Sample ID	Date	Volatile Organic Compounds (mg/L)			
			B	T	E	X
4Q19	Trip Blank	10/08/19	< 0.001	< 0.001	< 0.001	< 0.002
	MW6	10/08/19	< 0.001	< 0.001	< 0.001	< 0.002
	Dup	10/08/19	< 0.001	< 0.001	< 0.001	< 0.002
	RPD		**0%**	**0%**	**0%**	**0%**
1Q20	Trip Blank	01/16/20	< 0.001	< 0.001	< 0.001	< 0.002
	MW5	01/16/20	0.0012	< 0.001	< 0.001	< 0.002
	Dup	01/16/20	0.0016	< 0.001	< 0.001	< 0.002
	RPD		**28.5%**	**0%**	**0%**	**0%**
2Q20	Trip Blank	NA	NA	NA	NA	NA
	MW5	04/09/20	< 0.001	< 0.001	< 0.001	< 0.002
	Dup	04/09/20	< 0.001	< 0.001	< 0.001	< 0.002
	RPD		**0%**	**0%**	**0%**	**0%**
3Q20	Trip Blank	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015
	MW5	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015
	Dup	07/02/20	< 0.001	< 0.001	< 0.001	< 0.0015
	RPD		**0%**	**0%**	**0%**	**0%**
4Q20	Trip Blank	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015
	MW5	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015
	Dup	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015
	RPD		**0%**	**0%**	**0%**	**0%**
1Q21	Trip Blank	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015
	MW5	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015
	Dup	11/05/20	< 0.001	< 0.001	< 0.001	< 0.0015
	RPD		**0%**	**0%**	**0%**	**0%**
2Q21	Trip Blank	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002
	MW5	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002
	Dup	05/26/21	< 0.001	< 0.001	< 0.001	< 0.002
	RDP		**0%**	**0%**	**0%**	**0%**
3Q21	Trip Blank	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002
	MW5	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002
	Dup	09/09/21	< 0.001	< 0.001	< 0.001	< 0.002
	RDP		**0%**	**0%**	**0%**	**0%**

mg/L – milligrams per liter
BTEX – benzene, toluene, ethylbenzene, and xylenes
NA – not analyzed
RPD – relative percent difference between the sample (i.e., MW5 or MW6) and the duplicate (“Dup”)

The acceptable limit for relative percent difference (RPD) between duplicate samples for organic compounds, such as the constituents of BTEX, is 30 percent relative percent difference (i.e., 30% RDP) or less. The RDP for duplicate sample in monitoring events ranged from 0% to 28.5% RDP; the highest RDP was observed during 1Q20. This analysis validates laboratory reproducibility.

Laboratory analysis of Trip Blanks revealed that concentrations of constituents of BTEX were below laboratory detection limits. This analysis indicates that no in-field contamination occurred. [Note: A trip blank was not analyzed for the 2Q20 monitoring event, however, only one sample exceeded laboratory detection limits.]

4.0 Closure Request and Final Actions

4.1 Introduction

The following sections present a summary of abatement activities, results of the quarterly groundwater monitoring, and a request for termination of the abatement plan for the Site.

4.2 Abatement Activities

Soil abatement began during the 4th quarter of 2018 and was completed during the 4th quarter of 2019. Soil which posed a threat to underlying groundwater or the Southwestern flycatcher, an endangered species with suitable habitat along the La Plata River, was abated by removing from the Site for commercial disposal. Soil abatement as required under NMAC 19.15.30.9 (A) has been completed.

Groundwater abatement began during the 4th quarter of 2018 and was completed by October 2019 as demonstrated by the 4Q19 monitoring event. Groundwater abatement as required under NMAC 19.15.30.9 B) has been accomplished.

Surface water was not impacted at the Site, therefore abatement as specified under NMAC 19.15.30.9 (C) is not applicable.

4.3 Quarterly Monitoring Activities

Eight consecutive groundwater monitoring events conducted between 4Q19 and 3Q21 revealed the following:

- Concentrations of benzene, toluene, ethylbenzene, and xylene were below standards presented in NMAC 20.6.2§3103 in all samples
- Concentrations of TPH (i.e., GRO, DRO, and ORO) were below human ingestion PCL in all samples
- The groundwater monitoring events satisfy the requirements of NMAC 19.15.30.9 (D) for site monitoring.

4.4 Termination Request

Hilcorp has successfully completed the standards set forth in NMAC 19.15.30.9, *Abatement Standards and Requirements*, and requests that the director approve this Abatement Completion Report and terminate the abatement plan (AP-0138) for the Kaufman No. 1.

4.5 Final Actions

Upon receiving notice that the abatement plan is terminated, Hilcorp will plug and abandon (P&A) all monitor wells at the Site. Plugging reports will be submitted to the Office of State Engineer following P&A activities.

Figures

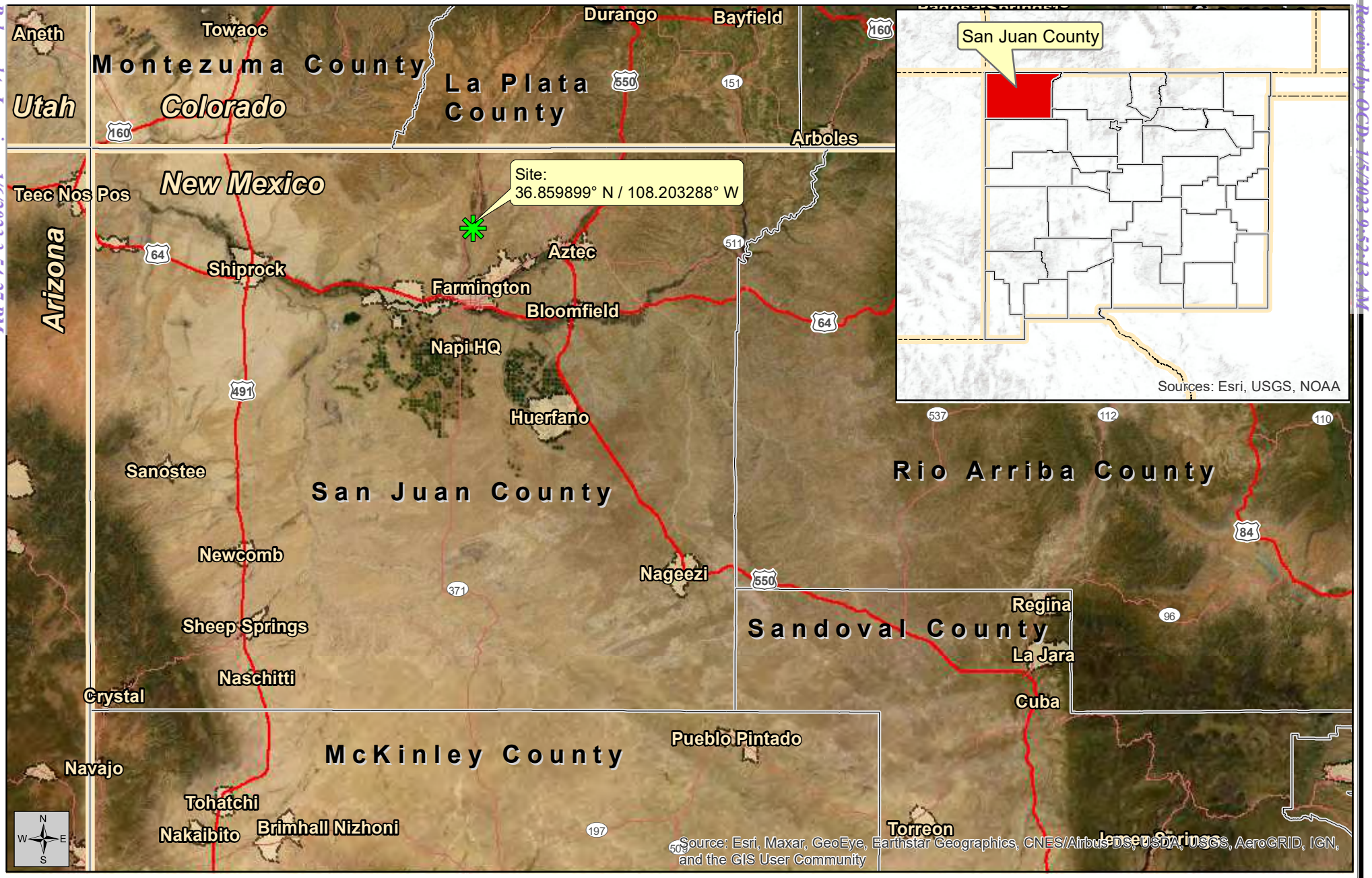


Figure 1 **Site Location Map**	**Abatement Completion Report (AP-0138)**	**January 20, 2022**
TIMBERWOLF ENVIRONMENTAL	1:1,250,000 0 20 40 60 80 100 120 Miles **Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)** **Hilcorp Energy Company** **San Juan County, New Mexico**	* Site
Created By: Kevin Cole TE Project No.: HEC-180061	Datum: NAD83 Imagery Source: ESRI Vector Source: ESRI and TE	

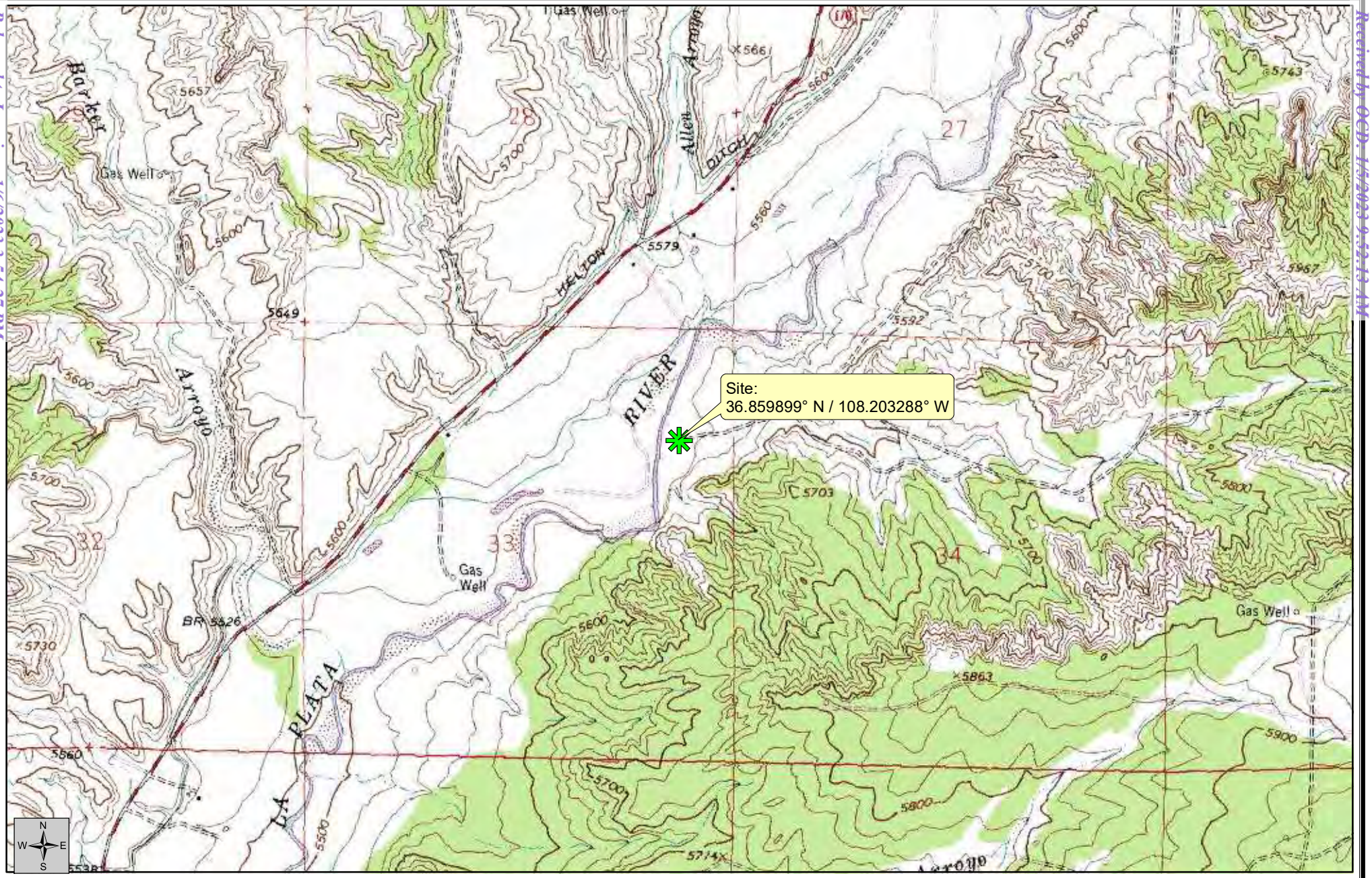


Figure 2
Topographic Map

Abatement Completion Report (AP-0138)

January 20, 2022

1:24,000

0 0.5 1 1.5 2 2.5 Miles

TIMBERWOLF ENVIRONMENTAL

Created By:
Kevin Cole
TE Project No.: HEC-180061

Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: USGS
Quad: Farmington North
Vector Source: TE

Site

Figure 3
Aerial Map

Abatement Completion Report (AP-0138)

January 20, 2022

TIMBERWOLF ENVIRONMENTAL

1:8,000

0 1,000 2,000 3,000 4,000 Feet

Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Created By:
Kevin Cole
TE Project No.: HEC-180061

Datum: NAD83
Imagery Source: ESRI
Vector Source: TE

Site

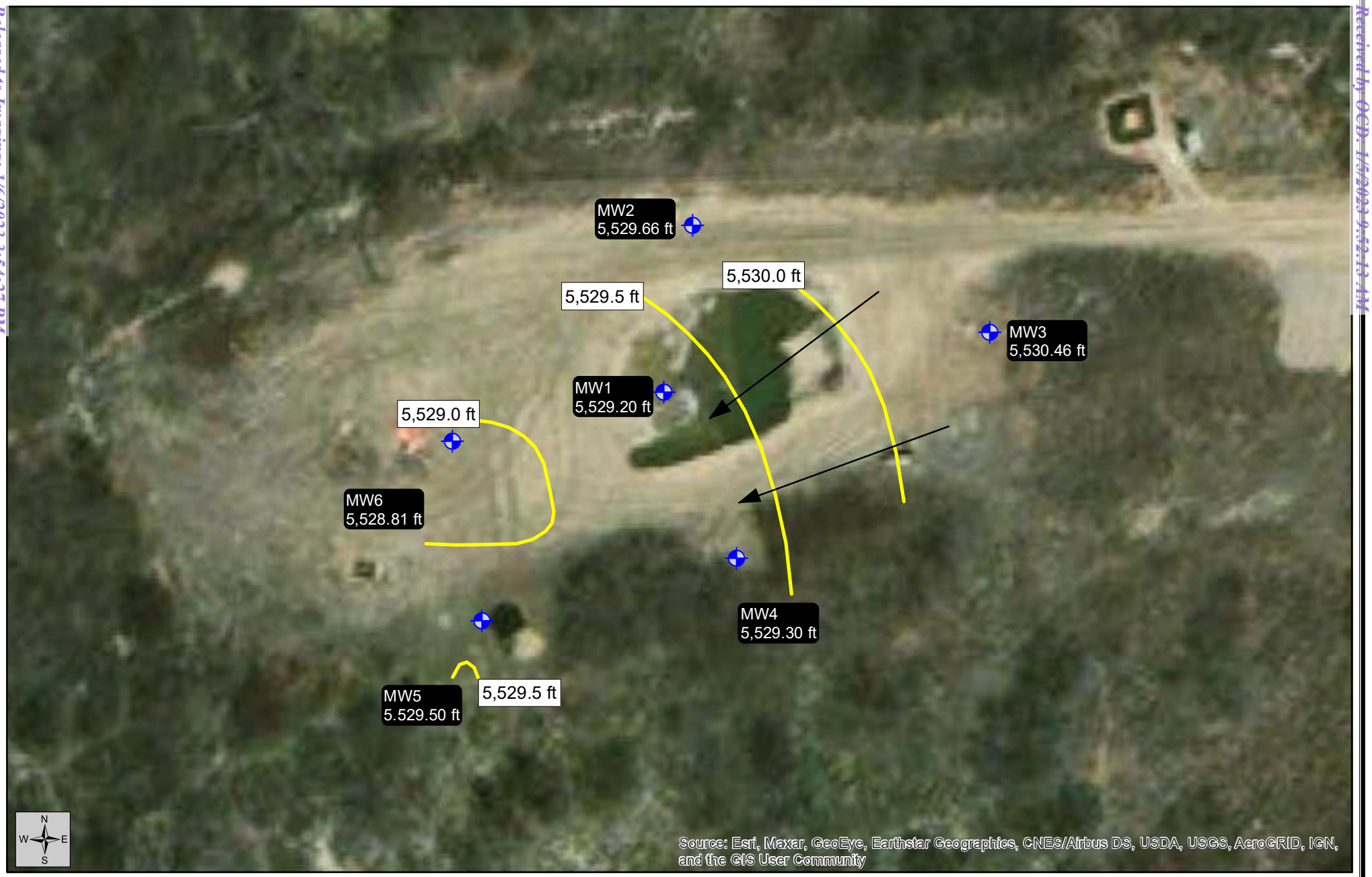


Figure 4
Potentiometric Surface Elevation Map - January 2019

Abatement Completion Report (AP-0138)

Sample Dates:
01/17/19 and 01/18/19

1:500

0 50 100 150 200 250 Feet

TIMBERWOLF ENVIRONMENTAL

Created By:
Kevin Cole
January 25, 2019
TE Project No.: HEC-180061

Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: ESRI
Vector Source: TE

Monitor Well
Groundwater Gradient
Groundwater Flow

Figure 5
Soil Abatement Area

Abatement Completion Report (AP-0138)

January 20, 2022

TIMBERWOLF ENVIRONMENTAL

1:400

0 50 100 150 200 Feet

Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Created By:
Kevin Cole
TE Project No.: HEC-180061

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

Soil Abatement Area

Figure 6
Monitor Well Location Map

Abatement Completion Report (AP-0138)

January 20, 2022

1:500

0 50 100 150 200 250 Feet

Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

TIMBERWOLF ENVIRONMENTAL

Created By:
Kevin Cole
TE Project No.: HEC-180061

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

Monitor Well
Kaufman No. 1 Well Head

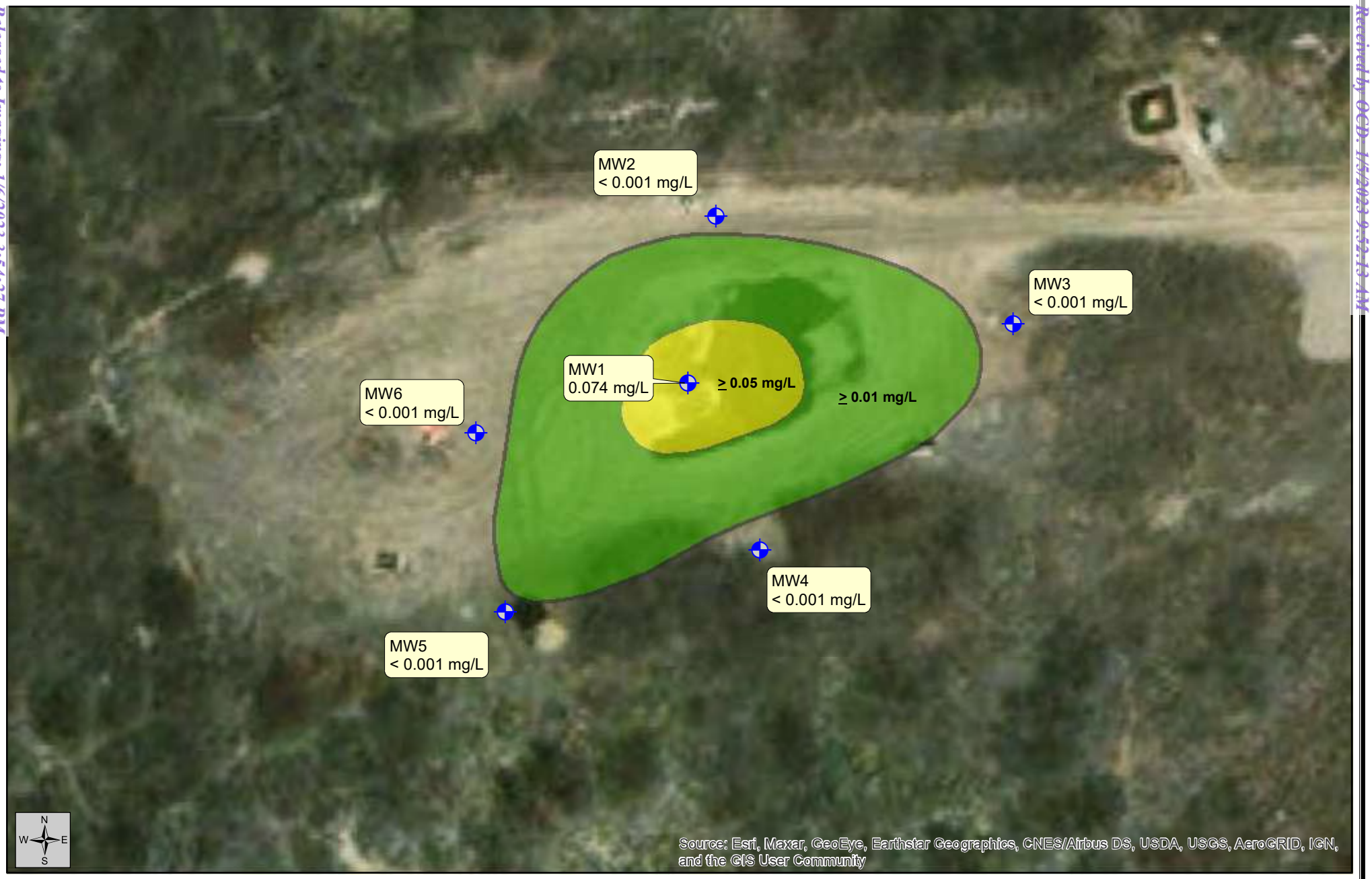


Figure 7
Bezene Plume Map

Abatement Completion Report (AP-0138)

Sample Dates:
01/17/19 and 01/18/19

TIMBERWOLF ENVIRONMENTAL

1:500

0 50 100 150 200 250 Feet

Created By:
Kevin Cole
January 25, 2019
TE Project No.: HEC-180061

Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: ESRI
Vector Source: TE

- Monitor Well
- Benzene: ≥ 0.01 mg/L
- Benzene: ≥ 0.05 mg/L

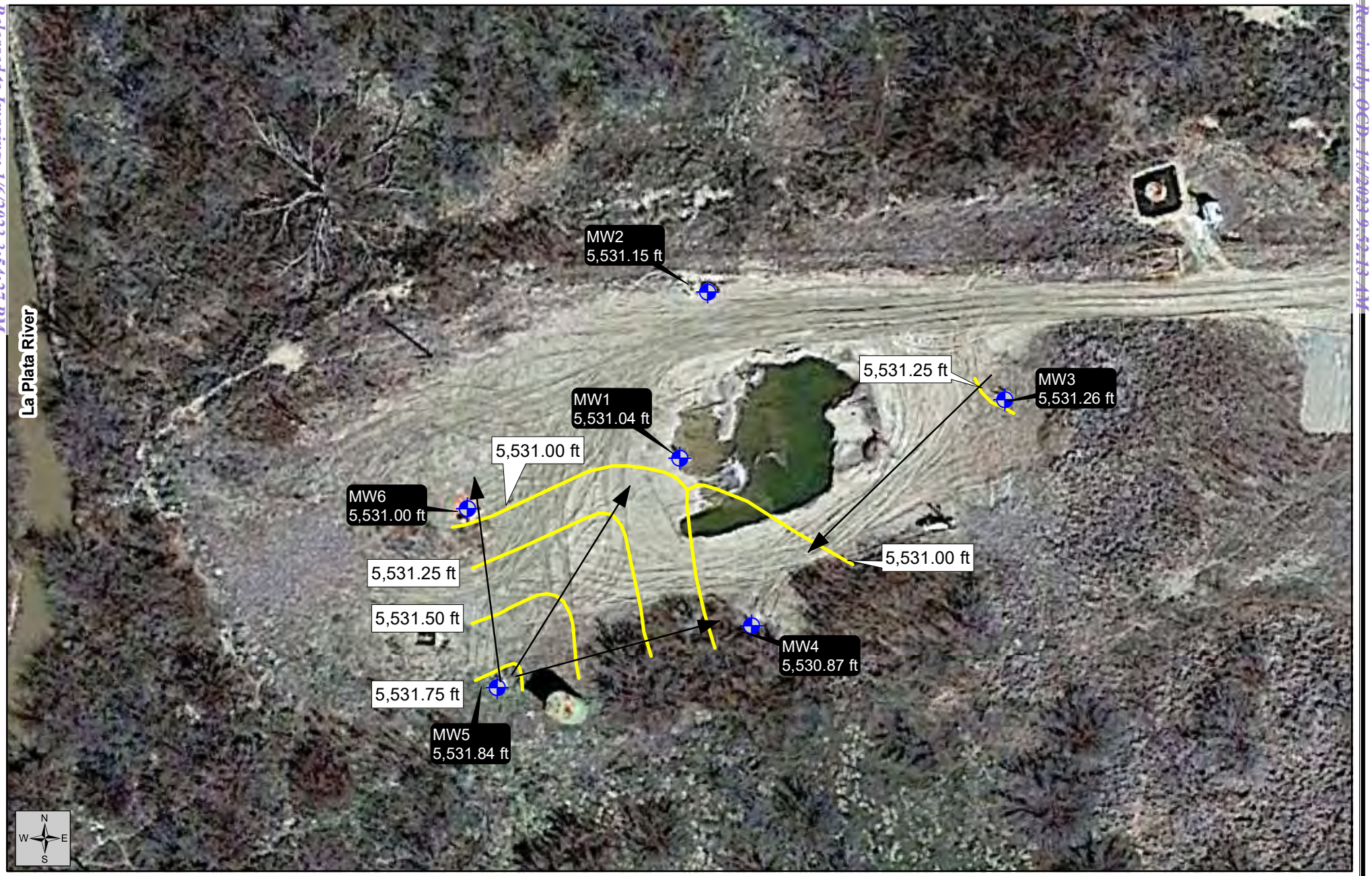


Figure 8
Potentiometric Surface Elevation Map - June 2019

Abatement Completion Report (AP-0138)

Gauging Date:
June 20, 2019

TIMBERWOLF ENVIRONMENTAL

1:500

0 50 100 150 200 250 Feet

Created By:
Kevin Cole
December 30, 2019
TE Project No.: HEC-180061

Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

Monitor Well
Groundwater Gradient
Groundwater Flow

Appendix A:

Potentiometric Surface Elevation Maps from Quarterly Monitoring

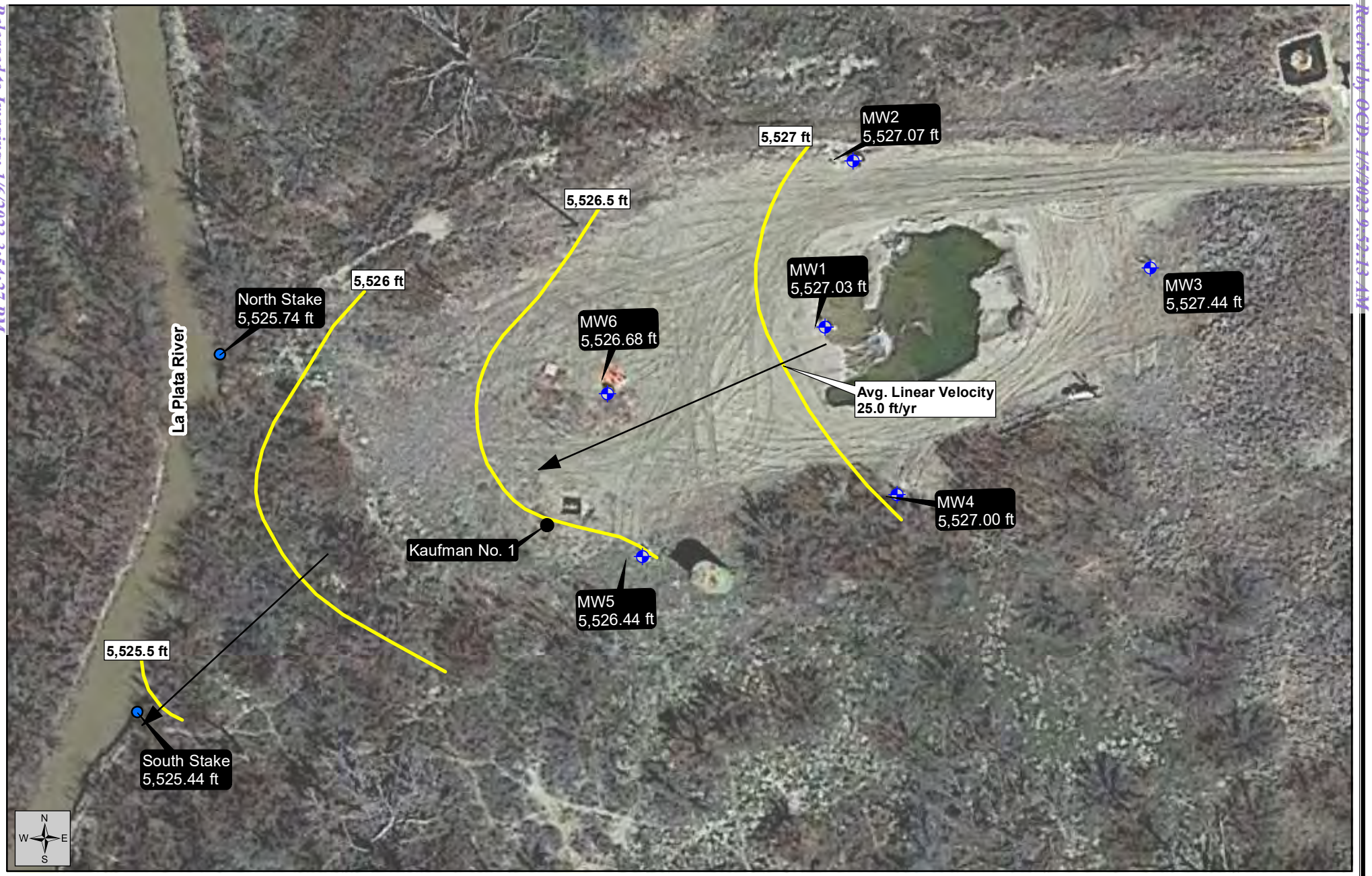


Figure 15
Potentiometric Surface Map - December 2019

Stage 2 Abatement Plan (AP-0138)

Gauging Date:
December 10, 2019

TIMBERWOLF ENVIRONMENTAL

1:500

0 50 100 150 200 250 Feet

Created By:
Russell Greer
December 30, 2019
TE Project No.: HEC-180061

Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

- Monitor Well
- Surveyed Stake
- Kaufman No. 1 Well Head
- Groundwater Gradient
- Direction of Flow

