

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

**APPLICATION OF OXY USA INC. FOR
APPROVAL OF INJECTION AUTHORITY
FOR THE MESA VERDE BONE SPRING
RESOURCE DEVELOPMENT UNIT FOR
ENHANCED OIL RECOVERY, EDDY AND
LEA COUNTY, NEW MEXICO.**

CASE NO. _____

APPLICATION

OXY USA Inc. (“Oxy” or “Applicant”) (OGRID No. 16696), through its undersigned attorneys, files this application for an order authorizing the injection of water, produced gas and carbon dioxide for purposes of enhanced oil recovery (“EOR”) within the Unitized Interval of the Mesa Verde Bone Spring Resource Development Unit area. In support of this application, Oxy states:

1. The proposed Project Area is the same as the Mesa Verde Bone Spring Resource Development Unit area and consists of the following 3461.80 acres, more or less, of federal and state lands situated in Eddy and Lea County, New Mexico:

TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.

Section 13: ALL

TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.

Section 7: SE/4, E/2 of NE/4
Section 8: ALL
Section 9: W/2
Section 16: W/2
Section 17: ALL
Section 18: ALL

2. The Mesa Verde Bone Spring Unit (“Unit”) is a Resource Development Unit.

3. Oxy is the designated operator under the Resource Development Unit Agreement.
4. The Unitized Interval for the Unit includes the Bone Spring formation as identified by the Gamma Ray log run in the Heavy Metal 14 Federal 1 well (API: 30-015-29603) located in the NE/4 of SE/4 of Section 14, Township 24 South, Range 31 East, Eddy County, New Mexico, with the top of the Unitized Interval being found at a depth of 8,445 feet below the surface and the base of the unitized interval being found at a depth of 11,830 feet below the surface.
5. The Unit has twenty-nine (29) active horizontal wells completed in the Bone Spring formation. Oxy seeks to convert fifteen (15) of these producing horizontal wells into injection wells to implement a “huff and puff” enhanced oil recovery project. Oxy intends to periodically inject water, produced gas and carbon dioxide into the Bone Spring formation within the Unitized Interval through one or more of these wells followed by a period of flowback and production.
6. Submitted with this application is a complete Form C-108 for these wells, attached as **Exhibit A**.
7. Oxy requests authority to inject produced gas, water, and carbon dioxide within the Unitized Interval at up to the following maximum surface injection pressures in the respective Bone Spring zones of the Avalon, First Bone Spring Sand (“1BSS”), Second Bone Spring Sand (“2BSS”), Third Bone Spring Sand (“3BSS”), and Third Bone Spring Lime (“3BSL”):

Zone	Maximum Surface Injection Pressure (psi)		
	Hydrocarbon Gas	Water	CO2
Avalon	4,510	1,813	2,490
1BSS	4,810	1,949	2,630
2BSS	4,980	2,022	2,700
3BSS & 3BSL	5,700	2,361	3,080

8. Oxy seeks authority to inject at the following maximum and average rates:

Injectant	Maximum Rate	Average Rate
Hydrocarbon Gas	50 MMSCFPD	22 MMSCFPD
Water	10,000 bwpd	5,000 bwpd
CO2	50 MMSCFPD	22 MMSCFPD

9. Due to facility costs and timing associated with implementing this “huff and puff” injection project, Oxy seeks an exception from 19.15.26.12.C NMAC, which requires actual injection to occur within one (1) year of approval. Oxy requests authorization for injection to occur within two (2) years of approval.

10. Pursuant to 19.15.26.8.F(5) NMAC, Oxy requests that additional injection wells in the Unit Area be approved administratively, subject to the applicable notice requirements.

11. A copy of this Application has been provided to all affected parties as required by Division Rules and notice of the hearing on this application will be provided in a newspaper of general circulation in Eddy and Lea Counties.

12. Approval of this Application is in the best interests of conservation, the prevention of waste and the protection of correlative rights.

WHEREFORE, Applicant requests that this matter be set for hearing before an Examiner of the Oil Conservation Division on March 13, 2025, and that after notice and hearing this Application be approved.

Respectfully submitted,

HOLLAND & HART LLP

By: 

Michael H. Feldewert
Adam G. Rankin
Paula M. Vance
Post Office Box 2208
Santa Fe, NM 87504
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mfeldewert@hollandhart.com
agrarkin@hollandhart.com
pmvance@hollandhart.com

ATTORNEYS FOR OXY USA INC.

CASE NO. ____: **Application of Oxy USA Inc. for Approval of Injection Authority for the Mesa Verde Bone Spring Resource Development Unit for Enhanced Oil Recovery, Eddy and Lea Counties, New Mexico.** Applicant seeks an order authorizing the injection of water, produced gas and carbon dioxide for purposes of enhanced oil recovery (“EOR”) within the Unitized Interval of the Mesa Verde Bone Spring Resource Development Unit area. The Project Area is comprised of the following federal and state lands in Eddy and Lea County, New Mexico:

TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.

Section 13: ALL

TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.

