

**BEFORE THE OIL CONSERVATION DIVISION
EXAMINER HEARING JULY 6, 2023**

CASE NO. 23633

LOST TANK CLGC

EDDY AND LEA COUNTY, NEW MEXICO



**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF OXY USA INC. FOR
A CLOSED LOOP GAS CAPTURE
INJECTION PILOT PROJECT, LEA
AND EDDY COUNTIES, NEW MEXICO.**

CASE NO. 23633

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**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF OXY USA INC.
FOR A CLOSED LOOP GAS CAPTURE
INJECTION PILOT PROJECT, EDDY
AND LEA COUNTIES, NEW MEXICO.**

CASE NO. 23633

APPLICATION

OXY USA Inc. (“OXY” or “Applicant”) (OGRID No. 16696) through its undersigned attorneys, hereby files this application with the Oil Conservation Division for an order authorizing OXY to engage in a closed loop gas capture injection pilot project in the Bone Spring formation (“Pilot Project”). In support of this application, OXY states:

PROJECT OVERVIEW

1. OXY proposes to create a 1,958.92-acre, more or less, project area for this Pilot Project consisting of the following acreage identified below in Eddy and Lea Counties, New Mexico (the “Project Area”). See **Exhibit A** at 5.

Township 22 South, Range 31 East

Section 13: W/2 W/2
Section 12: W/2 W/2

Township 22 South, Range 32 East

Section 8: All
Section 17: All
Section 19: W/2 W/2
Section 30: W/2 W/2

2. The proposed Project Area is part of a larger area OXY refers to as the Lost Tank area.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 1
Submitted by: OXY USA INC.
Hearing Date: July 6, 2023
Case No. 23633

3. OXY seeks authority for this Pilot Project to avoid the temporary flaring of gas or the shut-in of producing wells during pipeline capacity constraints, mechanical difficulties, plant shutdowns, or other events impacting the ability to deliver gas into a pipeline.

4. Within the proposed Project Area, OXY seeks authority to utilize the following producing wells to occasionally inject produced gas into the Bone Spring formation:

- **Lost Tank 30-19 Federal Com 1H** (API No. 30-025-46474) with a surface location 128 feet FNL and 1235 feet FWL (Lot 1) in Section 19, Township 22 South, Range 32 East, and a bottom hole location 29 feet FSL and 971 feet FWL (Lot 4) in Section 30, Township 22 South, Range 32 East, NMPM, all in Lea County, New Mexico.
- **Top Spot 12-13 Federal Com 11H well** (API No. 30-015-48595) with a surface location 655 feet FSL and 2022 feet FWL (Unit N) in Section 13, Township 22 South, Range 31 East, and a bottom hole location 51 feet FNL and 448 feet FWL (Unit D) in Section 12, Township 22 South, Range 31 East, NMPM, all in Eddy, New Mexico.
- **Top Spot 12-13 Federal Com 1H well** (API No. 30-015-48594) with a surface location 655 feet FSL and 2087 feet FWL (Unit N) in Section 13, Township 22 South, Range 31 East, and a bottom hole location 51 feet FNL and 764 feet FWL (Unit D) in Section 12, Township 22 South, Range 31 East, NMPM, all in Eddy, New Mexico.
- **Top Spot 12-13 Federal Com 21H well** (API No. 30-015-47771) with a surface location 655 feet FSL and 2052 feet FWL (Unit N) in Section 13, Township 22 South, Range 31 East, and a bottom hole location 49 feet FNL

and 449 feet FWL (Unit D) in Section 12, Township 22 South, Range 31 East, NMPM, all in Eddy, New Mexico.

- **Dr Pi Federal Unit 17 8 DA 21H well** (API No. 30-025-48282) with a surface location 530 feet FSL and 1075 feet FWL (Unit M) in Section 17, Township 22 South, Range 32 East, and a bottom hole location 52 feet FNL and 453 feet FWL (Unit D) in Section 8, Township 22 South, Range 32 East, NMPM, all in Eddy County, New Mexico.
- **Dr Pi Federal Unit 17 8 DA 23H well** (API No. 30-025-48947) with a surface location 530 feet FSL and 1145 feet FWL (Unit M) in Section 17, Township 22 South, Range 32 East, and a bottom hole location 37 feet FNL and 2193 feet FWL (Unit D) in Section 8, Township 22 South, Range 32 East, NMPM, all in Eddy County, New Mexico.
- **Dr Pi Federal Unit 17 8 DA 25H well** (API No. 30-025-48949) with a surface location 455 feet FSL and 1565 feet FEL (Unit O) in Section 17, Township 22 South, Range 32 East, and a bottom hole location 40 feet FNL and 1282 feet FEL (Unit D) in Section 8, Township 22 South, Range 32 East, NMPM, all in Eddy County, New Mexico.
- **Dr Pi Federal Unit 17 8 DA 26H well** (API No. 30-025-48950) with a surface location 455 feet FSL and 1530 feet FEL (Unit O) in Section 17, Township 22 South, Range 32 East, and a bottom hole location 61 feet FNL and 322 feet FEL (Unit D) in Section 8, Township 22 South, Range 32 East, NMPM, all in Eddy County, New Mexico. See **Exhibit A** at 7-14.

5. The proposed average injection rate for each well is 3 MMSCFD with a maximum injection rate of 4 MMSCFD during injection. *See Exhibit A* at 31.

6. The maximum achievable surface pressure (MASP) for the wells in the Pilot Project is proposed to be 1,300 psi. *See Exhibit A* at 31. The current average surface pressures under normal operations for the proposed injection wells range from approximately 185 psi to 850 psi. *Id.*

7. Injection along the horizontal portion of the wellbores will be within the Bone Spring formation, Pierce Crossing; Bone Spring East Pool (Pool Code 96473), at the following approximate true vertical depths:

- **Lost Tank 30-19 Federal Com 1H** between 9,829 feet and 9,875 feet;
- **Top Spot 12-13 Federal Com 11H well** between 9,005 feet and 9,037 feet
- **Top Spot 12-13 Federal Com 1H well** between 9,853 feet and 9,822 feet
- **Top Spot 12-13 Federal Com 21H well** between 10,319 feet and 10,383 feet
- **Dr Pi Federal Unit 17 8 DA 21H well** between 10,636 feet and 10,641 feet
- **Dr Pi Federal Unit 17 8 DA 23H well** between 10,585 feet and 10,594 feet
- **Dr Pi Federal Unit 17 8 DA 25H well** between 10,699 feet and 10,637 feet
- **Dr Pi Federal Unit 17 8 DA 26H well** between 10,649 feet and 10,543 feet.

See Exhibit A at 15-30.

8. Due to the location and curvature of the kickoff point in **Top Spot 12-13 Federal Com 11H well**, OXY also requests an exception for the 100-foot packer setting depth requirement applied to vertical injection wells that packers be set within one hundred feet of the uppermost perforations or casing shoe.

9. A map depicting the pipeline that ties the wells proposed for the Pilot Project into the gathering system and the affected compressor station is included in the attached **Exhibit A** at 5.

WELL DATA

10. Information on the well data, including well diagrams and well construction, casing, tubing, packers, cement, perforations, and other details for each proposed injection well are included in the attached **Exhibit A** at pages 15-30.

11. The proposed maximum achievable surface pressure will not exert pressure at the top perforation in the wellbore of any injection well with a full fluid column of reservoir brine water in excess of 90% of the burst pressure for the production casing or production liner. *See Exhibit A* at 31. In addition, the proposed maximum achievable surface pressure will not exert pressure at the topmost perforation in excess of 90% of the formation parting pressure. *See Exhibit A* at 31.

12. Cement bond logs¹ for each of the injection wells demonstrate the placement of cement in the wells proposed for this Pilot Project and that there is a good and sufficient cement bond with the production casing and the tie-in of the production casing with the next prior casing in each well.

13. The wells proposed for injection in the Pilot Project have previously demonstrated mechanical integrity. *See Exhibit A* at 33. OXY will undertake new tests to demonstrate mechanical integrity for each well proposed for this Pilot Project as a condition of approval prior to commencing injection operations.

¹ Electronic versions of the cement bond logs will be submitted to the Division through each well file.

GEOLOGY AND RESERVOIR

14. Data and a geologic analysis confirming that the Bone Spring formation is suitable for the proposed Pilot Project is included in **Exhibit A** at pages 54-66. A general characterization of the geology of the Bone Spring formation and its suitability for the proposed injection, including identification of confining layers and their ability to prevent vertical movement of the injected gas is included in the analysis. *Id.*

15. The top of the Bone Spring formation in this area is at approximately 8,400 feet total vertical depth and extends down to the top of the Wolfcamp formation at approximately 11,900 feet total vertical depth. *See Exhibit A* at 56.

16. Zones that are productive of oil and gas are located above and below the targeted injection interval. *See Exhibit A* at 54, 56.

17. Reservoir modeling indicates anticipated horizontal movement of injected gas will be approximately 100 feet or less from each injection wellbore within the Bone Spring formation. *See Exhibit A* at 75.

18. OXY has prepared calculations estimating the stimulated reservoir volume based on supporting empirical data and a reservoir model to evaluate potential effects on wells adjacent to the Project Area. *See Exhibit A* at 69-79. OXY's analysis concludes that there will be no change in the oil recovery from each of its proposed injection wells or from any of the offsetting wells. *See id.* at 78.

19. The source of gas for injection will be from OXY's Top Spot, Lost Tank, and Dr Pi Federal Unit wells producing from the Bone Spring and Wolfcamp formations that are identified in the list of wells in **Exhibit A** at page 34. All proposed temporary injection wells and gas source wells are commingled under the approved gas surface commingling permit PLC-867A. Additional

source wells may be added over time under an approved surface commingling authorization. Each of OXY's proposed injection wells are operated by OXY.

20. OXY has prepared an analysis of the composition of the source gas for injection and a corrosion prevention plan. *See Exhibit A* at 37-41.

21. OXY has examined the available geologic and engineering data and found no evidence of open faults or other hydrologic connections between the injection zone and any underground source of drinking water. *See Exhibit A* at 67. OXY has also examined the available geologic and engineering data and determined that the total recoverable volume of hydrocarbons from the reservoir will not be adversely affected by the Pilot Project. *See Exhibit A* at 79.

GAS ALLOCATION

28. OXY's proposes a method of gas allocation following a temporary injection event has been previously approved by the Division. *See Exhibit A* at 83-84.

AREA OF REVIEW

22. OXY has prepared maps depicting the surface hole location and trajectory of the proposed injection wells, the location of every well within a two-mile radius, leases within two miles, and the half-mile area of review. *See Exhibit A* at pages 47-49.

23. A tabulation of data for wells that penetrate the proposed injection interval or the confining layer within the half-mile area of review is included in **Exhibit A** at pages 49-51, along with well-bore schematics for wells that are plugged and abandoned or temporarily abandoned. *See Exhibit A* at 52.

OPERATIONS AND SAFETY

24. OXY plans to monitor injection and operational parameters for the Pilot Project using an automated supervisory control and data acquisition (SCADA) system with pre-set alarms

and automatic shut-in safety valves that will prevent injection pressures from exceeding the MASP. *See Exhibit A* at pages 44-45. OXY will also monitor and track various operational parameters at the Pilot Project's central tank battery and central gas lift compressors. *See id.*


25. A copy of this application will be provided by certified mail to the surface owner on which each injection well identified herein is located, and to each leasehold operator and other affected persons within any tract wholly or partially contained within one-half mile of the completed interval of the wellbore for each of the proposed injection wells. A list of the affected parties subject to notice is included in **Exhibit A** at 88-92, along with a map and list identifying each tract subject to notice. *See Exhibit A* at 81-82.

26. Approval of this Pilot Project is in the best interests of conservation, the prevention of waste, and the protection of correlative rights.

WHEREFORE, OXY USA Inc. requests that this Application be set for hearing before an Examiner of the Oil Conservation Division on July 6, 2023, and that after notice and hearing this Application be approved.

Respectfully submitted,

HOLLAND & HART LLP

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ATTORNEYS FOR OXY USA INC.

CASE _____:

Application of OXY USA Inc. for Closed Loop Gas Capture Injection Pilot Project, Eddy and Lea Counties, New Mexico.

Applicant in the above-styled cause seeks an order authorizing it to engage in a closed loop gas capture injection pilot project ("Pilot Project") in the Bone Spring formation within a 1,958.92-acre, more or less, project area for this Pilot Project consisting of the following acreage identified below in Eddy and Lea Counties, New Mexico (the "Project Area"):

Township 22 South, Range 31 East

Section 13: W/2 W/2

Section 12: W/2 W/2

Township 22 South, Range 32 East

Section 8: All

Section 17: All

Section 19: W/2 W/2

Section 30: W/2

Applicant proposes to occasionally inject into the following producing wells to avoid the temporary flaring of gas or the shut-in of producing wells during pipeline capacity constraints, mechanical difficulties, plant shutdowns, or other events impacting the ability to deliver gas into a pipeline:

- **Lost Tank 30-19 Federal Com 1H** (API No. 30-025-46474) with a surface location 128 feet FNL and 1235 feet FWL (Lot 1) in Section 19, Township 22 South, Range 32 East, and a bottom hole location 29 feet FSL and 971 feet FWL (Lot 4) in Section 30, Township 22 South, Range 32 East, NMPM, all in Lea County, New Mexico.
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OXY seeks authority to utilize these producing wells to occasionally inject produced gas into the Bone Spring formation at total vertical depths of between approximately 9,005 feet to 10,699 feet along the horizontal portion of each wellbore at surface injection pressures of no more than 1,300 psi. at an average injection rate of 3 MMSCF per day and a maximum injection rate of 4 MMSCF per day. The source of the produced gas will be from the Bone Spring and Wolfcamp formations. The subject acreage is located approximately 22 miles northeast of Loving, New Mexico.

EXHIBIT A

Lost Tank Closed Loop Gas Capture (CLGC) Project



General Project Description: Closed Loop Gas Capture (CLGC) Project Oxy- 2023 Lost Tank

Summary of Requested Relief

1. Authority to operate a closed loop gas capture project ("CLGC") project consisting of eight (8) wells. The project will help to prevent waste and reduce adverse impacts from temporary interruptions of gas pipeline capacity.
2. Maximum Allowable Surface Pressure (MASP) of 1300 psi.
3. An exception for the 100-foot packer setting depth requirement applied to vertical injection wells.

Overview

Oxy USA Inc. (Oxy) is proposing a Closed Loop Gas Capture (CLGC) project. On occasion, third-party gas purchasers reduce takeaway capacity and cause interruptions that result in flaring or shut in production. During these interruptions, Oxy will utilize CLGC wells to capture gas and reduce flaring.

Oxy has experienced interruptions where the third-party gas purchaser temporarily reduced takeaway capacity from this project area, resulting in the flaring of gas or the immediate shut-in of production. Approval of this application will significantly reduce such flaring or shut-in production in the future.

Operations During Interruption	Operations During Interruption With CLGC System	Benefits
<ul style="list-style-type: none">• Flare gas• Shut in production	<ul style="list-style-type: none">• Store gas• Continue production• No additional surface disturbances	<ul style="list-style-type: none">• Reduce greenhouse gas emissions• Improve economic recovery of mineral resources including gas that might have been flared• Utilize existing infrastructure

Proposed Operations

Oxy has an extensive high-pressure gas system in the Lost Tanks area. It is used for gas lift operations, a type of artificial lift. Oxy plans to utilize the same system for gas storage operations. Very minimal equipment on surface will need to be installed prior to starting storage operations.

Mark West is the third-party gas purchaser for the Lost Tanks area. If an interruption occurs, Oxy will divert gas from the takeaway line back into the gas lift injection system. Gas will flow from the Central Gas Lift (CGL) Compressor Stations through the flow meter, control valve, safety shutdown valve, wellhead and into the wellbore for storage. Gas will be injected down the casing/tubing annulus in these wells. Simultaneously, the proposed CLGC well will be shut in by closing the electric choke upstream of the production flowline. After the interruption has ended, the electric choke will open and the CLGC well resumes production.

Gas Surface Commingling Permit

The Lost Tank area will be commingled at a future date under the approved gas surface commingling permit PLC-867A.

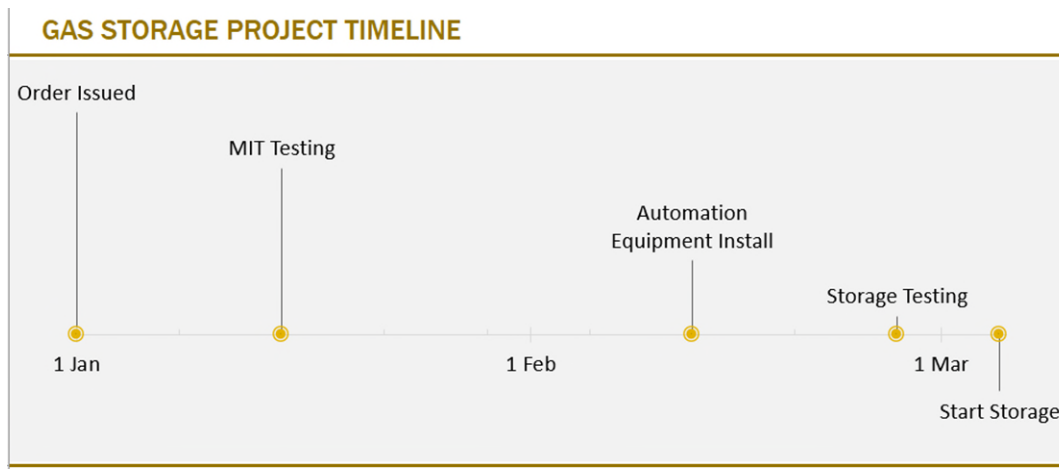
Wells

There are 8 wells proposed in this application.

API10	Well Name
30-025-46474	LOST TANK 30-19 FEDERAL COM 1H
30-015-48595	TOP SPOT 12_13 FED COM 11H
30-015-48594	TOP SPOT 12_13 FED COM 1H
30-015-47771	TOP SPOT 12_13 FED COM 21H
30-025-48282	DR PI FEDERAL UNIT 17 8 DA 21H
30-025-48947	DR PI FEDERAL UNIT 17 8 DA 23H
30-025-48949	DR PI FEDERAL UNIT 17 8 DA 25H
30-025-48950	DR PI FEDERAL UNIT 17 8 DA 26H

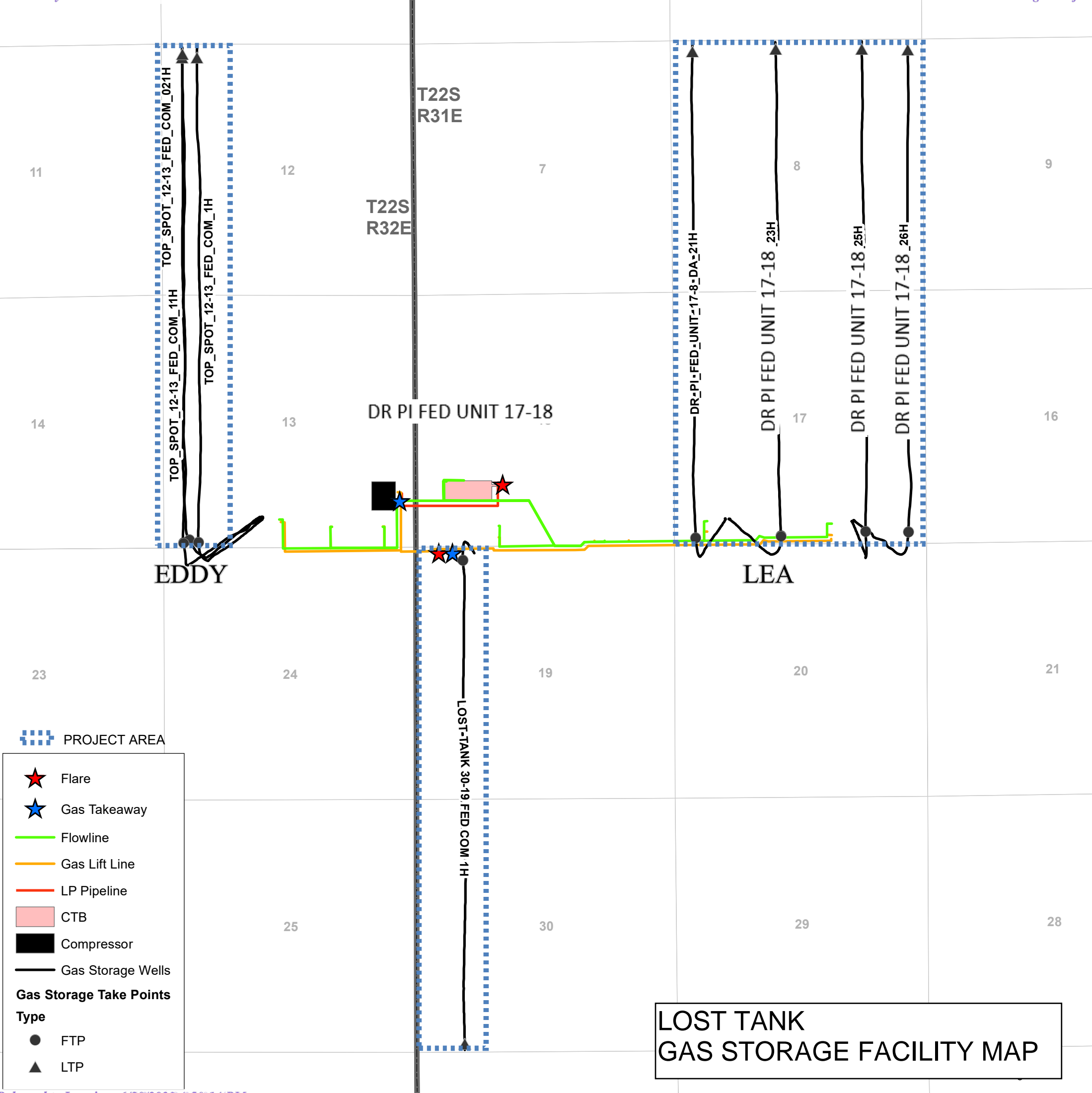
Timeline

Since no new surface disturbances are required, this project can be implemented with minimal facility modifications. The timeline below assumes an order is issued on January 1 for illustration purposes.



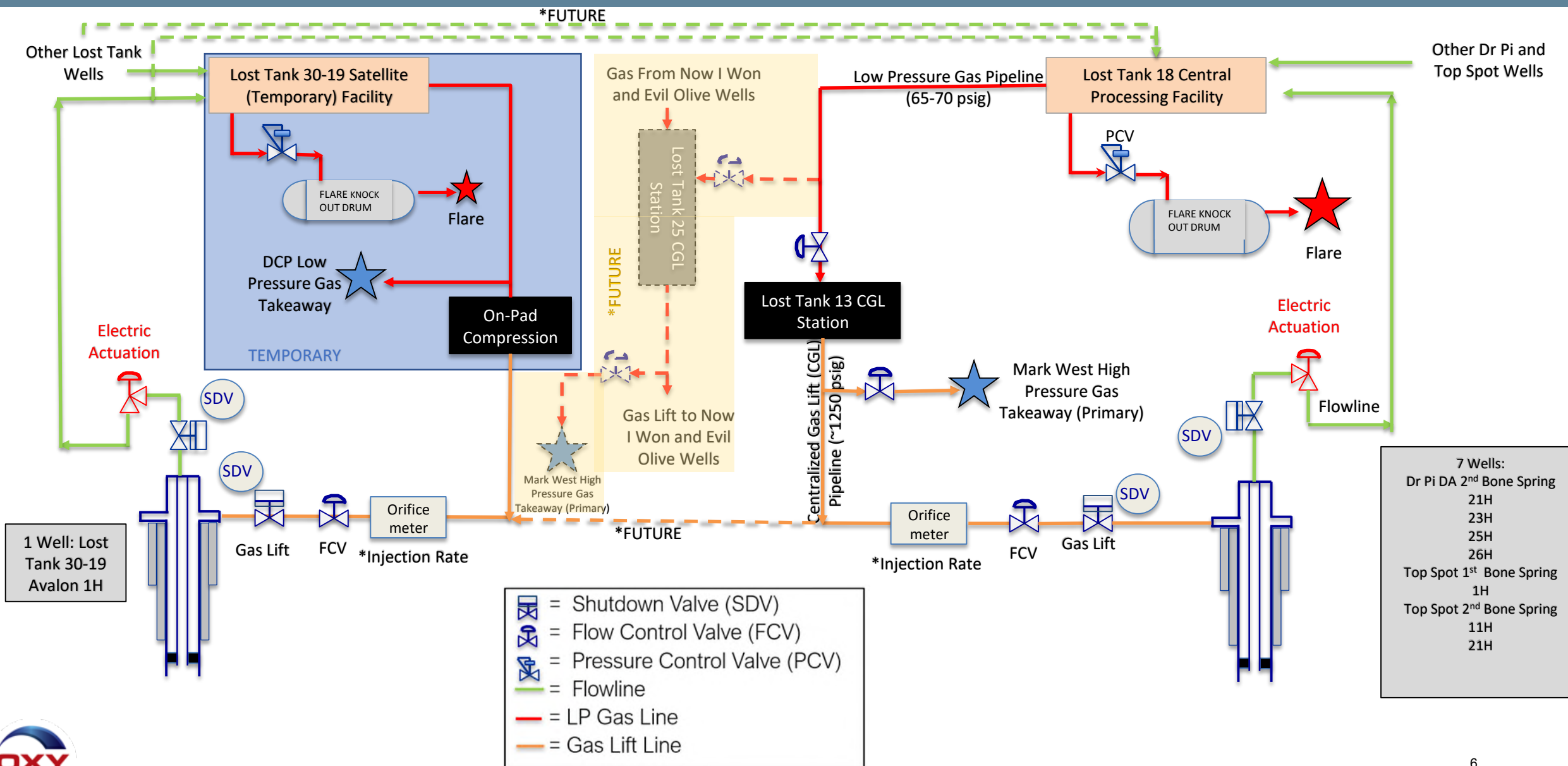
Facilities and Production





LOST TANK
GAS STORAGE FACILITY MAP

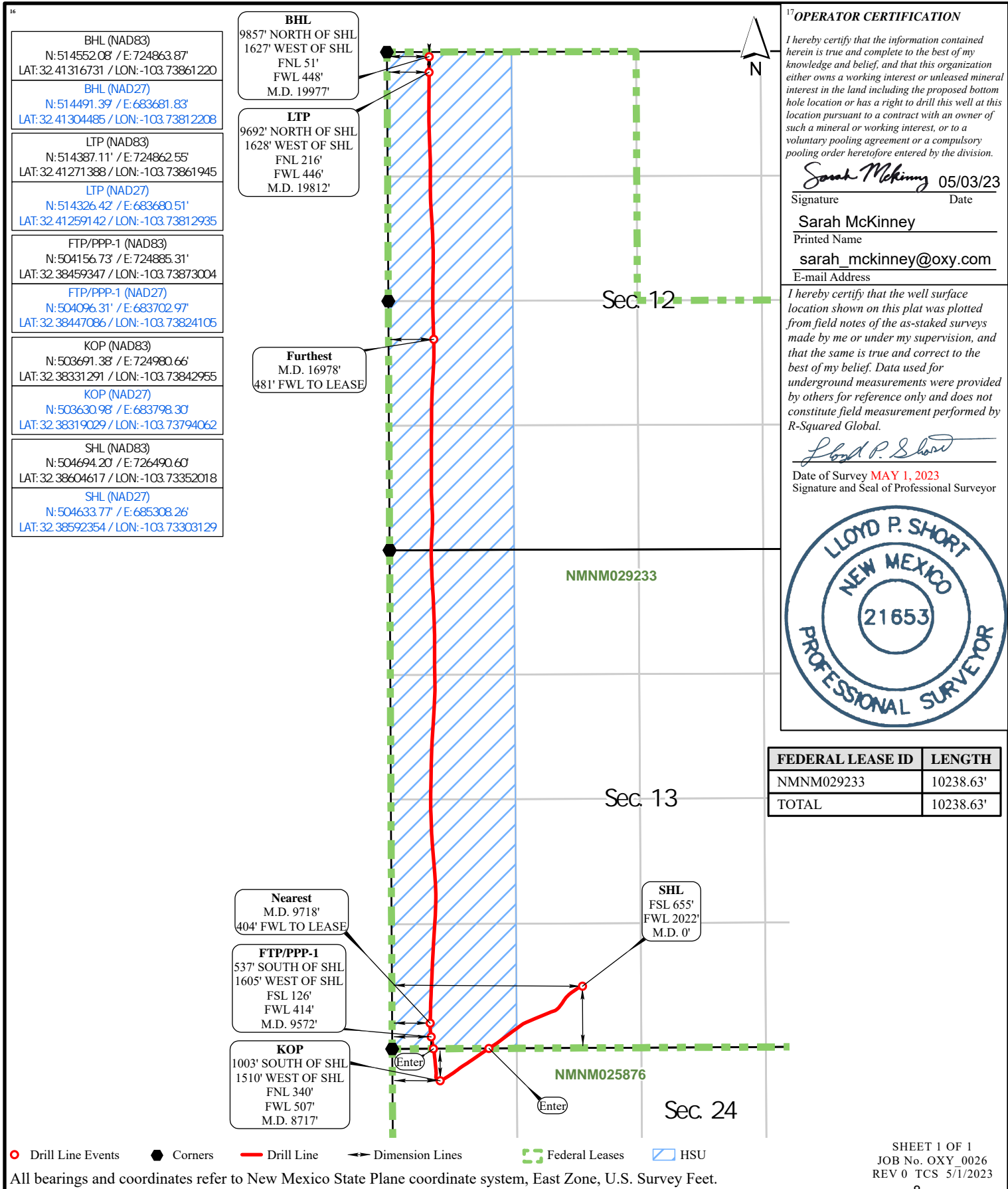
Lost Tank Gas Process Flow Diagram



*Dashed lines show future gas gathering system and facilities

Form C-102 Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT



State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

☐ AMENDED REPORT

¹ API Number 30-015 - 48594		² Pool Code 5695		³ Pool Name BILBREY BASIN, BONE SPRING	
⁴ Property Code 329719		⁵ Property Name TOP SPOT 12_13 FEDERAL COM			⁶ Well Number 1H
⁷ OGRID No. 16696		⁸ Operator Name OXY USA INC.			⁹ Elevation 3568'

UL or lot no. N	Section 13	Township 22S	Range 31E	Lot Idn	Feet from the 655	North/South line South	Feet from the 2087	East/West line West	County EDDY
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UL or lot no. D	Section 12	Township 22S	Range 31E	Lot Idn	Feet from the 51	North/South line North	Feet from the 764	East/West line West	County EDDY
¹² Dedicated Acres 320.00		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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BHL (NAD83)
N:514552.73 / E:725180.14'
LAT:32.41316425 / LON:-103.73758736

BHL (NAD27)
N:514492.04' / E:683998.10'
LAT:32.41304179 / LON:-103.73709727

LTP (NAD83)
N:514334.89' / E:725176.50'
LAT:32.41256554 / LON:-103.73760309

LTP (NAD27)
N:514274.20' / E:683994.45'
LAT:32.41244307 / LON:-103.73711302

FTP/PPP-1 (NAD83)
N:504164.46' / E:725206.37'
LAT:32.38460980 / LON:-103.73768988

FTP/PPP-1 (NAD27)
N:504104.04' / E:684024.02'
LAT:32.38448719 / LON:-103.73720092

KOP (NAD83)
N:503785.36' / E:725416.78'
LAT:32.38356455 / LON:-103.73701513

KOP (NAD27)
N:503724.95' / E:684234.42'
LAT:32.38344193 / LON:-103.73652623

SHL (NAD83)
N:504694.60' / E:726555.60'
LAT:32.38604626 / LON:-103.73330962

SHL (NAD27)
N:504634.17' / E:685373.26'
LAT:32.38592364 / LON:-103.73282073

BHL
9858' NORTH OF SHL
1375' WEST OF SHL
FNL 51'
FWL 764'
M.D. 20685'

LTP
9640' NORTH OF SHL
1379' WEST OF SHL
FNL 268'
FWL 759'
M.D. 20467'

Nearest
M.D. 17640'
508' FEL TO LEASE

Sec. 12

NMNM029233

Sec. 13

Sec. 24

NMNM025876

Furthest
M.D. 10354'
589' FEL TO LEASE

FTP/PPP-1
530' SOUTH OF SHL
1349' WEST OF SHL
FSL 132'
FWL 735'
M.D. 10288'

KOP
909' SOUTH OF SHL
1139' WEST OF SHL
FNL 248'
FWL 944'
M.D. 9365'

SHL
FSL 655'
FWL 2087'
M.D. 0'

Enter

Enter

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Sarah McKinney 05/03/2023

Signature Date

Sarah McKinney

Printed Name

sarah_mckinney@oxy.com

E-mail Address

I hereby certify that the well surface location shown on this plat was plotted from field notes of the as-staked surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Data used for underground measurements were provided by others for reference only and does not constitute field measurement performed by R-Squared Global.

Lloyd P. Short

Date of Survey MAY 1, 2023

Signature and Seal of Professional Surveyor

LLOYD P. SHORT
NEW MEXICO
21653
PROFESSIONAL SURVEYOR

FEDERAL LEASE ID	LENGTH
NMNM029233	10176.96'
TOTAL	10176.96'

● Drill Line Events ● Corners — Drill Line — Dimension Lines ■ Federal Leases ■ HSU

All bearings and coordinates refer to New Mexico State Plane coordinate system, East Zone, U.S. Survey Feet.

SHEET 1 OF 3
JOB No. OXY_0026
REV 0 BM 5/1/2023

Released to Imaging: 6/30/2023 4:50:14 PM

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

☐ AMENDED REPORT

¹ API Number 30-015-47771		² Pool Code 5695	³ Pool Name BILBREY BASIN, BONE SPRING	
⁴ Property Code 329719	⁵ Property Name TOP SPOT 12 13 FEDERAL COM			⁶ Well Number 21H
⁷ OGRID No. 16696	⁸ Operator Name OXY USA INC.			⁹ Elevation 3568'

UL or lot no. N	Section 13	Township 22S	Range 31E	Lot Idn	Feet from the 655	North/South line South	Feet from the 2052	East/West line West	County EDDY
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UL or lot no. D	Section 12	Township 22S	Range 31E	Lot Idn	Feet from the 49	North/South line North	Feet from the 449	East/West line West	County EDDY
¹² Dedicated Acres 320.00		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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BHL (NAD83)
N: 514553.16' / E: 724865.26'
LAT: 32.41317025 / LON: -103.73860768

BHL (NAD27)
N: 514492.47' / E: 683683.22'
LAT: 32.41304780 / LON: -103.73811756

LTP (NAD83)
N: 514332.27' / E: 724867.16'
LAT: 32.41256307 / LON: -103.73860551

LTP (NAD27)
N: 514271.58' / E: 683685.11'
LAT: 32.41244061 / LON: -103.73811541

FTP/PPP-1 (NAD83)
N: 504217.46' / E: 725011.50'
LAT: 32.38475848 / LON: -103.73832017

FTP/PPP-1 (NAD27)
N: 504157.05' / E: 683829.16'
LAT: 32.38463587 / LON: -103.73783119

KOP (NAD83)
N: 503848.01' / E: 725378.02'
LAT: 32.38373735 / LON: -103.73713956

KOP (NAD27)
N: 503787.60' / E: 684195.66'
LAT: 32.38361473 / LON: -103.73665065

SHL (NAD83)
N: 504694.40' / E: 726520.60'
LAT: 32.38604625 / LON: -103.73342300

SHL (NAD27)
N: 504633.97' / E: 685338.26'
LAT: 32.38592363 / LON: -103.73293411

BHL
9858' NORTH OF SHL
1655' WEST OF SHL
FNL 49'
FWL 449'
M.D. 21154'

LTP
9337' NORTH OF SHL
1653' WEST OF SHL
FNL 270'
FWL 450'
M.D. 20933'

Nearest
M.D. 12554'
412' FWL TO LEASE

Furthest
M.D. 10791'
541' FWL TO LEASE

FTP/PPP-1
476' SOUTH OF SHL
1509' WEST OF SHL
FSL 187'
FWL 540'
M.D. 10791'

KOP
846' SOUTH OF SHL
1143' WEST OF SHL
FNL 185'
FWL 905'
M.D. 9897'

SHL
FSL 655'
FWL 2052'
M.D. 0'

NMNM029233

NMNM025876

Sec. 12

Sec. 13

Sec. 24

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Sarah McKinney 5/03/23
Signature Date

Sarah McKinney
Printed Name

sarah_mckinney@oxy.com
E-mail Address

I hereby certify that the well surface location shown on this plat was plotted from field notes of the as-staked surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Data used for underground measurements were provided by others for reference only and does not constitute field measurement performed by R-Squared Global.

Lloyd P. Short
Date of Survey MAY 1, 2023
Signature and Seal of Professional Surveyor

FEDERAL LEASE ID LENGTH

NMNM029233	10132.1'
TOTAL	10132.1'

LLOYD P. SHORT
NEW MEXICO
21653
PROFESSIONAL SURVEYOR

Legend:
● Drill Line Events
● Corners
— Drill Line
— Dimension Lines
- - - Federal Leases
▨ HSU

All bearings and coordinates refer to New Mexico State Plane coordinate system, East Zone, U.S. Survey Feet.

