ENSOLUM

CLOSURE REPORT

Property:

Brookhaven A #2A PC (11/19/24)
Unit Letter J, S16 T31N R10W
San Juan County, New Mexico

New Mexico EMNRD OCD Incident ID No. NAPP2432426402

April 30, 2025

Ensolum Project No. 05A1226353

Prepared for:

Enterprise Field Services, LLC
614 Reilly Avenue
Farmington, NM 87401
Attn: Mr. Thomas Long

Prepared by:

Landon Daniell
Project Geologist

Kyle Summers
Senior Managing Geologist

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1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Brookhaven A #2A PC (11/19/24) (Site)
NM EMNRD OCD Incident ID No.	NAPP2432426402
Location:	36.89546° North, 107.88489° West Unit Letter J, Section 16, Township 31 North, Range 10 West San Juan County, New Mexico
Property:	State of New Mexico
Regulatory:	New Mexico (NM) Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On November 11, 2024, Enterprise personnel identified a potential release of natural gas from the Brookhaven A #2A PC well tie. Enterprise subsequently isolated and locked the pipeline out of service. On November 19, 2024, Enterprise initiated activities to remediate petroleum hydrocarbon impact, and determined the release was "reportable" due to the potential volume of impacted soil. The NM EMNRD OCD was subsequently notified.

A **Topographic Map** depicting the location of the Site is included as **Figure 1**, and a **Site Vicinity Map** is included as **Figure 2** in **Appendix A**.

1.2 Project Objective

The primary objective of the closure activities was to reduce constituent of concern (COC) concentrations in the on-site soils to below the applicable NM EMNRD OCD closure criteria.

2.0 CLOSURE CRITERIA

The Site is subject to regulatory oversight by the NM EMNRD OCD. During the evaluation and remediation of the Site, Ensolum, LLC (Ensolum) referenced New Mexico Administrative Code (NMAC) 19.15.29 *Releases,* which establishes investigation and abatement action requirements for oil and gas release sites that are subject to reporting and/or corrective action. The appropriate closure criteria for sites are determined using the siting requirements outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC. Ensolum utilized the general site characteristics and information available from NM state agency databases and federal agency geospatial databases to determine the appropriate closure criteria for the Site. Supporting figures and documentation associated with the following Siting bullets are provided in **Appendix B**.

- The NM Office of the State Engineer (OSE) tracks the usage and assignment of water rights and water well installations and records this information in the Water Rights Reporting System (WRRS) database. Water wells and other points of diversion (PODs) are each assigned POD numbers in the database (which is searchable and includes an interactive map). No PODs with a recorded depth to water (DTW) were identified in the same Public Land Survey System (PLSS) section as the Site. Numerous PODs were identified in the adjacent PLSS sections (**Figure A**, **Appendix B**). PODs SJ-04328 POD6-10 are located approximately 1.05 miles southwest of the Site and are approximately 37 feet lower in elevation than the Site. The average DTW of these wells is 20 feet below grade surface (bgs).

- Numerous cathodic protection wells (CPWs) were identified in the NM EMNRD OCD imaging database in the adjacent PLSS sections. Two CPWs were identified in the same PLSS section as the Site. These CPWs are depicted on **Figure B** (**Appendix B**). Documentation for the closest cathodic protection well located near the Brookhaven A #2A production pad indicates a depth to water of 100 feet below grade surface (bgs). This cathodic protection well is located approximately 0.07 miles northeast of the Site and is approximately 13 feet higher in elevation than the Site. Documentation for the cathodic protection well located near the Brookhaven Com M #1A and #15 production pads indicates a depth to water of 120 feet bgs. This cathodic protection well is located approximately 0.52 miles northwest of the Site and is approximately 43 feet higher in elevation than the Site. Documentation for the cathodic protection well located near the Kelly A #1 and #8 production pads indicates a depth to water of 110 feet bgs. This cathodic protection well is located approximately 0.66 miles east of the Site and is approximately 100 feet higher in elevation than the Site.

- The Site is located within 300 feet of a NM EMNRD OCD-defined significant watercourse (**Figure C**, **Appendix B**). The Site is approximately 40 feet west of a “blue-line” ephemeral wash.

- The Site is not located within 200 feet of a lakebed, sinkhole, or playa lake.

- The Site is not located within 300 feet of a permanent residence, school, hospital, institution, or church (**Figure D**, **Appendix B**).

- No springs, or private domestic freshwater wells used by less than five households for domestic or stock watering purposes were identified within 500 feet of the Site (**Figure E**, **Appendix B**).

- No freshwater wells or springs were identified within 1,000 feet of the Site (**Figure E**, **Appendix B**).

- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to New Mexico Statutes Annotated (NMSA) 1978, Section 3-27-3.

- Based on information identified in the U.S. Fish & Wildlife Service National Wetlands Inventory Wetlands Mapper, the Site is not within 300 feet of a wetland (**Figure F**, **Appendix B**). The Site is located within 300 feet of a riverine. This riverine bears the “J” designation (intermittently flooded) that is generally not considered a wetland in this region. A manmade pond is located approximately 7,997 feet west of the Site.

- Based on information identified in the NM Mining and Minerals Division’s Geographic Information System (GIS) Maps and Mine Data database, the Site is not within an area overlying a subsurface mine (**Figure G**, **Appendix B**).

- The Site is not located within an unstable area per Paragraph (6) of Subsection U of 19.15.2.7 NMAC.

- Based on information provided by the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) geospatial database, the Site is not within a 100-year floodplain (**Figure H**, **Appendix B**).

The Site is located within 300 feet of a NM EMNRD OCD-defined continuously flowing or significant watercourse, resulting in a Tier I ranking. The closure criteria for soils remaining in place at the Site include:

Tier I Closure Criteria for Soils Impacted by a Release		
Constituent[1]	**Method**	**Limit**
Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
TPH (GRO+DRO+MRO)[2]	EPA SW-846 Method 8015	100 mg/kg
BTEX[3]	EPA SW-846 Method 8021 or 8260	50 mg/kg
Benzene	EPA SW-846 Method 8021 or 8260	10 mg/kg

[1] – Constituent concentrations are in milligrams per kilogram (mg/kg).
[2] – Total Petroleum Hydrocarbons (TPH). Gasoline Range Organics (GRO). Diesel Range Organics (DRO). Motor Oil/Lube Oil Range Organics (MRO).
[3] – Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX).

3.0 SOIL REMEDIATION ACTIVITIES

On November 19, 2024, Enterprise initiated activities to remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities, West States Energy Contractors, Inc., provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The excavation measured approximately 37 feet long and 34 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 24 feet bgs, with a footprint of approximately 1,126 ft^2, including the sloped walls. The lithology encountered during the completion of remediation activities consisted primarily of silty sand and gravel.

Approximately 1,268 cubic yards (yd^3) of petroleum hydrocarbon-affected soils and 35 barrels (bbls) of hydro-excavation soil cuttings and water were transported to the Envirotech, Inc., (Envirotech) landfarm in San Juan County, NM for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix C**. The excavation was backfilled with imported fill and then contoured to the surrounding grade.

Figure 3 is a map that identifies approximate soil sample locations and depicts the approximate dimensions of the excavation with respect to the pipeline (**Appendix A**). Photographic documentation of the field activities is included in **Appendix D**.

4.0 SOIL SAMPLING PROGRAM

Ensolum field screened the soil samples from the excavation utilizing a calibrated Dexsil PetroFLAG® hydrocarbon analyzer system and a photoionization detector (PID) fitted with a 10.6 eV lamp to guide excavation extents.

Ensolum's soil sampling program included the collection of 16 composite soil samples (S-1 through S-16) from the excavation and one composite sample (BF-1) from the backfill for laboratory analysis. The composite samples were comprised of five aliquots each and represent an estimated 200 square foot (ft^2) or less sample area per guidelines outlined in Section D of 19.15.29.12 NMAC. The excavator bucket and/or hand tools were utilized to obtain fresh aliquots from the excavation and backfill. Regulatory correspondence is provided in **Appendix E**.

First Sampling Event
On December 6, 2024, sampling was performed at the Site. The NM EMNRD OCD was notified of the sampling event although no representative was present during sampling activities. Composite soil samples S-1 (20' to 24') and S-2 (20' to 24') were collected from the floor of the excavation. Composite soil sample S-3 (14' to 24') was collected from a sloped wall. Composite soil samples S-4 (7' to 14'), S-5 (7' to 14'), S-6 (0' to 20'), S-7 (0' to 20'), S-8 (0' to 20'), S-9 (0' to 24'), S-10 (0' to 24'), and S-11 (0' to 24') were collected from the walls of the excavation. Composite soil samples S-12 (7' to 24') and S-13 (7' to 24') were collected from both sloped and vertical walls.

Second Sampling Event
On January 15, 2025, sampling was performed at the Site. The NM EMNRD OCD was notified of the sampling event although no representative was present during sampling activities. Composite soil sample BF-1 was collected from the imported fill.

Third Sampling Event
On February 20, 2025, sampling was performed at the Site. The NM EMNRD OCD was notified of the sampling event although no representative was present during sampling activities. Composite soil samples S-14 (0' to 7'), S-15 (0' to 7'), and S-16 (0' to 7') were collected from the sloped walls of the excavation.

All soil samples were collected and placed in laboratory-prepared glassware. The containers were labeled and sealed using the laboratory-supplied labels and custody seals and were stored on ice in a cooler. The samples were relinquished to the courier for Eurofins Environment Testing South Central, LLC (Eurofins) of Albuquerque, NM, under proper chain-of-custody procedures.

5.0 SOIL LABORATORY ANALYTICAL METHODS

The composite soil samples were analyzed for BTEX using Environmental Protection Agency (EPA) SW-846 Method 8021; TPH GRO/DRO/MRO using EPA SW-846 Method 8015; and chlorides using EPA Method 300.0.

The laboratory analytical results are summarized in **Table 1** (**Appendix F**). The laboratory data sheets and executed chain-of-custody forms are provided in **Appendix G**.

6.0 SOIL DATA EVALUATION

Ensolum compared the benzene, BTEX, TPH, and chloride laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with the composite soil samples (S-1 through S-16 and BF-1) to the applicable NM EMNRD OCD closure criteria. Due to the high PQLs/RLs associated with the TPH MRO results when using EPA SW-846 Method 8015, Ensolum only compares the quantified TPH results to the New Mexico EMNRD OCD closure criteria. The laboratory analytical results are summarized in **Table 1** (**Appendix F**).

- The analytical results for the composite soil samples collected from soils remaining at the Site indicate benzene is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 10 milligrams per kilogram (mg/kg).

- The analytical results for the composite soil samples S-3 and S-11 indicate total BTEX concentrations of 0.57 mg/kg and 0.10 mg/kg, respectively, which are less than the NM EMNRD OCD closure criteria of 50 mg/kg. The analytical results for the other composite soil

samples collected from soils remaining at the Site indicate BTEX is not present at concentrations greater than laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 50 mg/kg.

- The laboratory analytical results for composite soil samples S-3, S-7, and BF-1 indicate a total combined TPH GRO/DRO/MRO concentrations ranging from 9.7 mg/kg (BF-1) to 60 mg/kg (S-7), which are less than the NM EMNRD OCD closure criteria of 100 mg/kg. Analytical results for the other composite soil samples collected from soils remaining at the Site indicate TPH GRO/DRO/MRO is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 100 mg/kg.

- The laboratory analytical results for the composite soil samples collected from soils remaining at the Site indicate chloride is not present at concentrations greater than the laboratory PQLs/RLs, which is less than the NM EMNRD OCD closure criteria of 600 mg/kg.

7.0 RECLAMATION

The excavation was backfilled with imported fill and then contoured to the surrounding grade. The backfill and the upper four feet of the excavation have been analytically verified to be below the Tier I soil standards of 50 mg/kg BTEX, 10 mg/kg benzene, 100 mg/kg total combined TPH, and 600 mg/kg Chloride. See **APPENDIX D** and **APPENDIX F** for further documentation.

8.0 REVEGETATION

Revegetation will be addressed in accordance with 19.15.29.13 NMAC utilizing the recommended seed mix as described in the Vegetation Community Descriptions and Seed Mixes provided by the BLM Farmington Field Office. In this case the surrounding vegetation is predominantly of the Sagebrush/Grassland Vegetation Community. Enterprise will reseed the area with the appropriate seed mix during the next favorable growing season. Enterprise will provide revegetation documentation under separate cover.

9.0 FINDINGS AND RECOMMENDATION

- Seventeen composite soil samples were collected from the Site. Based on laboratory analytical results, no benzene, BTEX, chloride, or total combined TPH GRO/DRO/MRO exceedances were identified in the soils remaining at the Site.

- Approximately 1,268 yd^3 of petroleum hydrocarbon-affected soils and 35 bbls of hydro-excavation soil cuttings and water were transported to the Envirotech landfarm for disposal/remediation.

Based on field observations and laboratory analytical results, no additional investigation or corrective action appears warranted at this time.

10.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

10.1 Standard of Care

Ensolum's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Ensolum makes no warranties, express or implied, as to the services performed hereunder. Additionally, Ensolum does not warrant the work of third parties supplying information used in the report (e.g., laboratories, regulatory agencies, or other third parties).

10.2 Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work, and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Ensolum cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during the investigation. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Ensolum's findings and recommendation are based solely upon data available to Ensolum at the time of these services.

10.3 Reliance

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and Ensolum. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in this report and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.

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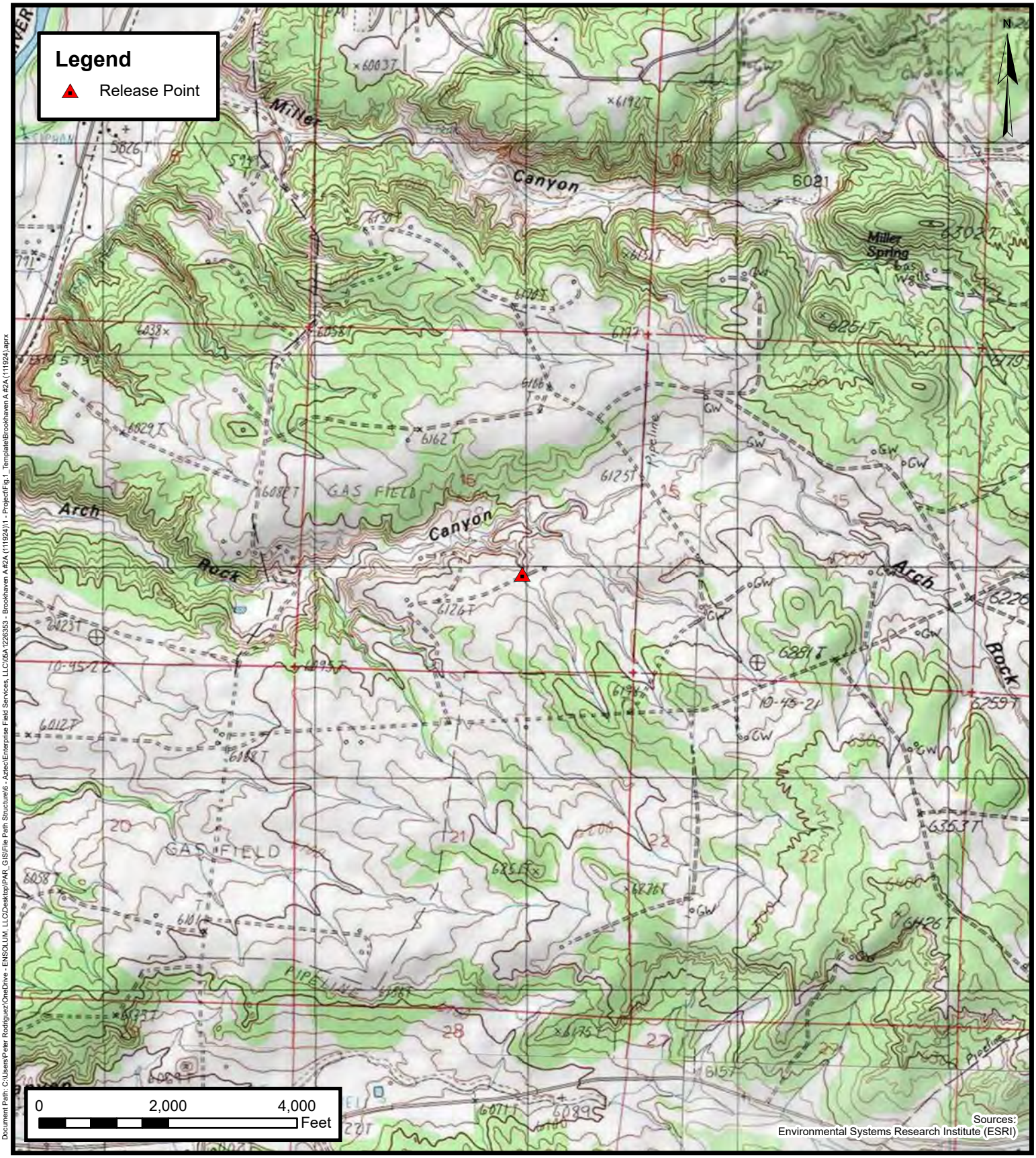
APPENDIX A

Figures



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Topographic Map

Enterprise Field Services, LLC
Brookhaven A #2A (11/19/24)
Project Number: 05A1226353
Unit Letter J, S16 T31N R10W, San Juan County, New Mexico
36.89546, -107.88489

FIGURE

1

Document Path: C:\Users\Peter Rodriguez\OneDrive - ENSOLUM, LLC\Desktop\PAR_GIS\File Path Structure\6 - Aztec\Enterprise Field Services, LLC\05A1226353 - Brookhaven A #2A (111924)\1 - Project\Fig 1_ Template\Brookhaven A #2A (111924).aprx

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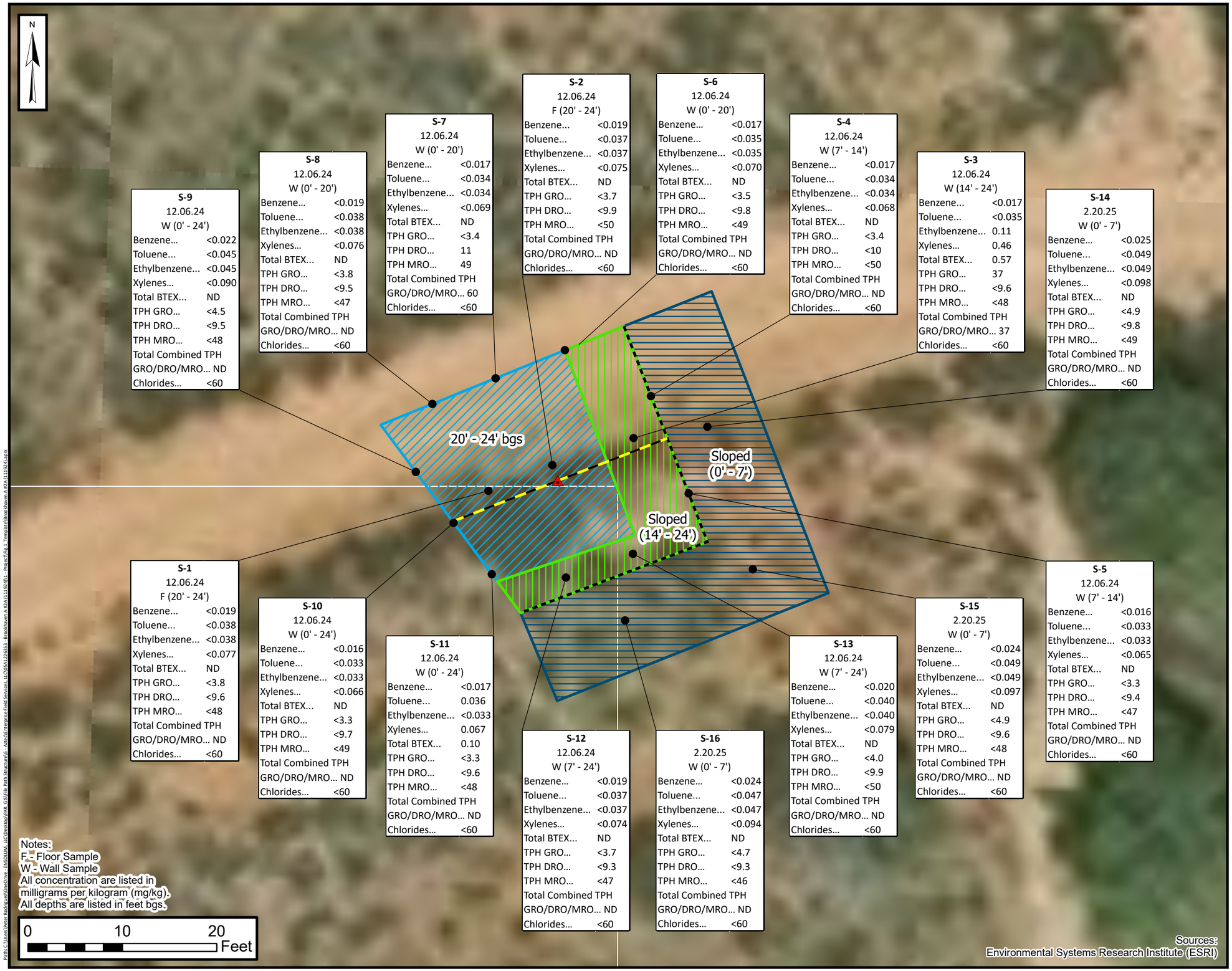
Site Vicinity Map

Enterprise Field Services, LLC
Brookhaven A #2A (11/19/24)
Project Number: 05A1226353
Unit Letter J, S16 T31N R10W, San Juan County, New Mexico
36.89546, -107.88489

FIGURE

2



LEGEND

- Point of Release
- Composite Soil Sample Location
- Brookhaven A #2A Pipeline
- Short Wall
- Excavation Extent
- Sloped Excavation (0' - 7')
- Sloped Excavation (14' - 24')

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Site Map with Soil Analytical Results

Enterprise Field Services, LLC
Brookhaven A #2A (11/19/24)

Unit Letter J, S16 T31N R10W
San Juan County, New Mexico
36.89546, -107.88489

Figure 3

Project Number: 05A1226353

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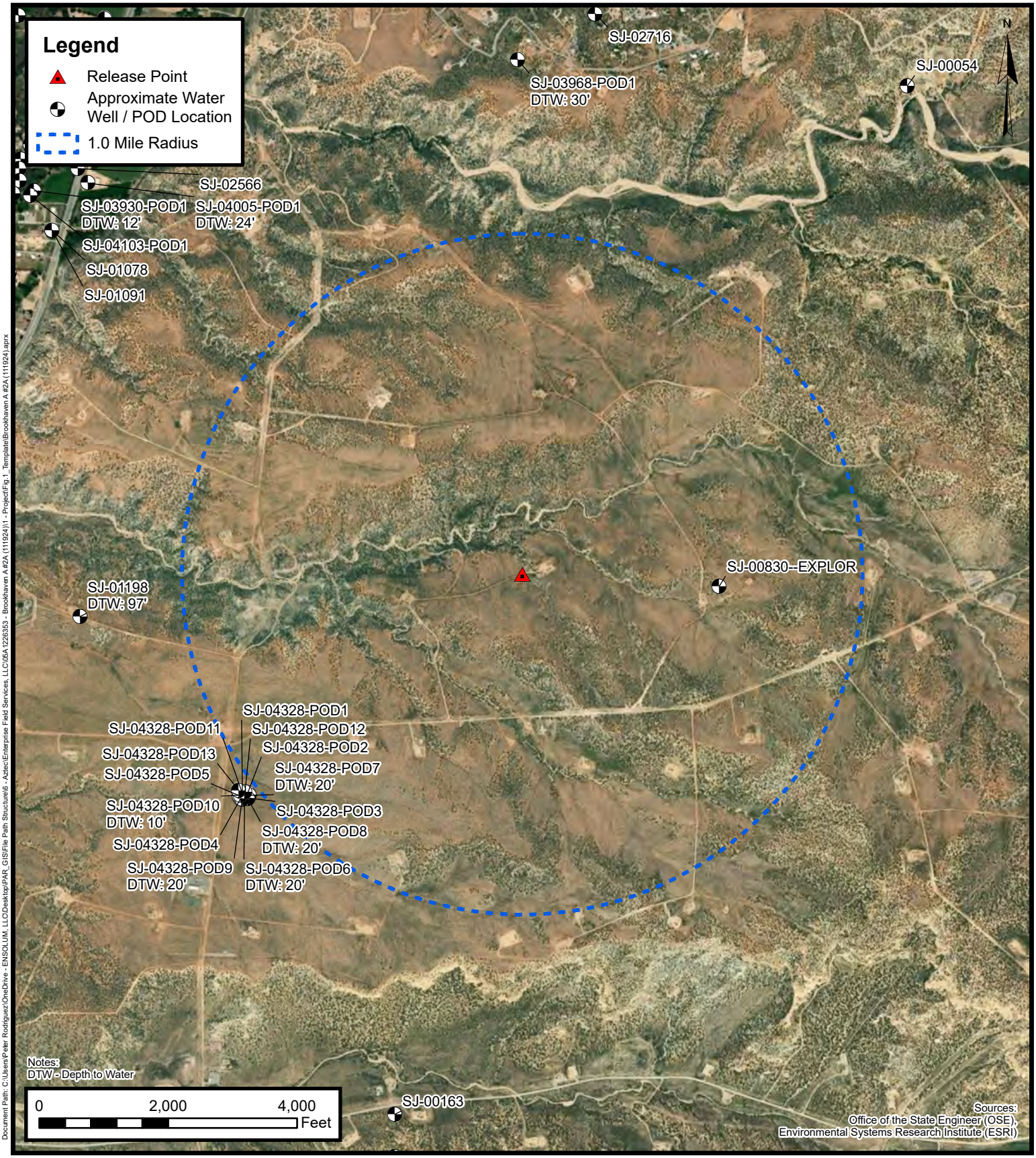
APPENDIX B

Siting Figures and Documentation



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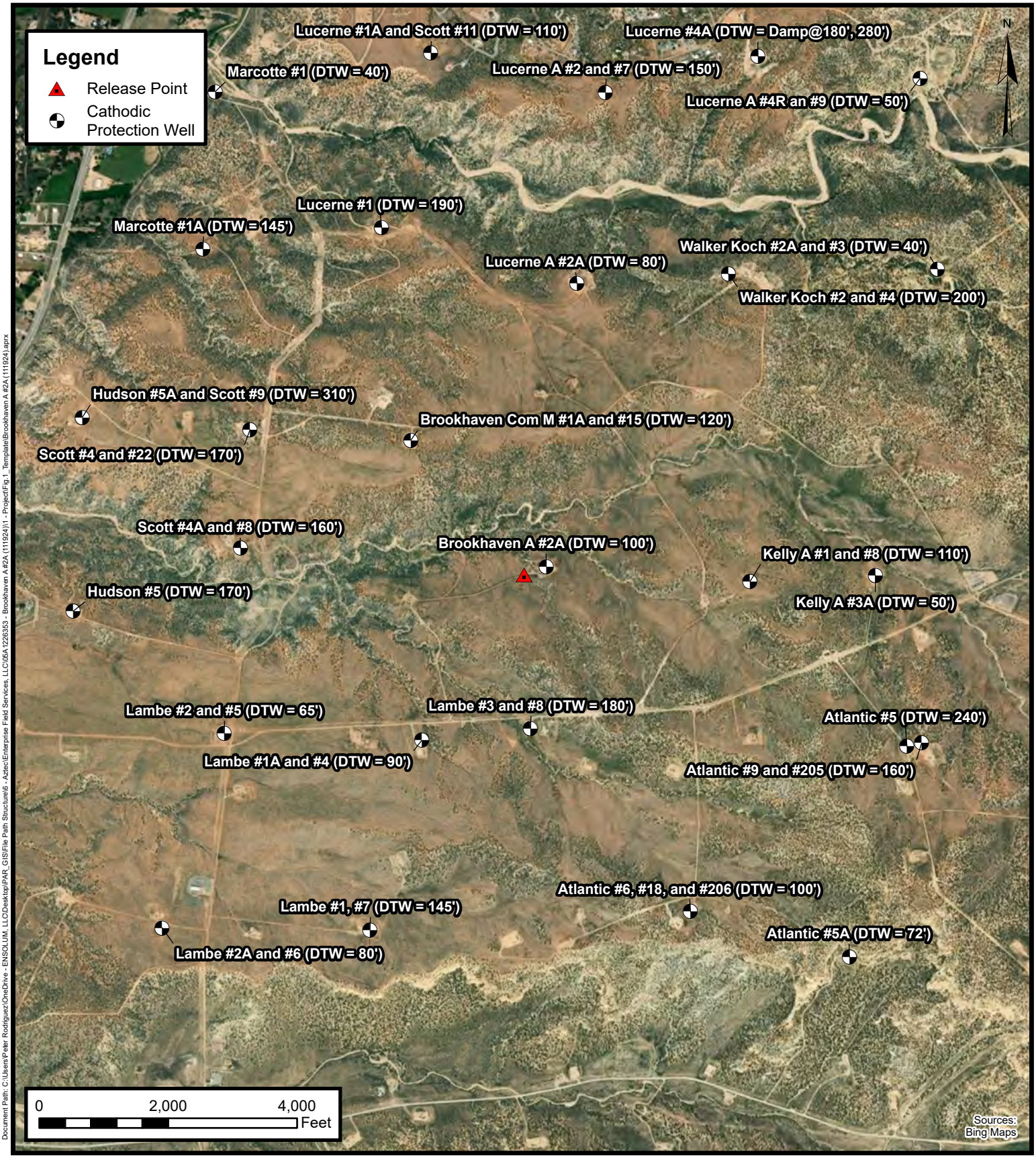
1.0 Mile Radius Water Well / POD Location Map

Enterprise Field Services, LLC
Brookhaven A #2A (11/19/24)
Project Number: 05A1226353
Unit Letter J, S16 T31N R10W, San Juan County, New Mexico
36.89546, -107.88489

FIGURE

A



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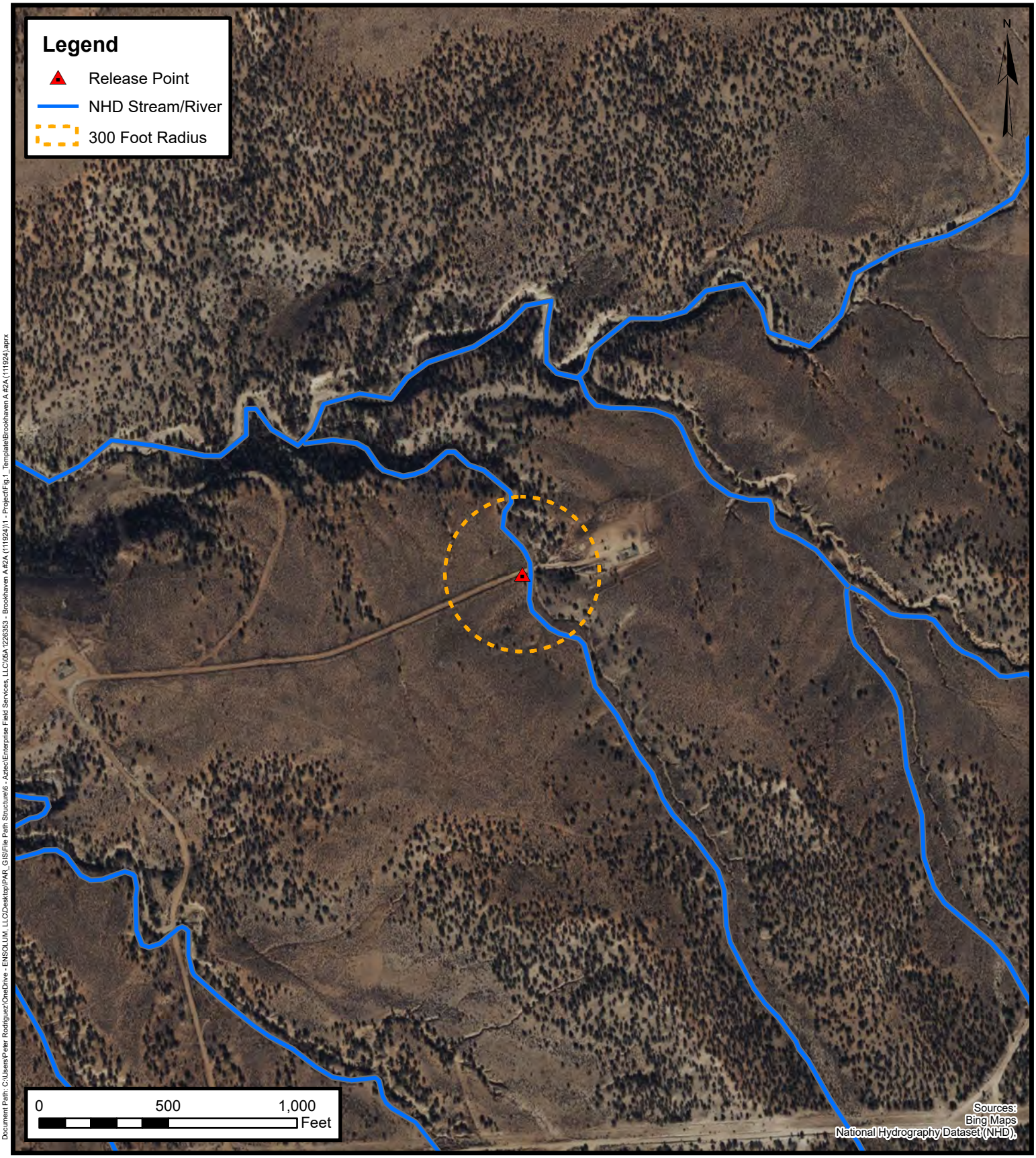
Cathodic Protection Well
Recorded Depth to Water
Enterprise Field Services, LLC
Brookhaven A #2A (11/19/24)
Project Number: 05A1226353
Unit Letter J, S16 T31N R10W, San Juan County, New Mexico
36.89546, -107.88489