Section 7: SE/4, E/2 of NE/4

Section 8: ALL

Section 9: W/2

Section 16: W/2

Section 17: ALL

Section 18: ALL

The unitized interval consists of the Bone Spring formation as identified by the Gamma Ray log run in the Heavy Metal 14 Federal 1 well (API: 30-015-29603) located in the NE/4 of SE/4 of Section 14, Township 24 South, Range 31 East, Eddy County, New Mexico, with the top of the unitized interval being found at a depth of 8,445 feet below the surface and the base of the unitized interval being found at a depth of 11,830 feet below the surface. The Unit has twenty-nine (29) active horizontal wells completed in the Bone Spring formation. Oxy seeks to convert fifteen (15) of these producing horizontal wells into injection wells to implement a “huff and puff” enhanced oil recovery project. Oxy requests authorization for injection to occur within two (2) years of approval. Oxy seeks approval to inject produced gas, water, and carbon dioxide within the Unitized Interval at up to the following maximum surface injection pressures in the respective Bone Spring zones of the Avalon, First Bone Spring Sand (“1BSS”), Second Bone Spring Sand (“2BSS”), Third Bone Spring Sand (“3BSS”), and Third Bone Spring Lime (“3BSL”):

Zone	Maximum Surface Injection Pressure (psi)		
	Hydrocarbon Gas	Water	CO2
Avalon	4,510	1,813	2,490
1BSS	4,810	1,949	2,630
2BSS	4,980	2,022	2,700
3BSS & 3BSL	5,700	2,361	3,080

Oxy seeks authority to inject at the following maximum and average rates:

Injectant	Maximum Rate	Average Rate
Hydrocarbon Gas	50 MMSCFPD	22 MMSCFPD
Water	10,000 bwpd	5,000 bwpd

CO2	50 MMSCFPD	22 MMSCFPD
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The Mesa Verde Bone Spring Resource Development Unit is approximately 5 miles west of Jal, New Mexico.

EXHIBIT A

February 2025

OXY REGULATORY



MESA VERDE BONE SPRING UNIT EOR INJECTION PROJECT

EOR PROJECT

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? Yes No

II. OPERATOR: OXY USA INC.

ADDRESS: PO BOX 4294, HOUSTON, TX, 77210-4294

CONTACT PARTY: STEPHEN JANACEK PHONE: 713-493-1986

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary. **SEE ATTACHED**

IV. Is this an expansion of an existing project? Yes No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. **SEE ATTACHED.**

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. **SEE ATTACHED.**

VII. Attach data on the proposed operation, including: **SEE ATTACHED.**

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed; **CLOSED**
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval. **SEE ATTACHED.**

IX. Describe the proposed stimulation program, if any. **NO STIMULATION PLANNED AT TIME OF APPLICATION.**

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

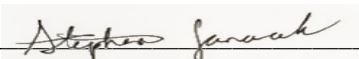
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: STEPHEN JANACEK TITLE: REGULATORY ENGINEER

SIGNATURE:  DATE: 1/10/2025

E-MAIL ADDRESS: STEPHEN_JANACEK@OXY.COM

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: File Electronically via OCD Permitting

Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include: **SEE ATTACHED.**

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated. **SEE ATTACHED.**

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

PROJECT OVERVIEW

- Description

- The Mesa Verde Bone Spring Unit is a Resource Development Unit with wells initially drilled in 2017.
- Various Enhanced Oil Recovery (“EOR”) techniques, such as Huff and Puff or Line Drive Injection will be applied with produced gas, water, and CO2 as injectants to sweep the pore space of the depleted reservoir to recover additional hydrocarbon reserves.

- Benefits

- No additional surface disturbances.
- Prevents waste of resources.

- Estimated Timeline

1. Install compressor and surface facilities 6 months
2. Install injection equipment ½ month
3. Begin injection in first phase wells



REQUESTED RELIEF

- Requested Relief:
 1. Approval of an Enhanced Oil Recovery (“EOR”) Project.
 2. 15 injection wells in various zones in the Bone Spring Pool.
 - Add additional injection wells administratively
 3. Approval to use hydrocarbon gas, water, and CO2 as injectant.
 4. Maximum Allowable Surface Pressure (“MASP”) for each zone and each injectant as seen in table below:

Zone	Max Allowable Surface Pressure [PSI]		
	on Gas	Water	CO2
Avalon	4,510	1,813	2,490
1BSS	4,810	1,949	2,630
2BSS	4,980	2,022	2,700
3BSS and 3BSL	5,700	2,361	3,080

