Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NRM2034257903
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

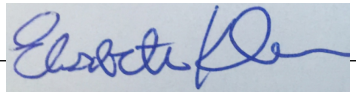
☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Elisabeth Klein Title: Director, EHS

Signature:  Date: 4/26/2021

email: lklein@3bearllc.com Telephone: 303-882-4404

OCD Only

Received by: Robert Hamlet Date: 7/8/2021

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Robert Hamlet Date: 7/8/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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TALON LPE

Remediation and Closure Report

Dark Canyon Valve Set
Eddy County, NM
Incident ID: NRM2034257903

Prepared For:

3 Bear Delaware Operating-NM, LLC
1512 Larimer St. Suite 540
Denver, CO 80202

Prepared By:

TALON/LPE
408 W. Texas Avenue
Artesia, NM 88210

May 20, 2021

Mr. Rob Hamlet
NMOCD District 1
811 S. 1st Street
Artesia, NM 88210

Subject: **Soil Assessment and Remediation Work Plan**
Dark Canyon Valve Set
Eddy County, New Mexico
Incident ID: NRM2034257903

3 Bear Delaware Operating-NM, LLC (3Bear) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The results of our soil assessment and proposed remediation activities are contained herein.

Site Information

The Dark Canyon Valve Set is located approximately seven (7) miles southeast of Carlsbad, New Mexico. The legal location for this release is Unit Letter A, Section 21, Township 23 South and Range 26 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.296589 North and -104.289958 West. A site plan is presented in Appendix I.

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Reagan loam. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is Holocene to middle Pleistocene in age and is comprised of alluvium and/or eolian deposits. Drainage courses in this area are well drained Appendix II.

The New Mexico Office of the State Engineer Database indicates the nearest reported depth to groundwater is 265-feet below ground surface (BGS), as referenced in POD (Point of Diversion) record C 01463. POD record C-02522 contains well data indicating the depth to groundwater in 1997 was 304'bgs., as referenced in correspondence from Mr. Travis Glenn. See Appendix II for the referenced groundwater depth.

Pursuant to the NMOCD recommendation: on March 08, 2021 thru the date of March 10, 2021 Talon Drillers advanced a temporary water well to depths of 51' bgs. On March 13, 2021 Talon personnel revisited the well site in order to gauge the depth of the well. The gauge registered at 51.5 ft. and no water was present at the bottom of the well. The temporary well was removed and plugged with bentonite to surface level. The boring log is referenced in Appendix II.

Site Characterization

Pursuant to Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29 of the New Mexico Administrative Code (NMAC), if a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to the groundwater.

Approximate Depth to Groundwater	**245 Feet/BGS**
☐Yes ☒No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
☐Yes ☒No	Within 200 feet of any lakebed, sinkhole or playa lake
☐Yes ☒No	Within 300 feet from an occupied permanent residence, school, hospital, institution or church
☐Yes ☒No	Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes
☐Yes ☒No	Within 1000 feet of any fresh water well or spring
☐Yes ☒No	Within incorporated municipal boundaries or within a defined Municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
☐Yes ☒No	Within 300 feet of a wetland
☐Yes ☒No	Within the area overlying a subsurface mine
☐Yes ☒No	Within an unstable area
☐Yes ☒No	Within a 100-year floodplain

This release did not occur within any of these areas and the depth to groundwater exceeds 100-feet BGS. Based upon the analytical data collected for this subsurface investigation, the impacts from this release are below NMOCD remediation closure criteria. However, analytical data indicates chloride concentrations in excess of 600 mg/kg. As such, the upper 4-feet of this area was restored to levels set forth in Table 1, 19.15.29 NMAC closure criteria. Therefore, the reclamation closure criteria for the sidewalls will be as follows:

Table I
Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method	Limit
>100’	Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

*****Clean up criteria for bottom of the excavation was 10,000 mg/kg per Robert Hamlet’s email dated 12/21/2020.

Incident Description

According to the C-141: on or about November 20, 2020, due to a pipeline failure approximately 4,000 barrels (bbl). of produced water were released onto the right of way. This right of way is part of a high-pressure production zone that traverses adjacent to a county road. The piping has been transported to a laboratory for analysis, in order to determine the mechanism of failure. 3 Bear Energy took proactive environmental protective measures by dispatching a Hydro-vac to recover all free-standing fluid, and by excavating all saturated soil immediately upon discovery.

Site Assessment

On November 23, 2020, Talon mobilized personnel to begin the site assessment and soil sampling activities. Dirt work completed by others in an effort to remove saturated soils, revealed that the impacted area had been excavated to approximately 4' bgs. Composite soil samples were collected within and around the impacted area utilizing a hand auger. All soil samples were properly collected, packaged, preserved, and transported to Hall Laboratories for analysis of Chloride analyte (Method EPA 300.0), Results from our initial sampling event are presented in the following data table. A complete laboratory report can be found in Appendix VII.

11-23-20 Lab Report

Sample ID	Depth (ft.)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	**Total TPH** mg/kg	Cl mg/kg
C	2'	NT	NT	NT	NT	NT	-	9000
S. SW	2'	NT	NT	NT	NT	NT	-	9000
E. SW-3	2'	NT	NT	NT	NT	NT	-	6100
E. SW-2	4'	ND	ND	ND	ND	ND	0	2700
A	4'	ND	ND	ND	ND	ND	0	4600
B	4'	ND	ND	ND	ND	ND	0	5000
W. SW	4'	ND	ND	ND	ND	ND	0	260
E. SW-1	4'	ND	ND	ND	ND	ND	0	ND
Source	4'	ND	ND	ND	ND	ND	0	6200

ND= Analyte Not Detected NT= Analyte Not Tested C=Composite

On December 14, 2020, Talon personnel utilized a Reich Air Rotary drill-rig to further vertically delineate those points at which chloride concentrations were still found to be greater than 600 mg/kg. The borings were advanced to the extent that refusal was encountered. The following boring positions were met with refusal B-2, B-4, B-5, B-7, and B-9 thru B-11 due to cobble stone and river rock. The boring extractions were properly analyzed, packaged, preserved, and transported to Hall Laboratories for analyses of total Chloride (EPA Method 300.0), BTEX (EPA Method 8021B), and TPH (EPA Method 8015M). The analytical results from this soil boring event are recapped in the table below. The official lab reports can be seen in Appendix VII.

12-16-20 Lab Report

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
B-1	12/14/2020	20'	NT	NT	NT	NT	NT	0	6200
		22'	NT	NT	NT	NT	NT	0	8000
		24' R	NT	NT	NT	NT	NT	0	7200
B-3	12/14/2020	20'	NT	NT	NT	NT	NT	0	2900
		22'	NT	NT	NT	NT	NT	0	5500
		24' R	NT	NT	NT	NT	NT	0	4000
B-6	12/9/2020	14'	ND	ND	ND	ND	ND	0	12000
		16'	NT	NT	NT	NT	NT	0	6800
		18' R	ND	ND	ND	ND	ND	0	6900
B-8	12/9/2020	14'	ND	ND	ND	ND	ND	0	7400
		16'	NT	NT	NT	NT	NT	0	2300
		18'	NT	NT	NT	NT	NT	0	3300
		20' R	ND	ND	ND	10	ND	10	3500
B-12	12/9/2020	6'	ND	ND	ND	ND	ND	0	1300
		8'	NT	NT	NT	NT	NT	0	710
		10'	NT	NT	NT	NT	NT	0	280
		12'	NT	NT	NT	NT	NT	0	320
		14'	NT	NT	NT	NT	NT	0	240
		16'	NT	NT	NT	NT	NT	0	200
		18'	NT	NT	NT	NT	NT	0	140
		20' R	ND	ND	ND	ND	ND	0	670
E.BG	12/9/2020	0-1'	ND	ND	ND	ND	ND	0	ND
		4'	NT	NT	NT	NT	NT	0	ND
		10'	NT	NT	NT	NT	NT	0	ND
		20' R	ND	ND	ND	15	ND	15	ND
W.BG	12/9/2020	0-1'	ND	ND	ND	ND	ND	0	ND
		4'	NT	NT	NT	NT	NT	0	ND
		10'	NT	NT	NT	NT	NT	0	ND
		20' R	ND	ND	ND	ND	ND	0	ND

ND = Analyte Not Detected NT = Analyte Not Tested BG = Background R = Refusal with Air Rotary Drill Rig

Remedial Actions

The following remedial actions are pursuant to email correspondence from Rob Hamlet, NMOCD District 2, dated 12/21/2020, as appended in Appendix V. A formal work plan complete with remedial scope of work was also submitted to the NMOCD on April 22, 2021. The application for corrective action was approved by the NMOCD on April 26, 2021.

The impacted area near the source has been excavated by 3 Bear Energy to a depth of 14' bgs. The remainder of the impacted spill area has also been excavated to depths of approximately 14' to 15' bgs., respectively. The bottom as well as the sidewalls were advanced and excavated to the extent that, all impacted soils above closure criteria and or the NMOCD approved criteria were removed. All excavated material has been transported and disposed of at R360, an NMOCD approved facility. Excavation and sample area maps are attached in Appendix I.

In accordance with Rob Hamlets conditions of approval and variance to test for Total Chlorides only (analyte of concern). Prior to liner installation the soil samples were collected approximately every 200 square feet on a composite basis confirming the levels left in place. The site excavation maps complete with sample positions are attached in Appendix I. All soil samples were properly retrieved, preserved, and transported to Hall Laboratories for analysis of Chloride (EPA method 300.0). The analytical results are referenced in the tables below for ease of reference, the complete laboratory reports are attached in Appendix Vll

March 2021
West Side Excavation Bottom Confirmation Soil Data

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
W-1	3/15/2021	14'	NT	NT	NT	NT	NT	0	440
W-2	3/15/2021	14'	NT	NT	NT	NT	NT	0	680
W-3	3/15/2021	14'	NT	NT	NT	NT	NT	0	970
W-4	3/15/2021	14'	NT	NT	NT	NT	NT	0	1200
W-5	3/15/2021	14'	NT	NT	NT	NT	NT	0	620
W-6	3/15/2021	14'	NT	NT	NT	NT	NT	0	470
W-7	3/15/2021	14'	NT	NT	NT	NT	NT	0	890
W-8	3/15/2021	14'	NT	NT	NT	NT	NT	0	970
W-9	3/15/2021	14'	NT	NT	NT	NT	NT	0	690
W-10	3/15/2021	14'	NT	NT	NT	NT	NT	0	1000
W-11	3/15/2021	14'	NT	NT	NT	NT	NT	0	1900
W-12	3/15/2021	14'	NT	NT	NT	NT	NT	0	1200
W-13	3/15/2021	14'	NT	NT	NT	NT	NT	0	1400
W-14	3/15/2021	14'	NT	NT	NT	NT	NT	0	1600
W-15	3/15/2021	14'	NT	NT	NT	NT	NT	0	1200
W-16	3/15/2021	14'	NT	NT	NT	NT	NT	0	1600
W-17	3/15/2021	14'	NT	NT	NT	NT	NT	0	2100
W-18	3/15/2021	14'	NT	NT	NT	NT	NT	0	1800
W-19	3/15/2021	14'	NT	NT	NT	NT	NT	0	1700
W-20	3/15/2021	14'	NT	NT	NT	NT	NT	0	1300
W-21	3/15/2021	14'	NT	NT	NT	NT	NT	0	900
W-22	3/15/2021	14'	NT	NT	NT	NT	NT	0	960
W-23	3/15/2021	14'	NT	NT	NT	NT	NT	0	1000
W-24	3/15/2021	14'	NT	NT	NT	NT	NT	0	1700
W-25	3/15/2021	14'	NT	NT	NT	NT	NT	0	2000

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
W-26	3/15/2021	14'	NT	NT	NT	NT	NT	0	2100
W-27	3/15/2021	14'	NT	NT	NT	NT	NT	0	3500
W-28	3/15/2021	14'	NT	NT	NT	NT	NT	0	1500
W-29	3/15/2021	14'	NT	NT	NT	NT	NT	0	740
W-30	3/15/2021	14'	NT	NT	NT	NT	NT	0	1100
W-31	3/15/2021	14'	NT	NT	NT	NT	NT	0	1200
W-32	3/15/2021	14'	NT	NT	NT	NT	NT	0	1300
W-33	3/15/2021	14'	NT	NT	NT	NT	NT	0	640
W-34	3/15/2021	14'	NT	NT	NT	NT	NT	0	400
W-35	3/15/2021	14'	NT	NT	NT	NT	NT	0	450
W-36	3/15/2021	14'	NT	NT	NT	NT	NT	0	890
W-37	3/15/2021	14'	NT	NT	NT	NT	NT	0	1000
W-38	3/15/2021	14'	NT	NT	NT	NT	NT	0	1200
W-39	3/15/2021	14'	NT	NT	NT	NT	NT	0	1200
W-40	3/16/2021	14'	NT	NT	NT	NT	NT	0	1200
W-41	3/16/2021	14'	NT	NT	NT	NT	NT	0	2100
W-42	3/16/2021	14'	NT	NT	NT	NT	NT	0	1300
W-43	3/16/2021	14'	NT	NT	NT	NT	NT	0	1600
W-44	3/16/2021	14'	NT	NT	NT	NT	NT	0	1400
W-45	3/16/2021	14'	NT	NT	NT	NT	NT	0	2500
W-46	3/16/2021	14'	NT	NT	NT	NT	NT	0	2300
W-47	3/16/2021	14'	NT	NT	NT	NT	NT	0	1300
W-48	3/16/2021	14'	NT	NT	NT	NT	NT	0	1500
W-49	3/16/2021	14'	NT	NT	NT	NT	NT	0	950
W-50	3/16/2021	14'	NT	NT	NT	NT	NT	0	1500

NT = Not Tested

West Side Excavation Bottom Confirmation Soil Data
(Continued)

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
W-51	3/16/2021	14'	NT	NT	NT	NT	NT	0	5100
W-52	3/16/2021	14'	NT	NT	NT	NT	NT	0	3400
W-53	3/16/2021	14'	NT	NT	NT	NT	NT	0	2500
W-54	3/16/2021	14'	NT	NT	NT	NT	NT	0	2600
W-55	3/16/2021	14'	NT	NT	NT	NT	NT	0	2300
W-56	3/16/2021	14'	NT	NT	NT	NT	NT	0	1100
W-57	3/16/2021	14'	NT	NT	NT	NT	NT	0	710
W-58	3/16/2021	14'	NT	NT	NT	NT	NT	0	520
W-59	3/16/2021	14'	NT	NT	NT	NT	NT	0	720
W-60	3/16/2021	14'	NT	NT	NT	NT	NT	0	1200
W-61	3/16/2021	14'	NT	NT	NT	NT	NT	0	3100
W-62	3/16/2021	14'	NT	NT	NT	NT	NT	0	1400
W-63	3/16/2021	14'	NT	NT	NT	NT	NT	0	1100
W-64	3/16/2021	14'	NT	NT	NT	NT	NT	0	2200
W-65	3/16/2021	14'	NT	NT	NT	NT	NT	0	1900
W-66	3/16/2021	14'	NT	NT	NT	NT	NT	0	990
W-67	3/16/2021	14'	NT	NT	NT	NT	NT	0	1200
W-68	3/16/2021	14'	NT	NT	NT	NT	NT	0	950
W-69	3/16/2021	14'	NT	NT	NT	NT	NT	0	290
W-70	3/16/2021	14'	NT	NT	NT	NT	NT	0	190
W-71	3/16/2021	14'	NT	NT	NT	NT	NT	0	210
W-72	3/16/2021	14'	NT	NT	NT	NT	NT	0	540
W-73	3/16/2021	14'	NT	NT	NT	NT	NT	0	520
W-74	3/16/2021	14'	NT	NT	NT	NT	NT	0	860
W-75	3/16/2021	14'	NT	NT	NT	NT	NT	0	310

