Smith, Cory, EMNRD

From: Jennifer Deal <jdeal@hilcorp.com>
Sent: Monday, July 29, 2019 10:41 AM
To: Smith, Cory, EMNRD
Subject: [EXT] FW: [EXTERNAL] Hilcorp's Kaufman No. 1 - Weekly Update for week of 7/22/19
Attachments: Kaufman No. 1 (Figure 2Q19_potentiometric).pdf; Kaufman No. 1 (Figure ecologicalriskassessmentt).pdf

FYI

Jennifer Deal
Environmental Specialist
Hilcorp Energy – L48 West
jdeal@hilcorp.com
Office: (505) 324-5128
Cell: 505-801-6517

From: Jim Foster [mailto:jim@teamtimberwolf.com]
Sent: Monday, July 29, 2019 10:02 AM
To: Thomas, Leigh <l1thomas@blm.gov>; 'Abiodun Adeloye' <aadeloye@blm.gov>; John Kendall <j01kenda@blm.gov>
Cc: Jennifer Deal <jdeal@hilcorp.com>; Matt Henderson <mhenderson@hilcorp.com>; Ryan Mersmann <ryan@teamtimberwolf.com>; James McNutt <james@teamtimberwolf.com>; Clay Morris <clay@teamtimberwolf.com>
Subject: [EXTERNAL] Hilcorp's Kaufman No. 1 - Weekly Update for week of 7/22/19

All,

Below is a summary of work conducted last week at the Kaufman No. 1.

Wetland Investigation
Timberwolf completed its report for the wetland investigation. A copy of the report was delivered to the BLM – Farmington Office and the USACE – Durango Office.

Ecological Risk Assessment (Section 6.4)
The ecological assessment (Section 6.4 of the Stage 1 abatement plan) was conducted to determine if soil at the Site pose a risk to the Southwestern willow flycatcher. Soil samples were collected from the upper 2 ft of the excavation base and sidewalls. The assessment revealed that soil in the western portion of the excavation exceeded the protective concentration limits (PCL) for the Southwestern willow flycatcher. To mitigate the ecological risk, soil will be excavated for off-site disposal Findings of the risk assessment and proposed excavation area are presented in the attached figure.

Potentiometric Surface Map
During the additional groundwater assessment (Section 5 of the Stage 1 abatement plan), potentiometric surface elevations were collected for groundwater in each monitor well. The attached potentiometric surface map reveals groundwater is moving towards the excavation.

Thank you,
Jim Foster
President

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From: Jim Foster
Sent: Friday, July 19, 2019 4:14 PM
To: Thomas, Leigh <l1thomas@blm.gov>; 'Abiodun Adeloye' <aadeloye@blm.gov>; John Kendall <j01kenda@blm.gov>
Cc: Jennifer Deal <jdeal@hilcorp.com>; Matt Henderson <mhenderson@hilcorp.com>; Ryan Mersmann <ryan@teamtimberwolf.com>; James McNutt <james@teamtimberwolf.com>; Clay Morris <clay@teamtimberwolf.com>
Subject: Hilcorp's Kaufman No. 1 - Weekly Update for week of 7/15/19

All,

Below is a summary of work conducted this week for the Kaufman No. 1.

Wetland Delineation
Timberwolf completed its Wetland Delineation report. The report was submitted to Hilcorp personnel on 7/18/19 for review. Upon their approval, copies will be submitted to the BLM and USACE.

Receptor Survey
Four sensitive features were identified within a one-quarter mile radius of the Site. These include: one wetland, the La Plata River, an unnamed tributary of the La Plata River, and an irrigation canal. Also, 19 water wells were identified within a one-mile radius of the Site; all wells are domestic supply wells. Figures depicting the location of sensitive features and water wells are attached. Also, within the attached document is a table that provides well location, well type, and depth (if available).