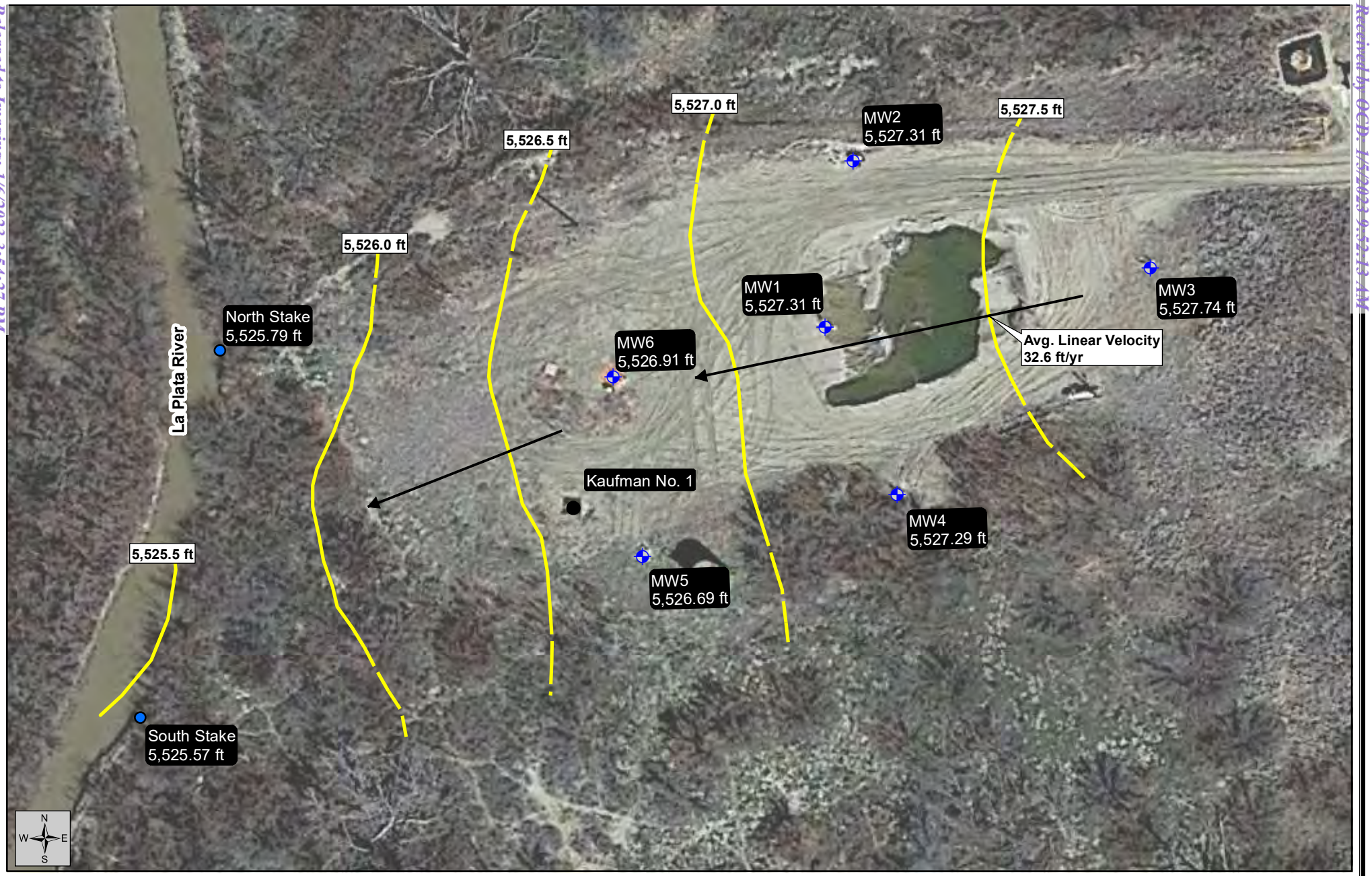


Figure 5
Potentiometric Surface Elevation Map

Status Report - 1st Quarter 2020 (AP-0138)

Gauging Date:
January 16, 2020

TIMBERWOLF ENVIRONMENTAL

1:500

0 50 100 150 200 250 Feet

Created By:
Chris Perez
February 7, 2020
TE Project No.: HEC-180061

Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

- Monitor Well
- Surveyed Stake
- Kaufman No. 1 Well Head
- Groundwater Gradient
- Direction of Flow

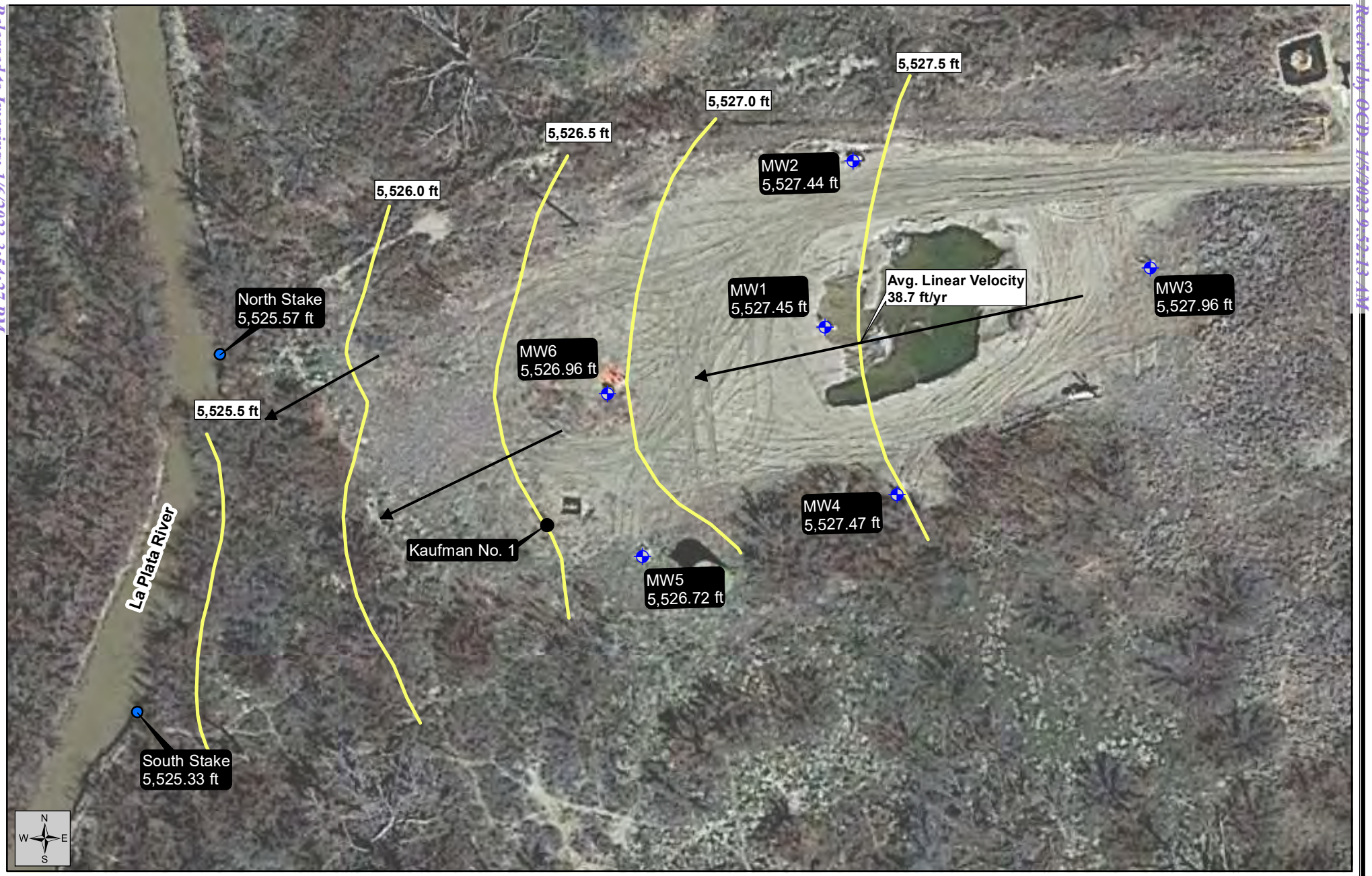


Figure 5
Potentiometric Surface Elevation Map

Status Report - 2nd Quarter Report (AP-0138)

Gauging Date:
April 9, 2020

TIMBERWOLF ENVIRONMENTAL

1:500

0 50 100 150 200 250 Feet

Created By:
Chris Perez
April 20, 2020
TE Project No.: HEC-180061

Kaufman No. 1 (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

- Monitor Well
- Surveyed Stake
- Kaufman No. 1 Well Head
- Groundwater Gradient
- Direction of Flow

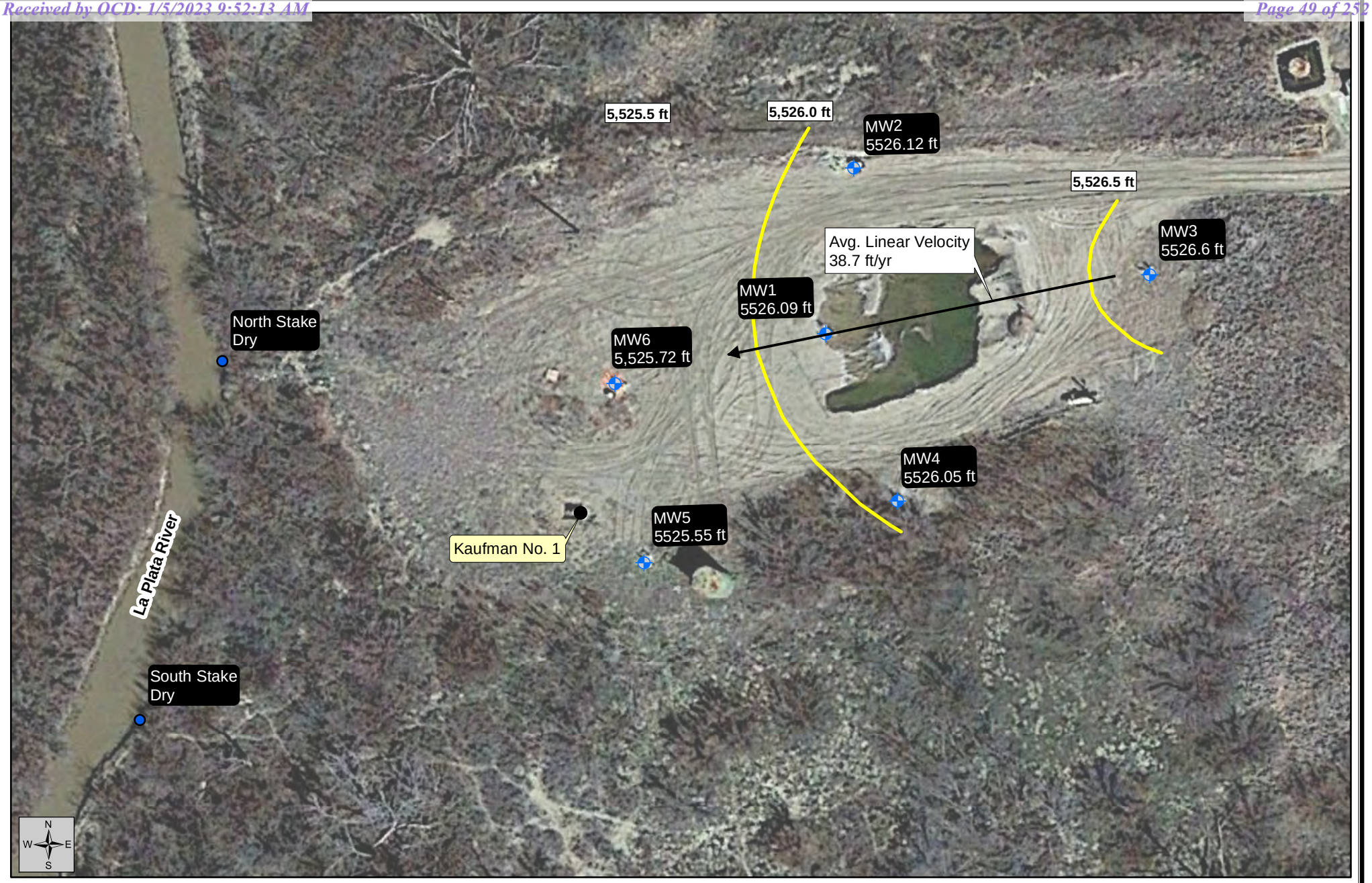


Figure 5
Potentiometric Surface Elevation Map

Status Report - 3rd Quarter Report (AP-0138)

Gauging Date:
July 2, 2020

1:500

0 50 100 150 200 250 Feet

Kaufman No. 1 (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Created By:
Chris Perez
July 8, 2020
TE Project No.: HEC-180061

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

- Monitor Well
- Surveyed Stake
- Kaufman No. 1 Well Head
- Groundwater Gradient
- Direction of Flow

TIMBERWOLF ENVIRONMENTAL

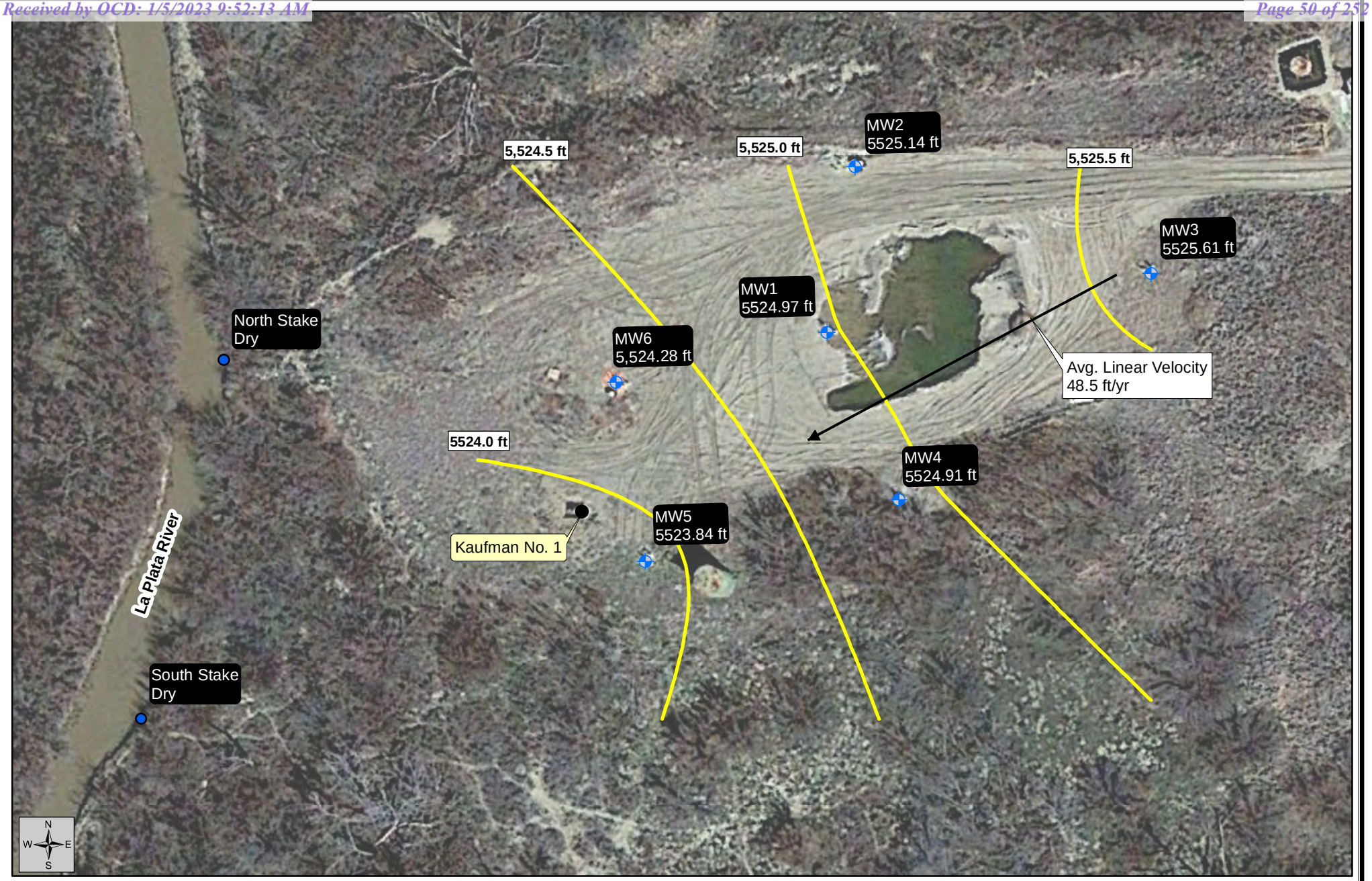


Figure 5
Potentiometric Surface Elevation Map

Status Report - 4th Quarter 2020 (AP-0138)

Gauging Date:
November 5, 2020

1:500

0 50 100 150 200 250 Feet

TIMBERWOLF ENVIRONMENTAL

Created By:
Chris Perez
November 6, 2020
TE Project No.: HEC-180061

Kaufman No. 1 (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

- Monitor Well
- Surveyed Stake
- Kaufman No. 1 Well Head
- Groundwater Gradient
- Direction of Flow

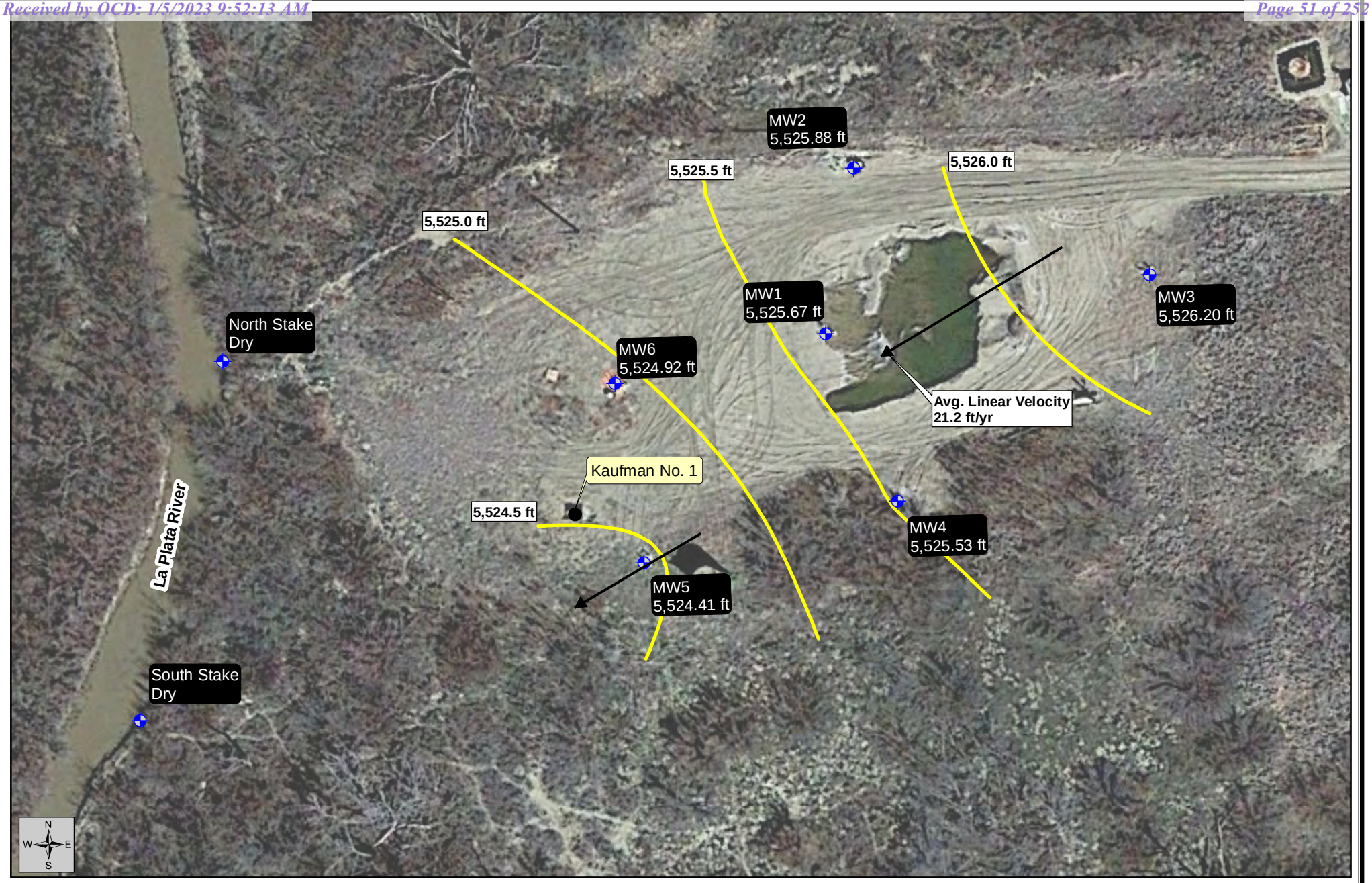


Figure 5
Potentiometric Surface Elevation Map

Status Report - 1st Quarter 2021 (AP-0138)

Gauging Date:
January 11, 2021

TIMBERWOLF ENVIRONMENTAL

1:500

0 50 100 150 200 250 Feet

Created By:
Chris Perez
January 14, 2021
TE Project No.: HEC-180061

Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

- Monitor Well
- Surveyed Stake
- Kaufman No. 1 Well Head
- Groundwater Gradient
- Direction of Flow

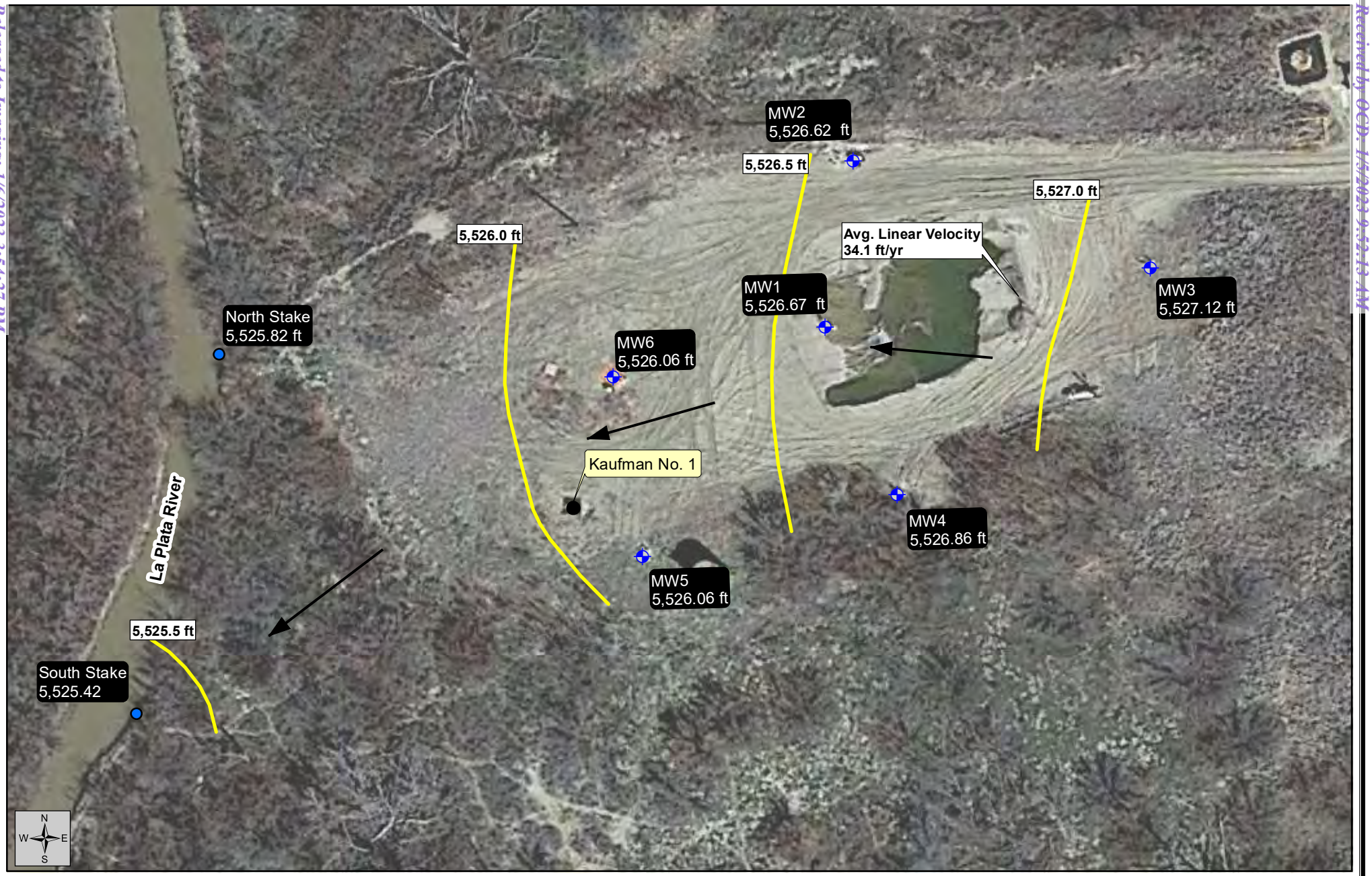


Figure 5
Potentiometric Surface Elevation Map

Status Report - 2nd Quarter 2021 (AP-0138)

Gauging Date:
May 26, 2021

TIMBERWOLF ENVIRONMENTAL

1:500

0 50 100 150 200 250 Feet

Created By:
Kevin Cole
June 29, 2021
TE Project No.: HEC-180061

Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

- Monitor Well
- Surveyed Stake
- Kaufman No. 1 Well Head
- Groundwater Gradient
- Direction of Flow

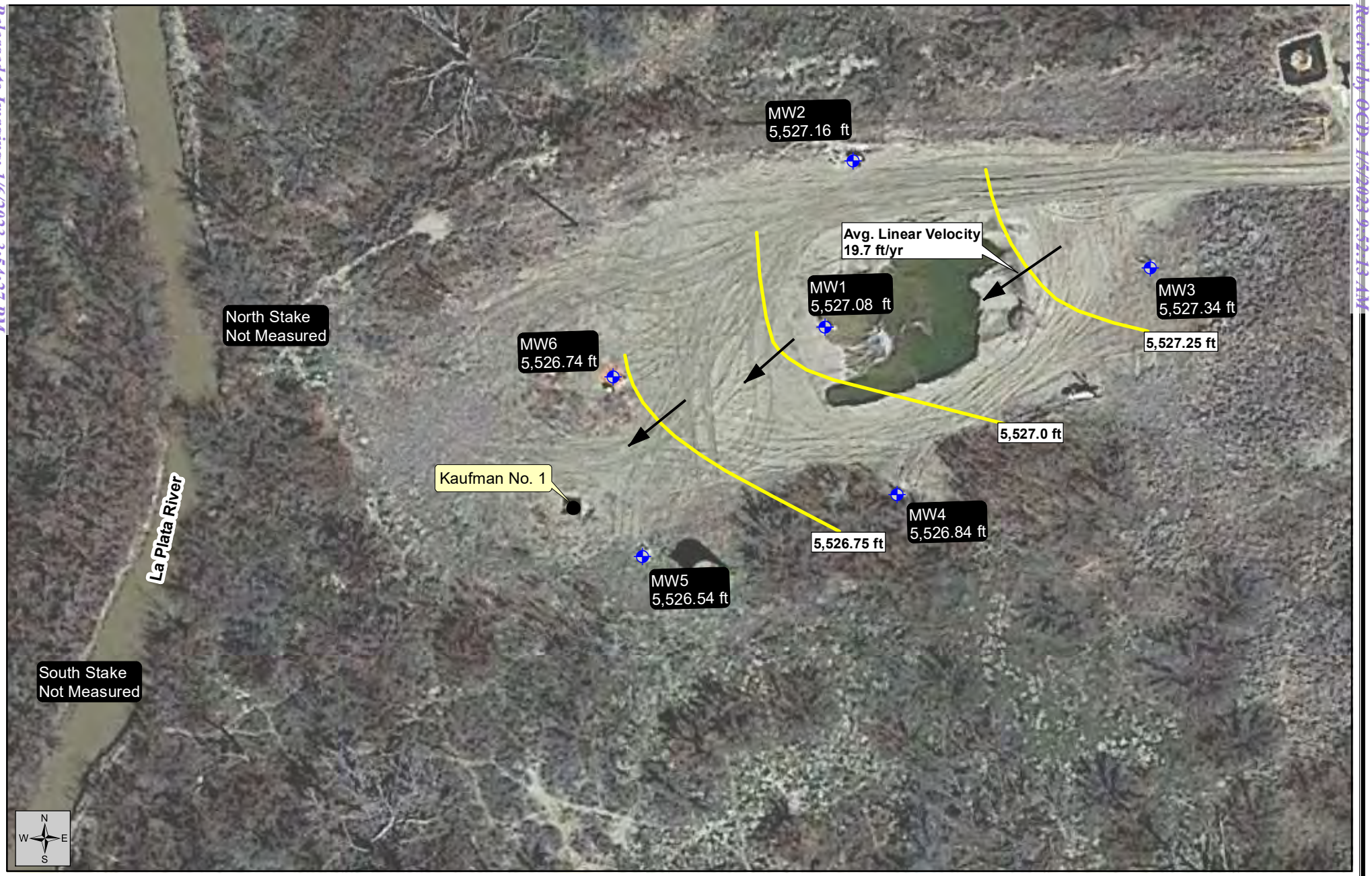


Figure 5
Potentiometric Surface Elevation Map

Status Report - 3rd Quarter 2021 (AP-0138)

Gauging Date:
September 9, 2021

TIMBERWOLF ENVIRONMENTAL

1:500

0 50 100 150 200 250 Feet

Created By:
Kevin Cole
October 29, 2021
TE Project No.: HEC-180061

Kaufman No. 1 Release (SE1/4 NE1/4, Sec. 33, T31N, R13W)
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: Google Earth
Vector Source: TE

- Monitor Well
- Surveyed Stake
- Kaufman No. 1 Well Head
- Groundwater Gradient
- Direction of Flow

Appendix B:

Laboratory Reports and Chain-of-Custody Documents

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

October 16, 2019

Jim Foster

Timberwolf Environmental
1920 W Villa Maria Ste 205
Bryan, TX 77807
TEL: (979) 324-2139
FAX:

RE: Kaufman No 1 OrderNo.: 1910659

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 8 sample(s) on 10/10/2019 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 www.hallenvironmental.com 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order: **1910659**
Date Reported: **10/16/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 1910659
Project: Kaufman No 1

Lab ID: 1910659-001 **Collection Date:** 10/9/2019 3:22:00 PM
Client Sample ID: MW1 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	10/14/2019 9:41:10 AM	B63672
Toluene	ND	1.0		µg/L	1	10/14/2019 9:41:10 AM	B63672
Ethylbenzene	ND	1.0		µg/L	1	10/14/2019 9:41:10 AM	B63672
Xylenes, Total	ND	2.0		µg/L	1	10/14/2019 9:41:10 AM	B63672
Surr: 4-Bromofluorobenzene	95.4	80-120		%Rec	1	10/14/2019 9:41:10 AM	B63672