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
W-76	3/16/2021	14'	NT	NT	NT	NT	NT	0	320
W-77	3/16/2021	14'	NT	NT	NT	NT	NT	0	210
W-78	3/16/2021	14'	NT	NT	NT	NT	NT	0	490
W-79	3/16/2021	14'	NT	NT	NT	NT	NT	0	290
W-80	3/16/2021	14'	NT	NT	NT	NT	NT	0	370
W-81	3/16/2021	14'	NT	NT	NT	NT	NT	0	480
W-82	3/16/2021	14'	NT	NT	NT	NT	NT	0	360
W-83	3/16/2021	14'	NT	NT	NT	NT	NT	0	570
W-84	3/16/2021	14'	NT	NT	NT	NT	NT	0	540
W-85	3/16/2021	14'	NT	NT	NT	NT	NT	0	660
W-86	3/16/2021	14'	NT	NT	NT	NT	NT	0	420
W-87	3/16/2021	14'	NT	NT	NT	NT	NT	0	540
W-88	3/22/2021	14'	NT	NT	NT	NT	NT	0	470
W-89	3/22/2021	14'	NT	NT	NT	NT	NT	0	490
W-90	3/22/2021	14'	NT	NT	NT	NT	NT	0	430
W-91	3/22/2021	14'	NT	NT	NT	NT	NT	0	370
W-92	3/22/2021	14'	NT	NT	NT	NT	NT	0	310
W-93	3/22/2021	14'	NT	NT	NT	NT	NT	0	530
W-94	3/22/2021	14'	NT	NT	NT	NT	NT	0	760
W-95	3/22/2021	14'	NT	NT	NT	NT	NT	0	480
W-96	3/22/2021	14'	NT	NT	NT	NT	NT	0	1400
W-97	3/22/2021	14'	NT	NT	NT	NT	NT	0	1900
W-98	3/22/2021	14'	NT	NT	NT	NT	NT	0	2200
W-99	3/22/2021	12'	NT	NT	NT	NT	NT	0	2000
W-100	3/22/2021	10'	NT	NT	NT	NT	NT	0	1300
W-101	3/22/2021	8'	NT	NT	NT	NT	NT	0	2000

NT=Analyte Not Tested

West Sidewall Confirmation Soil Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	600 mg/kg
W.SW-1	3/15/2021	14'	NT	NT	NT	NT	NT	0	260
W.SW-2	3/15/2021	14'	NT	NT	NT	NT	NT	0	450
W.SW-3	3/15/2021	14'	NT	NT	NT	NT	NT	0	790
	3/22/2021	14'	NT	NT	NT	NT	NT	0	120
W.SW-4	3/15/2021	14'	NT	NT	NT	NT	NT	0	540
W.SW-5	3/15/2021	14'	NT	NT	NT	NT	NT	0	640
	3/22/2021	14'	NT	NT	NT	NT	NT	0	110
W.SW-6	3/15/2021	14'	NT	NT	NT	NT	NT	0	940
	3/22/2021 *	14'	NT	NT	NT	NT	NT	0	110
W.SW-7	3/15/2021	14'	NT	NT	NT	NT	NT	0	610
	3/22/2021 *	14'	NT	NT	NT	NT	NT	0	110
W.SW-8	3/15/2021	14'	NT	NT	NT	NT	NT	0	550
W.SW-9	3/15/2021	14'	NT	NT	NT	NT	NT	0	530
W.SW-10	3/15/2021	14'	NT	NT	NT	NT	NT	0	720
	3/22/2021	14'	NT	NT	NT	NT	NT	0	110
W.SW-11	3/15/2021	14'	NT	NT	NT	NT	NT	0	460
W.SW-12	3/15/2021	14'	NT	NT	NT	NT	NT	0	410
W.SW-13	3/15/2021	14'	NT	NT	NT	NT	NT	0	170
W.SW-14	3/15/2021	14'	NT	NT	NT	NT	NT	0	270
W.SW-15	3/15/2021	14'	NT	NT	NT	NT	NT	0	330
W.SW-16	3/15/2021	14'	NT	NT	NT	NT	NT	0	310
W.SW-17	3/15/2021	14'	NT	NT	NT	NT	NT	0	260
W.SW-18	3/15/2021	14'	NT	NT	NT	NT	NT	0	150
W.SW-19	3/15/2021	14'	NT	NT	NT	NT	NT	0	190
W.SW-20	3/15/2021	14'	NT	NT	NT	NT	NT	N	230
NT = Not Tested SW = Sidewall * = Composition Sample									

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	600 mg/kg
W.SW-21	3/15/2021	14'	NT	NT	NT	NT	NT	0	300
W.SW-22	3/15/2021	14'	NT	NT	NT	NT	NT	0	270
W.SW-23	3/15/2021	14'	NT	NT	NT	NT	NT	0	110
W.SW-24	3/15/2021	14'	NT	NT	NT	NT	NT	0	150
W.SW-25	3/15/2021	14'	NT	NT	NT	NT	NT	0	90
W.SW-26	3/15/2021	14'	NT	NT	NT	NT	NT	0	140
W.SW-27	3/15/2021	14'	NT	NT	NT	NT	NT	0	210
W.SW-28	3/15/2021	14'	NT	NT	NT	NT	NT	0	200
W.SW-29	3/16/2021	14'	NT	NT	NT	NT	NT	0	250
W.SW-30	3/16/2021	14'	NT	NT	NT	NT	NT	0	120
W.SW-31	3/16/2021	14'	NT	NT	NT	NT	NT	0	320
W.SW-32	3/16/2021	14'	NT	NT	NT	NT	NT	0	270
W.SW-33	3/16/2021	14'	NT	NT	NT	NT	NT	0	160
W.SW-34	3/16/2021	14'	NT	NT	NT	NT	NT	0	220
W.SW-35	3/16/2021	14'	NT	NT	NT	NT	NT	0	390
W.SW-36	3/16/2021	14'	NT	NT	NT	NT	NT	0	350
W.SW-37	3/16/2021	14'	NT	NT	NT	NT	NT	0	300
W.SW-38	3/16/2021	14'	NT	NT	NT	NT	NT	0	280
W.SW-39	3/16/2021	14'	NT	NT	NT	NT	NT	0	210
W.SW-40	3/16/2021	14'	NT	NT	NT	NT	NT	0	190
W.SW-41	3/16/2021	14'	NT	NT	NT	NT	NT	0	160
W.SW-42	3/16/2021	14'	NT	NT	NT	NT	NT	0	290
W.SW-43	3/16/2021	14'	NT	NT	NT	NT	NT	0	370
W.SW-44	3/16/2021	14'	NT	NT	NT	NT	NT	0	420
W.SW-45	3/16/2021	14'	NT	NT	NT	NT	NT	0	680
	4/23/2021	14'	NT	NT	NT	NT	NT	0	ND

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	600 mg/kg
W.SW-46	3/16/2021	14'	NT	NT	NT	NT	NT	0	1200
	4/23/2021	14'	NT	NT	NT	NT	NT	0	ND
W.SW-47	3/16/2021	14'	NT	NT	NT	NT	NT	0	260
W.SW-48	3/16/2021	14'	NT	NT	NT	NT	NT	0	140
W.SW-49	3/16/2021	14'	NT	NT	NT	NT	NT	0	91
W.SW-50	3/16/2021	14'	NT	NT	NT	NT	NT	0	100
W.SW-51	3/16/2021	14'	NT	NT	NT	NT	NT	0	180
W.SW-52	3/16/2021	14'	NT	NT	NT	NT	NT	0	230
W.SW-53	3/16/2021	14'	NT	NT	NT	NT	NT	0	410
W.SW-54	3/16/2021	14'	NT	NT	NT	NT	NT	0	300
W.SW-55	3/16/2021	14'	NT	NT	NT	NT	NT	0	260
W.SW-56	3/16/2021	14'	NT	NT	NT	NT	NT	0	150
W.SW-57	3/16/2021	14'	NT	NT	NT	NT	NT	0	170
W.SW-58	3/16/2021	14'	NT	NT	NT	NT	NT	0	120
W.SW-59	3/16/2021	14'	NT	NT	NT	NT	NT	0	210
W.SW-60	3/16/2021	14'	NT	NT	NT	NT	NT	0	320
W.SW-61	3/16/2021	14'	NT	NT	NT	NT	NT	0	260
W.SW-62	3/16/2021	14'	NT	NT	NT	NT	NT	0	280
W.SW-63	3/16/2021	14'	NT	NT	NT	NT	NT	0	400
W.SW-64	3/22/2021	14'	NT	NT	NT	NT	NT	0	330
W.SW-65	3/22/2021	14'	NT	NT	NT	NT	NT	0	350
W.SW-66	3/22/2021	14'	NT	NT	NT	NT	NT	0	410
W.SW-67	3/22/2021	14'	NT	NT	NT	NT	NT	0	620
	4/5/2021 *	14'	NT	NT	NT	NT	NT	0	ND
W.SW-68	3/22/2021	14'	NT	NT	NT	NT	NT	0	660
	4/5/2021 *	14'	NT	NT	NT	NT	NT	0	ND
NT = Not Tested ND = Not Detected SW = Sidewall * = Composition Sample									

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	600 mg/kg
W.SW-69	3/22/2021	14'	NT	NT	NT	NT	NT	0	1300
	4/1/2021	14'	NT	NT	NT	NT	NT	0	ND
W.SW-70	3/22/2021	14'	NT	NT	NT	NT	NT	0	680
	4/5/2021	14'	NT	NT	NT	NT	NT	0	ND
W.SW-71	3/22/2021	12'	NT	NT	NT	NT	NT	0	550
W.SW-72	3/22/2021	10'	NT	NT	NT	NT	NT	0	1200
	4/23/2021	14'	NT	NT	NT	NT	NT	0	ND
W.SW-73	3/22/2021	8'	NT	NT	NT	NT	NT	0	1300
	4/23/2021	14'	NT	NT	NT	NT	NT	0	ND
S.SW-1	4/8/2021	14'	NT	NT	NT	NT	NT	0	110
S.SW-2	4/8/2021	14'	NT	NT	NT	NT	NT	0	110
S.SW-3	4/8/2021	8'	NT	NT	NT	NT	NT	0	130
N.SW-1	3/22/2021	14'	NT	NT	NT	NT	NT	0	ND
N.SW-2	3/22/2021	14'	NT	NT	NT	NT	NT	0	66
W.SW-S	3/22/2021	14'	NT	NT	NT	NT	NT	0	ND

NT=Analyte Not Tested ND=Analyte Non-Detected

East Side Excavation Bottom Confirmation Soil Data

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			2500 mg/kg	10,000 mg/kg
E-1	3/17/2021	14'	NT	NT	NT	NT	NT	0	8800
E-2	3/17/2021	14'	NT	NT	NT	NT	NT	0	1000
E-3	3/17/2021	14'	NT	NT	NT	NT	NT	0	8100
E-4	3/17/2021	14'	NT	NT	NT	NT	NT	0	760
E-5	3/17/2021	14'	NT	NT	NT	NT	NT	0	7400
E-6	3/17/2021	14'	NT	NT	NT	NT	NT	0	410
E-7	3/17/2021	14'	NT	NT	NT	NT	NT	0	6600
E-8	3/17/2021	14'	NT	NT	NT	NT	NT	0	280
E-9	3/17/2021	14'	NT	NT	NT	NT	NT	0	3900
E-10	3/17/2021	14'	NT	NT	NT	NT	NT	0	260
E-11	3/17/2021	14'	NT	NT	NT	NT	NT	0	1800
E-12	3/17/2021	14'	NT	NT	NT	NT	NT	0	150
E-13	3/17/2021	14'	NT	NT	NT	NT	NT	0	1000
E-14	3/17/2021	14'	NT	NT	NT	NT	NT	0	170
E-15	3/17/2021	14'	NT	NT	NT	NT	NT	0	1300
E-16	3/17/2021	14'	NT	NT	NT	NT	NT	0	1700
E-17	3/17/2021	14'	NT	NT	NT	NT	NT	0	3600
E-18	3/17/2021	14'	NT	NT	NT	NT	NT	0	1700
E-19	3/17/2021	14'	NT	NT	NT	NT	NT	0	4900
E-20	3/17/2021	14'	NT	NT	NT	NT	NT	0	4700
E-21	3/17/2021	14'	NT	NT	NT	NT	NT	0	1700
E-22	3/17/2021	14'	NT	NT	NT	NT	NT	0	2400
E-23	3/17/2021	14'	NT	NT	NT	NT	NT	0	5600
E-24	3/17/2021	14'	NT	NT	NT	NT	NT	0	9300
E-25	3/17/2021	14'	NT	NT	NT	NT	NT	0	15000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	2700

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
E-26	3/17/2021	14'	NT	NT	NT	NT	NT	0	9100
E-27	3/17/2021	14'	NT	NT	NT	NT	NT	0	2000
E-28	3/17/2021	14'	NT	NT	NT	NT	NT	0	5300
E-29	3/17/2021	14'	NT	NT	NT	NT	NT	0	7500
E-30	3/17/2021	14'	NT	NT	NT	NT	NT	0	9000
E-31	3/17/2021	14'	NT	NT	NT	NT	NT	0	16000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	2700
E-32	3/17/2021	14'	NT	NT	NT	NT	NT	0	3100
E-33	3/17/2021	14'	NT	NT	NT	NT	NT	0	5100
E-34	3/17/2021	14'	NT	NT	NT	NT	NT	0	11000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	2800
E-35	3/17/2021	14'	NT	NT	NT	NT	NT	0	10000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	2600
E-36	3/17/2021	14'	NT	NT	NT	NT	NT	0	5000
E-37	3/17/2021	14'	NT	NT	NT	NT	NT	0	5300
E-38	3/17/2021	14'	NT	NT	NT	NT	NT	0	8300
E-39	3/17/2021	14'	NT	NT	NT	NT	NT	0	10000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	2600
E-40	3/17/2021	14'	NT	NT	NT	NT	NT	0	6700
E-41	3/17/2021	14'	NT	NT	NT	NT	NT	0	9600
E-42	3/17/2021	14'	NT	NT	NT	NT	NT	0	14000
	4/5/2021	15'	NT	NT	NT	NT	NT	0	440
E-43	3/17/2021	14'	NT	NT	NT	NT	NT	0	12000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	2600
E-44	3/17/2021	14'	NT	NT	NT	NT	NT	0	5600
E-45	3/17/2021	14'	NT	NT	NT	NT	NT	0	6400
E-46	3/17/2021	14'	NT	NT	NT	NT	NT	0	12000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	2800
E-47	3/17/2021	14'	NT	NT	NT	NT	NT	0	9800
E-48	3/17/2021	14'	NT	NT	NT	NT	NT	0	5200
E-49	3/17/2021	14'	NT	NT	NT	NT	NT	0	5800

East Side Excavation Bottom Confirmation Soil Data
(Continued)

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
E-50	3/17/2021	14'	NT	NT	NT	NT	NT	0	9800
E-51	3/17/2021	14'	NT	NT	NT	NT	NT	0	9600
E-52	3/17/2021	14'	NT	NT	NT	NT	NT	0	8800
E-53	3/17/2021	14'	NT	NT	NT	NT	NT	0	5800
E-54	3/17/2021	14'	NT	NT	NT	NT	NT	0	8700
E-55	3/17/2021	14'	NT	NT	NT	NT	NT	0	7500
E-56	3/17/2021	14'	NT	NT	NT	NT	NT	0	5800
E-57	3/19/2021	14'	NT	NT	NT	NT	NT	0	6400
E-58	3/19/2021	14'	NT	NT	NT	NT	NT	0	8300
E-59	3/19/2021	14'	NT	NT	NT	NT	NT	0	7800
E-60	3/19/2021	14'	NT	NT	NT	NT	NT	0	7200
E-61	3/19/2021	14'	NT	NT	NT	NT	NT	0	2900
E-62	3/19/2021	14'	NT	NT	NT	NT	NT	0	8300
E-63	3/19/2021	14'	NT	NT	NT	NT	NT	0	9100
E-64	3/19/2021	14'	NT	NT	NT	NT	NT	0	2400
E-65	3/19/2021	14'	NT	NT	NT	NT	NT	0	6400
E-66	3/19/2021	14'	NT	NT	NT	NT	NT	0	9400
E-67	3/19/2021	14'	NT	NT	NT	NT	NT	0	9100
E-68	3/19/2021	14'	NT	NT	NT	NT	NT	0	4500
E-69	3/19/2021	14'	NT	NT	NT	NT	NT	0	1500
E-70	3/19/2021	14'	NT	NT	NT	NT	NT	0	5700
E-71	3/19/2021	14'	NT	NT	NT	NT	NT	0	4800
E-72	3/19/2021	14'	NT	NT	NT	NT	NT	0	960
E-73	3/19/2021	14'	NT	NT	NT	NT	NT	0	2700
E-74	3/19/2021	14'	NT	NT	NT	NT	NT	0	5500