SHEET 1 OF 1
JOB No. OXY_0026
REV 0 TCS 5/1/2023
10

1625 N. French Dr., Hobbs, NM 88240
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 1000 Rio Brazos Road, Aztec, NM 87410
 Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
 1220 S. St. Francis Dr., Santa Fe, NM 87505
 Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
 Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

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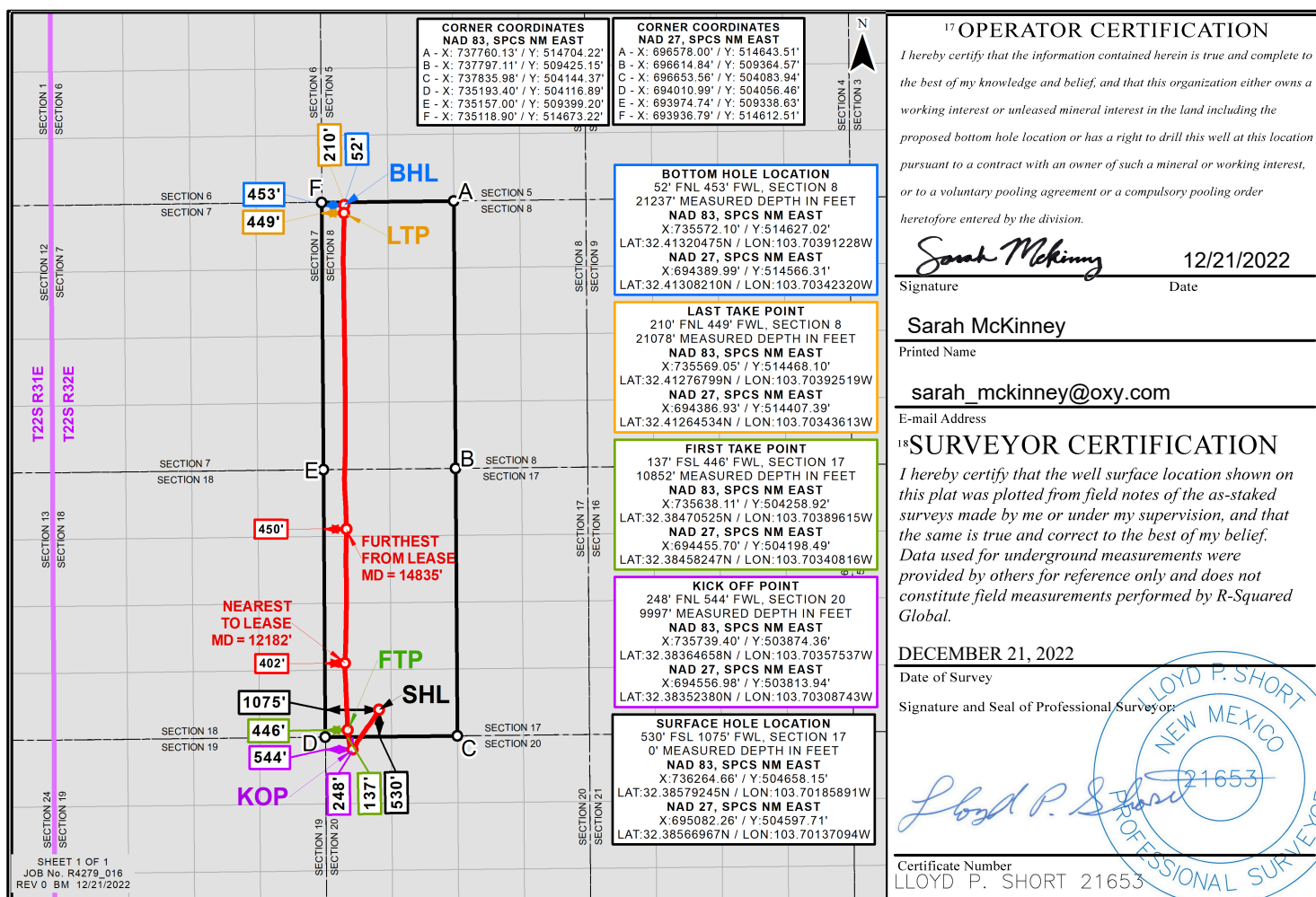
WELL LOCATION AND ACREAGE DEDICATION AS-DRILLED PLAT

¹ API Number 30-025-48282	² Pool Code 97366	³ Pool Name BILBREY BASIN; BONE SPRING, SOUTH
⁴ Property Code 332769	Property Name DR PI FEDERAL UNIT 17_8 DA	
⁷ OGRID No. 16696	⁸ Operator Name OXY USA INC.	⁶ Well Number 21H
		⁹ Elevation 3690'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	17	22S	32E		530	SOUTH	1075	WEST	LEA
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	8	22S	32E		52	NORTH	453	WEST	LEA
¹² Dedicated Acres 640.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



Distances/areas relative to NAD 83 Combined Scale Factor: 0.99995379 Convergence Angle: 00°20'34.080000"

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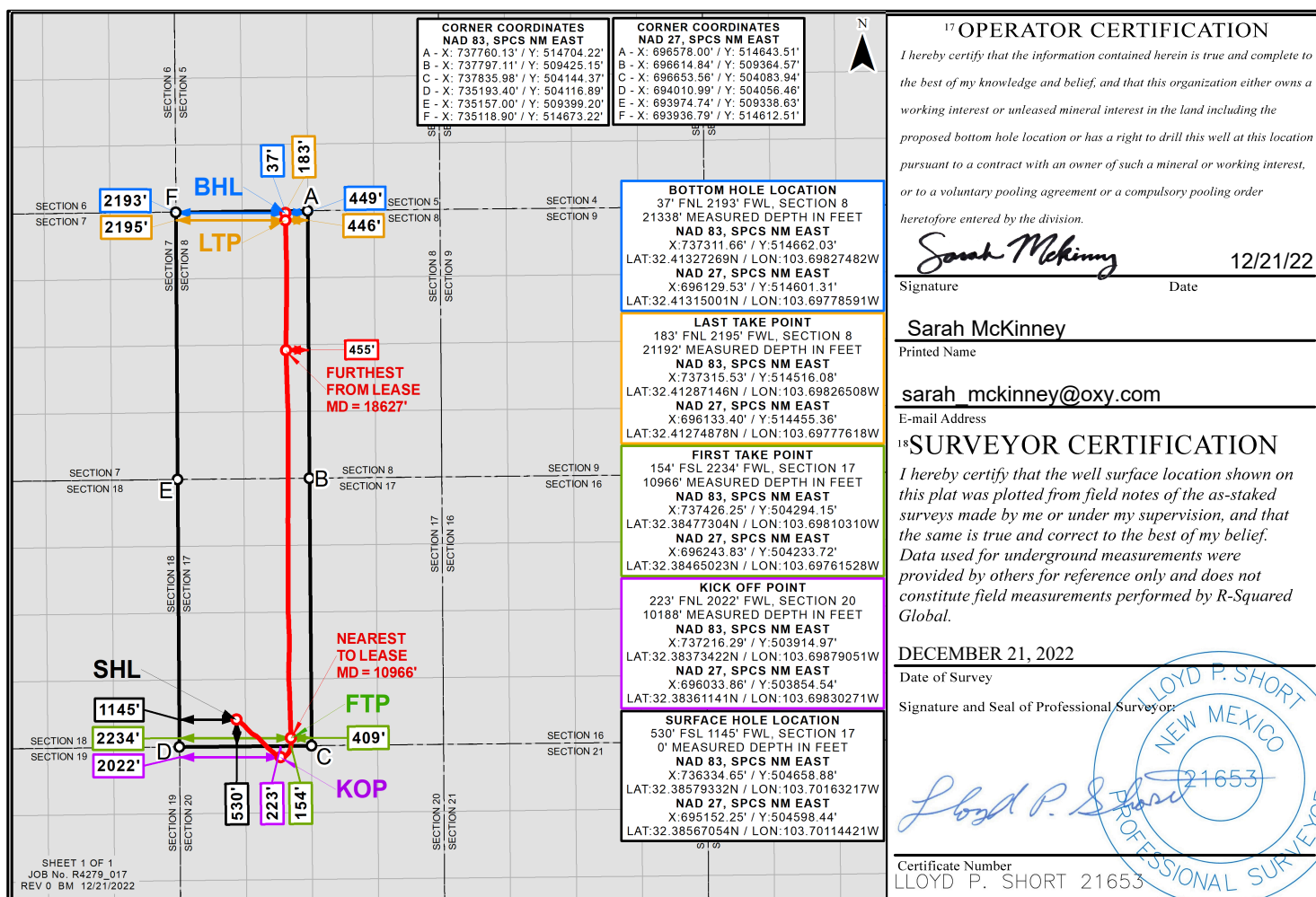
WELL LOCATION AND ACREAGE DEDICATION AS-DRILLED PLAT

¹ API Number 30-025-48947	² Pool Code 97366	³ Pool Name BILBREY BASIN; BONE SPRING, SOUTH
⁴ Property Code 332769	Property Name DR PI FEDERAL UNIT 17_8 DA	
⁷ OGRID No. 16696	⁸ Operator Name OXY USA INC.	⁶ Well Number 23H
		⁹ Elevation 3690'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	17	22S	32E		530	SOUTH	1145	WEST	LEA
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	8	22S	32E		37	NORTH	2193	WEST	LEA
¹² Dedicated Acres 640.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



Distances/areas relative to NAD 83 Combined Scale Factor: 0.99995379 Convergence Angle: 00°20'34.080000"

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State of New Mexico

Energy, Minerals & Natural Resources Department

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Santa Fe, NM 87505

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WELL LOCATION AND ACREAGE DEDICATION AS-DRILLED PLAT

¹ API Number 30-025-48949	² Pool Code 97366	³ Pool Name BILBREY BASIN; BONE SPRING, SOUTH
⁴ Property Code 329931	Property Name DR PI FEDERAL UNIT 17_8 DA	
⁷ OGRID No. 16696	⁸ Operator Name OXY USA INC.	⁶ Well Number 25H
		⁹ Elevation 3674'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	17	22S	32E		455	SOUTH	1565	EAST	LEA
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	22S	32E		40	NORTH	1282	EAST	LEA
¹² Dedicated Acres 640.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 740420.51' / Y: 512091.09' B - X: 740439.76' / Y: 509452.87' C - X: 740458.84' / Y: 506812.70' D - X: 740477.13' / Y: 504171.78' E - X: 737835.98' / Y: 504144.37' F - X: 737797.11' / Y: 509425.15' G - X: 737760.13' / Y: 514704.22' H - X: 740401.36' / Y: 514735.23'	CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 699238.29' / Y: 512030.44' B - X: 699257.47' / Y: 509392.29' C - X: 699276.47' / Y: 506752.19' D - X: 699294.69' / Y: 504111.34' E - X: 698653.56' / Y: 504083.94' F - X: 698614.84' / Y: 509364.57' G - X: 698578.00' / Y: 514643.51' H - X: 699219.21' / Y: 514674.51'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <i>Sarah McKinney</i> Date: 12/15/2022 Printed Name: Sarah McKinney E-mail Address: sarah_mckinney@oxy.com	
	BOTTOM HOLE LOCATION 40' FNL 1282' FEL, SECTION 8 21362' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 739120.16' / Y: 514679.77' LAT: 32.41329178N / LON: 103.69241431W NAD 27, SPCS NM EAST X: 697938.02' / Y: 514619.05' LAT: 32.41316907N / LON: 103.69192557W	LAST TAKE POINT 153' FNL 1281' FEL, SECTION 8 21249' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 739121.65' / Y: 514566.79' LAT: 32.41298122N / LON: 103.69241168W NAD 27, SPCS NM EAST X: 697939.51' / Y: 514506.07' LAT: 32.41285851N / LON: 103.69192296W	FIRST TAKE POINT 236' FSL 1272' FEL, SECTION 17 11072' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 739203.47' / Y: 504394.39' LAT: 32.38501943N / LON: 103.69234414W NAD 27, SPCS NM EAST X: 698021.05' / Y: 504333.95' LAT: 32.38489659N / LON: 103.69185647W	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well surface location shown on this plat was plotted from field notes of the as-staked surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Data used for underground measurements were provided by others for reference only and does not constitute field measurements performed by R-Squared Global. DECEMBER 14, 2022 Date of Survey Signature and Seal of Professional Surveyor: <i>Lloyd P. Short</i> Certificate Number: LLOYD P. SHORT 21653
	KICK OFF POINT 318' FNL 1277' FEL, SECTION 20 10196' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 739201.90' / Y: 503840.65' LAT: 32.38349740N / LON: 103.69235998W NAD 27, SPCS NM EAST X: 698019.46' / Y: 503780.22' LAT: 32.38337456N / LON: 103.69187237W	SURFACE HOLE LOCATION 455' FSL 1565' FEL, SECTION 17 0' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 738908.99' / Y: 504610.59' LAT: 32.38561853N / LON: 103.69329387W NAD 27, SPCS NM EAST X: 697726.57' / Y: 504550.14' LAT: 32.38459570N / LON: 103.69280616W		

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99995379 Convergence Angle: 00°20'34.080000"

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WELL LOCATION AND ACREAGE DEDICATION AS-DRILLED PLAT

¹ API Number 30-025-48950	² Pool Code 97366	³ Pool Name BILBREY BASIN; BONE SPRING, SOUTH
⁴ Property Code 329931	Property Name DR PI FEDERAL UNIT 17_8 DA	
⁷ OGRID No. 16696	⁸ Operator Name OXY USA INC.	⁶ Well Number 26H
		⁹ Elevation 3674'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	17	22S	32E		455	SOUTH	1530	EAST	LEA
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	22S	32E		61	NORTH	322	EAST	LEA
¹² Dedicated Acres 640.0	¹³ Joint or Infill	¹⁴ Consolidation Code		¹⁵ Order No.					

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p>CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 740420.51' / Y: 512091.09' B - X: 740458.84' / Y: 509452.87' C - X: 740477.13' / Y: 504171.78' D - X: 737835.98' / Y: 504144.37' E - X: 737797.11' / Y: 509425.15' F - X: 737760.13' / Y: 514704.22' G - X: 740401.36' / Y: 514735.23'</p> <p>CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 699238.29' / Y: 512030.44' B - X: 699257.47' / Y: 509392.29' C - X: 699276.47' / Y: 506752.19' D - X: 699294.69' / Y: 504111.34' E - X: 696653.56' / Y: 504083.94' F - X: 696614.84' / Y: 509364.57' G - X: 696578.00' / Y: 514643.51' H - X: 699219.21' / Y: 514674.51'</p> <p>BOTTOM HOLE LOCATION 61' FNL 322' FEL, SECTION 8 21370' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 740080.16' / Y: 514670.56' LAT: 32.41325061N / LON: 103.68930376W NAD 27, SPCS NM EAST X: 698898.01' / Y: 514609.84' LAT: 32.41312788N / LON: 103.68881512W</p> <p>LAST TAKE POINT 174' FNL 318' FEL, SECTION 8 21257' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 740085.05' / Y: 514557.69' LAT: 32.41294030N / LON: 103.68929010W NAD 27, SPCS NM EAST X: 698902.90' / Y: 514496.98' LAT: 32.41281757N / LON: 103.68880148W</p> <p>FIRST TAKE POINT 217' FSL 374' FEL, SECTION 17 11072' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 740101.31' / Y: 504385.02' LAT: 32.38497883N / LON: 103.68943593W NAD 27, SPCS NM EAST X: 698918.88' / Y: 504324.57' LAT: 32.38485598N / LON: 103.68894835W</p> <p>KICK OFF POINT 253' FNL 548' FEL, SECTION 20 10182' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 739930.97' / Y: 503912.89' LAT: 32.38368393N / LON: 103.68999691W NAD 27, SPCS NM EAST X: 698748.53' / Y: 503852.46' LAT: 32.38356108N / LON: 103.68950936W</p> <p>SURFACE HOLE LOCATION 455' FSL 1530' FEL, SECTION 17 0' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 738943.99' / Y: 504610.95' LAT: 32.38561894N / LON: 103.69318049W NAD 27, SPCS NM EAST X: 697761.57' / Y: 504550.50' LAT: 32.38549611N / LON: 103.69269278W</p> <p>NEAREST TO LEASE MD = 12096' FURTHEST FROM LEASE MD = 15037'</p> <p>SHL KOP FTP LTP BHL</p> <p>SHEET 1 OF 1 JOB No. R4279_015 REV 0 BM 12/13/2022</p>	<p>¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p> <p>¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well surface location shown on this plat was plotted from field notes of the as-staked surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Data used for underground measurements were provided by others for reference only and does not constitute field measurements performed by R-Squared Global.</p> <p>DECEMBER 14, 2022 Date of Survey</p> <p>Signature and Seal of Professional Surveyor: </p> <p>Certificate Number LLOYD P. SHORT 21653</p>
--	---

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99995379 Convergence Angle: 00°20'34.080000"

Side 1

INJECTION WELL DATA SHEET

OPERATOR: OXY USA INC.WELL NAME & NUMBER: LOST TANK 30-19 FEDERAL COM 1HWELL LOCATION: 128' NORTH 1235' WEST
FOOTAGE LOCATIOND
UNIT LETTER19
SECTION22S
TOWNSHIP32E
RANGEWELLBORE SCHEMATIC

*Note- Diagram not to scale

13 3/8" CSA 900'
CMT TO SURFACE (CIRC)9 5/8" CSA 6,563'
CMT TO SURFACE (CIRC)5 1/2" CSA 20,262'
TOC 4350' (CBL)

1BS Perfs @ 10,012' - 20,163'

WELL CONSTRUCTION DATASurface CasingHole Size: 17-1/2" Casing Size: 13-3/8"Cemented with: 1,150 sx. **or** 1,564 ft³Top of Cement: 0' Method Determined: CIRCIntermediate CasingHole Size: 12-1/4" Casing Size: 9-5/8"Cemented with: 3,313 sx. **or** 3,946 ft³Top of Cement: 0' Method Determined: CIRCProduction CasingHole Size: 8-1/2" Casing Size: 5-1/2"Cemented with: 2,749 sx. **or** 4,266 ft³Top of Cement: 4,350' Method Determined: CBLTotal Depth: 20,262' MD / 9,875' TVDInjection Interval10,012' MD / 9,829' TVD - perforated feet to 20,163' MD / 9,875' TVD - perforated

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEETTubing Size: 2-7/8" Lining Material: UNLINEDType of Packer: AS1-XPacker Setting Depth: 9,622' MD / 9,581' TVDOther Type of Tubing/Casing Seal (if applicable): N/A**Additional Data**

1. Is this a new well drilled for injection? _____ Yes X _____ No

If no, for what purpose was the well originally drilled? _____

OIL PRODUCER

2. Name of the Injection Formation: 1ST BONE SPRING

3. Name of Field or Pool (if applicable): BILBREY BASIN BONESPRING, SOUTH

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____
NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

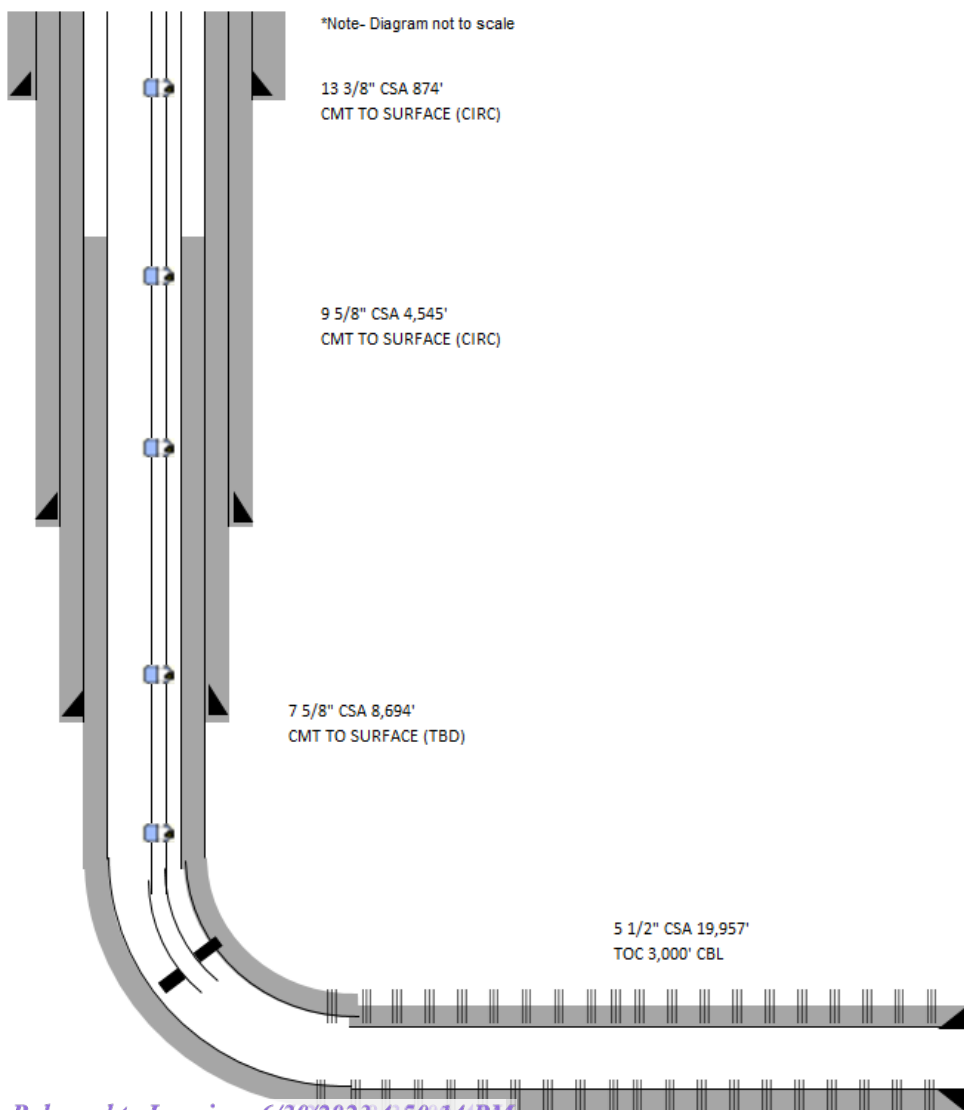
OVERLYING- AVALONUNDERLYING- SECOND BONE SPRING

Side 1

INJECTION WELL DATA SHEET

OPERATOR: OXY USA INC.WELL NAME & NUMBER: TOP SPOT 12-13 FED COM 11H

WELL LOCATION:	653' SOUTH 2022' WEST	N	13	22S	31E
FOOTAGE LOCATION		UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 17-1/2" Casing Size: 13-3/8"Cemented with: 1,090 sx. **or** ft³Top of Cement: 0' Method Determined: CIRCIntermediate Casing (STRING 1 / STRING 2)Hole Size: 12-1/4" / 8-3/4" Casing Size: 9-5/8" / 7-5/8"Cemented with: 1,400 / 565* sx. **or** ft³Top of Cement: 0' / 0'* Method Determined: CIRC / TBD*Production CasingHole Size: 6-3/4" Casing Size: 5-1/2"Cemented with: 848 sx. **or** ft³Top of Cement: 3,000' Method Determined: CBLTotal Depth: 19,957' MD / 9,035' TVDInjection Interval9,571' MD / 9,005' TVD - perforated feet to 19,838' MD / 9,037' TVD - perforated

(Perforated or Open Hole; indicate which)

17

*NOTE- Pending 2nd stage bradenhead squeeze job for 7-5/8" intermediate string 2

Side 2

INJECTION WELL DATA SHEETTubing Size: 2-7/8" Lining Material: UNLINEDType of Packer: AS1-XPacker Setting Depth: 8,720' MD / 8,405' TVDOther Type of Tubing/Casing Seal (if applicable): N/A**Additional Data**

1. Is this a new well drilled for injection? _____ Yes X _____ No

If no, for what purpose was the well originally drilled? _____

OIL PRODUCER

2. Name of the Injection Formation: AVALON

3. Name of Field or Pool (if applicable): BILBREY BASIN BONESPRING, SOUTH

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____

NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

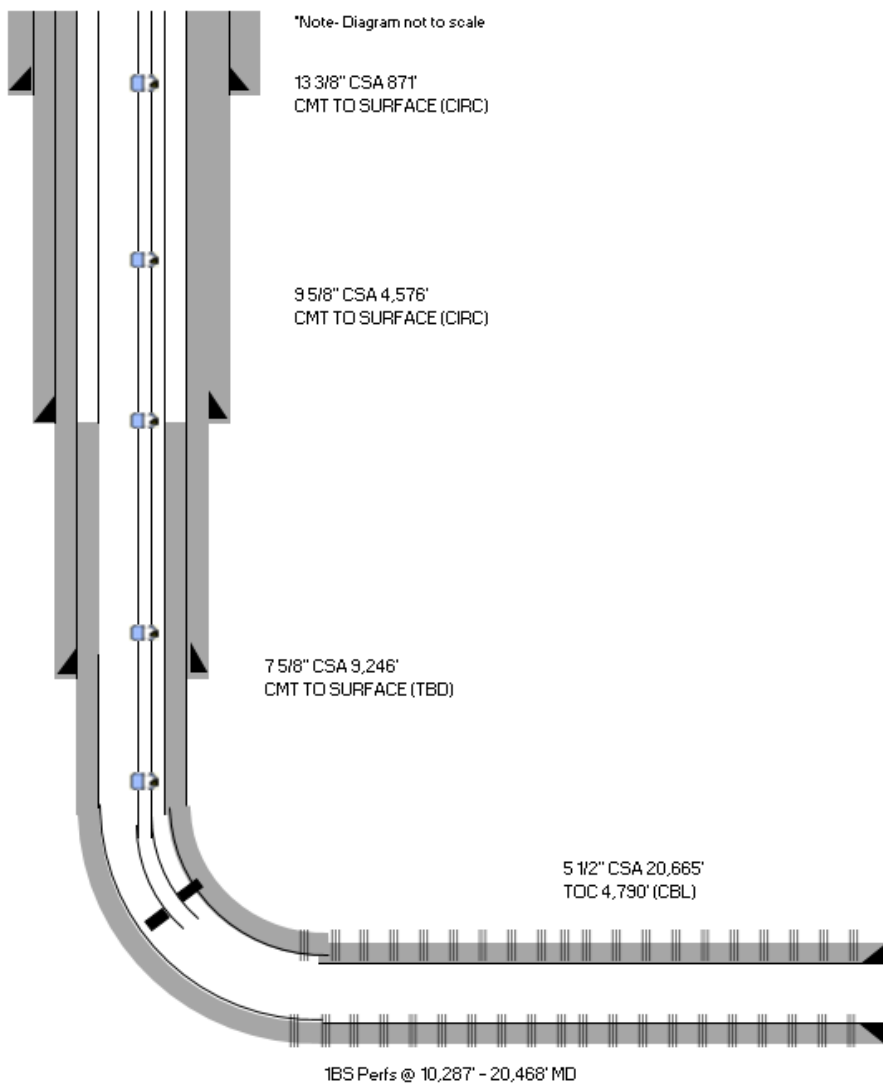
OVERLYING: BRUSHY CANYONUNDERLYING: FIRST BONE SPRING

Side 1

INJECTION WELL DATA SHEET

OPERATOR: OXY USA INC.WELL NAME & NUMBER: TOP SPOT 12-13 FED COM 1H

WELL LOCATION:	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
653' SOUTH 2087' WEST		N	13	22S	31E

WELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 17-1/2" Casing Size: 13-3/8"Cemented with: 1,090 sx. **or** ft³Top of Cement: 0' Method Determined: CIRCIntermediate Casing (STRING 1 / STRING 2)Hole Size: 12-1/4" / 8-3/4" Casing Size: 9-5/8" / 7-5/8"Cemented with: 1,314 / 617* sx. **or** ft³Top of Cement: 0' / 0'* Method Determined: CIRC / TBD*Production CasingHole Size: 6-3/4" Casing Size: 5-1/2"Cemented with: 822 sx. **or** ft³Top of Cement: 4,790' Method Determined: CBLTotal Depth: 20,665' MD / 9,817' TVDInjection Interval10,287' MD / 9,853' TVD - perforated feet to 20,468' MD / 9,822' TVD - perforated

(Perforated or Open Hole; indicate which)

19

*NOTE- Pending 2nd stage bradenhead squeeze job for 7-5/8" intermediate string 2

Side 2

INJECTION WELL DATA SHEETTubing Size: 2-7/8" Lining Material: UNLINEDType of Packer: AS1-XPacker Setting Depth: 9,775' MD / 9,516' TVDOther Type of Tubing/Casing Seal (if applicable): N/A**Additional Data**

1. Is this a new well drilled for injection? _____ Yes X _____ No

If no, for what purpose was the well originally drilled? _____

OIL PRODUCER

2. Name of the Injection Formation: 1ST BONE SPRING

3. Name of Field or Pool (if applicable): BILBREY BASIN BONESPRING, SOUTH

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____
NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____
OVERLYING: AVALON

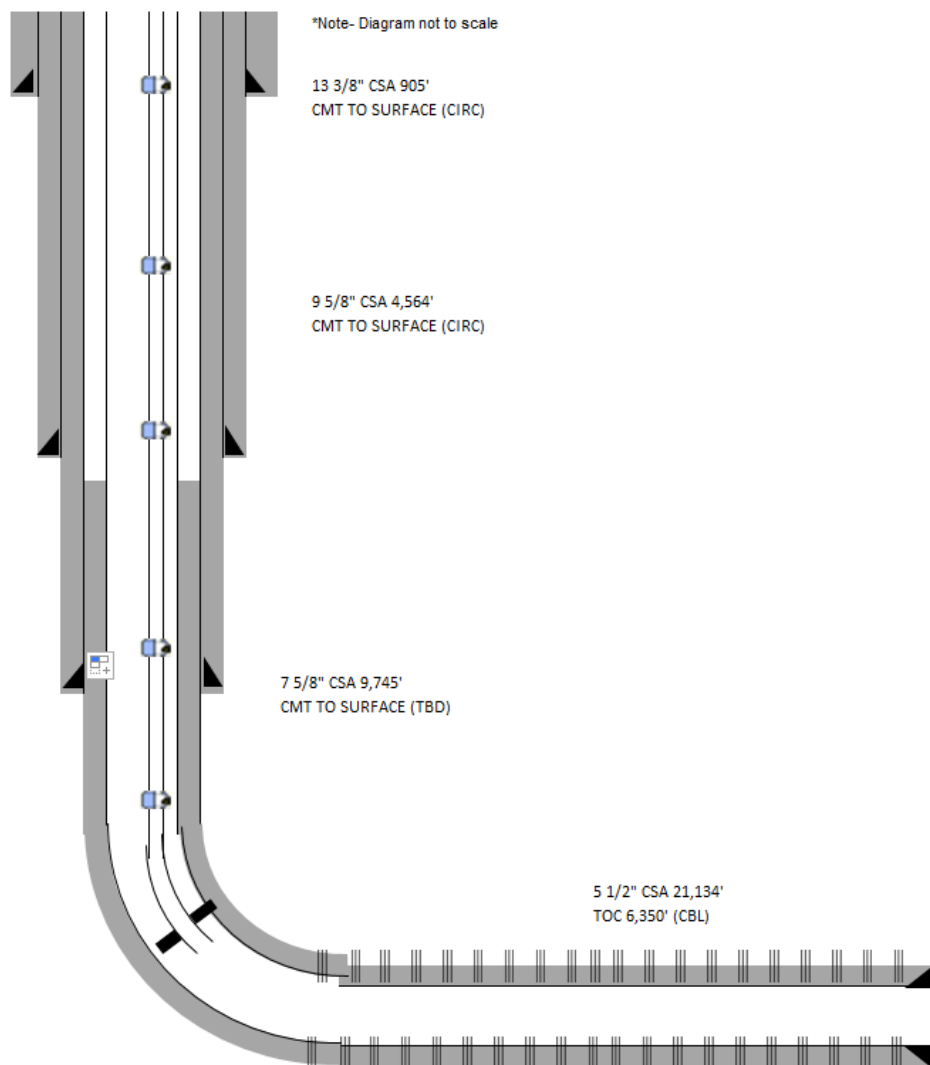
UNDERLYING: SECOND BONE SPRING

Side 1

INJECTION WELL DATA SHEET

OPERATOR: OXY USA INC.WELL NAME & NUMBER: TOP SPOT 12-13 FED COM 21H

WELL LOCATION:	653' SOUTH 2052' WEST	N	13	22S	31E
FOOTAGE LOCATION		UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 17-1/2" Casing Size: 13-3/8"Cemented with: 1,090 sx. **or** ft³Top of Cement: 0' Method Determined: CIRCIntermediate Casing (STRING 1 / STRING 2)Hole Size: 12-1/4" / 8-3/4" Casing Size: 9-5/8" / 7-5/8"Cemented with: 1,314 / 653* sx. **or** ft³Top of Cement: 0' / 0'* Method Determined: CIRC / TBD*Production CasingHole Size: 6-3/4" Casing Size: 5-1/2"Cemented with: 849 sx. **or** ft³Top of Cement: 6,350' Method Determined: CBLTotal Depth: 21,134' MD / 10,387' TVDInjection Interval10,790' MD / 10,319' TVD - perforated feet to 20,934' MD / 10,383' TVD - perforated

(Perforated or Open Hole; indicate which)

21

NOTE- Pending 2nd stage bradenhead squeeze job for 7-5/8" intermediate string 2

Side 2

INJECTION WELL DATA SHEETTubing Size: 2-7/8" Lining Material: UNLINEDType of Packer: AS1-XPacker Setting Depth: 10,280' MD / 10,039' TVDOther Type of Tubing/Casing Seal (if applicable): N/A**Additional Data**

1. Is this a new well drilled for injection? _____ Yes X _____ No

If no, for what purpose was the well originally drilled? _____

OIL PRODUCER

2. Name of the Injection Formation: 2ND BONE SPRING

3. Name of Field or Pool (if applicable): BILBREY BASIN BONESPRING, SOUTH

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____
NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

OVERLYING: FIRST BONE SPRINGUNDERLYING: THIRD BONE SPRING

Side 1

INJECTION WELL DATA SHEET

OPERATOR: OXY USA INC.WELL NAME & NUMBER: DR PI FEDERAL UNIT 17 8 DA 21H

WELL LOCATION: <u>530' SOUTH 1075' WEST</u>	<u>M</u>	<u>17</u>	<u>22S</u>	<u>32E</u>
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

*Note- Diagram not to scale

13 3/8" CSA 928'
CMT TO SURFACE (CIRC)9 5/8" CSA 6,495'
CMT TO SURFACE (CIRC)5 1/2" CSA 21,220'
TOC 4,770'

2BS Perfs @ 10,852'-21,078'

Hole Size: 17-1/2" Casing Size: 13-3/8"Cemented with: 1,519 sx. **or** 1,580 ft³Top of Cement: 0' Method Determined: CIRCIntermediate CasingHole Size: 12-1/4" Casing Size: 9-5/8"Cemented with: 1,403 sx. **or** 3,756 ft³Top of Cement: 0' Method Determined: CIRCProduction CasingHole Size: 8-3/4" Casing Size: 5-1/2"Cemented with: 3,386 sx. **or** 5,172 ft³Top of Cement: 4,770' Method Determined: CBLTotal Depth: 21,220' MD / 10,638' TVDInjection Interval10,852' MD / 10,636' TVD - perforated feet to 21,078' MD / 10,641' TVD - perforated

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEETTubing Size: 2-7/8" Lining Material: UNLINEDType of Packer: AS1-XPacker Setting Depth: 10,442' MD / 10,331' TVDOther Type of Tubing/Casing Seal (if applicable): N/A**Additional Data**

1. Is this a new well drilled for injection? _____ Yes X _____ No

If no, for what purpose was the well originally drilled? _____

OIL PRODUCER

2. Name of the Injection Formation: 2ND BONE SPRING

3. Name of Field or Pool (if applicable): BILBREY BASIN BONESPRING, SOUTH

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____
NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