WELL LIST

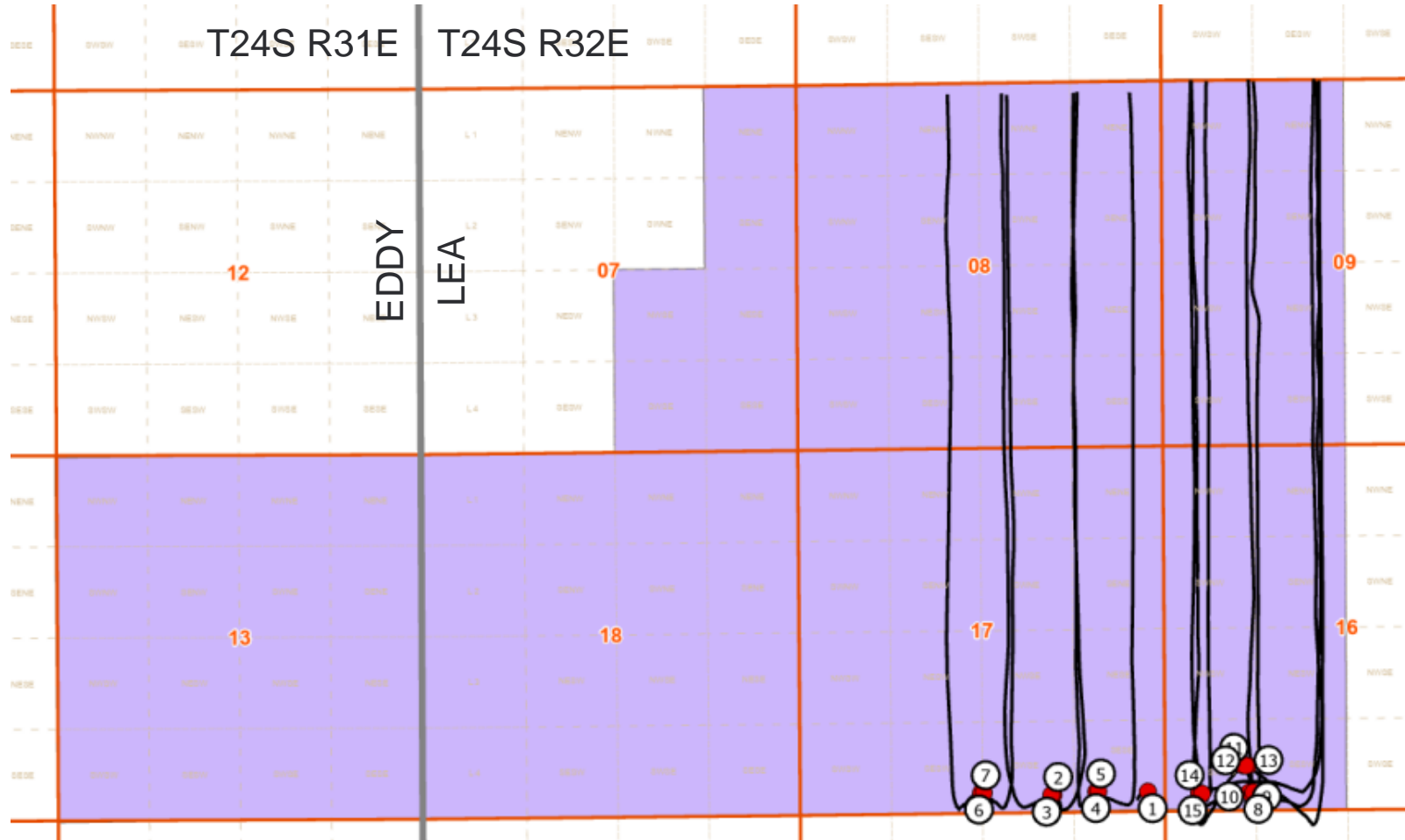
AOR WELL ID	API	WELL_NAME	ZONE
1	3002544101	MESA VERDE BS UNIT 1H ST1	Avalon:
2	3002544196	MESA VERDE BS UNIT 2H	3BSS:
3	3002544183	MESA VERDE BS UNIT 3H	Avalon:
4	3002544064	MESA VERDE BS UNIT 4H	2BSS:
5	3002544185	MESA VERDE BS UNIT 5H	2BSS:
6	3002544042	MESA VERDE BS UNIT 6H	2BSS:
7	3002544065	MESA VERDE BS UNIT 7H	2BSS:
8	3002544559	MESA VERDE BS UNIT 22H	2BSS:
9	3002544560	MESA VERDE BS UNIT 23H	2BSS:
10	3002544561	MESA VERDE BS UNIT 24H	2BSS:
11	3002548814	MESA VERDE BS UNIT 44H	Avalon:
12	3002548815	MESA VERDE BS UNIT 45H	Avalon:
13	3002548816	MESA VERDE BS UNIT 46H	1BSS:
★ 14	3002548818	MESA VERDE BS UNIT 73H	1BSS:
★ 15	3002548819	MESA VERDE BS UNIT 74H	3BSL:

- Initially, not all unit wells are being permitted for injection. As of January 2025, there are 29 unit wells.
- The remaining unit wells will be added to the injection permit later.

★ Spud late 2024. Pending completion report filing.



PROJECT MAP

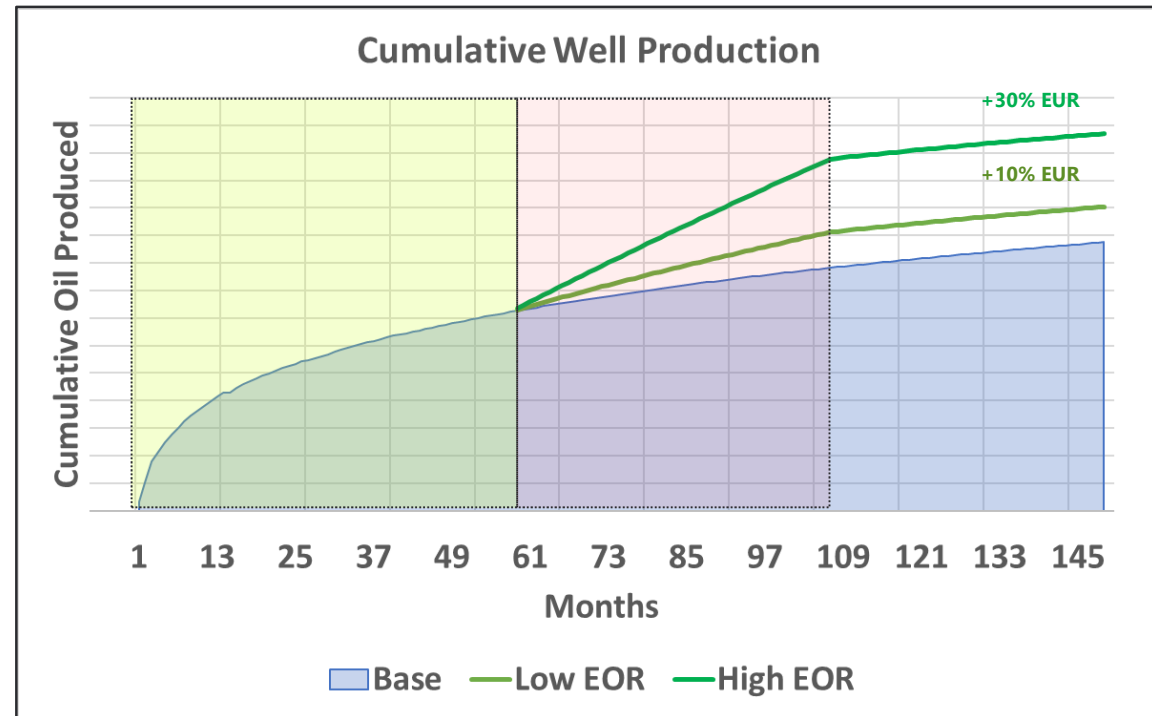


- Key**
- Mesa Verde Bone Spring Unit
 - Surface Hole Location
 - Well Trajectory
 - AOR Well ID