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
E-75	3/19/2021	14'	NT	NT	NT	NT	NT	0	4900
E-76	3/19/2021	14'	NT	NT	NT	NT	NT	0	2200
E-77	3/19/2021	14'	NT	NT	NT	NT	NT	0	4600
E-78	3/19/2021	14'	NT	NT	NT	NT	NT	0	7900
E-79	3/19/2021	14'	NT	NT	NT	NT	NT	0	12000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	2800
E-80	3/19/2021	14'	NT	NT	NT	NT	NT	0	4900
E-81	3/19/2021	14'	NT	NT	NT	NT	NT	0	6900
E-82	3/19/2021	14'	NT	NT	NT	NT	NT	0	8300
E-83	3/19/2021	14'	NT	NT	NT	NT	NT	0	9200
E-84	3/19/2021	14'	NT	NT	NT	NT	NT	0	4900
E-85	3/19/2021	14'	NT	NT	NT	NT	NT	0	4900
E-86	3/19/2021	14'	NT	NT	NT	NT	NT	0	8200
E-87	3/19/2021	14'	NT	NT	NT	NT	NT	0	9100
E-88	3/19/2021	14'	NT	NT	NT	NT	NT	0	5000
E-89	3/19/2021	14'	NT	NT	NT	NT	NT	0	6700
E-90	3/19/2021	14'	NT	NT	NT	NT	NT	0	8700
E-91	3/19/2021	14'	NT	NT	NT	NT	NT	0	7800
E-92	3/19/2021	14'	NT	NT	NT	NT	NT	0	6900
E-93	3/23/2021	14'	NT	NT	NT	NT	NT	0	6400
E-94	3/23/2021	14'	NT	NT	NT	NT	NT	0	6500
E-95 *	3/23/2021	14'	NT	NT	NT	NT	NT	0	12000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	3400
E-96	3/23/2021	14'	NT	NT	NT	NT	NT	0	6300
E-97	3/23/2021	14'	NT	NT	NT	NT	NT	0	5400
E-98 *	3/23/2021	14'	NT	NT	NT	NT	NT	0	12000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	3400
E-99	3/23/2021	14'	NT	NT	NT	NT	NT	0	9700
NT = Not Tested * = Composite Sample									

East Side Excavation Bottom Confirmation Soil Data

(Continued)

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
E-100	3/23/2021	14'	NT	NT	NT	NT	NT	0	9100
E-101	3/23/2021	14'	NT	NT	NT	NT	NT	0	7900
E-102	3/23/2021	14'	NT	NT	NT	NT	NT	0	11000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	3300
E-103	3/23/2021	14'	NT	NT	NT	NT	NT	0	14000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	3300
E-104	3/23/2021	14'	NT	NT	NT	NT	NT	0	6700
E-105	3/23/2021	14'	NT	NT	NT	NT	NT	0	11000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	3300
E-106	3/23/2021	14'	NT	NT	NT	NT	NT	0	11000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	2100
E-107	3/23/2021	14'	NT	NT	NT	NT	NT	0	4700
E-108	3/23/2021	14'	NT	NT	NT	NT	NT	0	3300
E-109	3/23/2021	14'	NT	NT	NT	NT	NT	0	690
E-110	3/23/2021	14'	NT	NT	NT	NT	NT	0	2000
E-111	3/23/2021	14'	NT	NT	NT	NT	NT	0	7500
E-112	3/23/2021	14'	NT	NT	NT	NT	NT	0	9400
E-113	3/23/2021	14'	NT	NT	NT	NT	NT	0	6200
E-114	3/23/2021	14'	NT	NT	NT	NT	NT	0	5300
E-115	3/23/2021	14'	NT	NT	NT	NT	NT	0	3600
E-116	3/23/2021	14'	NT	NT	NT	NT	NT	0	240
E-117	3/23/2021	14'	NT	NT	NT	NT	NT	0	190
E-118	3/23/2021	14'	NT	NT	NT	NT	NT	0	8200
E-119	3/23/2021	14'	NT	NT	NT	NT	NT	0	9500
E-120	3/23/2021	14'	NT	NT	NT	NT	NT	0	3800
NT = Not Tested									

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
E-121	3/23/2021	14'	NT	NT	NT	NT	NT	0	260
E-122	3/23/2021	14'	NT	NT	NT	NT	NT	0	150
E-123	3/23/2021	14'	NT	NT	NT	NT	NT	0	680
E-124	3/23/2021	14'	NT	NT	NT	NT	NT	0	1200
E-125	3/23/2021	14'	NT	NT	NT	NT	NT	0	4500
E-126	3/23/2021	14'	NT	NT	NT	NT	NT	0	9300
E-127	3/23/2021	14'	NT	NT	NT	NT	NT	0	12000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	2200
E-128	3/23/2021	14'	NT	NT	NT	NT	NT	0	9200
E-129	3/23/2021	14'	NT	NT	NT	NT	NT	0	8200
E-130	3/23/2021	14'	NT	NT	NT	NT	NT	0	5700
E-131	3/23/2021	14'	NT	NT	NT	NT	NT	0	4900
E-132	3/23/2021	14'	NT	NT	NT	NT	NT	0	1300
E-133	3/23/2021	14'	NT	NT	NT	NT	NT	0	320
E-134	3/23/2021	14'	NT	NT	NT	NT	NT	0	270
E-135	3/23/2021	14'	NT	NT	NT	NT	NT	0	350
E-136	3/23/2021	14'	NT	NT	NT	NT	NT	0	720
E-137	3/23/2021	14'	NT	NT	NT	NT	NT	0	1000
E-138	3/23/2021	14'	NT	NT	NT	NT	NT	0	640
E-139	3/23/2021	14'	NT	NT	NT	NT	NT	0	1600
E-140	3/23/2021	14'	NT	NT	NT	NT	NT	0	12000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	190
E-141	3/23/2021	14'	NT	NT	NT	NT	NT	0	12000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	2200
E-142	3/23/2021	14'	NT	NT	NT	NT	NT	0	16000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	1700

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
E-143	3/23/2021	14'	NT	NT	NT	NT	NT	0	9800
E-144	3/23/2021	14'	NT	NT	NT	NT	NT	0	12000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	1700
E-145	3/23/2021	14'	NT	NT	NT	NT	NT	0	13000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	1600
E-146	3/23/2021	14'	NT	NT	NT	NT	NT	0	12000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	1700
E-147	3/23/2021	14'	NT	NT	NT	NT	NT	0	14000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	1600
E-148	3/23/2021	14'	NT	NT	NT	NT	NT	0	12000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	1600
E-149	3/23/2021	14'	NT	NT	NT	NT	NT	0	10000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	1400
E-150	3/23/2021	14'	NT	NT	NT	NT	NT	0	9400
E-151	3/23/2021	14'	NT	NT	NT	NT	NT	0	14000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	1400
E-152	3/23/2021	14'	NT	NT	NT	NT	NT	0	13000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	1300
E-153	3/23/2021	14'	NT	NT	NT	NT	NT	0	4000
E-154	3/23/2021	14'	NT	NT	NT	NT	NT	0	1900
E-155	3/23/2021	14'	NT	NT	NT	NT	NT	0	10000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	1300
E-156	3/23/2021	14'	NT	NT	NT	NT	NT	0	8200
E-157	3/23/2021	14'	NT	NT	NT	NT	NT	0	2200
E-158	3/23/2021	14'	NT	NT	NT	NT	NT	0	1600
NT = Not Tested									

East Side Excavation Bottom Confirmation Soil Data
(Continued)

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
E-159	3/23/2021	14'	NT	NT	NT	NT	NT	0	10000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	1200
E-160	3/23/2021	14'	NT	NT	NT	NT	NT	0	9400
E-161	3/23/2021	14'	NT	NT	NT	NT	NT	0	2900
E-162	3/23/2021	14'	NT	NT	NT	NT	NT	0	3400
E-163	3/23/2021	14'	NT	NT	NT	NT	NT	0	7700
E-164	3/23/2021	14'	NT	NT	NT	NT	NT	0	11000
	4/1/2021	15'	NT	NT	NT	NT	NT	0	1300
E-165	3/23/2021	14'	NT	NT	NT	NT	NT	0	2800
E-166	3/23/2021	14'	NT	NT	NT	NT	NT	0	2900
E-167	3/23/2021	14'	NT	NT	NT	NT	NT	0	6500
E-168	3/23/2021	14'	NT	NT	NT	NT	NT	0	5200
E-169	3/23/2021	14'	NT	NT	NT	NT	NT	0	5200
E-170	3/23/2021	14'	NT	NT	NT	NT	NT	0	3900
E-171	3/23/2021	14'	NT	NT	NT	NT	NT	0	5600
E-172	3/23/2021	14'	NT	NT	NT	NT	NT	0	6500
E-173	3/23/2021	14'	NT	NT	NT	NT	NT	0	4600
E-174	3/23/2021	14'	NT	NT	NT	NT	NT	0	5000
E-175	3/23/2021	14'	NT	NT	NT	NT	NT	0	7200
E-176	3/24/2021	14'	NT	NT	NT	NT	NT	0	5600
E-177	3/24/2021	14'	NT	NT	NT	NT	NT	0	7800
E-178	3/24/2021	14'	NT	NT	NT	NT	NT	0	6500
E-179	3/24/2021	14'	NT	NT	NT	NT	NT	0	4300
E-180	3/24/2021	14'	NT	NT	NT	NT	NT	0	5800
E-181	3/24/2021	14'	NT	NT	NT	NT	NT	0	12000
	4/8/2021	15'	NT	NT	NT	NT	NT	0	5400
NT = Not Tested									

East Side Excavation Bottom Confirmation Soil Data
(Continued)

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
E-182	3/24/2021	14'	NT	NT	NT	NT	NT	0	17000
	4/8/2021	15'	NT	NT	NT	NT	NT	0	6200
E-183	3/24/2021	14'	NT	NT	NT	NT	NT	0	5200
E-184	3/24/2021	14'	NT	NT	NT	NT	NT	0	3000
E-185	3/24/2021	14'	NT	NT	NT	NT	NT	0	5500
E-186	3/24/2021	14'	NT	NT	NT	NT	NT	0	7800
E-187	3/24/2021	14'	NT	NT	NT	NT	NT	0	2400
E-188	3/24/2021	14'	NT	NT	NT	NT	NT	0	1200
E-189	3/24/2021	14'	NT	NT	NT	NT	NT	0	8800
E-190	3/24/2021	14'	NT	NT	NT	NT	NT	0	7400
E-191	3/24/2021	14'	NT	NT	NT	NT	NT	0	1400
E-192	3/24/2021	14'	NT	NT	NT	NT	NT	0	400
E-193	3/24/2021	14'	NT	NT	NT	NT	NT	0	1400
E-194	3/24/2021	14'	NT	NT	NT	NT	NT	0	1700
E-195	3/24/2021	14'	NT	NT	NT	NT	NT	0	450
E-196	3/24/2021	14'	NT	NT	NT	NT	NT	0	360
E-197	3/24/2021	14'	NT	NT	NT	NT	NT	0	2500
E-198	3/24/2021	14'	NT	NT	NT	NT	NT	0	2400
E-199	3/24/2021	14'	NT	NT	NT	NT	NT	0	940
E-200	3/24/2021	14'	NT	NT	NT	NT	NT	0	6400
E-201	3/24/2021	14'	NT	NT	NT	NT	NT	0	3200
E-202	3/24/2021	14'	NT	NT	NT	NT	NT	0	880
E-203	3/24/2021	14'	NT	NT	NT	NT	NT	0	850
E-204	3/24/2021	14'	NT	NT	NT	NT	NT	0	640
E-205	3/24/2021	14'	NT	NT	NT	NT	NT	0	750
NT = Not Tested									

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
E-206	3/24/2021	14'	NT	NT	NT	NT	NT	0	710
E-207	3/24/2021	14'	NT	NT	NT	NT	NT	0	630
E-208	3/24/2021	14'	NT	NT	NT	NT	NT	0	1600
E-209	3/24/2021	14'	NT	NT	NT	NT	NT	0	5400
E-210	3/24/2021	14'	NT	NT	NT	NT	NT	0	3400
E-211	3/24/2021	14'	NT	NT	NT	NT	NT	0	860
E-212	3/24/2021	14'	NT	NT	NT	NT	NT	0	520
E-213	3/24/2021	14'	NT	NT	NT	NT	NT	0	1500
E-214	3/24/2021	14'	NT	NT	NT	NT	NT	0	680
E-215	3/24/2021	14'	NT	NT	NT	NT	NT	0	530
E-216	3/24/2021	14'	NT	NT	NT	NT	NT	0	550
E-217	3/24/2021	14'	NT	NT	NT	NT	NT	0	660
E-218	3/24/2021	14'	NT	NT	NT	NT	NT	0	1200
E-219	3/24/2021	14'	NT	NT	NT	NT	NT	0	720
E-220	3/24/2021	14'	NT	NT	NT	NT	NT	0	940
E-221	3/24/2021	14'	NT	NT	NT	NT	NT	0	540
E-222	3/24/2021	14'	NT	NT	NT	NT	NT	0	520
E-223	3/24/2021	14'	NT	NT	NT	NT	NT	0	620
E-224	3/24/2021	14'	NT	NT	NT	NT	NT	0	600
E-225	3/24/2021	14'	NT	NT	NT	NT	NT	0	680
NT = Not Tested									

East Sidewall Confirmation Soil Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	600 mg/kg
E.SW-1	3/17/2021	14'	NT	NT	NT	NT	NT	0	570
E.SW-2	3/17/2021	14'	NT	NT	NT	NT	NT	0	470
E.SW-3	3/17/2021	14'	NT	NT	NT	NT	NT	0	270
E.SW-4	3/17/2021	14'	NT	NT	NT	NT	NT	0	280
E.SW-5	3/17/2021	14'	NT	NT	NT	NT	NT	0	230
E.SW-6	3/17/2021	14'	NT	NT	NT	NT	NT	0	94
E.SW-7	3/17/2021	14'	NT	NT	NT	NT	NT	0	130
E.SW-8	3/17/2021	14'	NT	NT	NT	NT	NT	0	89
E.SW-9	3/17/2021	14'	NT	NT	NT	NT	NT	0	160
E.SW-10	3/17/2021	14'	NT	NT	NT	NT	NT	0	160
E.SW-11	3/17/2021	14'	NT	NT	NT	NT	NT	0	210
E.SW-12	3/17/2021	14'	NT	NT	NT	NT	NT	0	160
E.SW-13	3/17/2021	14'	NT	NT	NT	NT	NT	0	1300
	4/1/2021	14'	NT	NT	NT	NT	NT	0	790
	4/9/2021	14'	NT	NT	NT	NT	NT	0	70
E.SW-14	3/17/2021	14'	NT	NT	NT	NT	NT	0	220
E.SW-15	3/17/2021	14'	NT	NT	NT	NT	NT	0	330
E.SW-16	3/17/2021	14'	NT	NT	NT	NT	NT	0	110
E.SW-17	3/17/2021	14'	NT	NT	NT	NT	NT	0	420
E.SW-18	3/17/2021	14'	NT	NT	NT	NT	NT	0	550
E.SW-19	3/17/2021	14'	NT	NT	NT	NT	NT	0	210
E.SW-20	3/17/2021	14'	NT	NT	NT	NT	NT	0	350
E.SW-21	3/17/2021	14'	NT	NT	NT	NT	NT	0	210
E.SW-22	3/17/2021	14'	NT	NT	NT	NT	NT	0	450
E.SW-23	3/17/2021	14'	NT	NT	NT	NT	NT	0	340
E.SW-24	3/17/2021	14'	NT	NT	NT	NT	NT	0	150
ND = Not Detected NT = Not Tested SW = Sidewall									

