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REVIEWED

By Mike Buchanan at 2:46 pm, Sep 27, 2024

July 26, 2024

New Mexico Oil Conservation Division (NMOCD)
EMNRD/OCD
1220 South St. Francis Drive
Santa Fe, NM 87505

Attn: Mr. Michael Buchanan
P 505-490-0798
E Michael.buchanan@emnrd.nm.gov

RE: Groundwater Delineation Work Plan
Spur Energy Partners
State I #16 Brine Seep
Incident ID: nAPP2110253617
Loco Hills, Eddy County, New Mexico
Terracon Project No. KH237037

Dear Mr. Buchanan:

Terracon Consultants, Inc. (Terracon) and Spur Energy Partners, Inc. (SEI) are submitting this work plan describing site investigation activities planned for the above-mentioned project to address comments received in a July 2, 2024 letter from the New Mexico Oil Conservation Division (OCD) to Spur Energy Partners, Inc. (SEI) titled "Review of the Site Investigation report for State I #016 Brine Seep, Incident # nAPP2110253617": Content Unsatisfactory for closure". Specific comments from OCD include:

1. Groundwater contamination must be fully delineated and additional monitoring wells. Please propose where these will be placed in the area of concern by 07/02/2024.
2. In addition to the network of monitoring wells to be installed, four (4) additional monitoring wells must be installed in between B-1 and WW-1 and sampled for TDS, Chloride, and Sulfate by EPA methods 300, SW-846 for all wells.
3. EW-1 and NW-1 are not acceptable locations for background monitoring wells. The distance of these wells is too great for representative samples. EW-1 is approximately 1.6 miles away from a confirmed groundwater incident and NW-1 is approximately one mile away from BG-1.
4. A minimum of two (2) background monitoring wells must be installed upgradient from groundwater flow, which Spur Energy will need to determine.

Review of the Groundwater Delineation Work Plan for Spur Energy Partners, State I #16 Brine Seep, Incident # nAPP2110253617. This work plan is approved with the following Conditions of Approval:

1. Reposition proposed W-2 either 20' to 25' either southwest or northwest away from what appears to be a pipeline right-of-way.
2. Collect chloride samples every 10' for each advanced soil boring and submit lab analysis to the OCD by EPA method 300. As chloride impacted groundwater may have surfaced and seeped in the surrounding area of concern.
3. Establish groundwater gradient direction after installation of the four (4) proposed wells.

and this work plan scope of work is intended for review by the New Mexico Oil Conservation Division (OCD) to Spur Energy Partners, Inc. (SEI) titled "Review of the Site Investigation report for State I #016 Brine Seep, Incident # nAPP2110253617": Content Unsatisfactory for closure". Specific comments from OCD include:

ing additional monitoring wells in sixty (60) days from the date of this work plan. A monitoring well must be installed in between B-1 and WW-1 and sampled for TDS, Chloride, and Sulfate by EPA methods 300, SW-846 for all wells. The distance of these wells is too great for representative samples.

Scope of Work to Address Item 1

Terracon will proceed with the installation and sampling of the proposed monitoring wells as described below, in accordance with the requirements set forth in NMAC 19.15.30.13 (D). Although we do not have a well network to determine groundwater flow direction, we assume, based on other sites in the region, that flow will be to the South-Southeast. We are proposing to install four groundwater monitoring wells as shown on Exhibit xx. If all four wells are "clean", it would indicate the impacts are local to BG-1 and that

Explore with us

Groundwater Delineation Work Plan
State I #016 Brine Seep | Eddy County, New Mexico
July 26, 2024 | Terracon Project No. KH237037 | Case No. nAPP2110253617



the plume had been define. The proposed well locations can be seen with GPS coordinates attached as Exhibit 1.

Scope of Work to Address Item 2

Proposed MW-1 is located between B-1 and WW-1, and will address this comment. Additionally, as requested in Item 2, all wells will be sampled for TDS, chloride, sulfate, and RCRA 8 metals by EPA methods 300, and SW-846.

Scope of Work to Address Item 3

As discussed under Item 4 below, MW-3 and MW-4 are expected to be located upgradient of the release location and will be used to establish background concentrations of COC's in groundwater.