EOR UPLIFT

- Primary production recovery factor is estimated to be 2-10% of OOIP(Original Oil in Place).
- Estimated Ultimate Recovery(EUR) can be improved by 10%-30+% using EOR injection.
- Miscible gas HnP has been demonstrated to increase production in unconventional wells in Midland Basin Texas
- Miscible HC Gas injection has potential in all target benches



Division I
1023 N. French Dr., Hobbs, NM 88240
Phone: (505) 393-6181 Fax: (505) 393-6120
Division II
811 S. First St., Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-9720
Division III
1000 Rio Arriba Road, Aztec, NM 87410
Phone: (505) 334-6179 Fax: (505) 334-6170
Division IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 416-3460 Fax: (505) 476-3463

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

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

AMENDED REPORT
(As-Drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-44101	Pool Code 96229	Pool Name Mesa Verde Bone Spring
Property Code 320828	Property Name MESA VERDE BS UNIT	Well Number 1H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3563.6'

Surface Location

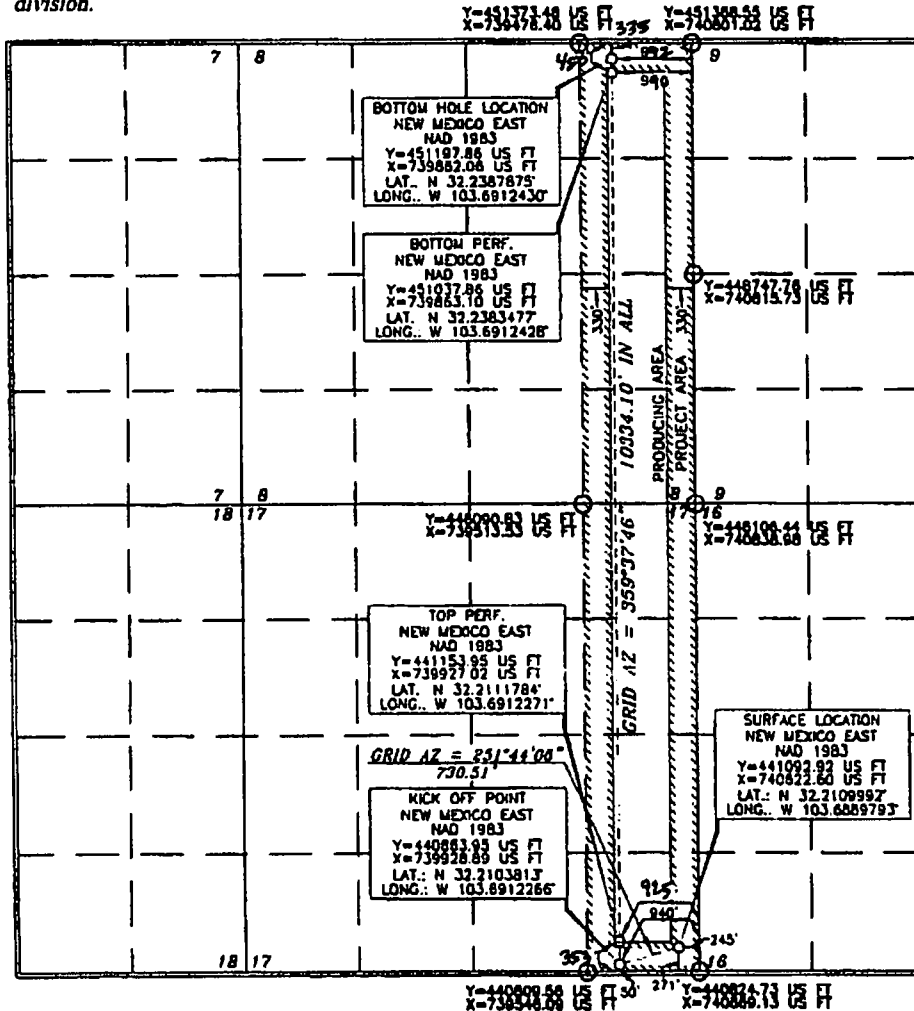
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	17	24 SOUTH	32 EAST, N.M.P.M.		271'	SOUTH	245'	EAST	LEA

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	B	24 SOUTH	32 EAST, N.M.P.M.		335 395	NORTH	995 995	EAST	LEA

Dedicated Acres: **320** Joint or Infill: **Y** Consolidation Code: Order No. **LTP - 450 FNL 990 FEL**
FTP - 353 FSL 925 FEL

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.



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 mineral interest in the land including the proposed bottom hole location or has a right to drill the 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.

Signature: *[Signature]* Date: **8/16/18**
Name: **Jana Mendiola**
Printed Name: **Jana Mendiola**
E-mail Address: **janelyn_mendiola@oxy.com**

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was placed from ALLMECA original surveys made by me personally supervised and that the same is true and correct to the best of my belief.