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	600 mg/kg
E.SW-25	3/17/2021	14'	NT	NT	NT	NT	NT	0	310
E.SW-26	3/17/2021	14'	NT	NT	NT	NT	NT	0	210
E.SW-27	3/17/2021	14'	NT	NT	NT	NT	NT	0	330
E.SW-28	3/19/2021	14'	NT	NT	NT	NT	NT	0	230
E.SW-29	3/19/2021	14'	NT	NT	NT	NT	NT	0	220
E.SW-30	3/19/2021	14'	NT	NT	NT	NT	NT	0	200
E.SW-31	3/19/2021	14'	NT	NT	NT	NT	NT	0	190
E.SW-32	3/19/2021	14'	NT	NT	NT	NT	NT	0	110
E.SW-33	3/19/2021	14'	NT	NT	NT	NT	NT	0	220
E.SW-34	3/19/2021	14'	NT	NT	NT	NT	NT	0	170
E.SW-35	3/19/2021	14'	NT	NT	NT	NT	NT	0	230
E.SW-36	3/19/2021	14'	NT	NT	NT	NT	NT	0	210
E.SW-37	3/19/2021	14'	NT	NT	NT	NT	NT	0	200
E.SW-38	3/19/2021	14'	NT	NT	NT	NT	NT	0	170
E.SW-39	3/19/2021	14'	NT	NT	NT	NT	NT	0	290
E.SW-40	3/19/2021	14'	NT	NT	NT	NT	NT	0	340
E.SW-41	3/19/2021	14'	NT	NT	NT	NT	NT	0	2300
	4/1/2021	14'	NT	NT	NT	NT	NT	0	780
	4/9/2021	14'	NT	NT	NT	NT	NT	0	72
E.SW-42	3/19/2021	14'	NT	NT	NT	NT	NT	0	1100
	4/1/2021	14'	NT	NT	NT	NT	NT	0	760
	4/9/2021	14'	NT	NT	NT	NT	NT	0	72
E.SW-43	3/23/2021	14'	NT	NT	NT	NT	NT	0	610
	4/1/2021 *	14'	NT	NT	NT	NT	NT	0	440
E.SW-44	3/23/2021	14'	NT	NT	NT	NT	NT	0	950
	4/1/2021 *	14'	NT	NT	NT	NT	NT	0	440
NT = Not Tested ND = Not Detected * = Composition Sample SW = Sidewall									

East Sidewall Confirmation Soil Results
(Continued)

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	600 mg/kg
E.SW-45	3/23/2021	14'	NT	NT	NT	NT	NT	0	350
E.SW-46	3/23/2021	14'	NT	NT	NT	NT	NT	0	500
E.SW-47	3/23/2021	14'	NT	NT	NT	NT	NT	0	710
	4/1/2021	14'	NT	NT	NT	NT	NT	0	200
E.SW-48	3/23/2021	14'	NT	NT	NT	NT	NT	0	2900
	4/1/2021	14'	NT	NT	NT	NT	NT	0	910
	4/9/2021	14'	NT	NT	NT	NT	NT	0	71
E.SW-49	3/23/2021	14'	NT	NT	NT	NT	NT	0	2400
	4/5/2021	14'	NT	NT	NT	NT	NT	0	270
E.SW-50	3/23/2021	14'	NT	NT	NT	NT	NT	0	130
E.SW-51	3/23/2021	14'	NT	NT	NT	NT	NT	0	720
	4/1/2021	14'	NT	NT	NT	NT	NT	0	190
E.SW-52	3/23/2021	14'	NT	NT	NT	NT	NT	0	320
E.SW-53	3/23/2021	14'	NT	NT	NT	NT	NT	0	92
E.SW-54	3/23/2021	14'	NT	NT	NT	NT	NT	0	200
E.SW-55	3/23/2021	14'	NT	NT	NT	NT	NT	0	180
E.SW-56	3/23/2021	14'	NT	NT	NT	NT	NT	0	130
E.SW-57	3/23/2021	14'	NT	NT	NT	NT	NT	0	70
E.SW-58	3/23/2021	14'	NT	NT	NT	NT	NT	0	68
E.SW-59	3/23/2021	14'	NT	NT	NT	NT	NT	0	190
E.SW-60	3/23/2021	14'	NT	NT	NT	NT	NT	0	250
E.SW-61	3/23/2021	14'	NT	NT	NT	NT	NT	0	150
E.SW-62	3/23/2021	14'	NT	NT	NT	NT	NT	0	120
E.SW-63	3/23/2021	14'	NT	NT	NT	NT	NT	0	200
E.SW-64	3/23/2021	14'	NT	NT	NT	NT	NT	0	770
	4/1/2021	14'	NT	NT	NT	NT	NT	0	ND
	NT = Not Tested ND = Not Detected SW = Sidewall								

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	600 mg/kg
E.SW-65	3/23/2021	14'	NT	NT	NT	NT	NT	0	940
	4/1/2021	14'	NT	NT	NT	NT	NT	0	ND
E.SW-66	3/23/2021	14'	NT	NT	NT	NT	NT	0	720
	4/1/2021	14'	NT	NT	NT	NT	NT	0	ND
E.SW-67	3/23/2021	14'	NT	NT	NT	NT	NT	0	220
E.SW-68	3/23/2021	14'	NT	NT	NT	NT	NT	0	260
E.SW-69	3/23/2021	14'	NT	NT	NT	NT	NT	0	1100
	4/1/2021	14'	NT	NT	NT	NT	NT	0	ND
E.SW-70	3/23/2021	14'	NT	NT	NT	NT	NT	0	2000
	4/1/2021	14'	NT	NT	NT	NT	NT	0	910
	4/9/2021	14'	NT	NT	NT	NT	NT	0	64
E.SW-71	3/23/2021	14'	NT	NT	NT	NT	NT	0	2700
	4/1/2021	14'	NT	NT	NT	NT	NT	0	960
	4/9/2021	14'	NT	NT	NT	NT	NT	0	66
E.SW-72	3/23/2021	14'	NT	NT	NT	NT	NT	0	880
	4/1/2021	14'	NT	NT	NT	NT	NT	0	ND
E.SW-73	3/23/2021	14'	NT	NT	NT	NT	NT	0	1200
	4/1/2021	14'	NT	NT	NT	NT	NT	0	2000
	4/9/2021	14'	NT	NT	NT	NT	NT	0	420
E.SW-74	3/23/2021	14'	NT	NT	NT	NT	NT	0	3000
	4/1/2021	14'	NT	NT	NT	NT	NT	0	2100
	4/9/2021	14'	NT	NT	NT	NT	NT	0	410
E.SW-75	3/23/2021	14'	NT	NT	NT	NT	NT	0	1800
	4/1/2021	14'	NT	NT	NT	NT	NT	0	570
NT = Not Tested ND = Not Detected SW = Sidewall									

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	600 mg/kg
E.SW-76	3/23/2021	14'	NT	NT	NT	NT	NT	0	1700
	4/1/2021	14'	NT	NT	NT	NT	NT	0	610
	4/9/2021	14'	NT	NT	NT	NT	NT	0	65
E.SW-77	3/23/2021	14'	NT	NT	NT	NT	NT	0	2300
	4/1/2021	14'	NT	NT	NT	NT	NT	0	880
	4/9/2021	14'	NT	NT	NT	NT	NT	0	63
E.SW-78	3/23/2021	14'	NT	NT	NT	NT	NT	0	1500
	4/1/2021	14'	NT	NT	NT	NT	NT	0	860
	4/9/2021	14'	NT	NT	NT	NT	NT	0	63
E.SW-79	3/23/2021	14'	NT	NT	NT	NT	NT	0	2100
	4/1/2021	14'	NT	NT	NT	NT	NT	0	800
	4/9/2021	14'	NT	NT	NT	NT	NT	0	62
E.SW-80	3/24/2021	14'	NT	NT	NT	NT	NT	0	3500
	4/8/2021	14'	NT	NT	NT	NT	NT	0	330
E.SW-81	3/24/2021	14'	NT	NT	NT	NT	NT	0	3600
	4/8/2021	14'	NT	NT	NT	NT	NT	0	330
E.SW-82	3/24/2021	14'	NT	NT	NT	NT	NT	0	1000
	4/8/2021	14'	NT	NT	NT	NT	NT	0	110
E.SW-83	3/24/2021	14'	NT	NT	NT	NT	NT	0	520
E.SW-84	3/24/2021	14'	NT	NT	NT	NT	NT	0	380
E.SW-85	3/24/2021	14'	NT	NT	NT	NT	NT	0	620
	4/8/2021	14'	NT	NT	NT	NT	NT	0	110
E.SW-86	3/24/2021	14'	NT	NT	NT	NT	NT	0	760
	4/8/2021	14'	NT	NT	NT	NT	NT	0	150
NT = Not Tested SW = Sidewall									

East Sidewall Confirmation Soil Results

(Continued)

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	600 mg/kg
E.SW-87	3/24/2021	14'	NT	NT	NT	NT	NT	0	830
	4/8/2021	14'	NT	NT	NT	NT	NT	0	110
E.SW-88	3/24/2021	14'	NT	NT	NT	NT	NT	0	650
	4/8/2021	14'	NT	NT	NT	NT	NT	0	77
E.SW-89	3/24/2021	14'	NT	NT	NT	NT	NT	0	390
E.SW-90	3/24/2021	14'	NT	NT	NT	NT	NT	0	1200
	4/8/2021	14'	NT	NT	NT	NT	NT	0	300
E.SW-91	3/24/2021	14'	NT	NT	NT	NT	NT	0	1100
	4/8/2021	14'	NT	NT	NT	NT	NT	0	280
E.SW-92	3/24/2021	14'	NT	NT	NT	NT	NT	0	540
E.SW-93	3/24/2021	14'	NT	NT	NT	NT	NT	0	570
E.SW-94	3/24/2021	14'	NT	NT	NT	NT	NT	0	660
	4/8/2021	14'	NT	NT	NT	NT	NT	0	120
E.SW-95	3/24/2021	14'	NT	NT	NT	NT	NT	0	460
E.SW-96	3/24/2021	14'	NT	NT	NT	NT	NT	0	380
E.SW-97	3/24/2021	14'	NT	NT	NT	NT	NT	0	320
E.SW-98	3/24/2021	14'	NT	NT	NT	NT	NT	0	280
E.SW-99	3/24/2021	14'	NT	NT	NT	NT	NT	0	600
	4/8/2021	14'	NT	NT	NT	NT	NT	0	100
E.SW-100	3/24/2021	14'	NT	NT	NT	NT	NT	0	580
E.SW-101	3/24/2021	14'	NT	NT	NT	NT	NT	0	760
	4/8/2021	14'	NT	NT	NT	NT	NT	0	120
E.SW-102	3/24/2021	14'	NT	NT	NT	NT	NT	0	2300
	4/8/2021	14'	NT	NT	NT	NT	NT	0	300
	NT = Not Tested SW = Sidewall								

Source Vertical Confirmations

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			1000 mg/kg	10,000 mg/kg
S-1	3/22/2021	14'	NT	NT	NT	NT	NT	0	5200
S-2	3/22/2021	14'	NT	NT	NT	NT	NT	0	5200
S-3	3/22/2021	14'	NT	NT	NT	NT	NT	0	7700
S-4	3/22/2021	14'	NT	NT	NT	NT	NT	0	5200
S-5	3/22/2021	14'	NT	NT	NT	NT	NT	0	8600
S-6	3/22/2021	14'	NT	NT	NT	NT	NT	0	5300

NT = Not Tested S = Source

Closure

Pursuant to the approved work plan: the excavation was advanced to depths whereby chloride levels were <10,000 mg/kg, and horizontally to the extent that the sidewalls tested for chlorides <600 mg/kg. Pursuant to the NMOCD approved criteria (12/21/2020): the excavated areas were backfilled to 9' bgs. with caliche, followed by a layer of sand to a depth of 8' bgs, A 20 mil. liner was seated, encapsulating the remaining chlorides, followed by an additional layer of sand in order to protect the integrity of the liner. The remaining depths of the excavation were backfilled with native topsoil to surface. The remediated area was restored to surrounding grade and terraced to prevent erosion. The entire restored area was seeded with State Sandy Loam (SL) seed mixture at the prescribed rate. The seed tags can be viewed in (Appendix VI). All contaminated soil was transported to R360, an NMOCD approved facility for disposal.

Talon LPE, on behalf of 3 Bear Energy respectfully submits this closure report, requesting that no further action be required and the regulatory file be closed.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-746-8768.

Respectfully submitted,

TALON/LPE

Rebecca Pons
Senior Project Manager

Attachments:
Appendix I Site Maps
Appendix II Soil Survey, Groundwater Data, and Boring Log
Appendix III C-141 Forms
Appendix IV Photo Documentation
Appendix V Correspondence
Appendix Vl Seed Tags
Appendix Vll Lab

APPENDIX I

SITE MAPS

Eddy Area, New Mexico

RA—Reagan loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w5c
Elevation: 1,100 to 4,400 feet
Mean annual precipitation: 7 to 14 inches
Mean annual air temperature: 60 to 70 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Reagan and similar soils: 98 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reagan

Setting

Landform: Alluvial fans, fan remnants
Landform position (three-dimensional): Rise
Down-slope shape: Linear, convex
Across-slope shape: Linear
Parent material: Alluvium and/or eolian deposits

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 60 inches: loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R042XC007NM - Loamy

Hydric soil rating: No

Minor Components

Upton

Percent of map unit: 1 percent
Ecological site: R042XC025NM - Shallow
Hydric soil rating: No

Atoka

Percent of map unit: 1 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 16, Jun 8, 2020

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 01140		C	ED	1	3	3	15	23S	26E	566980	3573870*	356	325		
C 00341	C	CUB	ED		1	3	22	23S	26E	567090	3572566*	1001	1881		
C 00352	C	CUB	ED		1	3	22	23S	26E	567090	3572566*	1001	1867		
C 00537		C	ED		1	4	21	23S	26E	566277	3572558*	1135	400		
C 01463		C	ED	2	2	3	22	23S	26E	567599	3572678*	1140	295	265	30
C 01022		C	ED	4	3	2	22	23S	26E	568005	3572894*	1322	121	90	31
C 01015		C	ED	4	4	4	15	23S	26E	568408	3573714*	1567	318	245	73
C 03238		C	ED	4	4	4	15	23S	26E	568408	3573714*	1567	323	245	78
C 00247		C	ED	4	2	4	15	23S	26E	568406	3574119*	1660	315	230	85
C 01639		C	ED	4	2	4	15	23S	26E	568406	3574119*	1660	300	70	230
C 00535	C	CUB	ED	2	1	1	27	23S	26E	567195	3571862*	1711	1903		
C 00367	C	CUB	ED		3	2	28	23S	26E	566286	3571353*	2256	1909		
C 04449 POD1		C	ED	2	1	4	14	23S	26E	569582	3574424	2872	251	230	21
C 04201 POD1		C	ED	4	4	2	14	23S	26E	569626	3574546	2953	255	110	145

Average Depth to Water: **185 feet**

Minimum Depth: **70 feet**

Maximum Depth: **265 feet**

Record Count: 14

UTMNAD83 Radius Search (in meters):

