

Grams, John

From: Grams, John
Sent: Tuesday, August 5, 2025 1:23 PM
To: 'Hall, Brittany, EMNRD'; Powell, Brandon, EMNRD; Romero, Rosa, EMNRD
Cc: Bole, Barrett
Subject: RE: [EXTERNAL] RE: EBDU Well Locations
Attachments: IMG_2131.JPG; IMG_2126.JPG; IMG_2127.JPG; IMG_2128.JPG; IMG_2129.JPG; IMG_2130.JPG

Hello Brittany,

I've instructed the field team to review all proposed locations with the drillers and do their best to clear and approve the locations up front so we can identify any that may need changing and address them at one time as you suggest below. We did have someone stake all locations last week to prepare for 811 utility clearance, and as a result we took several actions including clearing brush, smoothing access routes, and moving a mound of caliche that was blocking the location of SB-2. However, we misjudged a few of the locations resulting in the changes we've made.

I'll also have a map sketched with the utilities and other infrastructure. In the meantime, I've attached photos of the area at New 1 (soon to be forever known as TMW-41).

Thank you,

John

John Grams, P.G.

Senior Geologist / Client Account Manager



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From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Sent: Tuesday, August 5, 2025 12:11 PM
To: Grams, John <John.Grams@terracon.com>; Powell, Brandon, EMNRD <Brandon.Powell@emnrd.nm.gov>; Romero, Rosa, EMNRD <RosaM.Romero@emnrd.nm.gov>
Cc: Bole, Barrett <Barrett.Bole@apachecorp.com>
Subject: RE: [EXTERNAL] RE: EBDU Well Locations

John,

The new locations are approved as follows:

1. TMW-37 moved approximately 30 feet southeast to avoid a Targa gas pipeline. The new location is proposed to be: 32.478510, -103.119800.

2. The well referred to as "New 4" moved approximately 140 feet South-Southwest to avoid a cluster of poly lines in the area. The new location is proposed to be: 32.477303, -103.118500.
3. New 1 (TMW-41) due to a combination of poly lines, fence, and overhead electric lines. The location has been shifted 160 feet to the Southwest to coordinates: 32.482125, -103.119904.

Is there somebody available in the field that can walk out the wells/soil borings that have not been drilled yet and identify any additional locations that need to be adjusted? It would be helpful to have 1 email containing all proposed changes as I review all the changes prior to approval AND you will not have to wait for me to approve the changes individually.

Could you also provide a roughly drawn site map of all the utilities/infrastructure within the area and where the existing wells and new wells are plotted? Rough sketches on a Google Earth aerial are fine for now. This will be helpful while reviewing the proposed changes. Site photographs will also be helpful. I can see some features on Google Earth aerials but cannot identify all of them.

19.15.29.11 A.(1) NMAC requires the responsible party to provide a scaled diagram that shows the potentially impacted area, significant surface features including roads and site infrastructure, location of borings, sample points, monitoring wells and subsurface features such as known pipelines to the extent known at the time of submittal including the source of information regarding subsurface features.

In the next submittal (and future submittals), please include an updated scaled site map with the above referenced information included. 19.15.30 NMAC also requires a site map be included Stage I/II abatement plans, if required.

Thank you,

Brittany Hall ● Environmental Field Compliance Supervisor
Environmental Field Compliance Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
505.517.5333 | Brittany.Hall@emnrd.nm.gov
<http://www.emnrd.nm.gov/ocd/>

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The Digital C-141 guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

From: Grams, John <John.Grams@terracon.com>
Sent: Tuesday, August 5, 2025 10:20 AM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>; Powell, Brandon, EMNRD <Brandon.Powell@emnrd.nm.gov>; Romero, Rosa, EMNRD <RosaM.Romero@emnrd.nm.gov>
Cc: Bole, Barrett <Barrett.Bole@apachecorp.com>
Subject: [EXTERNAL] RE: EBDU Well Locations

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Hello Again,

Our drilling crew has informed me they cannot drill at the proposed location for New 1 (TMW-41) due to a combination of poly lines, fence, and overhead electric lines. The location has been shifted 160 feet to the Southwest to coordinates: 32.482125, -103.119904.

I am concerned this will be a common occurrence over the next two weeks as our crews will continue to work around the network of oil & gas infrastructure at the site. We are doing our best to hit the mark on the locations as agreed, but we have to do it safely. I am happy to discuss, review by teams, share maps, or whatever would help. Just let me know.