Thank you,

Jim Foster
President
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From: Jim Foster
Sent: Friday, July 12, 2019 2:28 PM
To: Thomas, Leigh <l1thomas@blm.gov>; 'Abiodun Adeloye' <aadeloye@blm.gov>; John Kendall <j01kenda@blm.gov>
Cc: Jennifer Deal <jdeal@hilcorp.com>; Matt Henderson <mhenderson@hilcorp.com>; Ryan Mersmann <ryan@teamtimberwolf.com>; James McNutt <james@teamtimberwolf.com>; Clay Morris

<clay@teamtimberwolf.com>
Subject: Hilcorp's Kaufman No. 1 - Weekly Update for week of 7/8/19

All,

Below is a summary of work conducted this week on the Kaufman No. 1.

Public Notice
A public notice was submitted to the OCD for review and approval on 7/10/19. Upon approval, the notice will be published in newspapers with local and statewide circulation. Additionally, a list of property owners within a one-mile radius has been compiled. These landowners will receive written notice of the Stage 1 abatement plan as required under 19.15.30 NMAC.

Ecological Risk Assessment
On 7/11/19, 5 soil samples were collected to assess the ecological risk to the Southwestern willow flycatcher. Each soil sample was collected from the edge of the open excavation from the 0 – 2 ft depth interval. Samples were submitted to Hall Environmental for chemical analysis of: GRO, DRO, MRO, and BTEX.

Vadose Zone Assessment
On 7/11/19, 13 soil samples were collected from the excavation base and sidewalls to assess the vadose zone. Sidewall samples were collected from the 2.5 – 3.5 ft depth interval. Samples were submitted to Hall Environmental for chemical analysis of: GRO, DRO, MRO, and BTEX. Once laboratory analysis is complete, additional analysis will be conducted using EPA method SW-846 Test Method 1312 (*Synthetic Precipitation Leaching Procedure*) to evaluate the leachability of soil within the vadose zone.

Receptor Survey
Review of public records revealed 18 domestic water supply wells within a 1-mile radius of the Site. The closest water well is approximately 0.22 miles north-northwest of the Site.
A one-quarter mile ground reconnaissance was conducted on 7/11/19. Note: land ownership west of the La Plata River is predominately private; therefore, ground reconnaissance west of the river was restricted.

Wetland Delineation Map
On 7/2/19, Timberwolf conducted a wetland investigation. The attached map depicts the bounds of the investigation and identified features. One wetland was observed east of the Site and 3 areas of hydric vegetation (non-wetland) are located north and south of the Site.

Thank you,

Jim Foster
President
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From: Jim Foster
Sent: Wednesday, July 3, 2019 5:39 PM

To: 'Thomas, Leigh' <l1thomas@blm.gov>; 'Abiodun Adeloye' <aadeloye@blm.gov>
Cc: 'Jennifer Deal' <jdeal@hilcorp.com>; 'Matt Henderson' <mhenderson@hilcorp.com>; Ryan Mersmann <ryan@teamtimberwolf.com>; James McNutt <james@teamtimberwolf.com>; Clay Morris <clay@teamtimberwolf.com>
Subject: Hilcorp's Kaufman No. 1 - Weekly Update for week of 7/1/19

All,

Wetland Investigation

Per the Army Corp of Engineer's request, a wetland investigation was conducted at the Site on 7/2/19. The investigation area encompassed the same area of concern (AOC) as the archeological survey. The investigation revealed one wetland, located immediately east of the well pad. A map depicting the AOC and wetland boundary is being prepared and will be delivered as soon as available. The wetland investigation report is scheduled to be completed by 7/19/19.

Groundwater Analytical Results

Analytical results of a groundwater sample collected from the hydrologically upgradient monitor well MW3 revealed elevated salinity as previously identified from analysis of MW1 which is located immediately adjacent to the point of release. Total concentrations and relative percentages of TDS, chloride, and sulfate in MW1 and MW3 reveal a strong correlation in groundwater chemistry between the two samples. This suggests the elevated salinity observed is a native feature of the Site's groundwater. Analytical results for the two samples are presented in the table below. The full salinity chemistry will be presented in the Stage 2 Abatement Plan.

Constituent	MW1	MW3
TDS, mg/L	3130	2,750
Chloride, mg/L	130	120
Sulfate, mg/L	1,700	1,600

mg/L – milligrams per liter

Stage 1 Abatement Plan Status

The OCD appears to have deemed our Stage 1 Abatement Plan administratively complete. Therefore, a public notice will be issued within 15 days as required under 19.15.30.