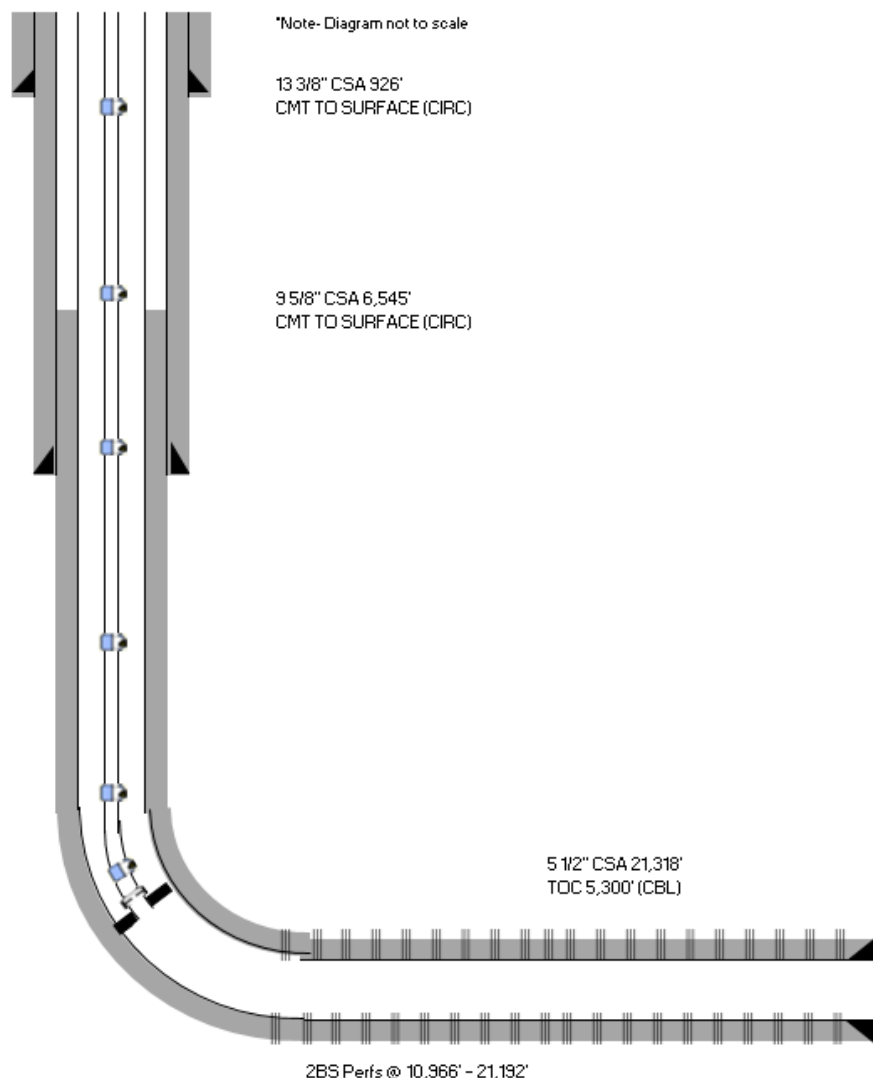
OVERLYING- FIRST BONE SPRINGUNDERLYING- THIRD BONE SPRING

Side 1

INJECTION WELL DATA SHEET

OPERATOR: OXY USA INC.WELL NAME & NUMBER: DR PI FEDERAL UNIT 17 8 DA 23H

WELL LOCATION: <u>530' SOUTH 1145' WEST</u>	<u>M</u>	<u>17</u>	<u>22S</u>	<u>32E</u>
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

Hole Size: 17-1/2" Casing Size: 13-3/8"

Cemented with: 1,150 sx. **or** 1,550 ft³

Top of Cement: 0' Method Determined: CIRC

Intermediate Casing

Hole Size: 12-1/4" Casing Size: 9-5/8"

Cemented with: 1,499 sx. **or** 3,951 ft³

Top of Cement: 0' Method Determined: CIRC

Production Casing

Hole Size: 8-3/4" Casing Size: 5-1/2"

Cemented with: 3,381 sx. **or** 5,165 ft³

Top of Cement: 5,300' Method Determined: CBL

Total Depth: 21,318' MD / 10,593' TVDInjection Interval

10,966' MD / 10,585' TVD - perforated feet to 21,192' MD / 10,594' TVD - perforated

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEETTubing Size: 2-7/8" Lining Material: UNLINEDType of Packer: AS1-XPacker Setting Depth: 10,484' MD / 10,318' TVDOther Type of Tubing/Casing Seal (if applicable): N/AAdditional Data

1. Is this a new well drilled for injection? _____ Yes X _____ No

If no, for what purpose was the well originally drilled? _____

OIL PRODUCER

2. Name of the Injection Formation: 2ND BONE SPRING

3. Name of Field or Pool (if applicable): BILBREY BASIN BONESPRING, SOUTH

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____
NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

OVERLYING- FIRST BONE SPRINGUNDERLYING- THIRD BONE SPRING

Side 1

INJECTION WELL DATA SHEET

OPERATOR: OXY USA INC.WELL NAME & NUMBER: DR PI FEDERAL UNIT 17 8 DA 25HWELL LOCATION: 455' SOUTH 1565' EAST
FOOTAGE LOCATIONO
UNIT LETTER17
SECTION22S
TOWNSHIP32E
RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

*Note- Diagram not to scale

13 3/8" CSA 903'
CMT TO SURFACE (CIRC)9 5/8" CSA 6,579'
CMT TO SURFACE (CIRC)5 1/2" CSA 21,342'
TOC 3,340' (CBL)

2BS Perfs @ 11,072' - 21,198'

Hole Size: 17-1/2" Casing Size: 13-3/8"Cemented with: 1,130 sx. **or** 1,526 ft³Top of Cement: 0' Method Determined: CIRCIntermediate CasingHole Size: 12-1/4" Casing Size: 9-5/8"Cemented with: 1,761 sx. **or** 4,700 ft³Top of Cement: 0' Method Determined: CIRCProduction CasingHole Size: 8-3/4" Casing Size: 5-1/2"Cemented with: 3,373 sx. **or** 5,165 ft³Top of Cement: 3,340' Method Determined: CBLTotal Depth: 21,342' MD / 10,635' TVDInjection Interval11,072' MD / 10,699' TVD - perforated feet to 21,198' MD / 10,637' TVD - perforated

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEETTubing Size: 2-7/8" Lining Material: UNLINEDType of Packer: AS1-XPacker Setting Depth: 10,435' MD / 10,341' TVDOther Type of Tubing/Casing Seal (if applicable): N/A**Additional Data**

1. Is this a new well drilled for injection? _____ Yes X _____ No

If no, for what purpose was the well originally drilled? _____

OIL PRODUCER

2. Name of the Injection Formation: 2ND BONE SPRING

3. Name of Field or Pool (if applicable): BILBREY BASIN BONESPRING, SOUTH

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____
NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

OVERLYING- FIRST BONE SPRINGUNDERLYING- THIRD BONE SPRING

Side 1

INJECTION WELL DATA SHEET

OPERATOR: OXY USA INC.WELL NAME & NUMBER: DR PI FEDERAL UNIT 17 8 DA 26HWELL LOCATION: 455' SOUTH 1530' EAST
FOOTAGE LOCATIONO
UNIT LETTER17
SECTION22S
TOWNSHIP32E
RANGEWELLBORE SCHEMATIC

*Note- Diagram not to scale

13 3/8" CSA 896'
CMT TO SURFACE (CIRC)9 5/8" CSA 6,586'
CMT TO SURFACE (CIRC)5 1/2" CSA 21,350'
TOC 3,675' (CBL)

2BS Perfs @ 11,072' - 21,198'

WELL CONSTRUCTION DATASurface CasingHole Size: 17-1/2" Casing Size: 13-3/8"Cemented with: 1,130 sx. **or** 1,519 ft³Top of Cement: 0' Method Determined: CIRCIntermediate CasingHole Size: 12-1/4" Casing Size: 9-5/8"Cemented with: 1,383 sx. **or** 3,699 ft³Top of Cement: 0' Method Determined: CIRCProduction CasingHole Size: 8-3/4" Casing Size: 5-1/2"Cemented with: 3,562 sx. **or** 5,465 ft³Top of Cement: 3,675' Method Determined: CBLTotal Depth: 21,350' MD / 10,539' TVDInjection Interval11,072' MD / 10,649' TVD - perforated feet to 21,198' MD / 10,543' TVD - perforated

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEETTubing Size: 2-7/8" Lining Material: UNLINEDType of Packer: AS1-XPacker Setting Depth: 10,561' MD / 10,379' TVDOther Type of Tubing/Casing Seal (if applicable): N/A**Additional Data**

1. Is this a new well drilled for injection? _____ Yes X _____ No

If no, for what purpose was the well originally drilled? _____

OIL PRODUCER

2. Name of the Injection Formation: 2ND BONE SPRING

3. Name of Field or Pool (if applicable): BILBREY BASIN BONESPRING, SOUTH

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____
NO

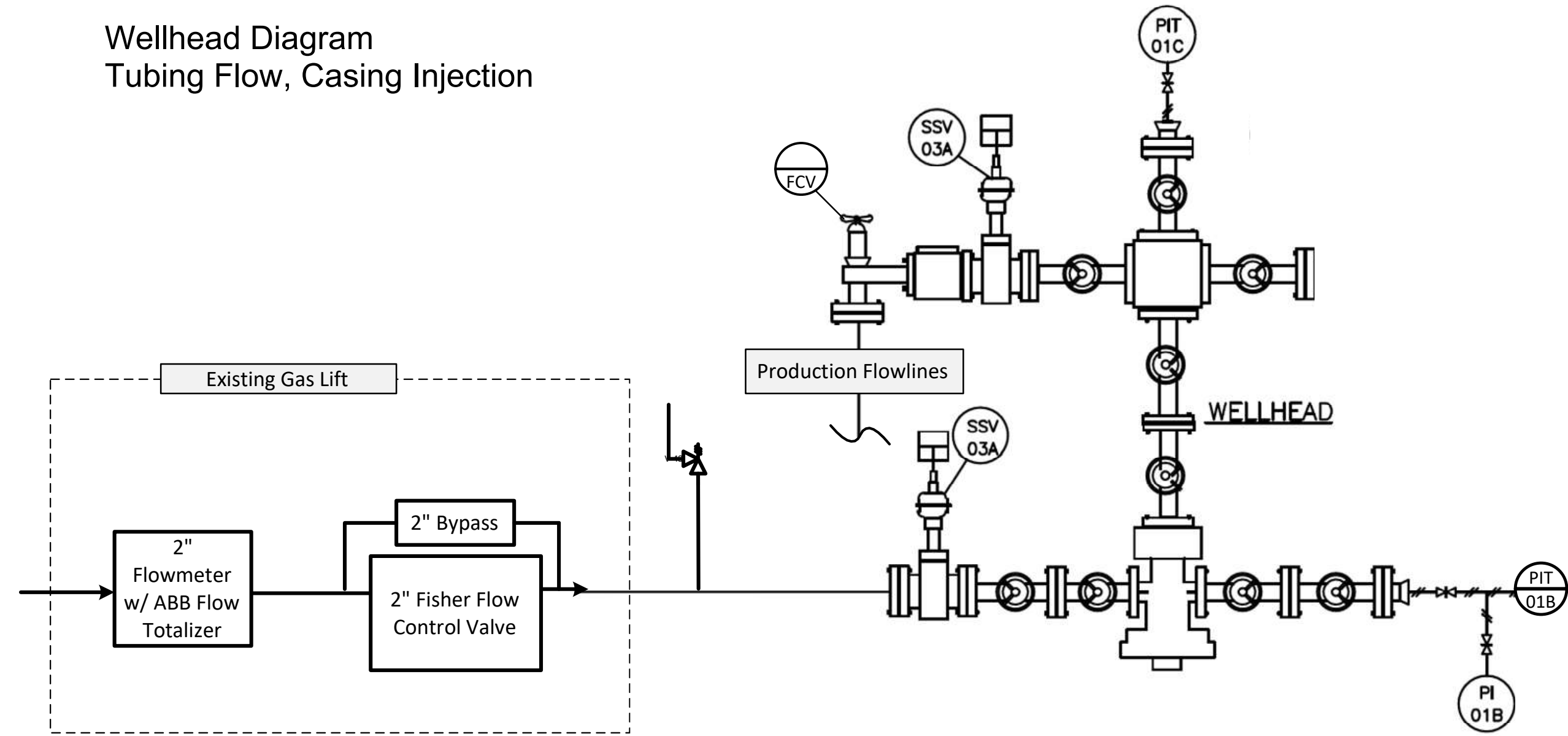
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

OVERLYING- FIRST BONE SPRINGUNDERLYING- THIRD BONE SPRING

Max Allowable Surface Pressure (MASP) Table

API#	Well Name	Proposed Max Allowable Surface Pressure (MASP) (PSI)	Current Average Surface Pressure (PSI)	Max Achievable Surface Pressure (PSI)	Current Infrastructure Pressure, (PSI)	Proposed Average Injection Rate (MMSCFPD)	Proposed Max Injection Rate (MMSCFPD)	Burst Calculation Depth (FT TVD)	Brine Pressure Gradient (PSI/FT)	Casing or Liner Burst (PSI)	MASP + Reservoir Brine Hydrostatic as a percentage of Casing or Liner Burst Pressure (%)	Top Perforation Depth (FT TVD)	MASP Gradient (PSI/FT)	Top Perforation Depth (FT TVD)	Gas Pressure Gradient (PSI/FT)	Formation Parting Pressure Gradient (PSI/FT)	MASP + Gas Hydrostatic as a percentage of Formation Parting Pressure (%)
30-025-46474	LOST TANK 30-19 FEDERAL COM 1H	1,300	111	1,300	3	4	9,829	0.468	12,640	47%	9,829	0.132	9,829	0.200	0.650	51%	
30-015-48595	TOP SPOT 12_13 FED COM 11H	1,300	360	1,300	3	4	9,005	0.468	12,640	44%	9,005	0.144	9,005	0.200	0.650	53%	
30-015-48594	TOP SPOT 12_13 FED COM 1H	1,300	670	1,300	3	4	9,853	0.468	12,640	47%	9,853	0.132	9,853	0.200	0.650	51%	
30-015-47771	TOP SPOT 12_13 FED COM 21H	1,300	850	1,300	3	4	10,319	0.468	12,640	48%	10,319	0.126	10,319	0.200	0.650	50%	
30-025-48282	DR PI FEDERAL UNIT 17 8 DA 21H	1,300	179	1,300	3	4	10,600	0.468	12,640	50%	10,600	0.123	10,600	0.200	0.650	50%	
30-025-48947	DR PI FEDERAL UNIT 17 8 DA 23H	1,300	308	1,300	3	4	10,584	0.468	12,640	49%	10,584	0.123	10,584	0.200	0.650	50%	
30-025-48949	DR PI FEDERAL UNIT 17 8 DA 25H	1,300	190	1,300	3	4	10,698	0.468	12,640	50%	10,698	0.122	10,698	0.200	0.650	49%	
30-025-48950	DR PI FEDERAL UNIT 17 8 DA 26H	1,300	185	1,300	3	4	10,645	0.468	12,640	50%	10,645	0.122	10,645	0.200	0.650	50%	
	Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	Calculation									(1+6*7)/8		= 1/10				= (1+12*13) / (12/14)	

Wellhead Diagram
Tubing Flow, Casing Injection



KEY
SSV – Safety Shutdown Valve
PI – Pressure Indicator
PIT – Pressure Indicating Transmitter
FCV- Flow Control Valve

Mechanical Integrity Test (MIT) Summary Table

API10	Well Name	MIT #1	
		Date	Surface Pressure [psi]
30-025-46474	LOST TANK 30-19 FEDERAL COM 1H	12/28/2019	9800
30-015-48595	TOP SPOT 12_13 FED COM 11H	4/10/2023	9800
30-015-48594	TOP SPOT 12_13 FED COM 1H	4/7/2023	9800
30-015-47771	TOP SPOT 12_13 FED COM 21H	4/9/2023	9800
30-025-48282	DR PI FEDERAL UNIT 17 8 DA 21H	12/12/2022	6000
30-025-48947	DR PI FEDERAL UNIT 17 8 DA 23H	12/12/2022	6000
30-025-48949	DR PI FEDERAL UNIT 17 8 DA 25H	11/29/2022	6000
30-025-48950	DR PI FEDERAL UNIT 17 8 DA 26H	11/30/2022	6000

Gas Source Well List

WELL	API
TOP SPOT 12_13 FED COM 1H	30-015-48594
TOP SPOT 12_13 FED COM 11H	30-015-48595
TOP SPOT 12_13 FED COM 21H	30-015-47771
TOP SPOT 12_13 FED COM 31H	30-015-48597
TOP SPOT 12_13 FED COM 32H	30-015-48596
TOP SPOT 12_13 FED COM 34H	30-015-47949
TOP SPOT 12_13 FED COM 35H	30-015-47887
TOP SPOT 12_13 FED COM 311H	30-015-47627
TOP SPOT 12_13 FED COM 312H	30-015-47626
TOP SPOT 12_13 FED COM 313H	30-015-47625
Lost Tank 30-19 FEDERAL COM #001H	30-025-46474
Lost Tank 30-19 FEDERAL COM #031H	30-025-45182
DR PI FEDERAL UNIT 17_8 021H	30-025-48282
DR PI FEDERAL UNIT 17_8 023H	30-025-48947
DR PI FEDERAL UNIT 17_8 025H	30-025-48949
DR PI FEDERAL UNIT 17_8 026H	30-025-48950
DR PI FEDERAL UNIT 17_8 031H	30-025-49147
DR PI FEDERAL UNIT 17_8 032H	30-025-49148
DR PI FEDERAL UNIT 17_8 034H	30-025-48951
DR PI FEDERAL UNIT 17_8 035H	30-025-48952
DR PI FEDERAL UNIT 17_8 311H	30-025-49152
DR PI FEDERAL UNIT 17_8 312H	30-025-48955
DR PI FEDERAL UNIT 17_8 313H	30-025-48956
DR PI FEDERAL UNIT 18-7 021H	30-025-47835
DR PI FEDERAL UNIT 18-7 023H	30-025-48158
DR PI FEDERAL UNIT 18-7 025H	30-025-48159
DR PI FEDERAL UNIT 18-7 026H	30-025-47868
DR PI FEDERAL UNIT 18-7 031H	30-025-48160
DR PI FEDERAL UNIT 18-7 032H	30-025-48024
DR PI FEDERAL UNIT 18-7 034H	30-025-48025
DR PI FEDERAL UNIT 18-7 311H	30-025-48166
DR PI FEDERAL UNIT 18-7 312H	30-025-48167
DR PI FEDERAL UNIT 18-7 313H	30-025-48168

Lost Tank Gas Analysis Summary 5/29/2023

- The future system will sell gas to only Mark West.
- Central Tank Batteries (CTBs)
 - In the future system, all wells will produce fluids to the Lost Tank 18 CTB.
 - See Gas Source Well List for list of wells.
- Centralized Gas Lift Compressors (CGLs)
 - All low-pressure gas lines connect to the Lost Tank 25 CGL Station and Lost Tank 13 CGL Station.
 - CGLs increase pressure from ~70 psig to ~1250 psig.
- Gas analysis is provided for:
 - Injection gas
 - Avalon production
 - First Bone Spring production
 - Second Bone Spring production

Placeholder page

AVL GAS SAMPLE/

Natural Gas Analysis Report
GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

	Sample Information
Sample Name	LOST TANK 30 CTB TEST 2
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	03-09-2023
Meter Number	16102T
Air temperature	71
Flow Rate (MCF/Day)	2084.5
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	LOST TANK 30 CTB TEST 2
Sampling Method	FILL & EMPTY
Operator	OCCIDENTAL PETROLEUM
State	NEW MEXICO
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	EAST
FLOC	OP-L2113-WELLS-WPI-0000002
Sample Sub Type	PRODUCTION
Sample Name Type	WELL
Vendor	AKM MEASUREMENT
Cylinder #	2565
Sampled by	JONATHAN ALDRICH
Sample date	3-9-2023
Analyzed date	3-15-2023
Method Name	C9
Injection Date	2023-03-15 10:40:12
Report Date	2023-03-15 10:44:08
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	84603ae5-1307-447f-bf55-bb249ae70b35
NGA Phys. Property Data Source	GPA Standard 2145-16 (FPS)
Data Source	INFICON Fusion Connector

Component Results

Component Name	Peak Area	Raw Amount	Response Factor	Norm Mole%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)	
Nitrogen	62776.9	3.5566	0.00005665	3.5612	0.0	0.03444	0.393	
Methane	979781.4	71.6914	0.00007317	71.7849	726.7	0.39762	12.214	
CO2	86902.0	4.0993	0.00004717	4.1046	0.0	0.06237	0.703	
Ethane	234907.0	10.7253	0.00004566	10.7393	190.5	0.11150	2.882	
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000	
Propane	171723.7	5.6043	0.00003264	5.6116	141.5	0.08544	1.552	
iso-butane	65169.3	0.7266	0.00001115	0.7276	23.7	0.01460	0.239	
n-Butane	171811.5	1.8962	0.00001104	1.8987	62.1	0.03810	0.601	
iso-pentane	42512.5	0.4123	0.00000970	0.4129	16.6	0.01029	0.152	
n-Pentane	49913.5	0.4722	0.00000946	0.4728	19.0	0.01178	0.172	
hexanes	39197.0	0.2967	0.00000757	0.2971	14.2	0.00884	0.123	
heptanes	38251.0	0.2364	0.00000618	0.2367	13.1	0.00819	0.110	
octanes	22918.0	0.1245	0.00000543	0.1247	7.8	0.00492	0.064	
nonanes+	6310.0	0.0279	0.00000442	0.0279	2.0	0.00124	0.016	
Total:		99.8696		100.0000	1217.1	0.78931	19.219	

Results Summary

Result	Dry	Sat.	
Total Un-Normalized Mole%	99.8696		
Pressure Base (psia)	14.730		
Temperature Base (Deg. F)	60.00		
Flowing Temperature (Deg. F)	81.0		37
	95.0		

	Dry	Sat.	
Gross Heating Value (BTU / Ideal cu.ft.)	1217.1	1195.9	
Gross Heating Value (BTU / Real cu.ft.)	1221.8	1201.0	
Relative Density (G), Real	0.7920	0.7894	

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	99.8696	97.0000	103.0000	Pass	



Natural Gas Analysis Report

GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

	Sample Information
Sample Name	DR PI FEDERAL UNIT 17-8 DA 21H
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	03-16-2023
Meter Number	16402T
Air temperature	46
Flow Rate (MCF/Day)	1158.7
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	DR PI FEDERAL UNIT 17-8 DA 21H
Sampling Method	FILL & EMPTY
Operator	OCCIDENTAL PETROLEUM
State	NEW MEXICO
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	DR PI
FLOC	OP-L2254-WELLS-WPI-0000008
Sample Sub Type	PRODUCTION
Sample Name Type	WELL
Vendor	AKM MEASUREMENT
Cylinder #	27956
Sampled by	CHANDLER MONTGOMERY
Sample date	3-15-2023
Analyzed date	3-16-2023
Method Name	C9
Injection Date	2023-03-16 09:56:29
Report Date	2023-03-16 10:00:37
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	58dc901f-69e9-46db-b05e-05b3668a0b87
NGA Phys. Property Data Source	GPA Standard 2145-16 (FPS)
Data Source	INFICON Fusion Connector

Component Results

Component Name	Peak Area	Raw Amount	Response Factor	Norm Mole%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)	
Nitrogen	29954.0	1.6992	0.00005673	1.6942	0.0	0.01639	0.187	
Methane	993778.5	72.8737	0.00007333	72.6584	735.5	0.40245	12.364	
CO2	9979.5	0.4591	0.00004601	0.4578	0.0	0.00696	0.078	
Ethane	314679.1	14.4287	0.00004585	14.3861	255.2	0.14936	3.862	
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000	
Propane	215313.9	7.0179	0.00003259	6.9972	176.5	0.10653	1.935	
iso-butane	72379.5	0.8038	0.00001111	0.8014	26.1	0.01608	0.263	
n-Butane	177984.6	1.9607	0.00001102	1.9549	63.9	0.03923	0.619	
iso-pentane	34263.0	0.3331	0.00000972	0.3321	13.3	0.00827	0.122	
n-Pentane	36266.6	0.3451	0.00000952	0.3441	13.8	0.00857	0.125	
hexanes	21440.0	0.1650	0.00000770	0.1645	7.8	0.00489	0.068	
heptanes	20830.0	0.1336	0.00000641	0.1332	7.3	0.00461	0.062	
octanes	10287.0	0.0603	0.00000587	0.0602	3.8	0.00237	0.031	
nonanes+	2583.0	0.0159	0.00000617	0.0159	1.1	0.00070	0.009	
Total:		100.2962		100.0000	1304.5	0.76643	19.725	

Results Summary

Result	Dry	Sat.	
Total Un-Normalized Mole%	100.2962		
Pressure Base (psia)	14.730		
Temperature Base (Deg. F)	60.00		
Flowing Temperature (Deg. F)	65.9		39
Released to Imaging: 6/30/2023 4:50:14 PM	149.7		

	Dry	Sat.	
Gross Heating Value (BTU / Ideal cu.ft.)	1304.5	1281.7	
Gross Heating Value (BTU / Real cu.ft.)	1309.7	1287.4	
Relative Density (G), Real	0.7692	0.7670	

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	100.2962	97.0000	103.0000	Pass	



Certificate of Analysis

Number: 6030-23030403-001A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Chandler Montgomery
Occidental Petroleum
1502 W Commerce Dr.
Carlsbad, NM 88220

Apr. 04, 2023

Field: PERMIAN_RESOURCES
Station Name: Lost Tank 13 Boo Outlet B
Station Number: 16399C
Station Location: OP-DELNE-CS002
Sample Point: Meter
Formation: NEW_MEXICO
County:
Type of Sample: : Spot-Cylinder
Heat Trace Used: N/A
Sampling Method: : Fill and Purge
Sampling Company: : SPL

Sampled By: Raul Salazar
Sample Of: Gas Spot
Sample Date: 03/27/2023 08:24
Sample Conditions: 1230 psig, @ 104.2 °F Ambient: 42 °F
Effective Date: 03/27/2023 08:24
Method: GPA-2261M
Cylinder No: 1111-008083
Instrument: 70104251 (Inficon GC-MicroFusion)
Last Inst. Cal.: 04/03/2023 0:00 AM
Analyzed: 04/04/2023 12:27:12 by EBH

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Nitrogen	1.019	1.018	1.170		GPM TOTAL C2+	8.807
Methane	68.255	68.172	44.862		GPM TOTAL C3+	4.921
Carbon Dioxide	0.240	0.240	0.433		GPM TOTAL iC5+	1.057
Ethane	14.558	14.540	17.934	3.886		
Propane	8.768	8.757	15.840	2.411		
Iso-butane	1.221	1.220	2.909	0.399		
n-Butane	3.349	3.345	7.975	1.054		
Iso-pentane	0.798	0.797	2.359	0.291		
n-Pentane	0.913	0.912	2.699	0.330		
Hexanes Plus	1.000	0.999	3.819	0.436		
	100.121	100.000	100.000	8.807		

Calculated Physical Properties

Relative Density Real Gas	Total	C6+
	0.8456	3.2176
Calculated Molecular Weight	24.38	93.19
Compressibility Factor	0.9950	

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.65 psia & 60°F

Real Gas Dry BTU	1437	5113
Water Sat. Gas Base BTU	1413	5024
Ideal, Gross HV - Dry at 14.65 psia	1430.2	5113.2
Ideal, Gross HV - Wet	1405.2	5023.7
Net BTU Dry Gas - real gas	1309	
Net BTU Wet Gas - real gas	1286	

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

Corrosion Prevention Plan

Existing Corrosion Prevention Plan

- Produced gas is processed through a gas dehydration unit to remove water.
- Corrosion inhibitor is added to the system downstream of the gas dehydration unit.
- Fluid samples are taken regularly and checked for Fe, Mn, and residual corrosion inhibitor in produced fluids.
- Continuously monitor and adjust the chemical treatment over the life of the well.

Oxy will continue the existing corrosion prevention plan in place for the gas lift system due to the similar nature of gas storage operations.

- Fluid samples will be taken prior to injection to establish a baseline for analysis.
- After a storage event, fluid samples will be taken to check for Fe, Mn, and residual corrosion inhibitor in the produced fluids.
- Continuously monitor and adjust the chemical treatment over the life of the project.



NM GAS STORAGE OPERATIONAL PLAN

Operational Plan

WELLSITE CLGC

Oxy USA Inc. (Oxy) will monitor the following items on each Closed Loop Gas Capture (CLGC) well via SCADA system:

- Injection flow rate and volume
 - Instantaneous Rate
 - Total Injected by Day (volume)
- Tubing Pressure
- Casing Pressure
- Bradenhead Pressures
- Safety devices
 - Pressure kills have an automated kill sequence that is initiated by SCADA system readings.
 - Injection pressure kills on production stream for injection
 - Relief Valves for both production and gas storage/injection streams to prevent overpressure (not monitored via SCADA other than pressure trend)
 - Control of injection rate and pressures via control valve at each well injection stream
 - Control of production stream via automated choke valves to ensure controlled production and prevent over pressurization of flowline

CENTRAL TANK BATTERY (CTB)

Oxy will monitor the following items at each CTB via SCADA system:

- Production Rates
 - Oil
 - Gas
 - Water
- Safety devices
 - Flares at CTBs
 - Injection pressure kills on production/gas storage stream for injection
 - Emergency Shutdown (ESD) of wells that are local and remote for automatic shut downs to safe the system
 - Control of injection rate and pressures via control valve at each well injection stream

CENTRAL GAS LIFT (CGL) COMPRESSOR(S)

Oxy will monitor the following items on each Central Gas Lift (CGL) Compressor Station via SCADA system:

- Safety devices
 - Discharge/injection pressure kills of each compressor and for the station
 - Relief Valves on 3rd stage of compressors, to prevent over pressurization (not monitored via SCADA other than pressure trend)
 - Station recycle valves (that recycle discharge pressure back to suction) if the pressure is getting too high for the compressor or station. (not all control valves are capable of

remote monitoring of valve position; but still monitored in some sense of the pressure trend for the station)

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA)

Oxy SCADA system consists of PLCs at each CTB, Wellsite, and Central Gas Lift compressor or station.

- The Programmable Logic Controller (PLCs) will take action immediately (within seconds or minutes) as programmed to automatically safe the system as required; for the system and certain device shut down(s).
- The High Alarms and High-High Alarms will be logged and registered in the SCADA system. Also the call center will take the High Alarm and make the physical phone call notification to the production techs to acknowledge the alarm & take action.

ENVIRONMENTAL/SPILL RESPONSE

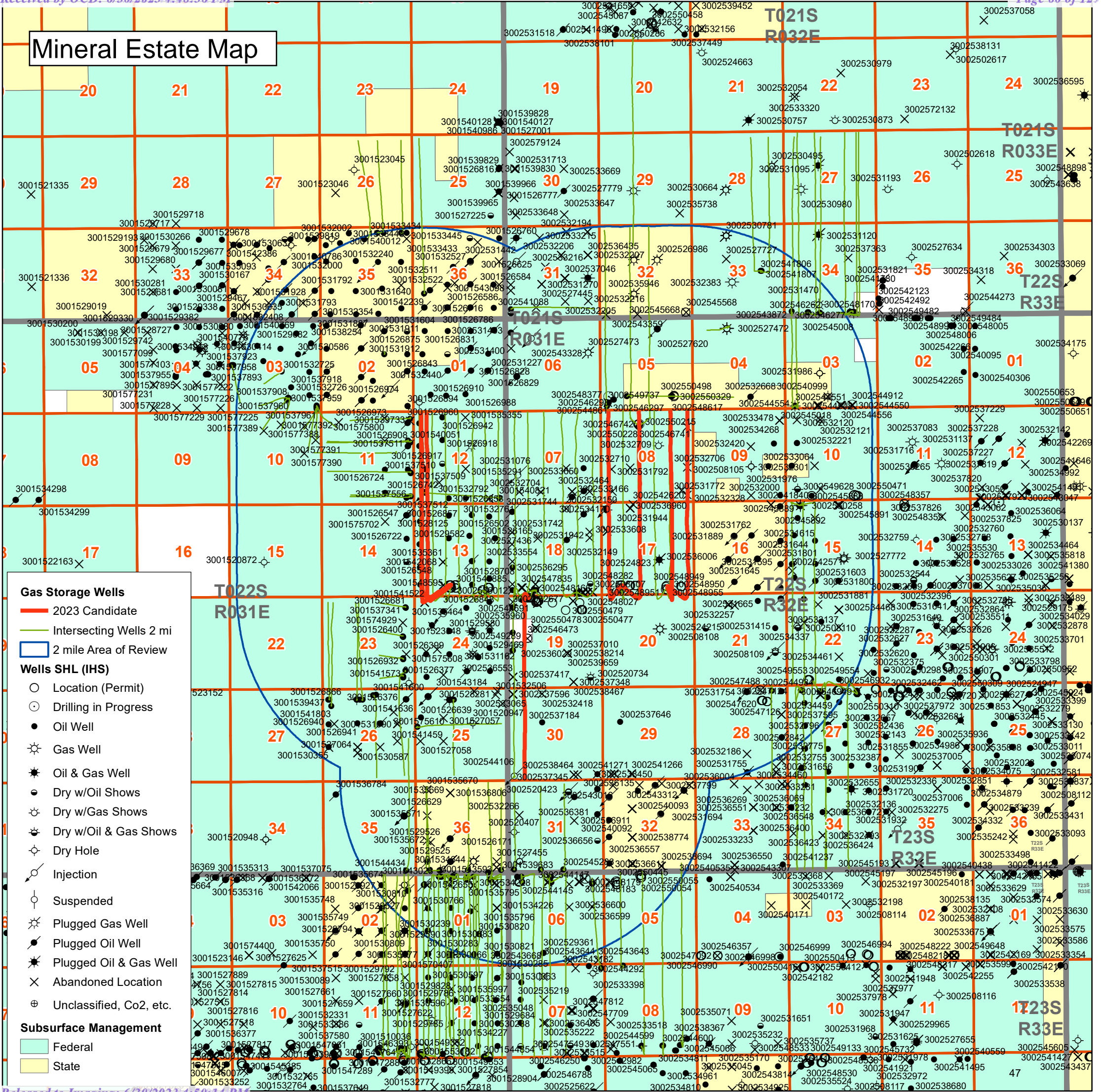
Oxy will report and track any spill recordable or non-recordable via our CDR system

- Any spill or gas release will be reported by operations calling in to our Call Center to make the report of spill/release. The fluid type and release amount will be disclosed along with location details; and if it's a recordable or non-recordable spill.
- Liquids will be contained and isolated and vacuum trucks will be called in to recover the liquid and will also report the amount of liquid recovered on the same CDR spill form.
 - Additional reclamation will be coordinated to ensure proper recovery of contaminated soil and liquid.

Area of Review



Mineral Estate Map

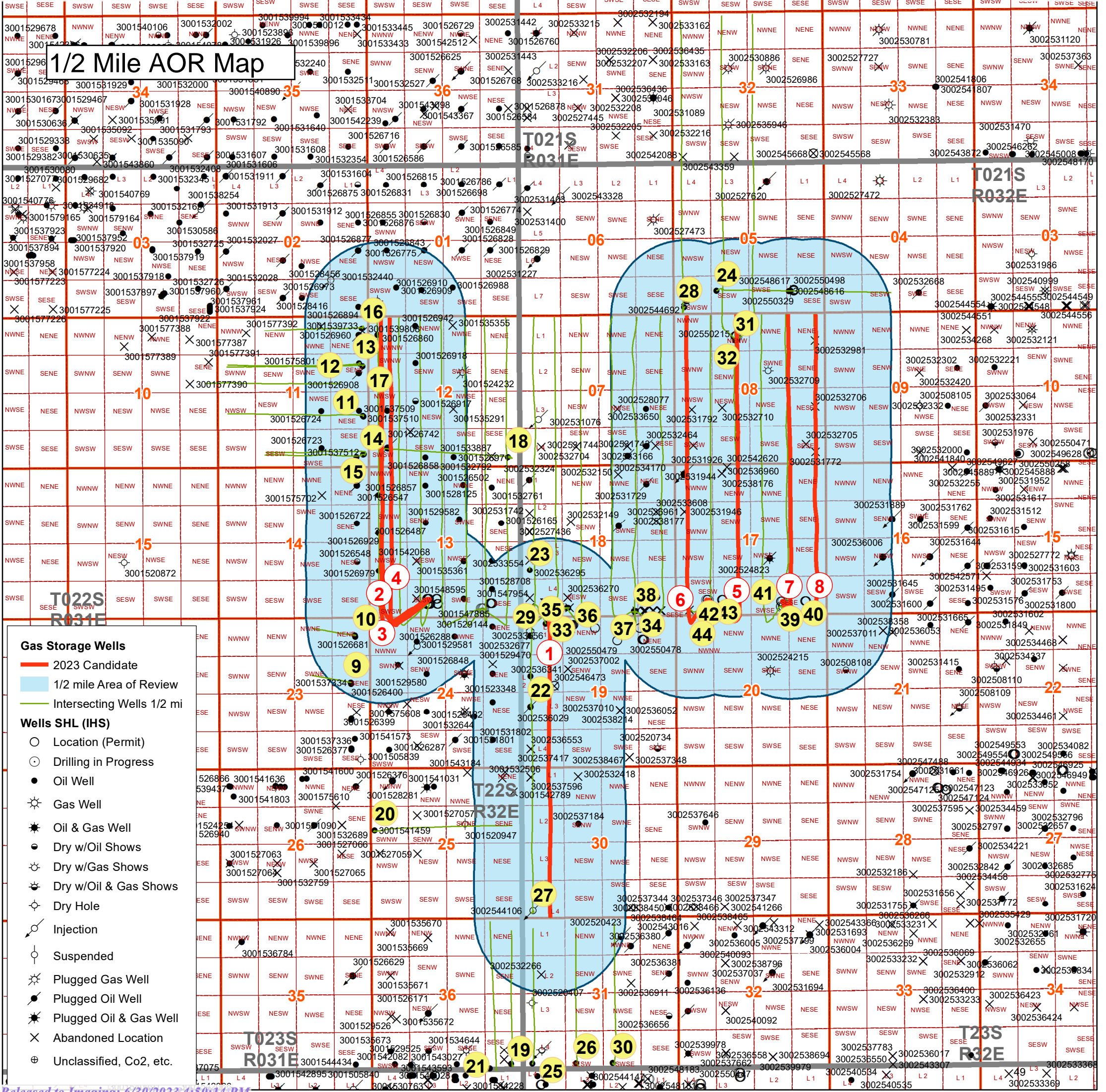


T021S
SESE SES
R032E



 2023 Candidate
 Intersecting Wells 2 mi
 2 mile Area of Review

- Location (Permit)
- ◉ Drilling in Progress
- Oil Well
- ☀ Gas Well
- ☀ Oil & Gas Well
- ◉ Dry w/Oil Shows
- ☀ Dry w/Gas Shows
- ☀ Dry w/Oil & Gas Shows
- ◉ Dry Hole
- ◉ ↙ Injection
- ◉ Suspended
- ☀ Plugged Gas Well
- ↙ Plugged Oil Well
- ☀ ↙ Plugged Oil & Gas Well
- ✕ Abandoned Location
- ⊕ Unclassified, Co2, etc.