Easting (X): 566850.11 **Northing (Y):** 3573538.18 **Radius:** 3000

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

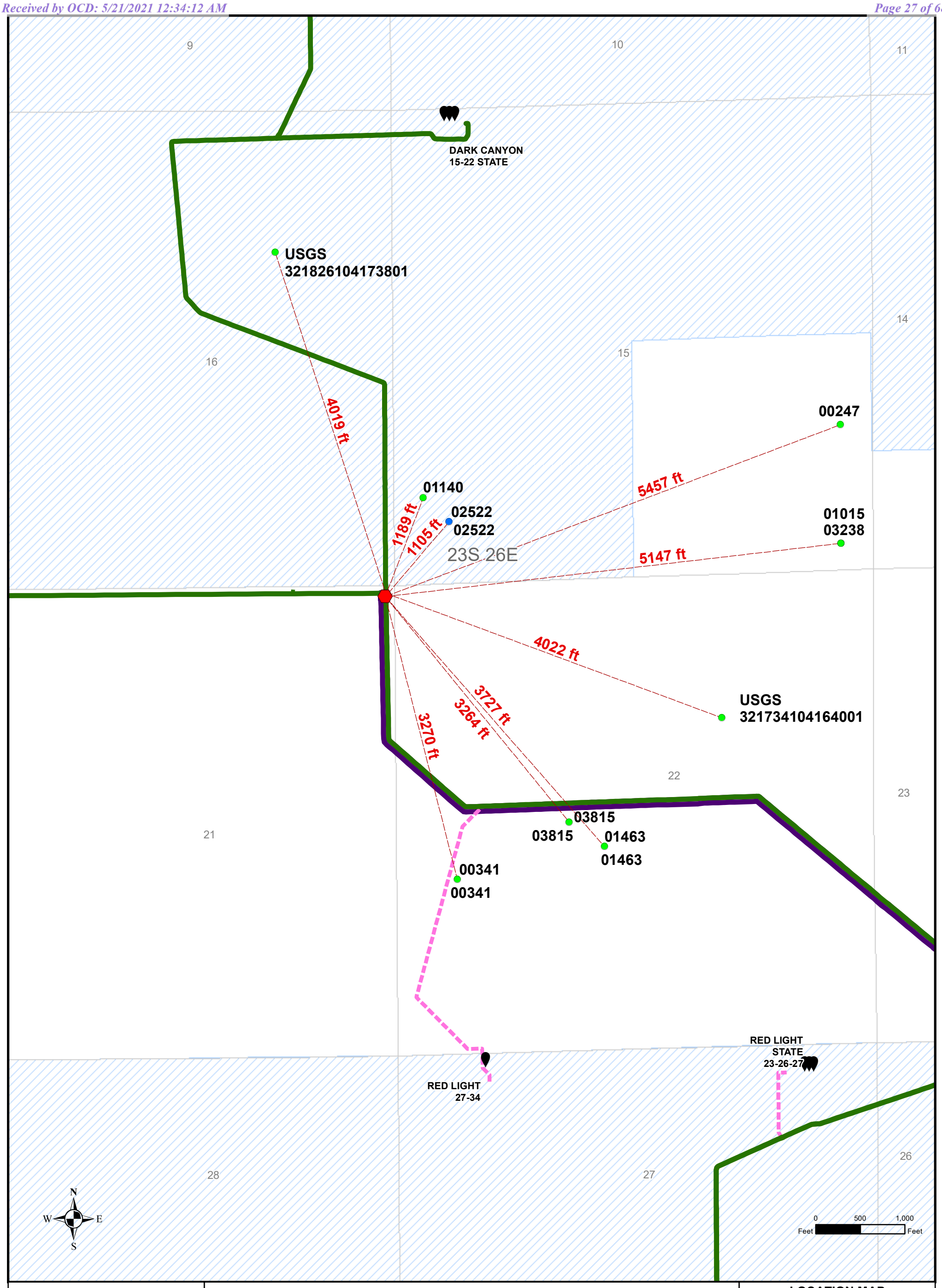
Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	C 03238	4	4	4	15	23S	26E	568408	3573714*

Driller License:	1348	**Driller Company:**	TAYLOR WATER WELL SERVICE		
Driller Name:					
Drill Start Date:	10/17/2005	**Drill Finish Date:**	12/28/2005	**Plug Date:**	
Log File Date:	01/23/2006	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	60 GPM
Casing Size:	6.00	**Depth Well:**	323 feet	**Depth Water:**	245 feet

Water Bearing Stratifications:	Top	Bottom	Description
	311	319	Limestone/Dolomite/Chalk

Casing Perforations:	Top	Bottom
	303	323

***UTM location was derived from PLSS - see Help**



PREPARED FOR:

3Bear Energy

PREPARED BY:

RCL CONSULTING
DESIGNING THE ENERGY INDUSTRY

DARK CANYON SPILL - DEC 2020

EDDY COUNTY, NEW MEXICO

3BE BI-DIRECTIONAL WATER

- 6" FLEXSTEEL
- 8" FLEXSTEEL
- FUT 6" FLEXSTEEL
- FUTURE TBD'" GATHERING

- DARK CANYON SPILL
- WELL LOCATION
- WELL LOCATION (APPROXIMATE LOCATION)
- 3BEAR OPERATED SWD
- 3BEAR CONNECTED/3RD PARTY SWD
- RECEIPT POINT
- BLM LAND
- STATE LAND

DATE: 12/28/2020

FILE: 3Bear Dark Canyon Spill Dec 2020

LOCATION MAP

RE: Water Level Data C-02522 - Message (HTML)

FILE MESSAGE ACROBAT

Ignore | Junk | Delete | Reply | Reply All | Forward | Meeting | More | LINKS | Team Email | Reply & Delete | To Manager | Done | Create New | Move | Rules | OneNote | Actions | Mark Unread | Categorize | Follow Up | Translate | Find | Related | Select | Zoom | Insights

Delete | Respond | Quick Steps | Move | Tags | Editing | Zoom

Tue 1/5/2021 7:58 AM

Travis Glenn <travis.glenn@outlook.com>

RE: Water Level Data C-02522

To Liz Klein

You forwarded this message on 1/5/2021 8:23 AM.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Liz,
That well was an existing water well we used on 5/8/1997.
At that time the water level was at 304'.
I do not have any other data for it.
Thanks Travis

From: Liz Klein <lklein@3bearllc.com>
Sent: Monday, January 4, 2021 11:22 AM
To: travis.glenn@outlook.com
Subject: Water Level Data C-02522

Attached is a copy of the information on the New Mexico State Engineer's Office site on well C-02522 for one of your wells. As we discussed we are trying to get groundwater level data in the vicinity of our remediation site (Section 21, T23S, R26E). If you have any water level information that was obtained during the drilling of the well that you could forward that would be great. Or if you have a current groundwater level of that well that would also be very helpful. The New Mexico OCD has requested that we find groundwater level data from the general area of our remediation project.

Please let me know if you have any questions. Really appreciate your time and help.

Thank you.

Liz Klein
3Bear Energy, LLC
303-882-4404 (C)
lklein@3bearllc.com
1512 Larimer Street, Suite 540
Denver, CO 80202

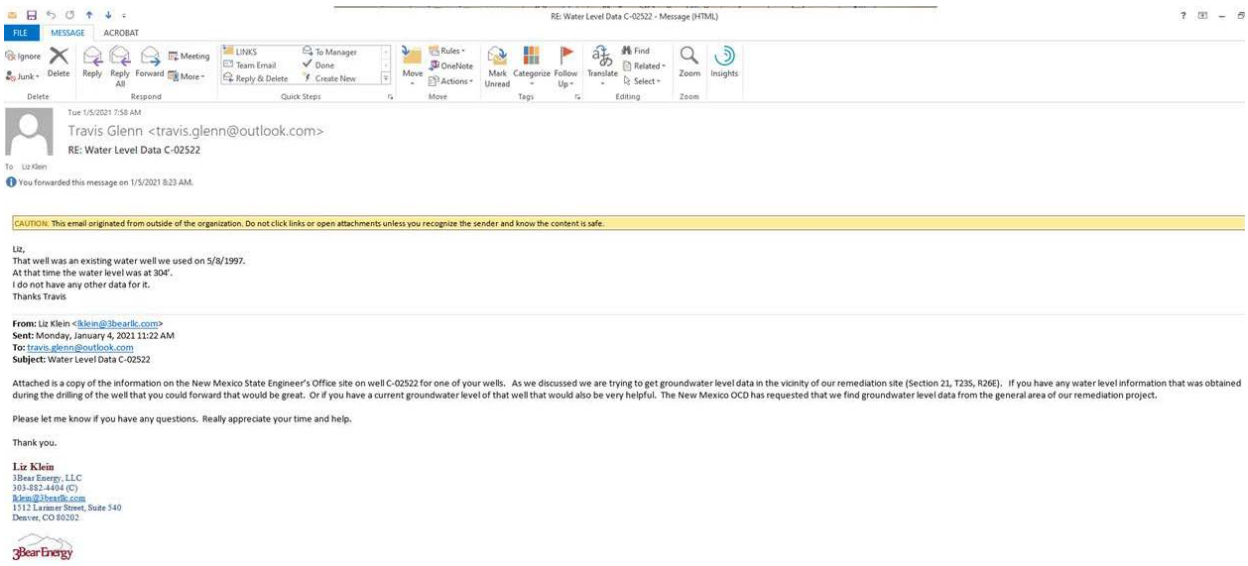
From: Liz Klein
To: Hamlet, Robert, EMNRD
Cc: Bratcher, Mike, EMNRD; Eads, Cristina, EMNRD
Bcc: Mike Solomon; Scott Spicher
Subject: RE: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903
Date: Tuesday, January 5, 2021 8:37:00 AM
Attachments: C02522 PODS.pdf
Importance: High

Below is an email from Glenn's Water Well Service. Glenn's Water Well Service drilled the well in 1997 and below indicates that the water level in 1997 was 304'. This well is within ½ mile of our site and the data is less than 25 years old. I would like to proceed with using this information for the remediation plan. And will submit the plan today.

Please let me know if you have any concerns or questions.

Thank you.

Liz
303-882-4404



RE: Water Level Data C-02522 - Message (HTML)

FILE MESSAGE ACROBAT

Ignore Junk Delete Reply Reply All Forward Meeting More Delete Respond
LINKS Team Email Reply & Delete To Manager Done Create New Quick Steps
Move Rules OneNote Actions Move
Mark Unread Categorize Follow Up Tags
Translate Find Related Select Editing
Zoom Zoom
Insights

Tue 1/5/2021 7:58 AM

Travis Glenn <travis.glenn@outlook.com>

RE: Water Level Data C-02522

To Liz Klein

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Liz,
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At that time the water level was at 304'.
I do not have any other data for it.
Thanks Travis

From: Liz Klein <lklein@3bearllc.com>
Sent: Monday, January 4, 2021 11:22 AM
To: travis.glenn@outlook.com
Subject: Water Level Data C-02522

Attached is a copy of the information on the New Mexico State Engineer's Office site on well C-02522 for one of your wells. As we discussed we are trying to get groundwater level data in the vicinity of our remediation site (Section 21, T23S, R26E). If you have any water level information that was obtained during the drilling of the well that you could forward that would be great. Or if you have a current groundwater level of that well that would also be very helpful. The New Mexico OCD has requested that we find groundwater level data from the general area of our remediation project.

Please let me know if you have any questions. Really appreciate your time and help.

Thank you.

Liz Klein
3Bear Energy, LLC
303-882-4404 (C)
lklein@3bearllc.com
1512 Larimer Street, Suite 540
Denver, CO 80202

3Bear Energy

From: Hamlet, Robert, EMNRD [mailto:Robert.Hamlet@state.nm.us]
Sent: Monday, January 4, 2021 8:30 AM
To: Liz Klein <lklein@3bearllc.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Subject: RE: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Liz,

There are 2 wells that are less than ½ mile (2,640 feet) from the release location. C01140 has a recorded year of 1963, which is older than 25 years. C02522 doesn't have an accompanying fluid level recorded. The two options are to shoot a static fluid level on one of the wells if they haven't been P&A'd or to drill a borehole. Please, let us know your decision.

Robert Hamlet • Environmental Eng. Tech. III
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
505.748.1283 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Liz Klein <lklein@3bearllc.com>
Sent: Thursday, December 31, 2020 8:00 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Subject: [EXT] RE: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

Please let me know if you're available for a call to discuss. Thanks, Liz

---

From: Liz Klein
Sent: Monday, December 28, 2020 11:59 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Subject: RE: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903
Importance: High

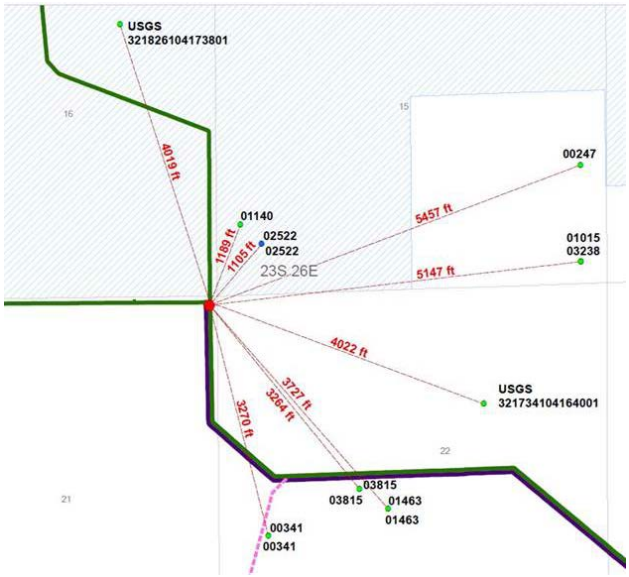
I respectfully submit the following groundwater information for consideration related to the Dark Canyon Spill location groundwater level. We understand that the OCD 2019 guidance (*Procedures for Implementation of the Spill Rule (19.15.29 NMAC)*) outlines that it is preferable that the means to determining depth to groundwater are within ½ mile of the release and that the water level information is no more than 25 years old. However, the historic and current water well information for the general vicinity, less than one mile of the spill location both up and down gradient, indicates a localized groundwater level of more than 200' in depth. As such we are requesting a case by case review to determine if the information below information is acceptable. I also spoke to Talon and they do not believe they will be able to drill to 51' due to the cobble and rejection they have encountered. Based on this information 3Bear requests that the remediation plan be submitted based on the groundwater data below and the criteria you outlined in your email dated December 21, 2020.

Please let me know if this data is acceptable and that a borehole will not be required. I can forward the relevant information for each well and/or include in the remediation plan.

Thank you for your prompt review of this information.

Liz Klein
Director, EHS Regulatory Compliance
3Bear Energy, LLC
303-882-4404 (C)
lklein@3bearllc.com
1512 Larimer Street, Suite 540
Denver, CO 80202

Well Number	Depth Well (feet)	Depth Water (feet)	Distance to Site (feet)	Year of Record
C 02522	325		1105	1997
C 01140	325	310	1189	1963
C 00341	1881	280 - 290	3270	1952
C 01463	295	265	3727	1971
USGS 3218		255.9	4019	1987
USGS 3217		230.2	4022	1956
C 01015	318	245	5147	1961
C 03238	323	245	5147	2005
C 00247	315	255	5457	1952
C 03815	400		3264	2015



From: Liz Klein
Sent: Monday, December 21, 2020 2:27 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Subject: Re: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

Thank you. I'll double check but thought the well info was less than 25 years old (1997) and less than a 1/2 mile from the site.

Get Outlook for iOS

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Monday, December 21, 2020 2:03:59 PM
To: Liz Klein <lklein@3bearllc.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Subject: RE: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

Liz,

When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. In the pasture area, 4 feet below the ground surface, soil contamination limits revert back to Table 1 "Closure Criteria for Soils Impacted by a Release" included in the spill rule.

A borehole will need to be completed down to 51' below ground surface to make a groundwater determination. If no groundwater is found, the release would need to be delineated/excavated to 10,000 mg/kg for chlorides. It looks like you have delineated/excavated the release for chlorides to 10,000 mg/kg.

After the borehole has been completed, upload the newly updated remediation plan to the payment portal including the 2 variance requests and the borehole drillers log. If the borehole doesn't show groundwater in the top 50' and the site characterization is complete, we can review the two variances in the remediation plan and finalize a decision.

I understand this is a deep excavation and will need to be expedited. Please, send me the P.O. Number of the remediation plan once it's been uploaded to the payment portal and I will try to review it as quickly as possible.

Please let me know if you have any further questions.