Please let me know if you have any questions. Wishing everyone a good Independence Day!

Thank you,

Jim Foster
President
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From: Jim Foster
Sent: Friday, June 28, 2019 3:01 PM
To: Thomas, Leigh <l1thomas@blm.gov>; 'Abiodun Adeloye' <aadeloye@blm.gov>
Cc: Jennifer Deal <jdeal@hilcorp.com>; Matt Henderson <mhenderson@hilcorp.com>; Ryan Mersmann <ryan@teamtimberwolf.com>; James McNutt <james@teamtimberwolf.com>
Subject: Hilcorp's Kaufman No. 1 - Weekly Update

All,

Per the Stage 1 Abatement Plan, on June 20 and 21 Timberwolf conducted the following activities:

- Collected soil samples from the Site to horizontally delineate the historical hydrocarbon impacted soil observed at approximately 8-9' in samples collected from MW4, MW5, and MW6
- Collected soil samples from the perimeter of the excavation for the leachate study. Note: increased water level limited access to the excavation; therefore, no samples were collected from the excavation at this time
- Collected an upgradient groundwater sample to determine if salinity (i.e., TDS) observed in MW1 is a native feature of the Site's groundwater

All samples were submitted to Hall Environmental for laboratory analysis; Findings are presented below.

Horizontal Delineation of Historical Release

The attached figure shows locations of soil borings (i.e., SB1-SB5) installed to horizontally delineate the historical hydrocarbon impacted soil. No visible signs of hydrocarbon were observed, no appreciable PID readings were observed during field screening, and all samples collected were below regulatory limits. Soil boring locations and laboratory results are presented in the attached figure (leachatestudy).

Leachate Study Surrounding Excavation

Seven soil borings (i.e., SB6 – SB12) were installed surrounding the excavation to evaluate the vadose zone. Samples from 1 soil boring (i.e., SB11) exceeded the regulatory limit for TPH with a concentration of 280 mg/kg. Soil boring locations and laboratory results are presented in the attached figure (historical delineation). Additional investigation is scheduled along the excavation sidewalls and base.

Groundwater Sampling

Timberwolf collected a groundwater sample from MW3 to determine if TDS levels observed in MW1 were related to the release or are a native feature of the Site's groundwater. The sample was submitted to Hall Environmental; analysis is underway.

Please let me know if you have any questions.

Jim Foster
President
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Sample ID	Date	Volatile Organic Compound (mg/kg)				Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-MRO (mg/kg)	Total TPH (mg/kg)
		B	T	E	X					
EB1	07/11/19	0.13	< 0.25	0.86	3.2	4.19	300	47	< 49	347
EB2	07/11/19	0.28	< 0.24	2.2	12	14.48	360	210	< 48	570
EB3	07/11/19	6.2	17	35	410	468.2	3700	2000	< 480	5,700
ESW1 0-2'	07/11/19	< 0.024	< 0.049	< 0.049	< 0.098	< 0.098	< 4.9	13	< 49	13
ESW2 0-2'	07/11/19	< 0.12	< 0.24	< 0.24	< 0.49	< 0.49	180	700	< 47	880
ESW3 0-2'	07/11/19	< 0.12	< 0.24	< 0.24	0.8	0.8	120	290	< 47	410
ESW4 0-2'	07/11/19	2.0	2.8	9.8	190	204.6	2200	1000	< 480	3,200
ESW5 0-2'	07/11/19	0.3	0.16	0.41	6	6.87	60	< 9.2	< 46	60
PCL for Southwestern willow flycatcher		**26.36**	**25.98**	**97.1**	**7.7**	--	--	--	--	--