FIGURE
B



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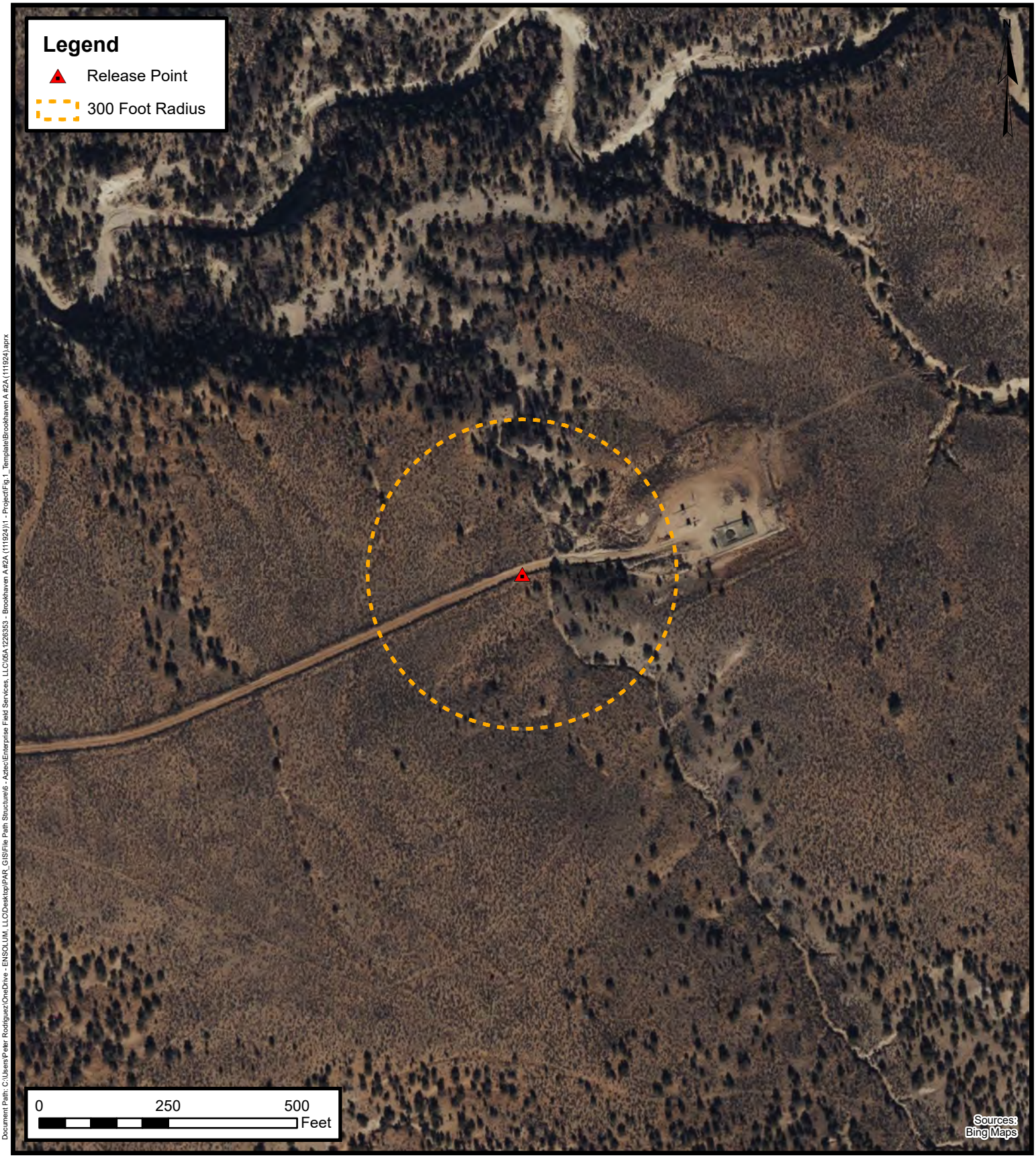
300 Foot Radius Watercourse and Drainage Identification

Enterprise Field Services, LLC
Brookhaven A #2A (11/19/24)
Project Number: 05A1226353
Unit Letter J, S16 T31N R10W, San Juan County, New Mexico
36.89546, -107.88489

FIGURE

C



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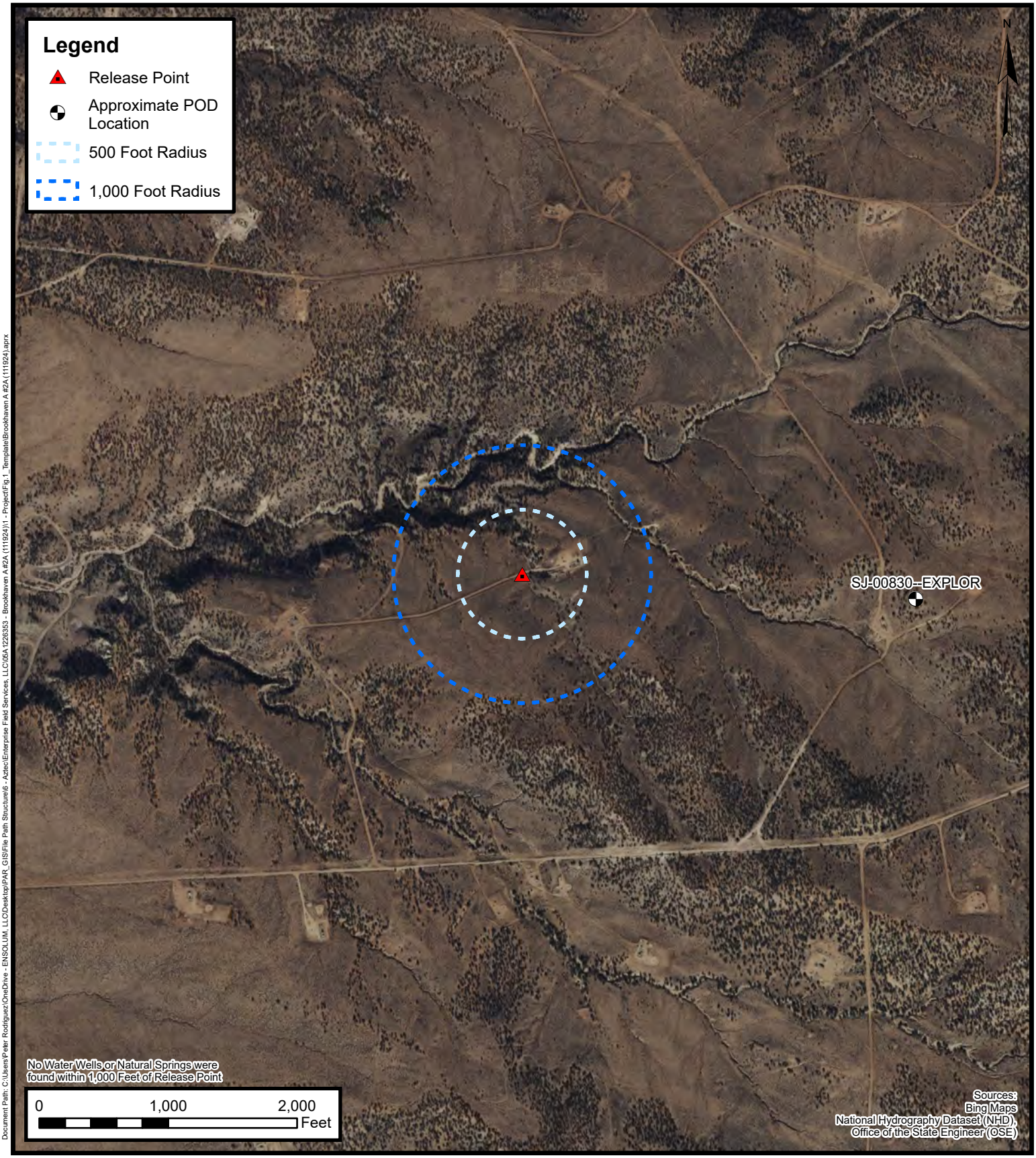
300 Foot Radius Occupied Structure Identification

Enterprise Field Services, LLC
Brookhaven A #2A (11/19/24)
Project Number: 05A1226353
Unit Letter J, S16 T31N R10W, San Juan County, New Mexico
36.89546, -107.88489

FIGURE

D



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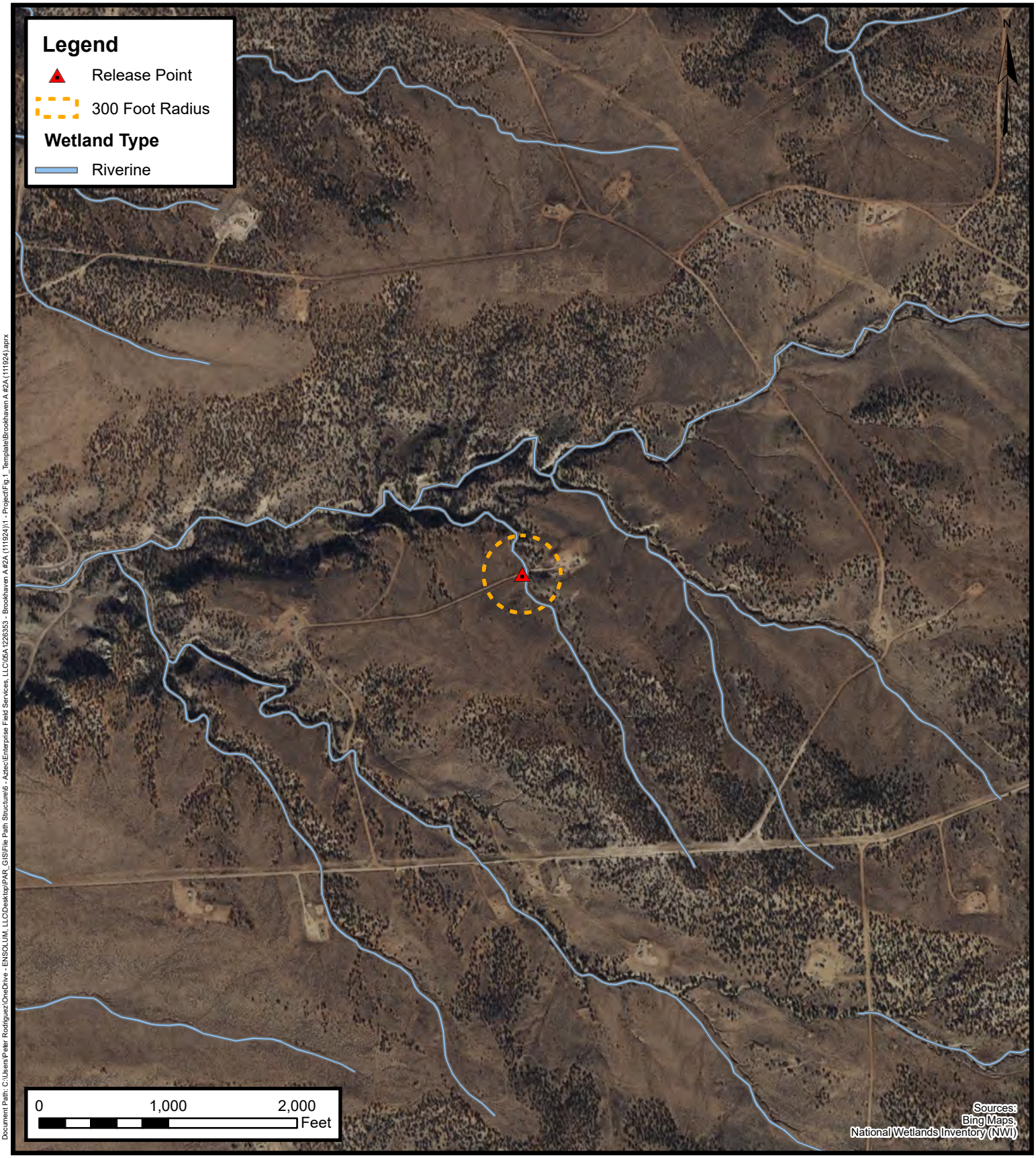
Water Well and Natural Spring Location

Enterprise Field Services, LLC
Brookhaven A #2A (11/19/24)
Project Number: 05A1226353
Unit Letter J, S16 T31N R10W, San Juan County, New Mexico
36.89546, -107.88489

FIGURE
E



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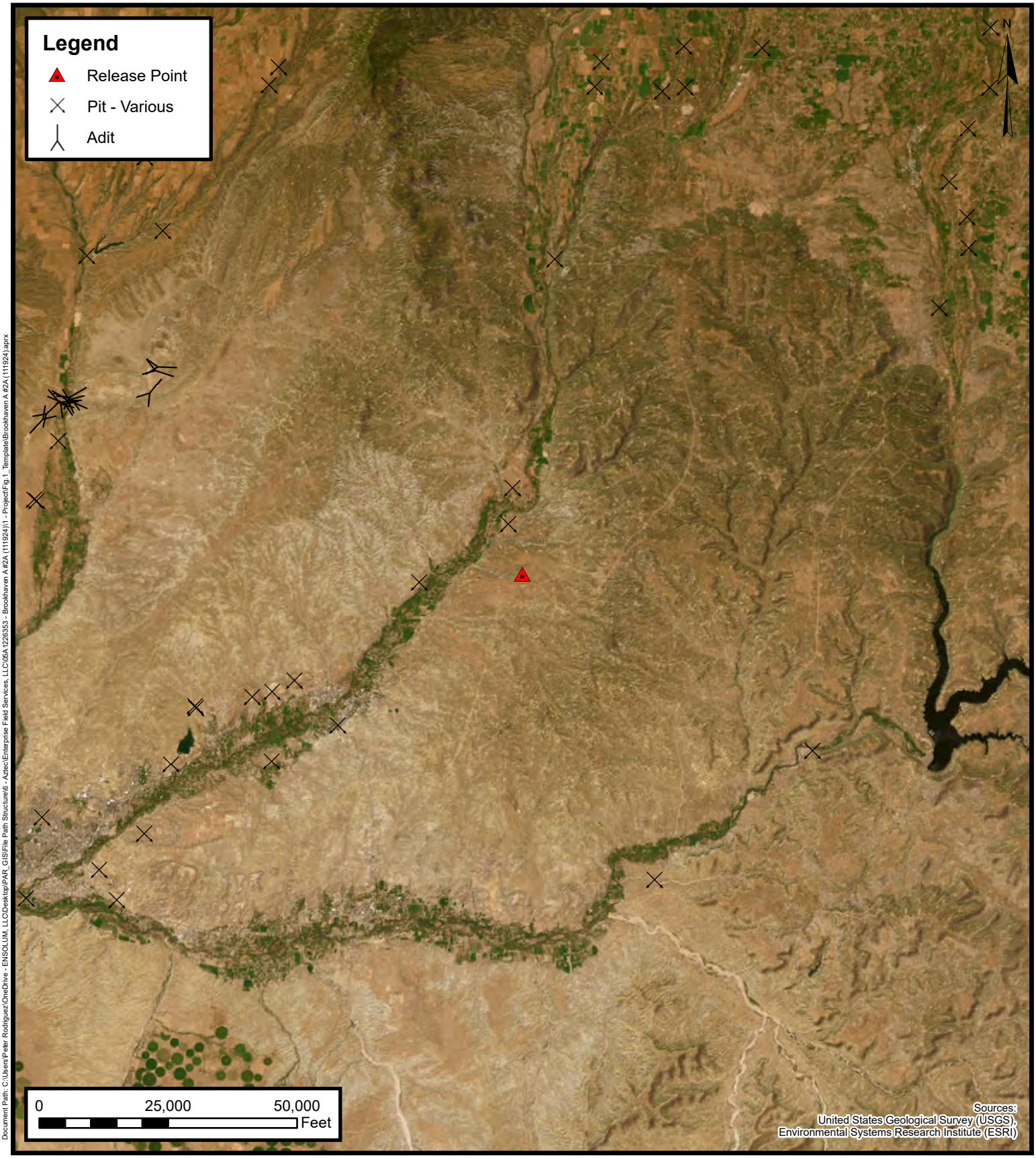
Wetlands

Enterprise Field Services, LLC
Brookhaven A #2A (11/19/24)
Project Number: 05A1226353
Unit Letter J, S16 T31N R10W, San Juan County, New Mexico
36.89546, -107.88489

FIGURE
F



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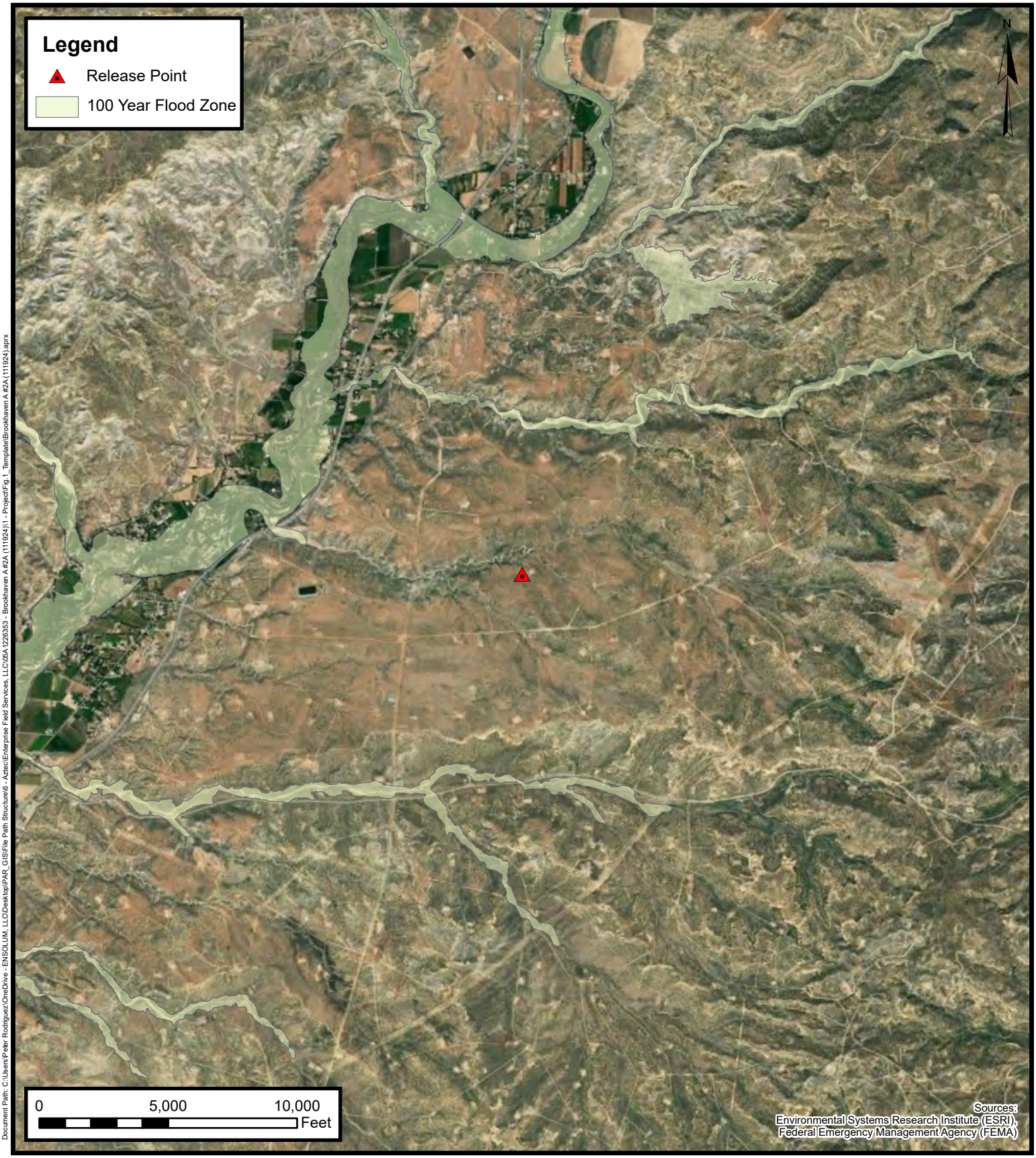
Mines, Mills, and Quarries

Enterprise Field Services, LLC
Brookhaven A #2A (11/19/24)
Project Number: 05A1226353
Unit Letter J, S16 T31N R10W, San Juan County, New Mexico
36.89546, -107.88489

FIGURE
G



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100-Year Flood Plain Map

Enterprise Field Services, LLC
Brookhaven A #2A (11/19/24)
Project Number: 05A1226353
Unit Letter J, S16 T31N R10W, San Juan County, New Mexico
36.89546, -107.88489

FIGURE
H

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 smallest to largest)

(In feet)

POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Well Depth	Depth Water	Water Column
SJ 00054		SJAR	SJ			NE	10	31N	10W	244754.0	4089470.0 *		455		
SJ 00585		SJAR	SJ				08	31N	10W	241111.0	4089191.0 *		40	23	17
SJ 00830 -EXPLOR		SJAR	SJ			SW	15	31N	10W	243864.0	4087104.0 *		550		
SJ 01198		SJAR	SJ		SE	SW	17	31N	10W	240842.0	4086962.0 *		158	97	61
SJ 01584 POD2		SJAR	SJ	SE	SW	NW	08	31N	10W	240626.3	4089237.5		25	25	0
SJ 02304		SJAR	SJ		NE	NW	08	31N	10W	240959.0	4089789.0 *		35	29	6
SJ 03057		SJAR	SJ	SE	SW	NW	08	31N	10W	240636.0	4089296.0 *		19	6	13
SJ 03714 POD1		SJAR	SJ	NW	NW	SW	08	31N	10W	240421.0	4089091.0 *		21	6	15
SJ 03923 POD1		SJAR	SJ	SE	NW	NE	08	31N	10W	241455.5	4089675.1		51	37	14
SJ 03930 POD1		SJAR	SJ	SW	NW	SW	08	31N	10W	240624.1	4088974.9		27	12	15
SJ 04005 POD1		SJAR	SJ	NW	NE	SW	08	31N	10W	240879.6	4089011.4		48	24	24
SJ 04044 POD1		SJAR	SJ	SE	NE	NW	08	31N	10W	241163.1	4089709.9		38	18	20
SJ 04103 POD1		SJAR	SJ	SE	NW	SW	08	31N	10W	240607.3	4088952.4		26		
SJ 04328 POD10		SJ	SJ		SE	NE	20	31N	10W	241600.6	4086117.9		35	20	15
SJ 04328 POD6		SJ	SJ		SE	NE	20	31N	10W	241620.1	4086116.7		35	20	15
SJ 04328 POD7		SJ	SJ		SE	NE	20	31N	10W	241642.2	4086116.6		35	20	15
SJ 04328 POD8		SJ	SJ		SE	NE	20	31N	10W	241634.8	4086102.3		35	20	15
SJ 04444 POD1		SJAR	SJ		SW	NE	08	31N	10W	241363.2	4089367.8		100	50	50

Average Depth to Water: **27 feet**

Minimum Depth: **6 feet**

Maximum Depth: **97 feet**

Record Count: 18

Basin/County Search:
Basin: SJ

PLSS Search:

Range: 10W

Township: 31N

Section: 8,9,10,15,16,17,20,21,22

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

1018

30-045-21985

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SE Sec. 16 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced BROOKHAVEN COM A #2A

cps 1192w

Elevation 6105' Completion Date 6/10/77 Total Depth 500' Land Type* N/A

Casing, Sizes, Types & Depths 48' OF 8" CASING

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. WET AT 100'

Depths gas encountered: N/A HOLE MAKING GAS.

Type & amount of coke breeze used: 48 SACKS

Depths anodes placed: 235', 225', 215', 205', 195', 185', 175', 165', 155', 145'

Depths vent pipes placed: 235'

Vent pipe perforations: 200'

Remarks: gb #1 BOULDER FELL IN HOLE OVERNIGHT. DRILLED BACK TO 350'

HOLE MAKING GAS.

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST.

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company
Form 7-238 (Rev. 11-71)

WELL CASING

CATHODIC PROTECTION CONSTRUCTION REPORT

DAILY LOG

Drilling Log (Attach Hereto). ☐ Completion Date 6-10-77

Well Name	Location	CPS No.
BROOKHAVEN COM. A #2A	SE 16-31-10	1192W
Type & Size Bit Used: 6 3/4"		Work Order No.: 57043

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
Logged 500' – 250				

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	235'	225'	215'	205'	195'	185'	175'	165'	155'	145'
Anode Output (Amps)	5.5	5.0	5.5	6.5	7.1	6.2	7.9	5.2	5.0	4.0
Anode Depth	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Output (Amps)	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20

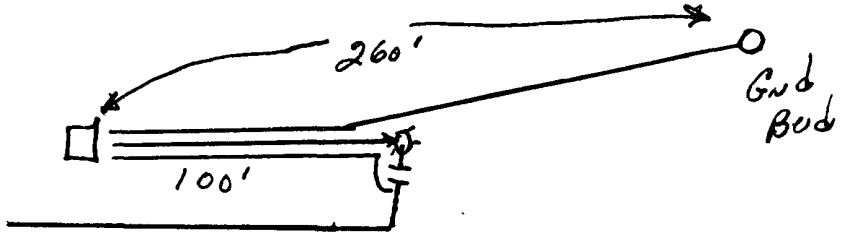
Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.8	Amps 23.5	Ohms 0.50Ω		

Remarks: Installed 48' of CASing. CHARged 48.48 of CASing. Installed 235' of 1" PVC Vent Pipe. Perforated 200'. DRiller SAid wet @ 100'. STARted Inj. @ 150' DRilled to 500'. Boulder Fell in Hole over Night. DRiller tRied to DRill BAck to 500. DRilled to 350. Logged Hole. Logging Anode stopped @ 250, over 24 hour period WATER Level @ 60'. Gnd Bed MAKing GAS. SlURRyed 48 SAcks of COke STatic 0.80 600' North

All Construction Completed

W. Z. Lowe
(Signature)

GROUND BED LAYOUT SKETCH



DISTRIBUTION:
WHITE – Division Corrosion Office
YELLOW – Area Corrosion Office
PINK – Originator File

(105)

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE WELL NO. 1192W CONTRACTOR Pooley RIG NO. REPORT NO. DATE 6-9 19 77

MORNING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.

SER NO. NO. DC SIZE LENG.

SIZE STANDS

TYPE SINGLES

MAKE DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
60	75	sand wet
75	100	shale
100	130	sandy shale
[illegible]	145	shale slt. wtr
[illegible]	155	sand wet
[illegible]	225	shale

REMARKS –

DAYLIGHT

Driller Pooley Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.

SERIAL NO. NO. DC SIZE LENG.

SIZE STANDS

TYPE SINGLES

MAKE DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
225	245	sandy shale
245	270	shale
270	280	sand
280	320	shale
320	360	sandy shale
[illegible]	[illegible]	shale

REMARKS –

EVENING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.

SERIAL NO. NO. DC SIZE LENG.

SIZE STANDS

TYPE SINGLES

MAKE DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
360	410	sandy shale
410	460	sandy shale
460	480	sand

REMARKS –

SIGNED: Toolpusher _____ Company Supervisor _____

Form 7-1 (Rev. 5-67)

EL PASO NATURAL GAS COMPANY
ENGINEERING DEPARTMENT

Sheet ____ of ____
Date: ____
By: ____

57043
SE 16-31-10
BROOK HAVEN COM. # 2-A
1192W

MW		gals/mol
16	C_1	6.4
30	C_2	9.56
44	C_3	10.42
58	IC_4	12.38
"	NC_4	11.93
72	IC_5	13.85
"	NC_5	13.71
86	IC_6	15.50
"	C_6	15.57
100	IC_7	17.2
"	C_7	17.46
114	C_8	19.38
28	$C_2^=$	9.64
42	$C_3^=$	9.67

MISC.

MW		gals/mol
44	CO_2	6.38
34	H_2S	5.17
28	N_2	4.16
2	H_2	3.38

Installed 48' of 8" casing. Charged of casing.
Driller said wet @ 100'
Started inj. @ 150'
Perforated ' of 1" PVC vent pipe
Installed 235' of 1" PVC vent pipe
Water level after 24 HR period standing @ 60'

100	2.2		240	2.9	380
	2.0			2.9	
10	1.8		50	TP	90
	2.3				
20	2.1		60		400
	2.6				
30	2.3		70		10
	2.2				
40	1.8		80		20
	1.7	(10)			
50	1.8		90		30
	1.9	(9)			
60	2.5		300		40
	2.2	(8)			
70	3.2		10		50
	3.0	(7)			
80	2.6		20		60
	2.5	(6)			
90	3.1		30		70
	3.0	(5)			
200	2.9		40		80
	2.8	(4)			
10	2.4		50		90
	2.0	(3)			
20	2.2		60		500
	2.5	(2)			
30	2.6		70		
	2.5	(1)			

(1)	235	3.2	5.5
(2)	225	3.6	5.0
(3)	215	3.3	5.5
(4)	205	4.5	6.5
(5)	195	5.0	7.1
(6)	185	3.6	6.2
(7)	175	5.2	7.9
(8)	165	3.0	5.2
(9)	155	2.6	5.0
(10)	145	2.2	4.0

11.8   23.5 A   0.50 Ω

0.500
23.5 / 11.8
11.75
5000

4872

30-045-10923

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NE Sec. 8 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced MARCOTTE #1

cps 448w

Elevation 5847 Completion Date 8/1/74 Total Depth 250' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 40' TO 50'

RECEIVED
MAY 31 1991
OIL CON
DIST.

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 231', 222', 213', 204', 195', 186', 177', 168', 159', 150'

Depths vent pipes placed: N/A

Vent pipe perforations: 200'

Remarks: cgb #3 DRILLED FRITST HOLE 400'. ENCOUNTERED GAS AND FLOWING WATER 260'-280'.

HOLE ABANDONED AND TOP 20' CEMENTED.

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company
Form 7-238 (Rev. 1-69)

WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Logged

Drilling Log (Attach Hereto). ☐

Completion Date 8-1-74

Well Name	Location	CPS No.
Marcotte #1	NE 8-31-10	448W

Type & Size Bit Used	Work Order No.
6 3/4	52385

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
250'				

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	231	222	213	204	195	186	177	168	159	150
Anode Output (Amps)	2.5	3.2	4.1	4.2	5.0	4.8	4.6	4.6	3.6	3.6

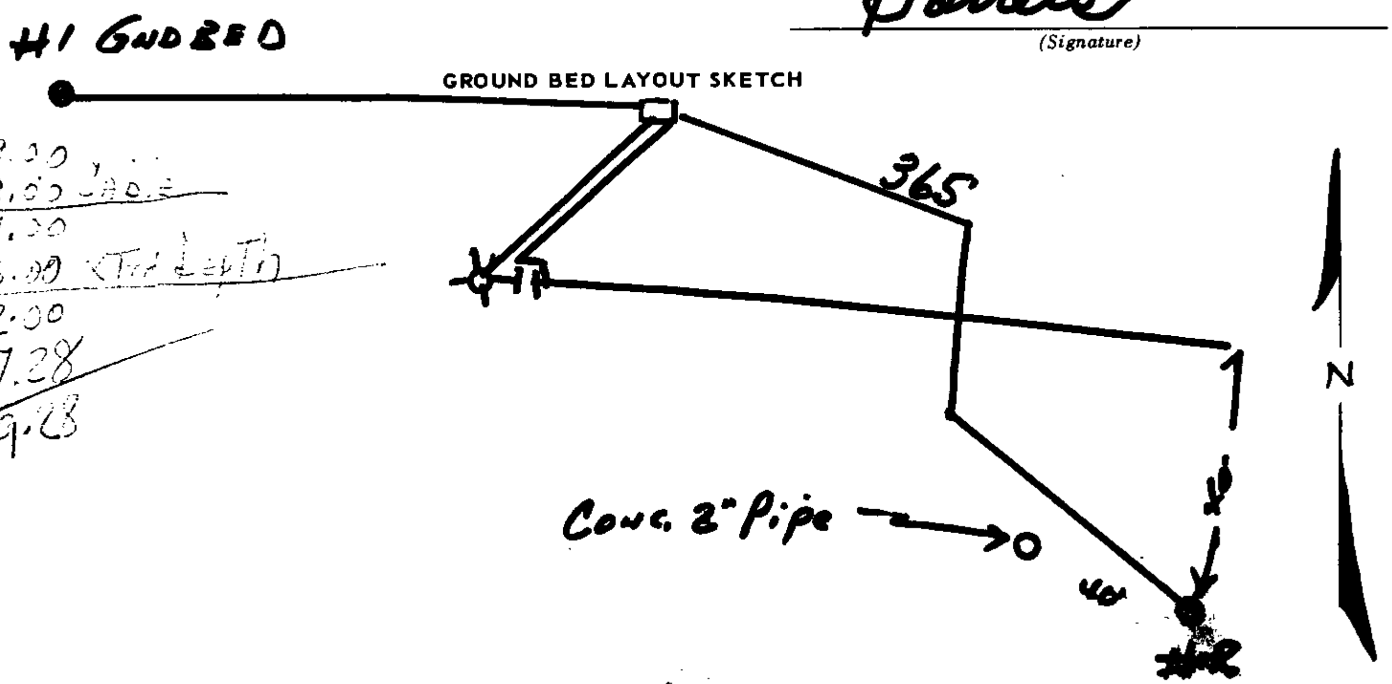
	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Depth										
Anode Output (Amps)										

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.8	Amps 12.5	Ohms 0.94	370	

Remarks: Drilled 400' Hole making water Could Not Pump Coke Down Hole - Water Velocity Brings Coke to Surface Conc Hole with 20' Joint 2" Pipe - Move 40' & Drill to 250' - Driller Said Big Water Coming From 260-280'. Squeeze Anodes to 9' Spacing Vent Pipe Perforated 200' Pump Coke to Surface - Driller Said Water at 40 To 50' this Hole

All Construction Completed
Sorrels
(Signature)

GROUND BED LAYOUT SKETCH



$3,709.00
148.00 [illegible]
$3,557.00
375.00 (Tie Depth)
$3,932.00
157.28
$4,089.28

STORM WATER WELL DRILLING INC.

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
WATER WELL DRILLING

CONTRACTORS
14991 W. 44TH AVENUE
GOLDEN, COLORADO 80401
PHONE (303) 278-9505

GENERAL OFFICE
14991 W. 44TH AVENUE
BAILEY OFFICE
CALL 1-838-4821

Drill GD 15W Date 8-1-74

Owner C.R.D. (448W)

Location
City Farmington State N.M. County

From	To	Formation	Color	Hardness
0	15	Surface	Br	Soft
15	140	Clay & Shale	Bl.	Med
140	170	Sandstone with Shale streaks	Bl	Med
170	250	Clay & Shale	Bl.	Hard
		Injection at 20		
		Water at 40-50		

Total Hours
Equipment Down Time
Hours Drilling
Driller Art Gladwell
Helper
Helper

C.P.S. Time
S.W.W.D.I. Time
Total Footage

Approval of
C.P.S. Engineer

EL PASO NATURAL GAS COMPANY
ENGINEERING DEPARTMENT

Date:
By:

448W X = 8.7

150	1.4	
	1.4	
60	1.5	
	2.2	
70	2.4	
	2.6	
80	2.8	
	2.8	
90	3.0	
	2.9	
200	2.8	
	2.7	
10	2.8	
	2.5	
20	2.2	
	2.1	
30	2.0	
	1.9	
40	1.8	
45	TD	
50		
60		

Driller said water at 40-50' -
Start inj at 20'

Vent Perf. 200'

Pump Coke to Surface

		inj	wtr	Coke
1	231	20		2.5
2	222	21		3.2
3	213	26		4.1
4	204	27		4.2
5	195	29		5.0
6	186	28		4.8
7	177	27		4.6
8	168	23		4.6
9	159	15		3.6
10	150	1.4		3.6

94

12 / 11.80 ✓ 12.5 A = .94

1.1 25 550

448-W

EL PASO NATURAL GAS COMPANY
SAN JUAN DIVISION
FARMINGTON, NEW MEXICO
PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-8080 Date August 29, 1974

Operator EPNG Well Name Marcotte #1 Ground Bed

Location NE 8-31-10 County San Juan State New Mexico

Field _____ Formation _____

Sampled From Well Head

Date Sampled 7-25-74 by G. Seitzinger

Tubing Pressure _____ Casing Pressure _____ Surface casing pressure _____

	ppm	epm		ppm	epm
Sodium	1808	79	Cloride	1130	32
Calcium	212	11	Bicarbonate	56	1
Magnesium	34	2	Sulfate	2850	59
Iron	Present		Carbonate	0	0
H_2S	Absent		Hydroxide	0	0

Total Solids Dissolved 11560

pH 7.1

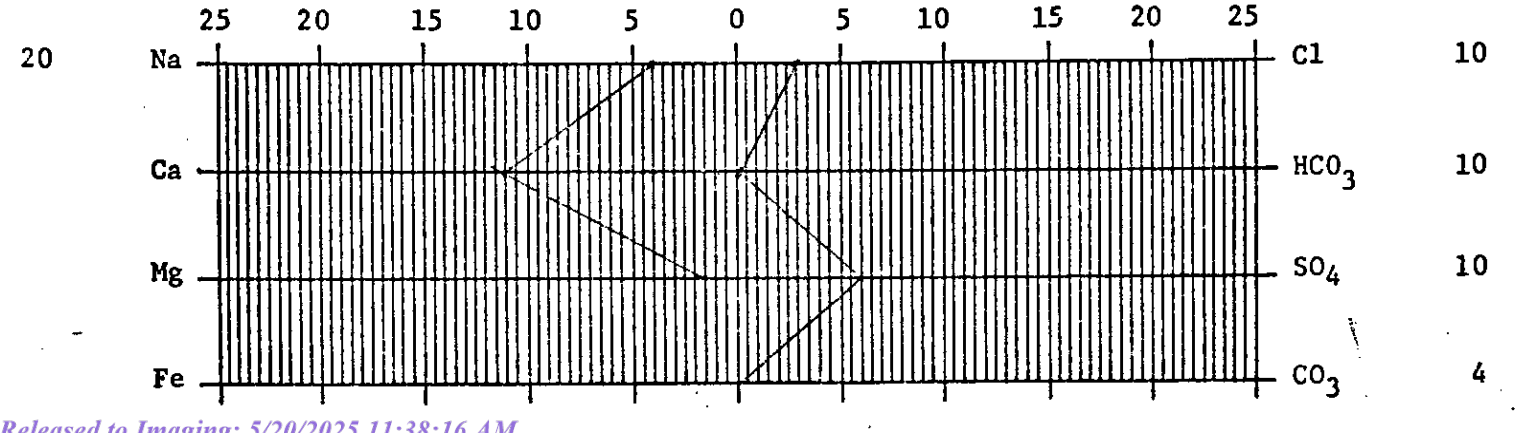
Sp. Gr. 1.0095 at 60° F

Resistivity 80 ohm-cm at 76 °F

cc: R. L. Ahrens
A. M. Smith
D. O. Vilven
F. H. Wood
R. A. Ullrich
A. H. Viescas
D. C. Adams
J. E. Ashworth
file

Sattler & Ellsberry

CHEMIST



Scale: epm

30-045-22132

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator El Paso Field Services Location: Unit C Sec. 8 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced Boyd Gas Com. 1A

Elevation _____ Completion Date 10-2-97 Total Depth 300 Land Type * _____

Casing, Sizes, Types & Depths 8 5/8

If Casing is cemented, show amounts & types used 17 Sx. Zia Type I & II

If Cement or Bentonite Plugs have been placed, show depths & amounts used —

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. Drill with water 95x Mud-
Cutting Did not indicate water zone-Stop at 300 To Avoid Gas Encntr.