Lab ID: 1910659-002 **Collection Date:** 10/9/2019 1:05:00 PM
Client Sample ID: MW2 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	10/14/2019 10:28:38 AM	B63672
Toluene	ND	1.0		µg/L	1	10/14/2019 10:28:38 AM	B63672
Ethylbenzene	ND	1.0		µg/L	1	10/14/2019 10:28:38 AM	B63672
Xylenes, Total	ND	2.0		µg/L	1	10/14/2019 10:28:38 AM	B63672
Surr: 4-Bromofluorobenzene	95.9	80-120		%Rec	1	10/14/2019 10:28:38 AM	B63672

Lab ID: 1910659-003 **Collection Date:** 10/9/2019 12:05:00 PM
Client Sample ID: MW3 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	10/14/2019 10:52:22 AM	B63672
Toluene	ND	1.0		µg/L	1	10/14/2019 10:52:22 AM	B63672
Ethylbenzene	ND	1.0		µg/L	1	10/14/2019 10:52:22 AM	B63672
Xylenes, Total	ND	2.0		µg/L	1	10/14/2019 10:52:22 AM	B63672
Surr: 4-Bromofluorobenzene	95.3	80-120		%Rec	1	10/14/2019 10:52:22 AM	B63672

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **1910659**
Date Reported: **10/16/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 1910659
Project: Kaufman No 1

Lab ID: 1910659-004 **Collection Date:** 10/9/2019 2:50:00 PM
Client Sample ID: MW4 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	10/14/2019 11:16:12 AM	B63672
Toluene	ND	1.0		µg/L	1	10/14/2019 11:16:12 AM	B63672
Ethylbenzene	ND	1.0		µg/L	1	10/14/2019 11:16:12 AM	B63672
Xylenes, Total	ND	2.0		µg/L	1	10/14/2019 11:16:12 AM	B63672
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	10/14/2019 11:16:12 AM	B63672

Lab ID: 1910659-005 **Collection Date:** 10/9/2019 2:05:00 PM
Client Sample ID: MW5 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	4.1	1.0		µg/L	1	10/14/2019 11:39:45 AM	B63672
Toluene	ND	1.0		µg/L	1	10/14/2019 11:39:45 AM	B63672
Ethylbenzene	ND	1.0		µg/L	1	10/14/2019 11:39:45 AM	B63672
Xylenes, Total	ND	2.0		µg/L	1	10/14/2019 11:39:45 AM	B63672
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	10/14/2019 11:39:45 AM	B63672

Lab ID: 1910659-006 **Collection Date:** 10/9/2019 1:38:00 PM
Client Sample ID: MW6 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	10/14/2019 12:03:11 PM	B63672
Toluene	ND	1.0		µg/L	1	10/14/2019 12:03:11 PM	B63672
Ethylbenzene	ND	1.0		µg/L	1	10/14/2019 12:03:11 PM	B63672
Xylenes, Total	ND	2.0		µg/L	1	10/14/2019 12:03:11 PM	B63672
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	10/14/2019 12:03:11 PM	B63672

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **1910659**
Date Reported: **10/16/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Project: Kaufman No 1
Lab Order: 1910659

Lab ID: 1910659-007 **Collection Date:** 10/9/2019 3:24:00 PM
Client Sample ID: Dup **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	10/14/2019 3:13:09 PM	B63672
Toluene	ND	1.0		µg/L	1	10/14/2019 3:13:09 PM	B63672
Ethylbenzene	ND	1.0		µg/L	1	10/14/2019 3:13:09 PM	B63672
Xylenes, Total	ND	2.0		µg/L	1	10/14/2019 3:13:09 PM	B63672
Surr: 4-Bromofluorobenzene	92.7	80-120		%Rec	1	10/14/2019 3:13:09 PM	B63672

Lab ID: 1910659-008 **Collection Date:**
Client Sample ID: Trip Blank **Matrix:** TRIP BLANK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	10/14/2019 3:36:36 PM	B63672
Benzene	ND	1.0		µg/L	1	10/14/2019 3:36:36 PM	B63672
Toluene	ND	1.0		µg/L	1	10/14/2019 3:36:36 PM	B63672
Ethylbenzene	ND	1.0		µg/L	1	10/14/2019 3:36:36 PM	B63672
Xylenes, Total	ND	2.0		µg/L	1	10/14/2019 3:36:36 PM	B63672
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/14/2019 3:36:36 PM	B63672
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/14/2019 3:36:36 PM	B63672
Surr: 4-Bromofluorobenzene	93.2	80-120		%Rec	1	10/14/2019 3:36:36 PM	B63672

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1910659**

16-Oct-19

Client: Timberwolf Environmental

Project: Kaufman No 1

Sample ID: **RB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBW** Batch ID: **B63672** RunNo: **63672**

Prep Date: Analysis Date: **10/14/2019** SeqNo: **2175702** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	19		20.00		95.4	80	120			

Sample ID: **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSW** Batch ID: **B63672** RunNo: **63672**

Prep Date: Analysis Date: **10/14/2019** SeqNo: **2175703** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	20	2.5	20.00	0	98.1	80	119			
Benzene	20	1.0	20.00	0	99.0	80	120			
Toluene	20	1.0	20.00	0	98.6	80	120			
Ethylbenzene	20	1.0	20.00	0	99.2	80	120			
Xylenes, Total	60	2.0	60.00	0	100	80	119			
1,2,4-Trimethylbenzene	20	1.0	20.00	0	98.7	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	97.8	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		98.4	80	120			

Sample ID: **1910659-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **MW1** Batch ID: **B63672** RunNo: **63672**

Prep Date: Analysis Date: **10/14/2019** SeqNo: **2175705** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	17	2.5	20.00	0	84.0	61.3	119			
Benzene	19	1.0	20.00	0.2640	95.5	80	120			
Toluene	19	1.0	20.00	0	95.4	75.5	120			
Ethylbenzene	19	1.0	20.00	0	96.2	80	120			
Xylenes, Total	58	2.0	60.00	0	97.3	77.3	119			
1,2,4-Trimethylbenzene	19	1.0	20.00	0	95.3	72.6	125			
1,3,5-Trimethylbenzene	19	1.0	20.00	0	93.7	68.3	127			
Surr: 4-Bromofluorobenzene	20		20.00		98.0	80	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 Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1910659**

16-Oct-19

Client: Timberwolf Environmental

Project: Kaufman No 1

Sample ID: **1910659-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **MW1** Batch ID: **B63672** RunNo: **63672**

Prep Date: Analysis Date: **10/14/2019** SeqNo: **2175706** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	87.6	61.3	119	4.21	20	
Benzene	20	1.0	20.00	0.2640	96.9	80	120	1.41	20	
Toluene	20	1.0	20.00	0	97.6	75.5	120	2.20	20	
Ethylbenzene	20	1.0	20.00	0	98.9	80	120	2.70	20	
Xylenes, Total	60	2.0	60.00	0	100	77.3	119	3.09	20	
1,2,4-Trimethylbenzene	20	1.0	20.00	0	99.9	72.6	125	4.77	20	
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.9	68.3	127	5.37	20	
Surr: 4-Bromofluorobenzene	21		20.00		105	80	120	0	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 Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **TIMBERWOLF ENVIRON** Work Order Number: **1910659** RcptNo: **1**

Received By: Juan Rojas **10/10/2019 7:55:00 AM**

Completed By: **Leah Baca** **10/11/2019 8:01:56 AM** Leah Baca

Reviewed By: LB 10/11/19

Chain of Custody

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 ☑	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 ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: DAD 10/11/19

Special Handling (if applicable)

15. 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: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.2	Good	Not Present			

Chain-of-Custody Record

Client: Timberwolf Environmental

Mailing Address: [redacted]

Phone #:

email or Fax#: jim@teamtimberwolf.com

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Kaufman No. 1

Project #: 180061

Project Manager: Jim Foster

Sampler: JF/MM

On Ice: ☑ Yes ☐ No

# of Coolers: 0 JP 10/10/19

Cooler Temp(including CF): 0.1+0.1=0.2

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1910659	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10-9-19	1522	W	MW 1	3 VOA	HCl	-001	✓									
10-9-19	1305	W	MW 2	3 VOA	HCl	-002	✓									
10-9-19	1205	W	MW 3	3 VOA	HCl	-003	✓									
10-9-19	1450	W	MW 4	3 VOA	HCl	-004	✓									
10-9-19	1405	W	MW 5	3 VOA	HCl	-005	✓									
10-9-19	1338	W	MW 6	3 VOA	HCl	-006	✓									
10-9-19	1524	W	Dup.	3 VOA	HCl	-007	✓									
			Trip Blank			-008	✓									

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
10-9-19	1705				10/9/19	1705
10/9/19	1751			carrier	10/10/19	7:55

Remarks:

If necessary, samples submitted to Hall 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.

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

November 27, 2019

Timberwolf Environmental, LLC

Sample Delivery Group:	L1163631
Samples Received:	11/21/2019
Project Number:	180061
Description:	HEC - 180061

Report To:

1920 W Villa Maria, Ste 205

Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker
Project Manager

TABLE OF CONTENTS

MW1 L1163631-01 GW

Collected by: Michael Morse | Collected date/time: 11/19/19 11:35 | Received date/time: 11/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1386442	1	11/24/19 16:58	11/25/19 05:48	TH	Mt. Juliet, TN

MW2 L1163631-02 GW

Collected by: Michael Morse | Collected date/time: 11/19/19 11:20 | Received date/time: 11/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1386442	1	11/24/19 16:58	11/25/19 06:02	TH	Mt. Juliet, TN

MW3 L1163631-03 GW

Collected by: Michael Morse | Collected date/time: 11/19/19 10:40 | Received date/time: 11/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1386442	1	11/24/19 16:58	11/25/19 06:16	TH	Mt. Juliet, TN

MW4 L1163631-04 GW

Collected by: Michael Morse | Collected date/time: 11/19/19 12:30 | Received date/time: 11/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1386442	1	11/24/19 16:58	11/25/19 06:29	TH	Mt. Juliet, TN

MW5 L1163631-05 GW

Collected by: Michael Morse | Collected date/time: 11/19/19 13:45 | Received date/time: 11/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1386442	1	11/24/19 16:58	11/25/19 06:43	TH	Mt. Juliet, TN

MW6 L1163631-06 GW

Collected by: Michael Morse | Collected date/time: 11/19/19 14:00 | Received date/time: 11/21/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1386442	1	11/24/19 16:58	11/25/19 06:57	TH	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker
Project Manager

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	11/25/2019 05:48	WG1386442
TPH C12 - C28	U		0.600	0.900	0.900	1	11/25/2019 05:48	WG1386442
TPH C28 - C35	U		0.600	0.900	0.900	1	11/25/2019 05:48	WG1386442
TPH C6 - C35	U		0.600	0.900	0.900	1	11/25/2019 05:48	WG1386442
(S) o-Terphenyl	*93.0*				*70.0-130*		*11/25/2019 05:48*	WG1386442

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	11/25/2019 06:02	WG1386442
TPH C12 - C28	U		0.600	0.900	0.900	1	11/25/2019 06:02	WG1386442
TPH C28 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:02	WG1386442
TPH C6 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:02	WG1386442
(S) o-Terphenyl	*94.5*				*70.0-130*		*11/25/2019 06:02*	WG1386442

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	11/25/2019 06:16	WG1386442
TPH C12 - C28	U		0.600	0.900	0.900	1	11/25/2019 06:16	WG1386442
TPH C28 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:16	WG1386442
TPH C6 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:16	WG1386442
(S) o-Terphenyl	*95.3*				*70.0-130*		*11/25/2019 06:16*	WG1386442

TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
TPH C6 - C12	U		0.600	0.900	0.900	1	11/25/2019 06:29	WG1386442
TPH C12 - C28	U		0.600	0.900	0.900	1	11/25/2019 06:29	WG1386442
TPH C28 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:29	WG1386442
TPH C6 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:29	WG1386442
(S) o-Terphenyl	*94.4*				*70.0-130*		*11/25/2019 06:29*	WG1386442

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	11/25/2019 06:43	WG1386442
TPH C12 - C28	U		0.600	0.900	0.900	1	11/25/2019 06:43	WG1386442
TPH C28 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:43	WG1386442
TPH C6 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:43	WG1386442
(S) o-Terphenyl	*95.3*				*70.0-130*		*11/25/2019 06:43*	WG1386442

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	11/25/2019 06:57	WG1386442
TPH C12 - C28	U		0.600	0.900	0.900	1	11/25/2019 06:57	WG1386442
TPH C28 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:57	WG1386442
TPH C6 - C35	U		0.600	0.900	0.900	1	11/25/2019 06:57	WG1386442
(S) o-Terphenyl	*86.6*				*70.0-130*		*11/25/2019 06:57*	WG1386442

Method Blank (MB)

(MB) R3476219-1 11/24/19 22:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH C6 - C12	U		0.600	0.900
TPH C12 - C28	U		0.600	0.900
TPH C28 - C35	U		0.600	0.900
TPH C6 - C35	U		0.600	0.900
(S) o-Terphenyl	*102*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3476219-2 11/24/19 22:15 • (LCSD) R3476219-3 11/24/19 22:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	41.7	45.1	44.0	108	106	75.0-125			2.47	20
TPH C12 - C28	41.7	44.5	41.7	107	100	75.0-125			6.50	20
TPH C6 - C35	83.4	89.6	85.7	107	103	75.0-125			4.45	20
(S) o-Terphenyl				*97.7*	*90.2*	*70.0-130*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

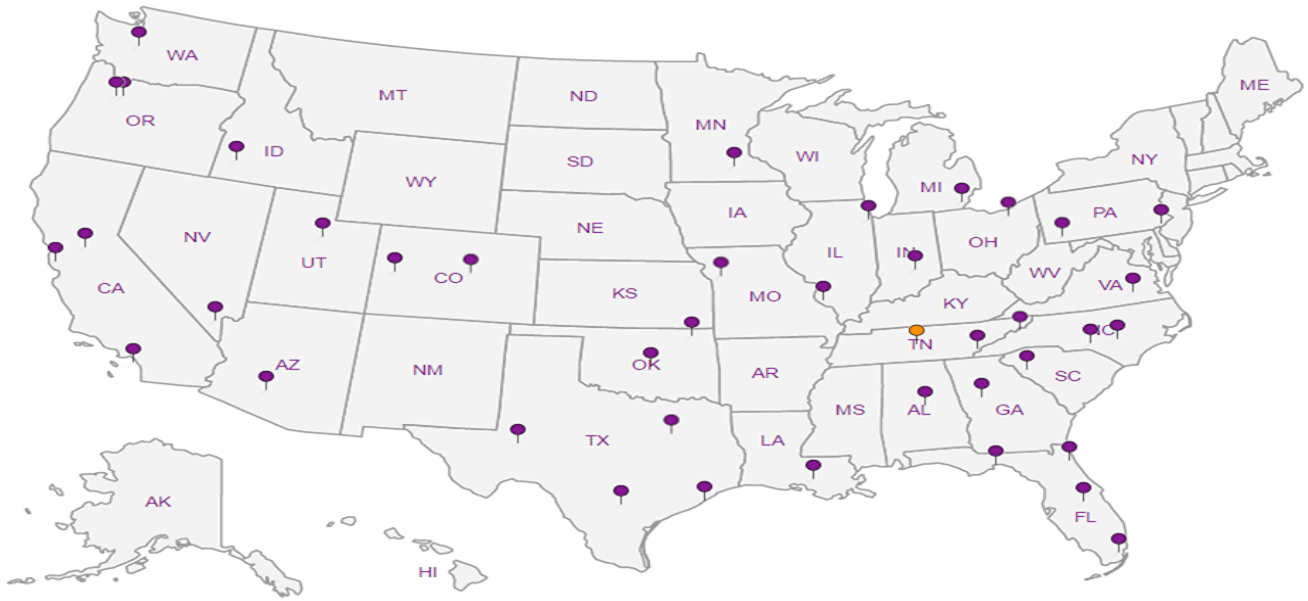
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
Timberwolf Environmental, LLC	180061	L1163631	11/27/19 09:31	13 of 14

Timberwolf Environmental, LLC

1920 W Villa Maria, Ste 205
Bryan, TX 77807

Billing Information:
Accounts Payable
1920 W Villa Maria, Ste 205
Bryan, TX 77807

Pres Chk

Report to: Jim Foster

Email To: Jim@teamtimberwolf.com

Project Description: HEC - 180061

City/State Collected: NM

Phone: 361-772-8706
Fax:

Client Project # 180061

Lab Project #

Collected by (print): Michael Morse

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ✓ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1163631
F184

Acctnum: TiMENVBTX
Template:
Prelogin:
TSR: 823 - Olivia Studebaker
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPH TCEQ Method 1005	Remarks	Sample # (lab only)
MW 1		GW		11-19-19	1135	4	✓		-01
MW 2		GW		11-19-19	1120	4	✓		02
MW 3		GW		11-19-19	1040	4	✓		03
MW 4		GW		11-19-19	1230	4	✓		04
MW 5		GW		11-19-19	1345	4	✓		05
MW 6		GW		11-19-19	1400	4	✓		06

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 7781 7830 2980

Sample Receipt Checklist
COC Seal Present/Intact: NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓ __N
Preservation Correct/Checked: __Y __N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No (HCL / MeoH TBR) 2	If preservation required by Login: Date/Time
	11-20-19	1130			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C 0.5+1, 1+1.0 Bottles Received: 24	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/21/19 Time: 830	Hold: Condition: NCF / OK

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 24, 2020

Jim Foster

Timberwolf Environmental
1920 W Villa Maria Ste 205
Bryan, TX 77807
TEL: (979) 324-2139
FAX

RE: Kaufman NO 1 OrderNo.: 2001688

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 8 sample(s) on 1/17/2020 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 www.hallenvironmental.com 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order: **2001688**
Date Reported: **1/24/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2001688
Project: Kaufman NO 1

Lab ID: 2001688-001 **Collection Date:** 1/16/2020 12:15:00 PM
Client Sample ID: MW1 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	1/23/2020 2:18:32 PM	B66017
Toluene	ND	1.0		µg/L	1	1/23/2020 2:18:32 PM	B66017
Ethylbenzene	ND	1.0		µg/L	1	1/23/2020 2:18:32 PM	B66017
Xylenes, Total	ND	2.0		µg/L	1	1/23/2020 2:18:32 PM	B66017
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	1/23/2020 2:18:32 PM	B66017

Lab ID: 2001688-002 **Collection Date:** 1/16/2020 9:19:00 AM
Client Sample ID: MW2 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	1/23/2020 3:05:19 PM	B66017
Toluene	ND	1.0		µg/L	1	1/23/2020 3:05:19 PM	B66017
Ethylbenzene	ND	1.0		µg/L	1	1/23/2020 3:05:19 PM	B66017
Xylenes, Total	ND	2.0		µg/L	1	1/23/2020 3:05:19 PM	B66017
Surr: 4-Bromofluorobenzene	99.8	80-120		%Rec	1	1/23/2020 3:05:19 PM	B66017

Lab ID: 2001688-003 **Collection Date:** 1/16/2020 9:52:00 AM
Client Sample ID: MW3 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	1/23/2020 3:28:36 PM	B66017
Toluene	ND	1.0		µg/L	1	1/23/2020 3:28:36 PM	B66017
Ethylbenzene	ND	1.0		µg/L	1	1/23/2020 3:28:36 PM	B66017
Xylenes, Total	ND	2.0		µg/L	1	1/23/2020 3:28:36 PM	B66017
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	1/23/2020 3:28:36 PM	B66017

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2001688**
Date Reported: **1/24/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2001688
Project: Kaufman NO 1

Lab ID: 2001688-004 **Collection Date:** 1/16/2020 10:21:00 AM
Client Sample ID: MW4 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	1/23/2020 3:52:02 PM	B66017
Toluene	ND	1.0		µg/L	1	1/23/2020 3:52:02 PM	B66017
Ethylbenzene	ND	1.0		µg/L	1	1/23/2020 3:52:02 PM	B66017
Xylenes, Total	ND	2.0		µg/L	1	1/23/2020 3:52:02 PM	B66017
Surr: 4-Bromofluorobenzene	99.8	80-120		%Rec	1	1/23/2020 3:52:02 PM	B66017

Lab ID: 2001688-005 **Collection Date:** 1/16/2020 11:37:00 AM
Client Sample ID: MW5 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	1.2	1.0		µg/L	1	1/23/2020 4:15:32 PM	B66017
Toluene	ND	1.0		µg/L	1	1/23/2020 4:15:32 PM	B66017
Ethylbenzene	ND	1.0		µg/L	1	1/23/2020 4:15:32 PM	B66017
Xylenes, Total	ND	2.0		µg/L	1	1/23/2020 4:15:32 PM	B66017
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/23/2020 4:15:32 PM	B66017

Lab ID: 2001688-006 **Collection Date:** 1/16/2020 10:58:00 AM
Client Sample ID: MW6 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	1/23/2020 4:39:01 PM	B66017
Toluene	ND	1.0		µg/L	1	1/23/2020 4:39:01 PM	B66017
Ethylbenzene	ND	1.0		µg/L	1	1/23/2020 4:39:01 PM	B66017
Xylenes, Total	ND	2.0		µg/L	1	1/23/2020 4:39:01 PM	B66017
Surr: 4-Bromofluorobenzene	99.6	80-120		%Rec	1	1/23/2020 4:39:01 PM	B66017

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2001688**
Date Reported: **1/24/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2001688
Project: Kaufman NO 1

Lab ID: 2001688-007 **Collection Date:** 1/16/2020 11:39:00 AM
Client Sample ID: DUP **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	1.6	1.0		µg/L	1	1/23/2020 5:02:32 PM	B66017
Toluene	ND	1.0		µg/L	1	1/23/2020 5:02:32 PM	B66017
Ethylbenzene	ND	1.0		µg/L	1	1/23/2020 5:02:32 PM	B66017
Xylenes, Total	ND	2.0		µg/L	1	1/23/2020 5:02:32 PM	B66017
Surr: 4-Bromofluorobenzene	99.6	80-120		%Rec	1	1/23/2020 5:02:32 PM	B66017

Lab ID: 2001688-008 **Collection Date:**
Client Sample ID: Trip Blank **Matrix:** TRIP BLANK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	1/23/2020 5:25:56 PM	B66017
Benzene	ND	1.0		µg/L	1	1/23/2020 5:25:56 PM	B66017
Toluene	ND	1.0		µg/L	1	1/23/2020 5:25:56 PM	B66017
Ethylbenzene	ND	1.0		µg/L	1	1/23/2020 5:25:56 PM	B66017
Xylenes, Total	ND	2.0		µg/L	1	1/23/2020 5:25:56 PM	B66017
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/23/2020 5:25:56 PM	B66017
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/23/2020 5:25:56 PM	B66017
Surr: 4-Bromofluorobenzene	96.5	80-120		%Rec	1	1/23/2020 5:25:56 PM	B66017

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2001688**
24-Jan-20

Client: Timberwolf Environmental
Project: Kaufman NO 1

Sample ID: **mb-1** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW** Batch ID: **B66017** RunNo: **66017**
Prep Date: Analysis Date: **1/23/2020** SeqNo: **2267714** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	23		20.00		116	80	120			

Sample ID: **100ng btex lcs** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW** Batch ID: **B66017** RunNo: **66017**
Prep Date: Analysis Date: **1/23/2020** SeqNo: **2267715** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	95.6	80	119			
Benzene	20	1.0	20.00	0	101	80	120			
Toluene	20	1.0	20.00	0	100	80	120			
Ethylbenzene	20	1.0	20.00	0	99.7	80	120			
Xylenes, Total	60	2.0	60.00	0	101	80	119			
1,2,4-Trimethylbenzene	20	1.0	20.00	0	99.1	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.0	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		104	80	120			

Sample ID: **100ng btex lcsd** SampType: **LCSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS02** Batch ID: **B66017** RunNo: **66017**
Prep Date: Analysis Date: **1/23/2020** SeqNo: **2267716** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	89.0	80	119	7.11	20	
Benzene	20	1.0	20.00	0	100	80	120	0.608	20	
Toluene	20	1.0	20.00	0	98.9	80	120	1.08	20	
Ethylbenzene	20	1.0	20.00	0	98.4	80	120	1.25	20	
Xylenes, Total	60	2.0	60.00	0	99.2	80	119	1.59	20	
1,2,4-Trimethylbenzene	19	1.0	20.00	0	95.7	80	120	3.51	20	
1,3,5-Trimethylbenzene	19	1.0	20.00	0	94.7	80	120	3.38	20	
Surr: 4-Bromofluorobenzene	19		20.00		94.3	80	120	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 Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **TIMBERWOLF ENVIRON** Work Order Number: **2001688** RcptNo: **1**

Received By: **Desiree Dominguez** **1/17/2020 9:30:00 AM** DD

Completed By: **Isaiah Ortiz** **1/17/2020 11:05:05 AM** I-OK

Reviewed By: ENM 1/17/20

Chain of Custody

1. Is Chain of Custody sufficiently 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 ☑	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 ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JR 1/17/20

Special Handling (if applicable)

15. 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: _____

16. Additional remarks: 1 VOA for samples 004A Broken. JR 1/17/20

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Not Present			

Chain-of-Custody Record

Client: Timberwolf Environmental

Mailing Address: 691 CR233, Suite B4
Durango, CO 81301

Phone #: 979-324-2139

email or Fax#: Jim@teamtimberwolf.com

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush_____

Project Name: Kaufman No. 1

Project #: HEC-180061

Project Manager:
Jim Foster
Jim@teamtimberwolf.com

Sampler: Michael Morse / Jim Foster

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.1-0.1=3.0 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2001688	(BTEX) ~~MTBE / TMB's (8021)~~	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1-16-20	1215	GW	MW1	VOA 2	HCl	-001	✓									
1-16-20	919		MW2	VOA 2	HCl	-002	✓									
1-16-20	952		MW3	VOA 2	HCl	-003	✓									
1-16-20	1021		MW4	VOA 2	HCl	-004	✓									
1-16-20	1137		MW5	VOA 2	HCl	-005	✓									
1-16-20	1058		MW6	VOA 2	HCl	-006	✓									
1-16-20	1139	↓	Dup.	VOA 2	HCl	-007	✓									
1-16-20			Trip Blank	VOA 2	HCl	-008	✓									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
1-16-20	13:30	Michael Morse	Mimi Walt		1/16/20	1330
1/16/20	1821	Mimi Walt		Courier	1/17/20	9:30

Remarks:

If necessary, samples submitted to Hall 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.

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 24, 2020

Timberwolf Environmental, LLC

Sample Delivery Group:	L1180702
Samples Received:	01/17/2020
Project Number:	HEC-180061
Description:	Kaufman No. 1

Report To: Jim Foster
1920 W Villa Maria, Ste 205
Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker
Project Manager

TABLE OF CONTENTS

MW 1 L1180702-01 GW

Collected by: MM/JF | Collected date/time: 01/16/20 12:15 | Received date/time: 01/17/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 19:02	FM	Mt. Juliet, TN

MW 2 L1180702-02 GW

Collected by: MM/JF | Collected date/time: 01/16/20 09:19 | Received date/time: 01/17/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 19:16	FM	Mt. Juliet, TN

MW 3 L1180702-03 GW

Collected by: MM/JF | Collected date/time: 01/16/20 09:52 | Received date/time: 01/17/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 19:30	FM	Mt. Juliet, TN

MW 4 L1180702-04 GW

Collected by: MM/JF | Collected date/time: 01/16/20 10:21 | Received date/time: 01/17/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 19:43	FM	Mt. Juliet, TN

MW 5 L1180702-05 GW

Collected by: MM/JF | Collected date/time: 01/16/20 11:37 | Received date/time: 01/17/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 19:57	FM	Mt. Juliet, TN

MW 6 L1180702-06 GW

Collected by: MM/JF | Collected date/time: 01/16/20 10:58 | Received date/time: 01/17/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 20:11	FM	Mt. Juliet, TN

TRIP BLANK L1180702-07 GW

Collected by: MM/JF | Collected date/time: 01/16/20 11:39 | Received date/time: 01/17/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1415146	1	01/22/20 12:20	01/22/20 20:25	FM	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker
Project Manager

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 19:02	WG1415146
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 19:02	WG1415146
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:02	WG1415146
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:02	WG1415146
(S) o-Terphenyl	*101*				*70.0-130*		*01/22/2020 19:02*	WG1415146

MW-2
Collected date/time: 01/16/20 09:19

SAMPLE RESULTS - 02

L1180702

ONE LAB. NATIONWIDE.

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 19:16	WG1415146
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 19:16	WG1415146
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:16	WG1415146
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:16	WG1415146
(S) o-Terphenyl	*105*				*70.0-130*		*01/22/2020 19:16*	WG1415146

MW-3
Collected date/time: 01/16/20 09:52

SAMPLE RESULTS - 03

L1180702

ONE LAB. NATIONWIDE.

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 19:30	WG1415146
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 19:30	WG1415146
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:30	WG1415146
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:30	WG1415146
(S) o-Terphenyl	*101*				*70.0-130*		*01/22/2020 19:30*	WG1415146

MW-1
Collected date/time: 01/16/20 10:21

SAMPLE RESULTS - 04

L1180702

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 19:43	WG1415146
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 19:43	WG1415146
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:43	WG1415146
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:43	WG1415146
(S) o-Terphenyl	*92.6*				*70.0-130*		*01/22/2020 19:43*	WG1415146

MW-3
Collected date/time: 01/16/20 11:37

SAMPLE RESULTS - 05

L1180702

ONE LAB. NATIONWIDE.

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 19:57	WG1415146
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 19:57	WG1415146
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:57	WG1415146
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 19:57	WG1415146
(S) o-Terphenyl	*92.1*				*70.0-130*		*01/22/2020 19:57*	WG1415146

MW-6
Collected date/time: 01/16/20 10:58

SAMPLE RESULTS - 06

L1180702

ONE LAB. NATIONWIDE.

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 20:11	WG1415146
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 20:11	WG1415146
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 20:11	WG1415146
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 20:11	WG1415146
(S) o-Terphenyl	*93.6*				*70.0-130*		*01/22/2020 20:11*	WG1415146

SAMPLE RESULTS - 07

TRIP BLANK
Collected date/time: 01/16/20 11:39

L1180702

ONE LAB. NATIONWIDE.