Signature and Seal: *[Signature]*
Professional Surveyor: **15079**
Date of Survey: **SEPTEMBER 28, 2018**
Certificate Number: **15079**

District I
1623 N. Francis Dr., Hobbs, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0776
District II
411 S. First St., Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-1720
District III
1000 Rio Grande Road, Aztec, NM 87410
Phone: (505) 334-6173 Fax: (505) 334-6173
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3450 Fax: (505) 476-3460

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

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

AMENDED REPORT
(As-Drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-44196	Pool Code 96229	Pool Name Mesa Verde Bone Spring
Property Code 320828	Property Name MESA VERDE BS UNIT	Well Number 2H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3557.4'

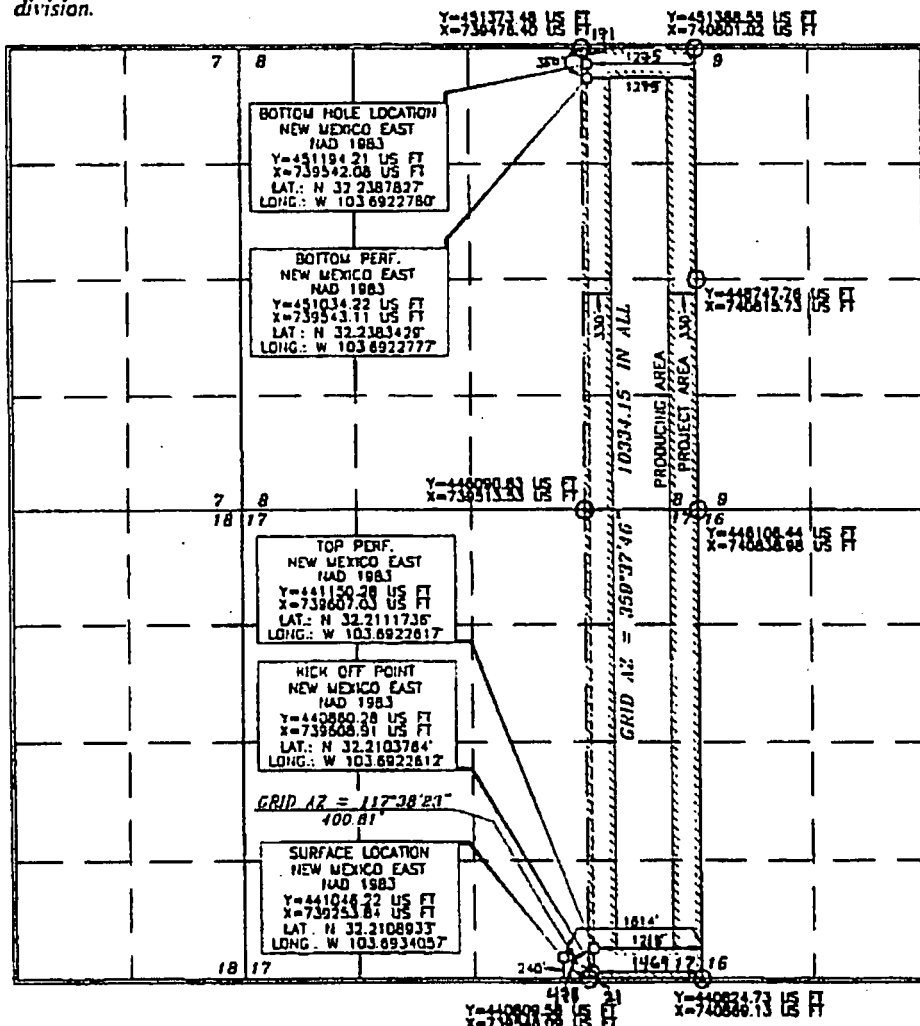
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	17	24 SOUTH	32 EAST, N.M.P.M		240'	SOUTH	1614'	EAST	LEA

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	B	24 SOUTH	32 EAST, N.M.P.M		189' 131'	NORTH	1296' 1275'	EAST	LEA
Dedicated Acres 320	Joint or Infill Y	Consolidation Code	Order No.	BP- 350 FUL 1275 FEL TP- 479 FSL 1215 FEL					

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.



OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that the information reflects a working interest or undivided mineral interest in the land including the proposed location, lease location or has a right to drill the well at the location pursuant to a contract well as owner of such a mineral or working interest, or to a subsidiary pending agreement or a compulsory pooling order hereby given under the direction
[Signature] 7/26/13
Jana Mendiola
Principal Owner
janabyn.mendiola@oxy.com

SURVEYOR CERTIFICATION
I hereby certify that the information shown on this plat was obtained from the field by actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.
DATE: OCTOBER 5, 2013
Date of Survey
[Signature]
Professional Surveyor
Certificate Number 15879

District I
1623 N French Dr., Hobbs, NM 88240
Phone: (575) 393-6181 Fax: (575) 393-0720
District II
911 S. First St., Artesia, NM 88210
Phone: (575) 748-1233 Fax: (575) 748-0720
District III
1000 Red Branch Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1200 S. St. Francis Dr., Santa Fe, NM 87501
Phone: (505) 476-3400 Fax: (505) 476-3442

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

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

AMENDED REPORT
(As-Drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-44183	Pool Code 96229	Pool Name Mesa Verde Bore Spring
Property Code 320828	Property Name MESA VERDE BS UNIT	Well Number 3H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3557.7'