Depths gas encountered: —

Type & amount of coke breeze used: Loresco Sw. 3000 lbs

Depths anodes placed: 145-260

Depths vent pipes placed: 260

Vent pipe perforations: 120

Remarks: Boulders 30-45, - 15' Total
Darrell

RECEIVED
JAN 20 1998
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

* Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

THE LOFTIS COMPANY

DEEP WELL GROUNDBED DATA **DATE: October 2, I997**

COMPANY: EPFS/Amoco **COUNTY: San Juan STATE: NM**

CONTRACT NO: FC-96-I000 **UNIT NO: CPS 89556 W.O. 2968**

LOCATION: Boyd GC #1A

GROUNDBED: DEPTH / FT 300' DIA / INCH: 7 7/8" ANODES: (10) 2 x 60 SHA-2

CASING: DEPTH / FT 50' SIZE: 8"

DEPTH IN FEET	DRILLERS LOG	RESISTIVITY OHMS	RESISTIVITY AMPS	ANODE NUMBER	DEPTH TO ANODE TOP	BEFORE COKE	AFTER COKE
5	Casing						
10							
15							
20							
25							
30							
35							
40							
45							
50	Sandstone		1.0				
55			1.1				
60			1.2				
65			1.1				
70			1.2				
75			1.3				
80			1.2				
85			1.4				
90			1.4				
95			1.6				
100	Shale		2.4				
105			1.4				
110			1.4				
115			1.4				
120			2.2				
125			2.8				
130			2.4				
135			2.6				
140			2.1				
145			2.0	10		2.1	5.3
150			2.5				
155			2.0	9		2.1	5.4
160			1.9				
165			2.3	8		2.3	5.4
170			1.8				
175			1.9				
180			1.8	7		1.8	4.9
185			1.8				
190			1.8	6		1.7	4.7
195			1.7				
200			1.9	5		1.9	4.4
205			1.9				
210	Shale		1.9	4		1.8	4.3

JOB # TDM1350

THE LOFTIS COMPANY

DEPTH IN FEET	DRILLERS LOG	RESISTIVITY OHMS	RESISTIVITY AMPS	ANODE NUMBER	DEPTH TO ANODE TOP	BEFORE COKE	AFTER COKE
215	Shale		1.8				
220			1.7				
225			1.7				
230			2.1	3		2.0	5.1
235			1.9				
240			1.6				
245			1.8				
250			1.8	2		1.9	5.1
255			2.3				
260			2.1	1		2.1	4.7
265			1.7				
270			1.9				
275							
280							
285							
290							
295							
300	Shale						

JOB # TDM1350

GB #1

30-045-23078

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO

Operator Meridian Oil Location: Unit O Sec 8 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced Marcotte #1A

Elevation 5965' Completion Date 7-30-79 Total Depth 370' Land Type F

Casing Strings, Sizes, Types & Depths 52' of 7" steel casing 14080012057

If Casing Strings are cemented, show amounts & types used NA

If Cement or Bentonite Plugs have been placed, show depths & amounts used

NA

Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. 145'. Analysis (2-1-90) attached.

Depths gas encountered: NA

Ground bed depth with type & amount of coke breeze used: 370' to T.D.

Used metallurgical coke breeze - (amount-no information)

Depths anodes placed: 335', 325', 315', 305', 295', 255', 245', 230', 215', 200'

Depths vent pipes placed:

Vent pipe perforations:

Remarks:

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

API WATER ANALYSIS REPORT FORM

Laboratory No.

Company	Sample No.	Date Sampled
Meridian	1	2/1/90

Field	Legal Description	County or Parish	State
Cedar Hill Area	O-8-31-10	SJ	NM

Lease or Unit	Well	Depth	Formation	Water (B/D)
Blanco Mesa Vista	Marietta 1-A	50'		1

Type of Water (Produced, Supply, etc.)	Sampling Point	Sampled By
	1" Vent Pipe	Howe

TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	3650	159.4
Calcium, Ca	281	14.0
Magnesium, Mg	19	1.6
Barium, Ba		

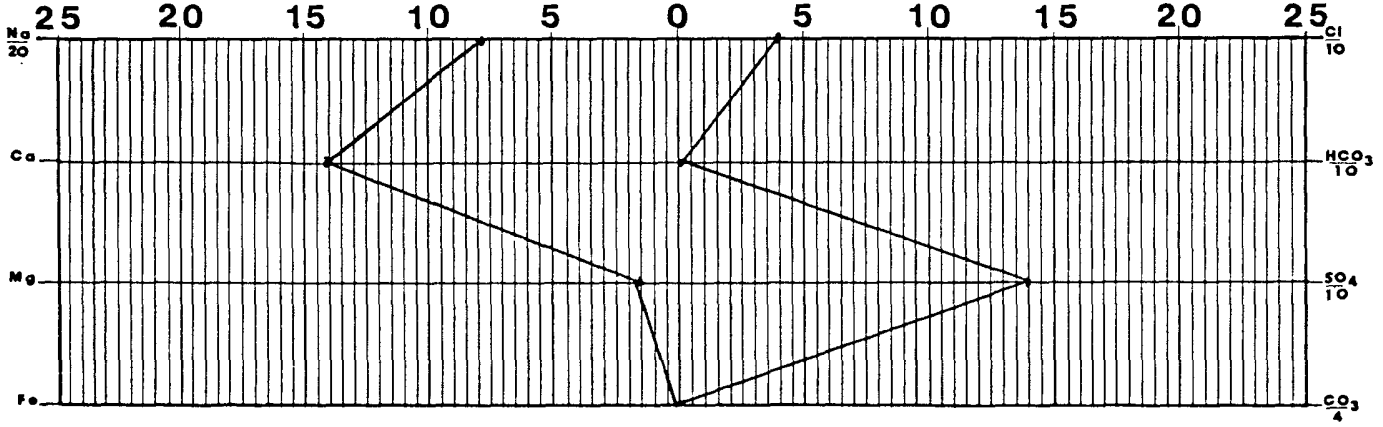
ANIONS	mg/l	me/l
Chloride, Cl	1420	40.0
Sulfate, So_4	6468	134.8
Carbonate, CO_3	0	0
Bicarbonate, HCO_3	61	1.0

OTHER PROPERTIES

pH	8.04
Specific Gravity, 60/60 F.	1.007
Resistivity (ohm-meters) 72° F.	.89
Total Dissolved Solids (calc.)	11,900
Iron, Fe (total)	
Sulfide, as H_2S	

REMARKS & RECOMMENDATIONS:

Mark McFarlane



Date Received	Preserved	Date Analyzed	Analyzed By
2/2/90		2/2/90	[illegible]

4772

#1 = 30-045-10875

#8 = 30-045-22727

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SW Sec. 9 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LUCERNE A #1, #8

cps 443w

Elevation 6133' Completion Date 11/15/71 Total Depth 380' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 190'

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST. 3

Depths gas encountered: N/A

Type & amount of coke breeze used: 7100 lbs.

Depths anodes placed: 355', 345', 335', 325', 315', 270', 260', 250', 240', 230'

Depths vent pipes placed: 355'

Vent pipe perforations: 250'

Remarks: gb #2

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company
Form 7-238 (Rev. 1-69)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach Hereto). ☐ Completion Date 11-15-71

Well Name: Lucerne A #1	Location: SW 9 - 31N - 10 W	CPS No. 443 W
Type & Size Bit Used: 6 3/4		Work Order No. 184-52478-50-20

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
380'		7100		

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	355	345	335	325	315	270	260'	250	240	230
Anode Output (Amps)	6.5	5.6	6.4	5.4	5.5	4.5	5.0	4.9	4.8	4.7

	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Depth										
Anode Output (Amps)										

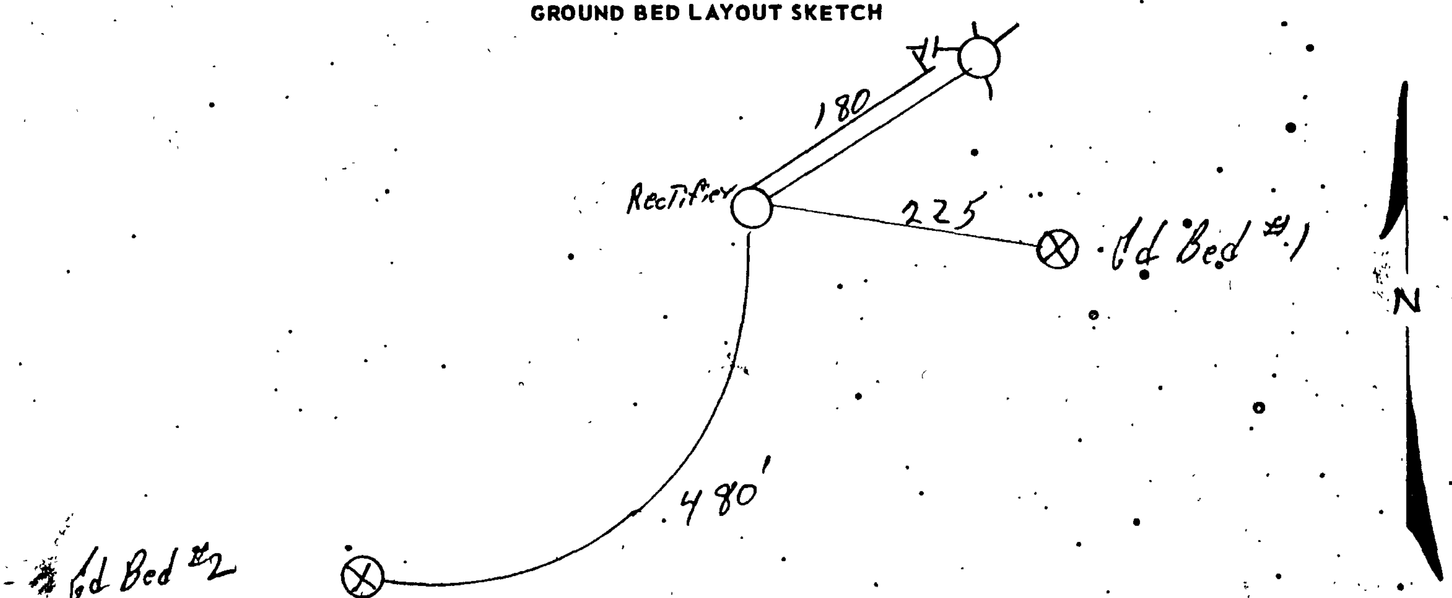
Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 12.2	Amps 19.3	Ohms 0.64 Ω		490'

Remarks: Driller said water @ 190' Vent Hose Perforated 250' to #1 Anode. Pumped 441 shovels = 63 Bags to 54' completed By slurry

All Construction Completed

Paul H. Sorrels
(Signature)

GROUND BED LAYOUT SKETCH



Original & 1 Copy All Reports

Form 22-3 (Rev. 1-64)

C.P.S. #443 M

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE Luciano WELL NO. 1 CONTRACTOR Morrow RIG NO. 1 REPORT NO. DATE 11-15 1971

MORNING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.
0	30	sand		
30	90	shale		
90	130	sandy shale		
130	150	shale		

BIT NO. NO. DC SIZE LENG.

BIT NO. NO. DC SIZE LENG.

SERIAL NO. STANDS

SIZE SINGLES

TYPE DOWN ON KELLY

MAKE TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

DAYLIGHT

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.
150	165	dirty sand		
165	175	shale		
175	190	sand (water)		
190	220	sandy shale		

BIT NO. NO. DC SIZE LENG.

BIT NO. NO. DC SIZE LENG.

SERIAL NO. STANDS

SIZE SINGLES

TYPE DOWN ON KELLY

MAKE TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

EVENING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.
220	260	shale		
260	290	sand		
290	380	shale & sandy shale		

BIT NO. NO. DC SIZE LENG.

BIT NO. NO. DC SIZE LENG.

SERIAL NO. STANDS

SIZE SINGLES

TYPE DOWN ON KELLY

MAKE TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

SIGNED: Toolpusher _____ Company Supervisor _____

443 W
Lucerene / A

MW		gals/mol
16	C_1	6 4
30	C_2	9 56
44	C_3	10 42
58	IC_4	12 38
"	NC_4	11 93
72	IC_5	13 85
"	NC_5	13 71
86	IC_6	15 50
"	C_6	15 57
100	IC_7	17 2
"	C_7	17 46
114	C_8	19 38
28	$C_2^=$	9 64
42	$C_3^=$	9 67

190	2.1	60	3.70	Water @ 190'
	2.1		3.20	Vent Hose Perforated 250'
200	1.44	70	3.10	To #1 Node
	1.34	76	Bottom	
10	1.38	80		
	1.64			
20	1.51			
	2.30			
30	3.30			
	3.30			
40	3.30			
	3.40			
50	3.40			
	3.40			
60	3.50			
	3.30			
70	2.90			
	2.60			
80	2.30			
	2.00			
90	2.30			
	2.6			
300	2.40			
	2.40			
10	3.40			
	3.70			
20	3.70			
	3.80			
30	3.70			
	3.70			
40	3.70			
	3.80			
50	4.00			
	3.90			
	~~3.90~~			

		Log.	Wtr.	Coke
1	3.55	3.9	3.9	6.5
2	3.45	3.8	4.0	5.6
3	3.35	3.7	4.0	6.4
4	3.25	3.8	4.0	5.4
5	3.15	3.7	3.9	5.6
6	2.70	2.9	3.2	4.5
7	2.60	3.5	3.7	5.0
8	2.50	3.4	3.6	4.9
9	2.40	3.3	3.5	4.8
10	2.30	3.3	3.6	4.7

12.2 V 19.3 0.64 Ω

MISC.		
MW		gals/mol
44	CO_2	6 38
34	H_2S	5 17
28	N_2	4 16
2	H_2	3 38

#2 30-045-10942

#7 30-045-22726

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NE Sec. 9 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LUCERNE A #2, #7

cps 445w

Elevation 6163' Completion Date 11/17/71 Total Depth 400' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. WET AT 150'

Depths gas encountered: N/A

Type & amount of coke breeze used: 7100 lbs.

Depths anodes placed: 360', 351', 342', 333', 324', 315', 306', 297', 288', 279'

Depths vent pipes placed: N/A

Vent pipe perforations: 245'

Remarks: gb #2

RECEIVED
MAY 31 1991
OIL CON
DIST

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NE Sec. 9 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LUCERNE A #2, #7

cps 445w

Elevation 6163' Completion Date 7/18/63 Total Depth 187' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N/A

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MAY 31 1991
OIL CON. DIV.
DIST.

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 160', 150', 140', 130', 124', 114'

Depths vent pipes placed: N/A

Vent pipe perforations: N/A

Remarks: gb #1 TNSTALLED SCRAP TUBING . ANODES INSTALLED 7/20/65.

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit B Sec. 9 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LUCERNE A #2, #7

cps 445w

Elevation 6163' Completion Date 9/13/88 Total Depth 440' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 230'

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OIL CON DIV

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 415', 405', 395', 385', 375', 365', 355', 340', 265', 255'

Depths vent pipes placed: 440' OF 1" PVC VENT PIPE

Vent pipe perforations: 360'

Remarks: gb #3 HOLE WENT BLIND AT 280'

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

LUCERNE A #1-A 30-045-23137

SCOTT #11 30-045-21820

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NW Sec. 9 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LUCERNE A #1A, SCOTT #11

cps 1383w

Elevation 6007' Completion Date 7/13/79 Total Depth 300' Land Type* N/A

Casing, Sizes, Types & Depths 64' OF 8" CASING

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. WATER AT 110' & 130'

Depths gas encountered: N/A

Type & amount of coke breeze used: 36 SACKS

Depths anodes placed: 210', 200', 190', 180', 170', 160', 150', 140', 130', 120'

Depths vent pipes placed: 230'

Vent pipe perforations: 200'

Remarks: gb #1

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company
Form 7-238 (Rev. 1-69)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach Hereto). ☐ CONTRACT #2 (2"X60" DURION) Completion Date 7/13/79

Well Name Lucerne A #1A SCOTT #11	Location NW 9-31-10	CPS No. 1383 W
Type & Size Bit Used 6 3/4"		Work Order No. 57397-21 55915-21
Anode Hole Depth LOGGED 300' T.D. 230'	Total Drilling Rig Time	[redacted] Coke Used 36 SACKS Lost Circulation Mat'l Used No. Sacks Mud Used

Anode Depth	# 1 210'	# 2 200'	# 3 190'	# 4 180'	# 5 170'	# 6 160'	# 7 150'	# 8 140'	# 9 130'	# 10 120'
Anode Output (Amps)	# 1 4.6	# 2 5.1	# 3 4.5	# 4 5.5	# 5 4.9	# 6 4.4	# 7 4.3	# 8 3.2	# 9 3.8	# 10 4.6
Anode Depth	# 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
Anode Output (Amps)	# 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20

Total Circuit Resistance				No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.5 V	Amps 16.5 A	Ohms .7			

Remarks: STATIC 600' S. = .88 V Driller said water at 110' & 130' Approx. 2 gal./min. Drilled to 160'. water standing in hole next A.M. at 120'. water sample would not settle out. Drilled to 300'. Logged 230'. INSTALLED 230' of 1" P.V.C. VENT Pipe. Perforated 200'. When Driller first moved on location, Drilled ~~50~~ 44', hit boulders. Cable Tool Rig drilled 75', set 64' of 8" casing. (Steel Pipe)

Ditch + / cable = 677'

extra cable = 140'

Hole Depth = ~~285~~ 301'

Stub Pole & 40v 16A Rec't.

7 Hr. Reaming 0-44' (Cable Tool Rig)

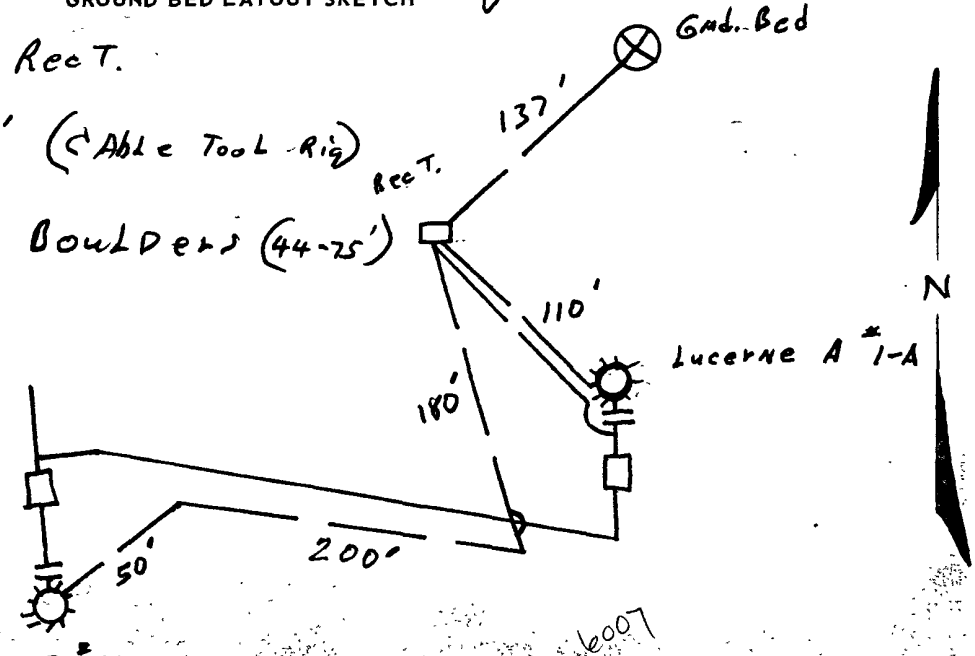
31' Drilling Thrue Boulders (44-75')

25

All Construction Completed

JE Stotts
(Signature)

GROUND BED LAYOUT SKETCH



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6007

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE 1383 W WELL NO. CONTRACTOR Contract #2 Posey RIG NO. REPORT NO. DATE 7-13 1979

MORNING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.

SER NO. NO. DC SIZE LENG.

SIZE STANDS

TYPE SINGLES

MAKE DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.	MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
0	44	Hit Boulders
44	75	Cable Tool
75	110	Shale
110	120	Sand wet.

REMARKS –

DAYLIGHT

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.

SERIAL NO. STANDS

SIZE 6 3/4 SINGLES

TYPE DOWN ON KELLY

MAKE TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.	MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
120	130	Shale
130	150	Sand wet
150	160	Shale
160	162	Sandy Shale
162	180	Shale
180	205	Sandy Shale

REMARKS –

EVENING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.

SERIAL NO. STANDS

SIZE SINGLES

TYPE DOWN ON KELLY

MAKE TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.	MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
205	225	Shale
225	230	Sandy Shale
230	260	Shale
260	290	Sandy Shale
290	300	Shale

REMARKS –

Drilled To 300
Logged To 230
Water - approx 2 gpm @ 110.

SIGNED: Toolpusher Posey Company Supervisor Jerry Langley

Form 7-1 (Rev. 9-77)

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet: ____ of ____
Date:
By:
File:

Lucerne A #4A — W.O. 57397-2
Scott #11 — W.O. 55915-2
CPS #1383-W — NW 9-31-10

MW		gals/mol
16.04	C_1	6.4
30.07	C_2	10.12
44.10	C_3	10.42
58.12	iC_4	12 38
58.12	nC_4	11 93
72 15	iC_5	13 85
72.15	nC_5	13 71
86.18	iC_6	15.50
86.18	C_6	15.57
100.21	iC_7	17 2
100 21	C_7	17 46
114.23	C_8	19.39
28 05	$C_2^=$	9 64
42.08	$C_3^=$	9 67

MISC. MW		gals/mol
32 00	O_2	3.37
28.01	CO	4 19
44.01	CO_2	6.38
64 06	SO_2	5 50
34.08	H_2S	5 17
28 01	N_2	4.16
2 02	H_2	3 38

100 —
10 —
20 — 2.5 — (10)
2.1
30 — 1.7 — (9)
1.4
40 — 1.5 — (8)
2.2
50 — 2.3 — (7)
2.3
60 — 2.5 — (6)
2.6
70 — 2.7 — (5)
2.9
80 — 2.8 — (4)
2.7
90 — 2.6 — (3)
2.9
200 — 2.9 — (2)
3.0
10 — 2.8 — (1)
3.0
20 — 2.9
2.4
30 — T.D. 230'
40 —
50 —
60 —
70 —
80 —
90 —
360 —

Driller said water at 110' & 130'. Approx. 2 gal./min. Drilled to 160'. Water standing in hole next AM at 120'. Water sample would not settle out. Drilled to 300'. Logged 230'. Installed 230' of 1" P.V.C. vent pipe perforated 200'. Driller drilled 44 Hit Boulders. Cable Tool Rig. Drilled 75'. Set 64' of 8" casing.

7/13/79 JR

10 HRS
0 HRS

11.5 ✓ 16.4A .7

1	210	3.5	4.6
2	200	3.9	5.1
3	190	3.3	4.5
4	180	3.8	5.5
5	170	3.5	4.9
6	160	3.1	4.4
7	150	2.9	4.3
8	140	1.8	3.2
9	130	2.4	3.8
10	120	3.5	4.6

2709 30-045-22504

E

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SE Sec. 9 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LUCERNE A #2A

cps 1238w

Elevation 6173' Completion Date 11/5/78 Total Depth 340' Land Type* N/A

Casing, Sizes, Types & Depths 64'

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 80'

Depths gas encountered: N/A

Type & amount of coke breeze used: 40 SACKS

Depths anodes placed: 305', 295', 285', 275', 265', 255', 245', 235', 225', 215'

Depths vent pipes placed: 320'

Vent pipe perforations: 240'

Remarks: gb #1

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

4771
#1 30-045-10875
#8 30-045-22727

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SW Sec. 9 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LUCERNE A #1, #8

cps 443w

Elevation 6133' Completion Date 7/17/63 Total Depth 185' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N/A

RECEIVED
MAY 31 1991
OIL CON. DIV
DIST. 3

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 185', 175', 165', 155', 140', 130'

Depths vent pipes placed: N/A

Vent pipe perforations: N/A

Remarks: ~~GB #1 INSTALLED 185' SCRAP TUBING. ANODES INSTALLED 7/19/65.~~
GB #1 & GB #2

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

DATE 7-17-63

WELL NAME Lucy NC # 1A CPS NO. 443 W

LOCATION 9-31N-10W

WORK ORDER NUMBER 184-40542-50-02

ANODE HOLE DEPTH 185'

TOTAL DRILLING RIG TIME 13 hrs

DRILLING TIME FOR RECTIFIER POLE HOLE

TYPE AND SIZE BIT USED

NUMBER SACKS MUD USED 4

NUMBER SACKS LOST CIRCULATION MAT'L USED 0

ANODE DEPTHS #1 ; #2 , #3 , #4 Scrap Tubing Installed

TOTAL LBS. COKE USED 0

ANODE OUTPUTS VOLTS, #1 , #2 , #3 , #4

TOTAL CIRCUIT RESISTANCE: VOLTS 10 AMPERES 13.5 OHMS .75Ω

NUMBER FEET SURFACE CABLE CONDUIT 625'

DRILLING LOG (ATTACH HERETO).

FORMATION LOG (ATTACH HERETO).

REMARKS: Static C/S = .67R 600' E
Installed Good - All Rect 40V 12A set # 62C637S
Installed 185' Scrap Tubing for Ground Bed

ALL CONSTRUCTION COMPLETED

E. Paulik
SIGNATURE

GROUND BED LAYOUT SKETCH

ORIGINAL & 1 COPY
ALL REPORTS

DRILLING DEPARTMENT

7-16417-63

DAILY DRILLING REPORT

LEASE Lunarne WELL NO. #1 CONTRACTOR L.E. Wilson RIG NO. D4 REPORT NO. DATE 7-17 1963

MORNING					DAYLIGHT					EVENING				
FROM	TO	FORMATION	WT. BIT	R.P.M.	FROM	TO	FORMATION	WT. BIT	R.P.M.	FROM	TO	FORMATION	WT. BIT	R.P.M.
0	8	Sand	53946		51	63	Clay & Boulders Sandstone	53943		108	185	Shale	4½ insert	
8	14	Bolders	"		63	78	Sandy Clay	" "						
14	42	Clay & Bolders	"		78	97	Shale	" "						
42	51	Sandy Clay	[illegible]		97	108	Sandstone & Clay	4½ insert						

Morning: BIT NO. — SERIAL NO. 53946 — SIZE 4½ — TYPE Rock — MAKE Walker-Mac — TOTAL DEPTH 185

MUD RECORD / MUD ADDITIVES USED AND RECEIVED:

Morning: Started Bit #53943 At 65 ft

Daylight: 4 mud; 2 loads Water

TIME BREAKDOWN:

Morning: Started 4½ insert Bit At 95 ft

Evening: Rig Time 13 hrs

REMARKS (Morning): 7-16-63 Left Last Location 10 a.m. Moved Set up Drilled To 65 ft Left Rig 6:00 P.M. 7 hrs

REMARKS (Daylight): 7-17-63 Left Bloomfield At 6:00 A.M. Arrived At Rig 7:15 A.M. Drilled From 65 ft To 185 pull Rig up & Run Tubing in hole Finished hole At 1:00 P.M. 6 hrs

SIGNED: Toolpusher ______ Company Supervisor RAP

El Paso Natural Gas Company
Form 7-238 (7-63)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Date 7-19-65

Well Name						CPS No.
Lucerne #1A						443W
Location						Work Order No.
SW 9-31-10						52478
Anode Hole Depth	Total Drilling Rig Time	Type & Size Bit Used				No. Sacks Mud Used
185	2½ Hrs					
No. Sacks Lost Circulation Mat'l Used	Anode Depth # 1	# 2	# 3	# 4	# 5	# 6
	185	175	165	155	140	130
Total Lbs. Coke Used	Anode Output (Volts) # 1	# 2	# 3	# 4	# 5	# 6
Total Circuit Resistance Volts	Amps	Ohms	No. Ft. Surface Cable Conduit			

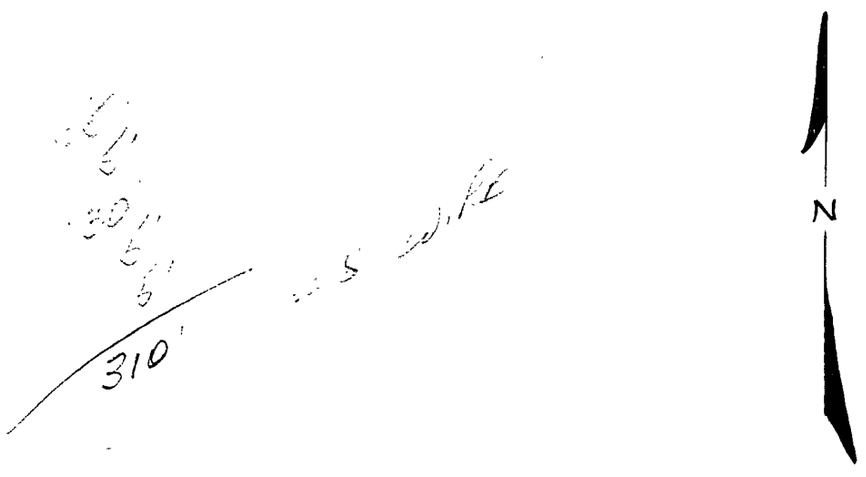
Drilling Log (Attach Hereto). ☐

Remarks: one String of 4 Anodes
one String of 2 Anodes
inside of Tubing GB.

All Construction Completed

Darrels
(Signature)

GROUND BED LAYOUT SKETCH



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Form 22-2 (Rev. 1-61)

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE Lucerne WELL NO. #1-A CONTRACTOR L E Wilson RIG NO. REPORT NO. DATE 7-19 1965

MORNING					DAYLIGHT					EVENING				
Driller		Total Men In Crew			Driller		Total Men In Crew			Driller		Total Men In Crew		
FROM	TO	FORMATION	WT-BIT	R.P.M.	FROM	TO	FORMATION	WT-BIT	R.P.M.	FROM	TO	FORMATION	WT-BIT	R.P.M.

	NO. DC ___ SIZE ___ LENG. ___		NO. DC ___ SIZE ___ LENG. ___		NO. DC ___ SIZE ___ LENG. ___
BIT NO.	NO. DC ___ SIZE ___ LENG. ___	BIT NO.	NO. DC ___ SIZE ___ LENG. ___	BIT NO.	NO. DC ___ SIZE ___ LENG. ___
SERIAL NO.	STANDS	SERIAL NO.	STANDS	SERIAL NO.	STANDS
SIZE	SINGLES	SIZE	SINGLES	SIZE	SINGLES
TYPE	DOWN ON KELLY	TYPE	DOWN ON KELLY	TYPE	DOWN ON KELLY
MAKE	TOTAL DEPTH	MAKE	TOTAL DEPTH	MAKE	TOTAL DEPTH

MUD RECORD			MUD, ADDITIVES USED AND RECEIVED	MUD RECORD			MUD, ADDITIVES USED AND RECEIVED	MUD RECORD			MUD, ADDITIVES USED AND RECEIVED
Time	Wt.	Vis.		Time	Wt.	Vis.		Time	Wt.	Vis.	
							Total Rig Time 2½ hrs.				

FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN

REMARKS – Left yard at 6:00 A.M. arrived at Rig 7:00 Washed out and loaded hole finished at 9:30

REMARKS –

REMARKS –

SIGNED: Toolpusher _____ Company Supervisor Lucerne

192

#4-R 30-045-10935

#9 30-045-22728

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NE Sec. 10 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LUCERNE A #4R, #9

cps 1472w

Elevation 6119' Completion Date 8/21/80 Total Depth 240' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 50' SAMPLE TAKEN

Depths gas encountered: N/A

Type & amount of coke breeze used: 24 SACKS

Depths anodes placed: 215', 205', 195', 185', 175', 165', 155', 145', 135', 115'

Depths vent pipes placed: 235'

Vent pipe perforations: 200'

Remarks: gb #1

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DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company
Form 7-238 (Rev. 11-71)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach Hereto). ☐ 2 X 60 ANODES Completion Date 8-21-80

Well Name LUCERNE A #4R / LUCERNE A #9	Location NE 10-31-10	CPS No. 1472-W
Type & Size Bit Used 6 3/4		Work Order No. 54332-19 / 57275-21
Anode Hole Depth 240 / logged 235	Total Drilling Rig Time	Total Lbs. Coke Used 24 SACKS
Lost Circulation Mat'l Used	No. Sacks Mud Used	

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	215	205	195	185	175	165	155	145	135	115
Anode Output (Amps)	3.4	3.7	4.4	3.6	3.8	4.1	4.3	4.8	4.9	4.4
Anode Depth	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Output (Amps)	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20

Total Circuit Resistance	Volts 12.2	Amps 18.0	Ohms .67	No 8 C.P. Cable Used / No. 2 C.P. Cable Used

Remarks: UNION - OK

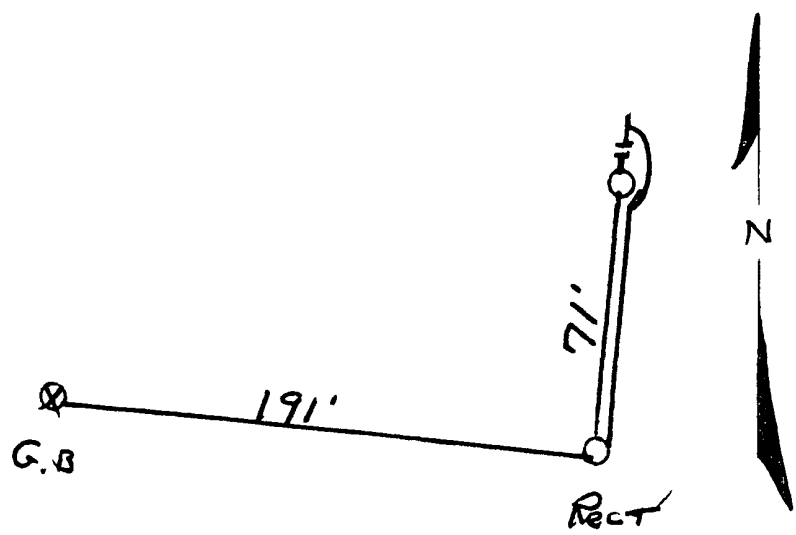
DRILLER SAID HIT WATER @ 50'. NEXT A.M. BLEW WATER, G. WATER SAMPLE, MAKING APPROX. 5 GPM. INSTALLED 235' OF 1" VENT PIPE, PERFORATED 200' OF VENT PIPE

1 60V 30A RECT ✓
DITCH + 1 CABLE - 262' ✓
EXTRA CABLE - 101' ✓
HOLE DEPTH - 265' ✓

All Construction Completed

Willie Knight Jr.
(Signature)

GROUND BED LAYOUT SKETCH



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6 of 9

Form 7-1 (Rev 9-71)

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet: of
Date: 8-21-8
By WK
File

LUCERNE A #4R W/O 54332-19
LUCERNE A #9 W/O 57275-21
NE 10-31-10 UNION - OK
CPS 1472-W

1 60V 30A Rect
Ditch - 1 Cable
Extra Cable
Hole Depth

DRILLER Said hit water at 50; Next A.M Blew water Got water Sample. Install 240'of 1" Vent Pipe, Perfo 200'of Vent Pipe. Slurryed sacks of Coke Breeze Apprx 5 GPM water

MW		gals/mol
16 04	C_1	6 4
30 07	C_2	10 12
44 10	C_3	10 42
58 12	iC_4	12 38
58.12	nC_4	11 93
72 15	iC_5	13 85
72 15	nC_5	13 71
86.18	iC_6	15 50
86.18	C_6	15 57
100.21	iC_7	17 2
100 21	C_7	17 46
114 23	C_8	19 39
28 05	$C_2^=$	9 64
42.08	$C_3^=$	9 67

MISC MW		gals/mol
32 00	O_2	3 37
28.01	CO	4 19
44 01	CO_2	6 38
64 06	SO_2	5.50
34.08	H_2S	5 17
28.01	N_2	4 16
2 02	H_2	3 38

50	1.4		
55	3.0		
60	4.0		
65	3.9		
70	3.3		
75	3.3		
80	3.2		
85	3.8		
90	3.9		
95	3.6		
100	3.2		
05	2.9		
10	3.2		
15	3.2	(10)	
20	2.8		
25	2.3		
30	2.9		
35	3.4	(9)	
40	3.2		
45	3.3	(8)	
50	3.2		
55	3.3	(7)	
60	3.3		
65	3.1	(6)	
70	3.0		
75	2.9	(5)	
80	2.9		
85	2.6	(4)	
90	2.7		
95	3.3	(3)	
200	3.0		
05	2.6	(2)	
10	2.8		
15	2.5	(1)	
20	2.4		
25	2.1		
30	1.8		
35	1.8		
40			

(0)	215	2.5	3.4
(1)	205	2.6	3.7
(2)	195	3.3	4.4
(3)	185	2.6	3.6
(4)	175	2.9	3.8
(5)	165	3.1	4.1
(6)	155	3.3	4.3
(7)	145	3.3	4.8
(8)	135	3.4	4.9
(9)	115	3.2	4.4

12.2V 18.0A .67 Ω

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

CPS# 1472 W | Lucerne #'s 4R & 9 | W.O.#'s 54332-19 & 57275-21

LEASE | WELL NO. | CONTRACTOR 3-C Drilling | RIG NO. #1 | REPORT NO. | DATE August 21st 1980

MORNING

Driller Brian | Total Men In Crew 3

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. | NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. | NO. DC ____ SIZE 4 1/2 LENG. 30

SIZE 6 3/4 | STANDS

TYPE Rock | SINGLES

MAKE | DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
0	20	sand & bentonite
20	40	shale-sand-water 5gpm
40	60	bentonite
?	120	shale
120	140	bentonite & shale
140	190	shale

REMARKS –

DAYLIGHT

Driller | Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. | NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. | NO. DC ____ SIZE ____ LENG. ____

SIZE | STANDS

TYPE | SINGLES

MAKE | DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
190	200	bentonite
200	220	shale
220	240	bentonite

REMARKS – drilled to 40' on the 20th hit water sand at 30'. Water standing at 30' next morning. Hole making about 5 gall/min. Got a good water sample.

Total hole depth 240'
Total log depth 235'

EVENING

Driller | Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. | NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. | NO. DC ____ SIZE ____ LENG. ____

SIZE | STANDS

TYPE | SINGLES

MAKE | DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

SIGNED: Toolpusher Brian Burge | Company Supervisor

EL PASO NATURAL GAS COMPANY
SAN JUAN DIVISION
FARMINGTON, NEW MEXICO
PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-10048 Date 11-12-80

Operator El Paso Natural Gas Well Name Lucerne A #4R

Location NE 10-31-10 County San Juan State New Mexico

Field Kutz Formation

Sampled From CPS 1472 @50 ft.

Date Sampled 8-21-80 By Willis Knight

Tbg. Press. Csg. Surface Csg. Press.

	ppm	epm		ppm	epm
Sodium	627	27.3	Chloride	52	1.5
Calcium	484	24.2	Bicarbonate	222	3.6
Magnesium	56	4.6	Sulfate	2450	51.0
Iron			Carbonate	0	0
H_2S			Hydroxide	0	0

cc: C.B. O'Nan
R.A. Ullrich
E.R. Paulek
J.W. McCarthy
A.M. Smith
W.B. Shropshire
D.C. Adams
File

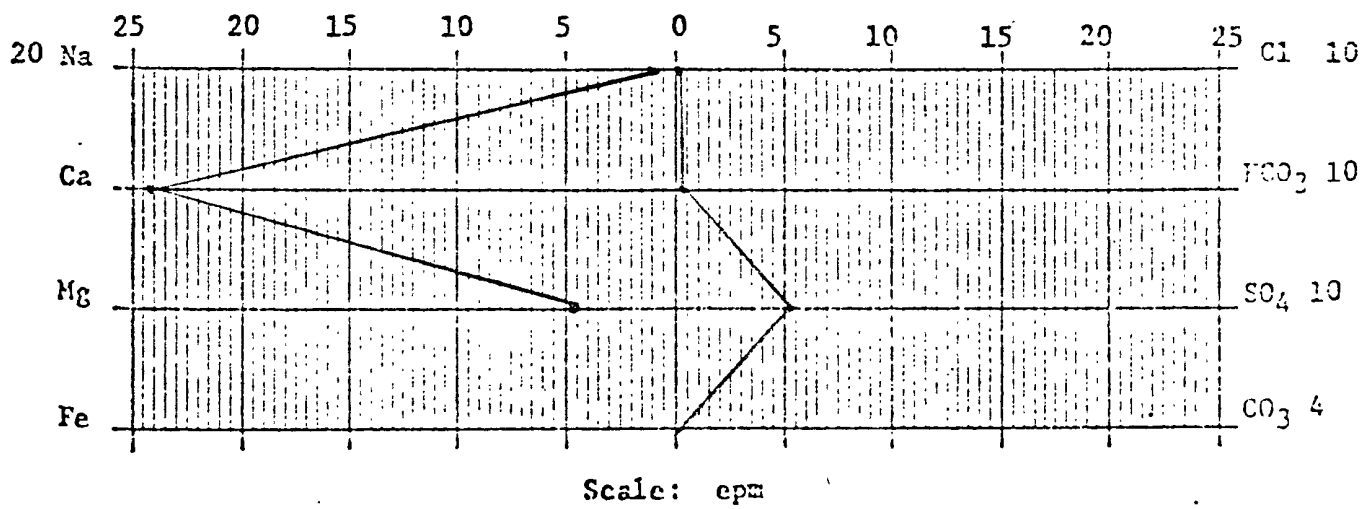
Total Solids Dissolved 4272

pH 6.9

Sp. Gr. 923 At 60°F

Resistivity 200 ohm-cm at 77 °F

Joe Barnett
Chemist



Scale: epm

WALKER KOCH 2-A 30-045- 21693
WALKER KOCH 3 30-045- 21902

5212

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator KOCH EXPLORATION COMPANY Location: Unit P Sec. 10 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced WALKER-2A AND 3

Elevation 6132' Completion Date 7-29-82 Total Depth 300' Land Type* NM-014110 F-NM-013688A

Casing, Sizes, Types & Depths NONE

If Casing is cemented, show amounts & types used

NONE

If Cement or Bentonite Plugs have been placed, show depths & amounts used

NONE

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. @-40'CLEAR,ALKALI

Depths gas encountered: NONE

Type & amount of coke breeze used: METALLURGICAL,1200#

Depths anodes placed: 280'-260'-250'-240'-230'-220'-210'-200'-190'

Depths vent pipes placed: 295'

Vent pipe perforations: FROM 190'DOWN

Remarks:

RECEIVED
MAR1 6 1990
OIL CON. DIV
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

CORROSION CONTROL CO.

P. O. BOX 179 – PHONE 334-6361
AZTEC, NEW MEXICO 87410

Drilling Log (Attach Hereto). ☐ Completion Date 7-29-82

Well Name	Location	
Walker #3 + 2A	Koch	
Type & Size Bit Used: 6 3/4"		Work Order No.

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
300	7 hrs	1200 #		

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	280	270	260	250	240	230	220	210	200	190
Anode Output (Amps)	3.8	3.5	4.3	4.3	4.2	3.8	4.3	4.6	3.5	3.9
Anode Depth	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Output (Amps)	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20

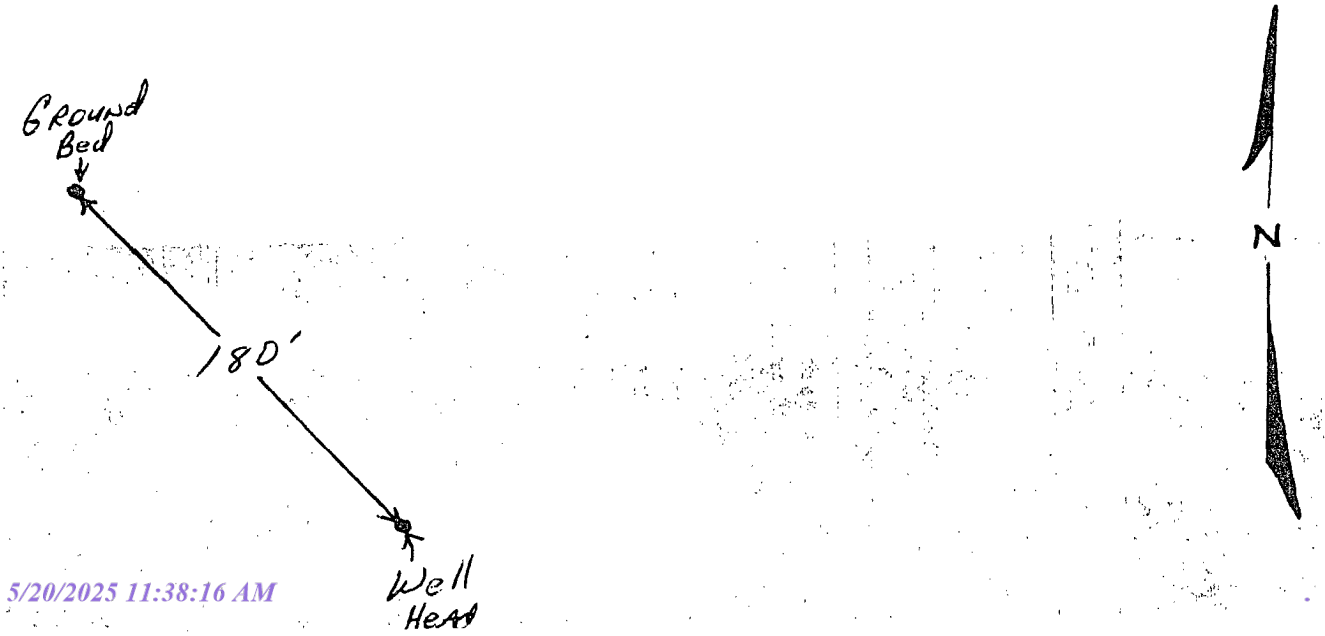
Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.8	Amps 20.3	Ohms .58	2550'	

Remarks: Water at 40'. Used 300' of vent pipe.

All Construction Completed

Cody Muncrees
(Signature)

GROUND BED LAYOUT SKETCH



446

30-045-22505

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NW Sec. 10 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LUCERNE A #4A

cps 1240w

Elevation 6184' Completion Date 1/11/79 Total Depth 500' Land Type* N/A

Casing, Sizes, Types & Depths 53' OF 8" STEEL CASING ,

133' of 6 5/8 CASING

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. ~~DAMP 180' - 200'~~ WATER AT 280' & 360'

SAMPLE TAKEN

Depths gas encountered: 280'

Type & amount of coke breeze used: 50 SACKS

Depths anodes placed: 420', 410', 400', 390', 380', 370', 360', 325', 315', 305'

Depths vent pipes placed: 310'

Vent pipe perforations: 200'

Remarks: gb #1

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OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company
Form 7-238 (Rev. 11-71)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach Hereto). ☐ 2"x60" Duriron Anodes Completion Date 1-11-79

Well Name	Location	CPS No.
Lucerne A #4 A	NW 10-31-10	1240 W
Type & Size Bit Used 5 7/8"	Contract # 3	Work Order No. 57209-21

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
500 – 455				

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	420	410	400	390	380	370	360	325	315	305
Anode Output (Amps)	3.6	3.6	3.8	3.4	3.5	3.6	3.8	3.4	3.4	4.3

	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Depth										
Anode Output (Amps)										

Total Circuit Resistance Volts	Amps	Ohms	No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
11.5	15.0	0.77		

Remarks: Driller said damp @ 180' & 200'. Started making water @ 280'. Also making gas @ 280'. More water @ 360'. Installed 310' of 1" PVC vent pipe. Perforated 200' of 1" PVC vent pipe. Slurryed 50 sacks of Coke. Installed 53' of 8" steel casing. 133' of 6 5/8" steel casing. 130' of Boulders.

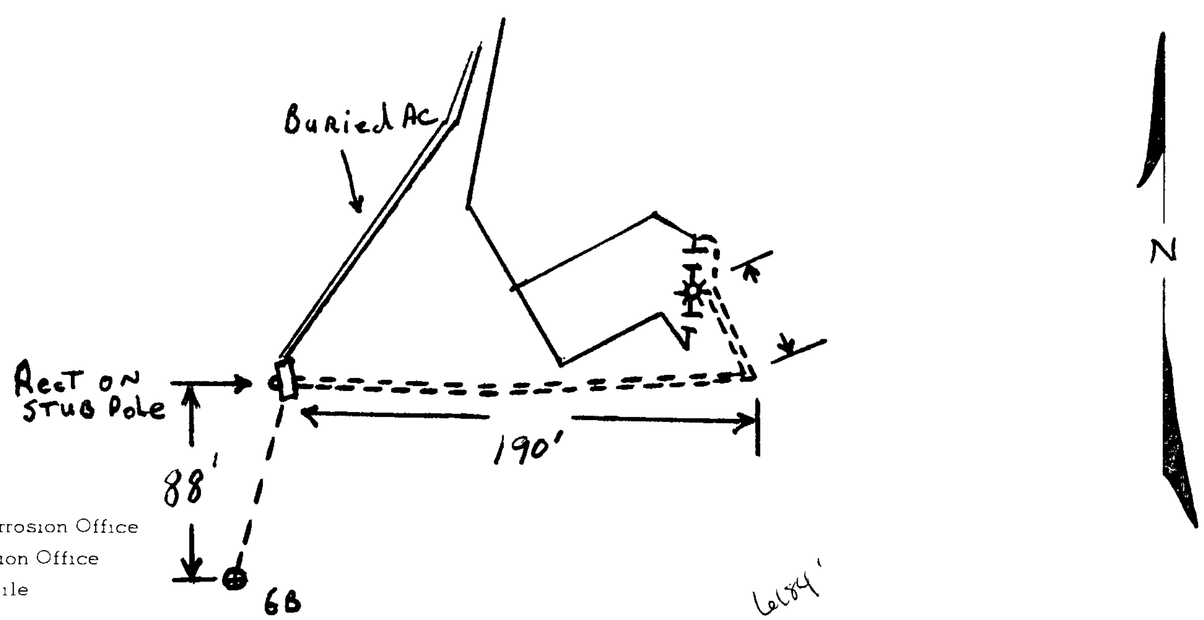
Static 600' SE = 0.86

40V16A Rectifier
Stub Pole
Ditch & I cable = 278
Extra cable = 190'
Hole Depth = –322

All Construction Completed

W. Z. [signature]
(Signature)

GROUND BED LAYOUT SKETCH



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EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

Contract #3

DAILY DRILLING REPORT

LEASE WELL NO. 1240W CONTRACTOR D+R Enter. RIG NO. 2 REPORT NO. DATE 1-11 1979

MORNING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

NO. DC SIZE LENG.

BIT NO. NO. DC SIZE LENG.

SERIAL NO. STANDS

SIZE SINGLES

TYPE DOWN ON KELLY

MAKE TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
0	133	SURFACE PIPE
133	140	SANDY SHALE
140	160	SHALE
160	180	SANDY SHALE (DAMP)
180	260	SHALE
260	280	SANDY SHALE (GAS + DAMP)

REMARKS –

DAYLIGHT

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

NO. DC SIZE LENG.

BIT NO. NO. DC SIZE LENG.

SERIAL NO. STANDS

SIZE SINGLES

TYPE DOWN ON KELLY

MAKE TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
280	360	SHALE (WATER)
360	400	SANDY SHALE
400	440	SHALE
440	500	SANDY SHALE

REMARKS –

EVENING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

NO. DC SIZE LENG.

BIT NO. NO. DC SIZE LENG.

SERIAL NO. STANDS

SIZE SINGLES

TYPE DOWN ON KELLY

MAKE TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

DRILLED 5 7/8 HOLE to 500
Logged 455
EST WATER 20 g.t.M.

SIGNED: Toolpusher D. F. McDonald Company Supervisor

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet
Date:
By:
File:

CONTRACT #3

LUCERNE #4-A NW10-31-10 1240W 5709-21

5 7/8" B.H. 2" X 60" DURIRON ANODES

MW		gals/mol
16.04	C_1	6.4
30.07	C_2	10.12
44.10	C_3	10.42
58.12	iC_4	12.38
58.12	nC_4	11.93
72.15	iC_5	13.85
72.15	nC_5	13.71
86.18	iC_6	15.50
86.18	C_6	15.57
100.21	iC_7	17.2
100.21	C_7	17.48
114.23	C_8	19.39
28.05	$C_2^=$	9.64
42.08	$C_3^=$	9.87

MISC. MW		gals/mol
32.00	O_2	3.37
28.01	CO	4.19
44.01	CO_2	6.38
64.06	SO_2	5.50
34.08	H_2S	5.17
28.01	N_2	4.16
2.02	H_2	3.38

STATIC 600	S=0.86						DRILLER SAID MAKING WATER @ 280' MORE WATER @ 360'. DAMP @ 180 & 200'				
150	2.1										
65	1.7										
60	1.8										
60	1.0						GND BED MAKING GAS @ 280'				
70	1.7										
80	2.1			80	2.0	⑤	INSTALLED 310' of 1" PVC VENT PIPE				
	2.10				2.0		PERFORATED 200' of 1" PVC VENT PIPE				
90	2.0			90	1.9	④	SLURRYED 50 SACKS OF COKE				
	1.8				1.9						
200	1.6			400	2.1	③	53' of 8" STEEL CASING				
	1.4				2.2		133' of 6 5/8" STEEL CASING				
10	1.8			10	2.1	②	DRILLED TO 500' WITH 5 7/8" BIT				
	2.4				2.0		130' of BOULDERS				
20	2.5			20	2.0	①					
	2.5				1.7						
30	2.8			30	1.5						
	2.9				1.4						
40	2.7			40	1.9						
	2.4				2.0						
50	2.3			50	1.9	Logged					
	2.0					T.D.					
60	1.5			60							
	1.3										
70	1.3			70							
	1.0										
80	1.0			80			①	420	2.0	3.6	
	1.1						②	410	2.1	3.6	
90	1.3			90			③	400	2.1	3.8	
	1.3						④	390	1.9	3.4	
300	2.0			500			⑤	380	2.0	3.5	
	2.2	⑩					⑥	370	2.0	3.6	
10	2.4						⑦	360	2.2	3.8	
	2.2	⑨					⑧	325	2.1	3.4	
20	2.0						⑨	315	2.1	3.4	
	2.0	⑧					⑩	305	2.6	4.3	
30	2.0										
	1.2										
40	1.1						11.5 VOLTS				
	1.0						15.0 AMPS				
50	1.0						0.77 OHMS				
	1.8										
60	2.2	⑦									
	2.2										
70	2.1	⑥									
	2.0										

EL PASO NATURAL GAS COMPANY
SAN JUAN DIVISION
FARMINGTON, NEW MEXICO
PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-9450 Date January 19, 1979

Operator EPNG Well Name Lucerne A #4-A

Location NW 10-31-10 County San Juan State NM

Field _____ Formation _____

Sampled From CPS 1240 W

Date Sampled _____ By _____

Tbg. Press. _____ Csg. Press. _____ Surface Csg. Press _____

	ppm	epm		ppm	epm
Sodium	1874	82	Chloride	160	5
Calcium	120	6	Bicarbonate	103	2
Magnesium	29	3	Sulfate	4025	84
Iron	Present		Carbonate	0	0
H_2S	Absent		Hydroxide	0	0

cc: D.C.Adams
R.A.Ullrich
E.R.Paulek
J.W.McCarthy
A.M.Smith
W.B.Shropshire
File

Water at 280'

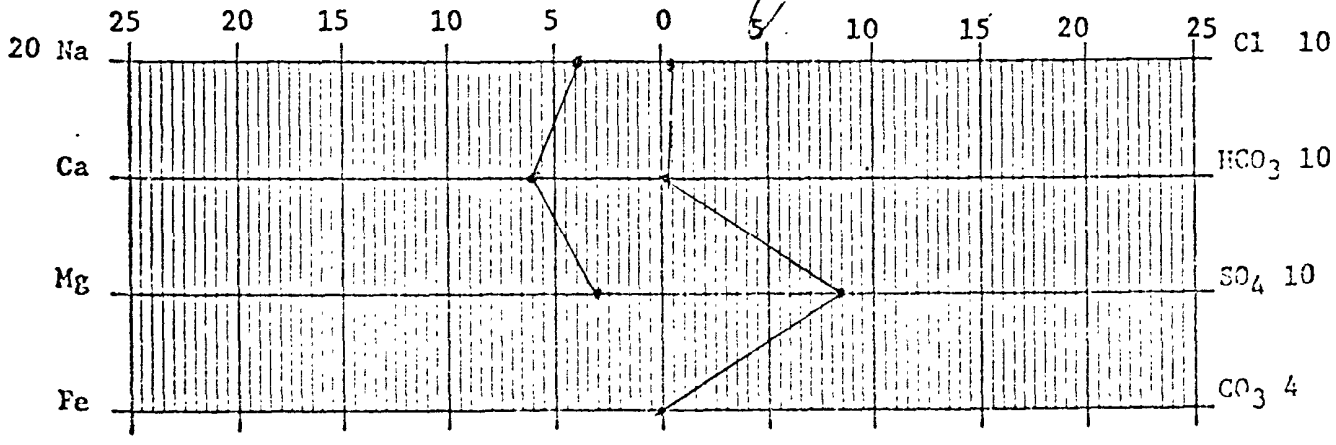
Total Solids Dissolved 6946

pH 7.2

Sp. Gr. 1.0070 at _____ 60°F

Resistivity 130 ohm-cm at 72 °F

Joe Bonnell
Chemist



Scale: epm

1= 30-045-10688
8= 30-045-22579

4857

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SW Sec. 15 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced KELLY A #1, #8

cps 442w

Elevation 6178' Completion Date 7/15/63 Total Depth 160' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N./A

Depths gas encountered: N/A

Type & amount of coke breeze used: 1200 lbs.

Depths anodes placed: 150', 144', 138', 132', 126'

Depths vent pipes placed: N/A

Vent pipe perforations: N/A

Remarks: gb #1

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DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

DATE 7-15-63

WELL NAME Kelly #1-A CPS NO. 4424

LOCATION 15 - 31N - 10W

WORK ORDER NUMBER 184 - 40542 - 50 - 02

ANODE HOLE DEPTH 160'

TOTAL DRILLING RIG TIME 14½ hrs

DRILLING TIME FOR RECTIFIER POLE HOLE 0

TYPE AND SIZE BIT USED

NUMBER SACKS MUD USED 7

NUMBER SACKS LOST CIRCULATION MAT'L USED 0

ANODE DEPTHS #1 150', #2 144', #3 138', #4 132' & 126'

TOTAL LBS. COKE USED 12001b 12 sacks

ANODE OUTPUTS 12 VOLTS, #1 3.7, #2 4.6, #3 4.4, #4 3.8 & 3.7

TOTAL CIRCUIT RESISTANCE: VOLTS 10.6 AMPERES 8.6 OHMS 1.24

NUMBER FEET SURFACE CABLE CONDUIT 345'

DRILLING LOG (ATTACH HERETO).

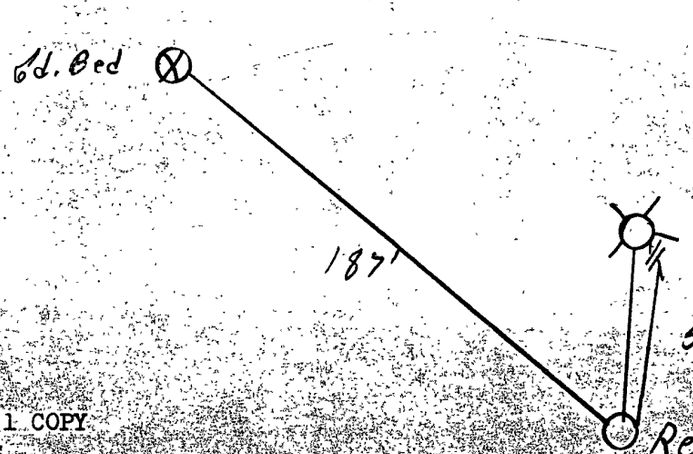
FORMATION LOG (ATTACH HERETO).

REMARKS: Static G/S = .85R 600' SW
Installed Good - All Rect 40V 12A ser# 62C6407
NOTE! No Junction Box Installed

ALL CONSTRUCTION COMPLETED

E. Pankl
SIGNATURE

GROUND BED LAYOUT SKETCH



ORIGINAL & 1 COPY
ALL REPORTS

1115'

DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE Kelley WELL NO. 1-A CONTRACTOR L.E. Wilson RIG NO. D-2 REPORT NO. DATE 7-13, 14, 15-63

MORNING

Driller Total Men in Crew

FROM	TO	FORMATIONS	WT. BIT	R.P.M.
0	79	S. & Ss.	3496X	
79	108	Boulders	"	
108	124	Ss.	"	
124	160	S. Sh.	"	

BIT NO.
SERIAL NO. 3496X
SIZE 6 1/4
TYPE Rock
MAKE Wm.

NO. DC SIZE LENG.
NO. DC SIZE LENG.
STANDS
SINGLES
DOWN ON KELLY
TOTAL DEPTH 160'

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED
7 Sacks Mud

FROM	TO	TIME BREAKDOWN
7-12-63		Left Bloomfield at 6:30 A.M. Arrived at rig at 7:30 A.M. Move & set up Time. 1 hrs.
7-12-63		Left rig at 5:00 P.M.
7-14-63		OFF.

REMARKS –
7-13-63 Drilled To 104' Boulders at 79'. 2 Loads Water 10 hrs.
7-14-63. Sunday OFF.
7-15-63 Drilled From 104' To 160'. Flushed hole. 1 Load Water 4 1/2 hrs.

DAYLIGHT

Driller Total Men in Crew

FROM	TO	FORMATION	WT. BIT	R.P.M.

BIT NO.
SERIAL NO.
SIZE
TYPE
MAKE

NO. DC SIZE LENG.
NO. DC SIZE LENG.
STANDS
SINGLES
DOWN ON KELLY
TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
7-13-63		Left Bloomfield at 6:00 AM. Arrived at rig at 7:15 AM. Rumsled hole at 11:30 AM.

REMARKS –

EVENING

Driller Total Men in Crew

FROM	TO	FORMATION	WT. BIT	R.P.M.

BIT NO.
SERIAL NO.
SIZE
TYPE
MAKE

NO. DC SIZE LENG.
NO. DC SIZE LENG.
STANDS
SINGLES
DOWN ON KELLY
TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
		Rig Time 14 1/2 hrs.

REMARKS –

SIGNED: Toolpusher Company Supervisor EBF

4929

30-045-13326

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NE Sec. 15 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced KELLY A #3

cps 423w

Elevation 6217' Completion ~~XXXXXXXXXX~~ Date 12/16/66 Total Depth 360' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N/A

Depths gas encountered: 360'

Type & amount of coke breeze used: N/A

Depths anodes placed: N/A

Depths vent pipes placed: N/A

Vent pipe perforations: N/A

Remarks: HOLE NOT COMPLETED. DRILLER HIT GAS POCKET AND MOVED RIG OFF GROUND BED.

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DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company
Form 7-238 (7-63)

WELL CASING

CATHODIC PROTECTION CONSTRUCTION REPORT

DAILY LOG

Date 12-16-66

Well Name: Kelly 3A					CPS No.: 413 W	
Location: NE 15 - 31 - 10					Work Order No.: 184-52492	
Anode Hole Depth: 360	Total Drilling Rig Time	Type & Size Bit Used			No. Sacks Mud Used	
No. Sacks Lost Circulation Mat'l Used	Anode Depth # 1	# 2	# 3	# 4	# 5	# 6
Total Lbs. Coke Used	Anode Output (Volts) # 1	# 2	# 3	# 4	# 5	# 6
Total Circuit Resistance: Volts	Amps	Ohms	No. Ft. Surface Cable Conduit			

Drilling Log (Attach Hereto). ☐

Remarks: Hole NOT Completed Driller Hit Gas Pocke
Moved Rig off Ground Bed To Be completed WH
Gas quits Blowing

All Construction Completed

(Signature)

GROUND BED LAYOUT SKETCH

N

Original & 1 Copy All Reports

DAILY DRILLING REPORT

LEASE [illegible] WELL NO. [illegible] REPORT NO. [illegible] DATE [illegible]

FROM	TO	FORMATION	FROM	TO	FORMATION
0	10	[illegible]	260	310	SH
10	80	SH	310	360	SSH
80	170	SS			
170	260	SSH			

BIT NO. 3529 — 360'

SIZE [illegible]

TYPE setup

MUD ADDITIVES USED AND RECEIVED: 1 sack of [illegible]

12	14	66
12	15	66
12	16	66
12		

6 hrs
10 hrs
7 hrs
23 hrs total

12- 1 66 Left last location [illegible] water at 90'

REMARKS —

12-14-66 Drilled to 160 with [illegible] drilled to 80 with [illegible] left rig at 500
12-15-66 [illegible] 100' left rig at 500
12-16-66 [illegible] drilled to 360' left rig at 200 [illegible] & [illegible] to move off

Company Supervisor E. R. [illegible]

4929

30-045-13326

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NE Sec. 15 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced KELLY A #3

cps 423w

Elevation 6217' Completion ~~XXXXXXXXXX~~ Date 12/16/66 Total Depth 360' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N/A

Depths gas encountered: 360'

Type & amount of coke breeze used: N/A

Depths anodes placed: N/A

Depths vent pipes placed: N/A

Vent pipe perforations: N/A

Remarks: HOLE NOT COMPLETED. DRILLER HIT GAS POCKET AND MOVED RIG OFF GROUND BED.

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DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company
Form 7-238 (7-63)

WELL CASING

CATHODIC PROTECTION CONSTRUCTION REPORT

DAILY LOG

Date 12-16-66

Well Name: Kelly 3A					CPS No.: 413 W	
Location: NE 15 - 31 - 10					Work Order No.: 184-52492	
Anode Hole Depth: 360	Total Drilling Rig Time	Type & Size Bit Used			No. Sacks Mud Used	
No. Sacks Lost Circulation Mat'l Used	Anode Depth # 1	# 2	# 3	# 4	# 5	# 6
Total Lbs. Coke Used	Anode Output (Volts) # 1	# 2	# 3	# 4	# 5	# 6
Total Circuit Resistance: Volts	Amps	Ohms	No. Ft. Surface Cable Conduit			

Drilling Log (Attach Hereto). ☐

Remarks: Hole NOT Completed Driller Hit Gas Pocke
Moved Rig off Ground Bed To Be completed wh
Gas quits Blowing

All Construction Completed

(Signature)

GROUND BED LAYOUT SKETCH

N

Original & 1 Copy All Reports

DAILY DRILLING REPORT

LEASE | REPORT NO. | DATE

FROM	TO	FORMATION
0	10	ss
10	80	sh
80	170	ss
170	260	ssh
260	310	sh
310	360	ssh

BIT NO. 3529 — 360'

TYPE: setup

1 sack of Stalls

12-14-66	6 hrs
12-15-66	10 hrs
12-16-66	7 hrs
	23 hrs total

13- 1-66 Left last location [illegible] water at 90'

REMARKS —

12-14-66 Drilled to 160 with [illegible] drilled to 80 with [illegible] left rig at 5:00

12-15-66 [illegible] drilled 100' left rig at 5:00

12-16-66 [illegible] drilled to 360' left rig at 2:00 [illegible] to move off

Company Supervisor: E. R. [illegible]

1020

30-045-21984

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SE Sec. 15 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced KELLY A #3A

cps 1194w

Elevation 6218' Completion Date 5/19/77 Total Depth 370' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. WET AT 50'

Depths gas encountered: N/A

Type & amount of coke breeze used: 38 SACKS

Depths anodes placed: 270', 260', 240', 230', 220', 210', 185', 175', 165', 155'

Depths vent pipes placed: 300'

Vent pipe perforations: 200'

Remarks: gb #1

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DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company
Form 7-238 (Rev. 1-69)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

LOGGED HWD FILE R...