Regards,

Robert Hamlet • Environmental Eng. Tech. III
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
505.748.1283 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Sent: Monday, December 21, 2020 9:55 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: FW: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

From: Liz Klein <lklein@3bearllc.com>
Sent: Friday, December 18, 2020 3:41 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Subject: [EXT] 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

3Bear Energy requests review and approval of a liner variance for the Dark Canyon Produced Water Spill (NRM2034257903) that occurred on November 20th, 2020. After characterization of the area, 3Bear proposes to leave soils in place that have chloride concentrations of greater than 600 mg/kg chloride. As outlined in the example in OCD guidance dated September 6, 2019 Section V Liners Require a Variance; *After removal of contaminated soils from the uppermost four feet in an area where the depth to groundwater is between 51 and 100 feet the responsible party wishes to install a synthetic liner atop soils with a chloride concentration greater than 10,000 mg/kg and then backfill.* 3Bear has excavated all saturated soils which varied in depth from 6' to 24' and requests approval to install a synthetic liner. The soils that will be left in place below the liner have chloride concentrations between 0 and 7,200 mg/kg based on sampling to date (see attached Data Table Site Boring Results). The sampling by Talon has indicated that TPH, and BTEX are not analytes of concern for this event (please see attached laboratory report). The groundwater research indicates that the depth to groundwater in the near vicinity is 210', see attached reference groundwater information provided.

As discussed, due to boring refusals encountered at 18 to 24' bgs because of the presence of a cobble layer and attempts to test trench the impacted area to depths greater than 24' bgs no additional samples could be taken. Due to the cobble encountered and the "cave-in" of the trenches due to soil instability the area became too unstable to trench safely at greater depths. Additionally, as the trenching moved to the south a hardpan layer was encountered which indicates that vertical migration should not occur past that depth.

Based on the site characterization; we are respectfully requesting a variance to install and seat a liner at a depth of 6' bgs. which would be at a depth below the existing infrastructure to prevent any leaching. We will collect composite confirmation soil samples of the current bottom of the excavated area to document chloride levels left in place, as well as sidewall samples in conformance with the NMOCD sampling guidance in Section VII Closure Sampling Plans (September 6, 2019 Guidance). The characteristics of the site indicate that groundwater has not been impacted and the placement of a liner will prevent any potential surface water from reaching the soils greater than 600 mg/kg so no leaching will occur.

We are also requesting permission for these composite samples to only be analyzed for chlorides. The sampling by Talon has indicated that TPH, and BTEX are not analytes of concern for this event.

Due to the depth of the excavation we are concerned with both potential safety and environmental impacts of leaving the excavation open and would like to place the liner as soon as possible to reduce the safety and environmental risks associated with an open excavation. The approval of the variance will provide equal or better protection of groundwater, public health and the environment.

Please let me know if you have any questions or need additional information. 3Bear appreciates the NMOCD's continued coordination and communication on this remediation.

Thank you.

Liz Klein
Director, EHS Regulatory Compliance
3Bear Energy, LLC
303-882-4404 (C)
lklein@3bearllc.com
1512 Larimer Street, Suite 540
Denver, CO 80202

Amarillo, TX - Artesia, NM
Midland, TX - Oklahoma City, OK
San Antonio, TX - Fort Collins, CO

BORING LOG

Boring Number: B-1	Job Number: 702958.001.02	Driller/Co.: Talon/LPE Tom Evans
Site Name: Dark Canyon	LPST #	Logger: Tom Evans	Bit Size: 5 7/8"
Location: Carlsbad, NM	Weather:	Rig Type: Reichdrill
Date: 3/8 - 3/10	Sample Retrieval Method: Grab	Drilling Method: Mud Rotary

Time	Sample Number	Sample Interval (ft)	Sample Recovery (ft)	USCS	Sample Material/Comments (include composition, moisture, hardness, grain size, color)	ODOR	PID (ppm)
		0-18'			Gravelly Loam		
		18-25'			Hard Gravels/Cobbles		
		25-50'			Hard Pan (Shale)		
		50-51'			Gravels		

Dark Canyon SWD

3 Bear Energy
Eddy County, NM
Final Confirmation Sample Map 1

Legend
- Sample Point
- Spill Area

N.SW-1 N.SW-2
E-1 E-2 E.SW-1
S-1 S-2 S-3 E-3 E-4 E.SW-2
W.SW-S
E-5 E-6 E.SW-3
S-4 S-5 S-6
W.SW-1 E-7 E-8 E.SW-4
W.SW-2 W-1 E-9 E-10 E.SW-5
W-2
W.SW-3 E-11 E-12 E.SW-6
W-3
W.SW-4 E-13 E-14 E.SW-7
W-4
W.SW-5 E-15 E-16 E.SW-8
W-5
W.SW-6 E-17 E-18 E.SW-9
W-6
W.SW-7 W-7 E-19 E-20 E-21 E.SW-10
W.SW-8 W-8 E-24 E-23 E-22 E.SW-11
W-9
W.SW-9 E-27 E.SW-12
W-10 E-25 E-26 E-28
W.SW-10 W-11 E-31 E-30 E-29 E.SW-13
W-12
W.SW-11 E-34 E-33 E-32 E.SW-14
W-13
W.SW-12 W-14 E.SW-15
E-35 E-36 E.SW-16
W.SW-13 W-15
W-16 E-38 E-37 E.SW-17
W.SW-14
W-17 E-39 E-40 E.SW-18

N

90 ft

Dark Canyon SWD

3 Bear Energy
Eddy County, NM
Final Confirmation Sample Map 2

Legend
- Sample Point
- Spill Area

W.SW-15
W.SW-16
W.SW-17
W.SW-18
W.SW-19
W.SW-20
W.SW-21
W.SW-22
W.SW-23
W.SW-24
W.SW-25
W.SW-26
W.SW-27
W.SW-28
W.SW-29
W.SW-30
W.SW-31
W.SW-32
W.SW-33
W.SW-34
W.SW-35

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E-55 E-56
E-58 E-57
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E-62 E-61
E-63 E-64
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E-71 E-72
E-74 E-73
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E.SW-19
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E.SW-27
E.SW-28
E.SW-29
E.SW-30
E.SW-31
E.SW-32
E.SW-33
E.SW-34
E.SW-35
E.SW-36

N
90 ft

Dark Canyon SWD

3 Bear Energy
Eddy County, NM
Final Confirmation Sample Map 3

Legend
- Sample Point
- Spill Area

W.SW-36 W.SW-37 W.SW-38 W.SW-39 W.SW-40 W.SW-41 W.SW-42 W.SW-43 W.SW-44 W.SW-45 W.SW-46 W.SW-47 W.SW-48 W.SW-49 W.SW-50 W.SW-51 W.SW-52 W.SW-53 W.SW-54 W.SW-55 W.SW-56

W-42 W-43 W-44 W-45 W-46 W-47 W-48 W-49 W-50 W-51 W-52 W-43 W-54 W-55 W-56 W-57 W-58 W-59 W-60 W-61 W-62 W-63 W-64

E-78 E-77 E-79 E-80 E-82 E-81 E-82 E-84 E-86 E-85 E-87 E-88 E-90 E-89 E-91 E-92 E-94 E-93 E-95 E-96 E-98 E-97 E-107 E-108 E-109 E-99 E-100 E-112 W-111 E-110 E-102 E-101 E-103 E-104 E-113 E-114 E-115 E-106 E-105 E-118 E-117 E-116 E-140 E-141 E-143 E-142 E-119 E-120 E-121 E-144 E-145

E.SW-37 E.SW-38 E.SW-39 E.SW-40 E.SW-41 E.SW-42 E.SW-43 E.SW-44 E.SW-45 E.SW-46 E.SW-47 E.SW-48 E.SW-49 E.SW-50 E.SW-51 E.SW-52 E.SW-53 E.SW-54 E.SW-55 E.SW-56 E.SW-57 E.SW-58 E.SW-59

N

90 ft

Dark Canyon SWD

3 Bear Energy
Eddy County, NM
Final Confirmation Sample Map 4

Legend
- Sample Point
- Spill Area

W.SW-57 W.SW-58 W.SW-59 W.SW-60 W.SW-61 W.SW-62 W.SW-63 W.SW-64 W.SW-65 W.SW-66 W.SW-67 W.SW-68 W.SW-69 W.SW-70 W.SW-71 W.SW-72 W.SW-72 W.SW-73 W.SW-74 W.SW-75

W-65 W-66 W-67 W-68 W-69 W-70 W-71 W-72 W-73 W-74 W-75 W-76 W-77 W-78 W-79 W-80 W-81 W-82 W-83 W-84 W-85

E-144 E-145 E-127 E-126 E-125 E-124 E-147 E-146 E-123 E-122 E-148 E-149 E-128 E-129 E-130 E-131 E-132 E-133 E-151 E-150 E-139 E-138 E-137 E-136 E-135 E-134 E-152 E-153 E-155 E-154 E-156 E-157 E-159 E-158 E-160 E-161 E-163 E-162 E-164 E-165 E-167 E-166 E-168 E-169 E-171 E-170 E-173 E-172 E-175 E-174 E-176 E-177

E.SW-59 E.SW-60 E.SW-61 E.SW-62 E.SW-63 E.SW-64 E.SW-65 E.SW-66 E.SW-67 E.SW-68 E.SW-69 E.SW-70 E.SW-71 E.SW-72 E.SW-73 E.SW-74 E.SW-75 E.SW-76 E.SW-77 E.SW-78 E.SW-79 E.SW-80 E.SW-81 E.SW-82 E.SW-83 E.SW-84 E.SW-85 E.SW-86

Google Earth

N

80 ft

National Flood Hazard Layer FIRMette

FEMA

104°17'43"W 32°18'4"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

104°17'5"W 32°17'34"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

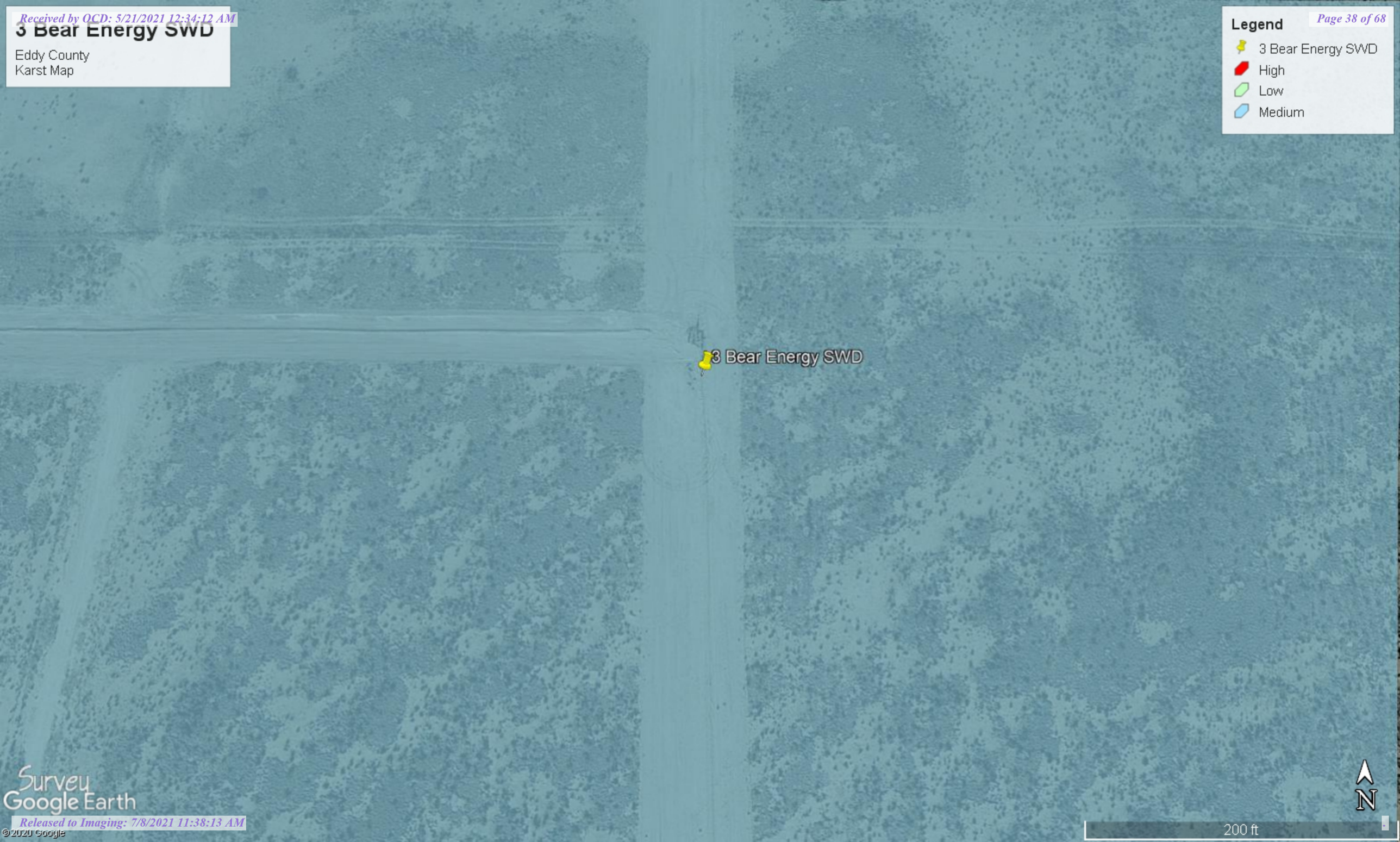
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/1/2021 at 4:53 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

3 Bear Energy SWD

Eddy County
Karst Map



3 Beary Energy-Dark Canyon Valve Set

Eddy County
TOPO Map

Legend
- Location
- Sample Position
- Spill Area

Dark Canyon Release
Point 1
Point 3
Point 4
Point 5
32.29076, -104.27775
3347T
3328
3309T
3290T
3285T
I-127
DH
WW
62
3306T
BM
3307
22
21
Dark Canyon Rd
408
National Parks Hwy
Gravel Pit
3316
3262T
3319T
3275T
FIELD
N
2000 ft

APPENDIX II

SOIL SURVEY,

GROUNDWATER DATA,

BORING LOG

Eddy Area, New Mexico

RA—Reagan loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w5c
Elevation: 1,100 to 4,400 feet
Mean annual precipitation: 7 to 14 inches
Mean annual air temperature: 60 to 70 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Reagan and similar soils: 98 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reagan

Setting

Landform: Alluvial fans, fan remnants
Landform position (three-dimensional): Rise
Down-slope shape: Linear, convex
Across-slope shape: Linear
Parent material: Alluvium and/or eolian deposits

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 60 inches: loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R042XC007NM - Loamy

Hydric soil rating: No

Minor Components

Upton

Percent of map unit: 1 percent
Ecological site: R042XC025NM - Shallow
Hydric soil rating: No

Atoka

Percent of map unit: 1 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 16, Jun 8, 2020

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 01140		C	ED	1	3	3	15	23S	26E	566980	3573870*	356	325		
C 00341	C	CUB	ED		1	3	22	23S	26E	567090	3572566*	1001	1881		
C 00352	C	CUB	ED		1	3	22	23S	26E	567090	3572566*	1001	1867		
C 00537		C	ED		1	4	21	23S	26E	566277	3572558*	1135	400		
C 01463		C	ED	2	2	3	22	23S	26E	567599	3572678*	1140	295	265	30
C 01022		C	ED	4	3	2	22	23S	26E	568005	3572894*	1322	121	90	31
C 01015		C	ED	4	4	4	15	23S	26E	568408	3573714*	1567	318	245	73
C 03238		C	ED	4	4	4	15	23S	26E	568408	3573714*	1567	323	245	78
C 00247		C	ED	4	2	4	15	23S	26E	568406	3574119*	1660	315	230	85
C 01639		C	ED	4	2	4	15	23S	26E	568406	3574119*	1660	300	70	230
C 00535	C	CUB	ED	2	1	1	27	23S	26E	567195	3571862*	1711	1903		
C 00367	C	CUB	ED		3	2	28	23S	26E	566286	3571353*	2256	1909		
C 04449 POD1		C	ED	2	1	4	14	23S	26E	569582	3574424	2872	251	230	21
C 04201 POD1		C	ED	4	4	2	14	23S	26E	569626	3574546	2953	255	110	145