Thank you,

John

John Grams, P.G.

Senior Geologist / Client Account Manager



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From: Grams, John

Sent: Monday, August 4, 2025 4:28 PM

To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>; Powell, Brandon, EMNRD <Brandon.Powell@emnrd.nm.gov>; Romero, Rosa, EMNRD <rosam.romero@emnrd.nm.gov>

Cc: Bole, Barrett <Barrett.Bole@apachecorp.com>

Subject: EBDU Well Locations

Apache Corporation

EBDU #37

Incident NDHR1922141227 (1RP-5636)

Lea County, New Mexico

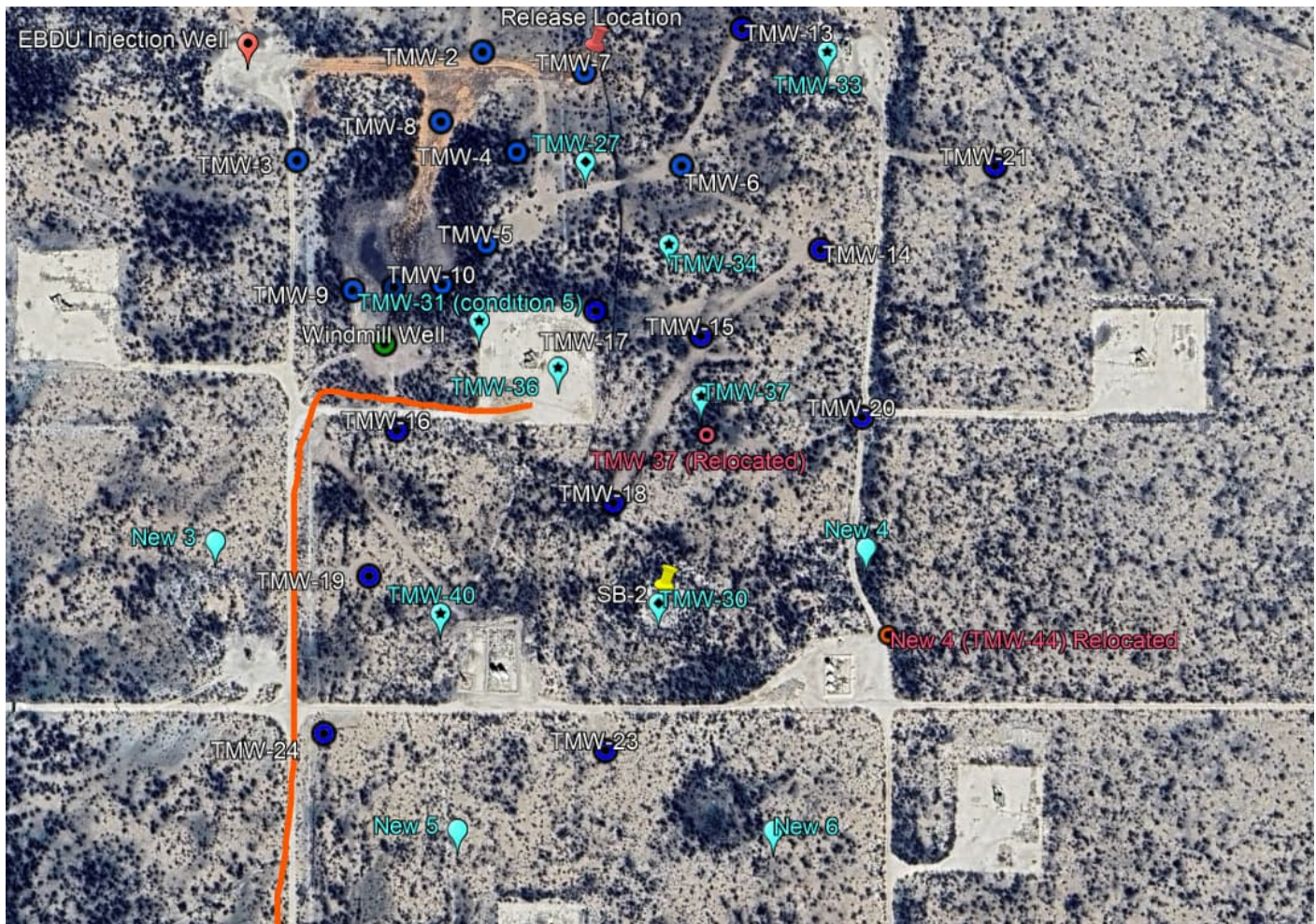
32.480705, -103.123085

The purpose of this note is to request your approval of minor adjustments to two specific well locations due to safety concerns related to on-ground pipelines at the site. A screen shot showing the two locations (shown in red) is included below.