Surface Location

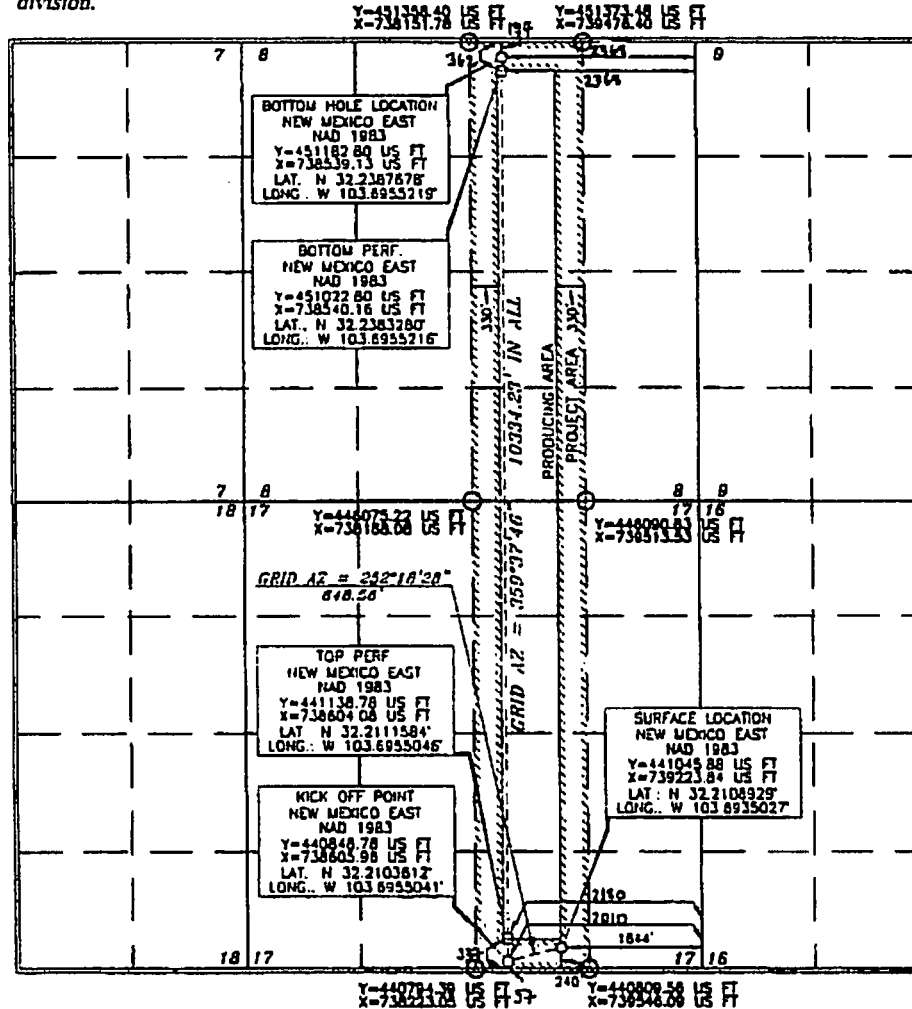
UL or lot no.	Section	Township	Range	Lot (ch)	Feet from the	North South line	Feet from the	East West line	County
0	17	24 SOUTH	32 EAST, N.M.P.M.		240'	SOUTH	1644'	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot (ch)	Feet from the	North South line	Feet from the	East West line	County
B	8	24 SOUTH	32 EAST, N.M.P.M.		780' 797'	NORTH	2203' 2368'	EAST	LEA

Dedicated Acres: **320** Joint or Infill: **Y** Consolidation Code: _____ Order No.: **BP- 362 FNL 2368 FEL**
TP- 337 FSL 2180 FEL

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.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that the organization rather than a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill the 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 having been entered by the division.

[Signature] 7/26/18
Date
Jana Mendiola
Project Name
jana.mendiola@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the information shown on this plat was prepared from the records of surveys made by myself under my supervision, and that the same is true and correct to the best of my belief.

TERRY J. ASS
15079
OCTOBER 5, 2016
Date of Survey
Terry J. Ass
Signature and Seal of Professional Surveyor
Certificate Number **15079**

District I
1433 N. French Dr., Hobbs, NM 88240
Phone: (575) 791-6161 Fax: (575) 791-6720
District II
417 S. First St., Artesia, NM 88210
Phone: (575) 748-1253 Fax: (575) 748-9720
District III
1400 Rio Grande Road, Aztec, NM 87410
Phone: (505) 334-6173 Fax: (505) 334-6170
District IV
1220 E. St. Francis Dr., Santa Fe, NM 87501
Phone: (505) 476-3461 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

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

AMENDED REPORT
(As-Drilled Plat.)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-44064	Pool Code 96229	Pool Name Mesa Verde Bone Spring
Property Code 320828	Property Name MESA VERDE BS Unit	Well Number 4H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3560.5'