Average Depth to Water: **185 feet**

Minimum Depth: **70 feet**

Maximum Depth: **265 feet**

Record Count: 14

UTMNAD83 Radius Search (in meters):

Easting (X): 566850.11 **Northing (Y):** 3573538.18 **Radius:** 3000

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	C 03238	4	4	4	15	23S	26E	568408	3573714*

Driller License:	1348	**Driller Company:**	TAYLOR WATER WELL SERVICE		
Driller Name:					
Drill Start Date:	10/17/2005	**Drill Finish Date:**	12/28/2005	**Plug Date:**	
Log File Date:	01/23/2006	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	60 GPM
Casing Size:	6.00	**Depth Well:**	323 feet	**Depth Water:**	245 feet

Water Bearing Stratifications:	Top	Bottom	Description
	311	319	Limestone/Dolomite/Chalk

Casing Perforations:	Top	Bottom
	303	323

***UTM location was derived from PLSS - see Help**

DARK CANYON
15-22 STATE

USGS
321826104173801

4019 ft

00247

5457 ft

01140

1189 ft

02522

1105 ft

02522

01015
03238

23S 26E

5147 ft

4022 ft

USGS
321734104164001

3727 ft

3264 ft

3270 ft

03815

03815

01463

01463

00341

00341

RED LIGHT
27-34

RED LIGHT
STATE
23-26-27

9
10
11
14
15
16
21
22
23
26
27
28

N
W
E
S

0 500 1,000
Feet Feet

PREPARED FOR:

3Bear Energy

PREPARED BY:

RCL CONSULTING
DESIGNING THE ENERGY INDUSTRY

DARK CANYON SPILL - DEC 2020

EDDY COUNTY, NEW MEXICO

3BE BI-DIRECTIONAL WATER
- 6" FLEXSTEEL
- 8" FLEXSTEEL
- FUT 6" FLEXSTEEL
- FUTURE TBD'" GATHERING

- DARK CANYON SPILL
- WELL LOCATION
- WELL LOCATION (APPROXIMATE LOCATION)
- 3BEAR OPERATED SWD
- 3BEAR CONNECTED/3RD PARTY SWD
- RECEIPT POINT
- BLM LAND
- STATE LAND

DATE: 12/28/2020

FILE: 3Bear Dark Canyon Spill Dec 2020

LOCATION MAP

RE: Water Level Data C-02522 - Message (HTML)

FILE MESSAGE ACROBAT

Ignore | Junk | Delete | Reply | Reply All | Forward | Meeting | More | LINKS | Team Email | Reply & Delete | To Manager | Done | Create New | Move | Rules | OneNote | Actions | Mark Unread | Categorize | Follow Up | Translate | Find | Related | Select | Zoom | Insights

Delete | Respond | Quick Steps | Move | Tags | Editing | Zoom

Tue 1/5/2021 7:58 AM

Travis Glenn <travis.glenn@outlook.com>

RE: Water Level Data C-02522

To Liz Klein

You forwarded this message on 1/5/2021 8:23 AM.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Liz,
That well was an existing water well we used on 5/8/1997.
At that time the water level was at 304'.
I do not have any other data for it.
Thanks Travis

From: Liz Klein <lklein@3bearllc.com>
Sent: Monday, January 4, 2021 11:22 AM
To: travis.glenn@outlook.com
Subject: Water Level Data C-02522

Attached is a copy of the information on the New Mexico State Engineer's Office site on well C-02522 for one of your wells. As we discussed we are trying to get groundwater level data in the vicinity of our remediation site (Section 21, T23S, R26E). If you have any water level information that was obtained during the drilling of the well that you could forward that would be great. Or if you have a current groundwater level of that well that would also be very helpful. The New Mexico OCD has requested that we find groundwater level data from the general area of our remediation project.

Please let me know if you have any questions. Really appreciate your time and help.

Thank you.

Liz Klein
3Bear Energy, LLC
303-882-4404 (C)
lklein@3bearllc.com
1512 Larimer Street, Suite 540
Denver, CO 80202

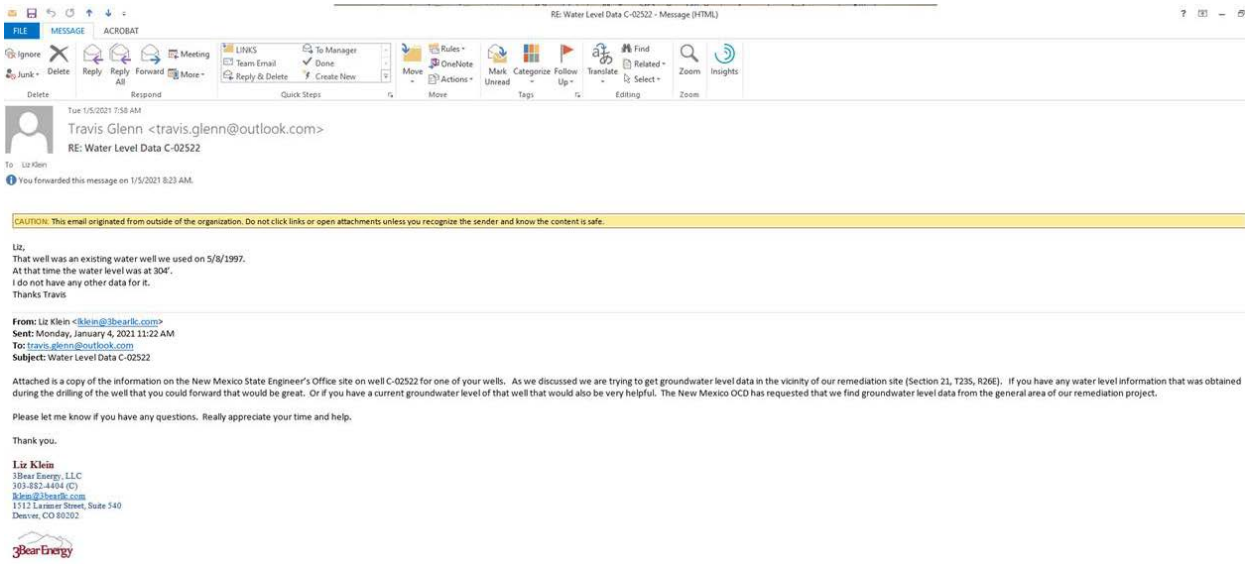
From: Liz Klein
To: Hamlet, Robert, EMNRD
Cc: Bratcher, Mike, EMNRD; Eads, Cristina, EMNRD
Bcc: Mike Solomon; Scott Spicher
Subject: RE: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903
Date: Tuesday, January 5, 2021 8:37:00 AM
Attachments: C02522 PODS.pdf
Importance: High

Below is an email from Glenn's Water Well Service. Glenn's Water Well Service drilled the well in 1997 and below indicates that the water level in 1997 was 304'. This well is within ½ mile of our site and the data is less than 25 years old. I would like to proceed with using this information for the remediation plan. And will submit the plan today.

Please let me know if you have any concerns or questions.

Thank you.

Liz
303-882-4404



RE: Water Level Data C-02522 - Message (HTML)

FILE MESSAGE ACROBAT

Ignore Junk Delete Reply Reply All Forward Meeting More Delete Respond
LINKS Team Email Reply & Delete To Manager Done Create New Quick Steps
Move Rules OneNote Actions Move
Mark Unread Categorize Follow Up Tags
Translate Find Related Select Editing
Zoom Zoom
Insights

Tue 1/5/2021 7:58 AM

Travis Glenn <travis.glenn@outlook.com>

RE: Water Level Data C-02522

To Liz Klein

You forwarded this message on 1/5/2021 8:23 AM.

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Liz,
That well was an existing water well we used on 5/8/1997.
At that time the water level was at 304'.
I do not have any other data for it.
Thanks Travis

From: Liz Klein <lklein@3bearllc.com>
Sent: Monday, January 4, 2021 11:22 AM
To: travis.glenn@outlook.com
Subject: Water Level Data C-02522

Attached is a copy of the information on the New Mexico State Engineer's Office site on well C-02522 for one of your wells. As we discussed we are trying to get groundwater level data in the vicinity of our remediation site (Section 21, T23S, R26E). If you have any water level information that was obtained during the drilling of the well that you could forward that would be great. Or if you have a current groundwater level of that well that would also be very helpful. The New Mexico OCD has requested that we find groundwater level data from the general area of our remediation project.

Please let me know if you have any questions. Really appreciate your time and help.

Thank you.

Liz Klein
3Bear Energy, LLC
303-882-4404 (C)
lklein@3bearllc.com
1512 Larimer Street, Suite 540
Denver, CO 80202

3Bear Energy

From: Hamlet, Robert, EMNRD [mailto:Robert.Hamlet@state.nm.us]
Sent: Monday, January 4, 2021 8:30 AM
To: Liz Klein <lklein@3bearllc.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Subject: RE: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Liz,

There are 2 wells that are less than ½ mile (2,640 feet) from the release location. C01140 has a recorded year of 1963, which is older than 25 years. C02522 doesn't have an accompanying fluid level recorded. The two options are to shoot a static fluid level on one of the wells if they haven't been P&A'd or to drill a borehole. Please, let us know your decision.

Robert Hamlet ● Environmental Eng. Tech. III
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
505.748.1283 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Liz Klein <lklein@3bearllc.com>
Sent: Thursday, December 31, 2020 8:00 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Subject: [EXT] RE: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

Please let me know if you're available for a call to discuss. Thanks, Liz

---

From: Liz Klein
Sent: Monday, December 28, 2020 11:59 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Subject: RE: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903
Importance: High

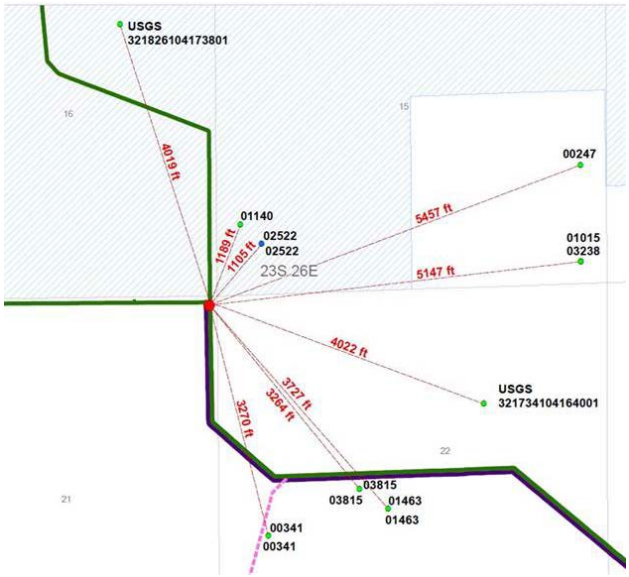
I respectfully submit the following groundwater information for consideration related to the Dark Canyon Spill location groundwater level. We understand that the OCD 2019 guidance (*Procedures for Implementation of the Spill Rule (19.15.29 NMAC)*) outlines that it is preferable that the means to determining depth to groundwater are within ½ mile of the release and that the water level information is no more than 25 years old. However, the historic and current water well information for the general vicinity, less than one mile of the spill location both up and down gradient, indicates a localized groundwater level of more than 200' in depth. As such we are requesting a case by case review to determine if the information below information is acceptable. I also spoke to Talon and they do not believe they will be able to drill to 51' due to the cobble and rejection they have encountered. Based on this information 3Bear requests that the remediation plan be submitted based on the groundwater data below and the criteria you outlined in your email dated December 21, 2020.

Please let me know if this data is acceptable and that a borehole will not be required. I can forward the relevant information for each well and/or include in the remediation plan.

Thank you for your prompt review of this information.

Liz Klein
Director, EHS Regulatory Compliance
3Bear Energy, LLC
303-882-4404 (C)
lklein@3bearllc.com
1512 Larimer Street, Suite 540
Denver, CO 80202

Well Number	Depth Well (feet)	Depth Water (feet)	Distance to Site (feet)	Year of Record
C 02522	325		1105	1997
C 01140	325	310	1189	1963
C 00341	1881	280 - 290	3270	1952
C 01463	295	265	3727	1971
USGS 3218		255.9	4019	1987
USGS 3217		230.2	4022	1956
C 01015	318	245	5147	1961
C 03238	323	245	5147	2005
C 00247	315	255	5457	1952
C 03815	400		3264	2015



From: Liz Klein
Sent: Monday, December 21, 2020 2:27 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Subject: Re: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

Thank you. I'll double check but thought the well info was less than 25 years old (1997) and less than a 1/2 mile from the site.

Get Outlook for iOS

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Monday, December 21, 2020 2:03:59 PM
To: Liz Klein <lklein@3bearllc.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Subject: RE: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

Liz,

When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. In the pasture area, 4 feet below the ground surface, soil contamination limits revert back to Table 1 "Closure Criteria for Soils Impacted by a Release" included in the spill rule.

A borehole will need to be completed down to 51' below ground surface to make a groundwater determination. If no groundwater is found, the release would need to be delineated/excavated to 10,000 mg/kg for chlorides. It looks like you have delineated/excavated the release for chlorides to 10,000 mg/kg.

After the borehole has been completed, upload the newly updated remediation plan to the payment portal including the 2 variance requests and the borehole drillers log. If the borehole doesn't show groundwater in the top 50' and the site characterization is complete, we can review the two variances in the remediation plan and finalize a decision.

I understand this is a deep excavation and will need to be expedited. Please, send me the P.O. Number of the remediation plan once it's been uploaded to the payment portal and I will try to review it as quickly as possible.

Please let me know if you have any further questions.

Regards,

Robert Hamlet • Environmental Eng. Tech. III
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
505.748.1283 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Sent: Monday, December 21, 2020 9:55 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: FW: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

From: Liz Klein <lklein@3bearllc.com>
Sent: Friday, December 18, 2020 3:41 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Subject: [EXT] 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

3Bear Energy requests review and approval of a liner variance for the Dark Canyon Produced Water Spill (NRM2034257903) that occurred on November 20th, 2020. After characterization of the area, 3Bear proposes to leave soils in place that have chloride concentrations of greater than 600 mg/kg chloride. As outlined in the example in OCD guidance dated September 6, 2019 Section V Liners Require a Variance; *After removal of contaminated soils from the uppermost four feet in an area where the depth to groundwater is between 51 and 100 feet the responsible party wishes to install a synthetic liner atop soils with a chloride concentration greater than 10,000 mg/kg and then backfill.* 3Bear has excavated all saturated soils which varied in depth from 6' to 24' and requests approval to install a synthetic liner. The soils that will be left in place below the liner have chloride concentrations between 0 and 7,200 mg/kg based on sampling to date (see attached Data Table Site Boring Results). The sampling by Talon has indicated that TPH, and BTEX are not analytes of concern for this event (please see attached laboratory report). The groundwater research indicates that the depth to groundwater in the near vicinity is 210', see attached reference groundwater information provided.

As discussed, due to boring refusals encountered at 18 to 24' bgs because of the presence of a cobble layer and attempts to test trench the impacted area to depths greater than 24' bgs no additional samples could be taken. Due to the cobble encountered and the "cave-in" of the trenches due to soil instability the area became too unstable to trench safely at greater depths. Additionally, as the trenching moved to the south a hardpan layer was encountered which indicates that vertical migration should not occur past that depth.

Based on the site characterization; we are respectfully requesting a variance to install and seat a liner at a depth of 6' bgs. which would be at a depth below the existing infrastructure to prevent any leaching. We will collect composite confirmation soil samples of the current bottom of the excavated area to document chloride levels left in place, as well as sidewall samples in conformance with the NMOCD sampling guidance in Section VII Closure Sampling Plans (September 6, 2019 Guidance). The characteristics of the site indicate that groundwater has not been impacted and the placement of a liner will prevent any potential surface water from reaching the soils greater than 600 mg/kg so no leaching will occur.

We are also requesting permission for these composite samples to only be analyzed for chlorides. The sampling by Talon has indicated that TPH, and BTEX are not analytes of concern for this event.