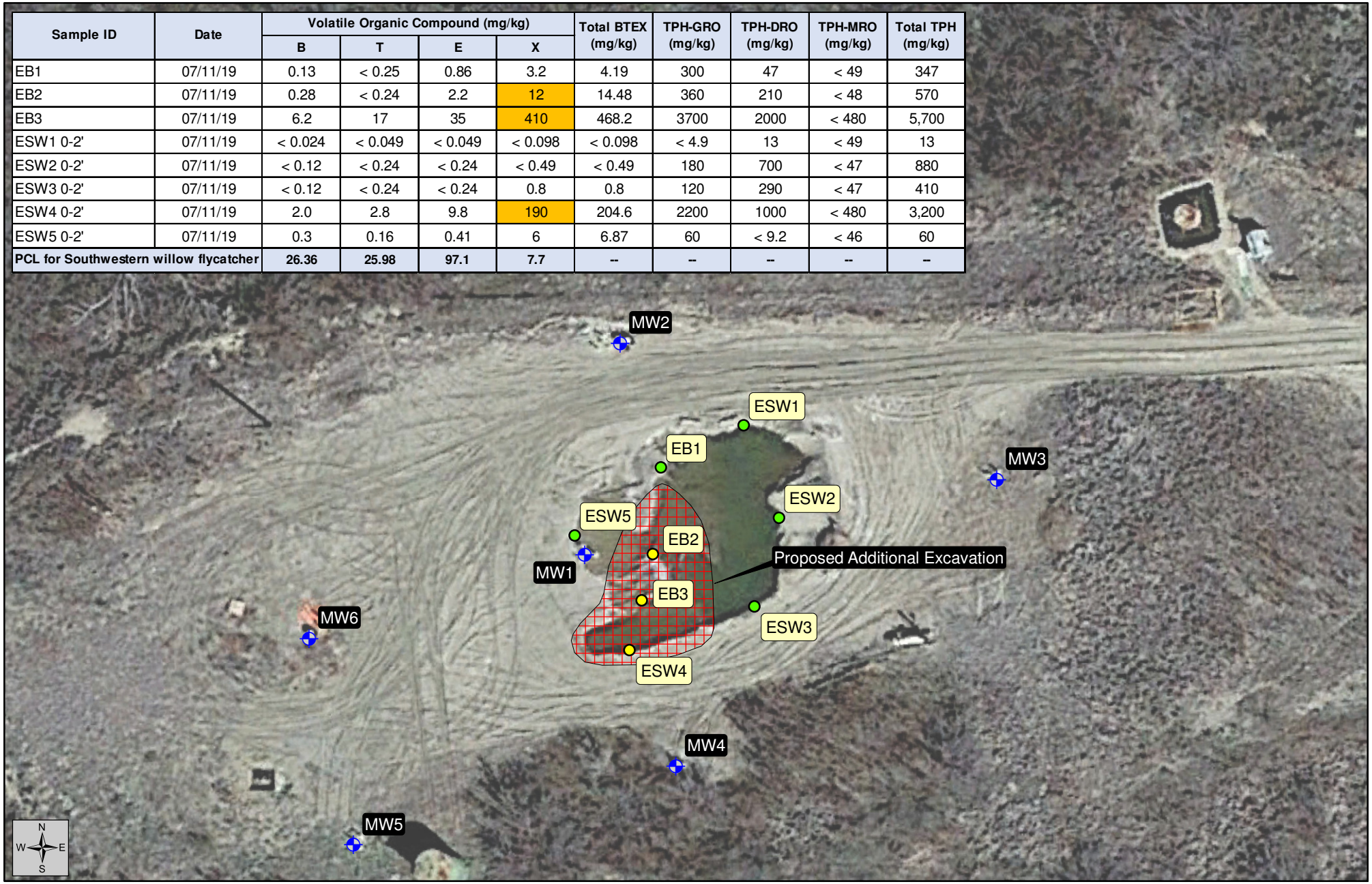

Figure
Ecological Risk Assessment

Stage 2 Abatement Plan

Sample Date:
July 11, 2019

TIMBERWOLF ENVIRONMENTAL

1:400

0 50 100 150 200 Feet

Created By:
Kevin Cole
June 28, 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

- Sample Location (clean)
- Sample Location (elevated)
- Monitor Well
- Proposed Additional Excavation