Surface Location

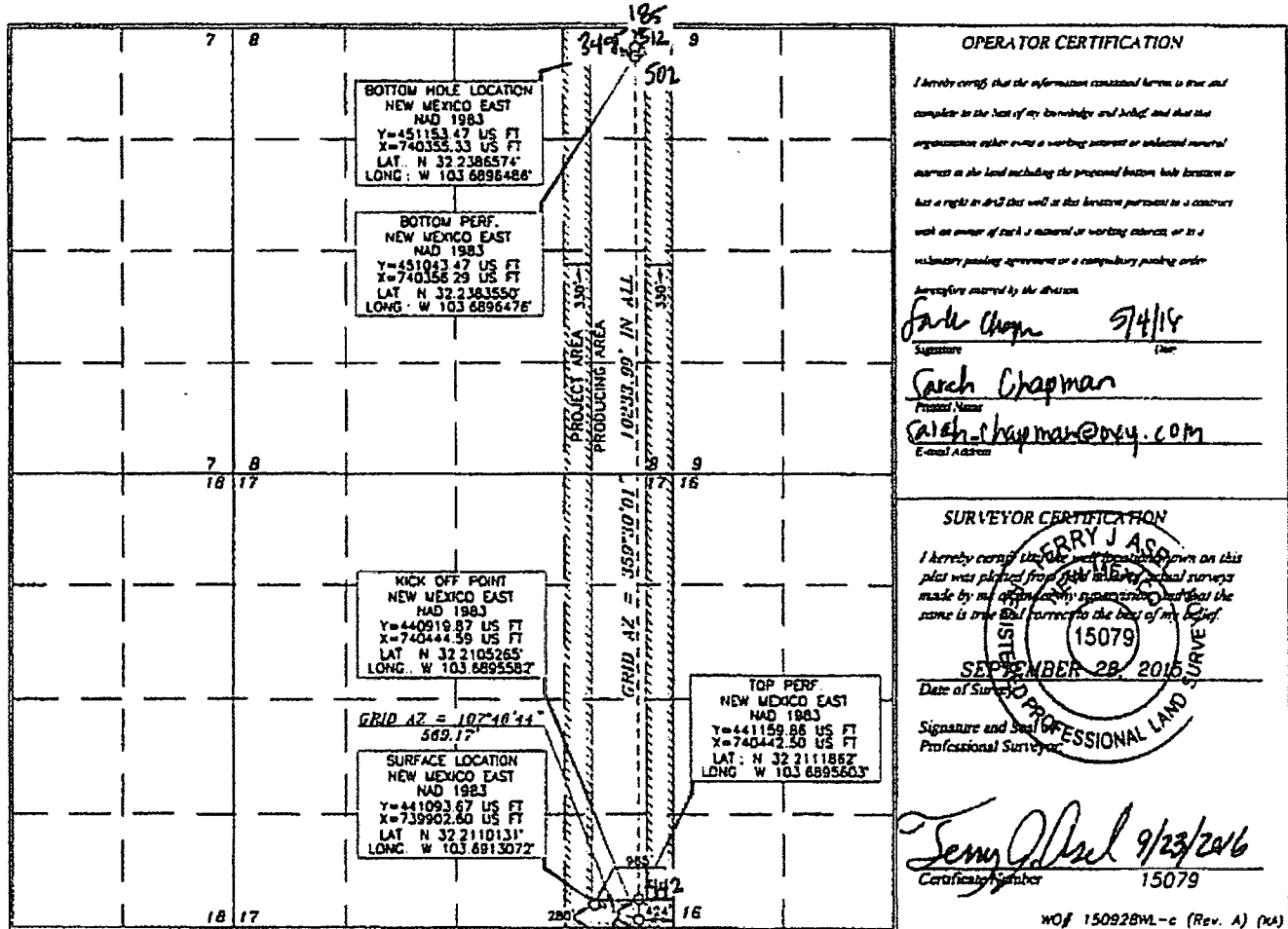
UL of lot no	Section	Township	Range	Lot Idn	Feet from the	North South line	Feet from the	East West line	County
P	17	24 SOUTH	32 EAST, N.M.P.M.		280'	SOUTH	965'	EAST	LEA

Bottom Hole Location if Different From Surface

UL of lot no	Section	Township	Range	Lot Idn	Feet from the	North South line	Feet from the	East West line	County
A	B	24 SOUTH	32 EAST, N.M.P.M.		185	NORTH	512	EAST	LEA

Dedicated Acres 320	Joint or Infill Y	Consolidation Code	Order No. Bottom Perf: 349' FNL of 508' FEL Top Perf: 343' FSL of 442' FEL
-------------------------------	-----------------------------	--------------------	--

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.



District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
111 S. First St., Artesia, NM 88210
Phone: (575) 746-1283 Fax: (575) 748-9720
District III
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
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AMENDED REPORT
(As-Drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-44185	Pool Code 96229	Pool Name Mesa Verde Bone Spring
Property Code 320728	Property Name MESA VERDE BONE SPRING UNIT	Well Number 5H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3560.5'

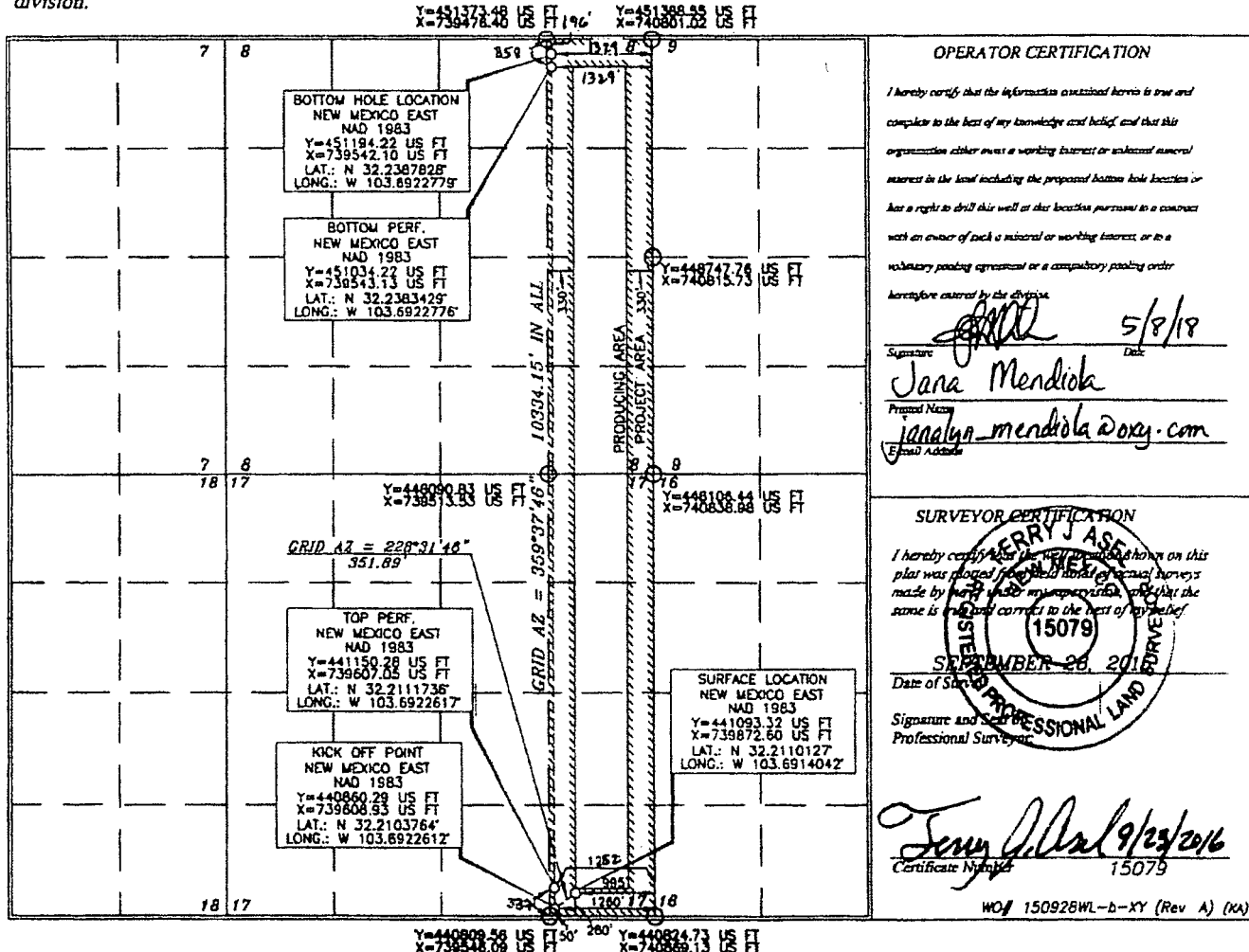
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	17	24 SOUTH	32 EAST, N.M.P.M.		280'	SOUTH	995'	EAST	LEA