1. TMW-37 was moved approximately 30 feet southeast to avoid a Targa gas pipeline. The new location is proposed to be: 32.478510°, -103.119800°.
2. The well referred to as "New 4" was moved approximately 140 feet South-Southwest to avoid a cluster of poly lines in the area. It turns out there are several poly lines running along both sides of the access road where we had placed New 4, so we propose to move it south to the Northeast corner of the pad around the tank battery. The new location is proposed to be: 32.477303°, -103.118500°

A copy of this communication will also be submitted through the online permitting system.

Thank you,



John Grams, P.G.

Senior Geologist / Client Account Manager



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Grams, John

From: Grams, John
Sent: Monday, August 18, 2025 2:26 PM
To: Hall, Brittany, EMNRD; Powell, Brandon, EMNRD; Romero, Rosa, EMNRD
Cc: Bole, Barrett
Subject: RE: [EXTERNAL] FW: Eurofins Environment Testing South Central, LLC EDD and report files from 890-8584-1 EBDU 37

Yes.....

New 1 = TMW-41, New 2 = TMW-42, and so forth, up to New 6 = TMW-46.

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From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Sent: Monday, August 18, 2025 2:16 PM
To: Grams, John <John.Grams@terracon.com>; Powell, Brandon, EMNRD <Brandon.Powell@emnrd.nm.gov>; Romero, Rosa, EMNRD <RosaM.Romero@emnrd.nm.gov>
Cc: Bole, Barrett <Barrett.Bole@apachecorp.com>
Subject: RE: [EXTERNAL] FW: Eurofins Environment Testing South Central, LLC EDD and report files from 890-8584-1 EBDU 37

John,

Can you let me know what well numbers correlate with the “New 1- New 6” locations from the final order, please?

Thank you,

Brittany Hall ● Environmental Field Compliance Supervisor
Environmental Field Compliance Group
EMNRD - Oil Conservation Division
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The Digital C-141 guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

From: Grams, John <John.Grams@terracon.com>
Sent: Friday, August 15, 2025 8:57 AM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>; Powell, Brandon, EMNRD <Brandon.Powell@emnrd.nm.gov>; Romero, Rosa, EMNRD <RosaM.Romero@emnrd.nm.gov>
Cc: Bole, Barrett <Barrett.Bole@apachecorp.com>
Subject: [EXTERNAL] FW: Eurofins Environment Testing South Central, LLC EDD and report files from 890-8584-1 EBDU 37

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Soil results from TMW-44. There are continued issues with method blank detections in this report.

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Senior Geologist / Client Account Manager



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From: John Builes <TALS@reports.et.eurofinsus.com>
Sent: Thursday, August 14, 2025 9:06 PM
To: Grams, John <John.Grams@terracon.com>; Guesnier, Joseph R <Joseph.Guesnier@terracon.com>; Morris, Kristen <Kristen.Morris@terracon.com>; McDermaid, Stevie <Stevie@sportenvironmental.com>
Subject: Eurofins Environment Testing South Central, LLC EDD and report files from 890-8584-1 EBDU 37

Hello,

Attached please find the EDD and report files for job 890-8584-1; EBDU 37

The samples were received on 8/7/2025 09:25 AM.

Please feel free to contact me if you have any questions.

Thank you.

John Builes
Project Manager

Eurofins Environment Testing

Phone: 561-558-4549

Mobile: 561-558-4549

E-mail: John.Builes@et.eurofinsus.com

www.eurofinsus.com/env



Reference: [880-202817]

Attachments: 2

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Grams, John

From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Sent: Friday, August 1, 2025 3:45 PM
To: Grams, John
Cc: Bole, Barrett; John Builes; Powell, Brandon, EMNRD; Romero, Rosa, EMNRD
Subject: RE: [EXTERNAL] RE: EBDU #37 Field Work and Sampling

John,

Please see my responses below in red. Please be advised that this response is for both emails, including the email that was sent on 7/28/2025 regarding the soil sample analyses.