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	01/22/2020 20:25	WG1415146
TPH C12 - C28	U		0.600	0.900	0.900	1	01/22/2020 20:25	WG1415146
TPH C28 - C35	U		0.600	0.900	0.900	1	01/22/2020 20:25	WG1415146
TPH C6 - C35	U		0.600	0.900	0.900	1	01/22/2020 20:25	WG1415146
(S) o-Terphenyl	*90.9*				*70.0-130*		*01/22/2020 20:25*	WG1415146

Method Blank (MB)

(MB) R3493111-1 01/22/20 14:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH C6 - C12	U		0.600	0.900
TPH C12 - C28	U		0.600	0.900
TPH C28 - C35	U		0.600	0.900
TPH C6 - C35	U		0.600	0.900
(S) o-Terphenyl	*86.5*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3493111-2 01/22/20 15:02 • (LCSD) R3493111-3 01/22/20 15:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	41.7	36.5	36.5	87.5	87.5	75.0-125			0.000	20
TPH C12 - C28	41.7	42.4	42.2	102	101	75.0-125			0.473	20
TPH C6 - C35	83.4	78.9	78.7	94.6	94.4	75.0-125			0.254	20
(S) o-Terphenyl				*89.9*	*93.1*	*70.0-130*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

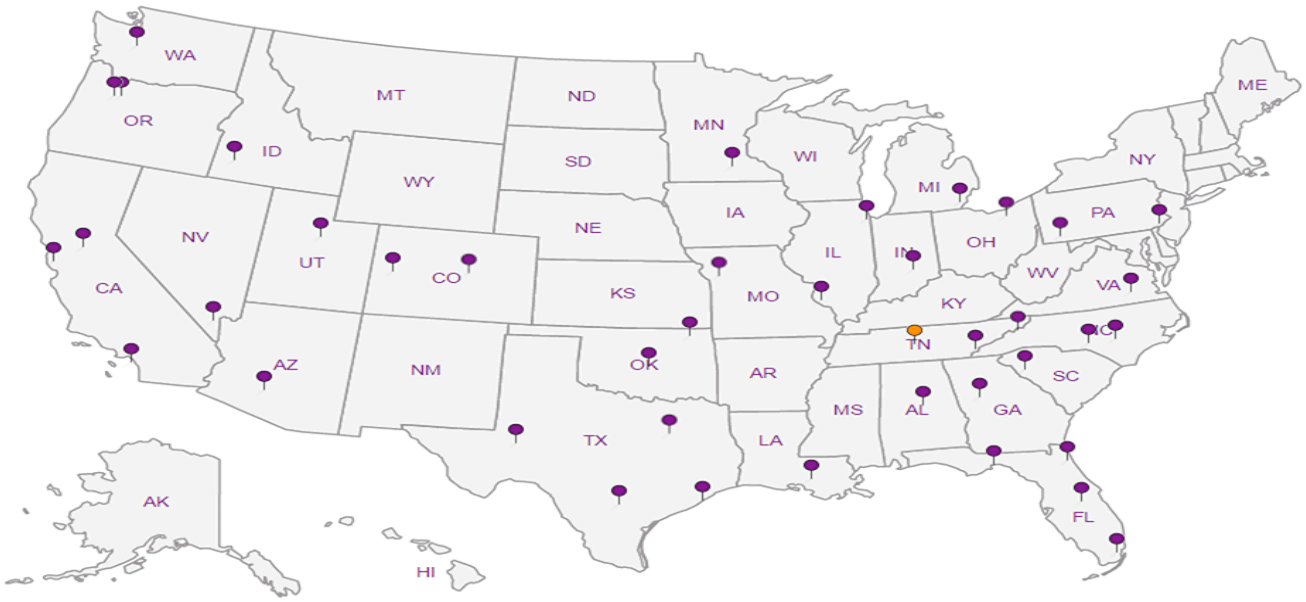
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
Timberwolf Environmental, LLC	HEC-180061	L1180702	01/24/20 15:36	14 of 15

Billing Information: Jim Foster
Timberwolf Environmental
1920 W. Villa Maria #205
Bryan, Tx. 77807

Report to: Jim Foster

Email To: Jim@teamtimberwolf.com

Project Description: Kaufman No. 1

City/State Collected: NM

Phone:
Fax:

Client Project #: HEC-1800 a(

Lab Project #: [redacted]

Collected by (print): Michael Morse / Jim Foster

Site/Facility ID #:

P.O. #:

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ✓ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #:

Date Results Needed

Analysis / Container / Preservative

TLEQ 1005

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs		Remarks	Sample # (lab only)
MW 1		GW	N/A	1-16-20	1215	2	✓		-01
MW 2		GW		1-16-20	919	2	✓		-02
MW 3		GW		1-16-20	952	2	✓		-03
MW 4		GW		1-16-20	1021	2	✓		-04
MW 5		GW		1-16-20	1137	2	✓		-05
MW 6		GW		1-16-20	1058	2	✓		-06
TRIP BLANK				1-16-20	1139	2	✓		-07

Chain of Custody Page 1 of 1

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # L1180702

A128

Acctnum: TIMENBTX

Template:

Prelogin:

TSR: 823 - Olivia Studebaker

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 1275 8607 4397

Sample Receipt Checklist
COC Seal Present/Intact: ✓ NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD SCREEN: <0.5 mR/hr

TD

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	1-16-20	1630		(2)	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
				1.6+2.0=2 12	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK
				1-17-20 0845	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 20, 2020

Jim Foster

Timberwolf Environmental
1920 W Villa Maria Ste 205
Bryan, TX 77807
TEL: (979) 324-2139
FAX:

RE: Kaufman No 1 OrderNo.: 2004514

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 7 sample(s) on 4/10/2020 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 www.hallenvironmental.com 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order: **2004514**
Date Reported: **4/20/2020**

CLIENT: Timberwolf Environmental **Lab Order:** 2004514
Project: Kaufman No 1

Lab ID: 2004514-001 **Collection Date:** 4/9/2020 2:19:00 PM
Client Sample ID: MW1 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/18/2020 12:48:00 AM	B68201
Toluene	ND	1.0		µg/L	1	4/18/2020 12:48:00 AM	B68201
Ethylbenzene	ND	1.0		µg/L	1	4/18/2020 12:48:00 AM	B68201
Xylenes, Total	ND	1.5		µg/L	1	4/18/2020 12:48:00 AM	B68201
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%Rec	1	4/18/2020 12:48:00 AM	B68201
Surr: Dibromofluoromethane	96.8	70-130		%Rec	1	4/18/2020 12:48:00 AM	B68201
Surr: Toluene-d8	105	70-130		%Rec	1	4/18/2020 12:48:00 AM	B68201

Lab ID: 2004514-002 **Collection Date:** 4/9/2020 10:53:00 AM
Client Sample ID: MW2 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/18/2020 1:13:00 AM	B68201
Toluene	ND	1.0		µg/L	1	4/18/2020 1:13:00 AM	B68201
Ethylbenzene	ND	1.0		µg/L	1	4/18/2020 1:13:00 AM	B68201
Xylenes, Total	ND	1.5		µg/L	1	4/18/2020 1:13:00 AM	B68201
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%Rec	1	4/18/2020 1:13:00 AM	B68201
Surr: Dibromofluoromethane	98.9	70-130		%Rec	1	4/18/2020 1:13:00 AM	B68201
Surr: Toluene-d8	105	70-130		%Rec	1	4/18/2020 1:13:00 AM	B68201

Lab ID: 2004514-003 **Collection Date:** 4/9/2020 11:32:00 AM
Client Sample ID: MW3 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/18/2020 1:36:00 AM	B68201
Toluene	ND	1.0		µg/L	1	4/18/2020 1:36:00 AM	B68201
Ethylbenzene	ND	1.0		µg/L	1	4/18/2020 1:36:00 AM	B68201
Xylenes, Total	ND	1.5		µg/L	1	4/18/2020 1:36:00 AM	B68201
Surr: 1,2-Dichloroethane-d4	99.9	70-130		%Rec	1	4/18/2020 1:36:00 AM	B68201
Surr: Dibromofluoromethane	98.3	70-130		%Rec	1	4/18/2020 1:36:00 AM	B68201
Surr: Toluene-d8	105	70-130		%Rec	1	4/18/2020 1:36:00 AM	B68201

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2004514**
Date Reported: **4/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2004514
Project: Kaufman No 1

Lab ID: 2004514-004 **Collection Date:** 4/9/2020 11:59:00 AM
Client Sample ID: MW4 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/18/2020 2:01:00 AM	B68201
Toluene	ND	1.0		µg/L	1	4/18/2020 2:01:00 AM	B68201
Ethylbenzene	ND	1.0		µg/L	1	4/18/2020 2:01:00 AM	B68201
Xylenes, Total	ND	1.5		µg/L	1	4/18/2020 2:01:00 AM	B68201
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	4/18/2020 2:01:00 AM	B68201
Surr: Dibromofluoromethane	99.2	70-130		%Rec	1	4/18/2020 2:01:00 AM	B68201
Surr: Toluene-d8	104	70-130		%Rec	1	4/18/2020 2:01:00 AM	B68201

Lab ID: 2004514-005 **Collection Date:** 4/9/2020 12:50:00 PM
Client Sample ID: MW5 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/18/2020 2:24:00 AM	B68201
Toluene	ND	1.0		µg/L	1	4/18/2020 2:24:00 AM	B68201
Ethylbenzene	ND	1.0		µg/L	1	4/18/2020 2:24:00 AM	B68201
Xylenes, Total	ND	1.5		µg/L	1	4/18/2020 2:24:00 AM	B68201
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%Rec	1	4/18/2020 2:24:00 AM	B68201
Surr: Dibromofluoromethane	98.8	70-130		%Rec	1	4/18/2020 2:24:00 AM	B68201
Surr: Toluene-d8	105	70-130		%Rec	1	4/18/2020 2:24:00 AM	B68201

Lab ID: 2004514-006 **Collection Date:** 4/9/2020 1:38:00 PM
Client Sample ID: MW6 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/18/2020 2:48:00 AM	B68201
Toluene	ND	1.0		µg/L	1	4/18/2020 2:48:00 AM	B68201
Ethylbenzene	ND	1.0		µg/L	1	4/18/2020 2:48:00 AM	B68201
Xylenes, Total	ND	1.5		µg/L	1	4/18/2020 2:48:00 AM	B68201
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%Rec	1	4/18/2020 2:48:00 AM	B68201
Surr: Dibromofluoromethane	95.6	70-130		%Rec	1	4/18/2020 2:48:00 AM	B68201
Surr: Toluene-d8	106	70-130		%Rec	1	4/18/2020 2:48:00 AM	B68201

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2004514**
Date Reported: **4/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Project: Kaufman No 1
Lab Order: 2004514

Lab ID: 2004514-007
Collection Date: 4/9/2020 12:51:00 PM
Client Sample ID: Dup
Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/18/2020 3:12:00 AM	B68201
Toluene	ND	1.0		µg/L	1	4/18/2020 3:12:00 AM	B68201
Ethylbenzene	ND	1.0		µg/L	1	4/18/2020 3:12:00 AM	B68201
Xylenes, Total	ND	1.5		µg/L	1	4/18/2020 3:12:00 AM	B68201
Surr: 1,2-Dichloroethane-d4	97.8	70-130		%Rec	1	4/18/2020 3:12:00 AM	B68201
Surr: Dibromofluoromethane	97.0	70-130		%Rec	1	4/18/2020 3:12:00 AM	B68201
Surr: Toluene-d8	107	70-130		%Rec	1	4/18/2020 3:12:00 AM	B68201

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004514**

20-Apr-20

Client: Timberwolf Environmental

Project: Kaufman No 1

Sample ID: **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **LCSW** Batch ID: **B68201** RunNo: **68201**

Prep Date: Analysis Date: **4/17/2020** SeqNo: **2358926** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.6	70	130			
Toluene	22	1.0	20.00	0	108	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.5	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.8	70	130			
Surr: Dibromofluoromethane	10		10.00		99.8	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Sample ID: **mb2** SampType: **MBLK** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **PBW** Batch ID: **B68201** RunNo: **68201**

Prep Date: Analysis Date: **4/17/2020** SeqNo: **2358942** 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	9.8		10.00		98.0	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.9	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID: **2004514-001ams** SampType: **MS** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **MW1** Batch ID: **B68201** RunNo: **68201**

Prep Date: Analysis Date: **4/18/2020** SeqNo: **2358960** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.3	70	130			
Toluene	20	1.0	20.00	0	98.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.9	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.5	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Sample ID: **2004514-001amsd** SampType: **MSD** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **MW1** Batch ID: **B68201** RunNo: **68201**

Prep Date: Analysis Date: **4/18/2020** SeqNo: **2358961** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	88.5	70	130	4.29	20	
Toluene	19	1.0	20.00	0	93.6	70	130	4.79	20	

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 Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004514**

20-Apr-20

Client: Timberwolf Environmental

Project: Kaufman No 1

Sample ID: **2004514-001amsd** SampType: **MSD** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **MW1** Batch ID: **B68201** RunNo: **68201**

Prep Date: Analysis Date: **4/18/2020** SeqNo: **2358961** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.7		10.00		96.9	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		99.8	70	130	0	0	
Surr: Toluene-d8	10		10.00		104	70	130	0	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 Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: TIMBERWOLF ENVIRON Work Order Number: 2004514 RcptNo: 1

Received By: Desiree Dominguez 4/10/2020 8:10:00 AM DD

Completed By: Leah Baca 4/10/2020 9:42:02 AM Leah Baca

Reviewed By: JO 4/10/20

Chain of Custody

1. Is Chain of Custody sufficiently 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 ☑ 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 ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☑ No ☐ NA ☐
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: DAD 4/10/20

Special Handling (if applicable)

15. 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:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good	Yes			

Chain-of-Custody Record

Client: Timberwolf

Mailing Address:

Phone #: 979-324-2139

email or Fax#:

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Kaufman No. 1

Project #: HEC-180061

Project Manager: Jim Foster

Sampler: Michael Morse

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.9 +0.1 = 2.0°c

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2004514	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4-9-20	1419	water	MW1	Voa 2	HCl	-001	✓									
4-9-20	1053	W	MW2	Voa 2	HCl	-002	✓									
4-9-20	1132	W	MW3	Voa 2	HCl	-003	✓									
4-9-20	1159	W	MW4	Voa 2	HCl	-004	✓									
4-9-20	1250	W	MW5	Voa 2	HCl	-005	✓									
4-9-20	1338	W	MW6	Voa 2	HCl	-006	✓									
4-9-20	1251	W	Dup	Voa 2	HCl	-007	✓									

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
4-9-20	1600		Christen Walker		4/9/2020	1600
4/9/2020	1746	Christen Walker		courier	4/10/20	8:10

Remarks:

If necessary, samples submitted to Hall 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.

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

April 17, 2020

Timberwolf Environmental, LLC

Sample Delivery Group:	L1208080
Samples Received:	04/11/2020
Project Number:	HEL-180061
Description:	Kaufman No. 1

Report To: Jim Foster
1920 W Villa Maria, Ste 205
Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

TABLE OF CONTENTS

MW1 L1208080-01 GW

Collected by: Michael Morse | Collected date/time: 04/09/20 14:19 | Received date/time: 04/11/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1460456	1	04/14/20 17:30	04/14/20 23:35	AEG	Mt. Juliet, TN

MW2 L1208080-02 GW

Collected by: Michael Morse | Collected date/time: 04/09/20 10:53 | Received date/time: 04/11/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1460456	1	04/14/20 17:30	04/14/20 23:51	AEG	Mt. Juliet, TN

MW3 L1208080-03 GW

Collected by: Michael Morse | Collected date/time: 04/09/20 11:32 | Received date/time: 04/11/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1460456	1	04/14/20 17:30	04/15/20 00:07	AEG	Mt. Juliet, TN

MW4 L1208080-04 GW

Collected by: Michael Morse | Collected date/time: 04/09/20 11:59 | Received date/time: 04/11/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1460456	1	04/14/20 17:30	04/15/20 00:23	AEG	Mt. Juliet, TN

MW5 L1208080-05 GW

Collected by: Michael Morse | Collected date/time: 04/09/20 12:50 | Received date/time: 04/11/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1460456	1	04/14/20 17:30	04/15/20 00:40	AEG	Mt. Juliet, TN

MW6 L1208080-06 GW

Collected by: Michael Morse | Collected date/time: 04/09/20 13:38 | Received date/time: 04/11/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1460456	1	04/14/20 17:30	04/15/20 00:56	AEG	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker
Project Manager

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	04/14/2020 23:35	WG1460456
TPH C12 - C28	U		0.600	0.900	0.900	1	04/14/2020 23:35	WG1460456
TPH C28 - C35	U		0.600	0.900	0.900	1	04/14/2020 23:35	WG1460456
TPH C6 - C35	U		0.600	0.900	0.900	1	04/14/2020 23:35	WG1460456
(S) o-Terphenyl	*107*				*70.0-130*		*04/14/2020 23:35*	WG1460456

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	04/14/2020 23:51	WG1460456
TPH C12 - C28	U		0.600	0.900	0.900	1	04/14/2020 23:51	WG1460456
TPH C28 - C35	U		0.600	0.900	0.900	1	04/14/2020 23:51	WG1460456
TPH C6 - C35	U		0.600	0.900	0.900	1	04/14/2020 23:51	WG1460456
(S) o-Terphenyl	*107*				*70.0-130*		*04/14/2020 23:51*	WG1460456

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	04/15/2020 00:07	WG1460456
TPH C12 - C28	U		0.600	0.900	0.900	1	04/15/2020 00:07	WG1460456
TPH C28 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:07	WG1460456
TPH C6 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:07	WG1460456
(S) o-Terphenyl	*104*				*70.0-130*		*04/15/2020 00:07*	WG1460456

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	04/15/2020 00:23	WG1460456
TPH C12 - C28	U		0.600	0.900	0.900	1	04/15/2020 00:23	WG1460456
TPH C28 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:23	WG1460456
TPH C6 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:23	WG1460456
(S) o-Terphenyl	*108*				*70.0-130*		*04/15/2020 00:23*	WG1460456

MW-3
Collected date/time: 04/09/20 12:50

SAMPLE RESULTS - 05

L1208080

ONE LAB. NATIONWIDE.

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	04/15/2020 00:40	WG1460456
TPH C12 - C28	U		0.600	0.900	0.900	1	04/15/2020 00:40	WG1460456
TPH C28 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:40	WG1460456
TPH C6 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:40	WG1460456
(S) o-Terphenyl	*106*				*70.0-130*		*04/15/2020 00:40*	WG1460456

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	04/15/2020 00:56	WG1460456
TPH C12 - C28	U		0.600	0.900	0.900	1	04/15/2020 00:56	WG1460456
TPH C28 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:56	WG1460456
TPH C6 - C35	U		0.600	0.900	0.900	1	04/15/2020 00:56	WG1460456
(S) o-Terphenyl	*108*				*70.0-130*		*04/15/2020 00:56*	WG1460456

Method Blank (MB)

(MB) R3518990-1 04/14/20 22:14

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH C6 - C12	U		0.600	0.900
TPH C12 - C28	U		0.600	0.900
TPH C28 - C35	U		0.600	0.900
TPH C6 - C35	U		0.600	0.900
(S) o-Terphenyl	*109*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3518990-2 04/14/20 22:30 • (LCSD) R3518990-3 04/14/20 22:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	41.7	38.1	37.7	91.4	90.4	75.0-125			1.06	20
TPH C12 - C28	41.7	40.6	40.6	97.4	97.4	75.0-125			0.000	20
TPH C6 - C35	83.4	78.7	78.3	94.4	93.9	75.0-125			0.510	20
(S) o-Terphenyl				*102*	*102*	*70.0-130*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

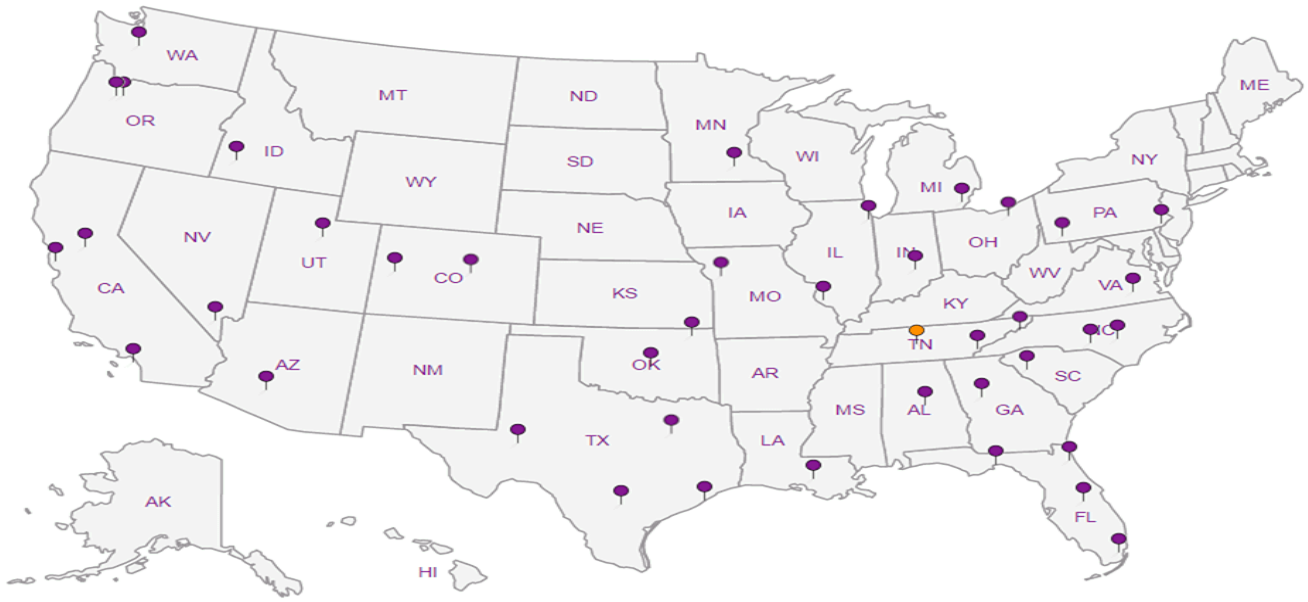
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
Timberwolf Environmental, LLC	HEL-180061	L1208080	04/17/20 16:33	13 of 14

Timberwolf Environmental

Billing Information:
Timberwolf Environmental
1920 W. Villa Maria Ste #205
Bryan, Tx.

Pres Chk

Report to: Jim Foster

Email To: jim@teamtimberwolf.com

Project Description: Kaufman No. 1

City/State Collected: NM

Phone: 979-324-2139
Fax:

Client Project # HEC-180061

Lab Project #

Collected by (print): Michael Morse

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TCEQ 1005									Remarks	Sample # (lab only)
MW 1		GW	N/A	4-9-20	1419	2	✓										-01
MW2		GW	|	4-9-20	1053	1	✓										02
MW 3		GW	|	4-9-20	1132	1	✓										03
MW4		GW	|	4-9-20	1159	1	✓										04
MW 5		GW	|	4-9-20	1250	2	✓										05
MW 6		GW	|	4-9-20	1338	2	✓										06

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # L1268080
E219

Ta

Acctnum: TIMEBTX

Template:

Prelogin:

TSR: 823 - Olivia Studebaker

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 127586073 4582

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	4-10-20	1140			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.2 °C Bottles Received: 9	
				1.2+.1=1.3	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/10 Time: 0830	Hold: Condition: NCF / OK

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 14, 2020

Jim Foster

Timberwolf Environmental
1920 W Villa Maria Ste 205
Bryan, TX 77807
TEL: (979) 324-2139
FAX:

RE: Kaufman No. 1 OrderNo.: 2007230

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 8 sample(s) on 7/7/2020 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 www.hallenvironmental.com 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order: **2007230**
Date Reported: **7/14/2020**

CLIENT: Timberwolf Environmental **Lab Order:** 2007230
Project: Kaufman No. 1

Lab ID: 2007230-001 **Collection Date:** 7/2/2020 11:50:00 AM
Client Sample ID: MW1 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/12/2020 3:09:00 PM	SL7026
Toluene	ND	1.0		µg/L	1	7/12/2020 3:09:00 PM	SL7026
Ethylbenzene	ND	1.0		µg/L	1	7/12/2020 3:09:00 PM	SL7026
Xylenes, Total	ND	1.5		µg/L	1	7/12/2020 3:09:00 PM	SL7026
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	7/12/2020 3:09:00 PM	SL7026
Surr: Dibromofluoromethane	100	70-130		%Rec	1	7/12/2020 3:09:00 PM	SL7026
Surr: Toluene-d8	101	70-130		%Rec	1	7/12/2020 3:09:00 PM	SL7026

Lab ID: 2007230-002 **Collection Date:** 7/2/2020 9:00:00 AM
Client Sample ID: MW2 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/12/2020 3:34:00 PM	SL7026
Toluene	ND	1.0		µg/L	1	7/12/2020 3:34:00 PM	SL7026
Ethylbenzene	ND	1.0		µg/L	1	7/12/2020 3:34:00 PM	SL7026
Xylenes, Total	ND	1.5		µg/L	1	7/12/2020 3:34:00 PM	SL7026
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	7/12/2020 3:34:00 PM	SL7026
Surr: Dibromofluoromethane	103	70-130		%Rec	1	7/12/2020 3:34:00 PM	SL7026
Surr: Toluene-d8	99.3	70-130		%Rec	1	7/12/2020 3:34:00 PM	SL7026

Lab ID: 2007230-003 **Collection Date:** 7/2/2020 9:50:00 AM
Client Sample ID: MW3 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/12/2020 3:59:00 PM	SL7026
Toluene	ND	1.0		µg/L	1	7/12/2020 3:59:00 PM	SL7026
Ethylbenzene	ND	1.0		µg/L	1	7/12/2020 3:59:00 PM	SL7026
Xylenes, Total	ND	1.5		µg/L	1	7/12/2020 3:59:00 PM	SL7026
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	7/12/2020 3:59:00 PM	SL7026
Surr: Dibromofluoromethane	101	70-130		%Rec	1	7/12/2020 3:59:00 PM	SL7026
Surr: Toluene-d8	99.7	70-130		%Rec	1	7/12/2020 3:59:00 PM	SL7026

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2007230**
Date Reported: **7/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2007230
Project: Kaufman No. 1

Lab ID: 2007230-004 **Collection Date:** 7/2/2020 11:05:00 AM
Client Sample ID: MW4 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/12/2020 4:23:00 PM	SL7026
Toluene	ND	1.0		µg/L	1	7/12/2020 4:23:00 PM	SL7026
Ethylbenzene	ND	1.0		µg/L	1	7/12/2020 4:23:00 PM	SL7026
Xylenes, Total	ND	1.5		µg/L	1	7/12/2020 4:23:00 PM	SL7026
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	7/12/2020 4:23:00 PM	SL7026
Surr: Dibromofluoromethane	102	70-130		%Rec	1	7/12/2020 4:23:00 PM	SL7026
Surr: Toluene-d8	98.7	70-130		%Rec	1	7/12/2020 4:23:00 PM	SL7026

Lab ID: 2007230-005 **Collection Date:** 7/2/2020 1:44:00 PM
Client Sample ID: MW5 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/12/2020 4:48:00 PM	SL7026
Toluene	ND	1.0		µg/L	1	7/12/2020 4:48:00 PM	SL7026
Ethylbenzene	ND	1.0		µg/L	1	7/12/2020 4:48:00 PM	SL7026
Xylenes, Total	ND	1.5		µg/L	1	7/12/2020 4:48:00 PM	SL7026
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	7/12/2020 4:48:00 PM	SL7026
Surr: Dibromofluoromethane	101	70-130		%Rec	1	7/12/2020 4:48:00 PM	SL7026
Surr: Toluene-d8	99.8	70-130		%Rec	1	7/12/2020 4:48:00 PM	SL7026

Lab ID: 2007230-006 **Collection Date:** 7/2/2020 12:53:00 PM
Client Sample ID: MW6 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/12/2020 5:13:00 PM	SL7026
Toluene	ND	1.0		µg/L	1	7/12/2020 5:13:00 PM	SL7026
Ethylbenzene	ND	1.0		µg/L	1	7/12/2020 5:13:00 PM	SL7026
Xylenes, Total	ND	1.5		µg/L	1	7/12/2020 5:13:00 PM	SL7026
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	7/12/2020 5:13:00 PM	SL7026
Surr: Dibromofluoromethane	101	70-130		%Rec	1	7/12/2020 5:13:00 PM	SL7026
Surr: Toluene-d8	100	70-130		%Rec	1	7/12/2020 5:13:00 PM	SL7026

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2007230**
Date Reported: **7/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2007230
Project: Kaufman No. 1

Lab ID: 2007230-007 **Collection Date:** 7/2/2020 1:44:00 PM
Client Sample ID: DUP **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/12/2020 5:37:00 PM	SL7026
Toluene	ND	1.0		µg/L	1	7/12/2020 5:37:00 PM	SL7026
Ethylbenzene	ND	1.0		µg/L	1	7/12/2020 5:37:00 PM	SL7026
Xylenes, Total	ND	1.5		µg/L	1	7/12/2020 5:37:00 PM	SL7026
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	7/12/2020 5:37:00 PM	SL7026
Surr: Dibromofluoromethane	102	70-130		%Rec	1	7/12/2020 5:37:00 PM	SL7026
Surr: Toluene-d8	99.0	70-130		%Rec	1	7/12/2020 5:37:00 PM	SL7026

Lab ID: 2007230-008 **Collection Date:**
Client Sample ID: Trip Blank **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/12/2020 6:02:00 PM	SL7026
Toluene	ND	1.0		µg/L	1	7/12/2020 6:02:00 PM	SL7026
Ethylbenzene	ND	1.0		µg/L	1	7/12/2020 6:02:00 PM	SL7026
Xylenes, Total	ND	1.5		µg/L	1	7/12/2020 6:02:00 PM	SL7026
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	7/12/2020 6:02:00 PM	SL7026
Surr: Dibromofluoromethane	100	70-130		%Rec	1	7/12/2020 6:02:00 PM	SL7026
Surr: Toluene-d8	99.1	70-130		%Rec	1	7/12/2020 6:02:00 PM	SL7026

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2007230**

14-Jul-20

Client: Timberwolf Environmental

Project: Kaufman No. 1

Sample ID: **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **LCSW** Batch ID: **SL70266** RunNo: **70266**

Prep Date: Analysis Date: **7/12/2020** SeqNo: **2442593** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.6	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.3	70	130			
Surr: Toluene-d8	10		10.00		99.8	70	130			

Sample ID: **mb** SampType: **MBLK** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **PBW** Batch ID: **SL70266** RunNo: **70266**

Prep Date: Analysis Date: **7/12/2020** SeqNo: **2442594** 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		100	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.9	70	130			
Surr: Dibromofluoromethane	10		10.00		99.8	70	130			
Surr: Toluene-d8	9.9		10.00		99.1	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 Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Timberwolf Environmental** Work Order Number: **2007230** RcptNo: 1

Received By: **Scott Anderson** **7/7/2020 8:25:00 AM**

Completed By: **Emily Mocho** **7/7/2020 8:48:20 AM**

Reviewed By: JR 7/7/20

Chain of Custody

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 ☑	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 ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: (<2 or >12 unless noted)

Adjusted?