Scope of Work to Address Item 4

Item 3 requests that two monitoring wells be installed upgradient to the plume to provide background groundwater information. The proposed wells MW-3 and MW-4, placed northeast and northwest respectfully of BG-1, should provide this background information.

Groundwater Sampling

Following the installation of the new monitoring wells groundwater samples will be collected from each monitoring well. Samples will be collected utilizing low-flow sampling equipment or hand bailers. The groundwater samples will be analyzed for TDS, chloride, sulfate, and RCRA 8 metals.

Field Methods

The monitoring wells will be installed using air rotary drilling techniques to expected depths of 150 ft below ground surface (bgs). Precise location, depth, and screened intervals may be adjusted in the field based on site conditions and observed groundwater levels while drilling. Since the new well locations will be drilled in areas of the site that are removed from the area of the spill, soil samples will not be collected or analyzed during installation.

All monitoring wells are expected to be drilled to 150 ft total depth and screened from 130 ft to 150 ft. The monitoring wells will be constructed with 20 feet of 2-inch diameter, 0.010-inch machine-slotted polyvinyl chloride (PVC) well screen with a threaded bottom cap and 120 to 130 feet of 2-inch diameter, threaded, flush-joint PVC riser pipe to the surface. The annular space will be backfilled with pre-sieved 20/40-grade silica sand around the well screen from the bottom of the boring to approximately 2 feet above the top of the well screen. A minimum of 2 feet of hydrated bentonite pellets will be placed above the sand pack and cement/bentonite slurry to the surface. The well will be completed with a 4-inch diameter above-grade protective casing set in a concrete pad and protected with above-grade bollards at each corner of the well pad. The locations of the proposed monitoring wells are presented in the attached Exhibit 1.

The new monitoring wells will be developed by purging and removing groundwater until fluids appear relatively free of fine-grained sediment.

Investigation-Derived Waste (IDW)

The proposed monitoring wells will be located in areas of the site removed from the spill; therefore, soils are not anticipated to be impacted. The soil cuttings generated during installation will be dispersed at the location of each respective proposed monitoring well. Groundwater collected during well development and from the purging and sampling process will be collected in a poly tank and left on-site until lab results are analyzed.

Groundwater Delineation Work Plan
State I #016 Brine Seep | Eddy County, New Mexico
July 26, 2024 | Terracon Project No. KH237037 | Case No. nAPP2110253617



Schedule

The well installation and sampling event is scheduled to begin on the week of September 2, 2024, and is anticipated to be completed on September 20, 2024. However, initiation of the work is contingent on obtaining drilling permits from the New Mexico Office of State Engineer, and coordinating with subcontractor schedules. We will keep you informed as we work through permitting and scheduling the work, and welcome you to observe field work once we are able to get the work scheduled. Should you have any questions regarding this work plan, please contact either of us below at John.Grams@terracon.com or Joseph.Guesnier@terracon.com.

Sincerely,
Terracon

A handwritten signature in blue ink, appearing to read 'Joseph Guesnier', written over a printed name and title.