All sampling and analytical techniques for the groundwater must conform with the following references unless otherwise approved:

- methods for chemical analysis of water and waste, and other publications of the analytical quality laboratory, EPA is preferred;
- standard methods for the examination of water and wastewater, latest edition, American public health association;
- techniques of water resource investigations of the U.S. geological survey;
- annual book of ASTM standards; Part 31; water, latest edition, American society for testing and materials;
- federal register, latest methods published for monitoring pursuant to Resource Conservation and Recovery Act regulations;
- or national handbook of recommended methods for water-data acquisition, latest edition, prepared cooperatively by agencies of the United States government under the sponsorship of the U.S. geological survey.

I have made a few additional comments/questions for specific questions you have asked (see below).

1. Regarding laboratory detection limits for certain chemicals in the human health standards list. The lab has informed me that it may not be possible to meet the detection limits at certain wells with very high dissolved solids due to sample dilution requirements. The lab's comment was "we will give you the lowest limits possible without risking damage to the equipment". We are working with the lab to do the best possible, but there may be certain wells where results are with detection limits that exceed the standards set in 20.6.2.3103 due to the high levels of dissolved solids.

It is understood that the lab may not be able to meet the detection limits at certain wells with very high dissolved solids. OCD will still require the analytes with detection limits above regulatory standards to be reported. Please be advised that OCD will require continued monitoring and sampling at any location until at least 8 consecutive quarters of sampling results are below the regulatory limits. If the detection limits are above the regulatory limit, OCD will adopt a precautionary stance and assume those reported results are above the regulatory limit. Pursuant to [19.15.30.9 F. NMAC](#), alternative abatement standards may be requested during or after a stage 2 abatement plan submission.

2. Is it acceptable to run Nitrates and Nitrites using the combined Nitrate-Nitrite method EPA 353.2 instead of EPA 300? Reporting these as a combined analyte Nitrate-Nitrite by EPA 353.2 will help us get around dilutions forced by Chloride levels and will increase the hold time to 28 days.

I do not recall there being any issues with the detection limits of nitrate or nitrite in any of the previous sampling results, but I acknowledge that this may not be the case in the new wells to be installed. Can you elaborate as to why EPA Method 353.2 would be utilized over EPA Method 300?

3. To date the analytical methods used for groundwater have been from USEPA SW-846. We will continue with this approach.
4. Regarding radionuclides, EPA 900, 903, and 904 are most common to report Gross Alpha/Beta and Radium 226/228. These methods work well for low TDS water. Occasionally in high TDS water there are too many interferences for these methods, and if that's the case we might have to run other Rad methods like SM7110C for Gross Alpha and EPA 901.1 for the Radiums. The lab won't know until they start running tests.
5. EDB by 8260 unfortunately can't hit the requested reporting limits. As a result we will have to run it by 8260 SIM or by 8011. The lab's 8260 SIM scan goes down to 0.000035 mg/L, so this is what we will do.
6. The lab can hit the PAH limits using 8270 QQQ or SIM scan, so this is what we will use.

The latest question was:

"I would also like to raise the issue that the Joint Order specifies we run BTEX in soil using Method 8260, but we usually run BTEX in soil using Method 8261. In the past on this project BTEX in soil was analyzed using 8261. Table 1 in NMAC [19.15.21.12](#) includes 8261 as an acceptable method. With your approval we will run the soil BTEX using 8261."

8021 (I believe this is what method you were referring to. Please correct me if I am incorrect.) will not be approved as the order specifies that method 8260 must be utilized for the BTEX analyses of the soil.

Please do not hesitate to reach out with any additional questions.

Thank you,
Brittany Hall ● Environmental Field Compliance Supervisor
Environmental Field Compliance Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
505.517.5333 | Brittany.Hall@emnrd.nm.gov
<http://www.emnrd.nm.gov/ocd/>

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The Digital C-141 guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

From: John Builes <John.Builes@et.eurofinsus.com>
Sent: Monday, July 28, 2025 1:17 PM
To: Grams, John <John.Grams@terracon.com>; Powell, Brandon, EMNRD <Brandon.Powell@emnrd.nm.gov>; Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Cc: Bole, Barrett <Barrett.Bole@apachecorp.com>
Subject: [EXTERNAL] RE: EBDU #37 Field Work and Sampling

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Good Afternoon,

I believe there was a typo usually for this kind of work we run EPA method 8021 but we are capable of doing both 8021 and 8260.