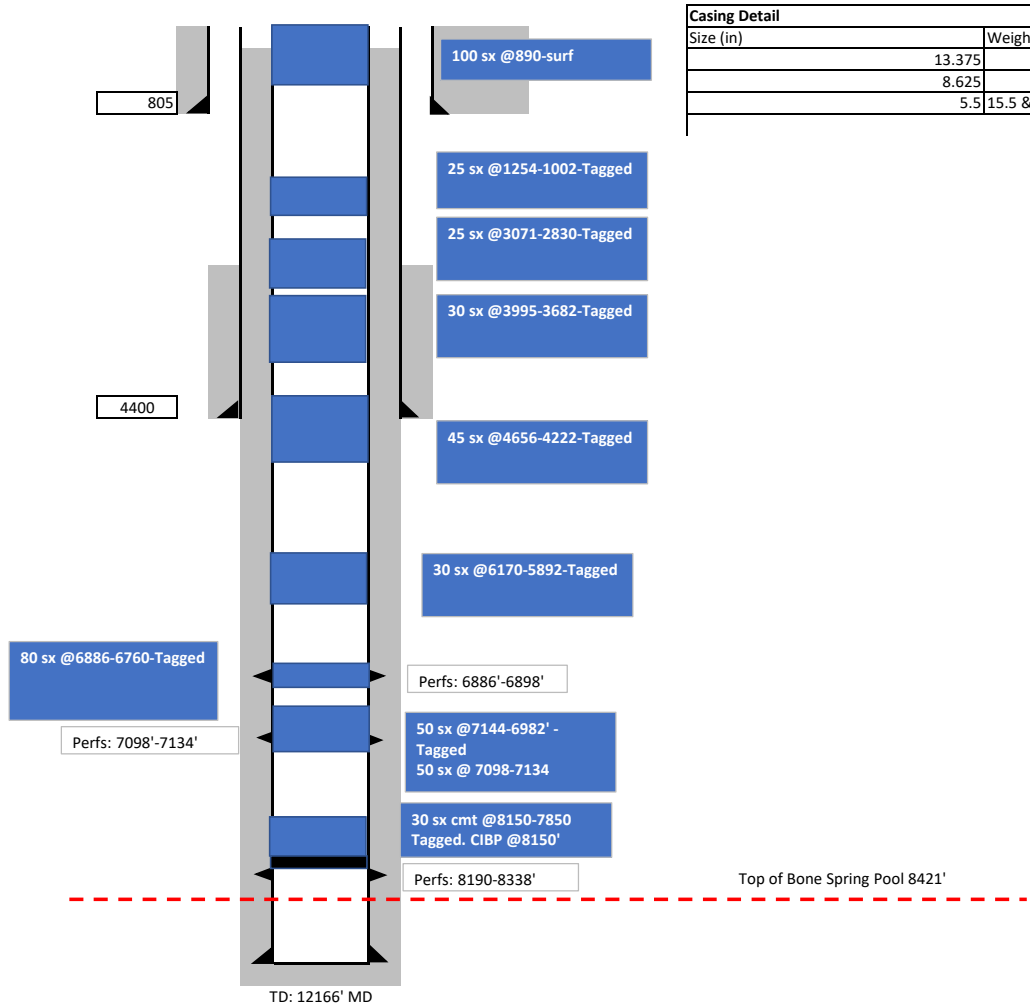


1/2 Mile AOR Table

Well ID	API NUMBER	Current Operator	LEASE NAME	WELL NUMBER	Well Type:	Status:	Footages N/S	N/S	Footages E/W	E/W	Surface Location Unit	Surface Location Section	Surface Location TShip	Surface Location Range	Spud:	True Vertical Depth:	Measured Depth [ft]	HOLE SIZE	CSG SIZE	SET AT	SX CMT	CMT TO	TOC How Measured	Current Completion [ft]	Comment	Current Producing Pool
1	30-025-46474	OXY USA INC	LOST TANK 30 19 FEDERAL COM	001H	Oil	New Drill	128	N	1235	W	D		19 22S	32E	11/23/2019	9874	20290	17.5 12.25 8.5	13.375 9.625 5.5	900 6569 20262	900 3313 2749	1150 Surf 4350	Circ Circ CBL	10012-20163		[97366] BILBREY BASIN; BONE SPRING, SOUTH
2	30-015-48595	OXY USA INC	TOP SPOT 12_13 FED COM	11H	Oil	New Drill	653	S	2022	W	N		13 22S	32E	11/1/2022	9035	19957	17.5 12.25 8.75 6.75	13.375 9.625 7.625 5.5	874 4545 8694 19957	1090 1400 *565 848	Surf Surf TBD 3000	Circ Circ TBD CBL	9571-19938		[97366] BILBREY BASIN; BONE SPRING, SOUTH
3	30-015-48594	OXY USA INC	TOP SPOT 12_13 FED COM	1H	Oil	New Drill	653	S	2087	W	N		13 22S	32E	10/30/2022	9817	20665	17.5 12.25 8.75 6.75	13.375 9.625 7.625 5.5	871 4576 9246 20665	1090 1314 *617 822	Surf Surf TBD 4790	Circ Circ TBD CBL	10287-20468		[97366] BILBREY BASIN; BONE SPRING, SOUTH
4	30-015-47771	OXY USA INC	TOP SPOT 12_13 FED COM	21H	Oil	New Drill	653	S	2052	W	N		13 22S	32E	11/1/2022	10387	21134	17.5 12.25 8.75 6.75	13.375 9.625 7.625 5.5	905 4564 9745 21134	1090 1314 *653 849	Surf Surf TBD 6350	Circ Circ TBD CBL	10790-20934		[97366] BILBREY BASIN; BONE SPRING, SOUTH
5	30-025-48282	OXY USA INC	DR PI FEDERAL UNIT 17 8 DA	21H	Oil	New Drill	530	S	1075	W	M		17 22S	32E	10/8/2022	10638	21220	17.5 12.25 8.75	13.375 9.625 5.5	928 6495 21220	1519 1403 3386	Surf Surf Circ 4770	Circ Circ CBL	10852-21078		[97366] BILBREY BASIN; BONE SPRING, SOUTH
6	30-025-48947	OXY USA INC	DR PI FEDERAL UNIT 17 8 DA	023H	Oil	Active	530	S	1145	W	M		17 22S	32E	10/10/2022	10594	21338	17.5 12.25 8.75	13.375 9.625 5.5	926 6545 21318	1150 1499 3381	Surf Surf Circ 5300	Circ Circ CBL	10966-21192		[97366] BILBREY BASIN; BONE SPRING, SOUTH
7	30-025-48949	OXY USA INC	DR PI FEDERAL UNIT 17 8 DA	025H	Oil	New Drill	455	S	1565	E	O		17 22S	32E	9/25/2022	10635	21342	13.375 12.25 8.75	903 9.625 5.500	903 6579 21342	1130 1761 3373	Surf Surf CBL	Circ Circ CBL	11072-21198		[97366] BILBREY BASIN; BONE SPRING, SOUTH
8	30-025-48950	OXY USA INC	DR PI FEDERAL UNIT 17 8 DA	026H	Oil	Active	455	S	1530	E	O		17 22S	32E	9/26/2022	10538	21370	17.5 12.25 8.75	13.375 9.625 5.500	896 6586 21350	1130 1383 3562	Surf Surf CBL	Circ Circ CBL	11072-21198		[97366] BILBREY BASIN; BONE SPRING, SOUTH
9	30-015-37334	OXY USA INC	FEDERAL 23	009	Oil	Active	2261	N	656	E	H		23 22S	31E	1/10/2010	8363	8629	14.750 10.625 7.875	11.750 8.625 5.500	846 4238 8632	330 1150 1590	Surf Surf Circ	Circ Circ Circ	8267-8518		[39360] LIVINGSTON RIDGE; DELAWARE
10	30-015-37341	OXY USA INC	FEDERAL 23	016	Oil	Active	612	N	509	E	A		23 22S	31E	1/21/2010	8376	8690	14.750 10.625 7.875	11.750 8.625 5.500	857 4266 8690	600 1150 1528	Surf Surf Surf	Circ Circ Circ	8306-8380		[39360] LIVINGSTON RIDGE; DELAWARE
11	30-015-37509	EOG RESOURCES INC	MARTHA AIK FEDERAL	010H	Oil	Active	1780	S	178	E	I		11 22S	31E	9/21/2012	7984	12526	26.000 17.500 12.250 8.750 6.125	20.000 13.375 9.625 7.000 4.500	40 859 4562 7420 12520	135 760 1370 825 400	Surf Surf Surf Surf CBL	Circ Circ Circ Circ CBL	8410-12440		[39360] LIVINGSTON RIDGE; DELAWARE
12	30-015-37510	EOG RESOURCES INC	MARTHA AIK FEDERAL	011H	Oil	Active	1780	S	200	E	I		11 22S	31E	9/21/2012	7045	11498	26.000 17.500 12.250 8.500	20.000 13.375 9.625 5.500	40 835 4366 11498	5 yds redi-mix 680 1260 2230	Surf Surf Surf Surf	Circ Circ Circ CBL	7353-11405		[39360] LIVINGSTON RIDGE; DELAWARE
13	30-015-37511	EOG RESOURCES INC	MARTHA AIK FEDERAL	013H	Oil	Active	1650	N	330	E	H		11 22S	31E	8/15/2010	12600	12600	17.500 12.240 8.750	13.375 9.625 5.500	835 4325 12600	750 1360 2650	Surf Surf Temp	Circ Circ Temp	8828-12515		[39360] LIVINGSTON RIDGE; DELAWARE
14	30-015-37512	EOG RESOURCES INC	MARTHA AIK FEDERAL	009	Oil	Active	430	S	200	E	P		11 22S	31E	11/7/2012	9	11456	17.500 12.250 8.750 6.125	13.375 9.625 7.000 4.500	802 4545 7450 11456	760 1140 1410 330	Surf Surf Surf Calc	Circ Circ Circ Calc	8606-11397		[39360] LIVINGSTON RIDGE; DELAWARE
15	30-015-37556	EOG RESOURCES INC	MARTHA AIK FEDERAL	014H	Oil	Active	430	S	178	E	P		11 22S	31E	11/7/2012	7019	10330	17.500 12.250 8.750 6.125	13.375 9.625 7.000 4.500	862 4499 7439 10330	760 1170 785 259	Surf Surf Surf CBL	Circ Circ Circ CBL	7456-10281		[39360] LIVINGSTON RIDGE; DELAWARE
16	30-015-39733	EOG RESOURCES INC	MARTHA AIK FEDERAL	008H	Oil	Active	430	N	200	E	A		11 22S	31E	10/1/2013	8827	11475	17.500 12.250 8.750	13.375 9.625 7.000	714 4449 7700	630 1030 950	Surf Surf Surf	Circ Circ Circ	8543-11420		[39360] LIVINGSTON RIDGE; DELAWARE
17	30-015-40051	EOG RESOURCES INC	MARTHA AIK FEDERAL	007H	Oil	Active	1750	N	200	E	H		11 22S	31E	10/29/2013	7966	12560	26.000 17.500 12.250 8.750 6.125	20.000 13.375 9.625 7.000 4.500	40 729 4406 7431 12560	5.8 yds redi-mix 650 1440 965 390	Surf Surf Surf Surf CBL	Circ Circ Circ Circ CBL	8378-12508		[39360] LIVINGSTON RIDGE; DELAWARE
18	30-015-40821	OXY USA INC	FEDERAL 12	014H	Oil	Active	330	S	405	E	P		12 22S	31E	1/3/2013	10414	14704	14.75 10.625 7.875	11.75 8.625 5.500	892 4500 14694	620 1260 1880	Surf Surf Surf	Circ Circ Circ	10870-14530		[96403] WILDCAT; BONE SPRING
19	30-015-41038	COG OPERATING LLC	BULTACO STATE	001H	Oil	Active	190	S	330	E	P		36 22S	31E	8/23/2014	10270	14764	17.500 12.250 8.750	13.375 9.625 5.500	749 4535 14725	590 1340 2780	Surf Surf Surf	Circ Circ Circ	10498-14575		[39350] LIVINGSTON RIDGE; BONE SPRING
20	30-015-41459	OXY USA INC	NEFF 25 FEDERAL	009H	Oil	Active	2160	N	150	W	E		25 22S	31E	8/31/2013	10214	14635	14.750 10.625 7.875	11.750 8.625 5.5	828 4455 14632	600 1280 1630	Surf Surf Surf	Circ Circ Circ	10440-14480		[39350] LIVINGSTON RIDGE; BONE SPRING
21	30-015-43670	COG OPERATING LLC	BULTACO STATE	003H	Oil	Active	5	S	1090	E	P		36 22S	31E	10/12/2016	10440	15447	17.500 12.250 8.750	13.375 9.625 5.500	775 4580 15408	675 1300 2450	Surf Surf Surf	Circ Circ Circ	10641-15112		[39350] LIVINGSTON RIDGE; BONE SPRING
22	30-025-36029	OXY USA INC	LIVINGSTON RIDGE 19 FEDERAL	003	Oil	PA	2150	S	330	W	L		19 22S	32E	6/14/2003	8580	8580	17.500 11.000 7.875	13.375 8.625 5.500	805 4400 8580	940 2035 2105	Surf TS 160	CIRC TS CBL	NA		NA
23	30-025-36295	OXY USA INC	LIVINGSTON RIDGE 18 FEDERAL	006	Oil	Active	1650	S	330	W	L		18 22S	32E	7/4/2003	8590	8590	17.500 11.000 7.875	13.375 8.625 5.500	842 4418 8590	940 1500 2160	Surf Surf Surf	Circ Circ Circ	7058-8264		[39366] LIVINGSTON RIDGE; DELAWARE, EAST
24	30-025-40987	Permian Resources Operating, LLC	BILBREY BASIN 5 STATE COM	001H	Oil	Active	790	S	1520	W	N		5 22S	32E	6/26/2013	10560	16227	17.500 12.250 8.750	13.375 9.625 5.500	805 4575 16227	790 1379 2680	Surf Surf Calc	Circ Circ Calc	10700-16048		[5695] BILBREY BASIN; BONE SPRING
25	30-025-41926	MATADOR PRODUCTION COMPANY	E LIVINGSTON 31 FEDERAL	006H	Oil	Active	190	S	330	W	M		31 22S	32E	11/29/2014	10227	14802	17.500 12.250 7.875	13.375 9.625 5.500	840 5085 14788	650 1350 2400	Surf Surf Calc	Circ Circ Calc	11010-14640		[53800] SAND DUNES; BONE SPRING
26	30-025-42975	MATADOR PRODUCTION COMPANY	E LIVINGSTON 31 FEDERAL	007H	Oil	Active	190	S	1862	W	N		31 22S	32E	1/5/2016	10292	14918	17.500 12.250 7.875	13.375 9.625 5.500	880 4561 14918	409 1075 1685	Surf Surf Surf	Circ Circ Circ	10842-14770		[53800] SAND DUNES; BONE SPRING
27	30-025-44106	NGL WATER SOLUTIONS PERMIAN, LLC	DEEP PURPLE SWD	001	Salt Water	Active	270	S	380	W	M		30 22S	32E	10/26/2017	17673	17673	26 17.5 12.25 9.625 8.5	20 13.375 9.625 8.5 7.625	851 4528 11807 11807 16313	1480 2580 2180 2180 390	Surf Surf Surf Surf 11524	Circ Circ Circ Calc Calc	16975-18135		[97869] SWD; DEVONIAN-SILURIAN
28	30-025-44692	Permian Resources Operating, LLC	CHEDDAR 3BS FEDERAL COM	001H	Oil	Active	244	S	370	W	M		5 22S	32E	5/19/2018	11672	21669	17.500	13.375	728	655	Surf	Circ	11945-21595		[5695] BILBREY BASIN; BONE SPRING

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LIVINGSTON RIDGE 19 FED #003
30-025-36029
FINAL PA DIAGRAM



Casing Detail						
Size (in)	Weight (lb/ft)	Grade	Depth (ft)	CMT (sx)	TOC (ft)	Comment
13.375	48	H 40	805	940	Surf	Circ
8.625	32	J 55	4400	2035	1400	Temp
5.5	15.5 & 17	J 55	8580	2105	160	CBL

Geology



Lost Tank 2nd Bone Spring storage zone and permeability barriers

2nd Bone Spring Interval

Proposed Storage Zone

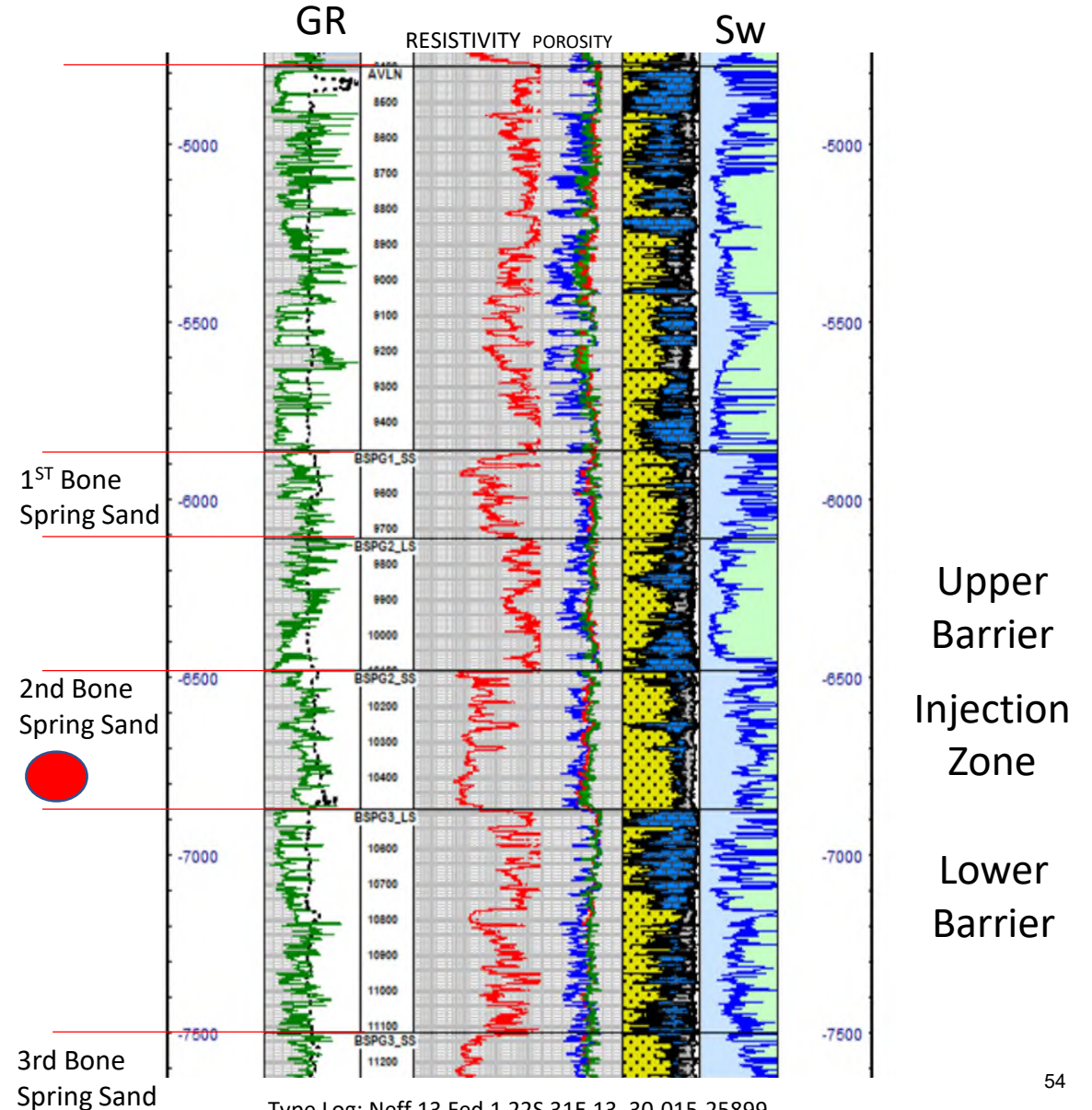
- 2nd Bone Spring Sand
 - Reservoir composed of tight siltstone. Core data indicates that the grain sizes range from coarse siltstone to very-fine-grained subarkose (Folk, 1980) sandstone. Samples show evidence of moderate compaction. Minor amounts of illite and smectite clays are found throughout the samples ranging from 5% to 15%. Cements are Fe-calcite, Fe-dolomite, pore-bridging illite and some quartz overgrowths. Minor amounts of pyrite (<1%) are present. The resulting reservoir rock has porosity of 8-18% with an average porosity of 9.7%. Permeability measured by injection fall-off tests conducted within the reservoir ranges from 10 millidarcies to 0.003 millidarcies. Siliceous mudstone with natural permeability in the nano-darcy range

Adjacent Oil & Gas Production Zones

- Delaware Mountain Group Brushy Canyon
 - Very fine-grained sandstone with permeability in the 100-10 millidarcy range
- 1st Bone Spring Sand
 - Reservoir composed of tight siltstone. Core data indicates that the grain sizes range from coarse siltstone to very-fine-grained subarkose (Folk, 1980) sandstone. Samples show evidence of moderate compaction. Minor amounts of illite and smectite clays are found throughout the samples ranging from 5% to 15%. Cements are Fe-calcite, Fe-dolomite, with some quartz overgrowths. Minor amounts of pyrite (<1%) are present. The resulting reservoir rock has porosity of 8-18% with an average porosity of 11.7%. Permeability measured by injection fall-off tests conducted within the reservoir ranges from 0.02 millidarcies to 0.001 millidarcies.
- 3rd Bone Spring Sand
 - Reservoir composed of tight siltstone. Core data indicates that the grain sizes range from coarse siltstone to very-fine-grained subarkose (Folk, 1980) sandstone. Samples show evidence of moderate compaction. Minor amounts of illite and smectite clays are found throughout the samples ranging from 5% to 15%. Cements are Fe-calcite, Fe-dolomite, with some quartz overgrowths. Minor amounts of pyrite (<1%) are present. The resulting reservoir rock has porosity of 8-18% with an average porosity of 11.7%. Permeability measured by injection fall-off tests conducted within the reservoir ranges from 0.02 millidarcies to 0.001 millidarcies.

Confining Layers

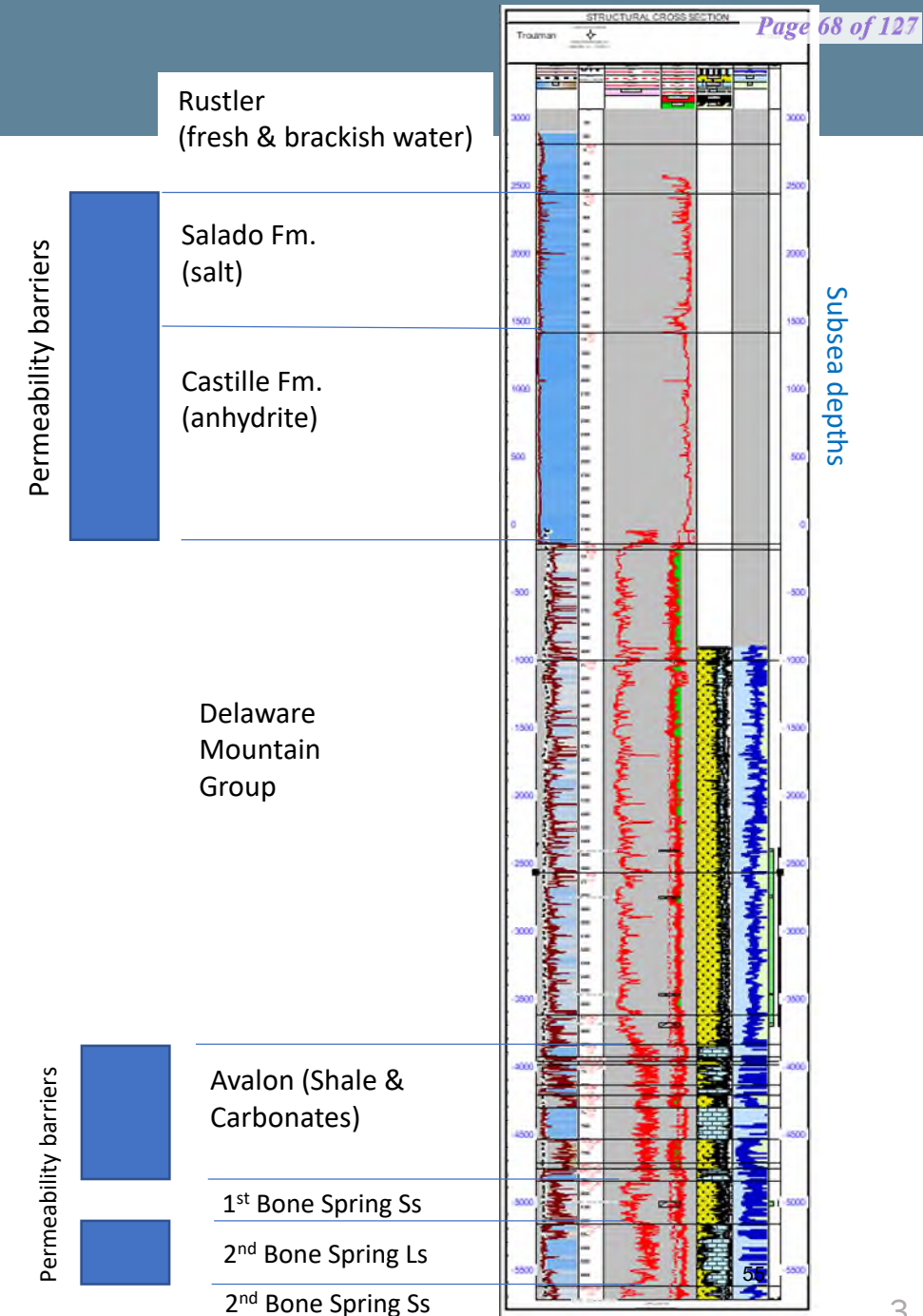
- Low-permeability barriers act as seals above and below the reservoir. These barriers consist of carbonate mudstone, dolomudstone, and shales that are ~1040 ft. thick above and ~630 ft. thick below. Laterally the injection will be primarily contained by the reservoir volume that has been previously and partially depleted by the adjacent producing wells. The tight low-permeability reservoir and the production from the adjacent wells will be the primary constraints on the conformance of the injection to the project area and are expected to contain the injected gas.
- 2nd Bone Spring Limestone (~370 ft.) is upper permeability barrier between 2nd BS Sand and 1st BS Sand. Tight dolomudstones and shale.
- 3rd Bone Spring Limestone lower permeability barrier (~630 ft.) between 2nd BS Sand and 3rd BS Sand. Tight dolomudstones and shale.
- Upper and Lower Avalon upper permeability barrier between 1st BS Sand and Delaware Mountain Group Brushy Canyon



Type Log: Neff 13 Fed 1 22S 31E 13 30-015-25899

Lost tank freshwater aquifers

- The top of the Bone Spring Formation is at ~8,400 ft. (log depth) with over 1,400 ft. of carbonate mudstones and shales acting as additional permeability barriers to upward migration of injected gas.
- Above that the Delaware Mountain Group consists of connate-water bearing and hydrocarbon-bearing sands, with minor limestone and shale intervals and is over 4,000 ft. thick.
- Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,100 ft. thick barrier to upward movement of fluids.
- The Salado overlies the Castile and forms a 1,400 ft. thick barrier of salt. The top of the Salado is at 850 ft. and the deep aquifers found just above the Salado at the base of the Rustler are saline water.
- The top of Rustler Formation is at about 850 ft. The Rustler top is a continuous anhydrite layer that acts as another permeability barrier creating a perched aquifer above it that is the lowest level where fresh water is known in the area. Because of the thickness of multiple impermeable rock layers above the injection reservoir there is no possible path for migration upward into freshwater aquifers where they exist.



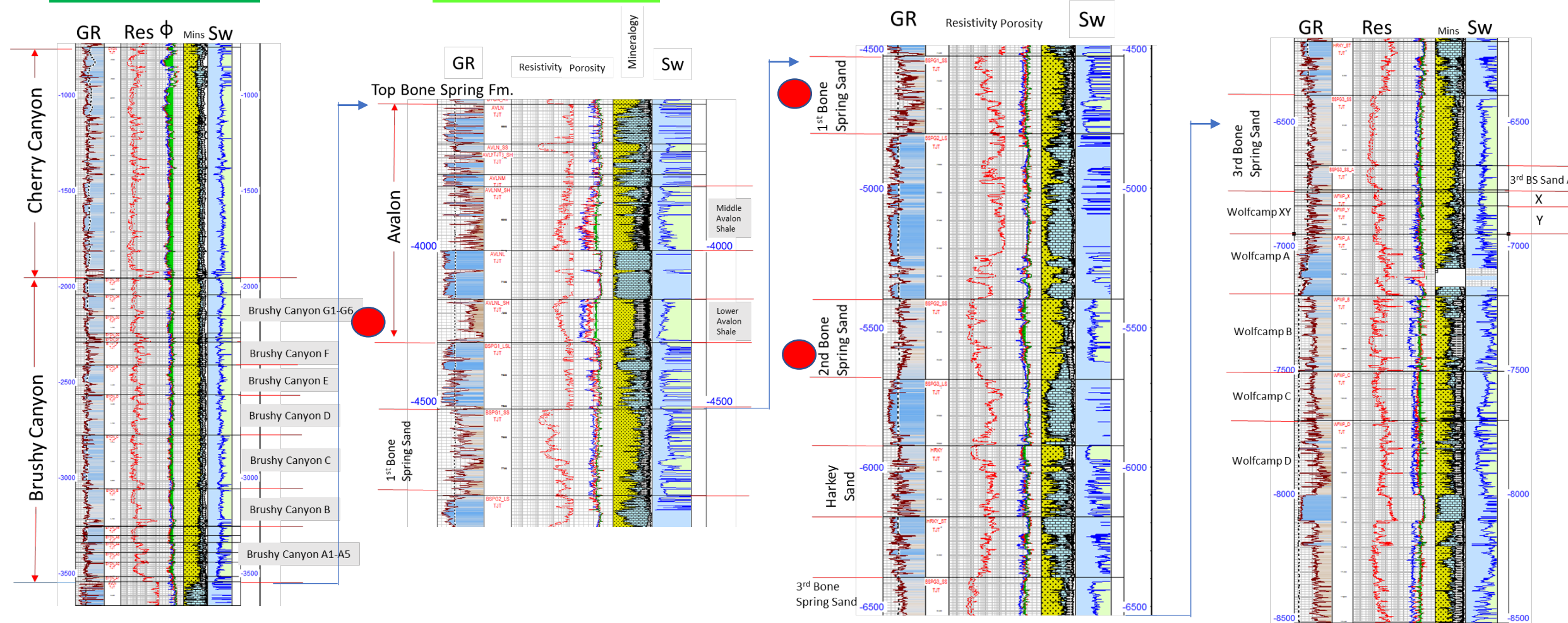
Lost Tank full type log:

Delaware Group Interval

Avalon/BSPG1_SS Interval

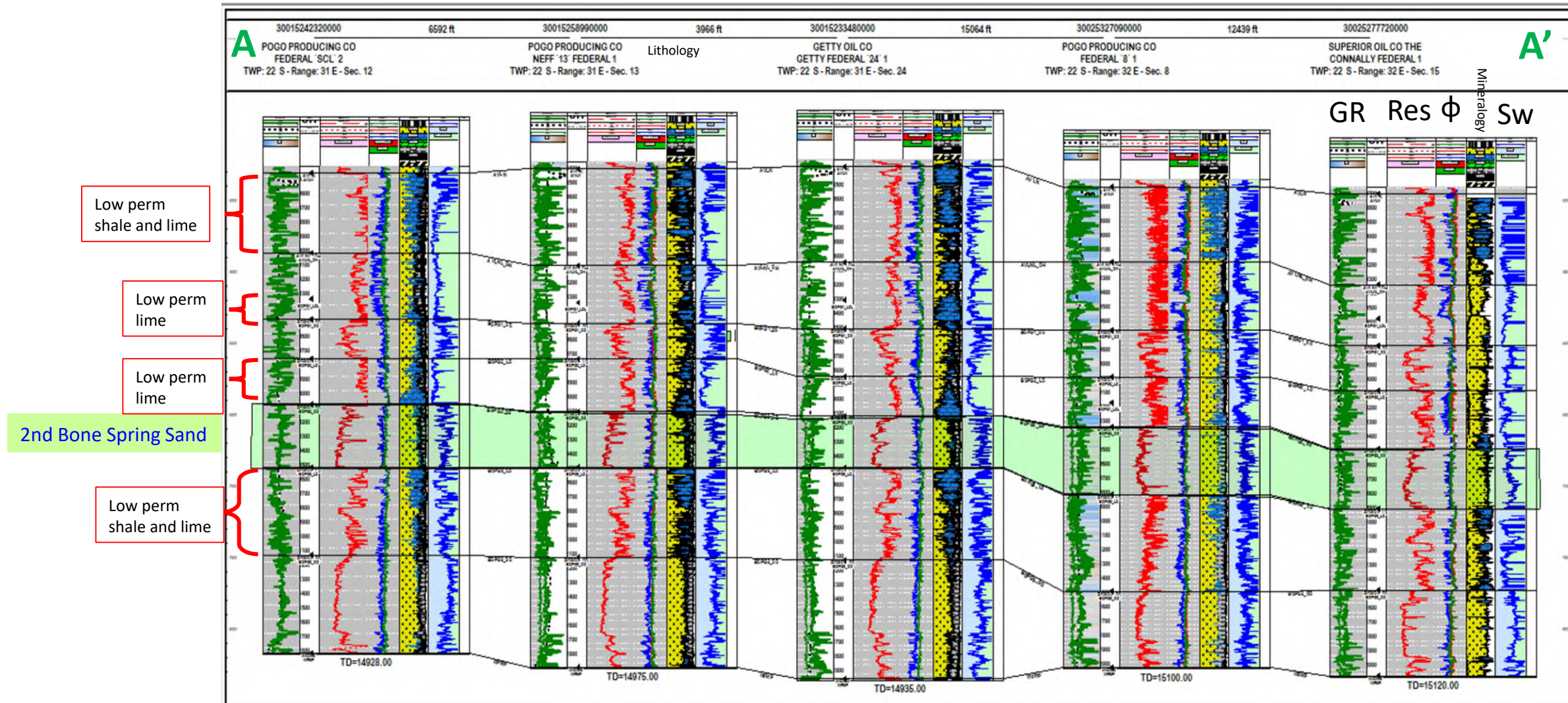
BSPG2_SS Interval

BSPG3_SS/WCMP_XY Interval



● Proposed storage zones: 2nd Bone Spring Sand, 1st Bone Spring Sand, Lower Avalon