Joseph Guesnier, NORM RSO
Office Manager

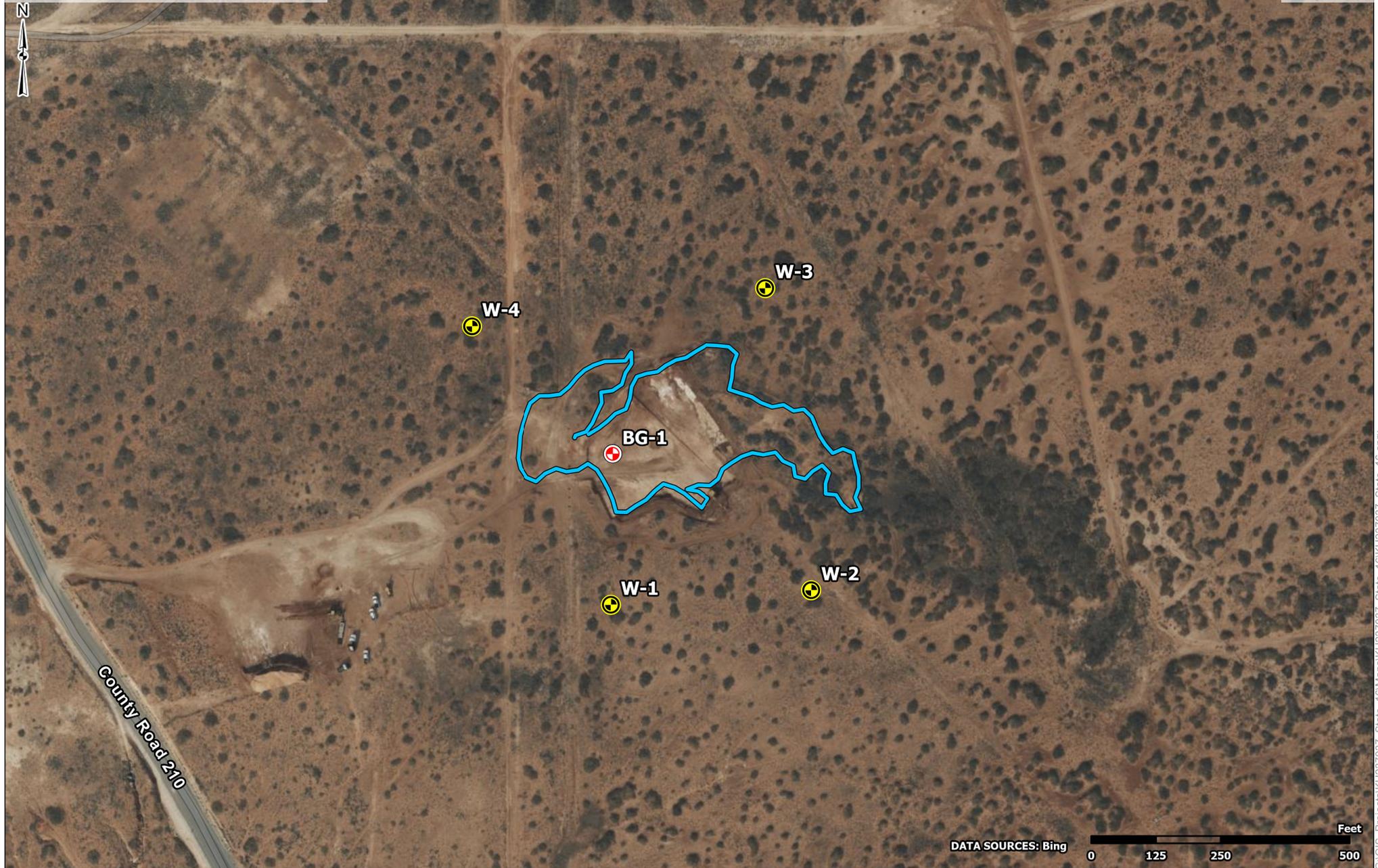
A handwritten signature in blue ink, appearing to read 'John Grams', written over a printed name and title.

John Grams, P.G. (Texas)
Environmental Department Manager

cc: Braidy Moulder, Spur Energy Partners

Attachment – Exhibit 1, Site Map

EXHIBIT 1
SITE MAP



-  Existing Well
-  Proposed Well
-  Inferred Release

Project No.:
KH237037

Date:
Jul 16 2024

Drawn By:
JWL

Reviewed By:
JRG



Terracon

4526 W Pierce St
Carlsbad, NM

PH. 806-300-0140 terracon.com

Proposed Wells Map

Sate | 16
32.801606°, -104.088176°
Eddy County, New Mexico

Exhibit

11

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 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 374097

CONDITIONS

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID:	328947
	Action Number:	374097
	Action Type:	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the Groundwater Delineation Work Plan for Spur Energy Partners, State I #16 Brine Seep, Incident # nAPP2110253617. This work plan is approved with the following Conditions of Approval: 1. Reposition proposed (W-2) 20' to 25' either southwest or northwest away from what appears to be a pipeline right-of-way. 2. Collect chloride samples every 10' for each advanced soil boring and submit lab analysis to the OCD by EPA method 300. As chloride impacted groundwater may have surfaced and seeped in the surrounding area of concern. 3. Establish groundwater gradient direction after installation of the four (4) proposed wells and convey that information to the OCD in the next groundwater abatement submittal.	9/27/2024