Drilling Log (Attach Hereto). ☐ Completion Date 5/19/77

Well Name	Location	CPS No
Kelly A #3A	SE-15-31-10	1194 W

Type & Size Bit Used	Work Order No.
6 3/4"	57106-19-50-20

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
370' X 320'		38 SACKS		

Anode Depth

#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
270'	260'	240'	230'	220'	210'	185'	175'	165'	155'

Anode Output (Amps)

#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
4.4	4.6	4.4	5.3	5.2	5.2	4.8	5.8	5.0	6.6

Anode Depth

#11	#12	#13	#14	#15	#16	#17	#18	#19	#20

Anode Output (Amps)

#11	#12	#13	#14	#15	#16	#17	#18	#19	#20

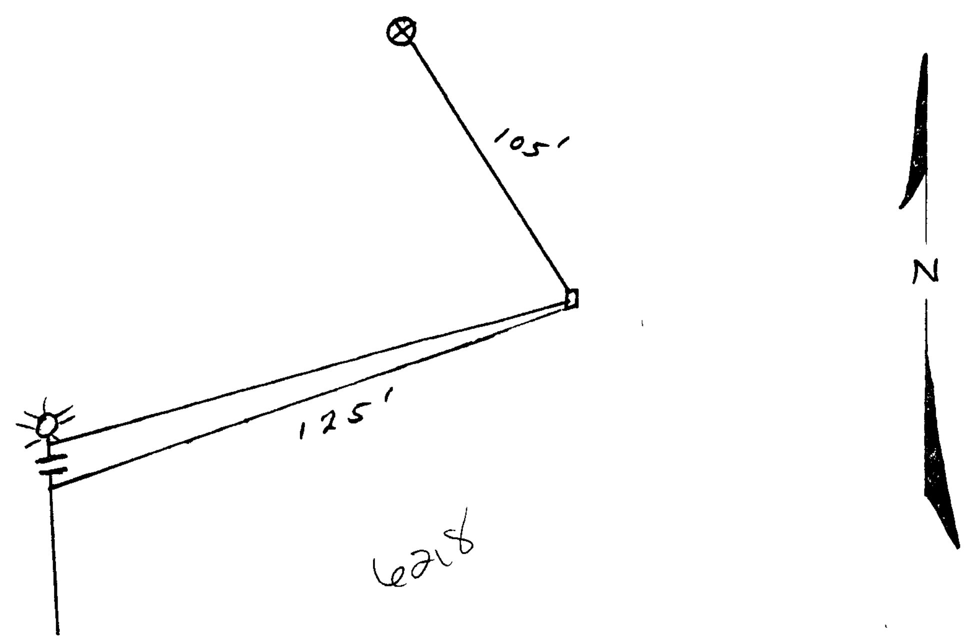
Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.61 V	Amps 22.8 A	Ohms .5		

Remarks: Drilled 370'-Hole caved To 320'. WATer NexT A.M AT 60' Drilled To 240' with Air, STARTed injecTing WATer AT 240'. 300' of 1" P.V.C. VenT pipe, PerferATed 200'. Slurryed 38 SAcks of coke.

All Construction Completed

(Signature)

GROUND BED LAYOUT SKETCH



Original & 1 Copy All Reports

Form 7-1 (Rev 8-75)

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet _____ of _____
Date _____
By _____
File _____

5/19/77

1194 W

Kelly A #3A SE 15-31-10 W.O.# 57106.19

MW		gals/mol
16.04	C_1	6.4
30.07	C_2	10.12
44.10	C_3	10.42
58.12	iC_4	12.38
58.12	nC_4	11.93
72.15	iC_5	13.85
72.15	nC_5	13.71
86.18	iC_6	15.50
86.18	C_6	15.57
100.21	iC_7	17.2
100.21	C_7	17.46
114.23	C_8	19.39
28.05	$C_2^=$	9.64
42.08	$C_3^=$	9.67

MISC MW		gals/mol
32.00	O_2	3.37
28.01	CO	4.19
44.01	CO_2	6.38
64.06	SO_2	5.50
34.08	H_2S	5.17
28.01	N_2	4.16
2.02	H_2	3.38

50 —			
60 —	.6		
	.6		
70 —	1.1		
	1.7		
80 —	1.9		
	1.7		
90 —	1.6		
	1.5		
100 —	1.9		
	2.3		
10 —	2.4		
	2.3		
20 —	2.1		
	1.9		
30 —	1.5		
	1.3		
40 —	1.0		
	.9		
50 —	2.5		
	2.8	—	
60 —	2.5		
	2.4	—	
70 —	2.5		
	2.7	—	
80 —	2.2		
	2.2	—	
90 —	2.1		
	2.0		
200 —	2.0		
	2.0		
10 —	2.3	—	
	2.3		
20 —	2.6	—	
	2.6		
30 —	2.5	—	
	2.3		
40 —	2.2	—	
	1.8		
50 —	1.6		
	1.6		

60 —	2.1	—	
	2.3		
70 —	2.0	+	
	1.8		
80 —	1.6		
	1.4		
90 —	1.8		
	1.5		
300 —	2.1		
	2.4		
10 —	2.5		
	2.3		
20 —	T.D.		
30 —			
40 —			
50 —			
60 —			
70 —	Drilled To.		

Driller said moisture at 50'

300' of 1" vent
200' perforated

1 = 270	—	3.1	— 4.4
2 = 260	—	3.5	— 4.6
3 = 240	—	3.2	— 4.4
4 = 230	—	3.9	— 5.3
5 = 220	—	3.9	— 5.2
6 = 210	—	3.5	— 5.2
7 = 185	—	3.2	— 4.8
8 = 175	—	4.3	— 5.8
9 = 165	—	3.7	— 5.0
10 = 155	—	4.7	— 6.6

22.6 A
11.61 V
.5 Ω

Form 22-2 (Rev. 1-61)

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE WELL NO. 1194W CONTRACTOR POSEY RIG NO. REPORT NO. DATE 5-18 1977

MORNING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC ____ SIZE ____ LENG ____

NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. STANDS

SIZE SINGLES

TYPE DOWN ON KELLY

MAKE TOTAL DEPTH

MUD RECORD			MUD, ADDITIVES USED AND RECEIVED
Time	Wt.	Vis.	

FROM	TO	TIME BREAKDOWN
0	10	SURFACE
10	15	SAND
15	20	GRAVEL
20	50	SHALE
50	60	WET SAND
60	75	SHALE

REMARKS –

DAYLIGHT

Driller POSEY Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC ____ SIZE ____ LENG. ____

NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. STANDS

SIZE SINGLES

TYPE DOWN ON KELLY

MAKE TOTAL DEPTH

MUD RECORD			MUD, ADDITIVES USED AND RECEIVED
Time	Wt.	Vis.	

FROM	TO	TIME BREAKDOWN
75	80	WET SAND
80	110	SHALE
110	115	WET SAND
115	140	SHALE
140	155	SAND
155	210	SHALE

REMARKS –

EVENING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC ____ SIZE ____ LENG. ____

NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. STANDS

SIZE SINGLES

TYPE DOWN ON KELLY

MAKE TOTAL DEPTH

MUD RECORD			MUD, ADDITIVES USED AND RECEIVED
Time	Wt.	Vis.	

FROM	TO	TIME BREAKDOWN
210	215	SAND WET
215	250	SHALE
250	256	SAND WET
256	300	SHALE
300	310	SAND
310	370	SANDY SHALE

REMARKS –

SIGNED: Toolpusher _____ Company Supervisor _____

1 - 30-045-10688
8- 30-045-22579

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SW Sec. 15 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced KELLY A #1, #8

cps 442w

Elevation 6178' Completion Date 11/14/74 Total Depth 460' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 110'

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DIST. 3

Depths gas encountered: N/a

Type & amount of coke breeze used: N/A

Depths anodes placed: 350', 335', 320', 310', 300', 290', 280', 250', 240'

Depths vent pipes placed: N/A

Vent pipe perforations: 333'

Remarks: gb #2 FIRST 460' HOLE CAVED-ABANDONED.

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

1 - 30-045-10688

& 30-045-22759

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SW Sec. 15 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced KELLY A #1, #8

cps 442w

Elevation 6178' Completion Date 7/15/63 Total Depth 160' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N./A

Depths gas encountered: N/A

Type & amount of coke breeze used: 1200 lbs.

Depths anodes placed: 150', 144', 138', 132', 126'

Depths vent pipes placed: N/A

Vent pipe perforations: N/A

Remarks: gb #1

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OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

30-045-10691

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SW Sec. 16 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced BROOKHAVEN COM #1

cps 420w

Elevation 6105' Completion Date 11/19/71 Total Depth 260' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N/A

Depths gas encountered: 120' - 260'

Type & amount of coke breeze used: 7900 lbs.

Depths anodes placed: 245', 236', 227', 218', 209', 200', 191', 182', 173', 155'

Depths vent pipes placed: 245'

Vent pipe perforations: 165'

Remarks: gb #2 HOLE MAKING QUITE A BIT OF GAS.

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MAY 31 1991
OIL CON. DIV
DIST.

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SW Sec. 16 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced BROOKHAVEN COM #1

cps 420w

Elevation 6105' Completion Date 7/16/63 Total Depth 95' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N/A

Depths gas encountered: N/A

Type & amount of coke breeze used: 700 lbs.

Depths anodes placed: 83', 77', 71', 37', 31'

Depths vent pipes placed: N/A

Vent pipe perforations: N/A

Remarks: gb #1

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MAY 31 1991
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

2 = 30-045-10783
12 = 30-045-21828

4922

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NE Sec 16 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced BROOKHAVEN COM A #2,

BROOKHAVEN COM J #12 cps 419w

Elevation 6165' Completion Date 7/17/63 Total Depth 180' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N/A

Depths gas encountered: N/A

Type & amount of coke breeze used: 1400 lbs.

Depths anodes placed: 169', 163', 157', 151', 145', 139'

Depths vent pipes placed: N/A

Vent pipe perforations: N/A

Remarks: cgb #1

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MAY 31 1991
OIL CON. DIV
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

WELL CASING
~~CATHODIC PROTECTION CONSTRUCTION REPORT~~
DAILY LOG

DATE 7-17-63

WELL NAME Brook Haven State #2 CPS NO. 4194

LOCATION 16-31N-10W

WORK ORDER NUMBER 184-40542-50-02

ANODE HOLE DEPTH 180

TOTAL DRILLING RIG TIME 19 1/2 S

DRILLING TIME FOR RECTIFIER POLE HOLE 0

TYPE AND SIZE BIT USED

NUMBER SACKS MUD USED 10

NUMBER SACKS LOST CIRCULATION MAT'L USED 2

ANODE DEPTHS #1 169', #2 163, #3 157, #4 151 145 139'

TOTAL LBS. COKE USED 1400 165 14 Sacks

ANODE OUTPUTS 12 VOLTS, #1 1.8, #2 1.8, #3 2.2, #4 2.3 2.2 2.2

TOTAL CIRCUIT RESISTANCE: VOLTS 11.2 AMPERES 5.5 OHMS 2.03

NUMBER FEET SURFACE CABLE CONDUIT 340'

DRILLING LOG (ATTACH HERETO).

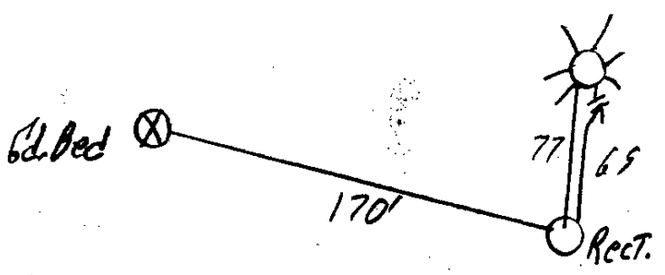
FORMATION LOG (ATTACH HERETO).

REMARKS: Static G/S = .76R 600 SW
Installed Good - All Rect 40V - 12A Sor # 63C6404
Note! No Junction Box Installed
Numerous Junk Bit used To Drill Through Boulders

ALL CONSTRUCTION COMPLETED

E. Parker
SIGNATURE

GROUND BED LAYOUT SKETCH



ORIGINAL & 1 COPY
ALL REPORTS

#39

#1-A 30-045-22489

#15 30-045-22137

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NW Sec. 16 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced BROOKHAVEN COM #1A, #15

cps 1212w,

Elevation 6110' Completion Date 6/28/78 Total Depth 400' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 120' - 140' & 355' - 360'

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 355', 340', 330', 320', 310', 300', 290', 280', 270', 260'

Depths vent pipes placed: 400'

Vent pipe perforations: 300'

Remarks: gb #1

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OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company
Form 7-238 (Rev. 11-71)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach Hereto). ☐ COMM #15

Completion Date 6-28-78

Well Name: BROOKHAVEN Com #1A	Location: NW16-31-10			CPS No.: 1212W
Type & Size Bit Used: 6 3/4"				Work Order No.: 57225-21
Anode Hole Depth: 400-395TD	Total Drilling Rig Time:	Total Lbs. Coke Used:	Lost Circulation Matl Used:	No. Sacks Mud Used:

Anode Depth	#1 355	#2 340	#3 330	#4 320	#5 310	#6 300	#7 290	#8 280	#9 270	#10 260
Anode Output (Amps)	#1 3.4	#2 3.6	#3 3.9	#4 4.3	#5 3.9	#6 3.6	#7 3.6	#8 3.8	#9 4.1	#10 4.4
Anode Depth	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Output (Amps)	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20

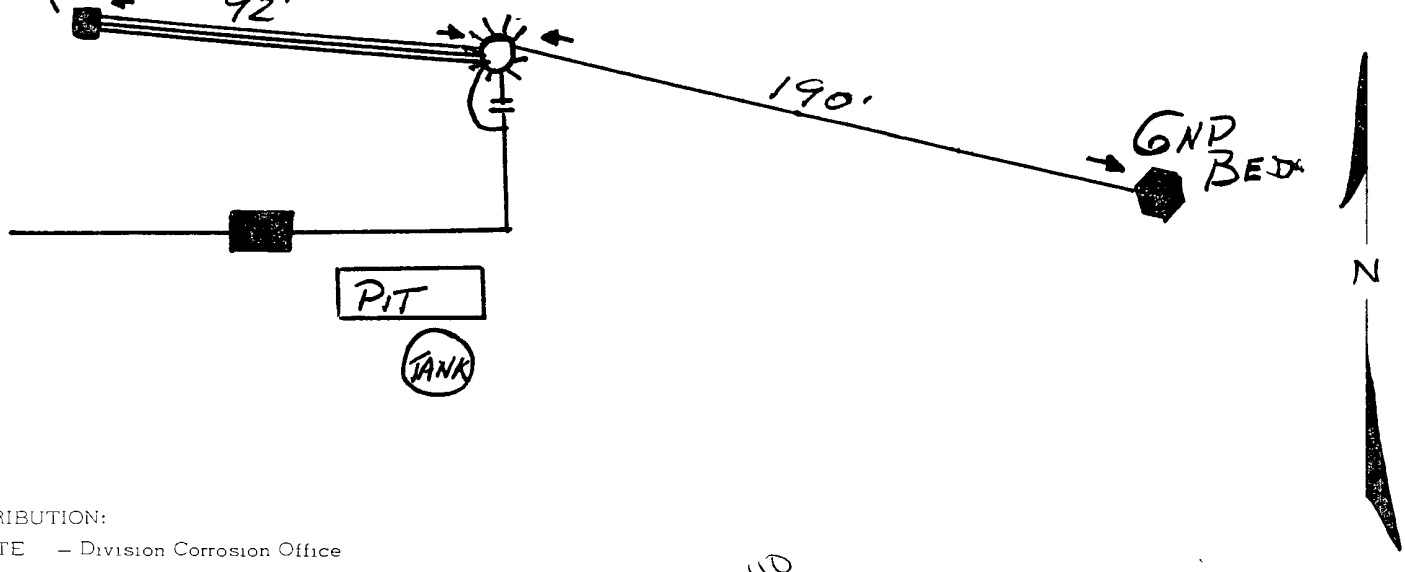
Total Circuit Resistance: Volts 9.0	Amps 10.8	Ohms .83	No. 8 C.P. Cable Used	No. 2 C.P. Cable Used

Remarks: STATIC = .88 CABLE TOOLS DRILLED 50' 4" PIP SET 4' GRAVEL & 10' BOULDERS 26 1/2 HRS. DRILLED TO 400' LOGED TO 395' DAMP AT 80 GOOD WATER AT 120-160' DRILL TO 260' WATER AT 30' NEXT AM. WATER AT 350-360' 300' j" PERF. VENT 100'-1" PLAIN VENT DITCH 1 WIRE = 282'
EXTRA WIRE = 184'
4-0/16T STUB POLE
HOLE = -105'

All Construction Completed

BT
(Signature)

GROUND BED LAYOUT SKETCH



DISTRIBUTION:
WHITE – Division Corrosion Office
YELLOW – Area Corrosion Office
PINK – Originator File

Lello

Form 3 1 (Rev 9-77)

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet
Date 6-28-7
By BT
File

12 12 W

STATIC = .88

BROOK HAVEN Com #1A

NW 16-31-10

DRILLED TO 400' LOGED TO 395' HOLE = 1
DAMP AT 80' GOOD WATER SAND 120' TO 160' DRILLED TO
260' WATER STANDING AT 30' NEAT A.M. WATER SAND
AT 350' TO 360' MAKING 20-30 GAL MIN. FILLED W/ WATE
TO 150' TO LOG. 300' 1" PERFORATED VENT 100' 1" PLAIN VEN

MW		gals/mol
16 04	C_1	6 4
30 07	C_2	10 12
44 10	C_3	10 42
58 12	iC_4	12 38
58 12	nC_4	11 93
72 15	iC_5	13 85
72 15	nC_5	13 71
86 18	iC_6	15 50
86 18	C_6	15 57
100 21	iC_7	17 2
100 21	C_7	17 46
114 23	C_8	19 39
28.05	$C_2^=$	9 64
42.08	$C_3^=$	9 67

MISC

MW		gals/mol
32 00	O_2	3 37
28 01	CO	4 19
44 01	CO_2	6 38
64 06	SO_2	5 50
34 08	H_2S	5 17
28.01	N_2	4 16
2 02	H_2	3 38

100
10
20
30
40
50 2.2 2.4
60 2.6 2.4
70 2.3 1.9
80 2.8 3.3
90 3.1 3.0
200 2.7 2.3
10 2.0 1.8
20 1.6 1.5
30 1.4 1.4
40 1.4 1.4
50 1.5 2.0
60 3.2 3.0 - (10)
70 2.8 2.8 - (9)
80 2.8 2.6 - (8)
90 2.8 2.8 - (7)
300 2.6 2.5 - (6)
10 2.7 2.8 - (5)
20 3.0 3.0 - (4)
30 2.8 2.8 - (3)
40 2.6 2.4 - (2)
50 2.6 2.6 - (1)
60 2.6 2.2
70 2.0 2.0
80 2.1 2.8
90 2.6 2.6
400

9.0V 10.8A = .83

1 = 355 - 2.6 - 3.4
2 = 340 - 2.8 - 3.6
3 = 330 - 3.2 - 3.9
4 = 320 - 3.3 - 4.3
5 = 310 - 2.8 - 3.9
6 = 300 - 2.8 - 3.6
7 = 290 - 3.0 - 3.6
8 = 280 - 3.0 - 3.8
9 = 270 - 3.0 - 4.1
10 = 260 - 3.5 - 4.4

Form 22-2 (Rev. 1-61)

#1212-W

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE | WELL NO. | CONTRACTOR Posey | RIG NO. | REPORT NO. | DATE 6-28 1978

MORNING

Driller | Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.
		DRILLED 400'		
		LOGED 395'		
		TD 395'		

BIT NO. | NO. DC ___ SIZE ___ LENG. ___

SERIAL NO. | NO. DC ___ SIZE ___ LENG. ___

SIZE | STANDS

TYPE | SINGLES

MAKE | DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

0 - 45 Cable Tool
45 - 60 Shale
60 - 110 Sand Stone
110 - 120 Shale
120 - 140 Sand Wet
140 - 200 Shale
200 - 240 Sandy Shale
240 - 280 Shale

DAYLIGHT

Driller | Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. | NO. DC ___ SIZE ___ LENG. ___

SERIAL NO. | NO. DC ___ SIZE ___ LENG. ___

SIZE 6 3/4 | STANDS

TYPE Rock | SINGLES

MAKE | DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

280 - 355 - Sandy Shale
355 - 360 Sand making water
360 - 400 Sandy Shale

EVENING

Driller | Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. | NO. DC ___ SIZE ___ LENG. ___

SERIAL NO. | NO. DC ___ SIZE ___ LENG. ___

SIZE | STANDS

TYPE | SINGLES

MAKE | DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

making water 120-140
2-3 Gal Min

making water 355-360
20-30 Gal mi

SIGNED: Toolpusher Posey Company Supervisor

EL PASO NATURAL GAS COMPANY

History File

SAN JUAN DIVISION LABORATORY

ANALYSIS NO. 1-9230 DATE COMPLETED 7-6-78

WELL NAME	LOCATION S T R	DATE SECURED	GAL./ DAY	PPM T.D.S.	pH	PPM CHLORIDES	PPM SULFA
lones A #1A MV	10-28-8	6-20	24	7452	7.0	4320	7840
lones A #1A PC	10-28-8	6-20	1	39	6.8	13	1000
lughes #4A	20-29-8	6-20	54	6858	7.2	4830	1280
)ay A #5A	18-29-8	6-20	38	7632	7.1	6320	2500
)ay #1A	17-29-8	6-20	80	6670	7.4	6390	500
)ay A #1A	17-29-8	6-20	106	7527	7.4	7170	1000
)ay #3A	18-29-8	6-20	42	6913	6.7	7170	1000
)ay A #2A	7-29-8	6-20	96	5887	7.6	6320	64
l Paso #1A	20-29-9	6-17	8	9493	6.8	6745	7080
lansfield #2A 1241-W	19-30-9	6-19		1019	7.3	24	1520
uigley #1A 1275W	6-30-9	6-19		430	7.1	20	600
lorance #2A 1220W	21-30-9	6-19		1373	7.3	16	2520
an Juan #11A 1252W	11-30-10	6-19		636	6.4	24	800
un Ray A #1A 1263W	15-30-10	6-19		210	6.2	8	600
tlantic D Com #5A 1209W	12-30-10	6-19		1493	6.6	16	3000
ernaghan #4A 1237W	30-31-8	6-19		432	7.3	12	600
ernaghan #2A 1235W	28-31-8	6-19		190	7.2	16	680
ernaghan #1A 1234W	33-31-8	6-19		571	6.9	32	800
alker 1A 1271W	31-31-9	6-19		1664	7.0	32	3520
tlantic A #8A 1199W	29-31-10	6-19		2637	7.1	152	5560
tlantic "C" 4A 1200W	31-31-10	6-19		6720	7.7	504	9800
cott #4A 1258W	17-31-10	6-19		4506	7.0	186	7760
rookhaven Com A-1 1212W	16-31-10	6-19		3979	6.7	270	6920

4860

30-045-10657

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SW Sec. 17 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced HUDSON #5

cps 444w

Elevation 6020' Completion Date 11/11/71 Total Depth 443' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 170' OVERNIGHT

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Depths gas encountered: N/A

Type & amount of coke breeze used: 8400 lbs.

Depths anodes placed: 400', 390', 380', 370', 360', 350', 340', 325', 265', 255'

Depths vent pipes placed: N/A

Vent pipe perforations: 112' - 400'

Remarks: gb #3 HOSE PLUGGED SEVERAL TIMES. HOLE CLOSED AT APPROX. 275'

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company

Form 7-238 (Rev. 1-69)

WELL CASING

CATHODIC PROTECTION CONSTRUCTION REPORT

DAILY LOG

Completion Date Nov 11, 1971

Drilling Log (Attach Hereto). ☐

Well Name	Location	CPS No.
Hudson #5	SW 17-31-10	4444

Type & Size Bit Used	Work Order No.
6 3/4"	52114

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
443		8400		

	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10
Anode Depth	400	390	380	370	360	350	340	325	265	255
Anode Output (Amps)	2.8-2.9	3.1-3.2	3.2-3.5	3.2-3.7	3.3-3.4	3.4-4.2	3.1-3.4	3.0-3.0	3.0-3.2	3.0-3.4
	4.3	5.1	5.5	5.7	5.5	6.0	5.2	2.9	4.0	4.8

	# 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
Anode Depth										
Anode Output (Amps)										

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 12.0	Amps 12.8	Ohms .930		

Remarks: WATER level over mute -170'

Perforations 112' - 400'

Hole plugged several times

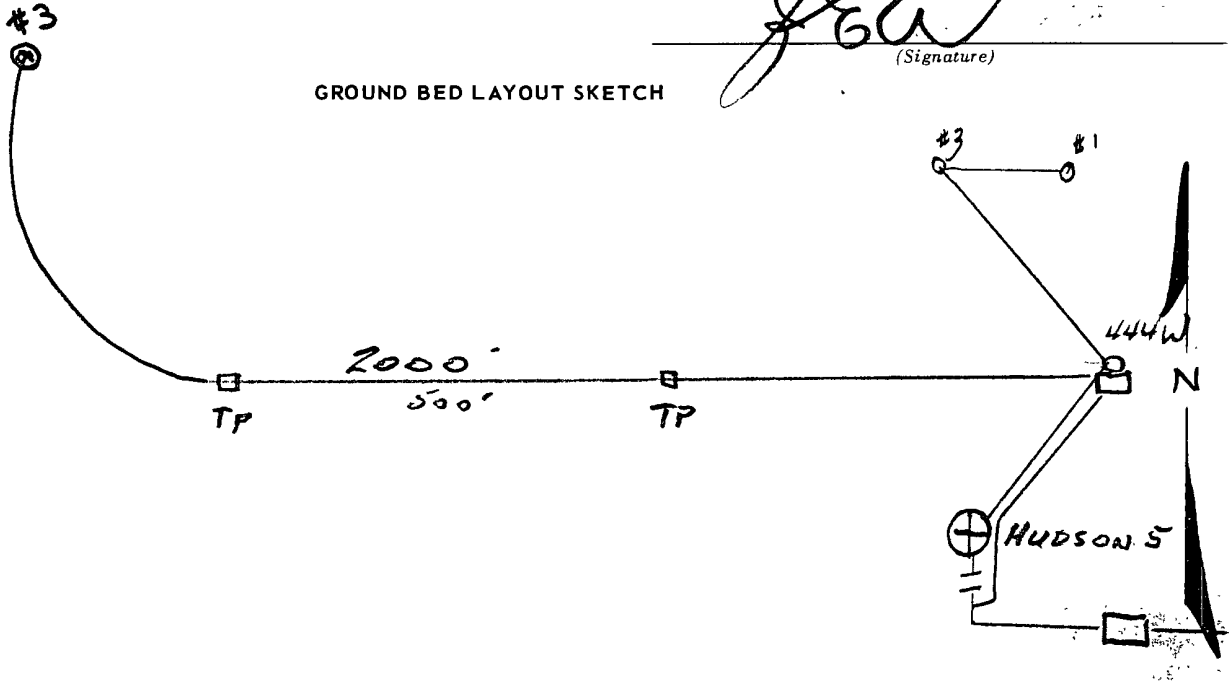
Hole closed at approx 275'

All Construction Completed

J G A

(Signature)

GROUND BED LAYOUT SKETCH



Original & 1 Copy All Reports

DRILLING DEPARTMENT

C.A.S. # 444 W

444W

DAILY DRILLING REPORT

LEASE Hudson WELL NO. 5 CONTRACTOR Motor RIG NO. 1 REPORT NO. DATE 11-11 19 71

MORNING

Driller Holland Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.
0	30	shale		
30	40	sand		
40	125	shale		
125	190	sandy shale		

NO. DC ____ SIZE ____ LENG. ____

BIT NO. ____ NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. ____ STANDS ____

SIZE ____ SINGLES ____

TYPE ____ DOWN ON KELLY ____

MAKE ____ TOTAL DEPTH ____

MUD RECORD Time	Wt.	Vis.	MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

DAYLIGHT

Driller ____ Total Men In Crew ____

FROM	TO	FORMATION	WT-BIT	R.P.M.
190	200	water sand		
200	230	sandy shale		
230	260	sand		
260	280	shale		

NO. DC ____ SIZE ____ LENG. ____

BIT NO. ____ NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. ____ STANDS ____

SIZE ____ SINGLES ____

TYPE ____ DOWN ON KELLY ____

MAKE ____ TOTAL DEPTH ____

MUD RECORD Time	Wt.	Vis.	MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

EVENING

Driller ____ Total Men In Crew ____

FROM	TO	FORMATION	WT-BIT	R.P.M.
250	300	sand		
300	440	shale & sandy shale		

NO. DC ____ SIZE ____ LENG. ____

BIT NO. ____ NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. ____ STANDS ____

SIZE ____ SINGLES ____

TYPE ____ DOWN ON KELLY ____

MAKE ____ TOTAL DEPTH ____

MUD RECORD Time	Wt.	Vis.	MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

SIGNED: Toolpusher _____ Company Supervisor _____

#4 30-045-10754

#22 30-045-22070

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NE Sec. 17 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced SCOTT #4, #22

cps 441w

Elevation 6103' Completion Date 11/10/67 Total Depth 260' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 170'

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OIL CON. DIV
DIST. 3

Depths gas encountered: N/A

Type & amount of coke breeze used: 2640 lbs.

Depths anodes placed: 246', 240', 234', 228', 222', 216', 210', 204'

Depths vent pipes placed: 246' OF 3/4" HOSE

Vent pipe perforations: 246'

Remarks: gb #3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NE Sec. 17 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced SCOTT #4, #22

cps 441w

Elevation 6103' Completion Date 11/8/67 Total Depth 360' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 160'

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MAY 31 1991
OIL CON. DIV.
DIST. 3

Depths gas encountered: N/A

Type & amount of coke breeze used: 1320 lbs.

Depths anodes placed: 265', 259', 253', 247', 241', 235', 150'

Depths vent pipes placed: 265' OF 3/4" HOSE

Vent pipe perforations: 265'

Remarks: gb #2 HOLE CAVED. COULD NOT GET coke to anodes. #7 ANODE STOPPED AT 150' WOULD NOT GO UP OR DOWN. ABANDONED HOLE WITH ANODES IN PLACE.

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit ne Sec. 17 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced SCOTT #4, #22

cps 441w

Elevation 6103' Completion Date 7/18/63 Total Depth 195' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N/A

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 175', 165', 155', 145', 135', 125'

Depths vent pipes placed: N/A

Vent pipe perforations: N/A

Remarks: gb #1 ANODES NOT INSTALLED UNTIL 7/16/65.

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

5A - 30-045-22490

9 - 30-045-21818

GB #1

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO

Operator Meridian Oil Location: Unit F Sec. 17 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced Hudson #5A and Scott #9

Elevation 5991' Completion Date 11-2-78 Total Depth 450 ' Land Type F

1408001469

Casing Strings, Sizes, Types & Depths NA

If Casing Strings are cemented, show amounts & types used NA

If Cement or Bentonite Plugs have been placed, show depths & amounts used

NA

Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. 310'. No analysis.

Depths gas encountered: NA

Ground bed depth with type & amount of coke breeze used: 450'

45 sacks of metallurgical coke breeze

Depths anodes placed: 420', 410', 400', 390', 380', 370', 360', 350', 340', 330'

Depths vent pipes placed: TD to 24" above grade

Vent pipe perforations: BOttom to 220'

Remarks:

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

4A - 30-045-22387
8 - 30-045-21819

GB #1

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO

Operator Meridian Oil Location: Unit I Sec 17 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced Scott #4A and #8

Elevation 6045' Completion Date 6-27-78 Total Depth 385' Land Type F

Casing Strings, Sizes, Types & Depths 22' of 8" steel casing 1408001468

If Casing Strings are cemented, show amounts & types used NA

If Cement or Bentonite Plugs have been placed, show depths & amounts used

NA

Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. 160 ' - 180'. No analysis.

Depths gas encountered: NA

Ground bed depth with type & amount of coke breeze used: 385' T.D.

metallurgical coke breeze - (No information on amount)

Depths anodes placed: 320', 310', 300', 290', 280', 270', 260', 250', 240', 230'

Depths vent pipes placed: TD to 24" above grade

Vent pipe perforations: No information

Remarks:

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

CAIN 1-A 30-045-21748
CAIN 2 30-045-21830

5216

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator KOCH EXPLORATION COMPANY Location: Unit D Sec. 20 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced CAIN-1A & 2

Elevation 6011 Completion Date 8-13-82 Total Depth 320' Land Type* 50/50 NM-02814 F-NM-03187

Casing, Sizes, Types & Depths 7"STEEL @ 55'

If Casing is cemented, show amounts & types used NONE

NONE

If Cement or Bentonite Plugs have been placed, show depths & amounts used

NONE

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. @-100'& 210'-CLEAR,ALKALI

Depths gas encountered: NONE

Type & amount of coke breeze used: METALLURGICAL,1400#

Depths anodes placed: 300'-290'-280'-270'-255'-245'-230'220'-200'-190'

Depths vent pipes placed: 310'

Vent pipe perforations: FROM 190'DOWN

Remarks:

RECEIVED
MAR1 6 1990
OIL CON. DIV
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

CORROSION CONTROL CO.

P. O. BOX 179 – PHONE 334-6361
AZTEC, NEW MEXICO 87410

Drilling Log (Attach Hereto). ☐ Completion Date August 13, 1982

Well Name	Location	
Cain #1-A+2	Koch	
Type & Size Bit Used: 6 1/4"		Work Order No.
Anode Hole Depth: 320'	Total Drilling Rig Time: 14 hrs	Total Lbs. Coke Used: 1400#
Lost Circulation Mat'l Used	No. Sacks Mud Used	

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	300	290	280	270	255	245	230	220	200	190
Anode Output (Amps)	4.0	4.3	4.1	4.0	3.7	4.0	4.4	4.3	4.6	4.5

	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Depth										
Anode Output (Amps)										

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.8	Amps 22.2	Ohms .53	2680'	

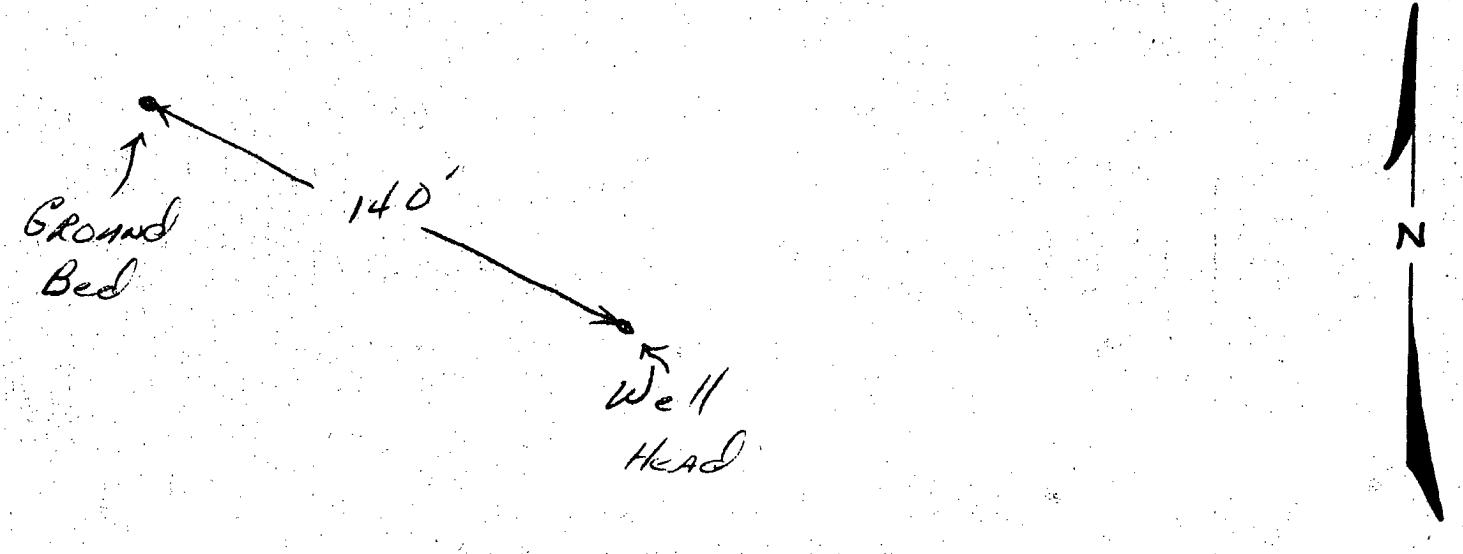
Remarks: Had to set 55' of 7" steel casing due to rocks. Water at 100' & 210'. Used 320' of 3/4" vent pipe.