Due to the depth of the excavation we are concerned with both potential safety and environmental impacts of leaving the excavation open and would like to place the liner as soon as possible to reduce the safety and environmental risks associated with an open excavation. The approval of the variance will provide equal or better protection of groundwater, public health and the environment.

Please let me know if you have any questions or need additional information. 3Bear appreciates the NMOCD's continued coordination and communication on this remediation.

Thank you.

Liz Klein
Director, EHS Regulatory Compliance
3Bear Energy, LLC
303-882-4404 (C)
lklein@3bearllc.com
1512 Larimer Street, Suite 540
Denver, CO 80202

Amarillo, TX - Artesia, NM
Midland, TX - Oklahoma City, OK
San Antonio, TX - Fort Collins, CO

BORING LOG

Boring Number: B-1	Job Number: 702958.001.02	Driller/Co.: Talon/LPE Tom Evans
Site Name: Dark Canyon	LPST #	Logger: Tom Evans	Bit Size: 5 7/8"
Location: Carlsbad, NM	Weather:	Rig Type: Reichdrill
Date: 3/8 - 3/10	Sample Retrieval Method: Grab	Drilling Method: Mud Rotary

Time	Sample Number	Sample Interval (ft)	Sample Recovery (ft)	USCS	Sample Material/Comments (include composition, moisture, hardness, grain size, color)	ODOR	PID (ppm)
		0-18'			Gravelly Loam		
		18-25'			Hard Gravels/Cobbles		
		25-50'			Hard Pan (Shale)		
		50-51'			Gravels		

APPENDIX III

C-141 Forms

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2034257903
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: 3 Bear Delaware Operating – NM, LLC	OGRID: 372603
Contact Name: Liz Klein	Contact Telephone: (303) 882-4404
Contact email: lklein@3bearllc.com	Incident # *(assigned by OCD)*
Contact mailing address 1512 Larimer St. Suite 540, Denver, CO 80202	

Location of Release Source

Latitude 32.296589 Longitude -104.289958
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Dark Canyon Valve Set	Site Type: Valve Set
Date Release Discovered: 11/20/2020	API# *(if applicable)*:

Unit Letter	Section	Township	Range	County
A	21	23S	26E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 4,000 bbls	Volume Recovered (bbls) estimated approximately 4000 bbls, based on volume of all saturated soils removed
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release: Pipe failure. Investigating cause of failure. Pipe being sent to laboratory for analysis.		

State of New Mexico
Oil Conservation Division

Incident ID	NRM2034257903
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	230 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2034257903
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

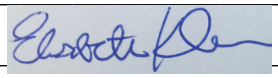
☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Elisabeth Klein Title: Director, EHS

Signature:  Date: 4/26/2021

email: lklein@3bearllc.com Telephone: 303-882-4404

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM2034257903
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

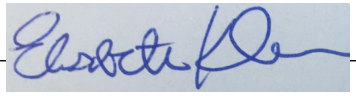
☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Elisabeth Klein Title: Director, EHS

Signature:  Date: 4/26/2021

email: lklein@3bearllc.com Telephone: 303-882-4404

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

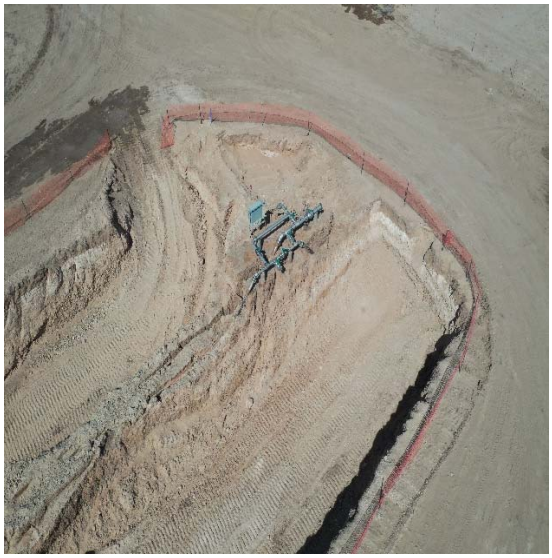
Printed Name: _____ Title: _____

APPENDIX IV

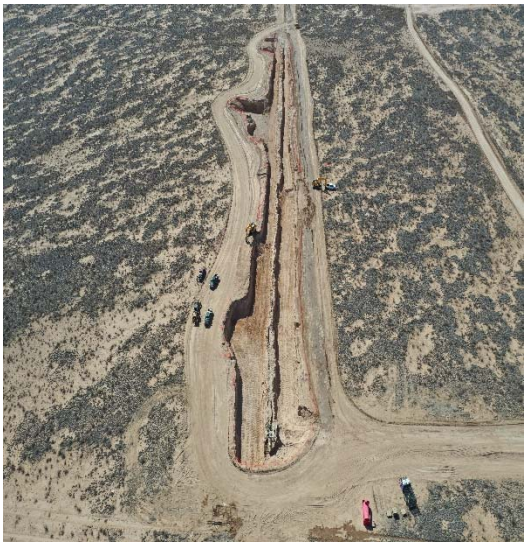
PHOTOGRAPHIC DOCUMENTATION

PHOTO DOCUMENTATION
Excavation

Excavation @ Source



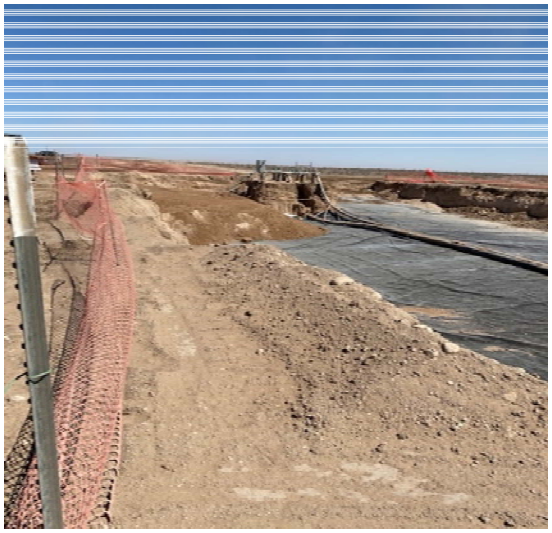
Excavation N. End



Aerial of entire excavated area

Preparation under lines for liner install

Liner install under lines



Liner Install at Source

Remediation Activity

Liner under lines midway

Liner Installation Midway-Complete

Backfill @ Source

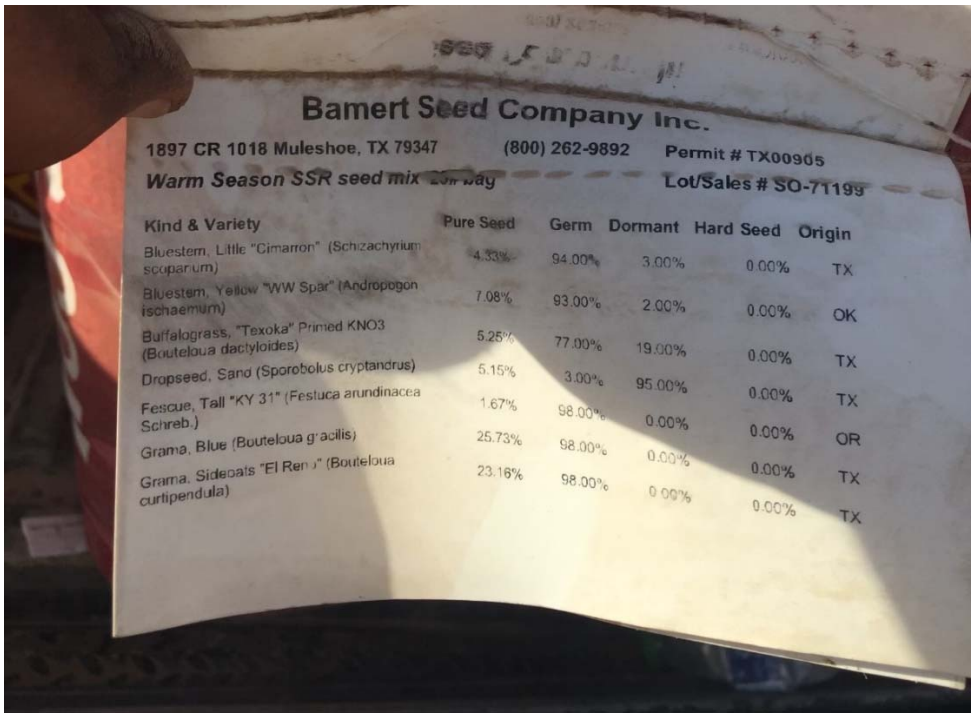
Backfill @ Center

Backfill @ Source to grade

Backfill @ Center to grade

Backfill and Seeding Complete

Backfilled to grade



Seed Tag

APPENDIX V

CORRESPONDENCE

Rebecca Pons

From: Liz Klein <lklein@3bearllc.com>
Sent: Tuesday, December 29, 2020 8:59 AM
To: Rebecca Pons
Subject: FW: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

From: Hamlet, Robert, EMNRD [mailto:Robert.Hamlet@state.nm.us]
Sent: Monday, December 21, 2020 2:04 PM
To: Liz Klein <lklein@3bearllc.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Subject: RE: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

Liz,

When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. In the pasture area, 4 feet below the ground surface, soil contamination limits revert back to Table 1 "Closure Criteria for Soils Impacted by a Release" included in the spill rule.

A borehole will need to be completed down to 51' below ground surface to make a groundwater determination. If no groundwater is found, the release would need to be delineated/excavated to 10,000 mg/kg for chlorides. It looks like you have delineated/excavated the release for chlorides to 10,000 mg/kg.

After the borehole has been completed, upload the newly updated remediation plan to the payment portal including the 2 variance requests and the borehole drillers log. If the borehole doesn't show groundwater in the top 50' and the site characterization is complete, we can review the two variances in the remediation plan and finalize a decision.

I understand this is a deep excavation and will need to be expedited. Please, send me the P.O. Number of the remediation plan once it's been uploaded to the payment portal and I will try to review it as quickly as possible.

Please let me know if you have any further questions.

Regards,

Robert Hamlet • Environmental Eng. Tech. III
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
505.748.1283 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Sent: Monday, December 21, 2020 9:55 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: FW: 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

From: Liz Klein <lklein@3bearllc.com>
Sent: Friday, December 18, 2020 3:41 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Subject: [EXT] 3Bear Expedited Liner Variance Request - Dark Canyon Spill NRM2034257903

3Bear Energy requests review and approval of a liner variance for the Dark Canyon Produced Water Spill (NRM2034257903) that occurred on November 20th, 2020. After characterization of the area, 3Bear proposes to leave soils in place that have chloride concentrations of greater than 600 mg/kg chloride. As outlined in the example in OCD guidance dated September 6, 2019 Section V Liners Require a Variance; *After removal of contaminated soils from the uppermost four feet in an area where the depth to groundwater is between 51 and 100 feet the responsible party wishes to install a synthetic liner atop soils with a chloride concentration greater than 10,000 mg/kg and then backfill.* 3Bear has excavated all saturated soils which varied in depth from 6' to 24' and requests approval to install a synthetic liner. The soils that will be left in place below the liner have chloride concentrations between 0 and 7,200 mg/kg based on sampling to date (see attached Data Table Site Boring Results). The sampling by Talon has indicated that TPH, and BTEX are not analytes of concern for this event (please see attached laboratory report). The groundwater research indicates that the depth to groundwater in the near vicinity is 210', see attached reference groundwater information provided.

As discussed, due to boring refusals encountered at 18 to 24' bgs because of the presence of a cobble layer and attempts to test trench the impacted area to depths greater than 24' bgs no additional samples could be taken. Due to the cobble encountered and the "cave-in" of the trenches due to soil instability the area became too unstable to trench safely at greater depths. Additionally, as the trenching moved to the south a hardpan layer was encountered which indicates that vertical migration should not occur past that depth.

Based on the site characterization; we are respectfully requesting a variance to install and seat a liner at a depth of 6' bgs. which would be at a depth below the existing infrastructure to prevent any leaching. We will collect composite confirmation soil samples of the current bottom of the excavated area to document chloride levels left in place, as well as sidewall samples in conformance with the NMOCD sampling guidance in Section VII Closure Sampling Plans (September 6, 2019 Guidance). The characteristics of the site indicate that groundwater has not been impacted and the placement of a liner will prevent any potential surface water from reaching the soils greater than 600 mg/kg so no leaching will occur.

We are also requesting permission for these composite samples to only be analyzed for chlorides. The sampling by Talon has indicated that TPH, and BTEX are not analytes of concern for this event.

Due to the depth of the excavation we are concerned with both potential safety and environmental impacts of leaving the excavation open and would like to place the liner as soon as possible to reduce the safety and environmental risks

associated with an open excavation. The approval of the variance will provide equal or better protection of groundwater, public health and the environment.

Please let me know if you have any questions or need additional information. 3Bear appreciates the NMOCD's continued coordination and communication on this remediation.

Thank you.

Liz Klein
Director, EHS Regulatory Compliance
3Bear Energy, LLC
303-882-4404 (C)
lklein@3bearllc.com
1512 Larimer Street, Suite 540
Denver, CO 80202

From: Hamlet, Robert, EMNRD [mailto:Robert.Hamlet@state.nm.us]
Sent: Tuesday, January 26, 2021 1:51 PM
To: Liz Klein <lklein@3bearllc.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Subject: RE: Review Requested: Work Plan Dark Canyon Spill NRM2034257903

Liz,

Sorry I haven't got back to you sooner, we have been doing a lot of training the last few weeks. I reviewed the Glenn's Water Well Service AAUW and only see an Approximate depth of 325'. The information in the email from Travis Glenn is only him saying that the water level depth was 304'. The OCD needs scientific data collected from a verifiable source. At this point, we can't accept the groundwater depth determination that 3Bear has provided to us.

The bottom samples at each sample location appear to be under 10,000 mg/kg. It appears that the site could be vertically delineated with a shallow borehole to 51' to allow for verification of the depth. If water is not visible after reaching bottom-hole and waiting 72 hours, we would accept the results. We would just need a copy of the driller's log. Showing scientific proof that there is no groundwater within the top 50' of material is imperative in this release. If the borehole proves no groundwater in the top 50", we would be willing to allow 3Bear to backfill the excavation to 4' below ground surface with clean material, install a liner, then backfill to surface with clean material, contour/repair surface to previous condition. Additionally, please make sure the release is horizontally delineated to 600 mg/kg on the edges. Visual identification isn't evidence of the edge of a spill, only soil samples under 600 mg/kg for chlorides.

Please, keep us informed if you intend to drill a borehole.

Regards,

Robert Hamlet ● Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
505.748.1283 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

APPENDIX VI

Seed Tag

Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347 (800) 262-9892 Permit # TX00905

Warm Season SSR seed mix 25# bag Lot/Sales # SO-71199

Kind & Variety	Pure Seed	Germ	Dormant	Hard Seed	Origin
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	4.33%	94.00%	3.00%	0.00%	TX
Bluestem, Yellow "WW Spar" (Andropogon ischaemum)	7.08%	93.00%	2.00%	0.00%	OK
Buffalograss, "Texoka" Primed KNO3 (Bouteloua dactyloides)	5.25%	77.00%	19.00%	0.00%	TX
Dropseed, Sand (Sporobolus cryptandrus)	5.15%	3.00%	95.00%	0.00%	TX
Fescue, Tall "KY 31" (Festuca arundinacea Schreb.)	1.67%	98.00%	0.00%	0.00%	OR
Grama, Blue (Bouteloua gracilis)	25.73%	98.00%	0.00%	0.00%	TX
Grama, Sideoats "El Reno" (Bouteloua curtipendula)	23.16%	98.00%	0.00%	0.00%	TX

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 29047

CONDITIONS

Operator: 3BEAR FIELD SERVICES, LLC 1512 Larimer St, Suite 540 Denver, CO 80202	OGRID: 372603
	Action Number: 29047
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NRM2034257903 DARK CANYON VALVE SET, thank you. This closure is approved.	7/8/2021