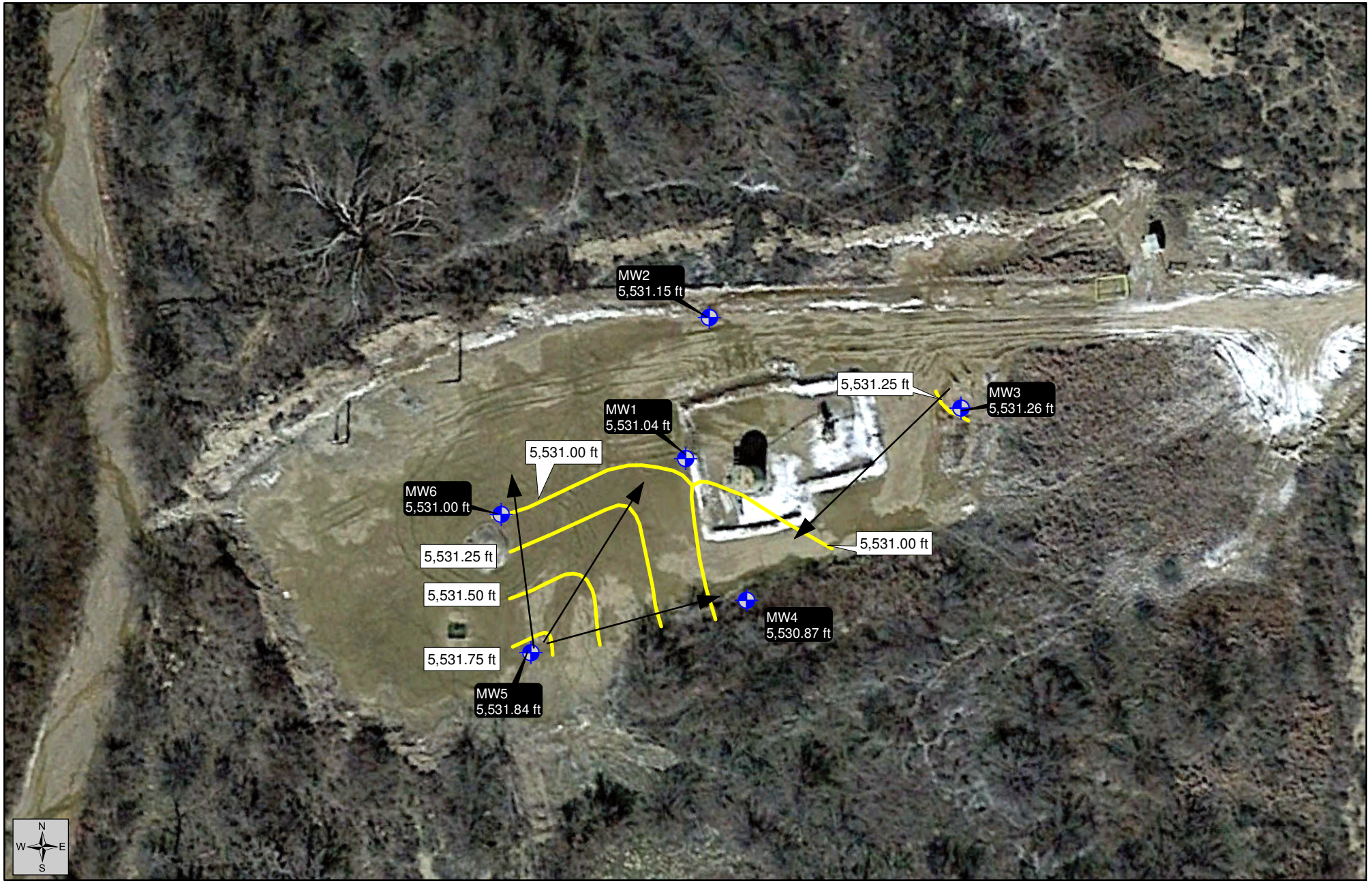

Figure
2Q19 Potentiometric Surface Map

SAR and Stage 1 Abatement Plan

Sample Date:
June 20, 2019

TIMBERWOLF ENVIRONMENTAL

1:598

0 50 100 150 200 250 Feet

Created By:
Kevin Cole
July 23, 2019
TE Project No.: HEC-180061

Kaufman No. 1 Release
Hilcorp Energy Company
San Juan County, New Mexico

Datum: NAD83
Imagery Source: GoogleEarth
Vector Source: TE

Monitor Well
Groundwater Gradient
Groundwater Flow