Power From Lambe-245

All Construction Completed

Cody Mumbers
(Signature)

GROUND BED LAYOUT SKETCH



2 = 30-045-10594
5 = 30-045-21899

5228

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator KCH EXPLORATION COMPANY **Location:** Unit A Sec. 20 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LAMBE-2 & 5

Elevation 6079' **Completion Date** 8-6-82 **Total Depth** 200' **Land Type*** F-NM-03187

Casing, Sizes, Types & Depths 7"STEEL @-24'

If Casing is cemented, show amounts & types used NONE

If Cement or Bentonite Plugs have been placed, show depths & amounts used

NONE

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. @-65'CLEAR SULPHUR & ALKALI

Depths gas encountered: NONE

Type & amount of coke breeze used: METALURGICAL--1200#

Depths anodes placed: 160'-150'-140'-130'-120'-110'-100'-90'-80'-70

Depths vent pipes placed: 200'

Vent pipe perforations: FROM 70'DOWN

Remarks:

RECEIVED
MAR 16 1990
OIL CON. DIV
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

***Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.**
If Federal or Indian, add Lease Number.

CORROSION CONTROL CO.

P. O. BOX 179 – PHONE 334-6361
AZTEC, NEW MEXICO 87410

Drilling Log (Attach Hereto). ☐ Completion Date August 6, 1982

Well Name	Location	
Lambe #2 + 5	Koch	
Type & Size Bit Used: 6 1/4"		Work Order No.
Anode Hole Depth: 200'	Total Drilling Rig Time: 7 hrs	Total Lbs. Coke Used: 1200
Lost Circulation Mat'l Used	No. Sacks Mud Used	

Anode Depth	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
	160	150	140	130	120	110	100	90	80	70
Anode Output (Amps)	4.5	4.7	5.2	6.3	6.4	6.1	5.9	5.4	6.3	5.8
Anode Depth	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Output (Amps)										

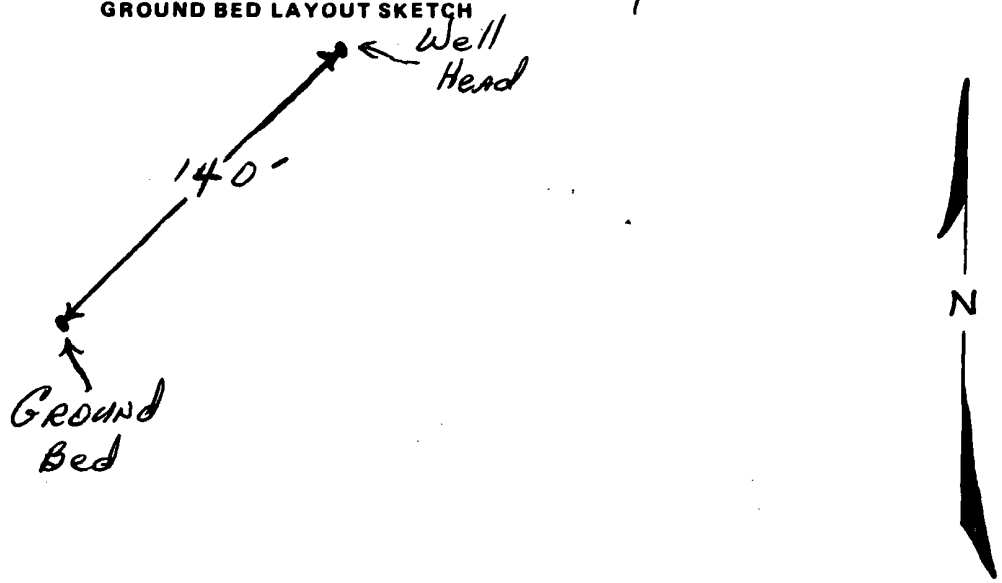
Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.7	Amps 27.4	Ohms .43	1350'	

Remarks: Had to set 24' of 7" steel casing due to rocks. Water at 65'. Used 200' of 3/4" vent pipe.

All Construction Completed

Cody Mumkres
(Signature)

GROUND BED LAYOUT SKETCH



LAMBE #2-A 30-045-21694

LAMBE #6 30-045-21900

5227

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator KOCH EXPLORATION COMPANY **Location:** Unit O Sec. 20 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LAMBE-2-A-AND-6

Elevation 6096 **Completion Date** 8-16-82 **Total Depth** 260' **Land Type*** F-NM-03187

Casing, Sizes, Types & Depths 7"STEEL @-75'

If Casing is cemented, show amounts & types used NONE

If Cement or Bentonite Plugs have been placed, show depths & amounts used

NONE

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. @ 80 AND 100' CLEAR-SULPHUR & ALKALI

Depths gas encountered: NONE

Type & amount of coke breeze used: METALURGICAL 1400 #

Depths anodes placed: 260'-240'-230'-220'-210'-180'-160'-150'-140'-130'-

Depths vent pipes placed: 260'

Vent pipe perforations: FROM 130' DOWN

Remarks:

RECEIVED
MAR 1 6 1990
OIL CON. DIV
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

***Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.**
If Federal or Indian, add Lease Number.

CORROSION CONTROL CO.

P. O. BOX 179 – PHONE 334-6361
AZTEC, NEW MEXICO 87410

Drilling Log (Attach Hereto). ☐ Completion Date August 16, 1982

Well Name	Location	
Lambe #2-A-6	Koch	
Type & Size Bit Used: 6 1/4"		Work Order No.
Anode Hole Depth: 260'	Total Drilling Rig Time: 12 hrs	Total Lbs. Coke Used: 1400 #
Lost Circulation Mat'l Used	No. Sacks Mud Used	

Anode Depth	#1 240	#2 230	#3 220	#4 210	#5 200	#6 180	#7 160	#8 150	#9 140	#10 130
Anode Output (Amps)	#1 4.8	#2 5.3	#3 4.6	#4 5.1	#5 4.7	#6 4.8	#7 5.2	#8 5.3	#9 5.1	#10 4.8
Anode Depth	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Output (Amps)	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20

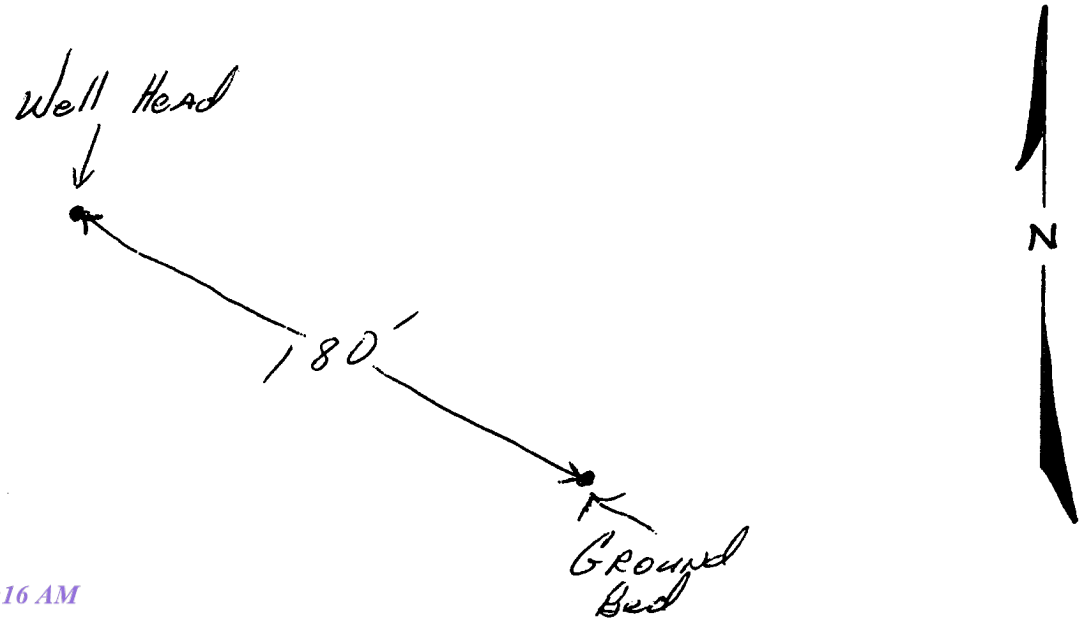
Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.7	Amps 25.6	Ohms .46	2060'	

Remarks: Had to set 75' of 7" steel casing due to rock. Water at 80' & 100'. Used 260' of 3/4" vent pipe

All Construction Completed

Cody Mundros
(Signature)

GROUND BED LAYOUT SKETCH



1 = 30-045-10462
7 = 30-045-21901

5230

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator KOCH EXPLORATION COMPANY Location: Unit M Sec. 21 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LAMBE-1 AND 7

Elevation 6125 **Completion Date** 8-30-1982 **Total Depth** 280' **Land Type*** F-NM-03187

Casing, Sizes, Types & Depths 7" STEEL @-44'

If Casing is cemented, show amounts & types used NONE

If Cement or Bentonite Plugs have been placed, show depths & amounts used

NONE

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. @-145' SULPHUR & Alkali

Depths gas encountered: NONE

Type & amount of coke breeze used: METALLURGICAL--1000 #

Depths anodes placed: 260'-250'-240'-230'-220'-210'-200'-190'-180'-170'

Depths vent pipes placed: 270'

Vent pipe perforations: FROM 170' DOWN

Remarks:

RECEIVED
MAR 1 6 1990
OIL CON. D
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

***Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.**
If Federal or Indian, add Lease Number.

CORROSION CONTROL CO.

P. O. BOX 179 – PHONE 334-6361
AZTEC, NEW MEXICO 87410

Drilling Log (Attach Hereto). ☐ Completion Date August 30, 1982

Well Name	Location	
Lambe #1 & #7	Koch	
Type & Size Bit Used: 6 1/4"		Work Order No.:

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
280'	16 hrs	1000#		

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	260	250	240	230	220	210	200	190	180	170
Anode Output (Amps)	3.4	4.0	4.7	4.5	4.8	6.0	5.6	4.3	3.4	3.9

	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Depth										
Anode Output (Amps)										

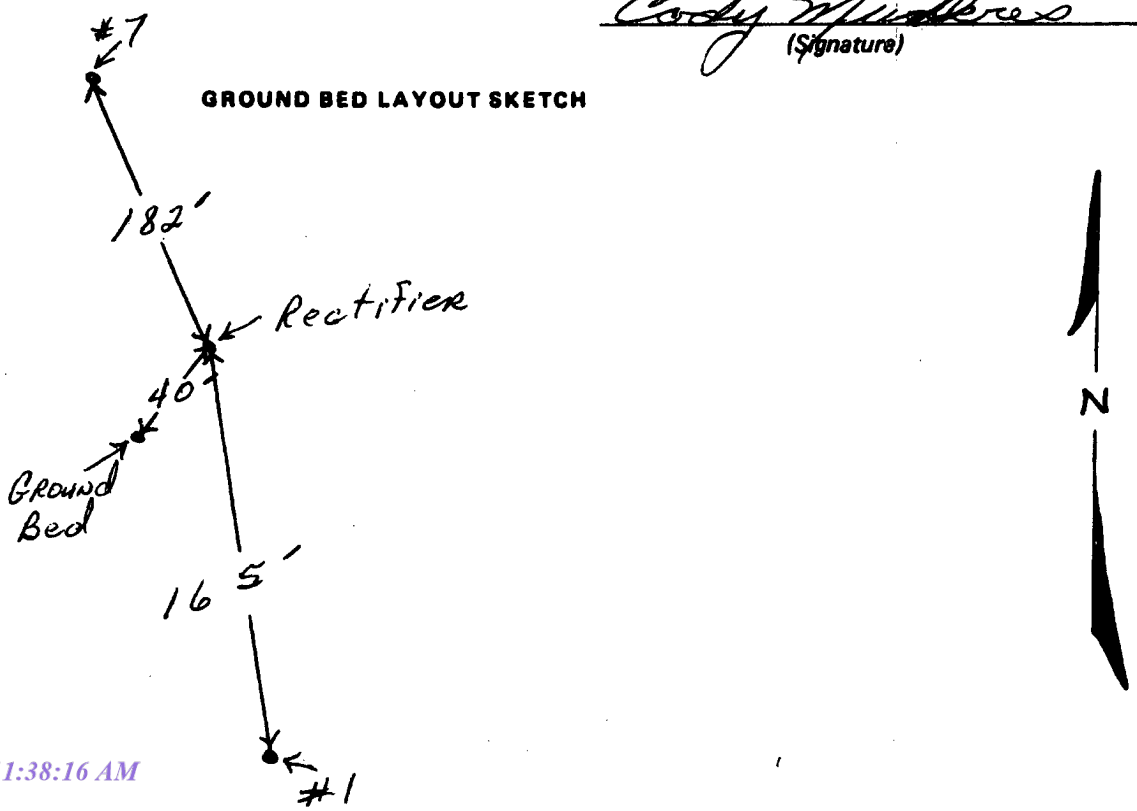
Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.9	Amps 23.6	Ohms .50	2350'	

Remarks: Had to set 44' of 7" steel casing due to rocks & sand. Used 280' of 3/4" vent pipe. Water was at 145'.

All Construction Completed

Cody Mathews
(Signature)

GROUND BED LAYOUT SKETCH



LAMBE # 3 30-045-10609
LAMBE #8 30-045-21953

5226

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator KOCH EXPLORATION COMPANY Location: Unit B Sec. 21 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LAMBE-3& 8

Elevation 6146 **Completion Date** 8-9-82 **Total Depth** 360' **Land Type*** F-NM-03187

Casing, Sizes, Types & Depths 7"STEEL @-78'

If Casing is cemented, show amounts & types used NONE

If Cement or Bentonite Plugs have been placed, show depths & amounts used

NONE

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. @-180'-SULPHUR & ALKALI

Depths gas encountered: None

Type & amount of coke breeze used: METALLURGICAL--1600#

Depths anodes placed: 330'-320'-310'-300'-290'-280'-250'-240'-230'-220'-

Depths vent pipes placed: 330'

Vent pipe perforations: FROM 200' DOWN

Remarks:

RECEIVED
MAR 16 1990
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

CORROSION CONTROL CO.

P. O. BOX 179 – PHONE 334-6361
AZTEC, NEW MEXICO 87410

Drilling Log (Attach Hereto). ☐ Completion Date August 9, 1982

Well Name	Location	
Lambe #3 + 8	Koch	
Type & Size Bit Used: 6 1/4"		Work Order No.

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
360	12 hrs	1600 #		

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	330	320	310	300	290	280	250	240	230	220
Anode Output (Amps)	5.4	4.8	5.1	5.4	5.9	5.2	5.9	5.8	6.8	6.4
Anode Depth	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Output (Amps)	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20

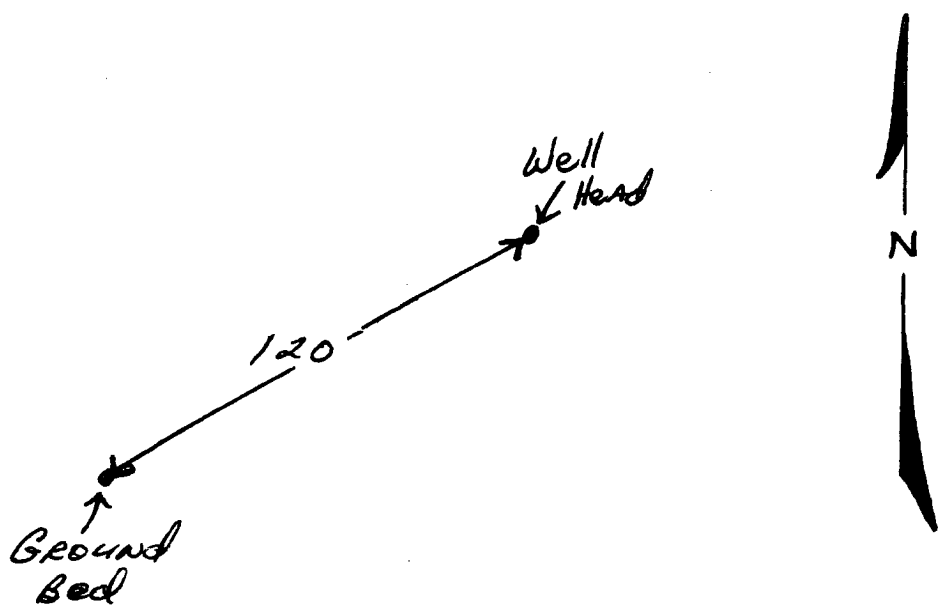
Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.7	Amps 27.4	Ohms .43	2970'	

Remarks: Had to set 78' of 7" casing due to rocks & gravel. Water at 180' & used 330' of 3/4" vent pipe.

All Construction Completed

Cody Munkres
(Signature)

GROUND BED LAYOUT SKETCH



1A = 30-045-21692
4 = 30-045-21898

5229

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator KOCH EXPLORATION COMPANY Location: Unit D Sec. 21 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced LAMBE 1-A AND 4

Elevation 6151 **Completion Date** 8-6-82 **Total Depth** 320' **Land Type*** F-NM-03187

Casing, Sizes, Types & Depths 7"STEEL @-87'

If Casing is cemented, show amounts & types used NONE

If Cement or Bentonite Plugs have been placed, show depths & amounts used

NNE

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. @-90' AND 180'-CLEAR SULPHUR & ALKALI

Depths gas encountered: NONE

Type & amount of coke breeze used: METALLURGICAL--1200#

Depths anodes placed: 300'-290'-280'-250'-235'-225'-215'-205'-195'-185'

Depths vent pipes placed: 300'

Vent pipe perforations: FROM 180' DOWN

Remarks:

RECEIVED
MAR 16 1990
OIL CON. DIV
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

***Land** Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

CORROSION CONTROL CO.

P. O. BOX 179 — PHONE 334-6361
AZTEC, NEW MEXICO 87410

Drilling Log (Attach Hereto). ☐ Completion Date 8-[illegible]-82

Well Name	Location	
Lambe #1-A & 4	Koch	
Type & Size Bit Used: 6 1/4"		Work Order No.
Anode Hole Depth: 320'	Total Drilling Rig Time: 10 hrs	Total Lbs. Coke Used: 1200
Lost Circulation Mat'l Used	No. Sacks Mud Used	

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	300	290	280	250	235	225	215	205	195	185
Anode Output (Amps)	4.6	4.5	4.5	5.2	5.5	5.9	6.8	7.1	6.8	5.5
Anode Depth	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Output (Amps)	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.7	Amps 26.0	Ohms .45	2580'	

Remarks: Set 87 of 7" steel casing due to boulders & gravel. Water at 90' & 120'. Used 320' of Vent pipe.

All Construction Completed

Cody Mankin
(Signature)

GROUND BED LAYOUT SKETCH

#6 30-045-10486

#18 30-045-23172

#206 30-045-26992

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC. Location: Unit L Sec. 22 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC #6, #18, #206

cps 2075w

Elevation 6246' Completion Date 7/19/74 Total Depth 460' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 100'

Depths gas encountered: N/A

Type & amount of coke breeze used: 8300 lbs.

Depths anodes placed: 410', 400', 390', 380', 370', 360', 350', 260', 225', 215'

Depths vent pipes placed: N/A

Vent pipe perforations: 325'

Remarks: gb #2

RECEIVED
MAY 31 1991
OIL CON. DIV
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company
Form 7-238 (Rev. 1-69)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach Hereto). ☐ #18 #204

Completion Date 7/19/74

Well Name	Location	CPS No.
ATLANTIC #6	SW 22 -31N -10W	440 W 2025

Type & Size Bit Used	Work Order No.
6 3/4"	184-52320.19-50.

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
460'		8300		

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	410	400	390	380	370	360	350	260	325	215
Anode Output (Amps)	4.6	5.0	5.5	5.5	6.0	4.4	6.0	4.5	4.8	5.5

	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Depth										
Anode Output (Amps)										

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.5	Amps 20.0	Ohms 0.57	80'	

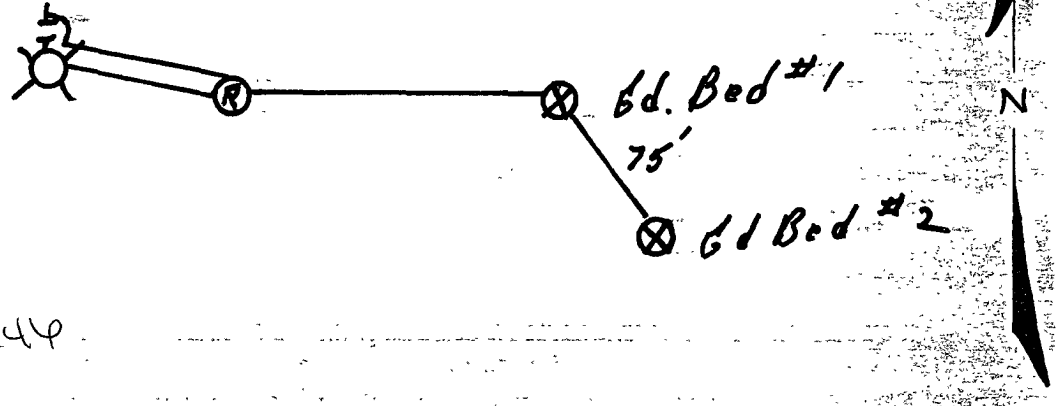
Remarks: Driller said water @ 100'. water standing @ 140 After 16 hrs. Vent Hose Perforated 325' Pumped one load of water To 200' Complet By slurry

$3409.00
32.40 Cable
3,441.40
-130.00 Depth Credit
$3,311.40
132.46 4%
$3,443.86 Total

All Construction Completed...

Edward R. Pauley
(Signature)

GROUND BED LAYOUT SKETCH



6244

STORM WATER WELL DRILLING INC.

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
WATER WELL DRILLING

CONTRACTORS
14991 W. 44TH AVENUE
GOLDEN, COLORADO 80401
PHONE (303) 278-9505

GENERAL OFFICE
14991 W. 44TH AVENUE
BAILEY OFFICE
CALL 1-838-4821

Drill GD 15 Date 7-19-74

Owner C.P.S 440 W

Location
City FARMINGTON State N.M County

From	To	Formation	Color	Hardness
0	30	SURFACE	BR.	SOFT
30	45	SHALE	BL.	Hard
45	195	SANDSTONE	BR.	Hard
195	460	Shale & clay WITH Sand STREAKS	BL	Hard
		Injection At 100		
		Water at 140		

Total Hours
Equipment Down Time
Hours Drilling
Driller Art Halwell
Helper
Helper

C.P.S. Time
S.W.W.D.I. Time
Total Footage

Approval of
C.P.S. Engineer

EL PASO NATURAL GAS COMPANY
ENGINEERING DEPARTMENT

Date:
By:

75

(8300) 440W X = 5.6

150	.7		30	1.6	Driller said water @100'				
	.7			1.8	water standing @ 140'				
60	.7		40	1.9	After 16 hrs				
	.5			1.6	Vent Hose Perforated 3'				
70	.6	(7)	50	2.26					
	.6			2.5					
80	.6	(6)	60	2.3			water	coke	
	.4			2.3	1	410	3.6	4.6	
90	.4	(5)	70	2.4	2	400	3.6	5.0	
	.5			2.3	3	390	3.7	5.5	
200	.6	(4)	80	2.2	4	380	3.6	5.5	
	1.4			2.3	5	370	3.9	6.0	
10	1.7	(3)	90	2.2	6	360	3.4	4.4	
(19)	2.0			2.4	7	350	4.2	6.0	
20	2.4	(2)	400	2.3	8	260	3.2	4.9	
(9)	2.1			2.3	9	225	3.2	4.8	
30	1.9	(1)	10	2.3	10	215	3.2	5.5	
	1.8			2.2					
40	1.7		20	2.0		11.5V	20.0A	0.57Ω	
	1.7			1.8					
50	1.8		30	1.7					
	1.9			1.7					
(8) 60	2.1		40	1.6					
	1.7		442	Bottom					
70	1.5		50						
	1.3								
80	1.1								
	1.2								
90	1.1								
	1.3								
300	1.2								
	.8								
10	1.4								
	1.5								
20	1.5								
	1.5								

MW		gals/mol
16	C_1	6.4
30	C_2	9.56
44	C_3	10.42
58	IC_4	12.38
"	NC_4	11.93
72	IC_5	13.85
"	NC_5	13.71
86	IC_6	15.50
"	C_6	15.57
100	IC_7	17.2
"	C_7	17.46
114	C_8	19.38
28	$C_2^=$	9.64
42	$C_3^=$	9.67

MISC

MW		gals/mol
44	CO_2	6.38
34	H_2S	5.17
28	N_2	4.16
2	H_2	3.38

30-045-10601

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NE Sec. 22 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC #5

cps 422w

Elevation 6299' Completion Date 5/19/72 Total Depth 500' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 240' SAMPLE TAKEN

Depths gas encountered: N/A

Type & amount of coke breeze used: 8400 lbs.

Depths anodes placed: 470', 460', 430', 420', 410', 340', 325', 315', 305', 290'

Depths vent pipes placed: N/A

Vent pipe perforations: 300'

Remarks: gb #2 VENT HOSE MAKING WATER. HOLE MAKING GAS.

RECEIVED
MAY 31 1991
OIL CON. DIV
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

30-045-10601

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NE Sec 22 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC #5

cps 422w

Elevation 6299' Completion Date 7/11/63 Total Depth 180' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N/A

Depths gas encountered: N/A

Type & amount of coke breeze used: 1300 lbs.

Depths anodes placed: 155', 149', 143', 137', 131'

Depths vent pipes placed: N/A

Vent pipe perforations: N/A

Remarks: gb #1

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

1021

30-045-22428

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SE Sec 22 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC #5A

cps 1197w

Elevation 6314' Completion Date 5/18/78 Total Depth 390' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 72' - 112' & 116' - 138'

SAMPLE TAKEN

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 370', 360', 350', 340', 330', 320', 300', 290', 280', 270'

Depths vent pipes placed: 380'

Vent pipe perforations: 320'

Remarks: gb #1

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

El Paso Natural Gas Company
Form 7-238 (Rev. 11-71)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach Hereto). ☐

Completion Date 5-18-78

Well Name	Location	CPS No.
Atlantic #5A	SE 22-31-10	1197w
Type & Size Bit Used: 6 3/4"		Work Order No.: 57215-21

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
390 – 380				

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	370	360	350	340	330	320	300	290	280	270
Anode Output (Amps)	4.0	4.1	4.1	3.7	3.1	3.0	1.6	1.8	2.0	2.5
Anode Depth	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Output (Amps)	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 12.0	Amps 14.8	Ohms 0.81		

Remarks: Static 600' E = 0.82. Drilled to 70' Blew water. Drilled to 225 waited 20 min blew water. Water zones @ 72' to 112'. 116' to 138'. All water zones making 7 GALS per min. Perforated 320' of 1" PVC vent pipe Installed 380' of 1" PVC vent pipe

HOV 16A Rectifier Ditch & Cable 310

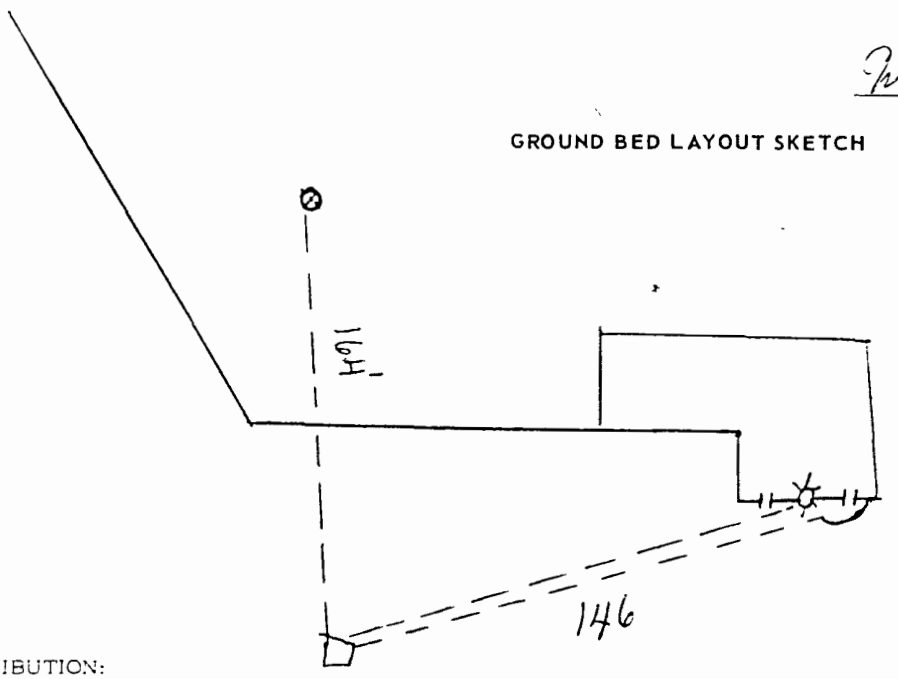
Stub Pole Extra Cable = 146

Hole Depth = – 120

All Construction Completed

W F Foutz
(Signature)

GROUND BED LAYOUT SKETCH



DISTRIBUTION:
WHITE – Division Corrosion Office
YELLOW – Area Corrosion Office
PINK – Originator File

le314

Form 6-22 (Revised 1-68)

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE 1197W' WELL NO. 1197W' CONTRACTOR E Briant RIG NO. 1 REPORT NO. 12 DATE May 18 1978

MORNING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.
BIT NO. NO. DC SIZE LENG.
SERIAL NO. STANDS
SIZE SINGLES
TYPE DOWN ON KELLY
MAKE TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
0	16	Sandstone
16	22	Shale
22	40	Sandstone
40	42	Shale
42	67	Sand water 39gpm
67	72	Shale

REMARKS –

DAYLIGHT

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.
BIT NO. NO. DC SIZE LENG.
SERIAL NO. STANDS
SIZE SINGLES
TYPE DOWN ON KELLY
MAKE TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
72	112	Sandstone damp 2
112	116	Shale
116	138	Sandstone damp 2
138	165	Shale
165	205	Sandstone
205	225	Shale

REMARKS –

6 3/4 hole to 370
Logged to 380
Total water seepage estimate 7gpm

EVENING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.
BIT NO. NO. DC SIZE LENG.
SERIAL NO. STANDS
SIZE SINGLES
TYPE DOWN ON KELLY
MAKE TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
225	240	Sandstone
240	265	Sandy shale
265	274	Shale
274	315	Sandstone
315	325	Shale
325	340	Sandstone

REMARKS –

340 – 370 Shale w/sandstone stks

SIGNED: Toolpusher Tom O'Briant Company Supervisor

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet: ___ of ___
Date
By
File.

340
305
700

Atlantic #5A SE22-31-10 1197 W 57215-21

Static 600' E = 0.82

HOV 16A Rectifier
Stub Pole

Ditch & 1 cable = 310
Extra cable = 146
Hole Depth = 120

Drilled to 70'. Blew water. Drilled to 225 waited 20 min blew water.
Gnd Bed making. Gals Per min
Perforated 320' of 1" PVC vent Pipe
Installed 380' of 1" PVC vent Pipe

MW		gals/mol
16.04	C_1	6.4
30.07	C_2	10.12
44.10	C_3	10.42
58.12	iC_4	12.38
58.12	nC_4	11.93
72.15	iC_5	13.85
72.15	nC_5	13.71
86.18	iC_6	15.50
86.18	C_6	15.57
100.21	iC_7	17.2
100.21	C_7	17.46
114.23	C_8	19.39
28.05	$C_2^=$	9.64
42.08	$C_3^=$	9.67

Depth	Amps	Depth	Amps
130		290	1.5 ⑧
			1.1
40	.7	300	1.5 ⑨
	.9		1.0
50	1.0	10	.5
	1.0		.5
60	1.0	20	1.7 = ⑥
	.9		2.0
70	.8	30	2.0 – ⑤
	.5		2.0
80	.4	40	1.9 = ④
	.4		2.6
90	.4	50	2.7 – ③
	.3		2.8
200	.4	60	2.8 – ②
	.3		2.8
10	.4	70	2.8 – ①
	.9		2.6
20	1.0	80	2.6 TD.
	1.0		
30	.7	90	
	.5		
40	.5		
	.6		
50	.7		
	.7		
60	.6		
	.8		
70	1.5 = ⑩		
	1.3		
80	1.2 ⑨		
	1.1		

No.	Depth		
①	370	2.8	4.0
②	360	2.8	4.1
③	350	2.9	4.1
④	340	2.6	3.7
⑤	330	2.1	3.1
⑥	320	2.1	3.0
⑦	300	1.0	1.6
⑧	290	1.1	1.8
⑨	280	1.1	2.0
⑩	270	1.5	2.5

Volts 12.0
Amps 14.8
Ohms 0.81

MW	MISC.	gals/mol
32.00	O_2	3.37
28.01	CO	4.19
44.01	CO_2	6.38
64.06	SO_2	5.50
34.08	H_2S	5.17
28.01	N_2	4.16
2.02	H_2	3.38

El Paso Natural Gas Company
San Juan Division
Farmington, New Mexico
Production Department Water Analysis

Analysis No. 1-9173 Date 5-31-78

Operator EPNG Well Name Atlantic #5A

Location SE 22-31-10 County San Juan State NM

Field ______ Formation ______

Sampled From CPS 1197 W

Date Sampled ______ by ______

Tubing Pressure ______ Casing Pressure ______ Surface casing pressure ______

	ppm	epm		ppm	epm
Sodium	80.5	3.5	Chloride	18	0.5
Calcium	496	25	Bicarbonate	73	1
Magnesium	34	3	Sulfate	1450	30
Iron	Present		Carbonate	0	0
H_2S	Absent		Hydroxide	0	0

Total Dissolved Solids 2494

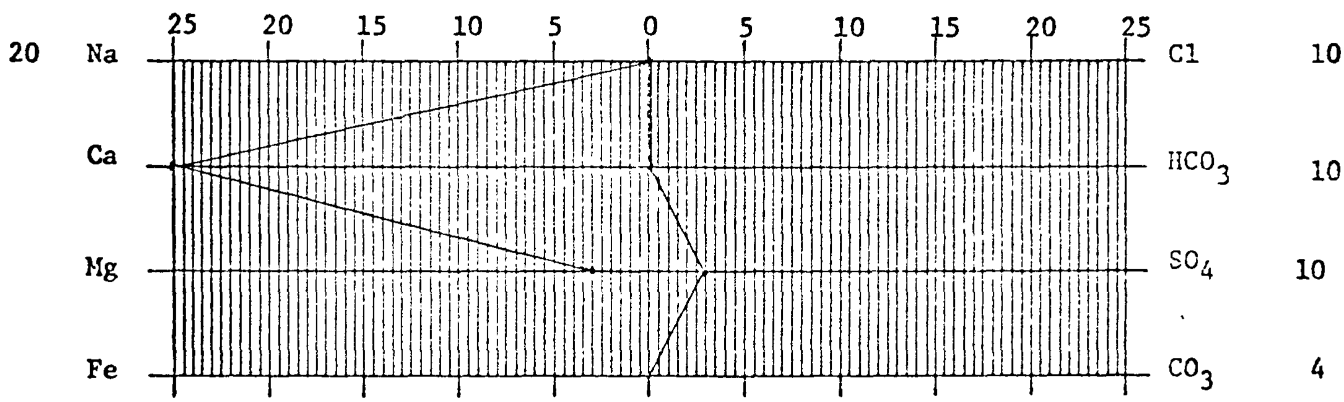
ph 7.7

Sp. Gr. 1.0032 at 60°F

Resistivity 380 ohm-cm at 74 °F

cc: D. C. Adams W. B. Shropshire
A. M. Smith
R. A. Ullrich
W. D. Dawson
E. R. Paulek
J. W. McCarthy
File

Cheryl Tamilliger FLS
Chemist



Scale: epm

#9 30-045-22799

#205 30-045-27059

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC. Location: Unit A Sec. 22 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC #9, #205

cps 2076w

Elevation 6311' Completion Date 1/17/89 Total Depth 460' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 160' NO SAMPLE

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 425', 365', 355', 345', 335', 325', 315', 305', 295', 285'

Depths vent pipes placed: 455'

Vent pipe perforations: 320'

Remarks: gb #1

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

ENSOLUM

APPENDIX C

Executed C-138 Solid Waste Acceptance Form

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised 08/01/11

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401

PayKey:RB21200
PM: Gary Turner
AFE: Pending

2. Originating Site:
Brookhaven A#2A PC

3. Location of Material (Street Address, City, State or ULSTR):
UL J Section 16 T31N R10W 36.895460, -107.884890

4. Source and Description of Waste:
Source: Remediation activities associated with a natural gas pipeline leak.
Description: Hydrocarbon/Condensate impacted soil associated natural gas pipeline release.
Estimated Volume 50 yd^3 / bbls Known Volume (to be entered by the operator at the end of the haul) 1268/35 yd^3 / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long, representative or authorized agent for Enterprise Products Operating do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. ***Operator Use Only: Waste Acceptance Frequency*** ☐ ***Monthly*** ☐ ***Weekly*** ☐ ***Per Load***

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long 11-12-2024, representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Greg Crabtree, representative for Envirotech, Inc. do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. Transporter: Riley Industrial and Enterprise Subcontractors

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech Inc. Soil Remediation Facility * Permit #: NM 01-0011**
Address of Facility: **Hilltop, NM**
Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☑ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Greg Crabtree TITLE: Enviro Manager DATE: 11/12/24
SIGNATURE: TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

ENSOLUM

APPENDIX D

Photographic Documentation

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Brookhaven A #2A PC (11/19/24)
Ensolum Project No. 05A1226353

ENSOLUM

Photograph 1 Photograph Description: View of the in-process excavation activities.	
Photograph 2 Photograph Description: View of the in-process excavation activities.	
Photograph 3 Photograph Description: View of final excavation.	