Checked by: SPA 7.7.20

Special Handling (if applicable)

15. 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:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.6	Good	Not Present			

Chain-of-Custody Record

Client: Timberwolf Environmental

Mailing Address: 1920 W. Villa Maria Ste. # 205 Bryan, Tx 77807

Phone #: 979-324-2139

email or Fax#: Jim@teamtimberwolf.com

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Kaufman No. 1

Project #: HEC-180061

Project Manager: Jim Foster

Sampler: Michael Morse

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.6-0=5.6 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2007230	BTEX / ~~MTBE / TMB's (8021)~~	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7-2-20	1150	GW	MW 1	VOA 3	HCl	-001	✓									
7-2-20	900		MW 2	VOA 3	HCl	-002	✓									
7-2-20	950		MW 3	VOA 3	HCl	-003	✓									
7-2-20	1105		MW 4	VOA 3	HCl	-004	✓									
7-2-20	1344		MW 5	VOA 3	HCl	-005	✓									
7-2-20	1253		MW 6	VOA 3	HCl	-006	✓									
7-2-20	1344		Dup	VOA 3	HCl	-007	✓									
7-2-20			Trip Blank	VOA 2	HCl	-008	✓									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7-2-20	1500		Christin Wade		7/2/2020	1500
7/4/2020	1806	Christin Wade	SPA Courier		7.7.20	8:25

Remarks:

If necessary, samples submitted to Hall 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.

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 13, 2020

Timberwolf Environmental, LLC

Sample Delivery Group:	L1236413
Samples Received:	07/03/2020
Project Number:	HEL-180061
Description:	Kaufman No. 1

Report To: Jim Foster
1920 W Villa Maria, Ste 205
Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

TABLE OF CONTENTS

MW 1 L1236413-01 GW

Collected by: Michael Morse | Collected date/time: 07/02/20 00:00 | Received date/time: 07/03/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1505807	1	07/09/20 06:00	07/09/20 16:56	FM	Mt. Juliet, TN

MW 2 L1236413-02 GW

Collected by: Michael Morse | Collected date/time: 07/02/20 00:00 | Received date/time: 07/03/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1505807	1	07/09/20 06:00	07/09/20 16:56	FM	Mt. Juliet, TN

MW 3 L1236413-03 GW

Collected by: Michael Morse | Collected date/time: 07/02/20 00:00 | Received date/time: 07/03/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1505807	1	07/09/20 06:00	07/09/20 17:13	FM	Mt. Juliet, TN

MW 4 L1236413-04 GW

Collected by: Michael Morse | Collected date/time: 07/02/20 00:00 | Received date/time: 07/03/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1505807	1	07/09/20 06:00	07/09/20 17:13	FM	Mt. Juliet, TN

MW 5 L1236413-05 GW

Collected by: Michael Morse | Collected date/time: 07/02/20 00:00 | Received date/time: 07/03/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1505807	1	07/09/20 06:00	07/09/20 17:29	FM	Mt. Juliet, TN

MW 6 L1236413-06 GW

Collected by: Michael Morse | Collected date/time: 07/02/20 00:00 | Received date/time: 07/03/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1505807	1.05	07/09/20 06:00	07/09/20 17:29	FM	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker
Project Manager

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807
TPH C12 - C28	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807
TPH C28 - C35	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807
TPH C6 - C35	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807
(S) o-Terphenyl	*118*				*70.0-130*		*07/09/2020 16:56*	WG1505807

MW-2

SAMPLE RESULTS - 02

Collected date/time: 07/02/20 00:00

L1236413

ONE LAB. NATIONWIDE.

TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
TPH C6 - C12	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807
TPH C12 - C28	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807
TPH C28 - C35	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807
TPH C6 - C35	U		0.600	0.900	0.900	1	07/09/2020 16:56	WG1505807
(S) o-Terphenyl	*108*				*70.0-130*		*07/09/2020 16:56*	WG1505807

MW-3
Collected date/time: 07/02/20 00:00

SAMPLE RESULTS - 03

L1236413

ONE LAB. NATIONWIDE.

TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
TPH C6 - C12	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807
TPH C12 - C28	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807
TPH C28 - C35	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807
TPH C6 - C35	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807
(S) o-Terphenyl	*115*				*70.0-130*		*07/09/2020 17:13*	WG1505807

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807
TPH C12 - C28	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807
TPH C28 - C35	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807
TPH C6 - C35	U		0.600	0.900	0.900	1	07/09/2020 17:13	WG1505807
(S) o-Terphenyl	*106*				*70.0-130*		*07/09/2020 17:13*	WG1505807

MW-3
Collected date/time: 07/02/20 00:00

SAMPLE RESULTS - 05

L1236413

ONE LAB. NATIONWIDE.

TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
TPH C6 - C12	U		0.600	0.900	0.900	1	07/09/2020 17:29	WG1505807
TPH C12 - C28	U		0.600	0.900	0.900	1	07/09/2020 17:29	WG1505807
TPH C28 - C35	U		0.600	0.900	0.900	1	07/09/2020 17:29	WG1505807
TPH C6 - C35	U		0.600	0.900	0.900	1	07/09/2020 17:29	WG1505807
(S) o-Terphenyl	*120*				*70.0-130*		*07/09/2020 17:29*	WG1505807

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.630	0.900	0.945	1.05	07/09/2020 17:29	WG1505807
TPH C12 - C28	U		0.630	0.900	0.945	1.05	07/09/2020 17:29	WG1505807
TPH C28 - C35	U		0.630	0.900	0.945	1.05	07/09/2020 17:29	WG1505807
TPH C6 - C35	U		0.630	0.900	0.945	1.05	07/09/2020 17:29	WG1505807
(S) o-Terphenyl	*105*				*70.0-130*		*07/09/2020 17:29*	WG1505807

Method Blank (MB)

(MB) R3548367-1 07/09/20 16:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH C6 - C12	U		0.600	0.900
TPH C12 - C28	U		0.600	0.900
TPH C28 - C35	U		0.600	0.900
TPH C6 - C35	U		0.600	0.900
(S) o-Terphenyl	*116*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3548367-2 07/09/20 16:22 • (LCSD) R3548367-3 07/09/20 16:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	41.7	37.0	37.3	88.7	89.4	75.0-125			0.808	20
TPH C12 - C28	41.7	40.4	40.3	96.9	96.6	75.0-125			0.248	20
TPH C6 - C35	83.4	77.4	77.6	92.8	93.0	75.0-125			0.258	20
(S) o-Terphenyl				*112*	*114*	*70.0-130*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

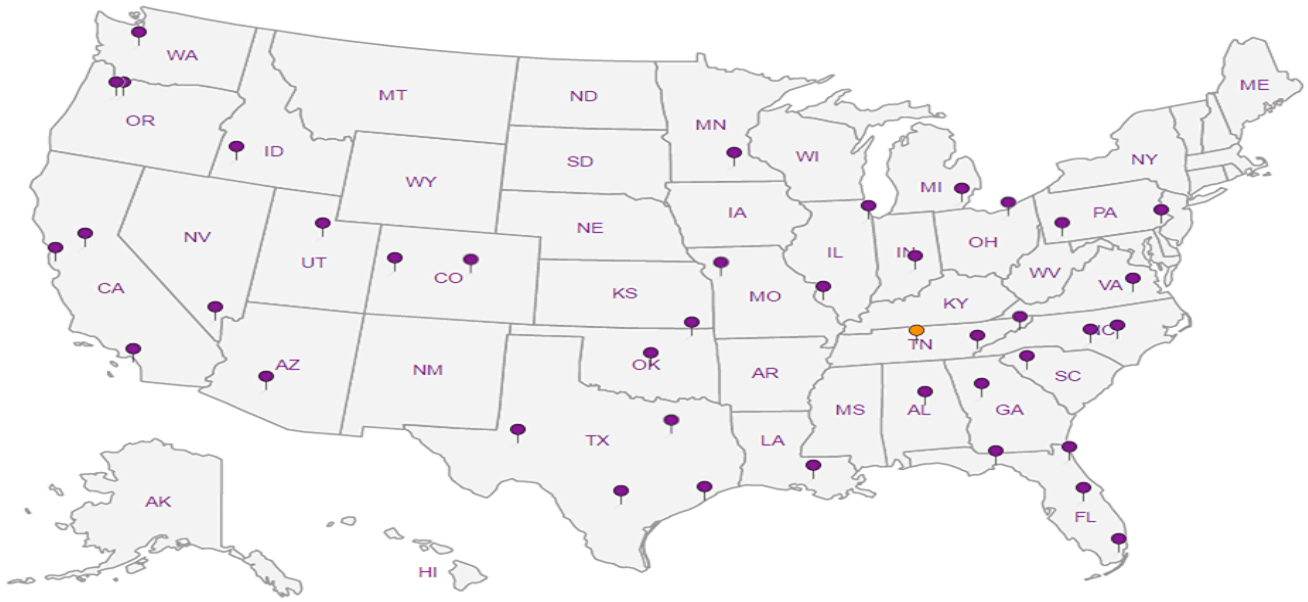
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
Timberwolf Environmental, LLC	HEL-180061	L1236413	07/13/20 16:55	13 of 14

Billing Information:
Jim Foster
Timberwolf Environmental
1920 W. Villa Maria #205
Bryan, Tx. 77807

Pres Chk

Report to: Jim Foster

Email To: Jim@teamtimberwolf.com

Project Description: Kaufman No. 1

City/State Collected: NM

Phone:
Fax:

Client Project #: HEC-180061

Lab Project #

Collected by (print): Michael Morse

Site/Facility ID #

P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative: TCEQ 1005	Remarks	Sample # (lab only)
MW 1	1150	GW	N/A	7-2-20		2	✓		-01
MW 2	900			7-2-20		2	✓		02
MW 3	950			7-2-20		2	✓		03
MW 4	1105			7-2-20		2	✓		04
MW 5	1344			7-2-20		2	✓		05
MW 6	1253			7-2-20		2	✓		06

Chain of Custody Page 1 of 1

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # L1236413

E179

Table #

Acctnum: TIMENBTX

Template:

Prelogin:

TSR: 823 - Olivia

PB: Studebaker

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 1750 0002 5689

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes (No) HCL / MeoH TBR	If preservation required by Login: Date/Time
	7-2-20	1630			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: .7-.1=.6 °C Bottles Received: 12	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7-3-20 Time: 0845	Hold: Condition: NCF / (OK)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 16, 2020

Jim Foster

Timberwolf Environmental
1920 W Villa Maria Ste 205
Bryan, TX 77807
TEL: (979) 324-2139
FAX:

RE: Kaufman OrderNo.: 2011429

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/6/2020 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 www.hallenvironmental.com 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2011429**
Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: MW1
Project: Kaufman
Collection Date: 11/5/2020 2:40:00 PM
Lab ID: 2011429-001 **Matrix:** GROUNDWA **Received Date:** 11/6/2020 7:58:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	11/15/2020 3:26:00 AM	SL73360
Toluene	ND	1.0		µg/L	1	11/15/2020 3:26:00 AM	SL73360
Ethylbenzene	ND	1.0		µg/L	1	11/15/2020 3:26:00 AM	SL73360
Xylenes, Total	ND	1.5		µg/L	1	11/15/2020 3:26:00 AM	SL73360
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	11/15/2020 3:26:00 AM	SL73360
Surr: Dibromofluoromethane	102	70-130		%Rec	1	11/15/2020 3:26:00 AM	SL73360
Surr: Toluene-d8	97.3	70-130		%Rec	1	11/15/2020 3:26:00 AM	SL73360

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011429**
Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: MW2
Project: Kaufman
Collection Date: 11/5/2020 10:48:00 AM
Lab ID: 2011429-002 **Matrix:** GROUNDWA **Received Date:** 11/6/2020 7:58:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	11/15/2020 3:50:00 AM	SL73360
Toluene	ND	1.0		µg/L	1	11/15/2020 3:50:00 AM	SL73360
Ethylbenzene	ND	1.0		µg/L	1	11/15/2020 3:50:00 AM	SL73360
Xylenes, Total	ND	1.5		µg/L	1	11/15/2020 3:50:00 AM	SL73360
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	11/15/2020 3:50:00 AM	SL73360
Surr: Dibromofluoromethane	100	70-130		%Rec	1	11/15/2020 3:50:00 AM	SL73360
Surr: Toluene-d8	96.8	70-130		%Rec	1	11/15/2020 3:50:00 AM	SL73360

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011429**
Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: MW3
Project: Kaufman
Collection Date: 11/5/2020 11:40:00 AM
Lab ID: 2011429-003 **Matrix:** GROUNDWA **Received Date:** 11/6/2020 7:58:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	11/15/2020 4:13:00 AM	SL73360
Toluene	ND	1.0		µg/L	1	11/15/2020 4:13:00 AM	SL73360
Ethylbenzene	ND	1.0		µg/L	1	11/15/2020 4:13:00 AM	SL73360
Xylenes, Total	ND	1.5		µg/L	1	11/15/2020 4:13:00 AM	SL73360
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	11/15/2020 4:13:00 AM	SL73360
Surr: Dibromofluoromethane	100	70-130		%Rec	1	11/15/2020 4:13:00 AM	SL73360
Surr: Toluene-d8	97.8	70-130		%Rec	1	11/15/2020 4:13:00 AM	SL73360

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011429**
Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: MW4
Project: Kaufman
Collection Date: 11/5/2020 12:15:00 PM
Lab ID: 2011429-004 **Matrix:** GROUNDWA **Received Date:** 11/6/2020 7:58:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	11/15/2020 4:36:00 AM	SL73360
Toluene	ND	1.0		µg/L	1	11/15/2020 4:36:00 AM	SL73360
Ethylbenzene	ND	1.0		µg/L	1	11/15/2020 4:36:00 AM	SL73360
Xylenes, Total	ND	1.5		µg/L	1	11/15/2020 4:36:00 AM	SL73360
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	11/15/2020 4:36:00 AM	SL73360
Surr: Dibromofluoromethane	101	70-130		%Rec	1	11/15/2020 4:36:00 AM	SL73360
Surr: Toluene-d8	97.6	70-130		%Rec	1	11/15/2020 4:36:00 AM	SL73360

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011429**
Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: MW5
Project: Kaufman
Collection Date: 11/5/2020 1:36:00 PM
Lab ID: 2011429-005 **Matrix:** GROUNDWA **Received Date:** 11/6/2020 7:58:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	11/15/2020 4:59:00 AM	SL73360
Toluene	ND	1.0		µg/L	1	11/15/2020 4:59:00 AM	SL73360
Ethylbenzene	ND	1.0		µg/L	1	11/15/2020 4:59:00 AM	SL73360
Xylenes, Total	ND	1.5		µg/L	1	11/15/2020 4:59:00 AM	SL73360
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	11/15/2020 4:59:00 AM	SL73360
Surr: Dibromofluoromethane	97.4	70-130		%Rec	1	11/15/2020 4:59:00 AM	SL73360
Surr: Toluene-d8	96.9	70-130		%Rec	1	11/15/2020 4:59:00 AM	SL73360

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011429**
Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Client Sample ID: MW6
Project: Kaufman
Collection Date: 11/5/2020 12:48:00 PM
Lab ID: 2011429-006 **Matrix:** GROUNDWA **Received Date:** 11/6/2020 7:58:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	11/15/2020 5:23:00 AM	SL73360
Toluene	ND	1.0		µg/L	1	11/15/2020 5:23:00 AM	SL73360
Ethylbenzene	ND	1.0		µg/L	1	11/15/2020 5:23:00 AM	SL73360
Xylenes, Total	ND	1.5		µg/L	1	11/15/2020 5:23:00 AM	SL73360
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	11/15/2020 5:23:00 AM	SL73360
Surr: Dibromofluoromethane	100	70-130		%Rec	1	11/15/2020 5:23:00 AM	SL73360
Surr: Toluene-d8	94.8	70-130		%Rec	1	11/15/2020 5:23:00 AM	SL73360

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011429**
Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Client Sample ID:** DUP
Project: Kaufman **Collection Date:** 11/5/2020
Lab ID: 2011429-007 **Matrix:** GROUNDWA **Received Date:** 11/6/2020 7:58:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	11/15/2020 5:46:00 AM	SL73360
Toluene	ND	1.0		µg/L	1	11/15/2020 5:46:00 AM	SL73360
Ethylbenzene	ND	1.0		µg/L	1	11/15/2020 5:46:00 AM	SL73360
Xylenes, Total	ND	1.5		µg/L	1	11/15/2020 5:46:00 AM	SL73360
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	11/15/2020 5:46:00 AM	SL73360
Surr: Dibromofluoromethane	99.6	70-130		%Rec	1	11/15/2020 5:46:00 AM	SL73360
Surr: Toluene-d8	97.1	70-130		%Rec	1	11/15/2020 5:46:00 AM	SL73360

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011429**
Date Reported: **11/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Client Sample ID:** Trip Blank
Project: Kaufman **Collection Date:**
Lab ID: 2011429-008 **Matrix:** GROUNDWA **Received Date:** 11/6/2020 7:58:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	11/15/2020 7:42:00 AM	S73360
Toluene	ND	1.0		µg/L	1	11/15/2020 7:42:00 AM	S73360
Ethylbenzene	ND	1.0		µg/L	1	11/15/2020 7:42:00 AM	S73360
Xylenes, Total	ND	1.5		µg/L	1	11/15/2020 7:42:00 AM	S73360
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%Rec	1	11/15/2020 7:42:00 AM	S73360
Surr: Dibromofluoromethane	99.3	70-130		%Rec	1	11/15/2020 7:42:00 AM	S73360
Surr: Toluene-d8	97.2	70-130		%Rec	1	11/15/2020 7:42:00 AM	S73360

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011429**
16-Nov-20

Client: Timberwolf Environmental
Project: Kaufman

Sample ID: **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW** Batch ID: **SL73360** RunNo: **73360**
Prep Date: Analysis Date: **11/14/2020** SeqNo: **2582625** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	97.8	70	130			
Toluene	19	1.0	20.00	0	96.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		99.5	70	130			
Surr: Toluene-d8	9.6		10.00		96.3	70	130			

Sample ID: **mb** SampType: **MBLK** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW** Batch ID: **SL73360** RunNo: **73360**
Prep Date: Analysis Date: **11/14/2020** SeqNo: **2582626** 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		105	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	9.7		10.00		97.4	70	130			

Sample ID: **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW** Batch ID: **S73360** RunNo: **73360**
Prep Date: Analysis Date: **11/15/2020** SeqNo: **2582673** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.5	70	130			
Toluene	19	1.0	20.00	0	97.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID: **mb2** SampType: **MBLK** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW** Batch ID: **S73360** RunNo: **73360**
Prep Date: Analysis Date: **11/15/2020** SeqNo: **2582674** 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								

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 Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011429**
16-Nov-20

Client: Timberwolf Environmental
Project: Kaufman

Sample ID: **mb2** SampType: **MBLK** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW** Batch ID: **S73360** RunNo: **73360**
Prep Date: Analysis Date: **11/15/2020** SeqNo: **2582674** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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		103	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.2	70	130			
Surr: Toluene-d8	9.7		10.00		97.1	70	130			

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Timberwolf Environmental** Work Order Number: **2011429** RcptNo: **1**

Received By: **Cheyenne Cason** **11/6/2020 7:58:00 AM**

Completed By: **Emily Mocho** **11/6/2020 12:02:22 PM**

Reviewed By: EM 11/6/20

Chain of Custody

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 ☑	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 ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: JR 11/6/20

Special Handling (if applicable)

15. 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: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.9	Good	Yes			

Chain-of-Custody Record

Client: Timberwolf Environmental

Mailing Address:

Phone #: 979-324-2139

email or Fax#:

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Kaufman (per Jim Foster em 11/6/20)

Project #: 180061

Project Manager: Jim Foster em 11/6/20

Sampler:

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 4.9 +0 = 4.9

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2011429	BTEX / ~~MTBE~~ / ~~TMB's~~ (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
11/5/20	1440	GW	MW1		1tcl	001	✓									
	1048	GW	MW2			002	✓									
	1140	GW	MW3			003	✓									
	1215	GW	MW4			004	✓									
	1336	GW	MW5			005	✓									
	1248	GW	MW6			006	✓									
		GW	Dup			007	✓									
		W	Trip Blank			008	✓									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
11/5/20	1735		Christa Waldo		11/5/2020	1735
11/5/2020	1843	Christa Waldo	Courier		11/6/20	0758

Remarks: Trip Blank not prepared by Hall Environmental. JR 11/6/20.

If necessary, samples submitted to Hall 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.

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

November 16, 2020

Timberwolf Environmental, LLC

Sample Delivery Group:	L1282855
Samples Received:	11/06/2020
Project Number:	180061
Description:	Kaufman No. 1

Report To: Jim Foster
1920 W Villa Maria, Ste 205
Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

TABLE OF CONTENTS

MW1 L1282855-01 GW

Collected by: J. Foster | Collected date/time: 11/05/20 14:40 | Received date/time: 11/06/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1575440	1.01	11/12/20 12:30	11/14/20 14:54	CAG	Mt. Juliet, TN

MW2 L1282855-02 GW

Collected by: J. Foster | Collected date/time: 11/05/20 10:48 | Received date/time: 11/06/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1575440	1	11/12/20 12:30	11/14/20 15:09	CAG	Mt. Juliet, TN

MW3 L1282855-03 GW

Collected by: J. Foster | Collected date/time: 11/05/20 11:40 | Received date/time: 11/06/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1575440	1.01	11/12/20 12:30	11/14/20 15:24	CAG	Mt. Juliet, TN

MW4 L1282855-04 GW

Collected by: J. Foster | Collected date/time: 11/05/20 12:15 | Received date/time: 11/06/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1575440	1	11/12/20 12:30	11/14/20 15:39	CAG	Mt. Juliet, TN

MW5 L1282855-05 GW

Collected by: J. Foster | Collected date/time: 11/05/20 13:36 | Received date/time: 11/06/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1575440	1.01	11/12/20 12:30	11/14/20 15:54	CAG	Mt. Juliet, TN

MW6 L1282855-06 GW

Collected by: J. Foster | Collected date/time: 11/05/20 12:48 | Received date/time: 11/06/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1575440	1.01	11/12/20 12:30	11/14/20 16:09	CAG	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker
Project Manager

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.606	0.900	0.909	1.01	11/14/2020 14:54	WG1575440
TPH C12 - C28	U		0.606	0.900	0.909	1.01	11/14/2020 14:54	WG1575440
TPH C28 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 14:54	WG1575440
TPH C6 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 14:54	WG1575440
(S) o-Terphenyl	*98.6*				*70.0-130*		*11/14/2020 14:54*	WG1575440

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	11/14/2020 15:09	WG1575440
TPH C12 - C28	U		0.600	0.900	0.900	1	11/14/2020 15:09	WG1575440
TPH C28 - C35	U		0.600	0.900	0.900	1	11/14/2020 15:09	WG1575440
TPH C6 - C35	U		0.600	0.900	0.900	1	11/14/2020 15:09	WG1575440
(S) o-Terphenyl	*98.1*				*70.0-130*		*11/14/2020 15:09*	WG1575440

MW-3
Collected date/time: 11/05/20 11:40

SAMPLE RESULTS - 03

L1282855

ONE LAB. NATIONWIDE.

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.606	0.900	0.909	1.01	11/14/2020 15:24	WG1575440
TPH C12 - C28	U		0.606	0.900	0.909	1.01	11/14/2020 15:24	WG1575440
TPH C28 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 15:24	WG1575440
TPH C6 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 15:24	WG1575440
(S) o-Terphenyl	*98.0*				*70.0-130*		*11/14/2020 15:24*	WG1575440

TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
TPH C6 - C12	U		0.600	0.900	0.900	1	11/14/2020 15:39	WG1575440
TPH C12 - C28	U		0.600	0.900	0.900	1	11/14/2020 15:39	WG1575440
TPH C28 - C35	U		0.600	0.900	0.900	1	11/14/2020 15:39	WG1575440
TPH C6 - C35	U		0.600	0.900	0.900	1	11/14/2020 15:39	WG1575440
(S) o-Terphenyl	*98.7*				*70.0-130*		*11/14/2020 15:39*	WG1575440

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.606	0.900	0.909	1.01	11/14/2020 15:54	WG1575440
TPH C12 - C28	U		0.606	0.900	0.909	1.01	11/14/2020 15:54	WG1575440
TPH C28 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 15:54	WG1575440
TPH C6 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 15:54	WG1575440
(S) o-Terphenyl	*97.6*				*70.0-130*		*11/14/2020 15:54*	WG1575440

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.606	0.900	0.909	1.01	11/14/2020 16:09	WG1575440
TPH C12 - C28	U		0.606	0.900	0.909	1.01	11/14/2020 16:09	WG1575440
TPH C28 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 16:09	WG1575440
TPH C6 - C35	U		0.606	0.900	0.909	1.01	11/14/2020 16:09	WG1575440
(S) o-Terphenyl	*98.9*				*70.0-130*		*11/14/2020 16:09*	WG1575440

Method Blank (MB)

(MB) R3592816-1 11/13/20 00:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH C6 - C12	U		0.600	0.900
TPH C12 - C28	U		0.600	0.900
TPH C28 - C35	U		0.600	0.900
TPH C6 - C35	U		0.600	0.900
(S) o-Terphenyl	*95.2*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3592816-2 11/13/20 00:42 • (LCSD) R3592816-3 11/13/20 00:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	41.7	40.9	38.3	98.1	91.8	75.0-125			6.57	20
TPH C12 - C28	41.7	41.6	38.6	99.8	92.6	75.0-125			7.48	20
TPH C6 - C35	83.4	82.5	76.9	98.9	92.2	75.0-125			7.03	20
(S) o-Terphenyl				*101*	*95.2*	*70.0-130*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

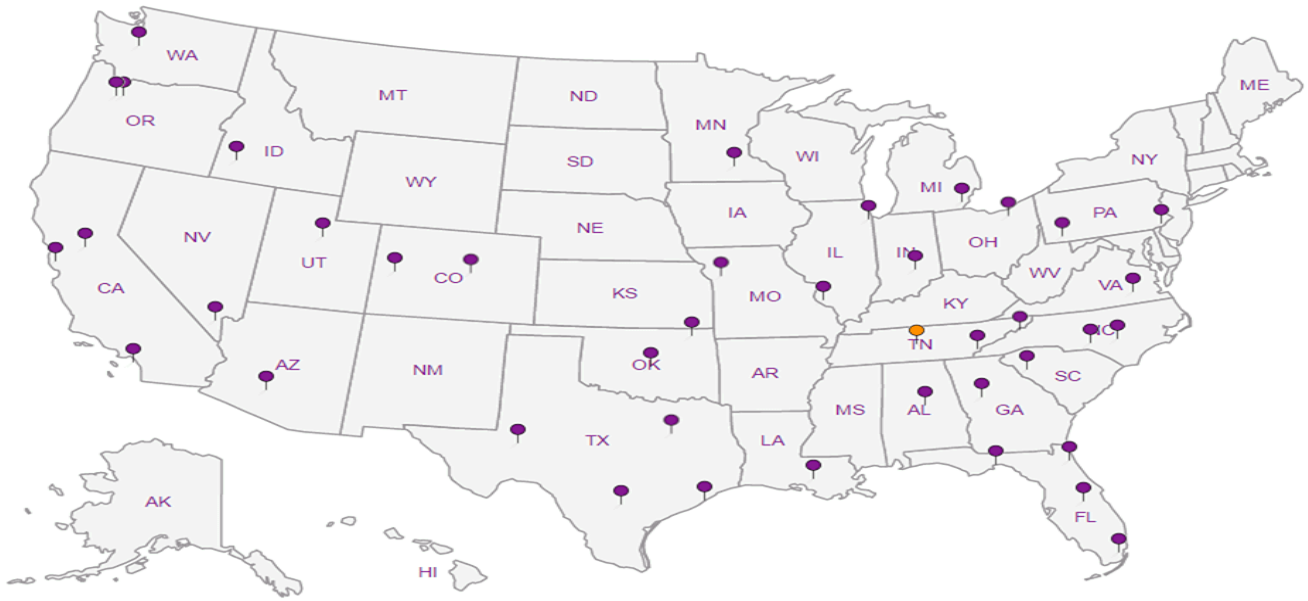
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
Timberwolf Environmental, LLC	180061	L1282855	11/16/20 09:23	13 of 14

Timberwolf Env
Bryan, TX 77807

Billing Information:

Report to:

Email To:

Project Description:

City/State Collected: San Juan Co, NM

Phone:
Fax:

Client Project # 180061

Lab Project #

Collected by (print): J. Foster

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

TX 1005

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # L1282555

1081

Acctnum:
Template:
Prelogin:
TSR:
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Remarks	Sample # (lab only)
MW1	G	GW		11/5/20	1440	2		-01
MW2					1048			02
MW3					1140			03
MW4					1215			04
MW5					1336			05
MW6					1248			06
~~MW7~~					1440			

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__UPS __FedEx __Courier ____

Tracking # 1972 0418 0315

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	11/5/20	1700		

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C	Bottles Received:	If preservation required by Login: Date/Time
				1.5+.1=1.6	12	

Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:	Hold:	Condition NCF OK
				11/6/20	9:00		

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

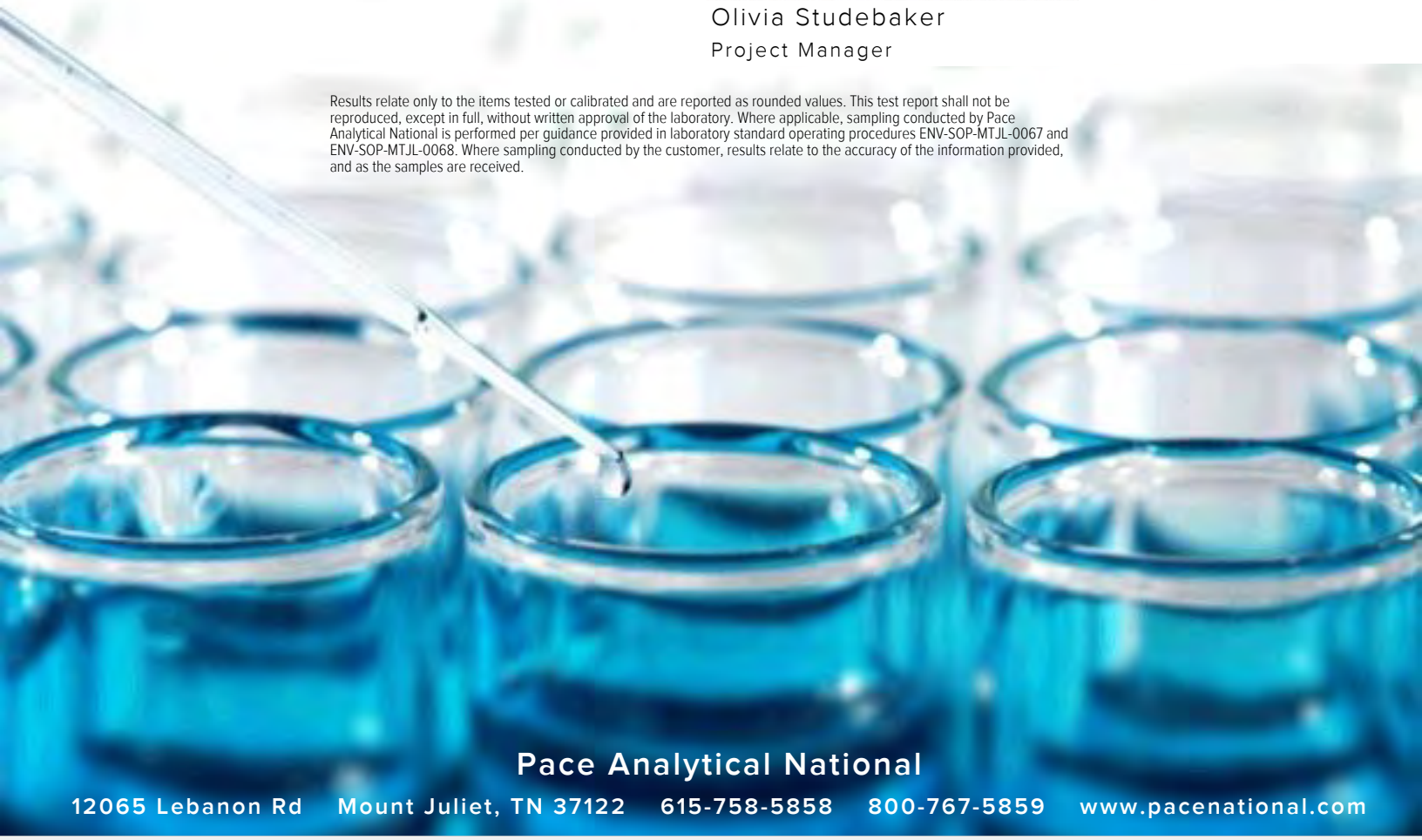
January 15, 2021

Timberwolf Environmental, LLC

Sample Delivery Group:	L1305406
Samples Received:	01/12/2021
Project Number:	180061
Description:	Kaufman No. 1
Report To:	Jim Foster
	1920 W Villa Maria, Ste 205
	Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW1 L1305406-01 GW

Collected by: Jim Foster | Collected date/time: 01/11/21 14:20 | Received date/time: 01/12/21 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1605410	1	01/14/21 08:38	01/14/21 14:43	TMM	Mt. Juliet, TN

MW2 L1305406-02 GW

Collected by: Jim Foster | Collected date/time: 01/11/21 10:20 | Received date/time: 01/12/21 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1605410	1.01	01/14/21 08:38	01/14/21 14:56	TMM	Mt. Juliet, TN

MW3 L1305406-03 GW

Collected by: Jim Foster | Collected date/time: 01/11/21 10:55 | Received date/time: 01/12/21 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1605410	1.01	01/14/21 08:38	01/14/21 15:10	TMM	Mt. Juliet, TN

MW4 L1305406-04 GW

Collected by: Jim Foster | Collected date/time: 01/11/21 11:42 | Received date/time: 01/12/21 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1605410	1.01	01/14/21 08:38	01/14/21 15:23	TMM	Mt. Juliet, TN

MW5 L1305406-05 GW

Collected by: Jim Foster | Collected date/time: 01/11/21 12:24 | Received date/time: 01/12/21 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1605410	1.01	01/14/21 08:38	01/14/21 15:37	TMM	Mt. Juliet, TN

MW6 L1305406-06 GW

Collected by: Jim Foster | Collected date/time: 01/11/21 13:25 | Received date/time: 01/12/21 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1605410	1.07	01/14/21 08:38	01/14/21 15:51	TMM	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker
Project Manager

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	01/14/2021 14:43	WG1605410
TPH C12 - C28	U		0.600	0.900	0.900	1	01/14/2021 14:43	WG1605410
TPH C28 - C35	U		0.600	0.900	0.900	1	01/14/2021 14:43	WG1605410
TPH C6 - C35	U		0.600	0.900	0.900	1	01/14/2021 14:43	WG1605410
(S) o-Terphenyl	*116*				*70.0-130*		*01/14/2021 14:43*	WG1605410

MW2

Collected date/time: 01/11/21 10:20

SAMPLE RESULTS - 02

L1305406

ONE LAB. NATIONWIDE.

TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
TPH C6 - C12	U		0.606	0.900	0.909	1.01	01/14/2021 14:56	WG1605410
TPH C12 - C28	U		0.606	0.900	0.909	1.01	01/14/2021 14:56	WG1605410
TPH C28 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 14:56	WG1605410
TPH C6 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 14:56	WG1605410
(S) o-Terphenyl	*116*				*70.0-130*		*01/14/2021 14:56*	WG1605410

MW-3
Collected date/time: 01/11/21 10:55

SAMPLE RESULTS - 03

L1305406

ONE LAB. NATIONWIDE.

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.606	0.900	0.909	1.01	01/14/2021 15:10	WG1605410
TPH C12 - C28	U		0.606	0.900	0.909	1.01	01/14/2021 15:10	WG1605410
TPH C28 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 15:10	WG1605410
TPH C6 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 15:10	WG1605410
(S) o-Terphenyl	*118*				*70.0-130*		*01/14/2021 15:10*	WG1605410

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.606	0.900	0.909	1.01	01/14/2021 15:23	WG1605410
TPH C12 - C28	U		0.606	0.900	0.909	1.01	01/14/2021 15:23	WG1605410
TPH C28 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 15:23	WG1605410
TPH C6 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 15:23	WG1605410
(S) o-Terphenyl	*119*				*70.0-130*		*01/14/2021 15:23*	WG1605410

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.606	0.900	0.909	1.01	01/14/2021 15:37	WG1605410
TPH C12 - C28	U		0.606	0.900	0.909	1.01	01/14/2021 15:37	WG1605410
TPH C28 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 15:37	WG1605410
TPH C6 - C35	U		0.606	0.900	0.909	1.01	01/14/2021 15:37	WG1605410
(S) o-Terphenyl	*117*				*70.0-130*		*01/14/2021 15:37*	WG1605410

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.642	0.900	0.963	1.07	01/14/2021 15:51	WG1605410
TPH C12 - C28	U		0.642	0.900	0.963	1.07	01/14/2021 15:51	WG1605410
TPH C28 - C35	U		0.642	0.900	0.963	1.07	01/14/2021 15:51	WG1605410
TPH C6 - C35	U		0.642	0.900	0.963	1.07	01/14/2021 15:51	WG1605410
(S) o-Terphenyl	*123*				*70.0-130*		*01/14/2021 15:51*	WG1605410

Method Blank (MB)

(MB) R3612566-1 01/14/21 10:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH C6 - C12	U		0.600	0.900
TPH C12 - C28	U		0.600	0.900
TPH C28 - C35	U		0.600	0.900
TPH C6 - C35	U		0.600	0.900
(S) o-Terphenyl	*119*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3612566-2 01/14/21 10:59 • (LCSD) R3612566-3 01/14/21 11:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	41.7	44.5	44.7	107	107	75.0-125			0.448	20
TPH C12 - C28	41.7	40.3	40.1	96.6	96.2	75.0-125			0.498	20
TPH C6 - C35	83.4	84.8	84.8	102	102	75.0-125			0.000	20
(S) o-Terphenyl				*119*	*119*	*70.0-130*				

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Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA

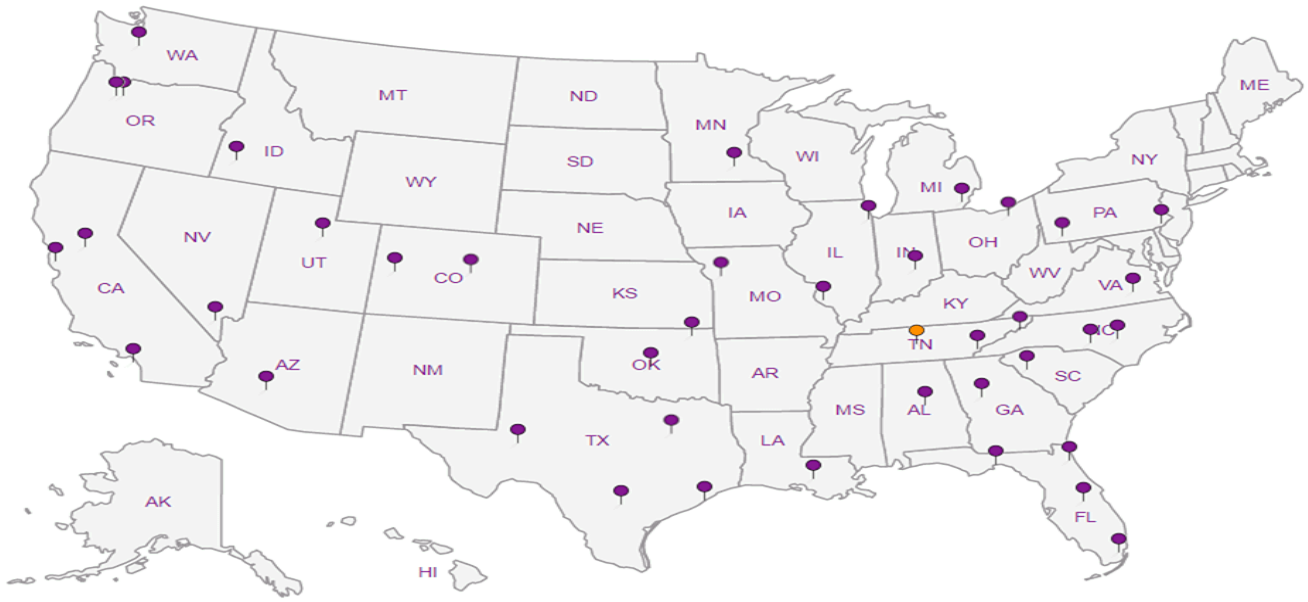
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
Timberwolf Environmental, LLC	180061	L1305406	01/15/21 16:47	13 of 15

Timberwolf Environmental

Bryan NM 87507

Billing Information:

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to:

Email To: jim@teamtimberwolf.com

Project Description:

City/State Collected:

Phone:
Fax:

Client Project # 180061

Lab Project # 1305406

Collected by (print): Jim Foster

Site/Facility ID #

P.O. #

Table E084

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

TX 1005 (TPH)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Remarks	Sample # (lab only)
MW1	G	GW		1/11/21	1420			-01
MW2	G	GW			1020			-02
MW3	G	GW			1055			-03
MW4	G	GW			1142			-04
MW5	G	GW			1224			-05
MW6	G	GW		↓	1325			-06

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 1422 6812 8390

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	1/11/21	1630		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4°C Bottles Received: 12
				4-1-3
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1-12-21 Time: 0815

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

L1305406 TIMENVBTX NCF

R5

Time estimate: oh **Time spent:** oh **Grouping date:** 12 January 20

Members

Cole Medley (responsible) OS Olivia Studebaker

- [ ] Login Clarification needed
- [ ] Chain of custody is incomplete
- [ ] Please specify Metals requested
- [ ] Please specify TCLP requested
- [ ] Received additional samples not listed on COC
- [ ] Sample IDs on containers do not match IDs on COC
- [x] Client did not "X" analysis
- [ ] Chain of Custody is missing
- [ ] If no COC: Received by:_____
- [ ] If no COC: Date/Time:_____
- [ ] If no COC: Temp./Cont.Rec./pH:_____
- [ ] If no COC: Carrier:_____
- [ ] If no COC: Tracking #:_____
- [ ] Client informed by call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:__1/12/21_____
- [ ] PM initials:____OS_____
- [ ] Client Contact:_____

Comments

Cole Medley *12 January 2021 3:45 PM*

Client didn't "X" analysis
Logged per analysis listed on COC

Olivia Studebaker *12 January 2021 3:52 PM*

Please keep logged for TPHTX per the COC.

Cole Medley *12 January 2021 4:01 PM*

Done.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 14, 2021

Jim Foster

Timberwolf Environmental
1920 W Villa Maria Ste 205
Bryan, TX 77807
TEL: (979) 324-2139
FAX:

RE: Kaufman 1 OrderNo.: 2101390

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 8 sample(s) on 1/12/2021 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 www.hallenvironmental.com 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order: **2101390**
Date Reported: **1/14/2021**

CLIENT: Timberwolf Environmental **Lab Order:** 2101390
Project: Kaufman 1

Lab ID: 2101390-001 **Collection Date:** 1/11/2021 2:20:00 PM
Client Sample ID: MW1 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	1/13/2021 5:43:31 AM	B74592
Toluene	ND	1.0		µg/L	1	1/13/2021 5:43:31 AM	B74592
Ethylbenzene	ND	1.0		µg/L	1	1/13/2021 5:43:31 AM	B74592
Xylenes, Total	ND	1.5		µg/L	1	1/13/2021 5:43:31 AM	B74592
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	1/13/2021 5:43:31 AM	B74592
Surr: 4-Bromofluorobenzene	98.5	70-130		%Rec	1	1/13/2021 5:43:31 AM	B74592
Surr: Dibromofluoromethane	104	70-130		%Rec	1	1/13/2021 5:43:31 AM	B74592
Surr: Toluene-d8	100	70-130		%Rec	1	1/13/2021 5:43:31 AM	B74592

Lab ID: 2101390-002 **Collection Date:** 1/11/2021 10:20:00 AM
Client Sample ID: MW2 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	1/13/2021 6:11:59 AM	B74592
Toluene	ND	1.0		µg/L	1	1/13/2021 6:11:59 AM	B74592
Ethylbenzene	ND	1.0		µg/L	1	1/13/2021 6:11:59 AM	B74592
Xylenes, Total	ND	1.5		µg/L	1	1/13/2021 6:11:59 AM	B74592
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	1/13/2021 6:11:59 AM	B74592
Surr: 4-Bromofluorobenzene	99.7	70-130		%Rec	1	1/13/2021 6:11:59 AM	B74592
Surr: Dibromofluoromethane	103	70-130		%Rec	1	1/13/2021 6:11:59 AM	B74592
Surr: Toluene-d8	99.3	70-130		%Rec	1	1/13/2021 6:11:59 AM	B74592

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
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order: **2101390**
Date Reported: **1/14/2021**

CLIENT: Timberwolf Environmental **Lab Order:** 2101390
Project: Kaufman 1

Lab ID: 2101390-003 **Collection Date:** 1/11/2021 10:55:00 AM
Client Sample ID: MW3 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	1/13/2021 6:40:37 AM	B74592
Toluene	ND	1.0		µg/L	1	1/13/2021 6:40:37 AM	B74592
Ethylbenzene	ND	1.0		µg/L	1	1/13/2021 6:40:37 AM	B74592
Xylenes, Total	ND	1.5		µg/L	1	1/13/2021 6:40:37 AM	B74592
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	1/13/2021 6:40:37 AM	B74592
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	1/13/2021 6:40:37 AM	B74592
Surr: Dibromofluoromethane	106	70-130		%Rec	1	1/13/2021 6:40:37 AM	B74592
Surr: Toluene-d8	98.8	70-130		%Rec	1	1/13/2021 6:40:37 AM	B74592

Lab ID: 2101390-004 **Collection Date:** 1/11/2021 11:42:00 AM
Client Sample ID: MW4 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	1/13/2021 7:09:15 AM	B74592
Toluene	ND	1.0		µg/L	1	1/13/2021 7:09:15 AM	B74592
Ethylbenzene	ND	1.0		µg/L	1	1/13/2021 7:09:15 AM	B74592
Xylenes, Total	ND	1.5		µg/L	1	1/13/2021 7:09:15 AM	B74592
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	1/13/2021 7:09:15 AM	B74592
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	1/13/2021 7:09:15 AM	B74592
Surr: Dibromofluoromethane	102	70-130		%Rec	1	1/13/2021 7:09:15 AM	B74592
Surr: Toluene-d8	97.3	70-130		%Rec	1	1/13/2021 7:09:15 AM	B74592

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2101390**
Date Reported: **1/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2101390
Project: Kaufman 1

Lab ID: 2101390-005 **Collection Date:** 1/11/2021 12:24:00 PM
Client Sample ID: MW5 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	1/13/2021 7:37:46 AM	B74592
Toluene	ND	1.0		µg/L	1	1/13/2021 7:37:46 AM	B74592
Ethylbenzene	ND	1.0		µg/L	1	1/13/2021 7:37:46 AM	B74592
Xylenes, Total	ND	1.5		µg/L	1	1/13/2021 7:37:46 AM	B74592
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	1/13/2021 7:37:46 AM	B74592
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	1/13/2021 7:37:46 AM	B74592
Surr: Dibromofluoromethane	104	70-130		%Rec	1	1/13/2021 7:37:46 AM	B74592
Surr: Toluene-d8	98.2	70-130		%Rec	1	1/13/2021 7:37:46 AM	B74592

Lab ID: 2101390-006 **Collection Date:** 1/11/2021 1:25:00 PM
Client Sample ID: MW6 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	1/13/2021 8:06:16 AM	B74592
Toluene	ND	1.0		µg/L	1	1/13/2021 8:06:16 AM	B74592
Ethylbenzene	ND	1.0		µg/L	1	1/13/2021 8:06:16 AM	B74592
Xylenes, Total	ND	1.5		µg/L	1	1/13/2021 8:06:16 AM	B74592
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	1/13/2021 8:06:16 AM	B74592
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	1/13/2021 8:06:16 AM	B74592
Surr: Dibromofluoromethane	106	70-130		%Rec	1	1/13/2021 8:06:16 AM	B74592
Surr: Toluene-d8	101	70-130		%Rec	1	1/13/2021 8:06:16 AM	B74592

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2101390**
Date Reported: **1/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2101390
Project: Kaufman 1

Lab ID: 2101390-007 **Collection Date:** 1/11/2021 12:28:00 PM
Client Sample ID: Dup **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	1/13/2021 8:34:47 AM	B74592
Toluene	ND	1.0		µg/L	1	1/13/2021 8:34:47 AM	B74592
Ethylbenzene	ND	1.0		µg/L	1	1/13/2021 8:34:47 AM	B74592
Xylenes, Total	ND	1.5		µg/L	1	1/13/2021 8:34:47 AM	B74592
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	1/13/2021 8:34:47 AM	B74592
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	1/13/2021 8:34:47 AM	B74592
Surr: Dibromofluoromethane	107	70-130		%Rec	1	1/13/2021 8:34:47 AM	B74592
Surr: Toluene-d8	96.9	70-130		%Rec	1	1/13/2021 8:34:47 AM	B74592

Lab ID: 2101390-008 **Collection Date:**
Client Sample ID: Trip Blank **Matrix:** TRIP BLANK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	1/13/2021 9:03:19 AM	B74592
Toluene	ND	1.0		µg/L	1	1/13/2021 9:03:19 AM	B74592
Ethylbenzene	ND	1.0		µg/L	1	1/13/2021 9:03:19 AM	B74592
Xylenes, Total	ND	1.5		µg/L	1	1/13/2021 9:03:19 AM	B74592
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	1/13/2021 9:03:19 AM	B74592
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	1/13/2021 9:03:19 AM	B74592
Surr: Dibromofluoromethane	107	70-130		%Rec	1	1/13/2021 9:03:19 AM	B74592
Surr: Toluene-d8	99.7	70-130		%Rec	1	1/13/2021 9:03:19 AM	B74592

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2101390**

14-Jan-21

Client: Timberwolf Environmental

Project: Kaufman 1

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **B74592**	RunNo: **74592**
Prep Date:	Analysis Date: **1/12/2021**	SeqNo: **2633057** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	109	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		107	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.4		10.00		94.0	70	130			
Surr: Toluene-d8	9.7		10.00		96.7	70	130			

Sample ID: **VSB Fridge**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **B74592**	RunNo: **74592**
Prep Date:	Analysis Date: **1/12/2021**	SeqNo: **2633058** 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		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.9		10.00		99.5	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 Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Timberwolf Environmental** Work Order Number: **2101390** RcptNo: 1

Received By: **Isaiah Ortiz** **1/12/2021 7:50:00 AM** I-OL

Completed By: **Isaiah Ortiz** **1/12/2021 8:39:11 AM** I-OL

Reviewed By: JE 1/12/21

Chain of Custody

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 ☑	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 ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: SGL 1/12/21

Special Handling (if applicable)

15. 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: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.8	Good	Yes			

Chain-of-Custody Record

Client: Timberwolf Environmental

Mailing Address:

Phone #: 979-324-2139

email or Fax#: jim@teamtimberwolf.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Kaufman #1

Project #: 180061

Project Manager: Jim Foster

Sampler:

On Ice: ☒ Yes ☐ No

# of Coolers: @ 1

Cooler Temp(including CF): 0.8°C ± 0°C (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2101390	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1/11/21	1420	H2O	MW1			001	✓									
1/11/21	1020		MW2			002	✓									
1/11/21	1055		MW3			003	✓									
1/11/21	1142		MW4			004	✓									
1/11/21	1224		MW5			005	✓									
1/11/21	1325		MW6			006	✓									
1/11/21	1228		Dup			007	✓									
—	—		Trip Blank			008	✓									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
1/11/21	1530		Chase Waelen		1/11/21	1530
1/11/21	1914	Chase Waelen			1/12/21	0750

Remarks:
Trip blank provided by client not filled at Hall-ENM 1/12/21

If necessary, samples submitted to Hall 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

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

June 14, 2021

Jim Foster

Timberwolf Environmental
1920 W Villa Maria Ste 205
Bryan, TX 77807
TEL: (979) 324-2139
FAX

RE: Kaufman OrderNo.: 2105B57

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 8 sample(s) on 5/27/2021 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 www.hallenvironmental.com 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order: **2105B57**
Date Reported: **6/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Project: Kaufman
Lab Order: 2105B57

Lab ID: 2105B57-001 **Collection Date:** 5/26/2021 4:25:00 PM
Client Sample ID: MW 1 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 1:24:00 PM	R7881C
Benzene	ND	1.0		µg/L	1	6/2/2021 1:24:00 PM	R7881C
Toluene	ND	1.0		µg/L	1	6/2/2021 1:24:00 PM	R7881C
Ethylbenzene	ND	1.0		µg/L	1	6/2/2021 1:24:00 PM	R7881C
Xylenes, Total	ND	2.0		µg/L	1	6/2/2021 1:24:00 PM	R7881C
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 1:24:00 PM	R7881C
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 1:24:00 PM	R7881C
Surr: 4-Bromofluorobenzene	86.0	70-130		%Rec	1	6/2/2021 1:24:00 PM	R7881C

Lab ID: 2105B57-002 **Collection Date:** 5/26/2021 12:53:00 PM
Client Sample ID: MW 2 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 2:24:00 PM	R7881C
Benzene	ND	1.0		µg/L	1	6/2/2021 2:24:00 PM	R7881C
Toluene	ND	1.0		µg/L	1	6/2/2021 2:24:00 PM	R7881C
Ethylbenzene	ND	1.0		µg/L	1	6/2/2021 2:24:00 PM	R7881C
Xylenes, Total	ND	2.0		µg/L	1	6/2/2021 2:24:00 PM	R7881C
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 2:24:00 PM	R7881C
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 2:24:00 PM	R7881C
Surr: 4-Bromofluorobenzene	88.5	70-130		%Rec	1	6/2/2021 2:24:00 PM	R7881C

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2105B57**
Date Reported: **6/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental
Project: Kaufman
Lab Order: 2105B57

Lab ID: 2105B57-003 **Collection Date:** 5/26/2021 1:45:00 PM
Client Sample ID: MW 3 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 2:43:00 PM	R7881C
Benzene	ND	1.0		µg/L	1	6/2/2021 2:43:00 PM	R7881C
Toluene	ND	1.0		µg/L	1	6/2/2021 2:43:00 PM	R7881C
Ethylbenzene	ND	1.0		µg/L	1	6/2/2021 2:43:00 PM	R7881C
Xylenes, Total	ND	2.0		µg/L	1	6/2/2021 2:43:00 PM	R7881C
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 2:43:00 PM	R7881C
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 2:43:00 PM	R7881C
Surr: 4-Bromofluorobenzene	83.8	70-130		%Rec	1	6/2/2021 2:43:00 PM	R7881C

Lab ID: 2105B57-004 **Collection Date:** 5/26/2021 2:20:00 PM
Client Sample ID: MW 4 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 3:03:00 PM	R7881C
Benzene	ND	1.0		µg/L	1	6/2/2021 3:03:00 PM	R7881C
Toluene	ND	1.0		µg/L	1	6/2/2021 3:03:00 PM	R7881C
Ethylbenzene	ND	1.0		µg/L	1	6/2/2021 3:03:00 PM	R7881C
Xylenes, Total	ND	2.0		µg/L	1	6/2/2021 3:03:00 PM	R7881C
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 3:03:00 PM	R7881C
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 3:03:00 PM	R7881C
Surr: 4-Bromofluorobenzene	83.4	70-130		%Rec	1	6/2/2021 3:03:00 PM	R7881C

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2105B57**
Date Reported: **6/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2105B57
Project: Kaufman

Lab ID: 2105B57-005 **Collection Date:** 5/26/2021 3:00:00 PM
Client Sample ID: MW 5 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 3:23:00 PM	R7881C
Benzene	ND	1.0		µg/L	1	6/2/2021 3:23:00 PM	R7881C
Toluene	ND	1.0		µg/L	1	6/2/2021 3:23:00 PM	R7881C
Ethylbenzene	ND	1.0		µg/L	1	6/2/2021 3:23:00 PM	R7881C
Xylenes, Total	ND	2.0		µg/L	1	6/2/2021 3:23:00 PM	R7881C
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 3:23:00 PM	R7881C
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 3:23:00 PM	R7881C
Surr: 4-Bromofluorobenzene	84.5	70-130		%Rec	1	6/2/2021 3:23:00 PM	R7881C

Lab ID: 2105B57-006 **Collection Date:** 5/26/2021 3:44:00 PM
Client Sample ID: MW 6 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 3:43:00 PM	R7881C
Benzene	ND	1.0		µg/L	1	6/2/2021 3:43:00 PM	R7881C
Toluene	ND	1.0		µg/L	1	6/2/2021 3:43:00 PM	R7881C
Ethylbenzene	ND	1.0		µg/L	1	6/2/2021 3:43:00 PM	R7881C
Xylenes, Total	3.8	2.0		µg/L	1	6/2/2021 3:43:00 PM	R7881C
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 3:43:00 PM	R7881C
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 3:43:00 PM	R7881C
Surr: 4-Bromofluorobenzene	84.3	70-130		%Rec	1	6/2/2021 3:43:00 PM	R7881C

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order: **2105B57**
Date Reported: **6/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2105B57
Project: Kaufman

Lab ID: 2105B57-007 **Collection Date:** 5/26/2021 3:00:00 PM
Client Sample ID: DUP **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 4:03:00 PM	R7881C
Benzene	ND	1.0		µg/L	1	6/2/2021 4:03:00 PM	R7881C
Toluene	ND	1.0		µg/L	1	6/2/2021 4:03:00 PM	R7881C
Ethylbenzene	ND	1.0		µg/L	1	6/2/2021 4:03:00 PM	R7881C
Xylenes, Total	ND	2.0		µg/L	1	6/2/2021 4:03:00 PM	R7881C
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 4:03:00 PM	R7881C
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 4:03:00 PM	R7881C
Surr: 4-Bromofluorobenzene	85.1	70-130		%Rec	1	6/2/2021 4:03:00 PM	R7881C

Lab ID: 2105B57-008 **Collection Date:**
Client Sample ID: Trip Blank **Matrix:** TRIP BLANK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/2/2021 4:23:00 PM	R7881C
Benzene	ND	1.0		µg/L	1	6/2/2021 4:23:00 PM	R7881C
Toluene	ND	1.0		µg/L	1	6/2/2021 4:23:00 PM	R7881C
Ethylbenzene	ND	1.0		µg/L	1	6/2/2021 4:23:00 PM	R7881C
Xylenes, Total	ND	2.0		µg/L	1	6/2/2021 4:23:00 PM	R7881C
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 4:23:00 PM	R7881C
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2021 4:23:00 PM	R7881C
Surr: 4-Bromofluorobenzene	83.7	70-130		%Rec	1	6/2/2021 4:23:00 PM	R7881C

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105B57**
14-Jun-21

Client: Timberwolf Environmental
Project: Kaufman

Sample ID: **100ng BTEX lcs** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW** Batch ID: **R78810** RunNo: **78810**
Prep Date: Analysis Date: **6/2/2021** SeqNo: **2763901** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	17	2.5	20.00	0	85.7	59.5	133			
Benzene	18	1.0	20.00	0	89.4	80	120			
Toluene	18	1.0	20.00	0	90.6	80	120			
Ethylbenzene	19	1.0	20.00	0	93.8	80	120			
Xylenes, Total	55	2.0	60.00	0	92.1	80	120			
1,2,4-Trimethylbenzene	19	1.0	20.00	0	94.2	80	120			
1,3,5-Trimethylbenzene	19	1.0	20.00	0	94.5	80	120			
Surr: 4-Bromofluorobenzene	17		20.00		85.0	70	130			

Sample ID: **MB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW** Batch ID: **R78810** RunNo: **78810**
Prep Date: Analysis Date: **6/2/2021** SeqNo: **2763902** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	17		20.00		84.1	70	130			

Sample ID: **2105B57-001ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **MW 1** Batch ID: **R78810** RunNo: **78810**
Prep Date: Analysis Date: **6/2/2021** SeqNo: **2763904** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	91.5	60.4	152			
Benzene	19	1.0	20.00	0	95.7	80	120			
Toluene	19	1.0	20.00	0	97.2	80	120			
Ethylbenzene	20	1.0	20.00	0	99.1	80	120			
Xylenes, Total	58	2.0	60.00	0	97.0	80	120			
1,2,4-Trimethylbenzene	19	1.0	20.00	0	97.4	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.5	80	120			
Surr: 4-Bromofluorobenzene	17		20.00		84.6	70	130			

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
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105B57**
14-Jun-21

Client: Timberwolf Environmental
Project: Kaufman

Sample ID: **2105B57-001amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **MW 1** Batch ID: **R78810** RunNo: **78810**
Prep Date: Analysis Date: **6/2/2021** SeqNo: **2763905** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	89.4	60.4	152	2.29	20	
Benzene	17	1.0	20.00	0	85.9	80	120	10.7	20	
Toluene	17	1.0	20.00	0	87.1	80	120	11.0	20	
Ethylbenzene	18	1.0	20.00	0	90.1	80	120	9.55	20	
Xylenes, Total	53	2.0	60.00	0	88.9	80	120	8.68	20	
1,2,4-Trimethylbenzene	19	1.0	20.00	0	92.8	80	120	4.77	20	
1,3,5-Trimethylbenzene	19	1.0	20.00	0	93.7	80	120	5.02	20	
Surr: 4-Bromofluorobenzene	17		20.00		84.1	70	130	0	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 Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Timberwolf Environmental** Work Order Number: **2105B57** RcptNo: 1

Received By: **Juan Rojas** **5/27/2021 7:10:00 AM**

Completed By: **Desiree Dominguez** **5/27/2021 9:23:13 AM**

Reviewed By: SPA 5.27.21

Chain of Custody

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 ☑	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 ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: (<2 or >12 unless noted)

Adjusted?

Checked by: CM 5/27/21

Special Handling (if applicable)

15. 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:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.3	Good	Yes			

Chain-of-Custody Record

Client: Timberwolf Environmental

Mailing Address:

Phone #: 979-324-2139

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Kaufman

Project #: 180061

Project Manager: Jim Foster

Sampler: J Foster

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.5-0.2=0.3 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2105857	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
5/26/21	1625	GW	MW1	(3) VOA	HCl	-001	✓									
	1253	GW	MW2			-002	✓									
	1345	GW	MW3			-003	✓									
	1420	GW	MW4			-004	✓									
	1500	GW	MW5			-005	✓									
	1544	GW	MW6			-006	✓									
	1500	GW	Dup			-007	✓									
			Trip Blank			-008	✓									

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/26/21	1745			Courier	5/26/21	1745
5/26/21	1851			Courier	5/27/21	7:10

Remarks:

If necessary, samples submitted to Hall 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.