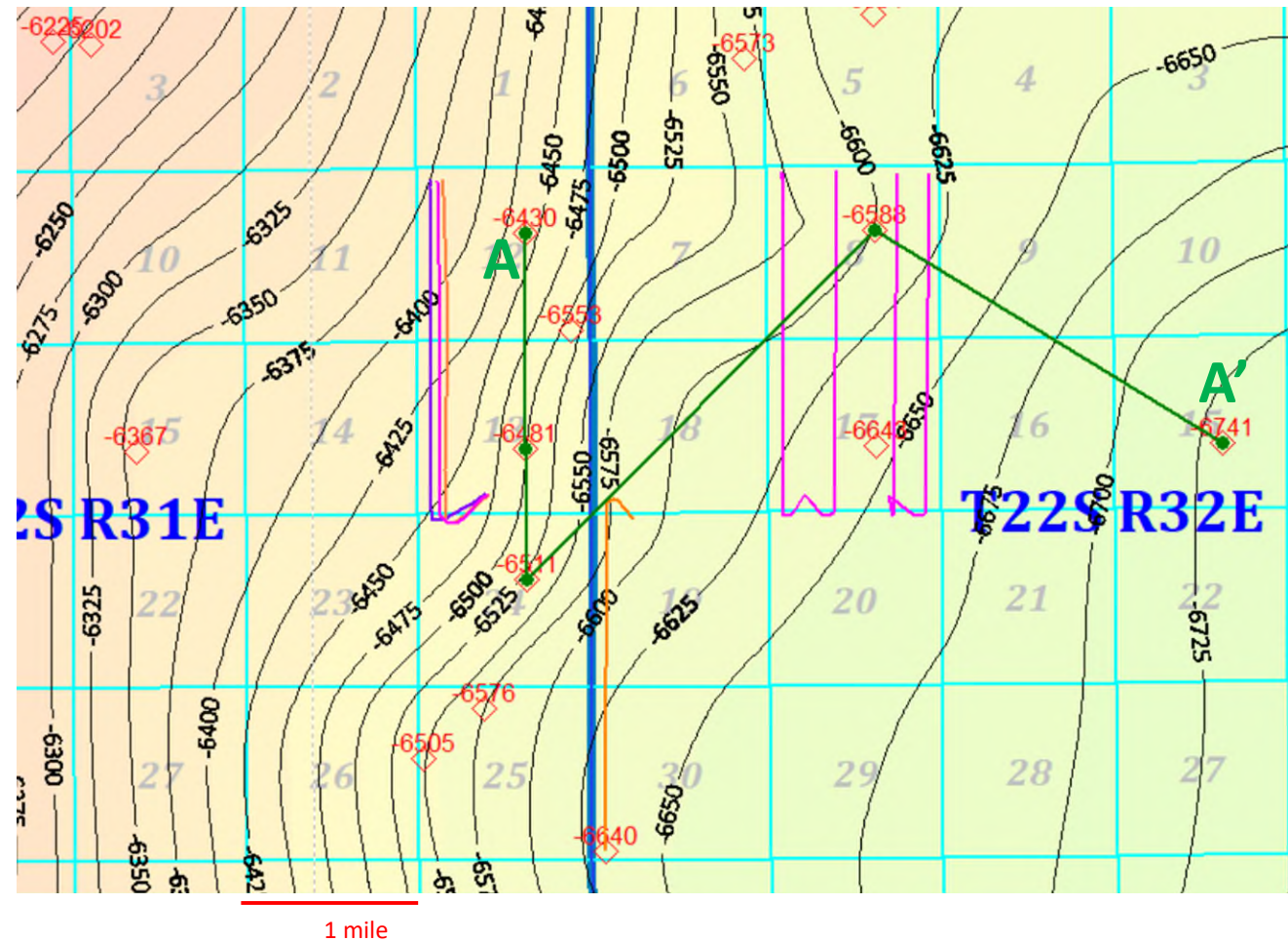
Lost Tank Second Bone Spring Sand Cross-section



Lost Tank 2nd Bone Spring Sand Top Structure

Cross-section A-A' location

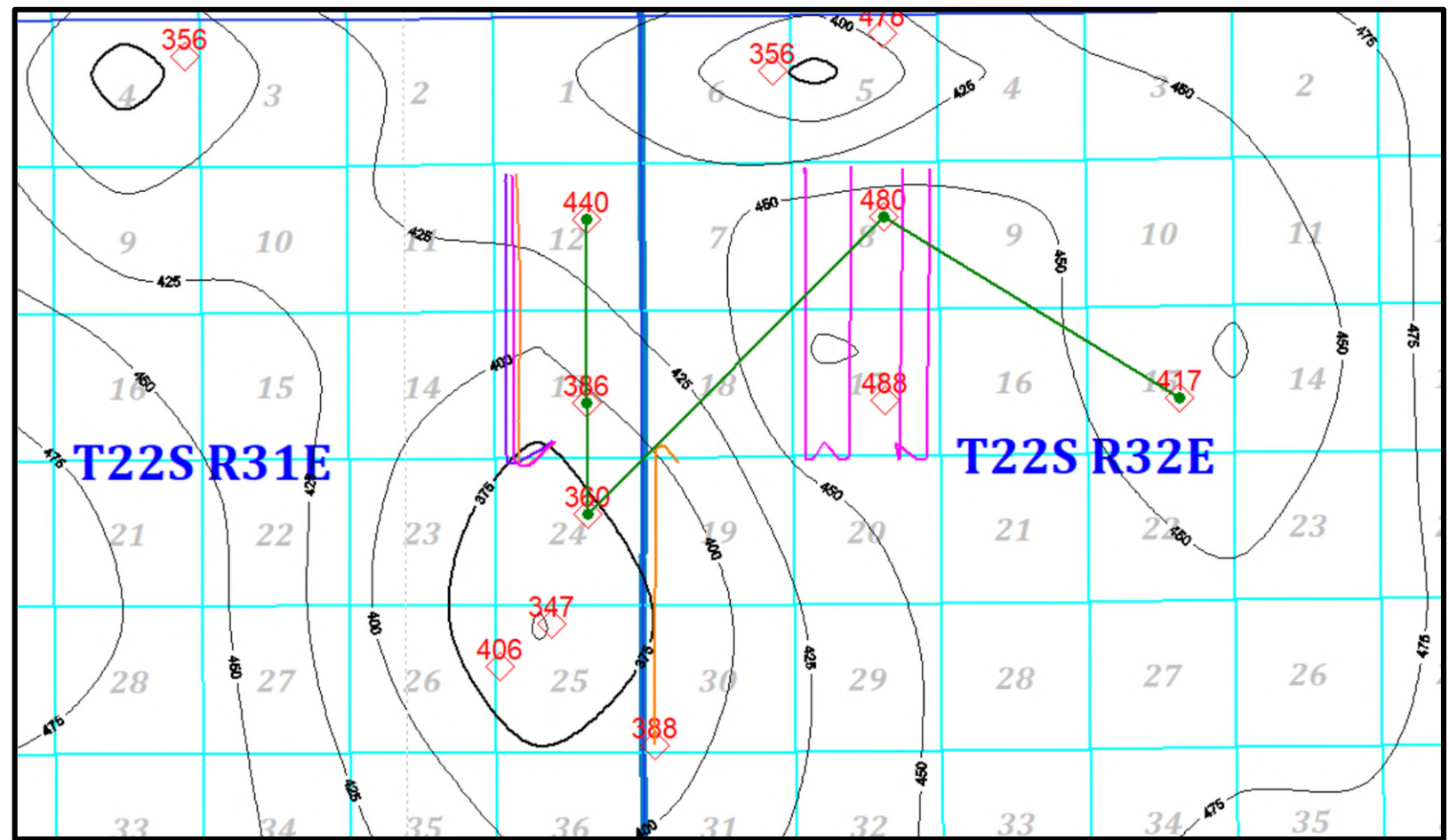
- Posted depths show well control
- Depths are TVD subsea
- Contour interval 25 ft
- 2nd Bone Spring wells marked by pink wellbores
- 1st BS wells in orange
- Avalon well in purple



2nd Bone Spring Sand

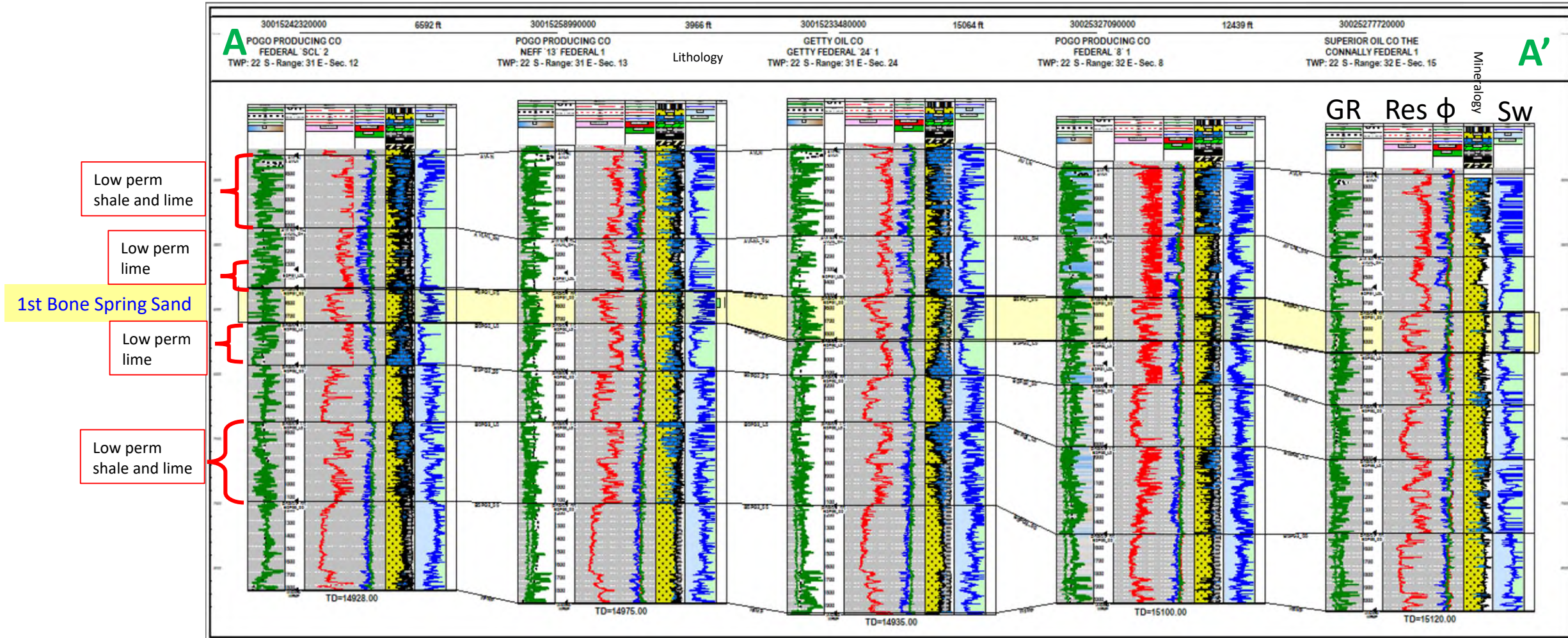
Second Bone Spring Sand Isochore Map

- Posted depths show well control
- Depths are TVD subsea
- Contour interval 25 ft
- 2nd Bone Spring wells marked by pink wellbores
- 1st BS wells in orange
- Avalon well in purple



2nd Bone Spring Sand Thickness

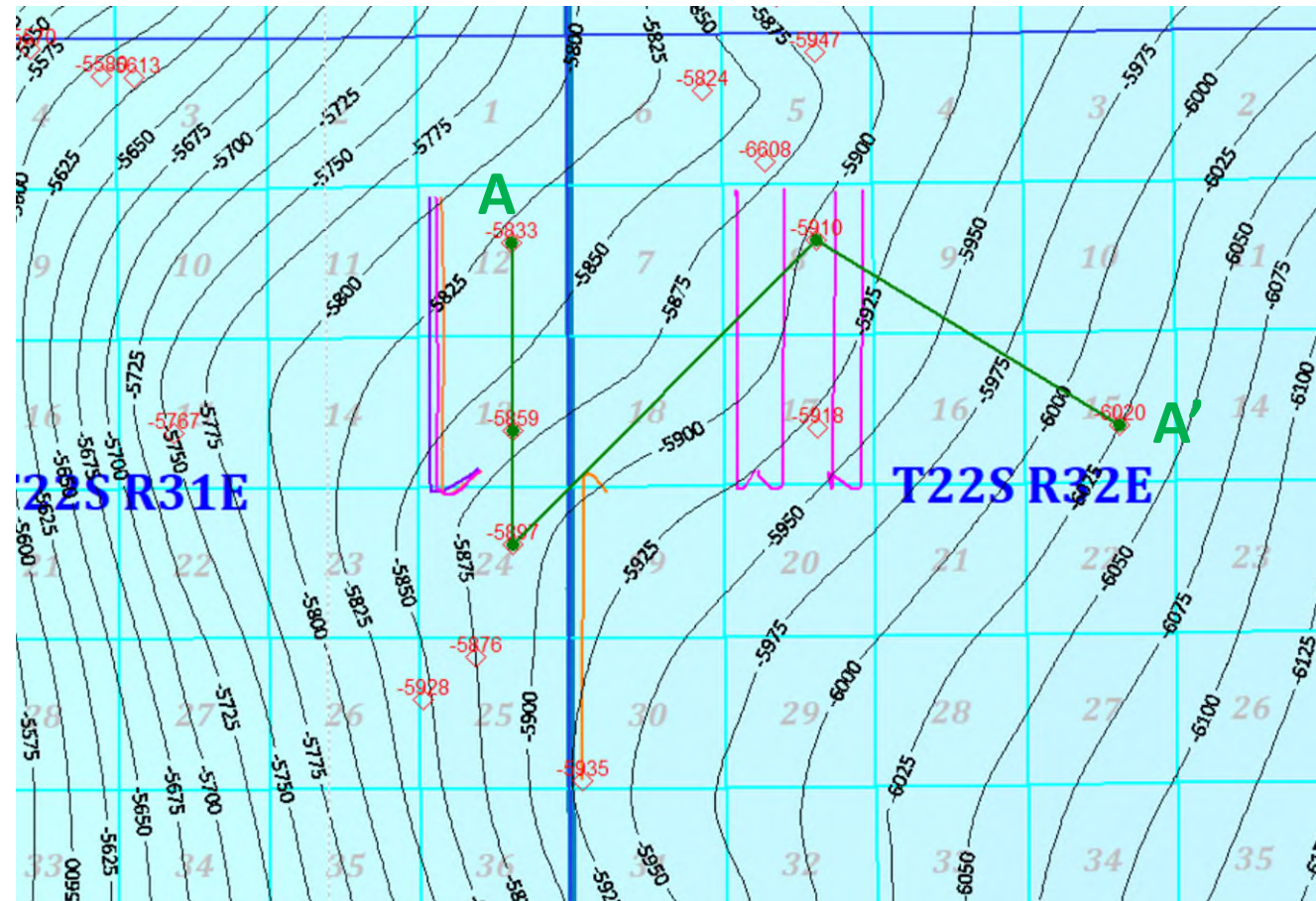
Lost Tank First Bone Spring Sand Cross-section



Lost Tank 1st Bone Spring Sand Top Structure

Cross-section A-A' location

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- Depths are TVD subsea
- Contour interval 25 ft
- 2nd Bone Spring wells marked by pink wellbores
- 1st BS wells in orange
- Avalon well in purple

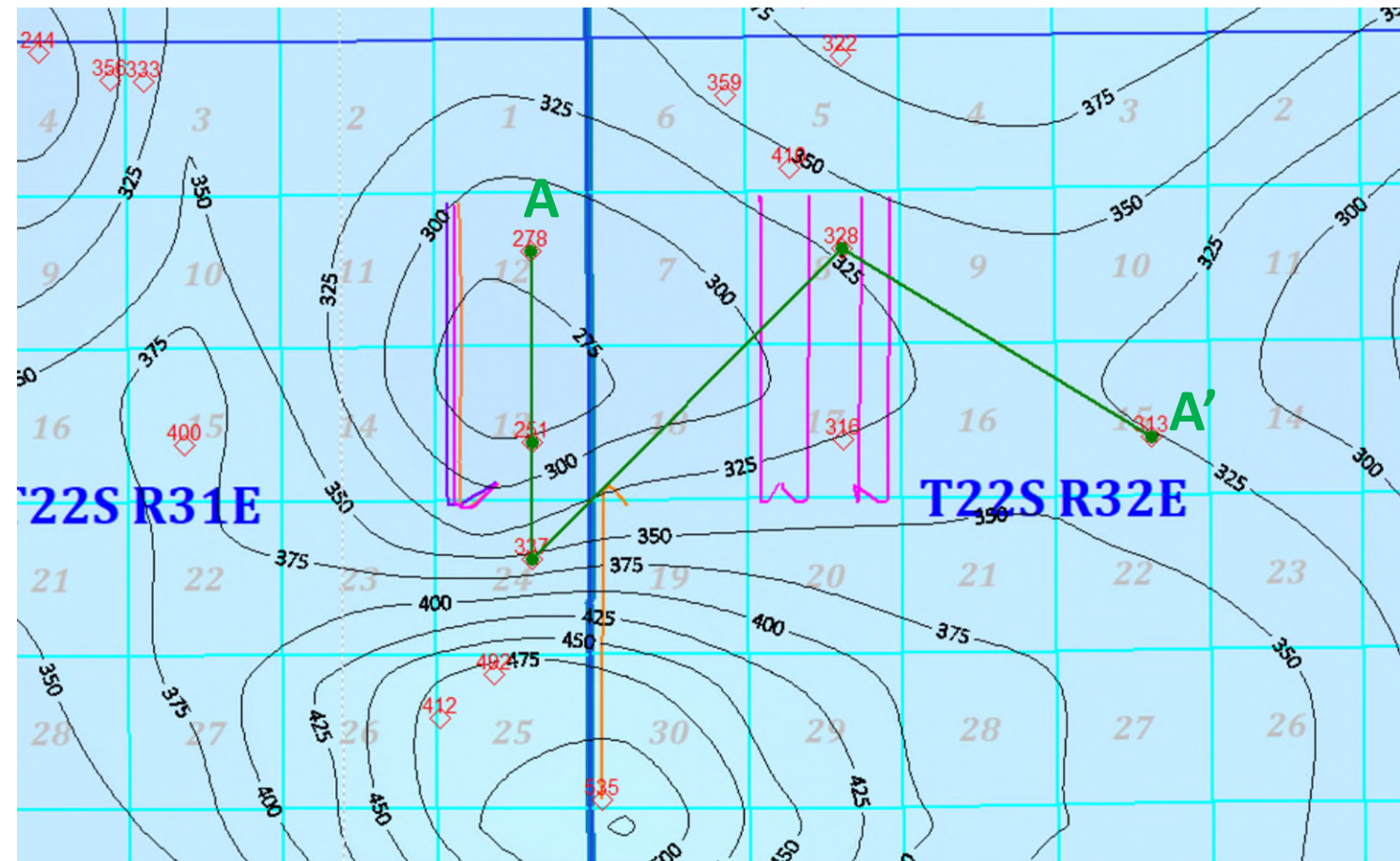


1 mile

1st Bone Spring Sand Structure

First Bone Spring Sand Isochore Map

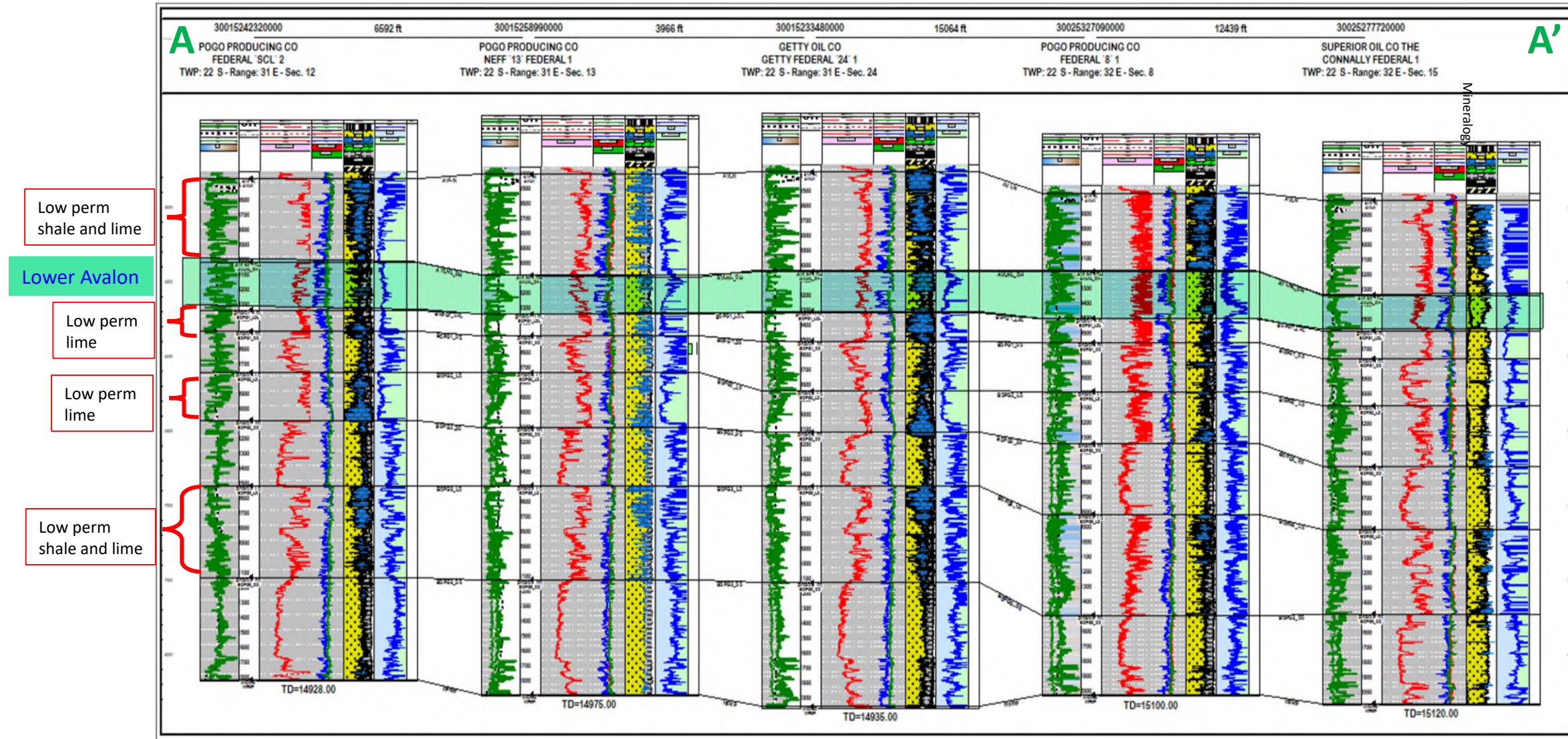
- Posted depths show well control
- Depths are TVD subsea
- Contour interval 25 ft
- 2nd Bone Spring wells marked by pink wellbores
- 1st BS wells in orange
- Avalon well in purple



1 mile

1st Bone Spring Sand Thickness

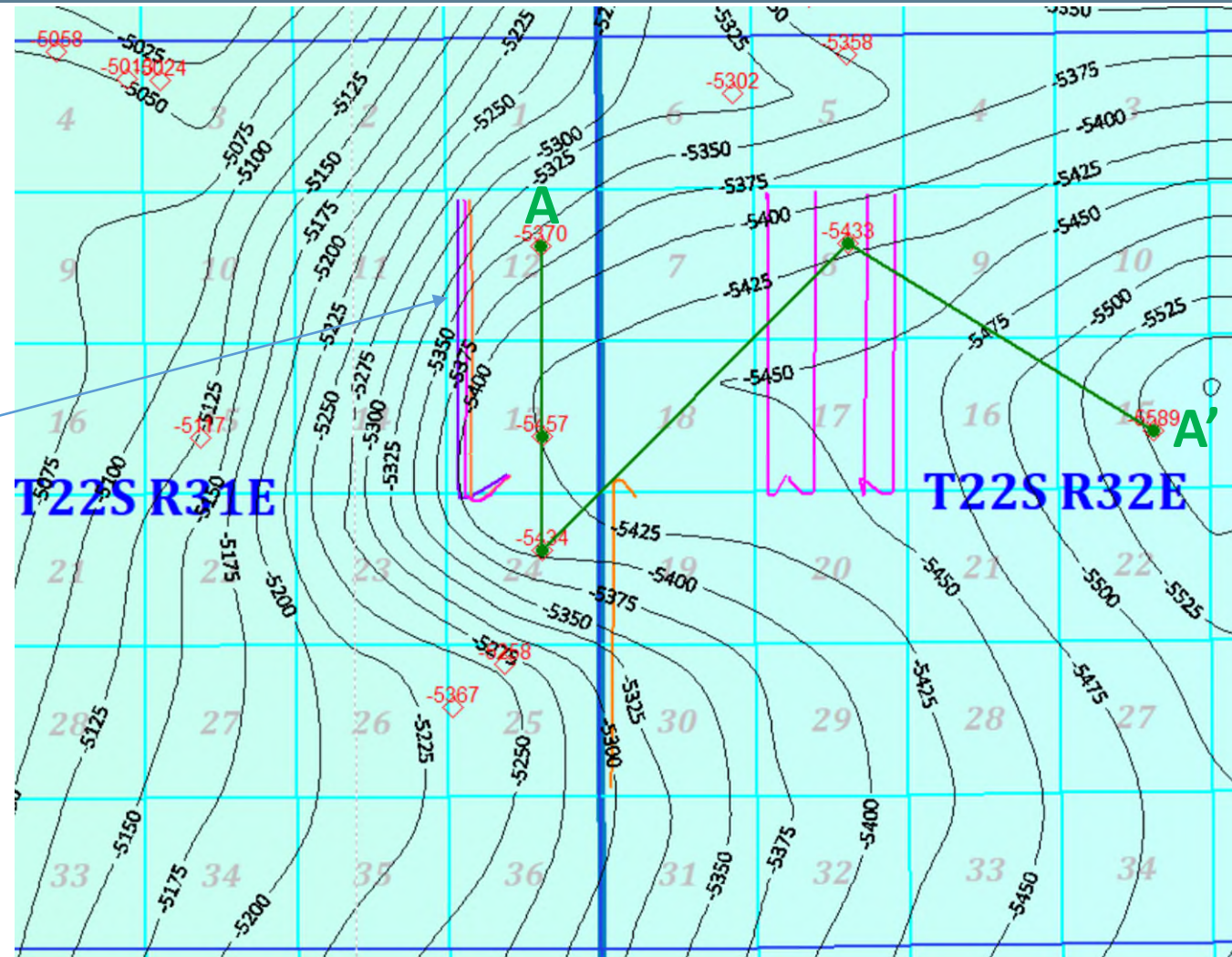
Lost Tank Lower Avalon Cross-section



Lost Tank Lower Avalon Top Structure

Cross-section A-A' location

- Posted depths show well control
- Depths are TVD subsea
- Contour interval 25 ft
- 2nd Bone Spring wells marked by pink wellbores
- 1st BS wells in orange
- Avalon well in purple



North

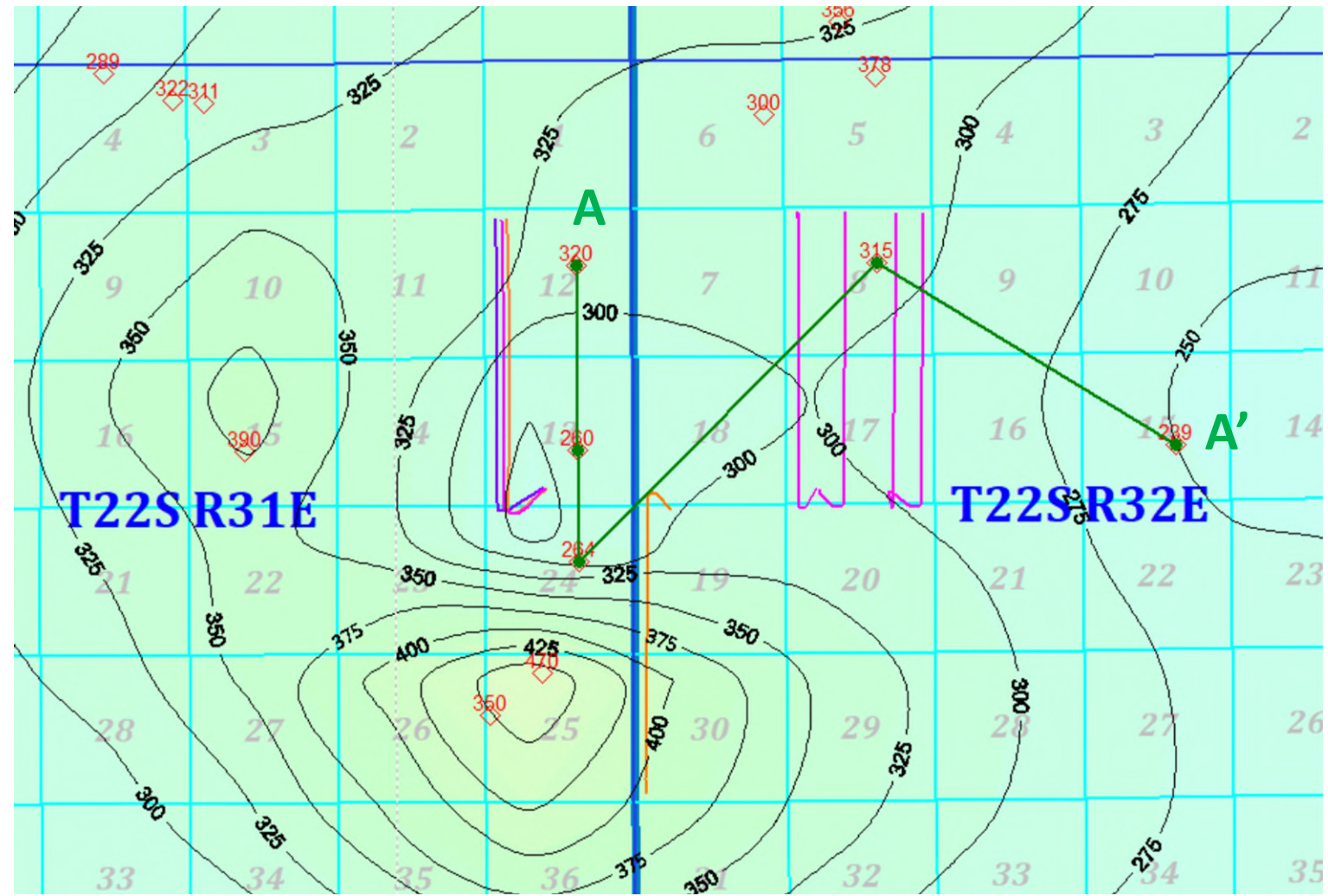


Lower Avalon Structure

1 mile

Lost Tank Lower Avalon Isochore Map

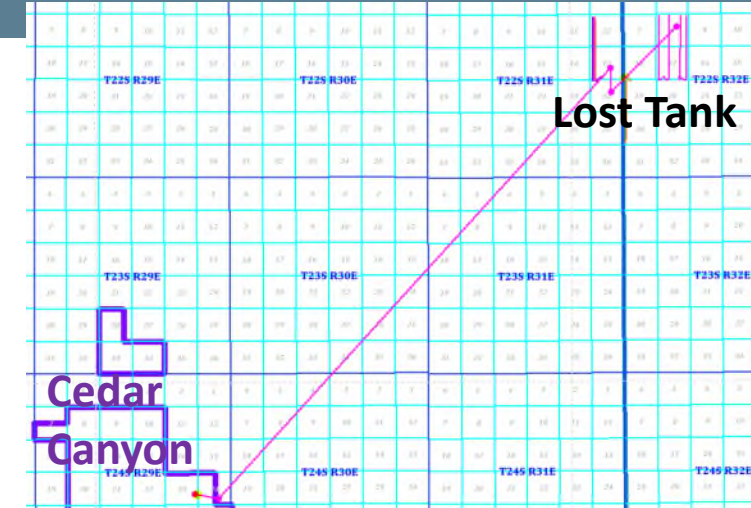
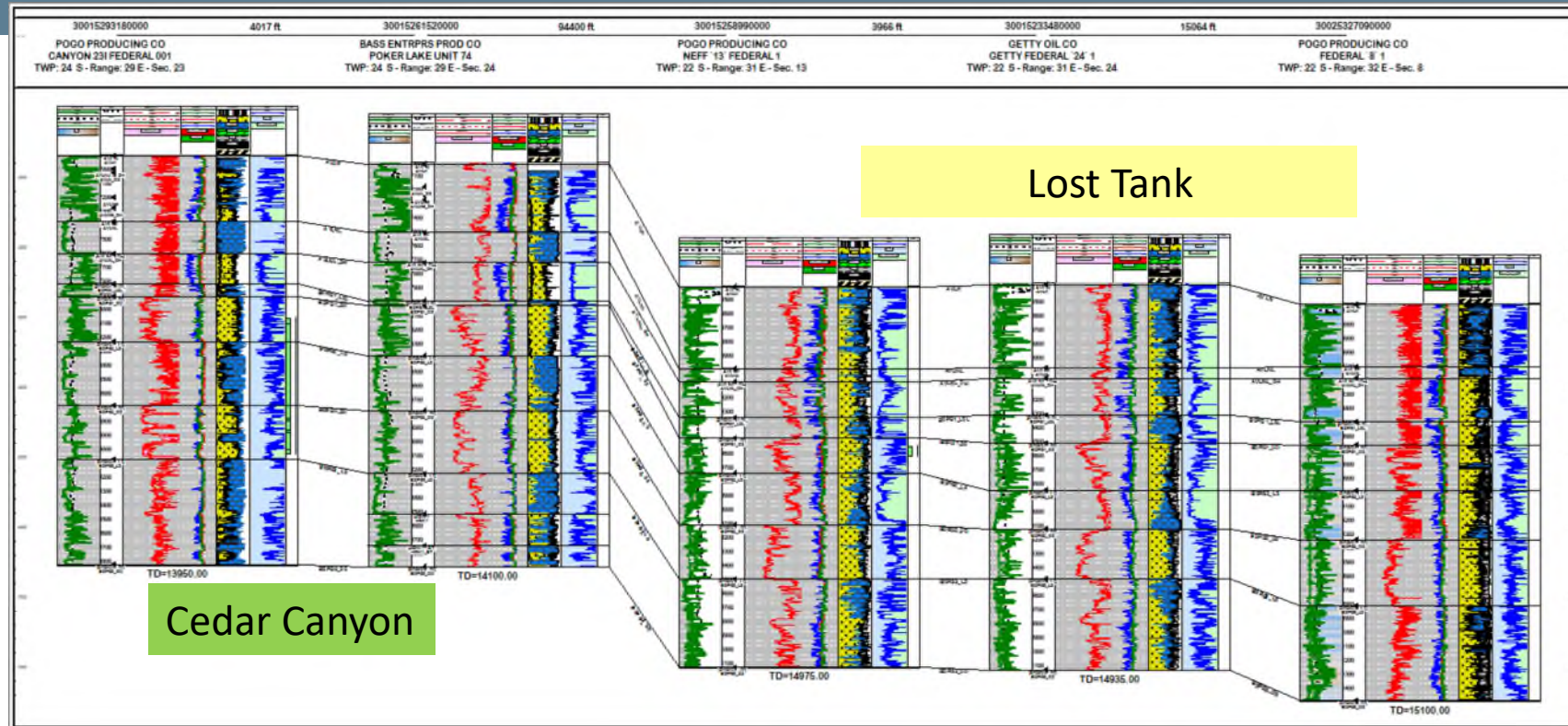
- Posted depths show well control
- Depths are TVD subsea
- Contour interval 25 ft
- 2nd Bone Spring wells marked by pink wellbores
- 1st BS wells in orange
- Avalon well in purple



1 mile

Lower Avalon Thickness

Comparison of Cedar Canyon to Lost Tank



Cross section location

Depth (and reservoir pressure) are the primary differences between these two areas for these benches. Reservoir height, porosity, permeability, and composition are similar between the two areas.

Closed Loop Gas Capture (CLGC) Project

Affirmative Statement 1

The operator examined the available geologic and engineering data and found no evidence of open faults or other hydrologic connections between the disposal zone and any underground source of drinking water.



Tony Troutman, Geologist

____5/09/2023_____
Date



Rahul Joshi, Reservoir Engineer

____05/09/2023_____
Date

Reservoir Analysis



CONTENTS

Previous Project- Cedar Canyon Enhance Oil Recovery (EOR) Injection Model, 2017 Pilot Project

Project and Model Comparison- EOR Injection vs. Gas Storage 2023 Gas Storage

Updated Cedar Canyon Gas Storage Model, 2023 Conclusions

Gas Storage 2023 Model Results

Purpose of Model

- Built model to history match EOR line drive gas injection in horizontal wells in unconventional reservoirs for project feasibility.