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Brookhaven A #2A PC (11/19/24)
Ensolum Project No. 05A1226353

ENSOLUM

Photograph 4 Photograph Description: View of the excavation final restoration.	
Photograph 5 Photograph Description: View of the excavation final restoration.	

ENSOLUM

APPENDIX E

Regulatory Correspondence

From: OCDOnline@state.nm.us
To: Long, Thomas
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has accepted the application, Application ID: 430853
Date: Tuesday, February 11, 2025 1:46:39 PM

[Use caution with links/attachments]

To whom it may concern (c/o Thomas Long for Enterprise Field Services, LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2432426402.

The sampling event is expected to take place:

When: 12/06/2024 @ 12:00
Where: J-16-31N-10W 0 FNL 0 FEL (36.89546,-107.88489)

Additional Information: Ensolum, LLC

Additional Instructions: 36.89546,-107.88489

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

From: OCDOnline@state.nm.us
To: Long, Thomas
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has accepted the application, Application ID: 419746
Date: Monday, January 13, 2025 7:21:07 AM

[Use caution with links/attachments]

To whom it may concern (c/o Thomas Long for Enterprise Field Services, LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2432426402.

The sampling event is expected to take place:

When: 01/15/2025 @ 10:00
Where: J-16-31N-10W 0 FNL 0 FEL (36.89546,-107.88489)

Additional Information: Ensolum, LLC

Additional Instructions: This is a backfill sampling event.

36.89546,-107.88489

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Tuesday, February 18, 2025 9:05 AM
To: Long, Thomas <tjlong@eprod.com>
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has accepted the application, Application ID: 432961

[Use caution with links/attachments]

To whom it may concern (c/o Thomas Long for Enterprise Field Services, LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2432426402.

The sampling event is expected to take place:

When: 02/20/2025 @ 12:00
Where: J-16-31N-10W 0 FNL 0 FEL (36.89546,-107.88489)

Additional Information: Ensolum, LLC

Additional Instructions: 36.89546,-107.88489

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

ENSOLUM

APPENDIX F

Table 1 – Soil Analytical Summary

ENSOLUM

TABLE 1
Brookhaven A #2A PC (11/19/24)
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	Benzene (mg/kg)	Ethylbenzene (mg/kg)	Toluene (mg/kg)	Xylenes (mg/kg)	Total BTEX[1] (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (GRO/DRO/MRO)[1] (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria (Tier I)				**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100**	**600**
Excavation Composite Soil Samples													
S-1	12.06.24	C	20 to 24	<0.019	<0.038	<0.038	<0.077	ND	<3.8	<9.6	<48	ND	<60
S-2	12.06.24	C	20 to 24	<0.019	<0.037	<0.037	<0.075	ND	<3.7	<9.9	<50	ND	<60
S-3	12.06.24	C	14 to 24	<0.017	0.11	<0.035	0.46	0.57	37	<9.6	<48	37	<60
S-4	12.06.24	C	7 to 14	<0.017	<0.034	<0.034	<0.068	ND	<3.4	<10	<50	ND	<60
S-5	12.06.24	C	7 to 14	<0.016	<0.033	<0.033	<0.065	ND	<3.3	<9.4	<47	ND	<60
S-6	12.06.24	C	0 to 20	<0.017	<0.035	<0.035	<0.070	ND	<3.5	<9.8	<49	ND	<60
S-7	12.06.24	C	0 to 20	<0.017	<0.034	<0.034	<0.069	ND	<3.4	11	49	60	<60
S-8	12.06.24	C	0 to 20	<0.019	<0.038	<0.038	<0.076	ND	<3.8	<9.5	<47	ND	<60
S-9	12.06.24	C	0 to 24	<0.022	<0.045	<0.045	<0.090	ND	<4.5	<9.5	<48	ND	<60
S-10	12.06.24	C	0 to 24	<0.016	<0.033	<0.033	<0.066	ND	<3.3	<9.7	<49	ND	<60
S-11	12.06.24	C	0 to 24	<0.017	<0.033	0.036	0.067	0.10	<3.3	<9.6	<48	ND	<60
S-12	12.06.24	C	7 to 24	<0.019	<0.037	<0.037	<0.074	ND	<3.7	<9.3	<47	ND	<60
S-13	12.06.24	C	7 to 24	<0.020	<0.040	<0.040	<0.079	ND	<4.0	<9.9	<50	ND	<60
S-14	02.20.25	C	0 to 7	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.8	<49	ND	<60
S-15	02.20.25	C	0 to 7	<0.024	<0.049	<0.049	<0.097	ND	<4.9	<9.6	<48	ND	<60
S-16	02.20.25	C	0 to 7	<0.024	<0.047	<0.047	<0.094	ND	<4.7	<9.3	<46	ND	<60
Backfill Composite Soil Sample													
BF-1	01.15.25	C	BF	<0.023	<0.047	<0.047	<0.093	ND	<4.7	9.7	<46	9.7	<60

*Note: Concentrations in **bold** and yellow exceed the applicable NM EMNRD Closure Criteria*

[1] = Total combined concentrations are rounded to two (2) significant figures to match the laboratory resolution of the individual constituents.

ND = Not Detected above the Practical Quantitation Limits (PQLs) or Reporting Limits (RLs)

NE = Not established

mg/kg = milligrams per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

TPH = Total Petroleum Hydrocarbons

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

BF = Backfilled sample

ENSOLUM

APPENDIX G

Laboratory Data Sheets & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Summers
Ensolum
606 S Rio Grande
Suite A
Aztec, New Mexico 87410

Generated 2/11/2025 2:21:26 PM Revision 1

JOB DESCRIPTION

Brookhaven A #2A PC

JOB NUMBER

885-16521-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

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Revision 1

Authorized for release by
Catherine Upton, Project Manager
Catherine.upton@et.eurofinsus.com
Designee for
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Laboratory Job ID: 885-16521-1

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 885-16521-1
Project/Site: Brookhaven A #2A PC

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project: Brookhaven A #2A PC

Job ID: 885-16521-1

Job ID: 885-16521-1 Eurofins Albuquerque

Job Narrative
885-16521-1

REVISION

The report being provided is a revision of the original report sent on 12/16/2024. The report (revision 1) is being revised due to a change in the Project Name on the COC..

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 12/7/2024 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.0°C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The Project Name should be Brookhaven A #2A PC.

Gasoline Range Organics
Method 8015D_GRO: Surrogate recovery for the following sample was outside control limits: S-3 (885-16521-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-1
Date Collected: 12/06/24 12:00
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-1
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.8		mg/Kg		12/09/24 09:05	12/09/24 11:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*12/09/24 09:05*	*12/09/24 11:54*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.019		mg/Kg		12/09/24 09:05	12/09/24 11:54	1
Ethylbenzene	ND		0.038		mg/Kg		12/09/24 09:05	12/09/24 11:54	1
Toluene	ND		0.038		mg/Kg		12/09/24 09:05	12/09/24 11:54	1
Xylenes, Total	ND		0.077		mg/Kg		12/09/24 09:05	12/09/24 11:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*12/09/24 09:05*	*12/09/24 11:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		12/09/24 09:08	12/09/24 10:33	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		12/09/24 09:08	12/09/24 10:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*12/09/24 09:08*	*12/09/24 10:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 10:46	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-2
Date Collected: 12/06/24 12:05
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-2
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.7		mg/Kg		12/09/24 09:05	12/09/24 12:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*12/09/24 09:05*	*12/09/24 12:16*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.019		mg/Kg		12/09/24 09:05	12/09/24 12:16	1
Ethylbenzene	ND		0.037		mg/Kg		12/09/24 09:05	12/09/24 12:16	1
Toluene	ND		0.037		mg/Kg		12/09/24 09:05	12/09/24 12:16	1
Xylenes, Total	ND		0.075		mg/Kg		12/09/24 09:05	12/09/24 12:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*48 - 145*	*12/09/24 09:05*	*12/09/24 12:16*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		12/09/24 09:08	12/09/24 10:44	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		12/09/24 09:08	12/09/24 10:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*12/09/24 09:08*	*12/09/24 10:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 10:56	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-3
Date Collected: 12/06/24 12:10
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-3
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	**37**		3.5		mg/Kg		12/09/24 09:05	12/09/24 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*198*	*S1+*	*35 - 166*	*12/09/24 09:05*	*12/09/24 12:38*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.017		mg/Kg		12/09/24 09:05	12/09/24 12:38	1
Ethylbenzene	**0.11**		0.035		mg/Kg		12/09/24 09:05	12/09/24 12:38	1
Toluene	ND		0.035		mg/Kg		12/09/24 09:05	12/09/24 12:38	1
Xylenes, Total	**0.46**		0.069		mg/Kg		12/09/24 09:05	12/09/24 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*48 - 145*	*12/09/24 09:05*	*12/09/24 12:38*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		12/09/24 09:08	12/09/24 10:54	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		12/09/24 09:08	12/09/24 10:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*12/09/24 09:08*	*12/09/24 10:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 11:06	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-4
Date Collected: 12/06/24 12:15
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-4
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.4		mg/Kg		12/09/24 09:05	12/09/24 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*12/09/24 09:05*	*12/09/24 13:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.017		mg/Kg		12/09/24 09:05	12/09/24 13:00	1
Ethylbenzene	ND		0.034		mg/Kg		12/09/24 09:05	12/09/24 13:00	1
Toluene	ND		0.034		mg/Kg		12/09/24 09:05	12/09/24 13:00	1
Xylenes, Total	ND		0.068		mg/Kg		12/09/24 09:05	12/09/24 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*	*12/09/24 09:05*	*12/09/24 13:00*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		12/09/24 09:08	12/09/24 11:05	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		12/09/24 09:08	12/09/24 11:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*12/09/24 09:08*	*12/09/24 11:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 11:17	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-5
Date Collected: 12/06/24 12:20
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-5
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.3		mg/Kg		12/09/24 09:05	12/09/24 13:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*35 - 166*	*12/09/24 09:05*	*12/09/24 13:21*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.016		mg/Kg		12/09/24 09:05	12/09/24 13:21	1
Ethylbenzene	ND		0.033		mg/Kg		12/09/24 09:05	12/09/24 13:21	1
Toluene	ND		0.033		mg/Kg		12/09/24 09:05	12/09/24 13:21	1
Xylenes, Total	ND		0.065		mg/Kg		12/09/24 09:05	12/09/24 13:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*12/09/24 09:05*	*12/09/24 13:21*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		12/09/24 09:08	12/09/24 11:16	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		12/09/24 09:08	12/09/24 11:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*12/09/24 09:08*	*12/09/24 11:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 11:27	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-6
Date Collected: 12/06/24 12:25
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-6
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.5		mg/Kg		12/09/24 09:05	12/09/24 13:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*12/09/24 09:05*	*12/09/24 13:43*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.017		mg/Kg		12/09/24 09:05	12/09/24 13:43	1
Ethylbenzene	ND		0.035		mg/Kg		12/09/24 09:05	12/09/24 13:43	1
Toluene	ND		0.035		mg/Kg		12/09/24 09:05	12/09/24 13:43	1
Xylenes, Total	ND		0.070		mg/Kg		12/09/24 09:05	12/09/24 13:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*48 - 145*	*12/09/24 09:05*	*12/09/24 13:43*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		12/09/24 09:08	12/09/24 11:26	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		12/09/24 09:08	12/09/24 11:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*	*12/09/24 09:08*	*12/09/24 11:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 11:37	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-7
Date Collected: 12/06/24 12:30
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-7
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.4		mg/Kg		12/09/24 09:05	12/09/24 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*35 - 166*	*12/09/24 09:05*	*12/09/24 14:05*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.017		mg/Kg		12/09/24 09:05	12/09/24 14:05	1
Ethylbenzene	ND		0.034		mg/Kg		12/09/24 09:05	12/09/24 14:05	1
Toluene	ND		0.034		mg/Kg		12/09/24 09:05	12/09/24 14:05	1
Xylenes, Total	ND		0.069		mg/Kg		12/09/24 09:05	12/09/24 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*	*12/09/24 09:05*	*12/09/24 14:05*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**11**		9.1		mg/Kg		12/09/24 09:08	12/09/24 10:12	1
Motor Oil Range Organics [C28-C40]	**49**		46		mg/Kg		12/09/24 09:08	12/09/24 10:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*12/09/24 09:08*	*12/09/24 10:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 11:48	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-8
Date Collected: 12/06/24 12:35
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-8
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.8		mg/Kg		12/09/24 13:41	12/09/24 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*35 - 166*	*12/09/24 13:41*	*12/09/24 14:27*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.019		mg/Kg		12/09/24 13:41	12/09/24 14:27	1
Ethylbenzene	ND		0.038		mg/Kg		12/09/24 13:41	12/09/24 14:27	1
Toluene	ND		0.038		mg/Kg		12/09/24 13:41	12/09/24 14:27	1
Xylenes, Total	ND		0.076		mg/Kg		12/09/24 13:41	12/09/24 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*48 - 145*	*12/09/24 13:41*	*12/09/24 14:27*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		12/09/24 09:08	12/09/24 10:24	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		12/09/24 09:08	12/09/24 10:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*12/09/24 09:08*	*12/09/24 10:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 11:58	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-9
Date Collected: 12/06/24 12:40
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-9
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.5		mg/Kg		12/09/24 13:41	12/09/24 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*35 - 166*	*12/09/24 13:41*	*12/09/24 14:48*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.022		mg/Kg		12/09/24 13:41	12/09/24 14:48	1
Ethylbenzene	ND		0.045		mg/Kg		12/09/24 13:41	12/09/24 14:48	1
Toluene	ND		0.045		mg/Kg		12/09/24 13:41	12/09/24 14:48	1
Xylenes, Total	ND		0.090		mg/Kg		12/09/24 13:41	12/09/24 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*	*12/09/24 13:41*	*12/09/24 14:48*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		12/09/24 09:08	12/09/24 10:35	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		12/09/24 09:08	12/09/24 10:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*12/09/24 09:08*	*12/09/24 10:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 12:09	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-10
Date Collected: 12/06/24 12:45
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-10
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.3		mg/Kg		12/09/24 13:41	12/09/24 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*35 - 166*	*12/09/24 13:41*	*12/09/24 15:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.016		mg/Kg		12/09/24 13:41	12/09/24 15:10	1
Ethylbenzene	ND		0.033		mg/Kg		12/09/24 13:41	12/09/24 15:10	1
Toluene	ND		0.033		mg/Kg		12/09/24 13:41	12/09/24 15:10	1
Xylenes, Total	ND		0.066		mg/Kg		12/09/24 13:41	12/09/24 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*48 - 145*	*12/09/24 13:41*	*12/09/24 15:10*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		12/09/24 09:08	12/09/24 10:48	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		12/09/24 09:08	12/09/24 10:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*	*12/09/24 09:08*	*12/09/24 10:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 12:19	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-11
Date Collected: 12/06/24 12:50
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-11
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.3		mg/Kg		12/09/24 13:41	12/09/24 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*12/09/24 13:41*	*12/09/24 15:54*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.017		mg/Kg		12/09/24 13:41	12/09/24 15:54	1
Ethylbenzene	ND		0.033		mg/Kg		12/09/24 13:41	12/09/24 15:54	1
Toluene	**0.036**		0.033		mg/Kg		12/09/24 13:41	12/09/24 15:54	1
Xylenes, Total	**0.067**		0.066		mg/Kg		12/09/24 13:41	12/09/24 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*12/09/24 13:41*	*12/09/24 15:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		12/09/24 09:08	12/09/24 11:00	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		12/09/24 09:08	12/09/24 11:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*12/09/24 09:08*	*12/09/24 11:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 12:50	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-12
Date Collected: 12/06/24 12:55
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-12
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.7		mg/Kg		12/09/24 13:41	12/09/24 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*35 - 166*	*12/09/24 13:41*	*12/09/24 16:16*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.019		mg/Kg		12/09/24 13:41	12/09/24 16:16	1
Ethylbenzene	ND		0.037		mg/Kg		12/09/24 13:41	12/09/24 16:16	1
Toluene	ND		0.037		mg/Kg		12/09/24 13:41	12/09/24 16:16	1
Xylenes, Total	ND		0.074		mg/Kg		12/09/24 13:41	12/09/24 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*	*12/09/24 13:41*	*12/09/24 16:16*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		12/09/24 09:08	12/09/24 11:12	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		12/09/24 09:08	12/09/24 11:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*12/09/24 09:08*	*12/09/24 11:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 13:00	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Client Sample ID: S-13
Date Collected: 12/06/24 13:00
Date Received: 12/07/24 16:15

Lab Sample ID: 885-16521-13
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.0		mg/Kg		12/09/24 13:41	12/09/24 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*35 - 166*	*12/09/24 13:41*	*12/09/24 16:38*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020		mg/Kg		12/09/24 13:41	12/09/24 16:38	1
Ethylbenzene	ND		0.040		mg/Kg		12/09/24 13:41	12/09/24 16:38	1
Toluene	ND		0.040		mg/Kg		12/09/24 13:41	12/09/24 16:38	1
Xylenes, Total	ND		0.079		mg/Kg		12/09/24 13:41	12/09/24 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*48 - 145*	*12/09/24 13:41*	*12/09/24 16:38*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		12/09/24 09:08	12/09/24 11:24	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		12/09/24 09:08	12/09/24 11:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*84*		*62 - 134*	*12/09/24 09:08*	*12/09/24 11:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		12/09/24 07:43	12/09/24 13:11	20

QC Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-17271/1-A
Matrix: Solid
Analysis Batch: 17275

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17271

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		12/09/24 09:05	12/09/24 11:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*12/09/24 09:05*	*12/09/24 11:32*	*1*

Lab Sample ID: LCS 885-17271/2-A
Matrix: Solid
Analysis Batch: 17275

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17271

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	22.0		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*197*		*35 - 166*

Lab Sample ID: 885-16521-1 MS
Matrix: Solid
Analysis Batch: 17275

Client Sample ID: S-1
Prep Type: Total/NA
Prep Batch: 17271

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		19.2	17.5		mg/Kg		91	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*192*		*35 - 166*

Lab Sample ID: 885-16521-1 MSD
Matrix: Solid
Analysis Batch: 17275

Client Sample ID: S-1
Prep Type: Total/NA
Prep Batch: 17271

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		19.2	17.9		mg/Kg		94	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*187*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-17271/1-A
Matrix: Solid
Analysis Batch: 17276

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17271

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		12/09/24 09:05	12/09/24 11:32	1
Ethylbenzene	ND		0.050		mg/Kg		12/09/24 09:05	12/09/24 11:32	1
Toluene	ND		0.050		mg/Kg		12/09/24 09:05	12/09/24 11:32	1

QC Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-17271/1-A
Matrix: Solid
Analysis Batch: 17276

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17271

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		12/09/24 09:05	12/09/24 11:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*12/09/24 09:05*	*12/09/24 11:32*	*1*

Lab Sample ID: LCS 885-17271/3-A
Matrix: Solid
Analysis Batch: 17276

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17271

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.898		mg/Kg		90	70 - 130		
Ethylbenzene			1.00	0.936		mg/Kg		94	70 - 130		
Toluene			1.00	0.928		mg/Kg		93	70 - 130		
Xylenes, Total			3.00	2.82		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*

Lab Sample ID: 885-16521-2 MS
Matrix: Solid
Analysis Batch: 17276

Client Sample ID: S-2
Prep Type: Total/NA
Prep Batch: 17271

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.749	0.681		mg/Kg		91	70 - 130		
Ethylbenzene	ND		0.749	0.714		mg/Kg		95	70 - 130		
Toluene	ND		0.749	0.698		mg/Kg		93	70 - 130		
Xylenes, Total	ND		2.25	2.14		mg/Kg		94	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*48 - 145*

Lab Sample ID: 885-16521-2 MSD
Matrix: Solid
Analysis Batch: 17276

Client Sample ID: S-2
Prep Type: Total/NA
Prep Batch: 17271

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.749	0.663		mg/Kg		88	70 - 130	3	20
Ethylbenzene	ND		0.749	0.702		mg/Kg		94	70 - 130	2	20
Toluene	ND		0.749	0.685		mg/Kg		91	70 - 130	2	20
Xylenes, Total	ND		2.25	2.08		mg/Kg		92	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*

QC Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-17272/1-A
Matrix: Solid
Analysis Batch: 17280

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17272

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		12/09/24 09:07	12/09/24 10:12	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		12/09/24 09:07	12/09/24 10:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*12/09/24 09:07*	*12/09/24 10:12*	*1*

Lab Sample ID: LCS 885-17272/2-A
Matrix: Solid
Analysis Batch: 17280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17272

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	35.7		mg/Kg		71	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*

Lab Sample ID: 885-16521-13 MS
Matrix: Solid
Analysis Batch: 17281

Client Sample ID: S-13
Prep Type: Total/NA
Prep Batch: 17272

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		49.6	50.2		mg/Kg		101	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*82*		*62 - 134*

Lab Sample ID: 885-16521-13 MSD
Matrix: Solid
Analysis Batch: 17281

Client Sample ID: S-13
Prep Type: Total/NA
Prep Batch: 17272

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		46.9	44.5		mg/Kg		95	44 - 136	12	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*82*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-17257/1-A
Matrix: Solid
Analysis Batch: 17260

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17257

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		12/09/24 07:43	12/09/24 08:42	1

QC Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-17257/2-A
Matrix: Solid
Analysis Batch: 17260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17257

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	30.2		mg/Kg		101	90 - 110		

QC Association Summary

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

GC VOA

Prep Batch: 17271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16521-1	S-1	Total/NA	Solid	5035	
885-16521-2	S-2	Total/NA	Solid	5035	
885-16521-3	S-3	Total/NA	Solid	5035	
885-16521-4	S-4	Total/NA	Solid	5035	
885-16521-5	S-5	Total/NA	Solid	5035	
885-16521-6	S-6	Total/NA	Solid	5035	
885-16521-7	S-7	Total/NA	Solid	5035	
885-16521-8	S-8	Total/NA	Solid	5035	
885-16521-9	S-9	Total/NA	Solid	5035	
885-16521-10	S-10	Total/NA	Solid	5035	
885-16521-11	S-11	Total/NA	Solid	5035	
885-16521-12	S-12	Total/NA	Solid	5035	
885-16521-13	S-13	Total/NA	Solid	5035	
MB 885-17271/1-A	Method Blank	Total/NA	Solid	5035	
LCS 885-17271/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 885-17271/3-A	Lab Control Sample	Total/NA	Solid	5035	
885-16521-1 MS	S-1	Total/NA	Solid	5035	
885-16521-1 MSD	S-1	Total/NA	Solid	5035	
885-16521-2 MS	S-2	Total/NA	Solid	5035	
885-16521-2 MSD	S-2	Total/NA	Solid	5035	

Analysis Batch: 17275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16521-1	S-1	Total/NA	Solid	8015M/D	17271
885-16521-2	S-2	Total/NA	Solid	8015M/D	17271
885-16521-3	S-3	Total/NA	Solid	8015M/D	17271
885-16521-4	S-4	Total/NA	Solid	8015M/D	17271
885-16521-5	S-5	Total/NA	Solid	8015M/D	17271
885-16521-6	S-6	Total/NA	Solid	8015M/D	17271
885-16521-7	S-7	Total/NA	Solid	8015M/D	17271
885-16521-8	S-8	Total/NA	Solid	8015M/D	17271
885-16521-9	S-9	Total/NA	Solid	8015M/D	17271
885-16521-10	S-10	Total/NA	Solid	8015M/D	17271
885-16521-11	S-11	Total/NA	Solid	8015M/D	17271
885-16521-12	S-12	Total/NA	Solid	8015M/D	17271
885-16521-13	S-13	Total/NA	Solid	8015M/D	17271
MB 885-17271/1-A	Method Blank	Total/NA	Solid	8015M/D	17271
LCS 885-17271/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	17271
885-16521-1 MS	S-1	Total/NA	Solid	8015M/D	17271
885-16521-1 MSD	S-1	Total/NA	Solid	8015M/D	17271

Analysis Batch: 17276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16521-1	S-1	Total/NA	Solid	8021B	17271
885-16521-2	S-2	Total/NA	Solid	8021B	17271
885-16521-3	S-3	Total/NA	Solid	8021B	17271
885-16521-4	S-4	Total/NA	Solid	8021B	17271
885-16521-5	S-5	Total/NA	Solid	8021B	17271
885-16521-6	S-6	Total/NA	Solid	8021B	17271
885-16521-7	S-7	Total/NA	Solid	8021B	17271
885-16521-8	S-8	Total/NA	Solid	8021B	17271

QC Association Summary

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

GC VOA (Continued)

Analysis Batch: 17276 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16521-9	S-9	Total/NA	Solid	8021B	17271
885-16521-10	S-10	Total/NA	Solid	8021B	17271
885-16521-11	S-11	Total/NA	Solid	8021B	17271
885-16521-12	S-12	Total/NA	Solid	8021B	17271
885-16521-13	S-13	Total/NA	Solid	8021B	17271
MB 885-17271/1-A	Method Blank	Total/NA	Solid	8021B	17271
LCS 885-17271/3-A	Lab Control Sample	Total/NA	Solid	8021B	17271
885-16521-2 MS	S-2	Total/NA	Solid	8021B	17271
885-16521-2 MSD	S-2	Total/NA	Solid	8021B	17271

GC Semi VOA

Prep Batch: 17272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16521-1	S-1	Total/NA	Solid	SHAKE	
885-16521-2	S-2	Total/NA	Solid	SHAKE	
885-16521-3	S-3	Total/NA	Solid	SHAKE	
885-16521-4	S-4	Total/NA	Solid	SHAKE	
885-16521-5	S-5	Total/NA	Solid	SHAKE	
885-16521-6	S-6	Total/NA	Solid	SHAKE	
885-16521-7	S-7	Total/NA	Solid	SHAKE	
885-16521-8	S-8	Total/NA	Solid	SHAKE	
885-16521-9	S-9	Total/NA	Solid	SHAKE	
885-16521-10	S-10	Total/NA	Solid	SHAKE	
885-16521-11	S-11	Total/NA	Solid	SHAKE	
885-16521-12	S-12	Total/NA	Solid	SHAKE	
885-16521-13	S-13	Total/NA	Solid	SHAKE	
MB 885-17272/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-17272/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-16521-13 MS	S-13	Total/NA	Solid	SHAKE	
885-16521-13 MSD	S-13	Total/NA	Solid	SHAKE	

Analysis Batch: 17280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16521-1	S-1	Total/NA	Solid	8015M/D	17272
885-16521-2	S-2	Total/NA	Solid	8015M/D	17272
885-16521-3	S-3	Total/NA	Solid	8015M/D	17272
885-16521-4	S-4	Total/NA	Solid	8015M/D	17272
885-16521-5	S-5	Total/NA	Solid	8015M/D	17272
885-16521-6	S-6	Total/NA	Solid	8015M/D	17272
MB 885-17272/1-A	Method Blank	Total/NA	Solid	8015M/D	17272
LCS 885-17272/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	17272

Analysis Batch: 17281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16521-7	S-7	Total/NA	Solid	8015M/D	17272
885-16521-8	S-8	Total/NA	Solid	8015M/D	17272
885-16521-9	S-9	Total/NA	Solid	8015M/D	17272
885-16521-10	S-10	Total/NA	Solid	8015M/D	17272
885-16521-11	S-11	Total/NA	Solid	8015M/D	17272
885-16521-12	S-12	Total/NA	Solid	8015M/D	17272

QC Association Summary

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

GC Semi VOA (Continued)

Analysis Batch: 17281 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16521-13	S-13	Total/NA	Solid	8015M/D	17272
885-16521-13 MS	S-13	Total/NA	Solid	8015M/D	17272
885-16521-13 MSD	S-13	Total/NA	Solid	8015M/D	17272

HPLC/IC

Prep Batch: 17257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16521-1	S-1	Total/NA	Solid	300_Prep	
885-16521-2	S-2	Total/NA	Solid	300_Prep	
885-16521-3	S-3	Total/NA	Solid	300_Prep	
885-16521-4	S-4	Total/NA	Solid	300_Prep	
885-16521-5	S-5	Total/NA	Solid	300_Prep	
885-16521-6	S-6	Total/NA	Solid	300_Prep	
885-16521-7	S-7	Total/NA	Solid	300_Prep	
885-16521-8	S-8	Total/NA	Solid	300_Prep	
885-16521-9	S-9	Total/NA	Solid	300_Prep	
885-16521-10	S-10	Total/NA	Solid	300_Prep	
885-16521-11	S-11	Total/NA	Solid	300_Prep	
885-16521-12	S-12	Total/NA	Solid	300_Prep	
885-16521-13	S-13	Total/NA	Solid	300_Prep	
MB 885-17257/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-17257/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 17260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16521-1	S-1	Total/NA	Solid	300.0	17257
885-16521-2	S-2	Total/NA	Solid	300.0	17257
885-16521-3	S-3	Total/NA	Solid	300.0	17257
885-16521-4	S-4	Total/NA	Solid	300.0	17257
885-16521-5	S-5	Total/NA	Solid	300.0	17257
885-16521-6	S-6	Total/NA	Solid	300.0	17257
885-16521-7	S-7	Total/NA	Solid	300.0	17257
885-16521-8	S-8	Total/NA	Solid	300.0	17257
885-16521-9	S-9	Total/NA	Solid	300.0	17257
885-16521-10	S-10	Total/NA	Solid	300.0	17257
885-16521-11	S-11	Total/NA	Solid	300.0	17257
885-16521-12	S-12	Total/NA	Solid	300.0	17257
885-16521-13	S-13	Total/NA	Solid	300.0	17257
MB 885-17257/1-A	Method Blank	Total/NA	Solid	300.0	17257
LCS 885-17257/2-A	Lab Control Sample	Total/NA	Solid	300.0	17257

Lab Chronicle

Client: Ensolum
Job ID: 885-16521-1
Project/Site: Brookhaven A #2A PC

Client Sample ID: S-1
Lab Sample ID: 885-16521-1
Date Collected: 12/06/24 12:00
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 11:54
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 11:54
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17280	MI	EET ALB	12/09/24 10:33
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 10:46

Client Sample ID: S-2
Lab Sample ID: 885-16521-2
Date Collected: 12/06/24 12:05
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 12:16
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 12:16
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17280	MI	EET ALB	12/09/24 10:44
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 10:56

Client Sample ID: S-3
Lab Sample ID: 885-16521-3
Date Collected: 12/06/24 12:10
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 12:38
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 12:38
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17280	MI	EET ALB	12/09/24 10:54
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 11:06

Client Sample ID: S-4
Lab Sample ID: 885-16521-4
Date Collected: 12/06/24 12:15
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 13:00

Lab Chronicle

Client: Ensolum
Job ID: 885-16521-1
Project/Site: Brookhaven A #2A PC

Client Sample ID: S-4
Lab Sample ID: 885-16521-4
Date Collected: 12/06/24 12:15
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 13:00
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17280	MI	EET ALB	12/09/24 11:05
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 11:17

Client Sample ID: S-5
Lab Sample ID: 885-16521-5
Date Collected: 12/06/24 12:20
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 13:21
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 13:21
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17280	MI	EET ALB	12/09/24 11:16
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 11:27

Client Sample ID: S-6
Lab Sample ID: 885-16521-6
Date Collected: 12/06/24 12:25
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 13:43
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 13:43
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17280	MI	EET ALB	12/09/24 11:26
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 11:37

Client Sample ID: S-7
Lab Sample ID: 885-16521-7
Date Collected: 12/06/24 12:30
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 14:05
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 09:05
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 14:05

Lab Chronicle

Client: Ensolum
Job ID: 885-16521-1
Project/Site: Brookhaven A #2A PC

Client Sample ID: S-7
Lab Sample ID: 885-16521-7
Date Collected: 12/06/24 12:30
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17281	MI	EET ALB	12/09/24 10:12
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 11:48

Client Sample ID: S-8
Lab Sample ID: 885-16521-8
Date Collected: 12/06/24 12:35
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 13:41
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 14:27
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 13:41
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 14:27
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17281	MI	EET ALB	12/09/24 10:24
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 11:58