Pace Analytical®

ANALYTICAL REPORT

June 04, 2021

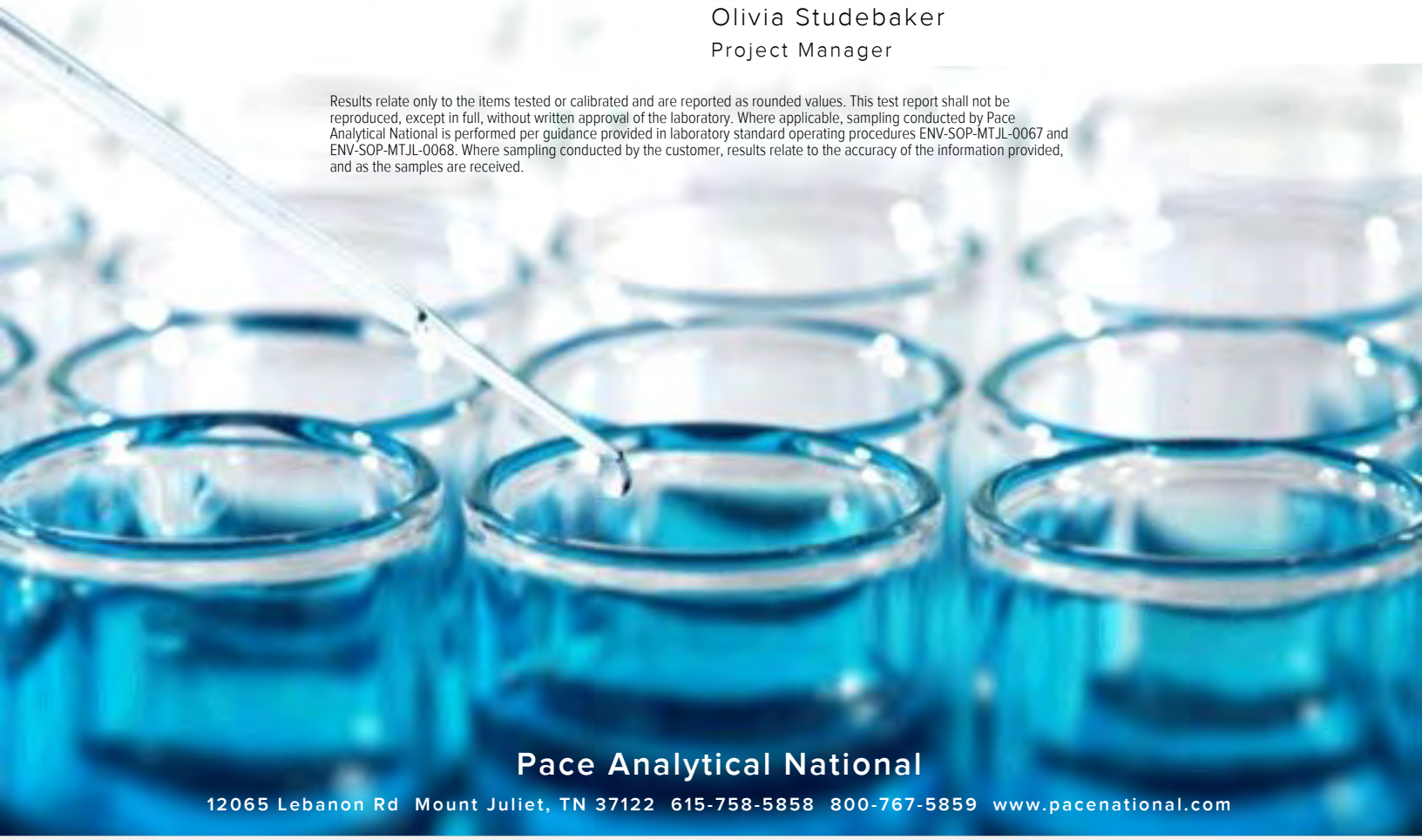
Timberwolf Environmental, LLC

Sample Delivery Group:	L1359425
Samples Received:	05/28/2021
Project Number:	180061
Description:	Kaufman No. 1

Report To: Jim Foster
1920 W Villa Maria, Ste 205
Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW1 L1359425-01 GW

Collected by: J. Foster
Collected date/time: 05/26/21 16:25
Received date/time: 05/28/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1680485	1	06/03/21 01:28	06/03/21 16:42	TJD	Mt. Juliet, TN

MW2 L1359425-02 GW

Collected by: J. Foster
Collected date/time: 05/26/21 12:53
Received date/time: 05/28/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1680485	1	06/03/21 01:28	06/03/21 16:58	TJD	Mt. Juliet, TN

MW3 L1359425-03 GW

Collected by: J. Foster
Collected date/time: 05/26/21 13:45
Received date/time: 05/28/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1680485	1	06/03/21 01:28	06/03/21 17:15	TJD	Mt. Juliet, TN

MW4 L1359425-04 GW

Collected by: J. Foster
Collected date/time: 05/26/21 14:20
Received date/time: 05/28/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1680485	1	06/03/21 01:28	06/03/21 17:31	TJD	Mt. Juliet, TN

MW5 L1359425-05 GW

Collected by: J. Foster
Collected date/time: 05/26/21 15:00
Received date/time: 05/28/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1680485	1	06/03/21 01:28	06/03/21 18:04	TJD	Mt. Juliet, TN

MW6 L1359425-06 GW

Collected by: J. Foster
Collected date/time: 05/26/21 15:44
Received date/time: 05/28/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1680485	1	06/03/21 01:28	06/03/21 18:20	TJD	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker
Project Manager

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1359425-03	MW3	TCEQ Method 1005

TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
TPH C6 - C12	U		0.600	0.900	0.900	1	06/03/2021 16:42	WG1680485
TPH C12 - C28	U		0.600	0.900	0.900	1	06/03/2021 16:42	WG1680485
TPH C28 - C35	U		0.600	0.900	0.900	1	06/03/2021 16:42	WG1680485
TPH C6 - C35	U		0.600	0.900	0.900	1	06/03/2021 16:42	WG1680485
(S) o-Terphenyl	*73.9*				*70.0-130*		*06/03/2021 16:42*	WG1680485

MW2
Collected date/time: 05/26/21 12:53
L1359425

TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
TPH C6 - C12	U		0.600	0.900	0.900	1	06/03/2021 16:58	WG1680485
TPH C12 - C28	U		0.600	0.900	0.900	1	06/03/2021 16:58	WG1680485
TPH C28 - C35	U		0.600	0.900	0.900	1	06/03/2021 16:58	WG1680485
TPH C6 - C35	U		0.600	0.900	0.900	1	06/03/2021 16:58	WG1680485
(S) o-Terphenyl	*76.4*				*70.0-130*		*06/03/2021 16:58*	WG1680485

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	06/03/2021 17:15	WG1680485
TPH C12 - C28	U		0.600	0.900	0.900	1	06/03/2021 17:15	WG1680485
TPH C28 - C35	U		0.600	0.900	0.900	1	06/03/2021 17:15	WG1680485
TPH C6 - C35	U		0.600	0.900	0.900	1	06/03/2021 17:15	WG1680485
(S) o-Terphenyl	*76.1*				*70.0-130*		*06/03/2021 17:15*	WG1680485

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	06/03/2021 17:31	WG1680485
TPH C12 - C28	U		0.600	0.900	0.900	1	06/03/2021 17:31	WG1680485
TPH C28 - C35	U		0.600	0.900	0.900	1	06/03/2021 17:31	WG1680485
TPH C6 - C35	U		0.600	0.900	0.900	1	06/03/2021 17:31	WG1680485
(S) o-Terphenyl	*78.2*				*70.0-130*		*06/03/2021 17:31*	WG1680485

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	06/03/2021 18:04	WG1680485
TPH C12 - C28	U		0.600	0.900	0.900	1	06/03/2021 18:04	WG1680485
TPH C28 - C35	U		0.600	0.900	0.900	1	06/03/2021 18:04	WG1680485
TPH C6 - C35	U		0.600	0.900	0.900	1	06/03/2021 18:04	WG1680485
(S) o-Terphenyl	*74.9*				*70.0-130*		*06/03/2021 18:04*	WG1680485

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	0.644	J	0.600	0.900	0.900	1	06/03/2021 18:20	WG1680485
TPH C12 - C28	U		0.600	0.900	0.900	1	06/03/2021 18:20	WG1680485
TPH C28 - C35	U		0.600	0.900	0.900	1	06/03/2021 18:20	WG1680485
TPH C6 - C35	0.644	J	0.600	0.900	0.900	1	06/03/2021 18:20	WG1680485
(S) o-Terphenyl	*76.1*				*70.0-130*		*06/03/2021 18:20*	WG1680485

Method Blank (MB)

(MB) R3662807-1 06/03/21 11:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH C6 - C12	U		0.600	0.900
TPH C12 - C28	U		0.600	0.900
TPH C28 - C35	U		0.600	0.900
TPH C6 - C35	U		0.600	0.900
(S) o-Terphenyl	*75.8*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3662807-2 06/03/21 11:44 • (LCSD) R3662807-3 06/03/21 12:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	41.7	38.9	39.4	93.3	94.5	75.0-125			1.28	20
TPH C12 - C28	41.7	38.2	37.3	91.6	89.4	75.0-125			2.38	20
TPH C6 - C35	83.4	77.1	76.7	92.4	92.0	75.0-125			0.520	20
(S) o-Terphenyl				*77.5*	*75.2*	*70.0-130*				

L1358840-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1358840-02 06/03/21 12:17 • (MS) R3662807-4 06/03/21 12:33 • (MSD) R3662807-5 06/03/21 12:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	37.3	U	34.5	35.2	92.5	94.1	1	75.0-125			2.01	20
TPH C12 - C28	37.3	U	33.1	33.8	88.7	90.4	1	75.0-125			2.09	20
TPH C6 - C35	74.6	0.951	67.6	69.0	89.3	90.9	1	75.0-125			2.05	20
(S) o-Terphenyl					*75.4*	*75.3*		*70.0-130*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Timberwolf Environmental

Bryan D

Billing Information:

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to:

Email To:

Project Description:

City/State Collected:

Phone:
Fax:

Client Project # 180061

Lab Project #

L# L1359425

D109

Collected by (print): J. Foster

Site/Facility ID #

P.O. #

Acctnum:

Template:

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ✓ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Prelogin:

TSR:

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Tx 1005 (TPH)	Remarks	Sample # (lab only)
MW1		GW		5/26/21	1625	2	✓		-01
MW2					1253	2	✓		-02
MW3					1345	2	✓		-03
MW4					1420	2	✓		-04
MW5					1500	2	✓		-05
MW6					1544	2	✓		-06
M									

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 9883 0088 4197

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

TD

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
	5/27/21	1620			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.3°C Bottles Received: 12	If preservation required by Login: Date/Time
				0.3+2.0=5	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/28/21 Time: 9:00	Hold: Condition: NCF / OK

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

September 21, 2021

Jim Foster

Timberwolf Environmental
1920 W Villa Maria Ste 205
Bryan, TX 77807
TEL: (979) 324-2139
FAX

RE: 180061 OrderNo.: 2109590

Dear Jim Foster:

Hall Environmental Analysis Laboratory received 8 sample(s) on 9/11/2021 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 www.hallenvironmental.com 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 Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order: **2109590**
Date Reported: **9/21/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2109590
Project: 180061

Lab ID: 2109590-001 **Collection Date:** 9/9/2021 2:30:00 PM
Client Sample ID: MW 1 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	9/14/2021 6:02:01 PM	B81272
Toluene	ND	1.0		µg/L	1	9/14/2021 6:02:01 PM	B81272
Ethylbenzene	ND	1.0		µg/L	1	9/14/2021 6:02:01 PM	B81272
Xylenes, Total	ND	2.0		µg/L	1	9/14/2021 6:02:01 PM	B81272
Surr: 4-Bromofluorobenzene	91.7	70-130		%Rec	1	9/14/2021 6:02:01 PM	B81272

Lab ID: 2109590-002 **Collection Date:** 9/9/2021 12:55:00 PM
Client Sample ID: MW 2 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	9/14/2021 6:25:48 PM	B81272
Toluene	ND	1.0		µg/L	1	9/14/2021 6:25:48 PM	B81272
Ethylbenzene	ND	1.0		µg/L	1	9/14/2021 6:25:48 PM	B81272
Xylenes, Total	ND	2.0		µg/L	1	9/14/2021 6:25:48 PM	B81272
Surr: 4-Bromofluorobenzene	91.3	70-130		%Rec	1	9/14/2021 6:25:48 PM	B81272

Lab ID: 2109590-003 **Collection Date:** 9/9/2021 1:45:00 PM
Client Sample ID: MW 3 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	9/14/2021 6:49:33 PM	B81272
Toluene	ND	1.0		µg/L	1	9/14/2021 6:49:33 PM	B81272
Ethylbenzene	ND	1.0		µg/L	1	9/14/2021 6:49:33 PM	B81272
Xylenes, Total	ND	2.0		µg/L	1	9/14/2021 6:49:33 PM	B81272
Surr: 4-Bromofluorobenzene	88.5	70-130		%Rec	1	9/14/2021 6:49:33 PM	B81272

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2109590**
Date Reported: **9/21/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2109590
Project: 180061

Lab ID: 2109590-004 **Collection Date:** 9/9/2021 3:40:00 PM
Client Sample ID: MW 4 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	9/14/2021 7:13:21 PM	B81272
Toluene	ND	1.0		µg/L	1	9/14/2021 7:13:21 PM	B81272
Ethylbenzene	ND	1.0		µg/L	1	9/14/2021 7:13:21 PM	B81272
Xylenes, Total	ND	2.0		µg/L	1	9/14/2021 7:13:21 PM	B81272
Surr: 4-Bromofluorobenzene	88.8	70-130		%Rec	1	9/14/2021 7:13:21 PM	B81272

Lab ID: 2109590-005 **Collection Date:** 9/9/2021 4:22:00 PM
Client Sample ID: MW 5 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	9/14/2021 7:37:06 PM	B81272
Toluene	ND	1.0		µg/L	1	9/14/2021 7:37:06 PM	B81272
Ethylbenzene	ND	1.0		µg/L	1	9/14/2021 7:37:06 PM	B81272
Xylenes, Total	ND	2.0		µg/L	1	9/14/2021 7:37:06 PM	B81272
Surr: 4-Bromofluorobenzene	88.6	70-130		%Rec	1	9/14/2021 7:37:06 PM	B81272

Lab ID: 2109590-006 **Collection Date:** 9/9/2021 5:30:00 PM
Client Sample ID: MW 6 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	9/14/2021 8:00:48 PM	B81272
Toluene	ND	1.0		µg/L	1	9/14/2021 8:00:48 PM	B81272
Ethylbenzene	ND	1.0		µg/L	1	9/14/2021 8:00:48 PM	B81272
Xylenes, Total	ND	2.0		µg/L	1	9/14/2021 8:00:48 PM	B81272
Surr: 4-Bromofluorobenzene	91.3	70-130		%Rec	1	9/14/2021 8:00:48 PM	B81272

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2109590**
Date Reported: **9/21/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Timberwolf Environmental **Lab Order:** 2109590
Project: 180061

Lab ID: 2109590-007 **Collection Date:** 9/9/2021 4:22:00 PM
Client Sample ID: DUP **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	9/14/2021 9:58:55 PM	B81272
Toluene	ND	1.0		µg/L	1	9/14/2021 9:58:55 PM	B81272
Ethylbenzene	ND	1.0		µg/L	1	9/14/2021 9:58:55 PM	B81272
Xylenes, Total	ND	2.0		µg/L	1	9/14/2021 9:58:55 PM	B81272
Surr: 4-Bromofluorobenzene	87.2	70-130		%Rec	1	9/14/2021 9:58:55 PM	B81272

Lab ID: 2109590-008 **Collection Date:**
Client Sample ID: Trip Blank **Matrix:** TRIP BLANK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	9/14/2021 10:22:24 PM	B81272
Toluene	ND	1.0		µg/L	1	9/14/2021 10:22:24 PM	B81272
Ethylbenzene	ND	1.0		µg/L	1	9/14/2021 10:22:24 PM	B81272
Xylenes, Total	ND	2.0		µg/L	1	9/14/2021 10:22:24 PM	B81272
Surr: 4-Bromofluorobenzene	87.1	70-130		%Rec	1	9/14/2021 10:22:24 PM	B81272

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109590**

21-Sep-21

Client: Timberwolf Environmental

Project: 180061

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **B81272**	RunNo: **81272**
Prep Date:	Analysis Date: **9/14/2021**	SeqNo: **2870097** 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	2.0								
Surr: 4-Bromofluorobenzene	18		20.00		90.3	70	130			

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **B81272**	RunNo: **81272**
Prep Date:	Analysis Date: **9/14/2021**	SeqNo: **2870098** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.8	80	120			
Toluene	19	1.0	20.00	0	94.4	80	120			
Ethylbenzene	19	1.0	20.00	0	94.6	80	120			
Xylenes, Total	57	2.0	60.00	0	94.3	80	120			
Surr: 4-Bromofluorobenzene	18		20.00		91.0	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 Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Timberwolf Environmental** Work Order Number: **2109590** RcptNo: 1

Received By: **Desiree Dominguez** **9/11/2021 8:50:00 AM** DD

Completed By: **Desiree Dominguez** **9/11/2021 12:11:11 PM** DD

Reviewed By: JN 9/13/21

Chain of Custody

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 ☑ 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 ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☑ No ☐ NA ☐
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: (<2 or >12 unless noted)

Adjusted?

Checked by: KRG 9/13/21

Special Handling (if applicable)

15. 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:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.8	Good	Yes			

Chain-of-Custody Record

Client: Timberwolf Environmental

Mailing Address:

Phone #:

email or Fax#: jim@teamtimberwolf.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: 180061

Project #:

Project Manager: Jim Foster

Sampler:
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 0.8 - 0.0 = 0.8 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2109590	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9/9/21	1430	W	MW1			-001	✓									
	1255		MW2			-002	✓									
	1345		MW3			-003	✓									
	1540		MW4			-004	✓									
	1622		MW5			-005	✓									
	1730		MW6			-006	✓									
	1622		Dup			-007	✓									
			Trip Blank			-008	✓									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9/10/21	1025		Christen Waele		9/10/21	
9/10/21	1804	Christen Waele		courier	9/11/21	8:50

Remarks:

If necessary, samples submitted to Hall 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.

ANALYTICAL REPORT

September 22, 2021

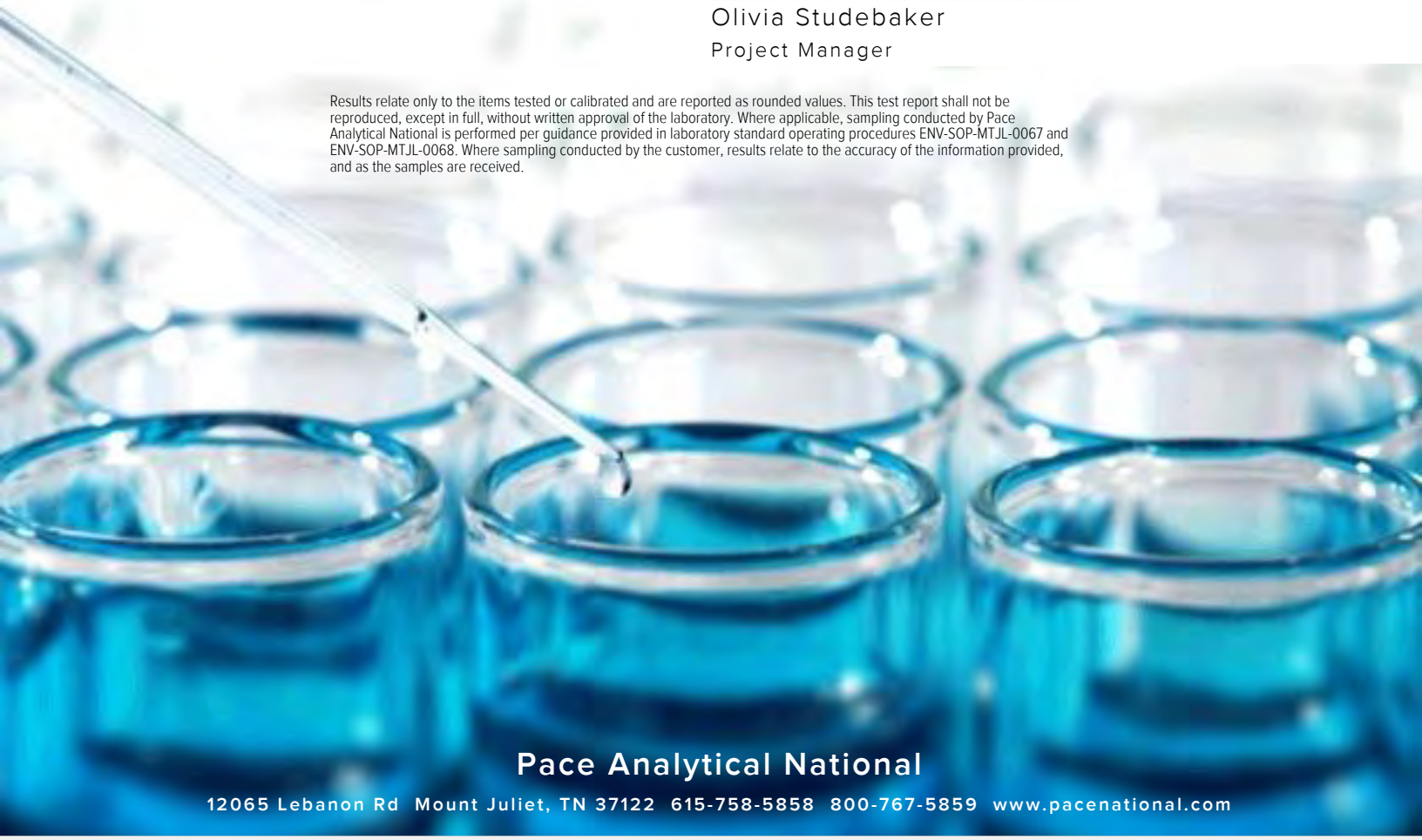
Timberwolf Environmental, LLC

Sample Delivery Group:	L1402334
Samples Received:	09/11/2021
Project Number:	HEC - 180061
Description:	Kaufman No. 1

Report To: Jim Foster
1920 W Villa Maria, Ste 205
Bryan, TX 77807

Entire Report Reviewed By:

Olivia Studebaker
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW1 L1402334-01 GW

Collected by | Collected date/time 09/09/21 14:30 | Received date/time 09/11/21 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1741449	1	09/20/21 17:28	09/21/21 14:21	JN	Mt. Juliet, TN

MW2 L1402334-02 GW

Collected by | Collected date/time 09/09/21 12:55 | Received date/time 09/11/21 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1742225	1	09/21/21 14:30	09/21/21 21:25	JN	Mt. Juliet, TN

MW3 L1402334-03 GW

Collected by | Collected date/time 09/09/21 13:45 | Received date/time 09/11/21 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1742225	1	09/21/21 14:30	09/21/21 21:39	JN	Mt. Juliet, TN

MW4 L1402334-04 GW

Collected by | Collected date/time 09/09/21 15:40 | Received date/time 09/11/21 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1742227	1	09/19/21 14:20	09/20/21 04:14	JN	Mt. Juliet, TN

MW5 L1402334-05 GW

Collected by | Collected date/time 09/09/21 16:22 | Received date/time 09/11/21 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1742227	1	09/19/21 14:20	09/20/21 04:28	JN	Mt. Juliet, TN

MW6 L1402334-06 GW

Collected by | Collected date/time 09/09/21 17:30 | Received date/time 09/11/21 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
TPH by TCEQ Method 1005	WG1742227	1	09/19/21 14:20	09/20/21 04:42	JN	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Olivia Studebaker
Project Manager

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	09/21/2021 14:21	WG1741449
TPH C12 - C28	U		0.600	0.900	0.900	1	09/21/2021 14:21	WG1741449
TPH C28 - C35	U		0.600	0.900	0.900	1	09/21/2021 14:21	WG1741449
TPH C6 - C35	U		0.600	0.900	0.900	1	09/21/2021 14:21	WG1741449
(S) o-Terphenyl	*94.7*				*70.0-130*		*09/21/2021 14:21*	WG1741449

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	09/21/2021 21:25	WG1742225
TPH C12 - C28	U		0.600	0.900	0.900	1	09/21/2021 21:25	WG1742225
TPH C28 - C35	U		0.600	0.900	0.900	1	09/21/2021 21:25	WG1742225
TPH C6 - C35	U		0.600	0.900	0.900	1	09/21/2021 21:25	WG1742225
(S) o-Terphenyl	*104*				*70.0-130*		*09/21/2021 21:25*	WG1742225

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	09/21/2021 21:39	WG1742225
TPH C12 - C28	U		0.600	0.900	0.900	1	09/21/2021 21:39	WG1742225
TPH C28 - C35	U		0.600	0.900	0.900	1	09/21/2021 21:39	WG1742225
TPH C6 - C35	U		0.600	0.900	0.900	1	09/21/2021 21:39	WG1742225
(S) o-Terphenyl	*108*				*70.0-130*		*09/21/2021 21:39*	WG1742225

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	09/20/2021 04:14	WG1742227
TPH C12 - C28	U		0.600	0.900	0.900	1	09/20/2021 04:14	WG1742227
TPH C28 - C35	U		0.600	0.900	0.900	1	09/20/2021 04:14	WG1742227
TPH C6 - C35	U		0.600	0.900	0.900	1	09/20/2021 04:14	WG1742227
(S) o-Terphenyl	*95.2*				*70.0-130*		*09/20/2021 04:14*	WG1742227

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-5
Collected date/time: 09/09/21 16:22
L1402334

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	09/20/2021 04:28	WG1742227
TPH C12 - C28	U		0.600	0.900	0.900	1	09/20/2021 04:28	WG1742227
TPH C28 - C35	U		0.600	0.900	0.900	1	09/20/2021 04:28	WG1742227
TPH C6 - C35	U		0.600	0.900	0.900	1	09/20/2021 04:28	WG1742227
(S) o-Terphenyl	*91.4*				*70.0-130*		*09/20/2021 04:28*	WG1742227

TPH by TCEQ Method 1005

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	09/20/2021 04:42	WG1742227
TPH C12 - C28	U		0.600	0.900	0.900	1	09/20/2021 04:42	WG1742227
TPH C28 - C35	U		0.600	0.900	0.900	1	09/20/2021 04:42	WG1742227
TPH C6 - C35	U		0.600	0.900	0.900	1	09/20/2021 04:42	WG1742227
(S) o-Terphenyl	*96.7*				*70.0-130*		*09/20/2021 04:42*	WG1742227

Method Blank (MB)

(MB) R3706598-1 09/21/21 06:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH C6 - C12	U		0.600	0.900
TPH C12 - C28	U		0.600	0.900
TPH C28 - C35	U		0.600	0.900
TPH C6 - C35	U		0.600	0.900
(S) o-Terphenyl	*112*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3706598-2 09/21/21 07:03 • (LCSD) R3706598-3 09/21/21 07:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	41.7	41.0	45.8	98.3	110	75.0-125			11.1	20
TPH C12 - C28	41.7	40.0	43.5	95.9	104	75.0-125			8.38	20
TPH C6 - C35	83.4	81.0	89.3	97.1	107	75.0-125			9.75	20
(S) o-Terphenyl				*110*	*116*	*70.0-130*				

Method Blank (MB)

(MB) R3707084-1 09/21/21 19:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH C6 - C12	U		0.600	0.900
TPH C12 - C28	U		0.600	0.900
TPH C28 - C35	U		0.600	0.900
TPH C6 - C35	U		0.600	0.900
(S) o-Terphenyl	*109*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3707084-2 09/21/21 19:33 • (LCSD) R3707084-3 09/21/21 19:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	41.7	40.0	40.9	95.9	98.1	75.0-125			2.22	20
TPH C12 - C28	41.7	39.0	39.7	93.5	95.2	75.0-125			1.78	20
TPH C6 - C35	83.4	79.0	80.6	94.7	96.6	75.0-125			2.01	20
(S) o-Terphenyl				*101*	*104*	*70.0-130*				

Method Blank (MB)

(MB) R3706109-1 09/20/21 03:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH C6 - C12	U		0.600	0.900
TPH C12 - C28	U		0.600	0.900
TPH C28 - C35	U		0.600	0.900
TPH C6 - C35	U		0.600	0.900
(S) o-Terphenyl	*98.2*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3706109-2 09/20/21 03:46 • (LCSD) R3706109-3 09/20/21 04:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	40.1	36.8	37.9	91.8	95.7	75.0-125			2.95	20
TPH C12 - C28	40.1	37.9	35.7	94.5	90.2	75.0-125			5.98	20
TPH C6 - C35	80.2	74.7	73.6	93.1	93.0	75.0-125			1.48	20
(S) o-Terphenyl				*101*	*96.5*	*70.0-130*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Timberwolf Environmental

Billing Information:

Report to: Jim Foster

Email To: jim@teamtimberwolf.com

Project Description: 180061

City/State Collected:

Phone:
Fax:

Client Project #

Lab Project #

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ✓ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

TPH - Tx 1005

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 1402334

H074

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Remarks	Sample # (lab only)
MW1	G	W	-	9/9/21	1430	2		-01
MW2					1255	2		-02
MW3					1345	2		-03
MW4					1540	2		-04
MW5					1622	2		-05
MW6					1730	2		-06

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 516377127917

Sample Receipt Checklist
COC Seal Present/Intact: ___NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ___Y __N
If Applicable
VOA Zero Headspace: ___Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	9/10/21	1050	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 3.6 °C Bottles Received: 12

Date: 9/11/21 Time: 1000

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

State of New Mexico
Energy, Minerals and Natural Resources Department

Mitch Killough
Hilcorp Energy Company
1111 Travis Street
Houston, TX 77002

RE: Abatement Completion Report Approval
Kaufman 001 (Incident #: NCS1833331001) AP-138

Mr. Killough,

Oil Conservation Division (OCD) has reviewed the file for the release referenced above. The available information indicates Hilcorp has met the requirements of 19.15.30 NMAC and no further corrective action is required. You are notified the referenced abatement/remediation is closed.

This finding by the OCD does not relieve Hilcorp of responsibility if future information shows a threat to ground water, surface water, human health, or the environment. Further, it does not relieve Hilcorp of responsibility for compliance with any federal, state, or local law.

Please properly plug remaining monitoring wells per requirements of the New Mexico Office of the State Engineer. Forward copies of plugging reports to OCD.Enviro@emnrd.nm.gov and to the groundwater abatement portal.