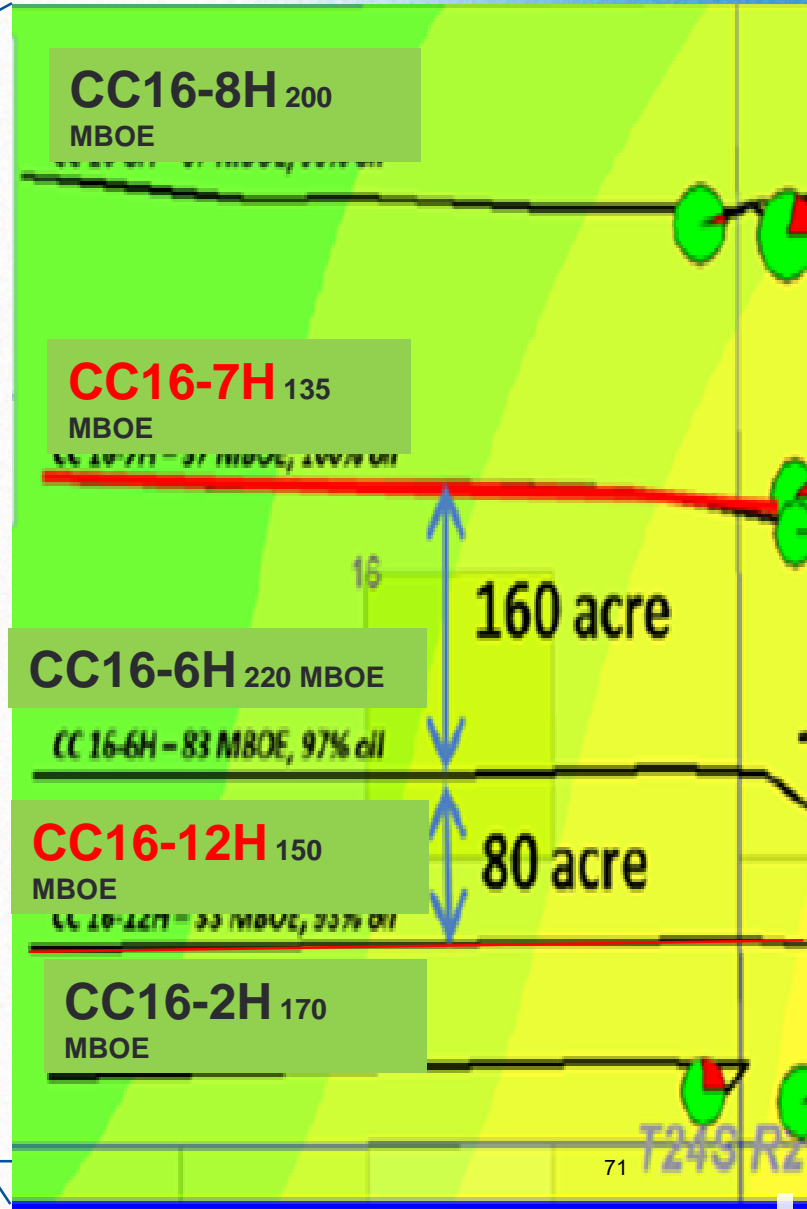
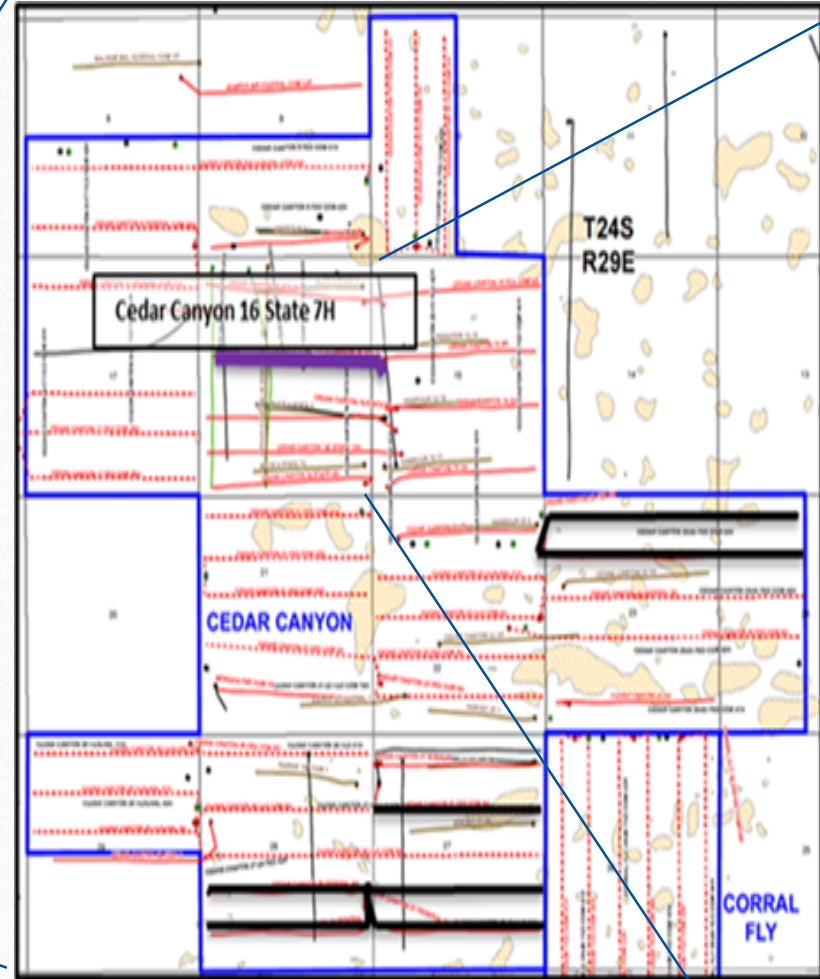
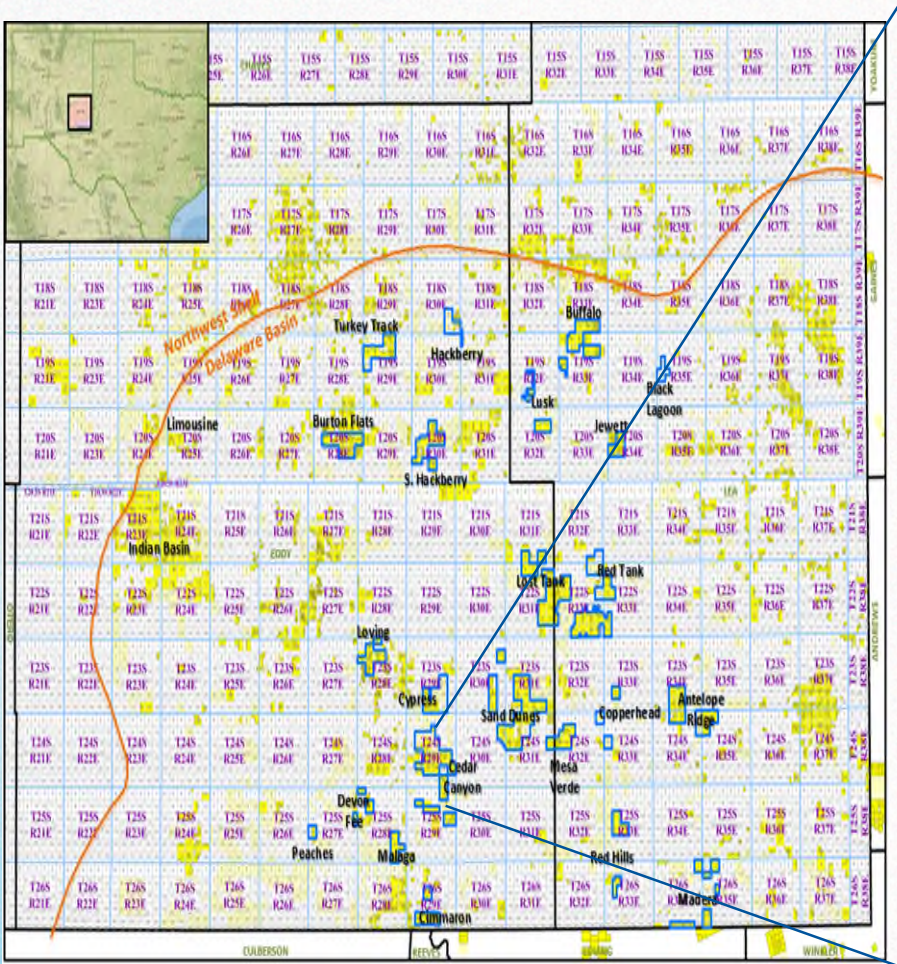
Model Inputs

- Horizontal wells with 5,000 ft laterals
- Geologic and Reservoir properties of the Second Bone Spring Sandstone Formation
- 4 Horizontal Wells per section

History Match

- Primary production (oil rate, water rate and gas rate) prior to 2017
- EOR injection (gas rate, gas injection pressure) during 2017: High-pressure (4250 psi MASP), high-rate gas injection (7 MMSCFPD, sustained)
- Model incorporates injection gas breakthrough observed in offset wells after 3 months of EOR injection.

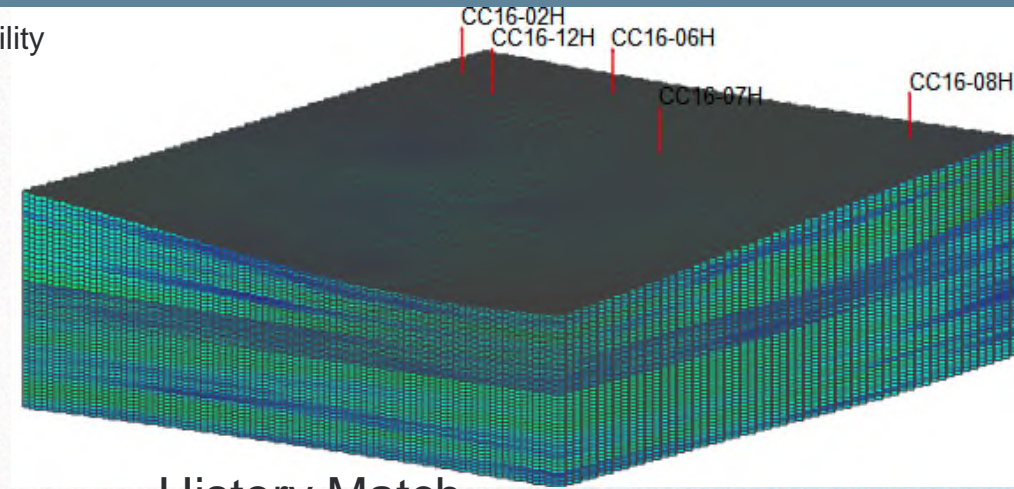
MODEL SET-UP



CEDAR CANYON SECTION-16 RESERVOIR MODEL

Location: Lea County, NM
 Model Acreage: 640
 Pay Horizon: 2nd Bone Springs Sand
 Lithology: Sandstone interbedded with Limestone
 Trap Type: Stratigraphic
 Nominal Depth: 8400 ft
 Gas Cap (at discovery): No
 Primary Drive Mechanism: Solution Gas Drive

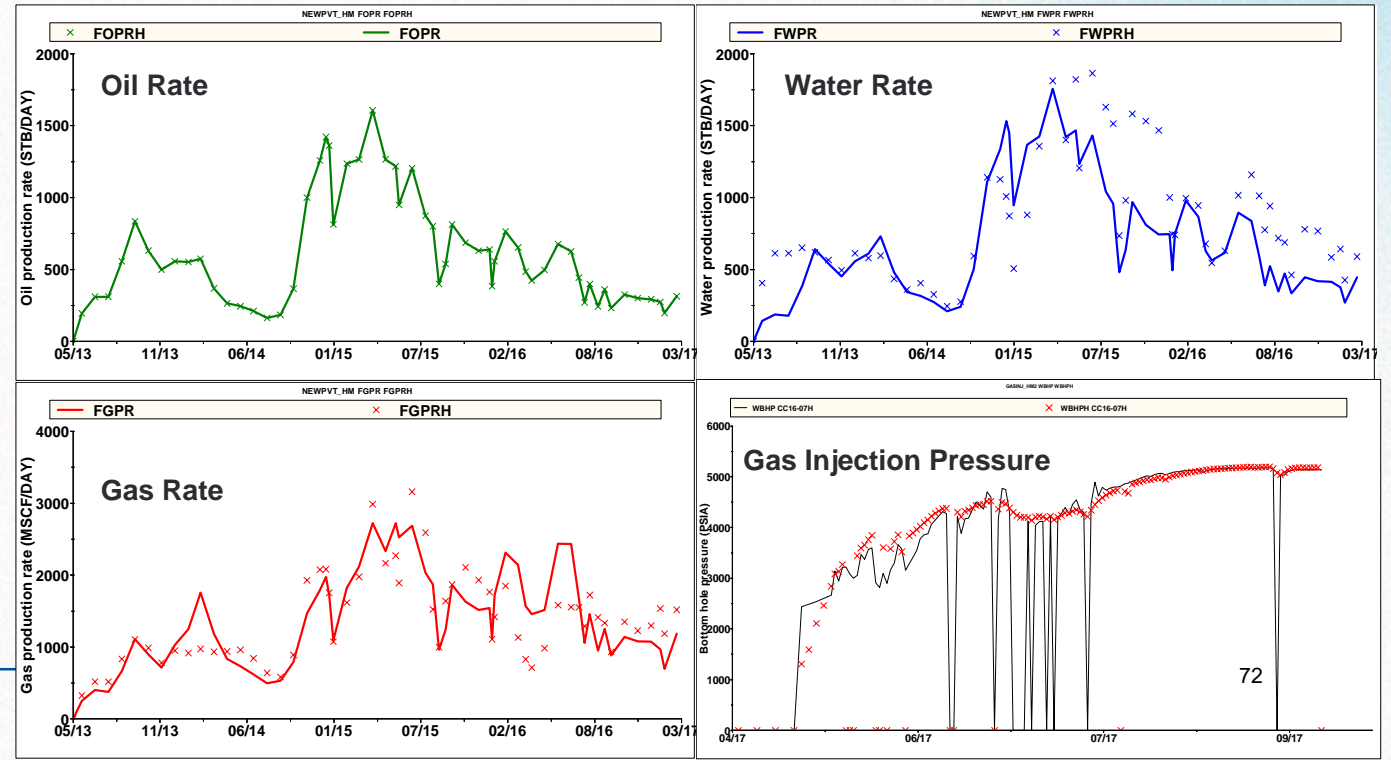
Structure & Permeability
 1,177,400 Grids
 56 Layers



History Match

Gross Pay: 320 ft
 Net Pay: 320 ft
 Avg Porosity: 6.8%
 Initial Sw: 50%
 Permeability: 0.0003md (matrix)
 Initial Reservoir Pressure: 4500 psi
 Reservoir Temperature: 150 F
 Oil Gravity: 42 API
 Boi: 1.63 RB/STB
 Rsi: 1480 SCF/STB
 Original Oil in Place: 28 MMSTB

Model Inputs



PROJECT AND MODEL COMPARISON- EOR INJECTION VS. GAS STORAGE

EOR Injection, 2017

- Higher, Sustained Injection Rate (7MM SCFPD)
- Higher Injection Pressure (4250 psi MASP)
- Longer injection duration (3 months or greater)
 - 5,000 ft Laterals

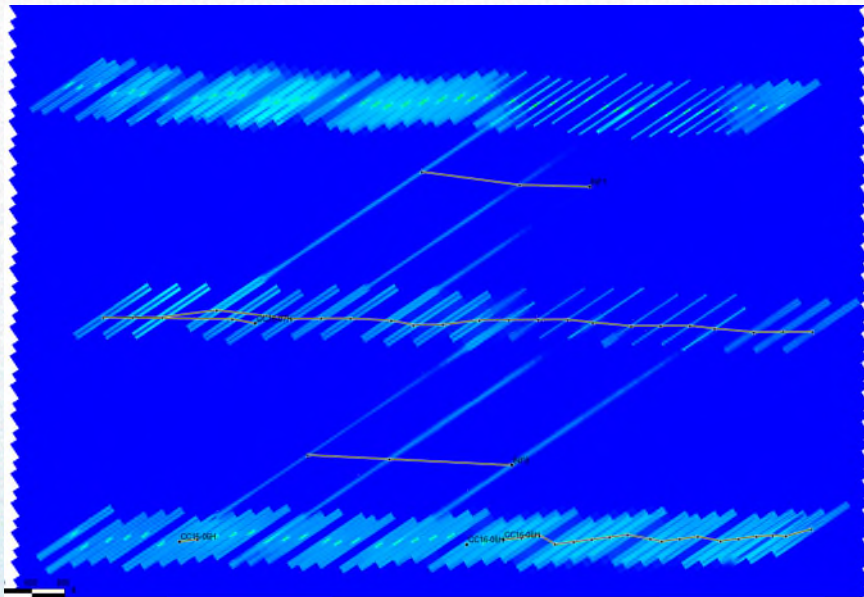
Gas Storage, 2023

- Lower Injection Rate (Initially 3MM SCFPD)
 - Lower Injection Pressure (1300 psi MASP)
 - Shorter injection duration (a couple weeks or less)
 - 10,000 ft Laterals
- Same geographic area
 - Injection of Treated, Produced Gas
 - Hydraulically fractured Horizontal wells
 - Bone Springs Reservoir
 - 4 WPS

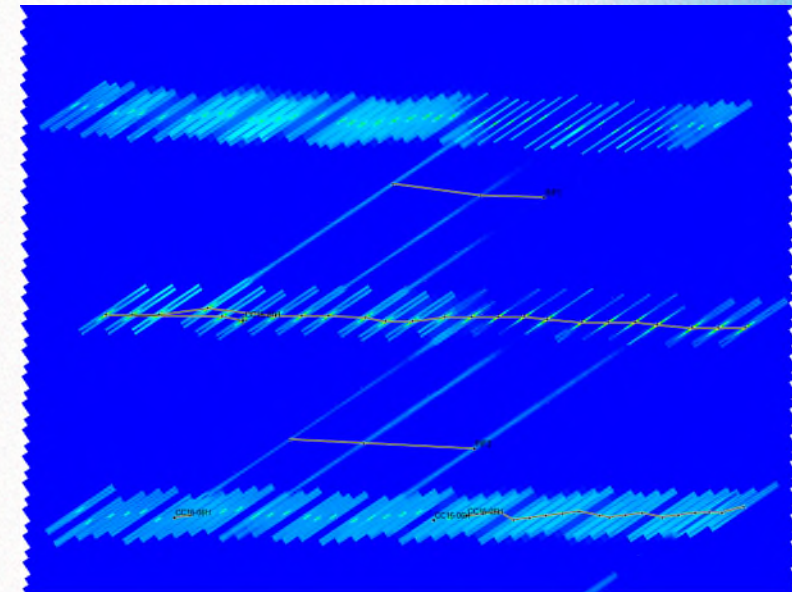
GAS STORAGE SIMULATION PROCESS

- Run primary production for all wells for additional period (post history match)
- Inject gas in injection well at 3MMSCFPD for 7 days
- Produce the injection well post injection
- No positive or negative effect seen on oil recovery of storage wells and offset wells

GAS INJECTION PROFILE (1 WEEK INJECTION)



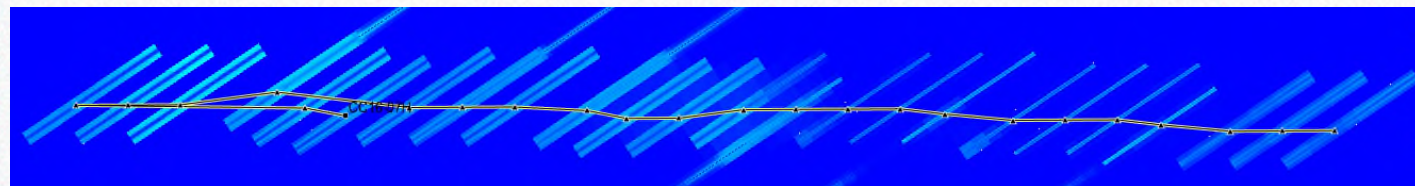
Before injection



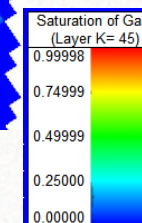
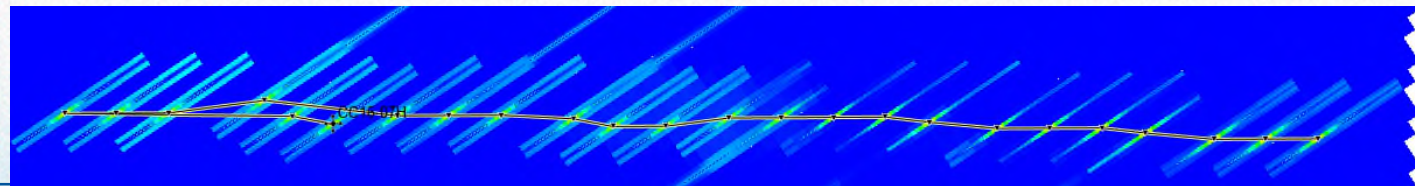
After 1 week of injection (3 MMSCFPD)

21 MMSCF Cum Gas

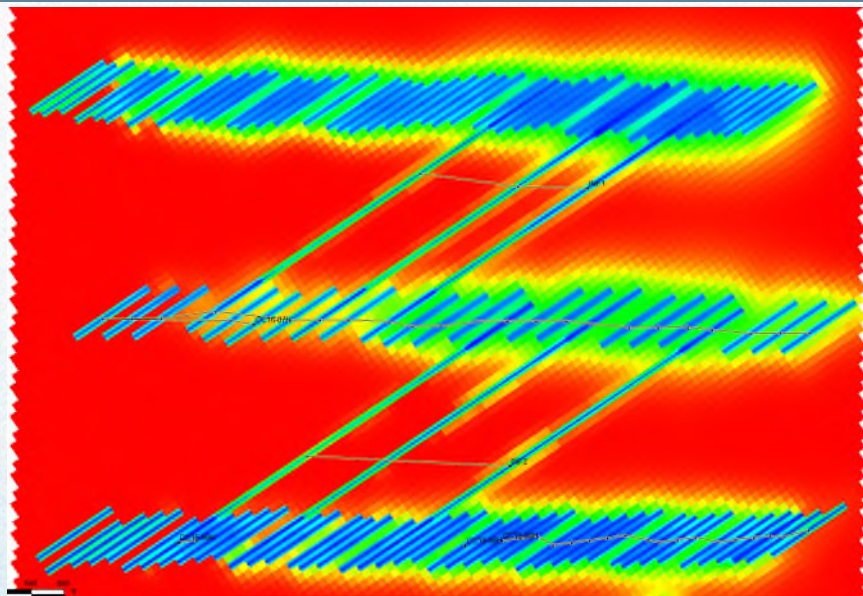
Before Injection
CC16-7H Blow-up



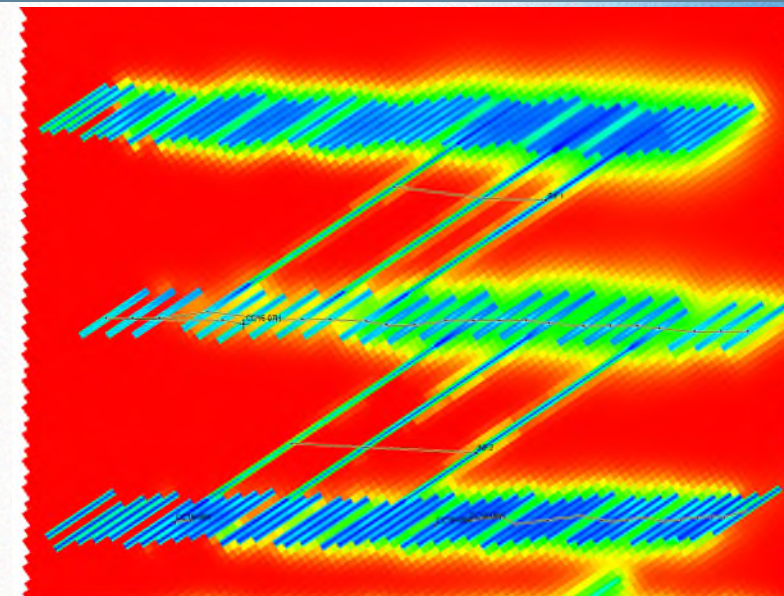
After Injection CC16-7H
Blow-up



PRESSURE PROFILE (1 WEEK INJECTION)

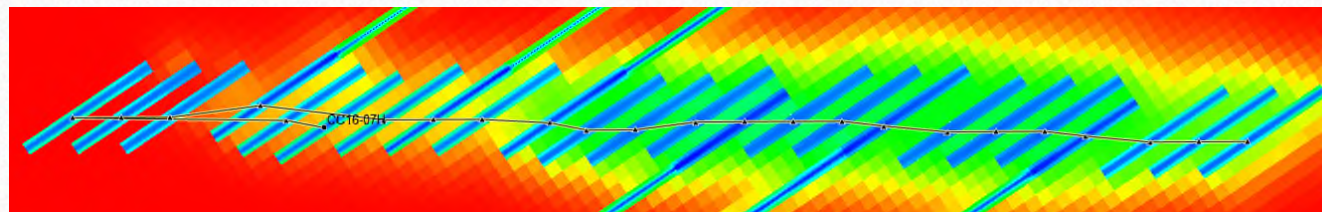


Before injection

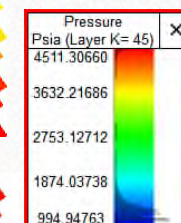
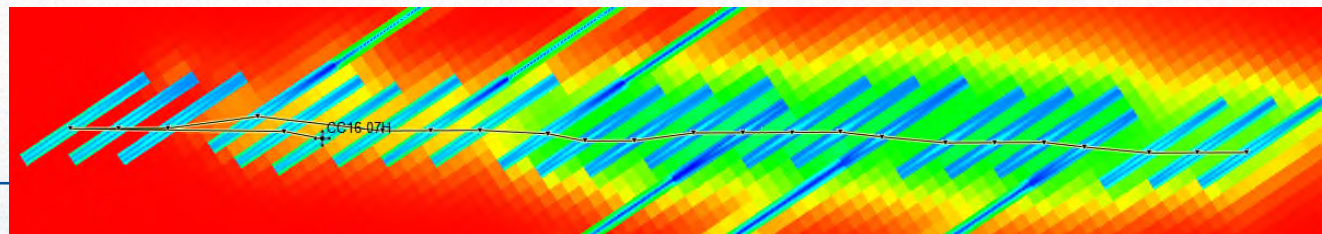


After 1 week of injection (3 MMSCFPD)

Before Injection CC16-7H Blow-up



After Injection CC16-7H Blow-up



GAS STORAGE CAPACITY

API	Well Name	Fracture Gas Volume (MMSCF)
3001548595	TOP SPOT 12_13 FEDERAL COM 11H	274
3001548594	TOP SPOT 12_13 FEDERAL COM 1H	258
3001547771	TOP SPOT 12_13 FEDERAL COM 21H	238
3002548282	DR PI FED UNIT 17_8 DA 21H	230
3002548947	DR PI FED UNIT 17_8 DA 23H	226
3002548949	DR PI FED UNIT 17_8 DA 25H	249
3002548950	DR PI FED UNIT 17_8 DA 26H	239
3002546474	LOST TANK 30-19 FED COM 1H	301

Conclusions

- The longest Oxy gas storage event was 13.5 MMSCF gas injection for 4 days, which is about 6% of the capacity of the hydraulically-created fractures
- On average, gas storage will not extend more than 100 ft into the hydraulic fracture network
- Oxy does not anticipate a positive or negative impact on storage or offset wells

Closed Loop Gas Capture (CLGC) Project

Affirmative Statement 2

The operator examined the available geologic and engineering data and determined 1) the total recoverable volume of hydrocarbons from the reservoir will not be adversely affected by the project and 2) the gas composition will not damage the reservoir..



Rahul Joshi, Reservoir Engineer

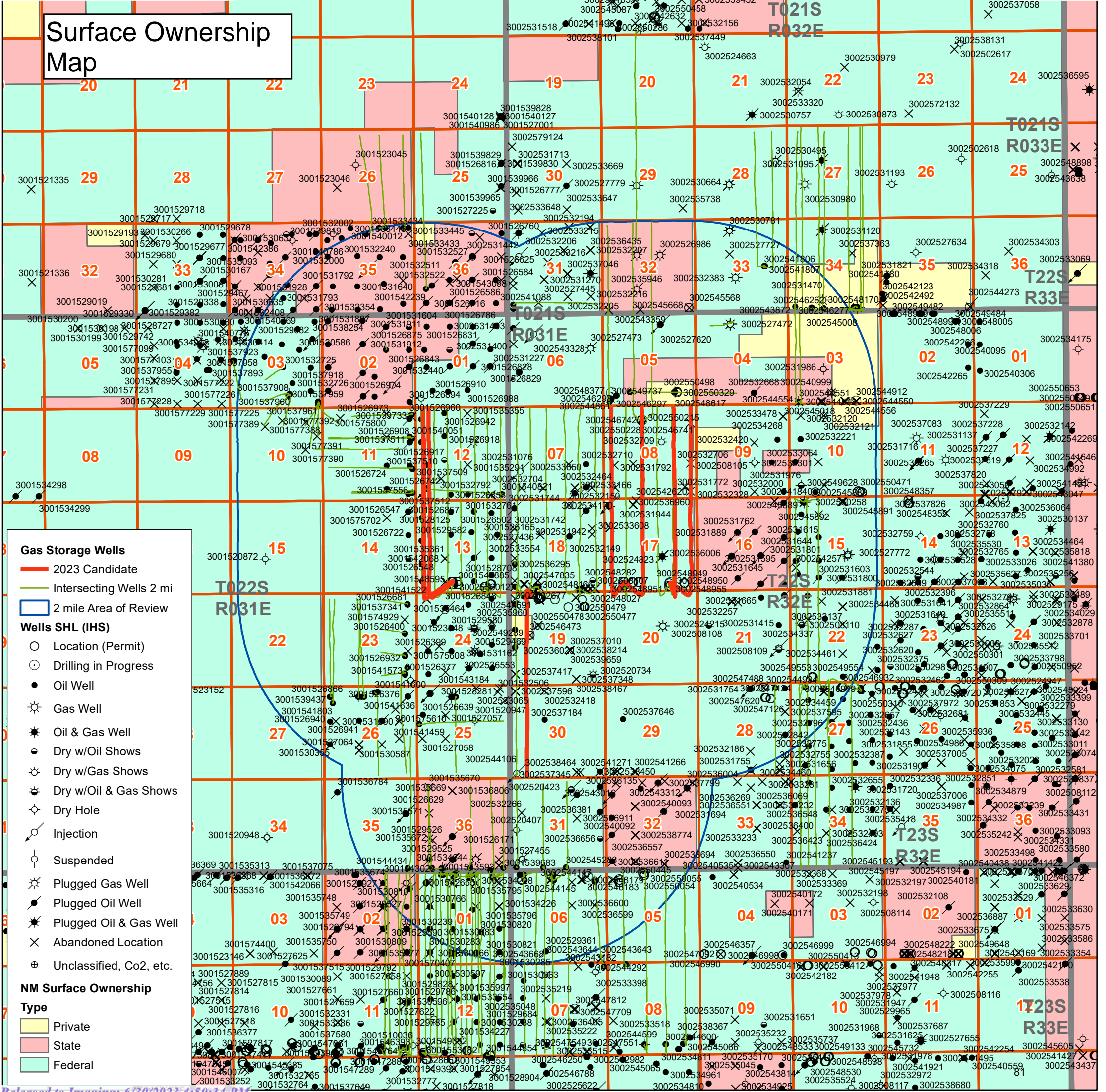
05/09/2023 _____

Date

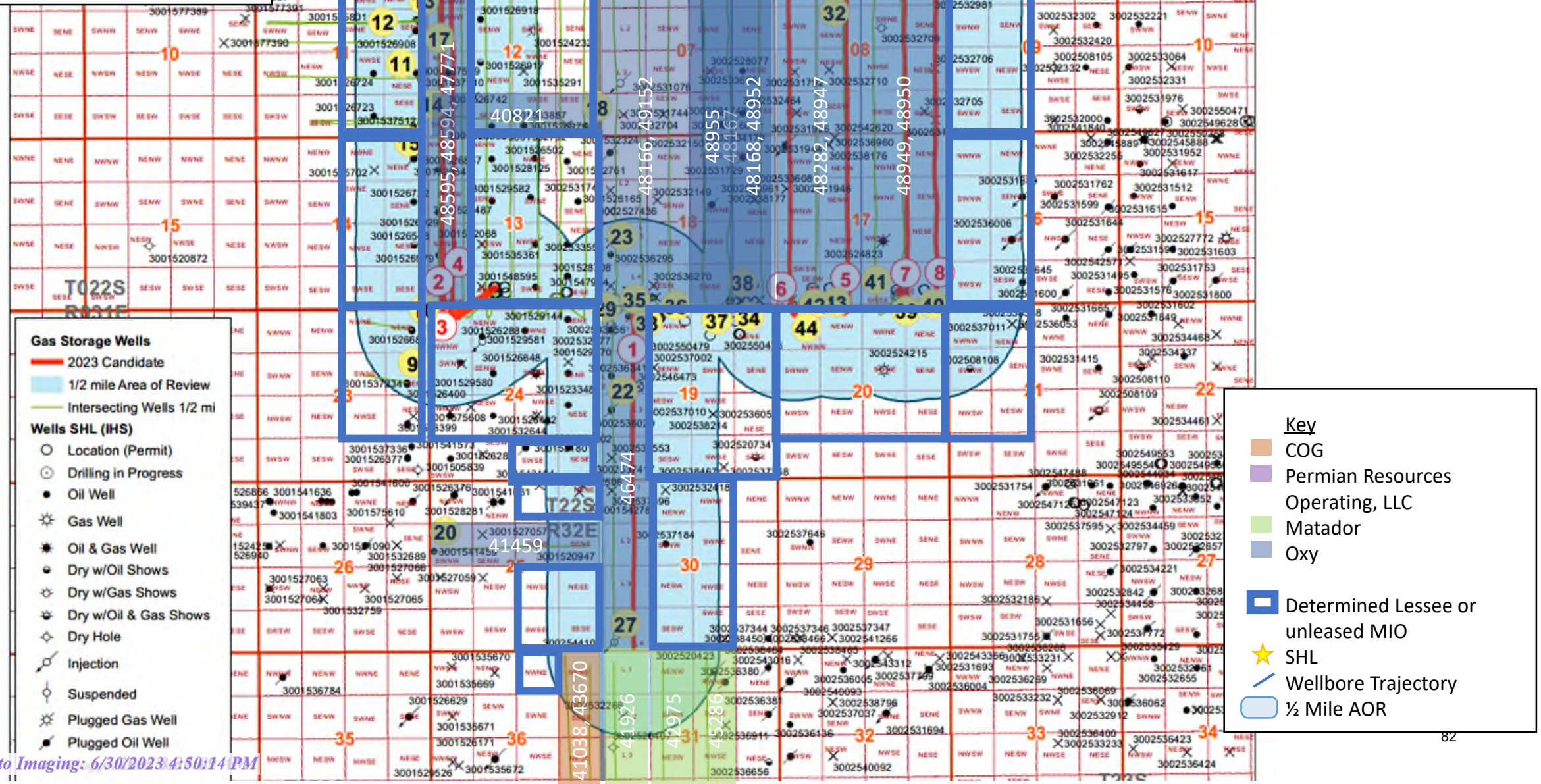
Other



Surface Ownership Map



Lost Tank Area
Bone Spring HSU Map
5/24/23



GOR Gas Allocation Plan for CLGC Wells

Application

The following methodology will apply to CLGC wells on a well by well basis. The application will start after a CLGC storage event and will end after 100% of the Storage Gas Injection Inventory is recovered. Afterwards, Gas Allocation will revert to previous accounting procedures.

Overview

During a CLGC storage event, a portion of the combined gas streams from source wells will be stored in a CLGC well. After a storage event, the wellhead gas produced from a CLGC well will consist of three components: Gas Lift Gas, Native Gas, and Storage Gas Production. Both Native Gas and Storage Gas Production are produced from the reservoir, and the combined production is Reservoir Gas.

$$\text{Wellhead Gas Produced} = \text{Gas Lift Gas} + \text{Native Gas} + \text{Storage Gas Production}$$

Gas Lift Gas is measured continuously for each well. This methodology applies a Gas-Oil-Ratio (GOR) Calculation to determine the Native Gas (owned by the owners of the CLGC well) and Storage Gas Production (owned by the owners of the source wells).

A Well Test Allocation Method will be utilized after a storage event. In the example below, the well tests values are highlighted. The values between are interpolated.

Example

The following data is a simulated, 1-Day storage event.

- 2000 mscf is injected over 24 consecutive hours.
- The well is produced back immediately following a storage event.
- The data has been truncated at 24 days because it is included for illustration purposes.