Client Sample ID: S-9
Lab Sample ID: 885-16521-9
Date Collected: 12/06/24 12:40
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 13:41
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 14:48
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 13:41
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 14:48
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17281	MI	EET ALB	12/09/24 10:35
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 12:09

Client Sample ID: S-10
Lab Sample ID: 885-16521-10
Date Collected: 12/06/24 12:45
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 13:41
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 15:10
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 13:41
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 15:10
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17281	MI	EET ALB	12/09/24 10:48

Lab Chronicle

Client: Ensolum
Job ID: 885-16521-1
Project/Site: Brookhaven A #2A PC

Client Sample ID: S-10
Lab Sample ID: 885-16521-10
Date Collected: 12/06/24 12:45
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 12:19

Client Sample ID: S-11
Lab Sample ID: 885-16521-11
Date Collected: 12/06/24 12:50
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 13:41
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 15:54
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 13:41
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 15:54
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17281	MI	EET ALB	12/09/24 11:00
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 12:50

Client Sample ID: S-12
Lab Sample ID: 885-16521-12
Date Collected: 12/06/24 12:55
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 13:41
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 16:16
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 13:41
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 16:16
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17281	MI	EET ALB	12/09/24 11:12
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 13:00

Client Sample ID: S-13
Lab Sample ID: 885-16521-13
Date Collected: 12/06/24 13:00
Matrix: Solid
Date Received: 12/07/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 13:41
Total/NA	Analysis	8015M/D		1	17275	AT	EET ALB	12/09/24 16:38
Total/NA	Prep	5035			17271	AT	EET ALB	12/09/24 13:41
Total/NA	Analysis	8021B		1	17276	AT	EET ALB	12/09/24 16:38
Total/NA	Prep	SHAKE			17272	MB	EET ALB	12/09/24 09:08
Total/NA	Analysis	8015M/D		1	17281	MI	EET ALB	12/09/24 11:24
Total/NA	Prep	300_Prep			17257	JT	EET ALB	12/09/24 07:43
Total/NA	Analysis	300.0		20	17260	JT	EET ALB	12/09/24 13:11

Lab Chronicle

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-16521-1

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Ensolum
Job ID: 885-16521-1
Project/Site: Brookhaven A #2A PC

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-25-25

1/2

Chain-of-Custody Record

Client: Ensolum LLC

Mailing Address: 606 S Rio Grande Suit A 87410

Phone #:

email or Fax#:

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

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

Turn-Around Time: 100%
☐ Standard ☒ Rush 12-9-24

Project Name: Brookhaven A #34 PC

Project #:

Project Manager: K Summers

Sampler: C DA, Donti

On Ice: ☑ Yes ☐ No mojo

# of Coolers: 1

Cooler Temp(including CF): 0.1 - 0.1 = 0 (°C)

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

885-16521 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO3, NO2, PO4, SO4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12/6	1200	S	S-1	4oz Jar	Cool		✓	✓					✓			
12/6	1205	S	S-2				✓	✓					✓			
12/6	1210	S	S-3				✓	✓					✓			
12/6	1215	S	S-4				✓	✓					✓			
12/6	1220	S	S-5				✓	✓					✓			
12/6	1225	S	S-6				✓	✓					✓			
12/6	1230	S	S-7				✓	✓					✓			
12/6	1235	S	S-8				✓	✓					✓			
12/6	1240	S	S-9				✓	✓					✓			
12/6	1245	S	S-10				✓	✓					✓			
12/6	1250	S	S-11				✓	✓					✓			
12/6	1255	S	S-12				✓	✓					✓			

Date	Time	Relinquished by	Received by	Via	Date	Time
12/6/24	1400				12/6/24	1400
12/6/24	1721			courier	12/7/24	6:15

Remarks: Tom Long RB21200 1 of 2 Same Day

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

2/2

Chain-of-Custody Record

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

Client: Ensolum

Mailing Address: 606 S Rio Grande Suit A 87410

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 100 %

☐ Standard ☑ Rush 12-9-24

Project Name: Brookhaven

Project #:

Project Manager: K Summers

Sampler: C D Aponte

On Ice: ☑ Yes ☐ No mgo

# of Coolers: 1

Cooler Temp(Including CF): 0.1 - 0.1 = 0 (°C)

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO3, NO2, PO4, SO4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
12-6	1300	S	S-13	4oz Jar	Cool		✓	✓					✓									

Date	Time	Relinquished by	Received by	Via	Date	Time
12/6/24	1400	[signature]	[signature]		12/6/24	1400
12/6/24	1721	[signature]	[signature]	Courier	12/7/24	6:15

Remarks: Tom Long AB21200 2 of 2 Same Day

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

1/2

Chain-of-Custody Record

Client: Ensolum LLC

Mailing Address: 606 S Rio Grande Suit A 87410

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 100%
☐ Standard ☒ Rush 12-9-24 clu

Project Name: Brookhaven A #24 PC

Project #:

Project Manager: K Summers

Sampler: C Padilla

On Ice: ☑ Yes ☐ No mojo

# of Coolers: 1

Cooler Temp(Including CF): 0.1 - 0.1 = 0 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORA

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

885-16521 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO3, NO2, PO4, SO4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12/6	1200	S	S-1	4oz Jar	Cool		✓	✓					✓			
12/6	1205	S	S-2				✓	✓					✓			
12/6	1210	S	S-3				✓	✓					✓			
12/6	1215	S	S-4				✓	✓					✓			
12/6	1220	S	S-5				✓	✓					✓			
12/6	1225	S	S-6				✓	✓					✓			
12/6	1230	S	S-7				✓	✓					✓			
12/6	1235	S	S-8				✓	✓					✓			
12/6	1240	S	S-9				✓	✓					✓			
12/6	1245	S	S-10				✓	✓					✓			
12/6	1250	S	S-15				✓	✓					✓			
12/6	1255	S	S-12				✓	✓					✓			

Date	Time	Relinquished by	Received by	Via	Date	Time
12/6/24	1400				12/6/24	1400
12/6/24	1721			courier	12/7/24	6:15

Remarks: Tom Long RB21200 1 of 2 Same Day

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

Chain-of-Custody Record

Client: Ensolum

Mailing Address: 606 S Rio Grande Suit A 87410

Phone #:

email or Fax#:

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

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

Turn-Around Time: 1400
☐ Standard ☑ Rush 12-9-24

Project Name: Brookhaven

Project #:

Project Manager: K Summers

Sampler: C Upton
On Ice: ☑ Yes ☐ No mgo
# of Coolers: 1
Cooler Temp(Including CF): 0.1 - 0.1 = 0 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / ~~MTBE~~ / ~~TMB~~'s (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12-6	1300	S	S-13	4oz Jar	Cool		✓	✓					✓			

Analysis Request

Date:	Time	Relinquished by:	Received by:	Via:	Date	Time
12/6/24	1400				12/6/24	1400
Date: 12/6/24	Time: 1721	Relinquished by:	Received by:	Via: Courier	Date 12/7/24	Time 6:15

Remarks: Tom Long AB21200 2 of 2 Same Day

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

Login Sample Receipt Checklist

Client: Ensolum Job Number: 885-16521-1

Login Number: 16521 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Summers
Ensolum
606 S Rio Grande
Suite A
Aztec, New Mexico 87410

Generated 2/13/2025 9:52:35 AM Revision 1

JOB DESCRIPTION

Brookhaven A#2A PC

JOB NUMBER

885-18504-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

Generated
2/13/2025 9:52:35 AM
Revision 1

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum
Project/Site: Brookhaven A#2A PC

Laboratory Job ID: 885-18504-1

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 885-18504-1
Project/Site: Brookhaven A#2A PC

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project: Brookhaven A#2A PC

Job ID: 885-18504-1

Job ID: 885-18504-1 Eurofins Albuquerque

Job Narrative
885-18504-1

REVISION

The report being provided is a revision of the original report sent on 1/22/2025. The report (revision 1) is being revised due to Updated project name to Brookhaven A #2A PC.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 1/16/2025 7:10 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -2.2°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A#2A PC

Job ID: 885-18504-1

Client Sample ID: BF-1
Date Collected: 01/15/25 10:00
Date Received: 01/16/25 07:10

Lab Sample ID: 885-18504-1
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		4.7		mg/Kg		01/16/25 12:12	01/17/25 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*01/16/25 12:12*	*01/17/25 19:02*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		01/16/25 12:12	01/17/25 19:02	1
Ethylbenzene	ND		0.047		mg/Kg		01/16/25 12:12	01/17/25 19:02	1
Toluene	ND		0.047		mg/Kg		01/16/25 12:12	01/17/25 19:02	1
Xylenes, Total	ND		0.093		mg/Kg		01/16/25 12:12	01/17/25 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*01/16/25 12:12*	*01/17/25 19:02*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**9.7**		9.1		mg/Kg		01/18/25 11:08	01/20/25 13:30	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		01/18/25 11:08	01/20/25 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*106*		*62 - 134*	*01/18/25 11:08*	*01/20/25 13:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		01/21/25 12:49	01/21/25 19:21	20

QC Sample Results

Client: Ensolum
Project/Site: Brookhaven A#2A PC

Job ID: 885-18504-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-19435/1-A
Matrix: Solid
Analysis Batch: 19503

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19435

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		5.0		mg/Kg		01/16/25 12:10	01/17/25 14:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*35 - 166*	*01/16/25 12:10*	*01/17/25 14:13*	*1*

Lab Sample ID: LCS 885-19435/2-A
Matrix: Solid
Analysis Batch: 19503

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19435

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
GRO (C6-C10)			25.0	24.8		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*211*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-19435/1-A
Matrix: Solid
Analysis Batch: 19502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19435

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		01/16/25 12:10	01/17/25 14:13	1
Ethylbenzene	ND		0.050		mg/Kg		01/16/25 12:10	01/17/25 14:13	1
Toluene	ND		0.050		mg/Kg		01/16/25 12:10	01/17/25 14:13	1
Xylenes, Total	ND		0.10		mg/Kg		01/16/25 12:10	01/17/25 14:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*48 - 145*	*01/16/25 12:10*	*01/17/25 14:13*	*1*

Lab Sample ID: LCS 885-19435/4-A
Matrix: Solid
Analysis Batch: 19502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19435

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.07		mg/Kg		107	70 - 130		
Ethylbenzene			1.00	1.13		mg/Kg		113	70 - 130		
Toluene			1.00	1.11		mg/Kg		111	70 - 130		
Xylenes, Total			3.00	3.35		mg/Kg		112	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*48 - 145*

QC Sample Results

Client: Ensolum
Project/Site: Brookhaven A#2A PC

Job ID: 885-18504-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-18504-1 MS
Matrix: Solid
Analysis Batch: 19502

Client Sample ID: BF-1
Prep Type: Total/NA
Prep Batch: 19435

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.936	1.00		mg/Kg		107	70 - 130
Ethylbenzene	ND		0.936	1.06		mg/Kg		114	70 - 130
Toluene	ND		0.936	1.05		mg/Kg		112	70 - 130
Xylenes, Total	ND		2.81	3.15		mg/Kg		112	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*

Lab Sample ID: 885-18504-1 MSD
Matrix: Solid
Analysis Batch: 19502

Client Sample ID: BF-1
Prep Type: Total/NA
Prep Batch: 19435

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.929	0.968		mg/Kg		104	70 - 130	3	20
Ethylbenzene	ND		0.929	1.00		mg/Kg		108	70 - 130	6	20
Toluene	ND		0.929	0.999		mg/Kg		107	70 - 130	5	20
Xylenes, Total	ND		2.79	2.99		mg/Kg		106	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-19523/1-A
Matrix: Solid
Analysis Batch: 19527

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19523

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		01/18/25 11:08	01/20/25 09:37	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		01/18/25 11:08	01/20/25 09:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*01/18/25 11:08*	*01/20/25 09:37*	*1*

Lab Sample ID: LCS 885-19523/2-A
Matrix: Solid
Analysis Batch: 19527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19523

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]			50.0	60.2		mg/Kg		120	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*114*		*62 - 134*

QC Sample Results

Client: Ensolum
Project/Site: Brookhaven A#2A PC

Job ID: 885-18504-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-19616/1-A
Matrix: Solid
Analysis Batch: 19608

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19616

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		01/21/25 12:49	01/21/25 14:06	1

Lab Sample ID: LCS 885-19616/2-A
Matrix: Solid
Analysis Batch: 19608

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19616

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	29.9		mg/Kg		100	90 - 110		

QC Association Summary

Client: Ensolum
Project/Site: Brookhaven A#2A PC

Job ID: 885-18504-1

GC VOA

Prep Batch: 19435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18504-1	BF-1	Total/NA	Solid	5030C	
MB 885-19435/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-19435/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-19435/4-A	Lab Control Sample	Total/NA	Solid	5030C	
885-18504-1 MS	BF-1	Total/NA	Solid	5030C	
885-18504-1 MSD	BF-1	Total/NA	Solid	5030C	

Analysis Batch: 19502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18504-1	BF-1	Total/NA	Solid	8021B	19435
MB 885-19435/1-A	Method Blank	Total/NA	Solid	8021B	19435
LCS 885-19435/4-A	Lab Control Sample	Total/NA	Solid	8021B	19435
885-18504-1 MS	BF-1	Total/NA	Solid	8021B	19435
885-18504-1 MSD	BF-1	Total/NA	Solid	8021B	19435

Analysis Batch: 19503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18504-1	BF-1	Total/NA	Solid	8015M/D	19435
MB 885-19435/1-A	Method Blank	Total/NA	Solid	8015M/D	19435
LCS 885-19435/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	19435

GC Semi VOA

Prep Batch: 19523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18504-1	BF-1	Total/NA	Solid	SHAKE	
MB 885-19523/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-19523/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 19527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18504-1	BF-1	Total/NA	Solid	8015M/D	19523
MB 885-19523/1-A	Method Blank	Total/NA	Solid	8015M/D	19523
LCS 885-19523/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	19523

HPLC/IC

Analysis Batch: 19608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18504-1	BF-1	Total/NA	Solid	300.0	19616
MB 885-19616/1-A	Method Blank	Total/NA	Solid	300.0	19616
LCS 885-19616/2-A	Lab Control Sample	Total/NA	Solid	300.0	19616

Prep Batch: 19616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18504-1	BF-1	Total/NA	Solid	300_Prep	
MB 885-19616/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-19616/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Lab Chronicle

Client: Ensolum
Job ID: 885-18504-1
Project/Site: Brookhaven A#2A PC

Client Sample ID: BF-1
Date Collected: 01/15/25 10:00
Date Received: 01/16/25 07:10

Lab Sample ID: 885-18504-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19435	JP	EET ALB	01/16/25 12:12
Total/NA	Analysis	8015M/D		1	19503	JP	EET ALB	01/17/25 19:02
Total/NA	Prep	5030C			19435	JP	EET ALB	01/16/25 12:12
Total/NA	Analysis	8021B		1	19502	JP	EET ALB	01/17/25 19:02
Total/NA	Prep	SHAKE			19523	MI	EET ALB	01/18/25 11:08
Total/NA	Analysis	8015M/D		1	19527	MI	EET ALB	01/20/25 13:30
Total/NA	Prep	300_Prep			19616	JT	EET ALB	01/21/25 12:49
Total/NA	Analysis	300.0		20	19608	JT	EET ALB	01/21/25 19:21

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Ensolum
Job ID: 885-18504-1
Project/Site: Brookhaven A#2A PC

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-25-25

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande, Suite A
Aztec, NM 87410

Phone #:

email or Fax#: ksummers@ensolum.com

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

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

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Brookhaven A #2A PC

Project #: 05A1226353 SEE NOTES

Project Manager: K. Summers

Sampler: L. Daniell

On Ice: ☐ ~~Yes~~ ☐ No

# of Coolers: 1 40a

Cooler Temp(including CF): 2.2-0=2.2 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
885-18504 COC
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / ~~MTBE / TMB's~~ (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(Cl), ~~F, Br, NO3, NO2, PO4, SO4~~	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
1/15/25	10:00	S	BF-1	1 4oz jar	Cool		X	X					X									

Date	Time	Relinquished by:	Received by:	Via	Date	Time
1/15/25	1707	[signature]	[signature]		1/15/25	1707
1/15/25	1744	[signature]	[signature]	Courier	1/16/25	7:10

Remarks: Not Frozen Jn 1/16/25
PM Tom Long
RBZ1200
N75930

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

Login Sample Receipt Checklist

Client: Ensolum Job Number: 885-18504-1

Login Number: 18504 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Samples not Frozen
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Summers
Ensolum
606 S Rio Grande
Suite A
Aztec, New Mexico 87410

Generated 4/15/2025 9:45:23 AM Revision 1

JOB DESCRIPTION

Brookhaven A #2A PC

JOB NUMBER

885-20279-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

Generated
4/15/2025 9:45:23 AM
Revision 1

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Laboratory Job ID: 885-20279-1

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 885-20279-1
Project/Site: Brookhaven A #2A PC

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project: Brookhaven A #2A PC

Job ID: 885-20279-1

Job ID: 885-20279-1 Eurofins Albuquerque

Job Narrative
885-20279-1

REVISION

The report being provided is a revision of the original report sent on 2/26/2025. The report (revision 1) is being revised due to Project name updated to Brookhaven A #2A PC.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 2/21/2025 7:18 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-20279-1

Client Sample ID: S-14
Date Collected: 02/20/25 12:00
Date Received: 02/21/25 07:18

Lab Sample ID: 885-20279-1
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		4.9		mg/Kg		02/21/25 10:28	02/23/25 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*02/21/25 10:28*	*02/23/25 17:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		02/21/25 10:28	02/25/25 01:16	1
Ethylbenzene	ND		0.049		mg/Kg		02/21/25 10:28	02/25/25 01:16	1
Toluene	ND		0.049		mg/Kg		02/21/25 10:28	02/25/25 01:16	1
Xylenes, Total	ND		0.098		mg/Kg		02/21/25 10:28	02/25/25 01:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*02/21/25 10:28*	*02/25/25 01:16*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		02/21/25 11:36	02/24/25 20:36	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		02/21/25 11:36	02/24/25 20:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*02/21/25 11:36*	*02/24/25 20:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		02/24/25 17:11	02/25/25 01:20	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-20279-1

Client Sample ID: S-15
Date Collected: 02/20/25 12:05
Date Received: 02/21/25 07:18

Lab Sample ID: 885-20279-2
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		4.9		mg/Kg		02/21/25 10:28	02/23/25 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*02/21/25 10:28*	*02/23/25 18:14*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		02/21/25 10:28	02/25/25 01:38	1
Ethylbenzene	ND		0.049		mg/Kg		02/21/25 10:28	02/25/25 01:38	1
Toluene	ND		0.049		mg/Kg		02/21/25 10:28	02/25/25 01:38	1
Xylenes, Total	ND		0.097		mg/Kg		02/21/25 10:28	02/25/25 01:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*02/21/25 10:28*	*02/25/25 01:38*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		02/21/25 11:36	02/24/25 21:09	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		02/21/25 11:36	02/24/25 21:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*02/21/25 11:36*	*02/24/25 21:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		02/24/25 17:11	02/25/25 01:56	20

Client Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-20279-1

Client Sample ID: S-16
Date Collected: 02/20/25 12:10
Date Received: 02/21/25 07:18

Lab Sample ID: 885-20279-3
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		4.7		mg/Kg		02/21/25 10:28	02/23/25 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*02/21/25 10:28*	*02/23/25 19:27*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		02/21/25 10:28	02/25/25 02:44	1
Ethylbenzene	ND		0.047		mg/Kg		02/21/25 10:28	02/25/25 02:44	1
Toluene	ND		0.047		mg/Kg		02/21/25 10:28	02/25/25 02:44	1
Xylenes, Total	ND		0.094		mg/Kg		02/21/25 10:28	02/25/25 02:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*48 - 145*	*02/21/25 10:28*	*02/25/25 02:44*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		02/21/25 11:36	02/24/25 21:20	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		02/21/25 11:36	02/24/25 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*02/21/25 11:36*	*02/24/25 21:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		02/24/25 17:11	02/25/25 02:08	20

QC Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-20279-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-21234/1-A
Matrix: Solid
Analysis Batch: 21265

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21234

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		5.0		mg/Kg		02/21/25 10:28	02/23/25 16:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*02/21/25 10:28*	*02/23/25 16:36*	*1*

Lab Sample ID: LCS 885-21234/2-A
Matrix: Solid
Analysis Batch: 21265

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21234

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
GRO (C6-C10)			25.0	25.9		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*205*		*35 - 166*

Lab Sample ID: 885-20279-1 MS
Matrix: Solid
Analysis Batch: 21265

Client Sample ID: S-14
Prep Type: Total/NA
Prep Batch: 21234

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
GRO (C6-C10)	ND		24.5	26.0		mg/Kg		106	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*212*		*35 - 166*

Lab Sample ID: 885-20279-1 MSD
Matrix: Solid
Analysis Batch: 21265

Client Sample ID: S-14
Prep Type: Total/NA
Prep Batch: 21234

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
GRO (C6-C10)	ND		24.6	28.0		mg/Kg		114	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*207*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-21234/1-A
Matrix: Solid
Analysis Batch: 21400

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21234

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		02/21/25 10:28	02/25/25 00:54	1
Ethylbenzene	ND		0.050		mg/Kg		02/21/25 10:28	02/25/25 00:54	1
Toluene	ND		0.050		mg/Kg		02/21/25 10:28	02/25/25 00:54	1
Xylenes, Total	ND		0.10		mg/Kg		02/21/25 10:28	02/25/25 00:54	1

QC Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-20279-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-21234/1-A
Matrix: Solid
Analysis Batch: 21400

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21234

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		48 - 145	02/21/25 10:28	02/25/25 00:54	1

Lab Sample ID: LCS 885-21234/3-A
Matrix: Solid
Analysis Batch: 21400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21234

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.909		mg/Kg		91	70 - 130		
Ethylbenzene			1.00	0.938		mg/Kg		94	70 - 130		
Toluene			1.00	0.917		mg/Kg		92	70 - 130		
Xylenes, Total			3.00	2.79		mg/Kg		93	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		48 - 145

Lab Sample ID: 885-20279-2 MS
Matrix: Solid
Analysis Batch: 21400

Client Sample ID: S-15
Prep Type: Total/NA
Prep Batch: 21234

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.970	0.854		mg/Kg		88	70 - 130		
Ethylbenzene	ND		0.970	0.890		mg/Kg		92	70 - 130		
Toluene	ND		0.970	0.863		mg/Kg		89	70 - 130		
Xylenes, Total	ND		2.91	2.65		mg/Kg		91	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		48 - 145

Lab Sample ID: 885-20279-2 MSD
Matrix: Solid
Analysis Batch: 21400

Client Sample ID: S-15
Prep Type: Total/NA
Prep Batch: 21234

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.975	0.881		mg/Kg		90	70 - 130	3	20
Ethylbenzene	ND		0.975	0.901		mg/Kg		92	70 - 130	1	20
Toluene	ND		0.975	0.883		mg/Kg		91	70 - 130	2	20
Xylenes, Total	ND		2.92	2.68		mg/Kg		92	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		48 - 145

QC Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-20279-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-21240/1-A
Matrix: Solid
Analysis Batch: 21272

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21240

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		02/21/25 11:36	02/24/25 20:14	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		02/21/25 11:36	02/24/25 20:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*02/21/25 11:36*	*02/24/25 20:14*	*1*

Lab Sample ID: LCS 885-21240/2-A
Matrix: Solid
Analysis Batch: 21272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21240

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	54.4		mg/Kg		109	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*82*		*62 - 134*

Lab Sample ID: 885-20279-1 MS
Matrix: Solid
Analysis Batch: 21272

Client Sample ID: S-14
Prep Type: Total/NA
Prep Batch: 21240

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		48.4	54.4		mg/Kg		112	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*

Lab Sample ID: 885-20279-1 MSD
Matrix: Solid
Analysis Batch: 21272

Client Sample ID: S-14
Prep Type: Total/NA
Prep Batch: 21240

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		49.6	55.4		mg/Kg		112	44 - 136	2	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-21353/1-A
Matrix: Solid
Analysis Batch: 21296

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21353

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		02/24/25 17:11	02/24/25 23:57	1

QC Sample Results

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-20279-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-21353/2-A
Matrix: Solid
Analysis Batch: 21296

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21353

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	29.7		mg/Kg		99	90 - 110		

QC Association Summary

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-20279-1

GC VOA

Prep Batch: 21234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20279-1	S-14	Total/NA	Solid	5030C	
885-20279-2	S-15	Total/NA	Solid	5030C	
885-20279-3	S-16	Total/NA	Solid	5030C	
MB 885-21234/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-21234/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-21234/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-20279-1 MS	S-14	Total/NA	Solid	5030C	
885-20279-1 MSD	S-14	Total/NA	Solid	5030C	
885-20279-2 MS	S-15	Total/NA	Solid	5030C	
885-20279-2 MSD	S-15	Total/NA	Solid	5030C	

Analysis Batch: 21265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20279-1	S-14	Total/NA	Solid	8015M/D	21234
885-20279-2	S-15	Total/NA	Solid	8015M/D	21234
885-20279-3	S-16	Total/NA	Solid	8015M/D	21234
MB 885-21234/1-A	Method Blank	Total/NA	Solid	8015M/D	21234
LCS 885-21234/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	21234
885-20279-1 MS	S-14	Total/NA	Solid	8015M/D	21234
885-20279-1 MSD	S-14	Total/NA	Solid	8015M/D	21234

Analysis Batch: 21400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20279-1	S-14	Total/NA	Solid	8021B	21234
885-20279-2	S-15	Total/NA	Solid	8021B	21234
885-20279-3	S-16	Total/NA	Solid	8021B	21234
MB 885-21234/1-A	Method Blank	Total/NA	Solid	8021B	21234
LCS 885-21234/3-A	Lab Control Sample	Total/NA	Solid	8021B	21234
885-20279-2 MS	S-15	Total/NA	Solid	8021B	21234
885-20279-2 MSD	S-15	Total/NA	Solid	8021B	21234

GC Semi VOA

Prep Batch: 21240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20279-1	S-14	Total/NA	Solid	SHAKE	
885-20279-2	S-15	Total/NA	Solid	SHAKE	
885-20279-3	S-16	Total/NA	Solid	SHAKE	
MB 885-21240/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-21240/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-20279-1 MS	S-14	Total/NA	Solid	SHAKE	
885-20279-1 MSD	S-14	Total/NA	Solid	SHAKE	

Analysis Batch: 21272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20279-1	S-14	Total/NA	Solid	8015M/D	21240
885-20279-2	S-15	Total/NA	Solid	8015M/D	21240
885-20279-3	S-16	Total/NA	Solid	8015M/D	21240
MB 885-21240/1-A	Method Blank	Total/NA	Solid	8015M/D	21240
LCS 885-21240/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	21240
885-20279-1 MS	S-14	Total/NA	Solid	8015M/D	21240

QC Association Summary

Client: Ensolum
Project/Site: Brookhaven A #2A PC

Job ID: 885-20279-1

GC Semi VOA (Continued)

Analysis Batch: 21272 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20279-1 MSD	S-14	Total/NA	Solid	8015M/D	21240

HPLC/IC

Analysis Batch: 21296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20279-1	S-14	Total/NA	Solid	300.0	21353
885-20279-2	S-15	Total/NA	Solid	300.0	21353
885-20279-3	S-16	Total/NA	Solid	300.0	21353
MB 885-21353/1-A	Method Blank	Total/NA	Solid	300.0	21353
LCS 885-21353/2-A	Lab Control Sample	Total/NA	Solid	300.0	21353

Prep Batch: 21353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20279-1	S-14	Total/NA	Solid	300_Prep	
885-20279-2	S-15	Total/NA	Solid	300_Prep	
885-20279-3	S-16	Total/NA	Solid	300_Prep	
MB 885-21353/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-21353/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Lab Chronicle

Client: Ensolum
Job ID: 885-20279-1
Project/Site: Brookhaven A #2A PC

Client Sample ID: S-14
Lab Sample ID: 885-20279-1
Date Collected: 02/20/25 12:00
Matrix: Solid
Date Received: 02/21/25 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21234	JP	EET ALB	02/21/25 10:28
Total/NA	Analysis	8015M/D		1	21265	JP	EET ALB	02/23/25 17:00
Total/NA	Prep	5030C			21234	JP	EET ALB	02/21/25 10:28
Total/NA	Analysis	8021B		1	21400	AT	EET ALB	02/25/25 01:16
Total/NA	Prep	SHAKE			21240	MI	EET ALB	02/21/25 11:36
Total/NA	Analysis	8015M/D		1	21272	MI	EET ALB	02/24/25 20:36
Total/NA	Prep	300_Prep			21353	KB	EET ALB	02/24/25 17:11
Total/NA	Analysis	300.0		20	21296	ES	EET ALB	02/25/25 01:20

Client Sample ID: S-15
Lab Sample ID: 885-20279-2
Date Collected: 02/20/25 12:05
Matrix: Solid
Date Received: 02/21/25 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21234	JP	EET ALB	02/21/25 10:28
Total/NA	Analysis	8015M/D		1	21265	JP	EET ALB	02/23/25 18:14
Total/NA	Prep	5030C			21234	JP	EET ALB	02/21/25 10:28
Total/NA	Analysis	8021B		1	21400	AT	EET ALB	02/25/25 01:38
Total/NA	Prep	SHAKE			21240	MI	EET ALB	02/21/25 11:36
Total/NA	Analysis	8015M/D		1	21272	MI	EET ALB	02/24/25 21:09
Total/NA	Prep	300_Prep			21353	KB	EET ALB	02/24/25 17:11
Total/NA	Analysis	300.0		20	21296	ES	EET ALB	02/25/25 01:56

Client Sample ID: S-16
Lab Sample ID: 885-20279-3
Date Collected: 02/20/25 12:10
Matrix: Solid
Date Received: 02/21/25 07:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21234	JP	EET ALB	02/21/25 10:28
Total/NA	Analysis	8015M/D		1	21265	JP	EET ALB	02/23/25 19:27
Total/NA	Prep	5030C			21234	JP	EET ALB	02/21/25 10:28
Total/NA	Analysis	8021B		1	21400	AT	EET ALB	02/25/25 02:44
Total/NA	Prep	SHAKE			21240	MI	EET ALB	02/21/25 11:36
Total/NA	Analysis	8015M/D		1	21272	MI	EET ALB	02/24/25 21:20
Total/NA	Prep	300_Prep			21353	KB	EET ALB	02/24/25 17:11
Total/NA	Analysis	300.0		20	21296	ES	EET ALB	02/25/25 02:08

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Ensolum
Job ID: 885-20279-1
Project/Site: Brookhaven A #2A PC

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-25-25

Chain-of-Custody Record

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

885-20279 COC

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande, Suite A, Aztec, NM 87410

Phone #:

email or Fax#: ksummers@ensolum.com

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

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 3 day ☒ Standard ☒ Rush

Project Name: Brookhaven A #2APC

Project #: SEE NOTES

Project Manager: K. Summers

Sampler: L. Daniell

On Ice: ☒ Yes ☐ No

# of Coolers: 1 4 0g.

Cooler Temp (including CF): 0.9-0=0.9 (°C)

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(Cl) F, Br, NO3, NO2, PO4, SO4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
2/20/25	12:00	S	~~BF-1~~ S-14	1 4oz jar	Cool		X	X					X			
↓	12:05	↓	S-15	↓	Cool		X	X					X			
↓	12:10 1 per sample, no time 2/21/25	↓	S-16	↓	cool		X	X					X			

Date	Time	Relinquished by	Received by	Via	Date	Time
2/20/25	1521	[signature]	[signature]		2/20/25	1521
2/20/25	1719	[signature]	[signature]	courier	2/21/25	7:18

Remarks: PM Tom Long
RB21200
N15930

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

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2/26/2025

Login Sample Receipt Checklist

Client: Ensolum Job Number: 885-20279-1

Login Number: 20279 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 459653

QUESTIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 459653
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2432426402**
Incident Name	**NAPP2432426402 BROOKHAVEN A#2A PC @ 0**
Incident Type	**Natural Gas Release**
Incident Status	**Reclamation Report Received**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	BROOKHAVEN A#2A PC
Date Release Discovered	11/19/2024
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Natural Gas Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Cause: Corrosion | Pipeline (Any) | Condensate | Released: 5 BBL | Recovered: 0 BBL | Lost: 5 BBL.
Natural Gas Vented (Mcf) Details	Cause: Corrosion | Pipeline (Any) | Natural Gas Vented | Released: 1 MCF | Recovered: 0 MCF | Lost: 1 MCF.
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 459653
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**Yes, according to supplied volumes this will be treated as a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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.

I hereby agree and sign off to the above statement	Name: Thomas Long Title: Sr Field Environmental Scientist Email: tjlong@eprod.com Date: 11/27/2024

Sante Fe Main Office
Phone: (505) 476-3441

General Information
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 459653
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	OCD Imaging Records Lookup
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 100 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 300 and 500 (ft.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1000 (ft.) and ½ (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	60
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	60
GRO+DRO (EPA SW-846 Method 8015M)	11
BTEX (EPA SW-846 Method 8021B or 8260B)	0.5
Benzene (EPA SW-846 Method 8021B or 8260B)	0.1
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	11/19/2024
On what date will (or did) the final sampling or liner inspection occur	02/20/2025
On what date will (or was) the remediation complete(d)	02/20/2025
What is the estimated surface area (in square feet) that will be reclaimed	1126
What is the estimated volume (in cubic yards) that will be reclaimed	1268
What is the estimated surface area (in square feet) that will be remediated	1126
What is the estimated volume (in cubic yards) that will be remediated	1268
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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

QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 459653
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	ENVIROTECH LANDFARM #1 [fEEM0112334691]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Thomas Long Title: Sr Field Environmental Scientist Email: tjlong@eprod.com Date: 05/07/2025
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 459653
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 459653
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**432961**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**02/20/2025**
What was the (estimated) number of samples that were to be gathered	**3**
What was the sampling surface area in square feet	**200**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	1126
What was the total volume (cubic yards) remediated	1268
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	1126
What was the total volume (in cubic yards) reclaimed	1268
Summarize any additional remediation activities not included by answers (above)	None

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 (in .pdf format) 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.

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.

I hereby agree and sign off to the above statement	Name: Thomas Long Title: Sr Field Environmental Scientist Email: tjlong@eprod.com Date: 05/07/2025

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QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 459653
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	1126
What was the total volume of replacement material (in cubic yards) for this site	1268
Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeding commence(d)	07/01/2025
Summarize any additional reclamation activities not included by answers (above)	None
The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeding plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.	
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.	
I hereby agree and sign off to the above statement	Name: Thomas Long Title: Sr Field Environmental Scientist Email: tjlong@eprod.com Date: 05/07/2025

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QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 459653
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Revegetation Report	
Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.	
Requesting a restoration complete approval with this submission	No
Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.	

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CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 459653
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
scwells	Reclamation approved. Operator failed to provide proper Sampling Notification pursuant to 19.15.29.12.D.(1).(a) NMAC. Failure to provide proper sampling notice is a compliance issue and the OCD may pursue compliance actions pursuant to 19.15.5 NMAC. Operator shall ensure future compliance with 19.15.29.12.D.(1).(a) NMAC. The C-141N submitted for 12/6/24 confirmation samples was submitted after the fact. Provide two business days' notice prior to collecting confirmation samples so that an OCD representative may plan to be onsite to witness sampling.	5/20/2025