Thank you!

John Builes J.D.
Project Manager

Eurofins Environment Testing (USA)

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Stafford, TX, 77477
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From: Grams, John <John.Grams@terracon.com>
Sent: Monday, July 28, 2025 2:30 PM
To: Powell, Brandon, EMNRD <Brandon.Powell@emnrd.nm.gov>; Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Cc: Bole, Barrett <Barrett.Bole@apachecorp.com>; John Builes <John.Builes@et.eurofinsus.com>
Subject: RE: EBDU #37 Field Work and Sampling

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Hello Brittany & Brandon,

I would also like to raise the issue that the Joint Order specifies we run BTEX in soil using Method 8260, but we usually run BTEX in soil using Method 8261. In the past on this project BTEX in soil was analyzed using 8261. Table 1 in NMAC [19.15.21.12](#) includes 8261 as an acceptable method. With your approval we will run the soil BTEX using 8261.

Thank you,

John

John Grams, P.G.
Senior Geologist / Client Account Manager



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john.grams@terracon.com | Terracon.com



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From: Grams, John
Sent: Friday, July 25, 2025 10:03 AM
To: Powell, Brandon, EMNRD <Brandon.Powell@emnrd.nm.gov>; Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Cc: Bole, Barrett <Barrett.Bole@apachecorp.com>; John Builes <john.builes@et.eurofinsus.com>
Subject: EBDU #37 Field Work and Sampling

Apache Corporation
EBDU #37
Incident NDHR1922141227 (1RP-5636)
Lea County, New Mexico
32.480705, -103.123085

Mr. Powell and Ms. Hall,

Apache Corp and Terracon plan to begin drilling activities at the EBDU 37 project location beginning August 4, 2025. We anticipate several weeks of drilling and groundwater sampling as described in Order R-23728-A. Formal notification of this work will be submitted to OCD on a form C-141-N, but I wanted to raise several issues for your consideration by email so that we may have some back and forth discussion if needed. We have been working diligently with Eurofins Laboratory to ensure we will be meeting the requirements for groundwater sampling and analysis. The lab has raised several questions and concerns we'd like to share with you and get your feedback. I have copied John Builes from Eurofins in case we need clarification on technical analytical questions.

1. Regarding laboratory detection limits for certain chemicals in the human health standards list. The lab has informed me that it may not be possible to meet the detection limits at certain wells with very high dissolved solids due to sample dilution requirements. The lab's comment was "we will give you the lowest limits possible without risking damage to the equipment". We are working with the lab to do the best possible, but there may be certain wells where results are with detection limits that exceed the standards set in 20.6.2.3103 due to the high levels of dissolved solids.
2. Is it acceptable to run Nitrates and Nitrites using the combined Nitrate-Nitrite method EPA 353.2 instead of EPA 300? Reporting these as a combined analyte Nitrate-Nitrite by EPA 353.2 will help us get around dilutions forced by Chloride levels and will increase the hold time to 28 days.
3. To date the analytical methods used for groundwater have been from USEPA SW-846. We will continue with this approach.
4. Regarding radionuclides, EPA 900, 903, and 904 are most common to report Gross Alpha/Beta and Radium 226/228. These methods work well for low TDS water. Occasionally in high TDS water there are too many interferences for these methods, and if that's the case we might have to run other Rad methods like SM7110C for Gross Alpha and EPA 901.1 for the Radiums. The lab won't know until they start running tests.

5. EDB by 8260 unfortunately can't hit the requested reporting limits. As a result we will have to run it by 8260 SIM or by 8011. The lab's 8260 SIM scan goes down to 0.000035 mg/L, so this is what we will do.
6. The lab can hit the PAH limits using 8270 QQQ or SIM scan, so this is what we will use.

I appreciate your time and consideration of the above. I'd be happy to set up a call to discuss if you feel that would be helpful.

Thank you,

John

John Grams, P.G.

Senior Geologist / Client Account Manager



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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

CONDITIONS

Action 497872

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 497872
	Action Type: [REPORT] Alternative Remediation Report (C-141AR)

CONDITIONS

Created By	Condition	Condition Date
bhall	Accepted for record. Be advised that the operator listed for this incident is not the operator who submitted this application.	9/5/2025