The input and calculated values for an example well are listed below:

Values	Description
Wellhead Gas Produced, mscf/d	Wellhead gas, measured with well test
Gas Lift Gas, mscf/d	Gas Lift Gas injection, measured with flow meter
Reservoir Gas, mscf/d	Reservoir Gas, the difference between Wellhead Gas and Gas Lift Gas, calculated
Oil, bbl/d	Oil production, measured with well test
Water, bbl/d	Water production, measured with well test
GOR, scf/bbl	Gas Oil Ratio (GOR), engineer calculation based on previous oil and gas well tests before a storage event
Native Gas- GOR Calc, mscf/d	Minimum of Reservoir Gas or Native Gas Production using GOR, calculated
Storage Gas Injection, mscf/d	Storage Gas Injection, measured with flow meter

Storage Gas Injection Inventory, mscf	Storage Gas Injection Inventory, cumulative amount of storage gas injection minus storage gas production, calculated
Storage Gas Production, mscfd	Storage Gas Production, difference between Reservoir Gas and Calculated Native Gas Production, calculated

Column	1	2	3	4	5	6	7	8	9	10
Calculation or measurement	Well Test	Flow Meter	1-2	Well Test	Well Test	Engineer Analysis	MIN (3,4*6/1000)	Flow Meter	8-10 + 9_PreviousRow	IF(9>0, 3-7,0)
Day	Wellhead Gas Produced, mscf/d	Gas Lift Gas, mscf/d	Reservoir Gas, mscf/d	Oil, bbl/d	Water, bbl/d	GOR, scf/bbl	Native Gas-GOR Calc, mscf/d	Storage Gas Injection, mscf/d	Storage Gas Injection Inventory, mscf	Storage Gas Production, mscfd
-90	626	500	126	63	103	2,005	126	0	0	0
-60	625	500	125	62	101	2,032	125	0	0	0
-30	624	500	124	60	99	2,053	124	0	0	0
1	623	500	123	59	96	2,081	123	0	0	0
2	0	0	0	0	0	2,050	0	2000	2000	0
3	850	500	350	45	80	2,050	92	0	1743	257
4	741	500	241	50	86	2,050	102	0	1604	139
5	713	500	213	52	88	2,050	107	0	1498	106
6	685	500	185	54	91	2,050	111	0	1424	73
7	675	500	175	55	92	2,050	113	0	1362	62
8	665	500	165	56	93	2,050	115	0	1313	50
9	661	500	161	57	93	2,050	116	0	1267	45
10	657	500	157	57	94	2,050	117	0	1227	40
11	653	500	153	57	94	2,050	117	0	1192	35
12	649	500	149	58	95	2,050	118	0	1161	31
13	647	500	147	58	95	2,050	118	0	1133	28
14	645	500	145	58	95	2,050	119	0	1106	26
15	643	500	143	58	95	2,050	119	0	1082	24
16	641	500	141	58	95	2,050	119	0	1060	22
17	640	500	140	58	95	2,050	119	0	1038	21
18	639	500	139	58	94	2,050	119	0	1018	20
19	639	500	139	58	94	2,050	119	0	998	20
20	638	500	138	58	94	2,050	119	0	980	19
21	637	500	137	58	93	2,050	119	0	962	18
22	636	500	136	58	93	2,050	119	0	945	17
23	635	500	135	58	93	2,050	119	0	930	16
24	634	500	134	58	92	2,050	119	0	915	15

Well Test Allocation Method

Following an injection period, the allocation of oil and gas production shall be based on the production life of each CLGC well as measured for three periods: (a) the initial production period shall be measured from the end of the injection period until the peak gas production rate is reached; (b) the plateau period shall be measured from the end of the initial production period to the peak decline rate; and (c) the decline period shall be measured from the end of the plateau period until the well has recovered the previously-injected volume.

During the initial production period, the oil and gas production for each CLGC well shall be allocated using daily well tests or separated and metered individually prior to commingling.

During the plateau period, the oil and gas production for each CLGC well shall be allocated using a production curve calculated from a minimum of three (3) well tests per month. The production curve shall be calculated by interpolating daily production for each day using the known daily production obtained by well tests and shall use a method of interpolation that is at minimum as accurate as maintaining a constant rate of change for each day's production between the known daily production values.

During the decline period, the oil and gas production for each CLGC well shall be allocated using a production curve calculated from a minimum well testing frequency as follows: (a) a minimum of three (3) well tests per month when the decline rate is greater than 22% per month; (b) a minimum of two (2) well tests per month when the decline rate is between 22% and 10% per month; and (c) a minimum of one (1) well test per month when the decline rate is less than 10% per month. The production curve shall be calculated by interpolating daily production for each day using the known daily production obtained by well tests and shall use a method of interpolation that is at minimum as accurate as maintaining a constant rate of change for each day's production between the known daily production values.

Applicant shall conduct a well test by separating and metering the oil and gas production from each well for either (a) a minimum of twenty-four (24) consecutive hours; or (b) a combination of nonconsecutive periods that meet the following conditions: (i) each period shall be a minimum of six (6) hours; and (ii) the total duration of the nonconsecutive periods shall be a minimum of eighteen (18) hours.

CLGC Candidate Selection

In selecting candidates for CLGC injectors, all wells tied into the gas sales system were evaluated based on their native gas production, oil production, and flowing bottom hole pressure (FBHP). To minimize impact to oil production, wells were evaluated based on the Gas Reduced to Oil Ratio (GROR) calculation. This metric is the sum of native gas production and the maximum proposed injection gas (storage volume) divided by the oil production. FBHP was subsequently used to target more depleted wells.

$$GROR = \frac{\text{Native gas rate (mscfd)} + \text{Storage gas rate (mscfd)}}{\text{Oil rate (bbl/d)}}$$

CLGC Candidate Sequencing

Storage well sequencing will be handled similarly to the candidate selection process. Wells will be prioritized based on GROR (defined above) until the total gas removed from the system is greater than the temporary reduction in takeaway capacity.

Notice



Lost Tank Notice List 2023

Party	Address
Agencies and Surface Owners	
Bureau of Land Mangment	301 Dinosaur Trail Santa Fe, NM 87508
State Land Office	P.O. Box 1148 Santa Fe, NM 87504
Offset Operators	
EOG Resources Inc.	P.O. Box 840321 Dallas, TX 75284
MATADOR PRODUCTION COMPANY	One Lincoln Centre 5400 LBJ Freeway, Ste 1500 Dallas, TX 75240
COG OPERATING LLC	COG OPERATING LLC 600 W. Illinois Avenue, Midland, Texas 79701
Permian Resources Operating, LLC	Permian Resources Operating, LLC 1001 17th Street, Suite 1800 Denver, CO 80202
NGL WATER SOLUTIONS PERMIAN, LLC	NGL WATER SOLUTIONS PERMIAN, LLC 865 North Albion Street, Suite 400 Denver, CO 80220
Other Affected Persons and Parties	
ADEX RESOURCES CORP	ADEX RESOURCES CORP PO BOX 109 ARGILLITE KY 41121
Ben J. Fortson, Jr., Trustee	Ben J. Fortson, Jr., Trustee 301 Commerce St., Suite 2900 Fort Worth, TX 76102
Bill Burton	Bill Burton 301 Commerce St., Suite 2900 Fort Worth, TX 76102
BPX OPERATING CO	BPX OPERATING CO 501 WESTLAKE PARK BLVD HOUSTON TX 77079-2604
BURLINGTON RESOURCES OIL & GAS CO	BURLINGTON RESOURCES OIL & GAS CO LP PO BOX 51810 MIDLAND TX 79710-1810
CENTENNIAL RESOURCES PRODUCTION LLC	CENTENNIAL RESOURCES PRODUCTION LLC 1001 17TH ST STE 1800 DENVER CO 80202-2058

Charles Andrew Spradlin	Charles Andrew Spradlin 2451 Walker St. Grand Prairie, TX 75052
CHEVRON USA INC	CHEVRON USA INC 6301 DEAUVILLE MIDLAND TX 79706-2964
Chisos, Ltd	Chisos, Ltd. 1331 Lamar St. Suite 1077 Houston, TX 77010
CNX GAS CO LLC	CNX GAS CO LLC PO BOX 1248 JANE LEW WV 26378-1248
COG OPERATING LLC	COG OPERATING LLC 600 W. Illinois Avenue, Midland, Texas 79701
Crownrock Minerals, LP	Crownrock Minerals, LP P.O. Box 51933 Midland, TX 79710
Curtis A. Anderson, Trustee	Curtis A. Anderson, Trustee 9314 Cherry Brook Lane Frisco, TX 75033
DEVON ENERGY CO LP	DEVON ENERGY CO LP 333 W SHERIDAN AVE OKLAHOMA CITY OK 73102-5010
DEVON ENERGY PRODUCTION CO. LP	DEVON ENERGY PRODUCTION CO. LP 333 W. Sheridan Ave. Oklahoma City, OK 73102
Devon Energy Production Company, L.P.	Devon Energy Production Company, L.P. 333 W. Sheridan Ave. Oklahoma City, OK 73102
EOG RESOURCES INC	EOG RESOURCES INC 1111 BAGBY ST LBBY 2 HOUSTON TX 77002-2589
EOG RESOURCES INC	EOG RESOURCES INC 5509 CHAMPIONS DR MIDLAND TX 79706-2843
EXCALIBUR ENERGY CO	EXCALIBUR ENERGY CO PO BOX 25045 ALBUQUERQUE NM 87125-0045
George Vaught, Jr.	George Vaught, Jr. P.O. Box 13557 Denver, CO 80201

HANAGAN PETROLEUM CORP	HANAGAN PETROLEUM CORP PO BOX 1737 ROSWELL NM 88202-1737
HARRINGTON TRUST	HARRINGTON TRUST PO BOX 216 ROSWELL NM 88202-0216
J S ABERCROMBIE MINS	J S ABERCROMBIE MINS 2001 GULF BLDG HOUSTON TX 77002
Jastrow Family Oil & Gas, LLC	Jastrow Family Oil & Gas, LLC 6300 Bee Cave Rd., Bldg 1, 6th Floor Austin, TX 78746
John Kyle Thoma, Trustee	John Kyle Thoma, Trustee P.O. Box 558 Peyton, CO 80831
Kimbell Art Foundation	Kimbell Art Foundation 301 Commerce St., Suite 2900 Fort Worth, TX 76102
Kingdom Investments, Limited	Kingdom Investments, Limited 1601 Elm St., Suite 3400 Dallas, TX 75201
KRP Legacy Isles, LLC	KRP Legacy Isles, LLC P.O. Box 59000 Lafayette, LA 70505
Legacy Reserves Operating LP	Legacy Reserves Operating LP 15 Smith Rd., Suite 3000 Midland, TX 79705
Legacy Reserves Operating, LP	Legacy Reserves Operating, LP 15 Smith Rd., Suite 3000 Midland, TX 79705
LONG TRUSTS	LONG TRUSTS PO BOX 1336 KILGORE TX 75662
LRF Jr. LLC	LRF Jr. LLC P.O. Box 11327 Midland, TX 79702
MAP00-NET	MAP00-NET 101 N. Robinson Ave., Suite 1000 Oklahoma City, OK 73102
MARATHON OIL PERMIAN LLC	MARATHON OIL PERMIAN LLC 990 TOWN AND COUNTRY BLVD HOUSTON TX 77024

MARBOB ENERGY CORP	MARBOB ENERGY CORP 808 W MAIN ST ARTESIA NM 88210-1963
Mc Vay Drilling Company	Mc Vay Drilling Company P.O. Box 2450 Hobbs, NM 88240
MID-CON GAS SERVICES CORP	MID-CON GAS SERVICES CORP 701 E 22ND ST LOMBARD IL 60148
NIELSON & ASSOC INC	NIELSON & ASSOC INC PO BOX 2850 CODY WY 82414
NORTON LLC	NORTON LLC 60 BEACH AVE SOUTH DARTMOUTH MA 02748-1543
Permian Resources Operating, LLC	Permian Resources Operating, LLC 1001 17th Street, Suite 1800 Denver, CO 80202
PXP PRODUCING CO LLC	PXP PRODUCING CO LLC 717 TEXAS ST STE 2100 HOUSTON TX 77002-2753
Rave Energy, Inc.	Rave Energy, Inc. P.O. Box 3087 Houston, TX 77253
Robert C. Grable	Robert C. Grable 201 Main St., Suite 2500 Fort Worth, TX 76102
Rockport Oil and Gas, LLC	Rockport Oil and Gas, LLC PO Box 19567 Houston, TX 77224-9567
Rusk Capital Management, LLC	Rusk Capital Management, LLC 7600 W. Tidwell Rd., Suite 800 Houston, TX 77040
STRATA PRODUCTION CO	STRATA PRODUCTION CO 1301 N SYCAMORE AVE ROSWELL NM 88201
Sundance Minerals I	Sundance Minerals I P.O. Box 17744 Fort Worth, TX 76102
Texas Independent Exploration Limited	Texas Independent Exploration Limited 6760 Portwest Drive Houston, Texas 77024

The Long Trust P.O. Box 3096 Kilgore, TX 75663	The Long Trust P.O. Box 3096 Kilgore, TX 75663
The Roach Foundation	The Roach Foundation 777 Taylor St., Suite PII-J Fort Worth, TX 76102
The Taurus Royalty, LLC	The Taurus Royalty, LLC P.O. Box 1477 Little Elm, TX 75068
TORCH OIL & GAS CO	TORCH OIL & GAS CO 1221 LAMAR #1600 HOUSTON TX 77010-3039
TX INDEPENDENT EXPLORATION INC	TX INDEPENDENT EXPLORATION INC 1600 SMITH ST STE 3800 HOUSTON TX 77002-7345
US BORAX & CHEM CORP	US BORAX & CHEM CORP 3075 WILSHIRE BLVD LOS ANGELES CA 90010
Vision Energy, Inc.	Vision Energy, Inc. P.O. Box 2459 Carlsbad, NM 88221
WHITING 1988 PROD	WHITING 1988 PROD 1700 BROADWAY STE 2300 DENVER CO 80290-1703
WPX ENERGY PERMIAN LLC	WPX ENERGY PERMIAN LLC 333 W SHERIDAN AVENUE OKLAHOMA CITY OK 73102
XTO HOLDINGS LLC	XTO HOLDINGS LLC 22777 SPRINGWOODS VILLAGE PKWY SPRING TX 77389-1425
YATES INDUSTRIES LLC	YATES INDUSTRIES LLC 105 S 4TH ST ARTESIA NM 88210-2177
ZPZ DELAWARE I LLC	ZPZ DELAWARE I LLC 2000 POST OAK BLVD STE 100 HOUSTON TX 77056-4497

OCD Exhibit A

Order Number:
Operator: Oxy USA, Inc. (16696)

Project Pools

Pool Name: Pool Code:
BILBREY BASIN; BONE SPRING 5695
BILBREY BASIN; BONE SPRING, SOUTH 97366

Project Area (NMPM)

UL or Q/Q: S-T-R:
W/2 OF W/2 12-22S-31E
W/2 OF W/2 13-22S-31E
ALL 8-22S-32E
ALL 17-22S-32E
W/2 OF W/2 19-22S-32E
W/2 OF W/2 30-22S-32E

CLGC Wells

Well API:	Well Name:	UL or Q/Q:	S-T-R:	Pool:
30-025-46474	LOST TANK 30-19 FEDERAL COM 1H	W/2 of W/2 W/2 of W/2	19-22S-32E 30-22S-32E	BILBREY BASIN; BONE SPRING, SOUTH
30-015-48595	TOP SPOT 12_13 FED COM 11H	W/2 of W/2 W/2 of W/2	12-22S-31E 13-22S-31E	BILBREY BASIN; BONE SPRING
30-015-48594	TOP SPOT 12_13 FED COM 1H	W/2 of W/2 W/2 of W/2	12-22S-31E 13-22S-31E	BILBREY BASIN; BONE SPRING
30-015-47771	TOP SPOT 12_13 FED COM 21H	W/2 of W/2 W/2 of W/2	12-22S-31E 13-22S-31E	BILBREY BASIN; BONE SPRING
30-025-48282	DR PI FEDERAL UNIT 17 8 DA 21H	W/2 W/2	8-22S-32E 17-22S-32E	BILBREY BASIN; BONE SPRING, SOUTH
30-025-48947	DR PI FEDERAL UNIT 17 8 DA 23H	W/2 W/2	8-22S-32E 17-22S-32E	BILBREY BASIN; BONE SPRING, SOUTH
30-025-48949	DR PI FEDERAL UNIT 17 8 DA 25H	E/2 E/2	8-22S-32E 17-22S-32E	BILBREY BASIN; BONE SPRING, SOUTH
30-025-48950	DR PI FEDERAL UNIT 17 8 DA 26H	E/2 E/2	8-22S-32E 17-22S-32E	BILBREY BASIN; BONE SPRING, SOUTH

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 2
Submitted by: OXY USA INC.
Hearing Date: July 6, 2023
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OCD Exhibit B

Order Number:




Operator: Oxy USA, Inc. (16696)

CLGC Wells and Offset Wells

Well API:	Well Name:	Upper Confining Layer:	Offset Well API:	Offset well Name:
30-025-46474	LOST TANK 30-19 FEDERAL COM 1H	First Bone Spring limestone above First Bone Spring Sand	NA	NA
30-015-48595	TOP SPOT 12_13 FED COM 11H	Bone Spring limestone above Avalon Sand	NA	NA
30-015-48594	TOP SPOT 12_13 FED COM 1H	First Bone Spring limestone above First Bone Spring Sand	NA	NA
30-015-47771	TOP SPOT 12_13 FED COM 21H	Second Bone Spring limestone above Second Bone Spring Sand	NA	NA
30-025-48282	DR PI FEDERAL UNIT 17 8 DA 21H	Second Bone Spring limestone above Second Bone Spring Sand	30-025-48947	DR PI FEDERAL UNIT 17 8 DA 23H
30-025-48947	DR PI FEDERAL UNIT 17 8 DA 23H	Second Bone Spring limestone above Second Bone Spring Sand	30-025-48282	DR PI FEDERAL UNIT 17 8 DA 21H
			30-025-48949	DR PI FEDERAL UNIT 17 8 DA 25H
30-025-48949	DR PI FEDERAL UNIT 17 8 DA 25H	Second Bone Spring limestone above Second Bone Spring Sand	30-025-48947	DR PI FEDERAL UNIT 17 8 DA 23H
			30-025-48950	DR PI FEDERAL UNIT 17 8 DA 26H
30-025-48950	DR PI FEDERAL UNIT 17 8 DA 26H	Second Bone Spring limestone above Second Bone Spring Sand	30-025-48949	DR PI FEDERAL UNIT 17 8 DA 25H

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 3
Submitted by: OXY USA INC.
Hearing Date: July 6, 2023
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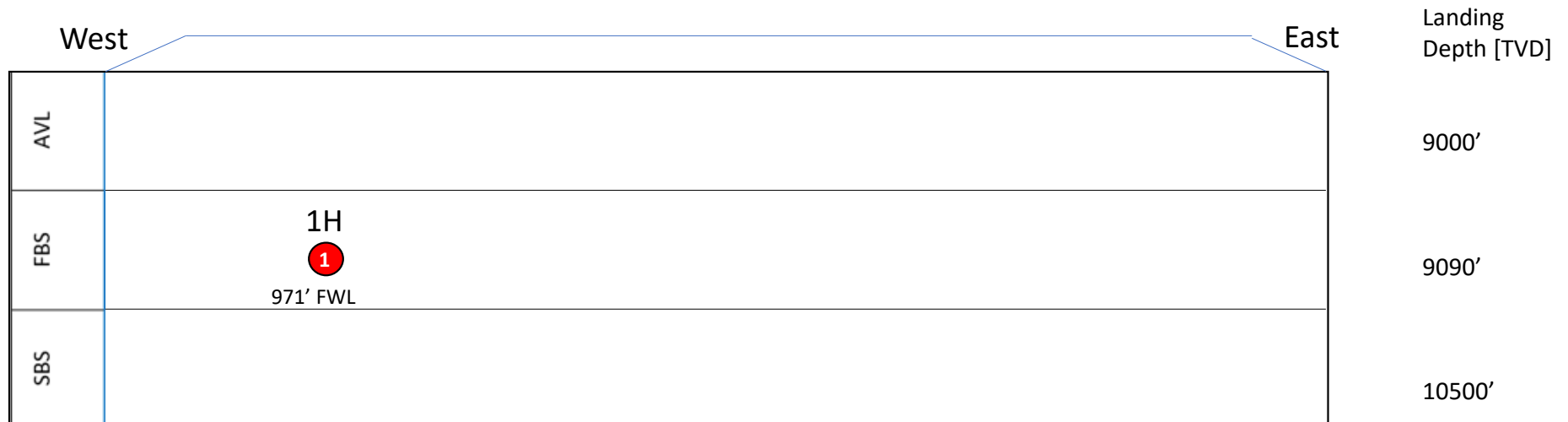
Gunbarrel View Top Spot 12-13



West		East	Landing Depth [TVD]
AVL	11H  446' FWL		9040'
FBS	1H  764' FWL		9895'
SBS	21H  449' FWL		10430'

 2023 CLGC Candidate Offset Well

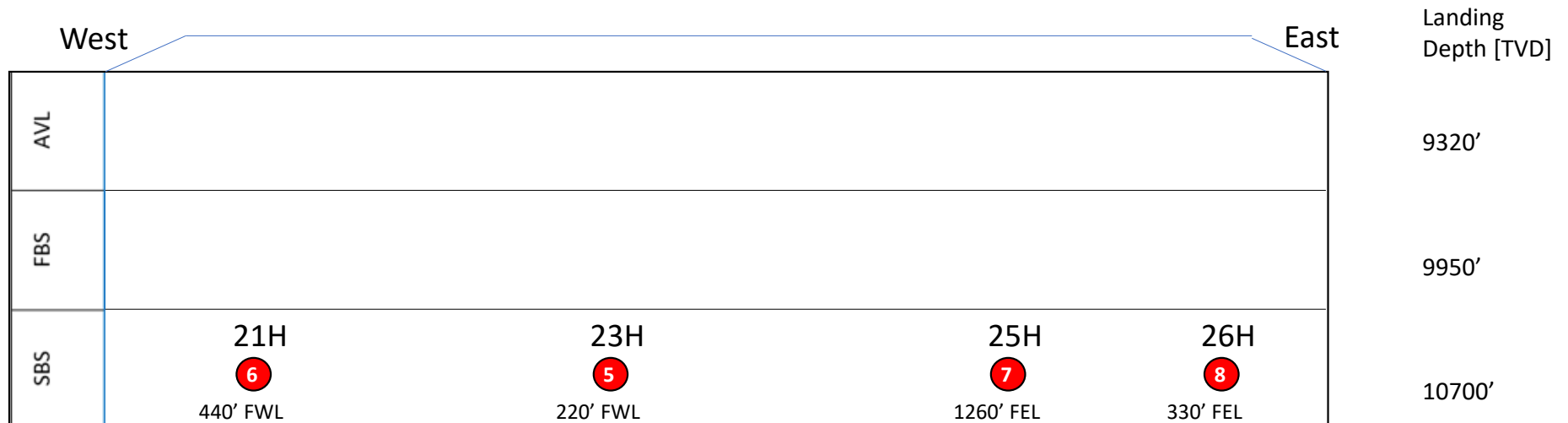
BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 4
Submitted by: OXY USA INC.
Hearing Date: July 6, 2023
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Gunbarrel View Lost Tank 30-19



-  2023 CLGC Candidate
-  Offset Well

Gunbarrel View Dr Pi Fed Unit 17-8



-  2023 CLGC Candidate
-  Offset Well



Gas Analysis for Avalon

Santa Fe, New Mexico

Exhibit No. 5

Submitted by: OXY USA INC.

Hearing Date: July 6, 2023

Case No. 23633

AKM MEASUREMENT SERVICES,LLC. Natural Gas Analysis Report
GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

	Sample Information
Sample Name	TOP SPOT 11H
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	06-08-2023
Meter Number	T16407
Air temperature	
Flow Rate (MCF/Day)	1000
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	TOP SPOT 11H
Sampling Method	FILL & EMPTY
Operator	OCCIDENTAL PETROLEUM
State	NEW MEXICO
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	RED TANK
FLOC	NA
Sample Sub Type	PRODUCTION
Sample Name Type	WELL
Vendor	AKM MEASUREMENT
Cylinder #	2284
Sampled by	SCOTT
Sample date	6-6-2023
Analyzed date	6-8-2023
Method Name	C9
Injection Date	2023-06-08 17:31:12
Report Date	2023-06-08 17:38:40
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	89f96a97-940d-42e9-9a26-09d46c109029
NGA Phys. Property Data Source	GPA Standard 2145-16 (FPS)
Data Source	INFICON Fusion Connector

Component Results

Component Name	Peak Area	Raw Amount	Response Factor	Norm Mole%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	53989.4	3.0542	0.00005657	3.0442	0.0	0.02944	0.336
Methane	887976.6	64.8978	0.00007309	64.6849	654.8	0.35829	11.011
CO2	179184.4	8.4241	0.00004701	8.3964	0.0	0.12758	1.439
Ethane	277908.6	12.7037	0.00004571	12.6621	224.6	0.13146	3.400
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000
Propane	214012.9	6.9513	0.00003248	6.9285	174.7	0.10549	1.917
iso-butane	71712.1	0.7963	0.00001110	0.7937	25.9	0.01593	0.261
n-Butane	172120.0	1.8920	0.00001099	1.8858	61.7	0.03784	0.597
iso-pentane	42339.9	0.4099	0.00000968	0.4086	16.4	0.01018	0.150
n-Pentane	47735.2	0.4512	0.00000945	0.4497	18.1	0.01120	0.164
hexanes	43221.0	0.3262	0.00000755	0.3251	15.5	0.00967	0.134
heptanes	50937.0	0.3121	0.00000613	0.3111	17.2	0.01076	0.144
octanes	19291.0	0.1041	0.00000539	0.1037	6.5	0.00409	0.053
nonanes+	1250.0	0.0062	0.00000499	0.0062	0.4	0.00027	0.004
Total:		100.3290		100.0000	1215.7	0.85221	19.609

Results Summary

Result	Dry	Sat.
Total Un-Normalized Mole%	100.3290	
Pressure Base (psia)	14.730	
Temperature Base (Deg. F)	60.00	
Flowing Temperature (Deg. F)	93.0	

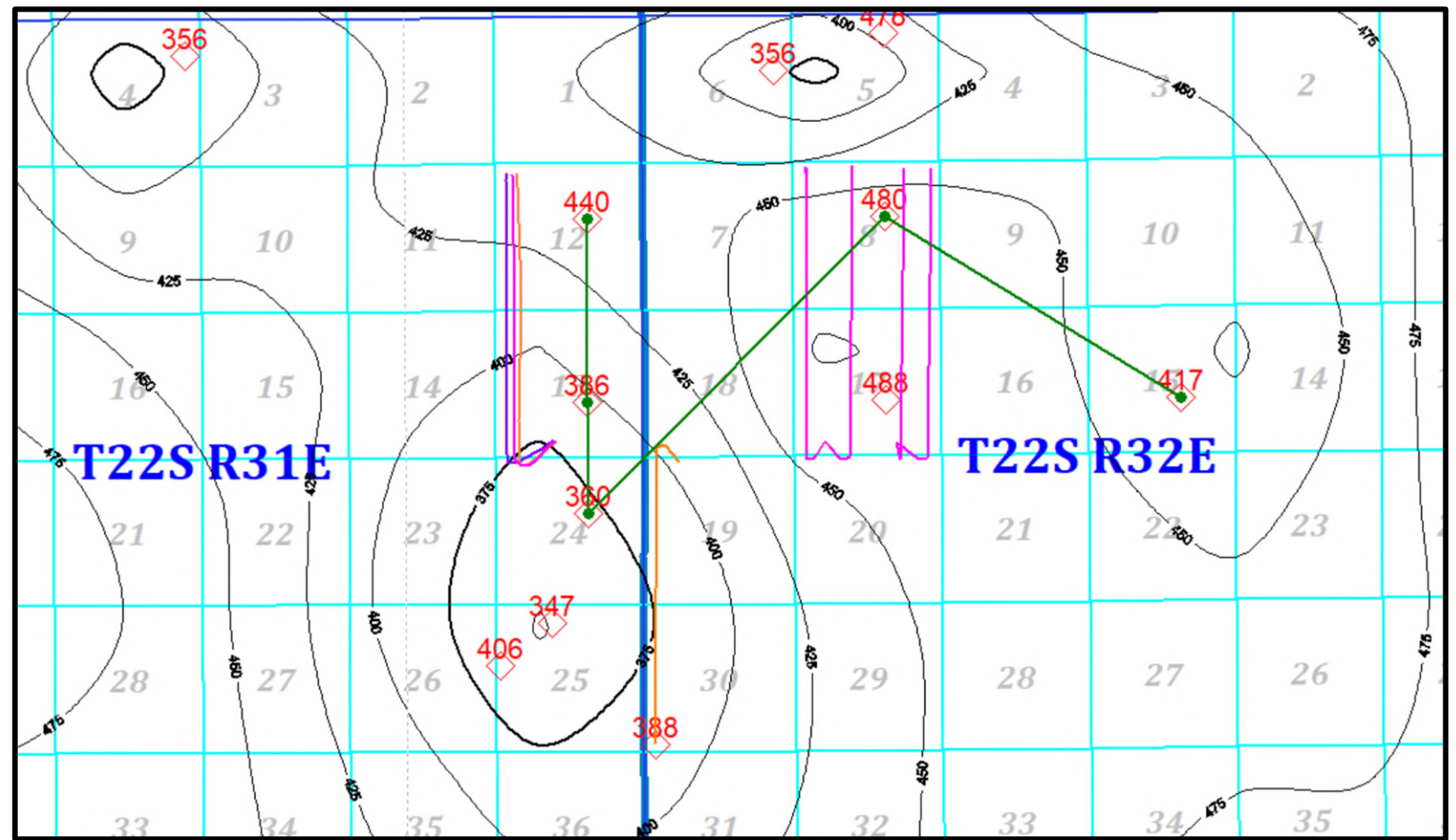
Result	Dry	Sat.	
Flowing Pressure (psia)	148.7		
Gross Heating Value (BTU / Ideal cu.ft.)	1215.7	1194.6	
Gross Heating Value (BTU / Real cu.ft.)	1221.0	1200.3	
Relative Density (G), Real	0.8555	0.8519	

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	100.3290	97.0000	103.0000	Pass	

Second Bone Spring Sand Isochore Map

- Posted depths show well control- thickness
- Contour interval 25 ft
- 2nd Bone Spring wells marked by pink wellbores
- 1st BS wells in orange
- Avalon well in purple



North

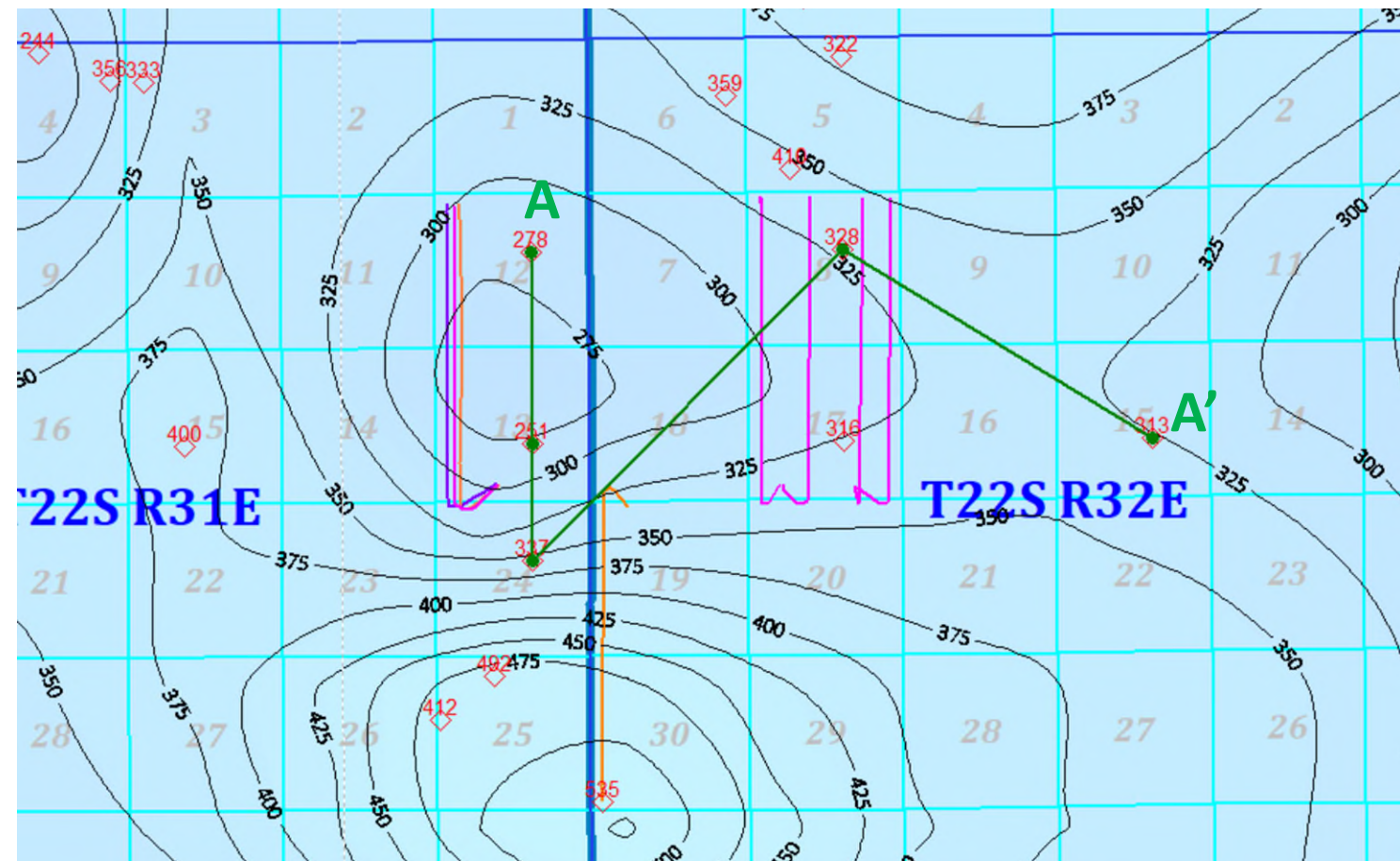


BEFORE THE OIL CONSERVATION DIVISION
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Submitted by: OXY USA INC.
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2nd Bone Spring Sand Thickness

First Bone Spring Sand Isochore Map

- Posted depths show well control
- Contour interval 25 ft
- 2nd Bone Spring wells marked by pink wellbores
- 1st BS wells in orange
- Avalon well in purple

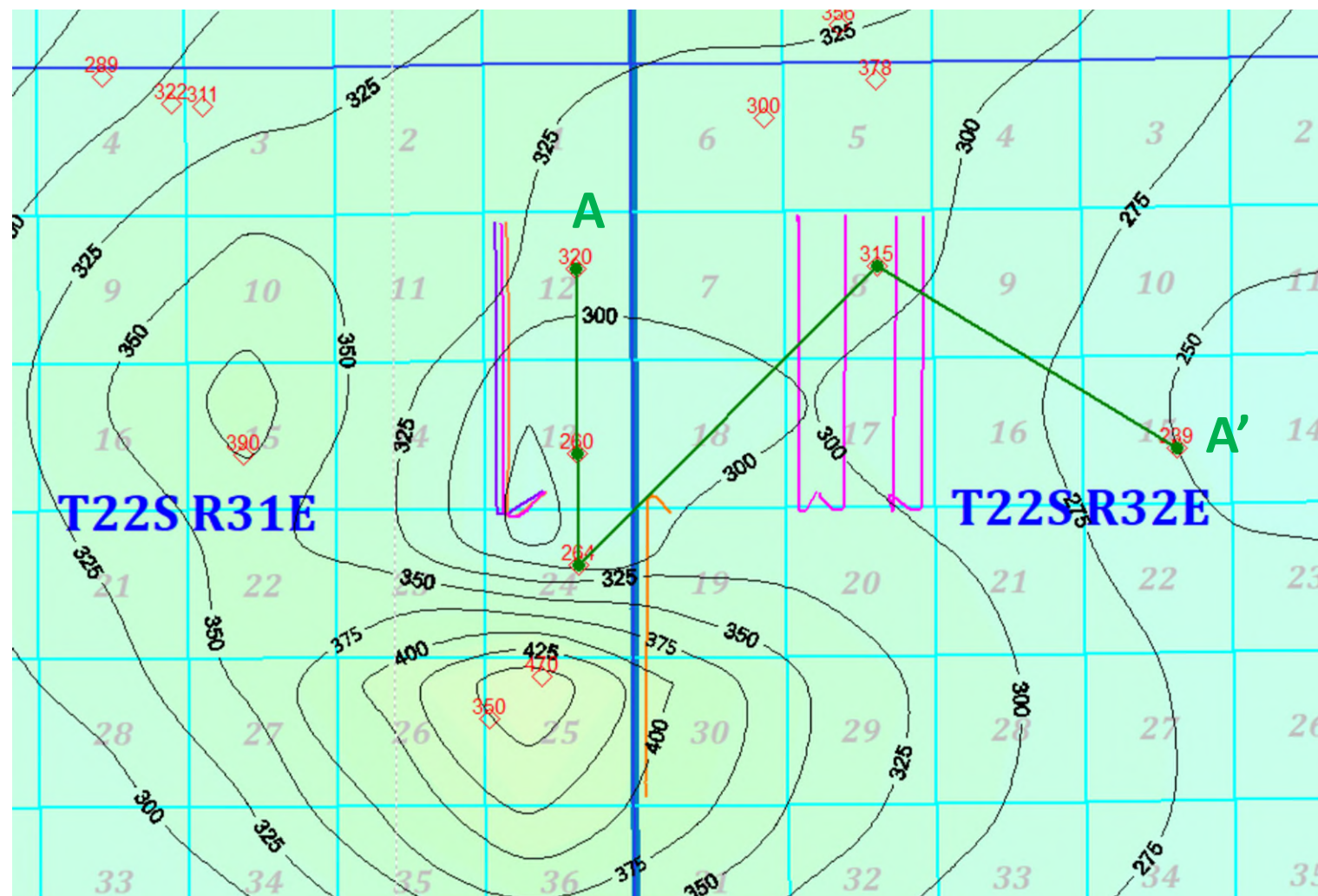


1 mile

1st Bone Spring Sand Thickness

Lost Tank Lower Avalon Isochore Map

- Posted depths show well control
- Contour interval 25 ft
- 2nd Bone Spring wells marked by pink wellbores
- 1st BS wells in orange
- Avalon well in purple



1 mile

Lower Avalon Thickness

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF OXY USA INC.
FOR A CLOSED LOOP GAS CAPTURE
INJECTION PILOT PROJECT, LEA
AND EDDY COUNTY, NEW MEXICO.**

CASE NO. 23633

SELF-AFFIRMED STATEMENT OF LOGAN MILLSAPS

1. My name is Logan Millsaps and I am employed by OXY USA Inc. ("OXY") as a operations engineer.

2. I have not previously testified before the New Mexico Oil Conservation Division as an expert witness in production engineering. I graduated in 2014 from Texas Tech University with a degree in mechanical engineering. Since graduating I have worked as production engineer overseeing wells in various parts of the New Mexico Delaware Basin for Oxy. I believe this experience qualifies me to testify as an expert witness in production engineering.