Respectfully,

Adrienne Sandoval
Division Director
AES/njv

Date: 10/20/2022

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
AZTEC

John Romero, P.E.
Acting State Engineer

100 Gossett Drive, Suite A
Aztec, New Mexico 87410

December 31, 2018

Hilcorp Energy Company
Via Timberwolf Environmental, LLC, as Agent
382 Road 3100
Aztec, NM 87410

RE: Permit Approval for Monitoring Wells, SJ-4327 POD1-POD6; Hilcorp Energy Company; Kaufman No. 1 Release Investigation; Rural San Juan County, New Mexico

Dear Ms. Deal:

On December 28, 2018, the New Mexico Office of the State Engineer received an application for a permit for the drilling and use of six proposed new monitoring wells at the above referenced location. Enclosed is a copy of the above numbered permit that has been approved subject to the conditions set forth on the approval page and in the attached Conditions of Approval. A receipt for the fees paid is also attached.

Please be aware that there are deadlines to submit well records for the newly installed monitoring wells. These deadlines can be found in the attached Conditions of Approval. A standardized plugging method has also been included in the Conditions of Approval for the future abandonment of the wells covered by this permit. This eliminates the need to submit a separate Well Plugging Plan of Operations for approval by the NMOSE prior to plugging, unless an alternate plugging method is proposed, required by a separate oversight agency, necessary due to incompatibility with actual conditions, or artesian conditions are encountered. The well and plugging records should be sent to the NMOSE District V, 100 Gossett Drive, Suite A, Aztec, NM, 87410.

If you have any questions regarding this permitting action, please feel free to contact me at (505) 334-4751.

Sincerely,

Blaine Watson

Blaine Watson, P.G.
District Manager
Water Rights Division – District V

Enclosures

cc: Aztec Reading (w/o enclosures)
SJ-4327 File
WATERS
Jim Foster, Timberwolf Environmental, LLC, via e-mail: jim@teamtimberwolf.com
Brandon Powell, NMOCD District 3, via email: brandon.powell@state.nm.us

OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – AZTEC OFFICE

OFFICIAL RECEIPT NUMBER: 5 - 6284 DATE: 12/28/2018 FILE NO.: SJ-4327 POD1-POD6

TOTAL: 25.00 RECEIVED: Twenty-Five + no/100 DOLLARS ☐ CASH: ☑ CHECK NO.: 2256

PAYOR: Timberwolf Environmental ADDRESS: 1920 W. Villa Maria Rd Ste 205

CITY: Bryan STATE: TX ZIP: 77807 RECEIVED BY: BW

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. **Original** to payor; **pink** copy to Program Support/ASD; **yellow** copy remains in district office; and **goldenrod** copy to accompany application being filed. If a mistake is made, void the original and all copies and submit to Program Support/ASD as part of the daily deposit.

A. Ground Water Filing Fees

___	1. Change of Ownership of Water Right	$ 2.00
___	2. Application to Appropriate or Supplement Domestic 72-12-1 Well	$ 125.00
___	3. Application to Repair or Deepen 72-12-1 Well	$ 75.00
___	4. Application for Replacement 72-12-1 Well	$ 75.00
___	5. Application to Change Purpose of Use 72-12-1 Well	$ 75.00
___	6. Application for Stock Well/Temp. Use	$ 5.00
___	7. Application to Appropriate Irrigation, Municipal, or Commercial Use	$ 25.00
___	8. Declaration of Water Right	$ 1.00
___	9. Application for Supplemental Non 72-12-1 Well	$ 25.00
___	10. Application to Change Place or Purpose of Use Non 72-12-1 Well	$ 25.00
___	11. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Ground Water	$ 50.00
___	12. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Ground Water	$ 50.00
___	13. Application to Change Point of Diversion of Non 72-12-1 Well	$ 25.00
___	14. Application to Repair or Deepen Non 72-12-1 Well	$ 5.00
(5)	15. Application for Test, Expl. Observ. Well	$ 5.00
___	16. Application for Extension of Time	$ 25.00
___	17. Proof of Application to Beneficial Use	$ 25.00
___	18. Notice of Intent to Appropriate	$ 25.00

B. Surface Water Filing Fees

___	1. Change of Ownership of a Water Right	$ 5.00
___	2. Declaration of Water Right	$ 10.00
___	3. Amended Declaration	$ 25.00
___	4. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Surface Water	$ 200.00
___	5. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Surface Water	$ 200.00
___	6. Application to Change Point of Diversion	$ 100.00
___	7. Application to Change Place and/or Purpose of Use	$ 100.00
___	8. Application to Appropriate	$ 25.00
___	9. Notice of Intent to Appropriate	$ 25.00
___	10. Application for Extension of Time	$ 50.00
___	11. Supplemental Well to a Surface Right	$ 100.00
___	12. Return Flow Credit	$ 100.00
___	13. Proof of Completion of Works	$ 25.00
___	14. Proof of Application of Water to Beneficial Use	$ 25.00
___	15. Water Development Plan	$ 100.00
___	16. Declaration of Livestock Water Impoundment	$ 10.00
___	17. Application for Livestock Water Impoundment	$ 10.00

C. Well Driller Fees

___	1. Application for Well Driller's License	$ 50.00
___	2. Application for Renewal of Well Driller's License	$ 50.00

D. Reproduction of Documents

___ @ 25¢/copy $_____

___ Map(s) $_____

E. Certification $_____

F. *Credit Card Convenience Fee $_____

G. Other_____ $_____

Comments:

Tied to Receipt #5-6282 payment of five additional PODs not originally paid

All fees are non-refundable.

OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – AZTEC OFFICE

OFFICIAL RECEIPT NUMBER: 5 - 6282 DATE: 12-20-2018 FILE NO.: SJ-4327 PODI-6

TOTAL: 5.00 RECEIVED: Five DOLLARS ☐ CASH: ☒ CHECK NO.: 2250

PAYOR: Timberwolf Environmental ADDRESS: 1920 W. Villa Maria Rd., Ste. 205

CITY: Bryan STATE: TX ZIP: 77807 RECEIVED BY: MT

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. **Original** to payor; **pink** copy to Program Support/ASD; **yellow** copy remains in district office; and **goldenrod** copy to accompany application being filed. If a mistake is made, void the original and all copies and submit to Program Support/ASD as part of the daily deposit.

A. Ground Water Filing Fees

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___	4. Application for Replacement 72-12-1 Well	$ 75.00
___	5. Application to Change Purpose of Use 72-12-1 Well	$ 75.00
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___	7. Application to Appropriate Irrigation, Municipal, or Commercial Use	$ 25.00
___	8. Declaration of Water Right	$ 1.00
___	9. Application for Supplemental Non 72-12-1 Well	$ 25.00
___	10. Application to Change Place or Purpose of Use Non 72-12-1 Well	$ 25.00
___	11. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Ground Water	$ 50.00
___	12. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Ground Water	$ 50.00
___	13. Application to Change Point of Diversion of Non 72-12-1 Well	$ 25.00
___	14. Application to Repair or Deepen Non 72-12-1 Well	$ 5.00
1	15. Application for Test, Expl. Observ. Well	~~$ 5.00~~
___	16. Application for Extension of Time	$ 25.00
___	17. Proof of Application to Beneficial Use	$ 25.00
___	18. Notice of Intent to Appropriate	$ 25.00

B. Surface Water Filing Fees

___	1. Change of Ownership of a Water Right	$ 5.00
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___	3. Amended Declaration	$ 25.00
___	4. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Surface Water	$ 200.00
___	5. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Surface Water	$ 200.00
___	6. Application to Change Point of Diversion	$ 100.00
___	7. Application to Change Place and/or Purpose of Use	$ 100.00
___	8. Application to Appropriate	$ 25.00
___	9. Notice of Intent to Appropriate	$ 25.00
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___	11. Supplemental Well to a Surface Right	$ 100.00
___	12. Return Flow Credit	$ 100.00
___	13. Proof of Completion of Works	$ 25.00
___	14. Proof of Application of Water to Beneficial Use	$ 25.00
___	15. Water Development Plan	$ 100.00
___	16. Declaration of Livestock Water Impoundment	$ 10.00
___	17. Application for Livestock Water Impoundment	$ 10.00

C. Well Driller Fees

___	1. Application for Well Driller's License	$ 50.00
___	2. Application for Renewal of Well Driller's License	$ 50.00

D. Reproduction of Documents

___	@ 25¢/copy	$ ___
___	Map(s)	$ ___

E. Certification $ ___

F. *Credit Card Convenience Fee $ ___

G. Other ___ $ ___

Comments: Filing fee received for one proposed MW @ HTcorp's Kaufman No.1 site. Application is for 6 total MWs, therefore fees are needed for five additional wells.

All fees are non-refundable.

File No. SJ-4327 POD1-POD6

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well (Pump test)	☐ Construction Site/Public Works Dewatering	☐ Other(Describe):
☒ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☒ Temporary Request - Requested Start Date: Jan. 7th, 2019	Requested End Date: Unknown
Plugging Plan of Operations Submitted? ☐ Yes ☒ No	

1. APPLICANT(S)

Name: Hilcorp Energy Company	Name:
Contact or Agent: Jim Foster — check here if Agent ☒	Contact or Agent: — check here if Agent ☐
Mailing Address: 382 Rd 3100	Mailing Address:
City: Aztec	City:
State: NM — Zip Code: 87410	State: — Zip Code:
Phone: 979-324-2139 — ☐ Home ☒ Cell Phone (Work):	Phone: — ☐ Home ☐ Cell Phone (Work):
E-mail (optional): jim@teamtimberwolf.com	E-mail (optional):

FOR OSE INTERNAL USE — Application for Permit, Form WR-07, Rev 11/17/16

File No.: SJ-4327 POD1-POD6	Trn. No.:	Receipt No.: 5-6282 and 5-6284
Trans Description (optional):		
Sub-Basin:	PCW/LOG Due Date: 12/31/2019	

2. **WELL(S)** Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves , Section, Township, Range*) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
SJ-4327 POD1 MW1	-108.20335	36.85989	NE/4, NW/4, Sec. 33, T31N, R13W
SJ-4327 POD2 MW2	-108.20335	36.86007	NE/4, NW/4, Sec. 33, T31N, R13W
SJ-4327 POD3 MW3	-108.20309	36.85995	NE/4, NW/4, Sec. 33, T31N, R13W
SJ-4327 POD4 MW4	-108.20335	36.85980	NE/4, NW/4, Sec. 33, T31N, R13W
SJ-4327 POD5 MW5	-108.20361	36.85977	NE/4, NW/4, Sec. 33, T31N, R13W

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ■ Yes ☐ No If yes, how many 1

Other description relating well to common landmarks, streets, or other:
Located along the eastern bank of the La Plata River and on the Kaufman No. 1 well site

Well is on land owned by: Federal Land - Managed by BLM

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. **Attached?** ☐ Yes ■ No
If yes, how many_____

Approximate depth of well (feet): 18	Outside diameter of well casing (inches): 2.375
Driller Name: Geomat, Inc	Driller License Number: 1762

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Reason for monitoring well: Suspected groundwater contamination from a condensate/crude oil release.

Duration of planned monitoring: Ongoing, potential for multi-year to progress site towards regulatory closure.

OIL CONSERVATION DIVISION
ENGINEER OFFICE
AZTEC, NEW MEXICO
2010 DEC 28 PM 2:04

FOR OSE INTERNAL USE — Application for Permit, Form WR-07

File No.: SJ-4327 POD1-POD6	Tm No.:

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: ☐ Include a description of any proposed pump test, if applicable.	**Pollution Control and/or Recovery:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge.	**Construction De-Watering:** ☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	**Mine De-Watering:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: ■ Include the reason for the monitoring well, and, ■ The duration of the planned monitoring.	☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	**Ground Source Heat Pump:** ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Jim Foster
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Applicant Signature

Applicant Signature

STATE ENGINEER OFFICE
AZTEC, NEW MEXICO
2018 DEC 28 PM 2:04

ACTION OF THE STATE ENGINEER

This application is:

☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 31st day of December 20 18, for the State Engineer,

John Romero, P.E. Acting, State Engineer

By: Blaine Watson
Signature Print

Title: District V Manager
Print

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: SJ-4327 POD1-POD6	Trn No.:

NEW MEXICO OFFICE OF THE STATE ENGINEER

ATTACHMENT 1
POINT OF DIVERSION DESCRIPTIONS

This Attachment is to be completed if more than one (1) point of diversion is described on an Application or Declaration.

a. Is this a: ☐ Move-From Point of Diversion(s) ☒ Move-To Point of Diversion(s)	**b. Information on Attachment(s):** Number of points of diversion involved in the application: 6 Total number of pages attached to the application: 1

☐ **Surface Point of Diversion** **OR** ☒ **Well**

Name of ditch, acequia, or spring:	
Stream or water course:	
Tributary of:	

c. Location (Required):
Required: Move to POD location coordinate must be either New Mexico State Plane (NAD 83), UTM (NAD 83), or Lat/Long (WGS84)

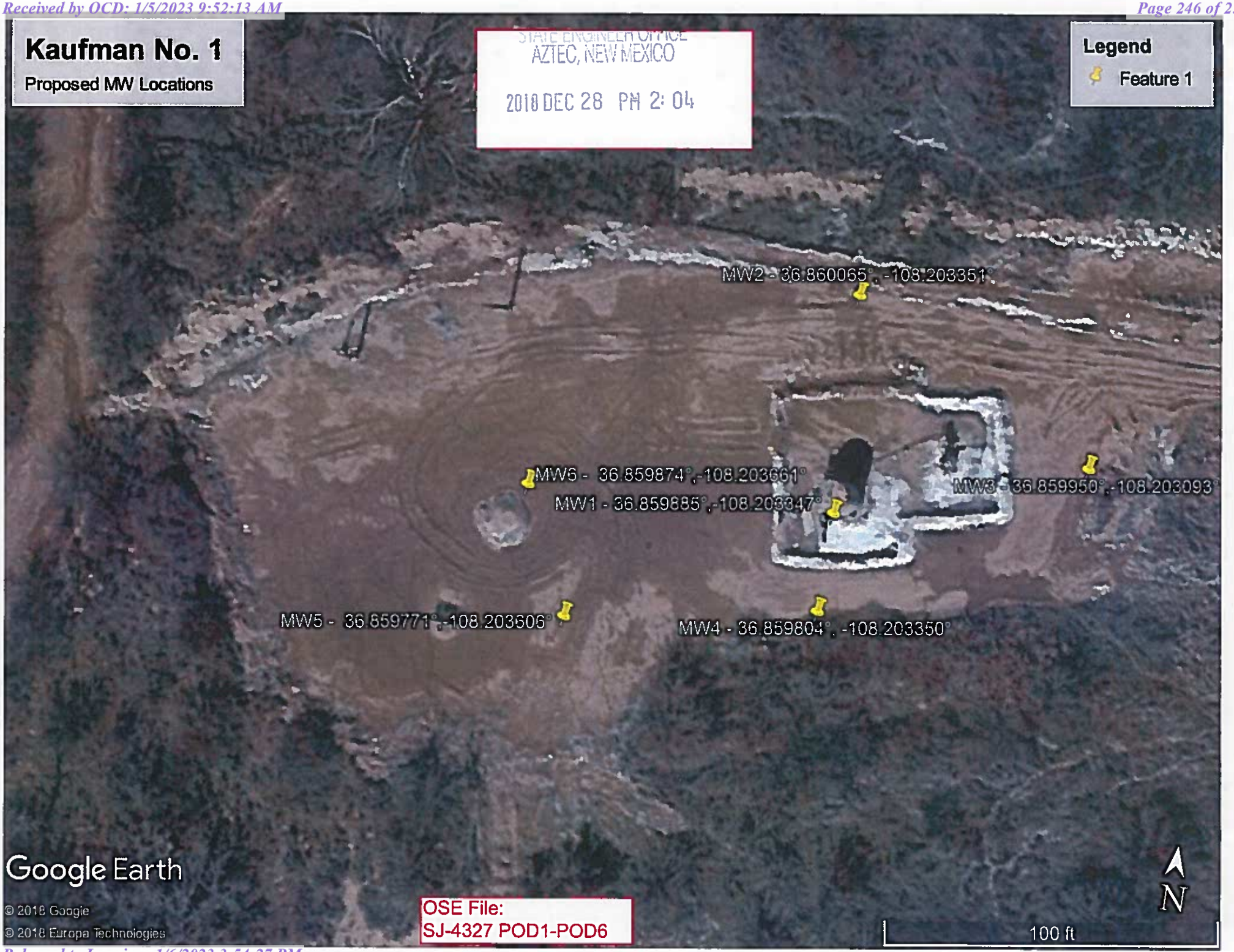
NM State Plane (NAD83) (feet) ☐ NM West Zone ☐ NM Central Zone ☐ NM East Zone	UTM (NAD83) (meters) Zone 13N ☐ Zone 12N ☐	☒ Lat/Long–(WGS84) 1/10th of second	OTHER (allowable only for move-from descriptions - see application form for format) ☒ PLSS (quarters, section, township, range) ☐ Hydrographic Survey, Map & Tract ☐ Lot, Block & Subdivision ☐ Grant
POD Number: MW6 (SJ-4327 POD6)	X or Longitude -108.20366	Y or Latitude 36.85987	Other Location Description: NE/4, NW4, Sec. 33, T31N, R13W
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:

STATE ENGINEER OFFICE AZTEC, NEW MEXICO 2018 DEC 28 PM 2:04

FOR OSE INTERNAL USE

Form wr-08
POD DESCRIPTIONS - ATTACHMENT 1

File Number: SJ-4327 POD1-POD6	Trn Number:
Trans Description (optional):	


Kaufman No. 1
Proposed MW Locations
STATE ENGINEER OFFICE
AZTEC, NEW MEXICO
2018 DEC 28 PM 2:04
Legend
Feature 1
MW2 - 36.860065°, -108.203351°
MW6 - 36.859874°,-108.203661°
MW1 - 36.859885°,-108.203847°
MW3 - 36.859950°, -108.203093°
MW5 - 36.859771°,-108.203606°
MW4 - 36.859804°, -108.203350°
Google Earth
© 2018 Google
© 2018 Europa Technologies
OSE File:
SJ-4327 POD1-POD6
N
100 ft

NMOSE Permit to Drill a Well(s) With No Water Right - Conditions of Approval
SJ-4327 POD1–POD6

The New Mexico Office of the State Engineer (NMOSE) has determined that existing water rights will not be impaired by this activity. This application is approved without publication provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state. This application approval (i.e., permit) is further subject to the following conditions of approval.

1. This permit is approved as follows:

Permittee(s): Hilcorp Energy Company
(via Timberwolf Environmental, LLC, as Agent)
382 Road 3100
Aztec, NM 87410

Permit Number: SJ-4327

Application File Date: December 28, 2018

Priority: N/A

Source: Groundwater

Point(s) of Diversion: Six points of diversion (PODs), SJ-4327 POD1 through POD6, are proposed. The PODs consist of six proposed monitoring wells (Table 1) that will be used for periodic groundwater sampling. The wells will be located at the Hilcorp Kaufman No. 1 release site located on land owned by The U.S. Department of the Interior Bureau of Land Management in rural San Juan County, New Mexico. The PODs will be located within the SE/4 NE/4 of Section 33, Township 31 North, Range 13 West, NMPM, at the following approximate point locations (Long/Lat, WGS84).

Table 1: Proposed New Monitoring Wells

POD Number and Owner's Well Name	Casing: Diameter (inches) and Depth (feet)		Longitude (Decimal Deg.)	Latitude (Decimal Deg.)
SJ-4327 POD1 (MW-1)	2	18	108.203347° W	36.859885° N
SJ-4327 POD2 (MW-2)	2	18	108.203351° W	36.860065° N
SJ-4327 POD3 (MW-3)	2	18	108.203093° W	36.859950° N
SJ-4327 POD4 (MW-4)	2	18	108.203350° W	36.859804° N
SJ-4327 POD5 (MW-5)	2	18	108.203606° W	36.859771° N
SJ-4327 POD6 (MW-6)	2	18	108.203661° W	36.859874° N

Purpose of Use: Groundwater sampling

Place of Use: N/A

Amount of Water: N/A

2. No water shall be appropriated and beneficially used from any wells or borings approved under this permit.

3. No water shall be diverted from the well(s) except for initial well development and periodic sampling purposes. Upon completion of monitoring activities the well(s) shall be plugged in accordance with Subsection C of 19.27.4.30 NMAC, unless a permit to use water is acquired from the NMOSE.

4. The well(s) may continue to be used indefinitely for groundwater sampling or monitoring required for the current site investigation and any associated remediation, so long as they remain in good repair. **A new permit shall be obtained from the NMOSE prior to replacing a well(s) or for any change in use as approved herein.**

5. Water well drilling and well drilling activities, including well plugging, are regulated under NMOSE Regulations 19.27.4 NMAC. These regulations apply, and provide both general and specific direction regarding the drilling of wells in New Mexico. Note that the construction of any well that allows groundwater to flow uncontrolled to the land surface or to move appreciably between geologic units is prohibited.

6. In accordance with Subsection A of 19.27.4.29 NMAC, on-site supervision of well drilling/plugging is required by the holder of a New Mexico Well Driller License or a NMOSE-registered Drill Rig Supervisor. The New Mexico licensed Well Driller shall ensure that well drilling activities are completed in accordance with 19.27.4.29, 19.27.4.30 and 19.27.4.31 NMAC. However, pursuant to 72-12-12 NMSA 1978 and 19.27.4.8 NMAC, a driller's license is not required for the construction of a driven well with an outside casing diameter of 2⅜ inches or less and that does not require the use of a drill rig (e.g., auger) for installation. This exemption is not applicable to well plugging.

7. The permittee has not stated whether artesian conditions are likely to be encountered at the proposed well/borehole location(s). However, if artesian conditions are encountered during drilling, all rules and regulations pertaining to the drilling and casing and plugging of artesian wells shall be followed.

8. A Well Record documenting the as-built well construction and materials used shall be filed for each of the new wells in accordance with Subsection N of 19.27.4.29 NMAC. **Well Records shall be filed with the State Engineer (NMOSE District V, 100 Gossett Drive, Suite A, Aztec, NM, 87410) within 30 days after completion of the well(s).** Well installation(s) shall be complete and the well record(s) filed no later than one year from the date of approval of this permit.

9. If the required Well Record documentation is not received within one year of the date of permit approval, this permit will automatically expire.

10. When the permittee receives approval or direction to permanently abandon the well(s)/borehole(s) covered by this permit, plugging shall be performed by a New Mexico licensed well driller. The well(s)/borehole(s) shall be plugged pursuant to Subsection C of 19.27.4.30 NMAC using the following method, unless an alternate plugging method has been proposed by or on behalf of the well owner and approved by the NMOSE. If a well/borehole has

encountered artesian conditions, a Well Plugging Plan of Operations shall be submitted and NMOSE approval obtained *prior* to the initiation of *any* well plugging activities concerning artesian wells. Additionally, if the following standardized plugging sealant is not appropriate for use due to incompatibility with the water quality or any soil and water contaminates encountered, a Well Plugging Plan of Operations shall be submitted and NMOSE approval obtained *prior* to the initiation of *any* well plugging activities.

a. Obstructions in a well/borehole shall be identified and removed if possible. If an obstruction cannot be removed, the method used to grout below and around the obstruction shall be described in detail in the plugging record.

b. Prior to plugging, calculate the theoretical volume of sealant needed for abandonment of the well/borehole based on the actual measured pluggable depth of the well/borehole and the volume factor for the casing/borehole diameter. Compare the actual volume of sealant placed in the well/borehole with the theoretical volume to verify the actual volume of sealant is equal to or exceeds the theoretical volume.

c. Portland Type I/II cement shall be used for the plugging sealant. The water mixed with the cement to create the plugging sealant shall be potable water or of similar quality. Portland cement has a fundamental water demand of 5.2 gallons of water per 94-lb sack of cement. Up to a maximum of 6.0 gallons per 94-lb sack is acceptable to allow for greater pumpability.

   Pure bentonite powder ("90 barrel yield") is allowed as a cement additive by NMOSE and American Water Works Association (AWWA) guidelines. If a bentonite additive is used, the following rates and mixing guidelines shall be followed. For a rate or a mixing procedure other than that provided below, the NMOSE District V office must be contacted for pre-approval. Neither granular bentonite nor extended-yield bentonite shall be mixed with cement for the purpose of this plugging activity. When supplementing a cement slurry with bentonite powder, water demand for the mix increases at a rate of approximately 0.65 gallon of water for each 1% increment of bentonite bdwc (by dry weight cement) above the stated base water demand of 5.2 gallons water per 94-lb sack of cement for neat cement. Bentonite powder must be hydrated separately with its required increment of water before being mixed into the wet neat cement. If water is otherwise added to the combination of dry ingredients or the dry bentonite is blended into wet cement, the alkalinity of the cement will restrict the yield of the bentonite powder, resulting in excess free water in the slurry and excessive cement shrinkage upon curing.

d. Placement of the sealant within the well/borehole shall be by pumping through a tremie pipe extended to near the bottom of the well/borehole and kept below the top of the slurry column (i.e., immersed in the slurry) as the well/borehole is plugged from bottom upwards in a manner that displaces the standing water column.

e. Prior to, or upon completion of plugging, the well casing may be cut-off below grade as necessary to allow for approved construction onsite, provided a minimum six-inch thickness of reinforced abandonment plugging sealant or concrete completely covers the top of the cut-off casing. Any remaining void to the surface may be filled with native soil, concrete, or asphalt as needed to match the surrounding surface material and blended with the surface topography to prevent ponding.

f. **Within 30 days after completion of well/borehole plugging, a complete Plugging Record shall be filed with the State Engineer** in accordance with Paragraph (3) of

Subsection C of 19.27.4.30 NMAC for each well/boring plugged. The Well Plugging Record(s) shall be filed with the State Engineer at the NMOSE District V Office, 100 Gossett Drive, Suite A, Aztec, NM 87410. The required well plugging record form is available at http://www.ose.state.nm.us/STST/wdForms.php.

11. In accordance with Subsection C of 19.27.4.30 NMAC, a well/borehole that does not encounter groundwater may be immediately plugged by filling with drill cuttings or clean native fill to within 10 feet of land surface and by plugging the remaining 10 feet to the land surface with a sealant approved by the Office of the State Engineer. A Plugging Record shall be filed with the State Engineer as described above.

12. Should another regulatory agency sharing jurisdiction of the project authorize, or by regulation require, more stringent requirements than stated herein, the more stringent procedure should be followed. These, among others, may include provisions regarding pre-authorization to proceed, type of methods and materials used, inspection, or prohibition of free discharge of any fluid or other material to or from the well that is related to the drilling and/or monitoring process.

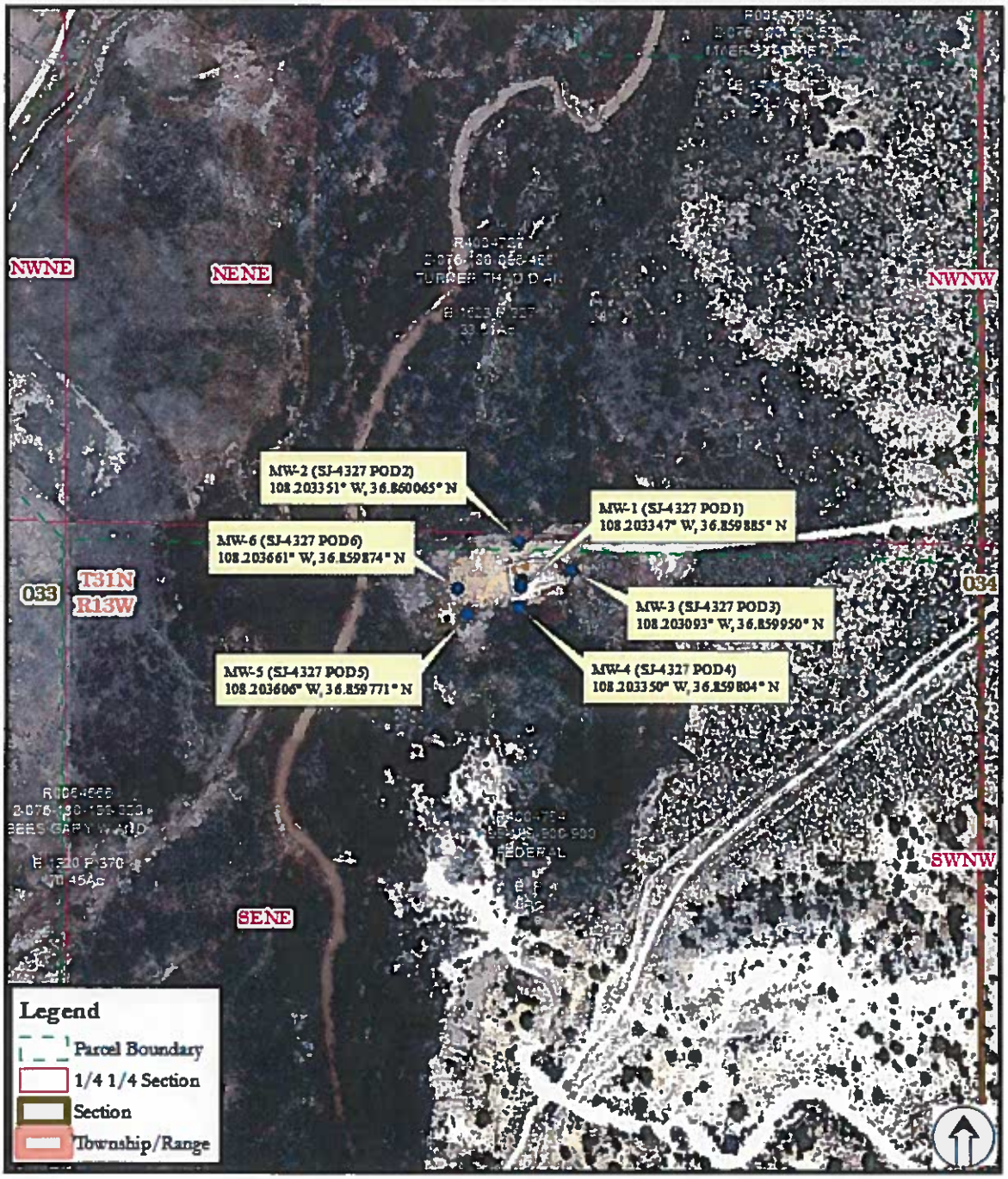
13. Pursuant to 72-12-3 NMSA 1978, the applicant may or may not have provided written documentation with the application, which the applicant claims as confirmation that access has been granted for the aforementioned well(s) to be located on property owned by someone other than the well owner/applicant. NMOSE approval of this permit in no way infers the right of access to land not owned by the well owner/applicant.

14. The State Engineer retains jurisdiction of this permit.

The application for drilling well(s) SJ-4327 POD1-POD6 without a water right, submitted on December 28, 2018, is hereby approved with the aforesaid conditions applied, when signed by an authorized designee of the State Engineer:

Witness my hand and seal this 31st day of December, A.D. 2018.
John Romero, P.E., Acting State Engineer

By: Blaine Watson
Blaine Watson, P.G., District Manager
District V Office, Water Rights Division



Map Description: Hilcorp, Kaufman No. 1 Release Investigation GW Monitoring Wells
Data sources: Application materials
File number: SJ-4327
Aerial Photography: 2017

STATE OF NEW MEXICO
Office of the State Engineer
Tom Blaine, P.E.
State Engineer

District V Office, Aztec
Well Location Map

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 172906

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	372171
	Action Number: 172906
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Accepted for the record. Abatement terms completed.	1/6/2023