3. I am familiar with the application filed by OXY in this case.

4. OXY has previously received approved orders from the Division to operate pilot projects for closed loop gas capture projects. In these orders the Division has included a condition addressing packer settings which states: "A MIT shall consist of isolating the production casing from the reservoir by setting a retrievable bridge plug or packer not less than one hundred (100) feet below the top of the upper confining layer identified in Exhibit B." (emphasis added).

5. For the **Top Spot 11H well**, included in this application, OXY requests a variance to the existing injection order packer setting condition and proposes the

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 7
Submitted by: OXY USA INC.
Hearing Date: July 6, 2023
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following: "set the packer not less than forty (40) feet below the top of the confining interval identified..."

6. The Top Spot 11H was spud on 11/1/2022 with a rig release date of 4/1/2023. The well was drilled into the Avalon interval in the top of the Bone Spring pool with a planned landing depth of 9622' MD and a 10,000' lateral length. The surface hole location and the first take point are laterally far in distance with a step out distance of 1,694'. The relatively far step out distance combined with the shallow landing depth resulted in a high inclination (>10 degree) starting at 3000' MD that was maintained until the kickoff point.

7. The vertical section drilled at a high inclination resulted in a drilled hole with bends and kinks, commonly referred to as doglegs. The cumulative number of doglegs in the vertical hole led to additional doglegs below the kickoff point where the curve was drilled. Therefore, Dogleg severity (DLS), a measure of the change in direction of a wellbore over a defined length, is high at 19.96 deg/100 ft at 8776' MD below the kickoff point.

8. Although OXY aims to set gas lift packers as deep as possible to optimize drawdown, a high DLS in a wellbore can cause problems when installing complex downhole assemblies. The depths with high DLS create pinch points where the tubing and the downhole assembly drag against the inside of the production casing. Running equipment in the hole is not the concern; rotating the dragging equipment is the concern.

9. In the Top Spot 11H, a complex downhole assembly was installed. In addition to the conventional gas lift components, a live downhole gauge was installed to monitor reservoir performance, and a chemical capillary string will be installed to treat

paraffin once production rates decline. The live downhole gauge was run one joint above the injection packer, and a cable was banded (2 bands per joint of tubing) to the outside of the tubing string connecting the gauge to surface. Once production rates decline, the chemical capillary string will be run on the inside of the tubing from surface to slightly above the packer. Ultimately, the banded cable on the outside of the tubing could catch in areas of high DLS. If it catches, the bands can start to stretch, or worse, break. This increases the chances of an inoperable downhole gauge, or worse, a workover fishing job to pull the stuck downhole assembly with wadded- up cable.

10. As previously mentioned, OXY aims to set gas lift packers as deep as possible, and with the high DLS below the kickoff point, different types of packers were considered. There are two main types of packers: mechanical-set and hydraulic-set. Mechanical-set packers are set by manipulating the tubing string up and down combined with rotation, whereas hydraulic-set packers are set by applying hydraulic pressure down the inside of the tubing and do not require rotation.

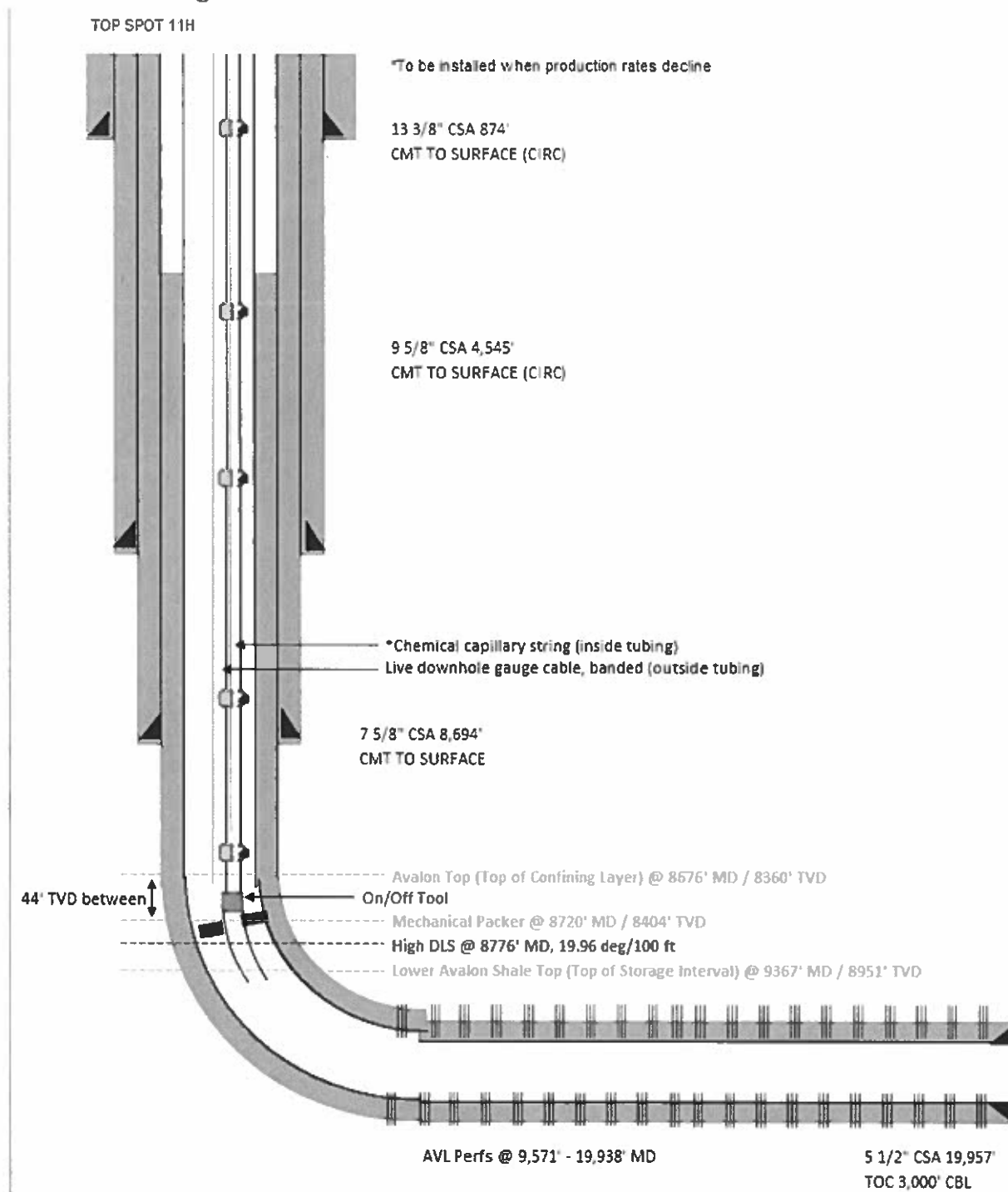
11. Wells with a high DLS above the packer setting depth can be a good application for hydraulic-set packers. However, if set and ran without an on/off tool, the backside of the tubing string would be filled with dirty wellbore fluid. In OXY's experience, when gas lift production begins, gas lift valves can clog up with particles in the dirty wellbore fluid. This requires pulling the equipment to fix the clogged valves. To mitigate this problem, a hydraulic-set packer can be run with an on/off tool above it. This allows for the packer to be set, the tubing can un-latch from the on/off tool, and clean packer fluid can be circulated. The clean packer fluid will not clog the gas lift valves when gas lift production begins. However, the process of un-latching from the on/off tool

involves rotating the equipment. Therefore, running a hydraulic-set packer does not eliminate the need to rotate the downhole assembly in a gas lift well with a high DLS above the packer setting depth.

12. A mechanical-set packer was run in the Top Spot 11H and set on 5/31/2023 at 8720' MD / 8404' TVD above the high DLS at 8776' MD. This reduced the potential issues associated with rotating the complex downhole assembly through depths with a high DLS. Although this setting depth is closer to the top of the Upper Confining Layer (the top of the Bone Spring above the Avalon), it is 44' TVD below the upper confining layer. Consequently, OXY requests a variance to the existing injection order packer setting condition.

13. A copy of the well bore diagram for the Top Spot 11H with notations is copied below:

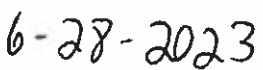
Wellbore Diagram



14. I affirm under penalty of perjury under the laws of the State of New Mexico that the foregoing statements are true and correct. I understand that this self-affirmed statement will be used as written testimony in this case. This statement is made on the date next to my signature below.

A handwritten signature in black ink, appearing to read "L Millsaps", written over a horizontal line.

Logan Millsaps

A handwritten date "6-28-2023" in black ink, written over a horizontal line.

Date

30022135_v1

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF OXY USA INC.
FOR A CLOSED LOOP GAS CAPTURE
INJECTION PILOT PROJECT, EDDY
AND LEA COUNTIES, NEW MEXICO.**

CASE NO. 23633

AFFIDAVIT

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

Adam G. Rankin, attorney in fact and authorized representative of the Applicant herein,
being first duly sworn, upon oath, states

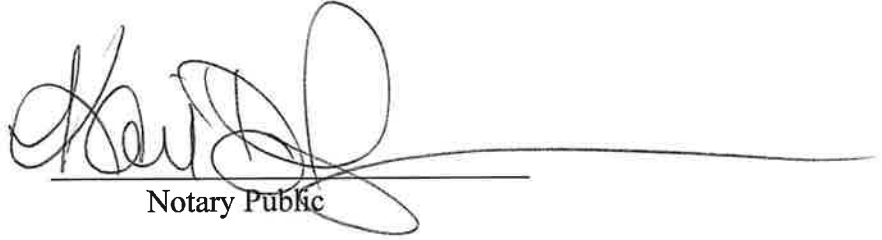
1. The above-referenced application and notice of the hearing on this application was sent by certified mail to the affected parties on the date set forth in the letter attached hereto.
2. The spreadsheet attached hereto contains the names of the parties to whom notice was provided.
3. The spreadsheet attached hereto contains the information provided by the United States Postal Service on the status of the delivery of this notice as of June 27, 2023.
4. I caused a notice to be published to all parties subject to these proceedings on June 23, 2023. An affidavit of publication from the publication's legal clerk with a copy of the notice publication is attached as Exhibit 9.


Adam G. Rankin

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 8
Submitted by: OXY USA INC.
Hearing Date: July 6, 2023
Case No. 23633

SUBSCRIBED AND SWORN to before me this 30th day of June 2023 by Adam G.

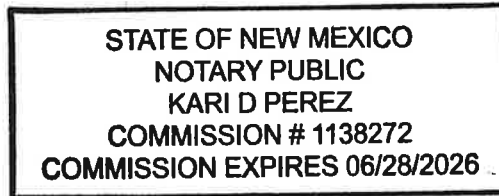
Rankin.



Notary Public

My Commission Expires:

6/28/26





Adam G. Rankin
Phone: 505.954.7294
Fax: 505.629.1537
agrarkin@hollandhart.com

June 16, 2023

VIA CERTIFIED MAIL
CERTIFIED RECEIPT REQUESTED

TO: ALL AFFECTED PARTIES

Re: Application of OXY USA Inc. for Closed Loop Gas Capture Injection Pilot Project, Eddy County, New Mexico.

Ladies & Gentlemen:

This letter is to advise you that OXY USA Inc. has filed the enclosed application with the New Mexico Oil Conservation Division. A hearing has been requested before a Division Examiner on July 6, 2023, and the status of the hearing can be monitored through the Division's website at <https://www.emnrd.nm.gov/ocd/>.

Due to the remodeling of the state building where the New Mexico Oil Conservation Division is located, hearings will be conducted remotely beginning at 8:15 a.m. To participate in the electronic hearing, see the instructions posted on the OCD Hearings website: <https://www.emnrd.nm.gov/ocd/hearing-info/>.

You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date. Parties appearing in cases are required to file a Pre-hearing Statement four business days in advance of a scheduled hearing that complies with the provisions of NMAC 19.15.4.13.B.

If you have any questions about this matter, please contact Stephen Janacek at 972-404-3722 or Stephen_Janacek@oxy.com.

Sincerely,

A handwritten signature in blue ink, appearing to read 'A. Rankin'.

Adam G. Rankin
ATTORNEY FOR OXY USA INC.

Enclosures

Location:
110 North Guadalupe, Suite 1
Santa Fe, NM 87501-1849

Mailing Address
P.O. Box 8749
Denver, CO 80201-8749

Contact
p: 303.295.8000 | f: 303.295.8261
www.hollandhart.com

Holland & Hart LLP Anchorage Aspen Billings Boise Boulder Cheyenne Denver Jackson Hole Las Vegas Reno Salt Lake City Santa Fe Washington, D.C.

OXY - Lost Tank CLGC
Postal Delivery Report

9402811898765415738097	Bureau of Land Mangment	301 Dinosaur Trl	Santa Fe	NM	87508-1560	Your item was delivered to the front desk, reception area, or mail room at 12:29 pm on June 20, 2023 in SANTA FE, NM 87508.
9402811898765415738448	Bill Burton	301 Commerce St Ste 2900	Fort Worth	TX	76102-4152	Your item arrived at our USPS facility in OKLAHOMA CITY OK DISTRIBUTION CENTER on June 26, 2023 at 10:22 am. The item is currently in transit to the destination.
9402811898765415738486	BPX OPERATING CO	501 Westlake Park Blvd	Houston	TX	77079-2604	Your item was delivered to the front desk, reception area, or mail room at 10:40 am on June 20, 2023 in HOUSTON, TX 77079.
9402811898765415738431	BURLINGTON RESOURCES OIL & GAS CO LP	PO Box 51810	Midland	TX	79710-1810	Your item was returned to the sender on June 26, 2023 at 11:37 am in MIDLAND, TX 79705 because the addressee moved and left no forwarding address.
9402811898765415738479	CENTENNIAL RESOURCES PRODUCTION LLC	1001 17th St Ste 1800	Denver	CO	80202-2058	Your item was delivered to an individual at the address at 3:24 pm on June 20, 2023 in
9402811898765415738554	Charles Andrew Spradlin	2451 Walker St	Grand Prairie	TX	75052-8577	Your item was delivered to an individual at the address at 5:25 pm on June 20, 2023 in GRAND PRAIRIE, TX 75052.
9402811898765415738561	CHEVRON USA INC	6301 Deauville	Midland	TX	79706-2964	Your item was delivered to an individual at the address at 11:00 am on June 22, 2023 in
9402811898765415738523	Chisos, Ltd.	1331 Lamar St Ste 1077	Houston	TX	77010-3135	Your item was delivered to an individual at the address at 12:40 pm on June 20, 2023 in
9402811898765415738592	CNX GAS CO LLC	PO Box 1248 Jane	Lew	WV	26378	Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.
9402811898765415738585	COG OPERATING LLC	600 W Illinois Ave	Midland	TX	79701-4882	We were unable to deliver your package at 8:33 am on June 20, 2023 in MIDLAND, TX 79701 because the business was closed. We will redeliver on the next business day. No
9402811898765415738530	Crownrock Minerals, LP	PO Box 51933	Midland	TX	79710-1933	Your item has been delivered to an agent for final delivery in MIDLAND, TX 79705 on June 26, 2023 at 11:11 am.
9402811898765415738042	State Land Office	PO Box 1148	Santa Fe	NM	87504-1148	Your item has been delivered to an agent for final delivery in SANTA FE, NM 87501 on June 21, 2023 at 7:20 am.
9402811898765415737250	Curtis A. Anderson, Trustee	9314 Cherry Brook Ln	Frisco	TX	75033-0651	We attempted to deliver your item at 3:57 pm on June 20, 2023 in FRISCO, TX 75033 and a notice was left because an authorized recipient was not available.
9402811898765415737267	DEVON ENERGY CO LP	333 W Sheridan Ave	Oklahoma City	OK	73102-5010	Your item has been delivered to an agent for final delivery in OKLAHOMA CITY, OK 73102 on June 21, 2023 at 6:00 am.
9402811898765415737229	DEVON ENERGY PRODUCTION CO. LP	333 W Sheridan Ave	Oklahoma City	OK	73102-5010	Your item has been delivered to an agent for final delivery in OKLAHOMA CITY, OK 73102 on June 21, 2023 at 6:00 am.
9402811898765415737298	Devon Energy Production Company, L.P.	333 W Sheridan Ave	Oklahoma City	OK	73102-5010	Your item has been delivered to an agent for final delivery in OKLAHOMA CITY, OK 73102 on June 21, 2023 at 6:00 am.
9402811898765415737243	EOG RESOURCES INC	1111 Bagby St Lbby 2	Houston	TX	77002-2589	Your item has been delivered to an agent for final delivery in HOUSTON, TX 77202 on June 21, 2023 at 9:54 am.
9402811898765415737236	EOG RESOURCES INC	5509 Champions Dr	Midland	TX	79706-2843	Your item is being held at the MIDLAND, TX 79706 post office at 7:23 am on June 20, 2023. This is at the request of the customer.
9402811898765415737274	EXCALIBUR ENERGY CO	PO Box 25045	Albuquerque	NM	87125-0045	Your item was picked up at the post office at 8:20 am on June 22, 2023 in ALBUQUERQUE,
9402811898765415737816	George Vaught, Jr.	PO Box 13557	Denver	CO	80201-3557	Your item was picked up at the post office at 9:22 am on June 23, 2023 in DENVER, CO
9402811898765415737854	HANAGAN PETROLEUM CORP	PO Box 1737	Roswell	NM	88202-1737	Your item was picked up at the post office at 9:22 am on June 21, 2023 in ROSWELL, NM
9402811898765415737861	HARRINGTON TRUST	PO Box 216	Roswell	NM	88202-0216	Your item arrived at the ROSWELL, NM 88201 post office at 1:18 pm on June 24, 2023 and
9402811898765415738080	EOG Resources Inc.	PO Box 840321	Dallas	TX	75284-0321	Your item has been delivered and is available at a PO Box at 5:01 am on June 22, 2023 in
9402811898765415737823	J S ABERCROMBIE MINS	2001 Gulf Bldg	Houston	TX	77002	Your item departed our NORTH HOUSTON TX DISTRIBUTION CENTER destination facility on June 26, 2023 at 10:39 am. The item is currently in transit to the destination.
9402811898765415737809	Jastrow Family Oil & Gas, LLC	6300 Bee Caves Rd Bldg 1 6th Floor	Austin	TX	78746-5833	Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.
9402811898765415737892	John Kyle Thoma, Trustee	PO Box 558	Peyton	CO	80831-0558	Your item was delivered to an individual at the address at 1:02 pm on June 20, 2023 in
9402811898765415737847	Kimbell Art Foundation	301 Commerce St Ste 2900	Fort Worth	TX	76102-4152	Your item was delivered to an individual at the address at 11:34 am on June 22, 2023 in FORT WORTH, TX 76102.
9402811898765415737830	Kingdom Investments, Limited	1601 Elm St Ste 3400	Dallas	TX	75201-7201	Your item was returned to the sender on June 20, 2023 at 11:44 am in DALLAS, TX 75201 because the addressee was not known at the delivery address noted on the package.
9402811898765415737878	KRP Legacy Isles, LLC	PO Box 59000	Lafayette	LA	70505-9000	Your item was picked up at the post office at 11:05 am on June 22, 2023 in LAFAYETTE, LA
9402811898765415737717	Legacy Reserves Operating LP	15 Smith Rd Ste 3000	Midland	TX	79705-5461	Your item was delivered to an individual at the address at 1:32 pm on June 20, 2023 in
9402811898765415737755	Legacy Reserves Operating, LP	15 Smith Rd Ste 3000	Midland	TX	79705-5461	Your item was delivered to an individual at the address at 1:32 pm on June 20, 2023 in
9402811898765415737762	LONG TRUSTS	PO Box 1336	Kilgore	TX	75663-1336	Your item was picked up at the post office at 8:06 am on June 26, 2023 in KILGORE, TX
9402811898765415737724	LRF Jr. LLC	PO Box 11327	Midland	TX	79702-8327	Your item was delivered to the front desk, reception area, or mail room at 9:14 am on June 22, 2023 in MIDLAND, TX 79701.
9402811898765415738035	MATADOR PRODUCTION COMPANY	5400 Lbj Fwy Ste 1500, One Lincoln Centre	Dallas	TX	75240-1017	Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.

OXY - Lost Tank CLGC
Postal Delivery Report

9402811898765415737700	MAP00-NET	101 N Robinson Ave Ste 1000	Oklahoma City	OK	73102-5513	Your item was delivered to an individual at the address at 3:58 pm on June 20, 2023 in OKLAHOMA CITY, OK 73102.
9402811898765415737793	MARATHON OIL PERMIAN LLC	990 Town And Country Blvd	Houston	TX	77024-2217	Your item was delivered to the front desk, reception area, or mail room at 2:37 pm on June 20, 2023 in HOUSTON, TX 77024.
9402811898765415737748	MARBOB ENERGY CORP	808 W Main St	Artesia	NM	88210	Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.
9402811898765415737731	Mc Vay Drilling Company	PO Box 2450	Hobbs	NM	88241-2450	Your item was picked up at the post office at 10:22 am on June 21, 2023 in HOBBS, NM
9402811898765415737779	MID-CON GAS SERVICES CORP	701 E 22nd St	Lombard	IL	60148-5095	Your item was returned to the sender at 9:28 am on June 20, 2023 in LOMBARD, IL 60148 because the forwarding order for this address is no longer valid.
9402811898765415737915	NIELSON & ASSOC INC	PO Box 2850	Cody	WY	82414-2850	Your item arrived at the SANTA FE, NM 87501 post office at 1:01 pm on June 23, 2023 and Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.
9402811898765415737953	NORTON LLC	60 Beach Ave	Dartmouth	MA	02748-1543	Your item was delivered to an individual at the address at 3:24 pm on June 20, 2023 in
9402811898765415737960	Permian Resources Operating, LLC	1001 17th St Ste 1800	Denver	CO	80202-2058	Your item departed our NORTH HOUSTON TX DISTRIBUTION CENTER destination facility on June 26, 2023 at 6:01 pm. The item is currently in transit to the destination.
9402811898765415737922	PXP PRODUCING CO LLC	717 Texas St Ste 2100	Houston	TX	77002-2753	Your item was picked up at the post office at 3:16 pm on June 26, 2023 in HOUSTON, TX
9402811898765415737908	Rave Energy, Inc.	PO Box 3087	Houston	TX	77253-3087	We were unable to deliver your package at 8:33 am on June 20, 2023 in MIDLAND, TX 79701 because the business was closed. We will redeliver on the next business day. No Your item was delivered to an individual at the address at 10:57 am on June 21, 2023 in FORT WORTH, TX 76102.
9402811898765415738455	COG OPERATING LLC	600 W Illinois Ave	Midland	TX	79701-4882	Your item was picked up at the post office at 1:06 pm on June 21, 2023 in HOUSTON, TX
9402811898765415737991	Robert C. Grable	201 Main St Ste 2500	Fort Worth	TX	76102-3129	Your item was delivered to an individual at the address at 1:27 pm on June 20, 2023 in
9402811898765415737946	Rockport Oil and Gas, LLC	PO Box 19567	Houston	TX	77224-9567	Your item has been delivered to an agent for final delivery in ROSWELL, NM 88201 on June 20, 2023 at 11:27 am.
9402811898765415737984	Rusk Capital Management, LLC	7600 W Tidwell Rd Ste 800	Houston	TX	77040-6718	Your item was delivered to an individual at the address at 11:37 am on June 20, 2023 in FORT WORTH, TX 76102.
9402811898765415737939	STRATA PRODUCTION CO	1301 N Sycamore Ave	Roswell	NM	88201-8892	Your item was delivered to an individual at the address at 11:12 am on June 21, 2023 in
9402811898765415737618	Sundance Minerals I	PO Box 17744	Fort Worth	TX	76102-0744	This is a reminder to pick up your item before July 6, 2023 or your item will be returned on July 7, 2023. Please pick up the item at the KILGORE, TX 75663 Post Office.
9402811898765415737656	Texas Independent Exploration Limited	6760 Portwest Dr	Houston	TX	77024-8005	Your item was delivered to an individual at the address at 10:56 am on June 21, 2023 in FORT WORTH, TX 76102.
9402811898765415737663	The Long Trust	PO Box 3096	Kilgore	TX	75663-3096	Your item was picked up at the post office at 2:02 pm on June 21, 2023 in LITTLE ELM, TX
9402811898765415737601	The Roach Foundation	777 Taylor St Ste Pii-J	Fort Worth	TX	76102-4919	Your item was delivered to an individual at the address at 12:40 pm on June 20, 2023 in
9402811898765415737694	The Taurus Royalty, LLC	PO Box 1477	Little Elm	TX	75068-1477	Your item was delivered to an individual at the address at 3:24 pm on June 20, 2023 in
9402811898765415737649	TORCH OIL & GAS CO	1221 Lamar St Ste 1600	Houston	TX	77010-3039	Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.
9402811898765415738462	Permian Resources Operating, LLC	1001 17th St Ste 1800	Denver	CO	80202-2058	Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.
9402811898765415737687	TX INDEPENDENT EXPLORATION INC	1600 Smith St Ste 3800	Houston	TX	77002-7345	Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.
9402811898765415737632	US BORAX & CHEM CORP	3075 Wilshire Blvd	Los Angeles	CA	90010-1285	Your item was picked up at the post office at 1:22 pm on June 21, 2023 in CARLSBAD, NM
9402811898765415737670	Vision Energy, Inc.	PO Box 2459	Carlsbad	NM	88221-2459	Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.
9402811898765415737113	WHITING 1988 PROD	1700 Broadway Ste 2300	Denver	CO	80290-1703	Your item has been delivered to an agent for final delivery in OKLAHOMA CITY, OK 73102 on June 21, 2023 at 6:00 am.
9402811898765415737151	WPX ENERGY PERMIAN LLC	333 W Sheridan Ave	Oklahoma City	OK	73102-5010	Your item was delivered to an individual at the address at 11:59 am on June 20, 2023 in
9402811898765415737168	XTO HOLDINGS LLC	22777 Springwoods Village Pkwy	Spring	TX	77389-1425	Your item was delivered to the front desk, reception area, or mail room at 7:44 am on June 23, 2023 in ARTESIA, NM 88210.
9402811898765415737120	YATES INDUSTRIES LLC	105 S 4th St	Artesia	NM	88210-2177	Your item was delivered to an individual at the address at 11:49 am on June 20, 2023 in
9402811898765415737106	ZPZ DELAWARE I LLC	2000 Post Oak Blvd Ste 100	Houston	TX	77056-4497	Your item was delivered to an individual at the address at 1:51 pm on June 20, 2023 in
9402811898765415738424	NGL WATER SOLUTIONS PERMIAN, LLC	865 Albion St Ste 400	Denver	CO	80220-4809	Your item was returned to the sender on June 21, 2023 at 8:43 am in GREENUP, KY 41144 because the address was vacant or the business was no longer operating at the location and no further information was available.
9402811898765415738400	ADEX RESOURCES CORP	PO Box 109	Argillite	KY	41121-0109	Your item arrived at our USPS facility in OKLAHOMA CITY OK DISTRIBUTION CENTER on June 26, 2023 at 10:22 am. The item is currently in transit to the destination.
9402811898765415738493	Ben J. Fortson, Jr., Trustee	301 Commerce St Ste 2900	Fort Worth	TX	76102-4152	

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement therefor for a period of 1 issue(s).

Beginning with the issue dated June 23, 2023
and ending with the issue dated June 23, 2023.


Publisher

Sworn and subscribed to before me this 23rd day of June 2023.


Business Manager

My commission expires January 29, 2027

(Seal) STATE OF NEW MEXICO
NOTARY PUBLIC
GUSSIE RUTH BLACK
COMMISSION # 1087526
COMMISSION EXPIRES 01/29/2027

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws 1937 and payment of fees for said

LEGAL NOTICE
June 23, 2023
STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
SANTA FE, NEW MEXICO

The State of New Mexico, Energy Minerals and Natural Resources Department, Oil Conservation Division ("Division") hereby gives notice that the Division will hold public hearings before a hearing examiner on the following case. The hearing will be conducted remotely on Thursday, July 6, 2023, beginning at 8:15 a.m. To participate in the electronic hearing, see the instructions posted below. The docket may be viewed at <https://www.emnrd.nm.gov/ocd/hearing-info/> or obtained from Marlene Salvidrez, at Marlene.Salvidrez@emnrd.nm.gov. Documents filed in the case may be viewed at <https://ocdimage.emnrd.nm.gov/Imaging/Default.aspx>. If you are an individual with a disability who needs a reader, amplifier, qualified sign language interpreter, or other form of auxiliary aid or service to attend or participate in a hearing, contact Marlene Salvidrez at Marlene.Salvidrez@emnrd.nm.gov, or the New Mexico Relay Network at 1-800-659-1779, no later than June 26, 2023.

Persons may view and participate in the hearings through the following link:
<https://nmemnrd.webex.com/nmemnrd/j.php?MTID=maaedf304905c6a120ecfe7659a603112>
Webinar number: 2490 895 0241

Join by video system: 24908950241@nmemnrd.webex.com
You can also dial 173.243.2.68 and enter your webinar number

Join by phone: 1-844-992-4726 United States Toll Free +1-408-418-9388 United States Toll
Access code: 2490 895 0241

Panelist password: RiCWWgmZ327 (74299469 from phones and video systems)

STATE OF NEW MEXICO TO:
All named parties and persons having any right, title, interest or claim in the following case and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian whether or not so stated.)

To: All affected parties, including: Bureau of Land Management; State Land Office; EOG Resources Inc.; Matador Production Company; COG Operating Co.; Permian Resources Operating, LLC; NGL Water Solution Permian, LLC; Adex Resources Corp.; Ben J. Fortson, Jr., Trustee; Bill Burton, his heirs and devisees; BPX Operating Co.; Burlington Resources Oil & Gas Co.; Centennial Resources Production LLC; Charles Andrew Spradlin, his heirs and devisees; Chevron U.S.A. Inc.; Chisos, Ltd.; CNX Gas Co LLC; COG Operating Co.; Crownpoint Minerals, LP; Curtis A. Anderson, Trustee; Devon Energy Production Company; EOG Resources Inc.; Excalibur Energy Co.; George Vaught, Jr., his heirs and devisees; Hanagan Petroleum Corp.; Harrington Trust; J S Abercrombie Mins; Jastrow Family Oil & Gas, LLC; John Kyle Thoma, Trustee; Kimbell Art Foundation; Kingdom Investments, Limited; KRP Legacy Isles, LLC; Legacy Reserves Operating LP; Long Trusts; LRF Jr. LLC; MAP00-Net; Marathon Oil Permian LLC; Marbob Energy Corp.; McVay Drilling Company; Mid-Con Gas Services Corp.; Nielson & Assoc., Inc.; Norton LLC; Permian Resources Operating, LLC; PXP Producing Co LLC; Rave Energy, Inc.; Robert C. Grable, his heirs and devisees; Rockport Oil and Gas, LLC; Rusk Capital Management LLC; Strata Production Co.; Sundance Minerals I; Texas Independent Exploration Limited; The Long Trust; The Roach Foundation; The Taurus Royalty, LLC; Torch Oil & Gas Co.; US Borax & Chem Corp.; Vision Energy, Inc.; Whiting 1988 Prod; WPX Energy Permian LLC; XTO Holdings LLC; and ZPZ Delaware I LLC.

Case No. 23633: Application of OXY USA Inc. for Closed Loop Gas Capture Injection Pilot Project, Eddy and Lea Counties, New Mexico. Applicant in the above-styled cause seeks an order authorizing it to engage in a closed loop gas capture injection pilot project ("Pilot Project") in the Bone Spring formation within a 1,958.92-acre, more or less, project area for this Pilot Project consisting of the following acreage identified below in Eddy and Lea Counties, New Mexico (the "Project Area"):

Township 22 South, Range 31 East

Section 13: W/2 W/2
Section 12: W/2 W/2

Township 22 South, Range 32 East

Section 8: All
Section 17: All
Section 19: W/2 W/2
Section 30: W/2

Applicant proposes to occasionally inject into the following producing wells to avoid the temporary flaring of gas or the shut-in of producing wells during pipeline capacity constraints, mechanical difficulties, plant shutdowns, or other events impacting the ability to deliver gas into a pipeline:

- Lost Tank 30-19 Federal Com 1H (API No. 30-025-46474) with a surface location 128 feet FNL and 1235 feet FWL (Lot 1) in Section 19, Township 22 South, Range 32 East, and a bottom hole location 29 feet FSL and 971 feet FWL (Lot 4) in Section 30, Township 22 South, Range 32 East, NMPM, all in Lea County, New Mexico.
- Top Spot 12-13 Federal Com 11H well (API No. 30-015- 48595) with a surface location 655 feet FSL and 2022 feet FWL (Unit N) in Section 13, Township 22 South, Range 31 East, and a bottom hole location 51 feet FNL and 448 feet FWL (Unit D) in Section 12, Township 22 South, Range 31 East, NMPM, all in Eddy, New Mexico.
- Top Spot 12-13 Federal Com 1H well (API No. 30-015-48594) with a surface location 655 feet FSL and 2087 feet FWL (Unit N) in Section 13, Township 22 South, Range 31 East, and a bottom hole location 51 feet FNL and 764 feet FWL (Unit D) in Section 12, Township 22 South, Range 31 East, NMPM, all in Eddy, New Mexico.
- Top Spot 12-13 Federal Com 21H well (API No. 30-015- 47771) with a surface location 655 feet FSL and 2052 feet FWL (Unit N) in Section 13, Township 22 South, Range 31 East, and a bottom hole location 49 feet FNL and 449 feet FWL (Unit D) in Section 12, Township 22 South, Range 31 East, NMPM, all in Eddy, New Mexico.
- Dr Pi Federal Unit 17 8 DA 21H well (API No. 30-025-48282) with a surface location 530 feet FSL and 1075 feet FWL (Unit M) in Section 17, Township 22 South, Range 32 East, and a bottom hole location 52 feet FNL and 453 feet FWL (Unit D) in Section 8, Township 22 South, Range 32 East, NMPM, all in Eddy County, New Mexico.
- Dr Pi Federal Unit 17 8 DA 23H well (API No. 30-025-48947) with a surface location 530 feet FSL and 1145 feet FWL (Unit M) in Section 17, Township 22 South, Range 32 East, and a bottom hole location 37 feet FNL and 2193 feet FWL (Unit D) in Section 8, Township 22 South, Range 32 East, NMPM, all in Eddy County, New Mexico.
- Dr Pi Federal Unit 17 8 DA 25H well (API No. 30-025-48949) with a surface location 455 feet FSL and 1565 feet FEL (Unit O) in Section 17, Township 22 South, Range 32 East, and a bottom hole location 40 feet FNL and 1282 feet FEL (Unit D) in Section 8, Township 22 South, Range 32 East, NMPM, all in Eddy County, New Mexico.
- Dr Pi Federal Unit 17 8 DA 26H well (API No. 30-025-48950) with a surface location 455 feet FSL and 1530 feet FEL (Unit O) in Section 17, Township 22 South, Range 32 East, and a bottom hole location 61 feet FNL and 322 feet FEL (Unit D) in Section 8, Township 22 South, Range 32 East, NMPM, all in Eddy County, New Mexico.

OXY seeks authority to utilize these producing wells to occasionally inject produced gas into the Bone Spring formation at total vertical depths of between approximately 9,005 feet to 10,699 feet along the horizontal portion of each wellbore at surface injection pressures of no more than 1,300 psi. at an average injection rate of 3 MMSCF per day and a maximum injection rate of 4 MMSCF per day. The source of the produced gas will be from the Bone Spring and Wolfcamp formations. The subject acreage is located approximately 22 miles northeast of Loving, New Mexico.
#00279953

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 9
Submitted by: OXY USA INC.
Hearing Date: July 6, 2023
Case No. 23633