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
B	8	24 SOUTH	32 EAST, N.M.P.M.		180' 196'	NORTH	1500' 1329'	EAST	LEA
Dedicated Acres 320	Joint or Infill Y	Consolidation Code	Order No. BP- 358 FNL 1329 FEL (B) TP- 337 FSL 1252 FEL (P)						

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.



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 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: *Jana Mendiola* Date: **5/8/18**
Printed Name: **Jana Mendiola**
E-mail Address: **jana@oxy.com**

SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from the best record of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
FERRY J. ASE
15079
SEPTEMBER 26, 2018
Date of Survey
Signature and Seal: *Ferry J. ASE* Professional Surveyor
Certificate Number: **15079**

District I
1623 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
611 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Artesia, 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

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AMENDED REPORT
(As-drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-02S-44042	Pool Code 96229	Pool Name Mesa Verde ; Bone Spring
Property Code 319616	Property Name MESA VERDE "17-8" FEDERAL COM BS Unit	Well Number 44611
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3559.6'

Surface Location

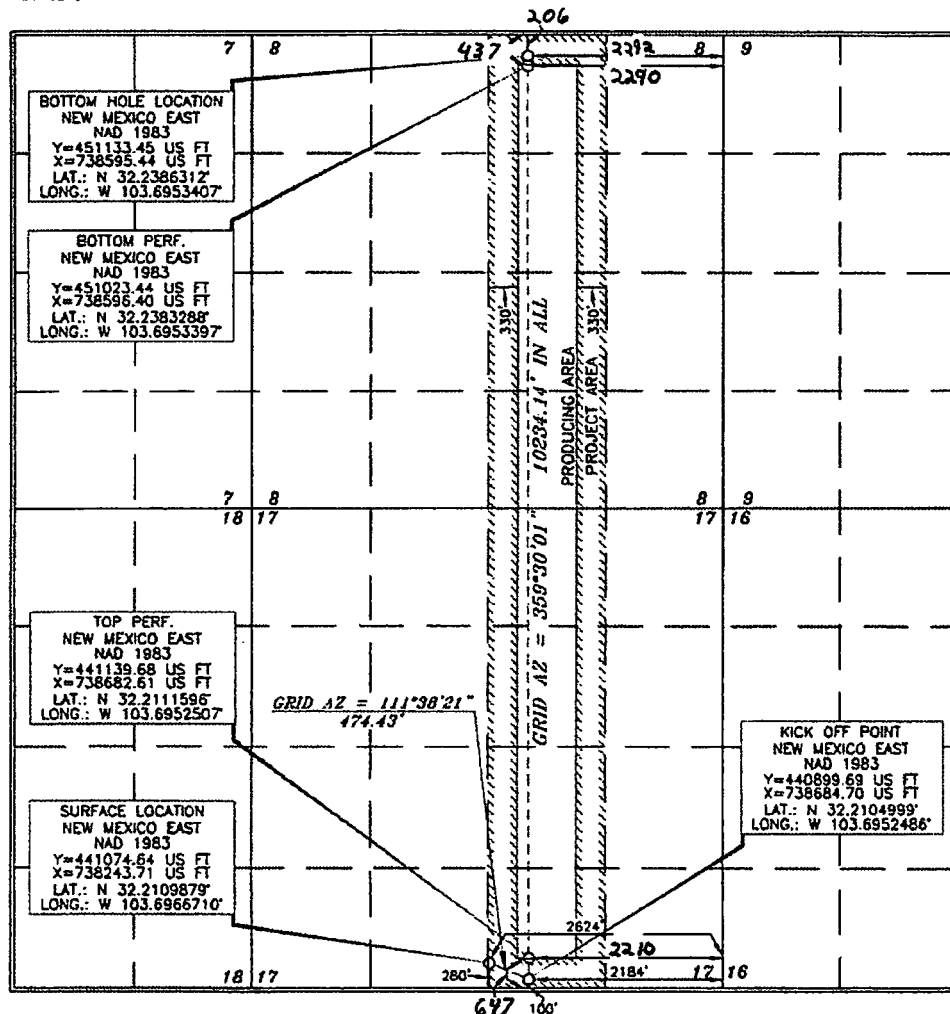
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	17	24 SOUTH	32 EAST, N.M.P.M.		280'	SOUTH	2624'	EAST	LEA

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
B	8	24 SOUTH	32 EAST, N.M.P.M.		230' 306'	NORTH	2207' 2292'	EAST	LEA

Dedicated Acres 320	Joint or Infill Y	Consolidation Code	Order No. FTP: 647' FSL 2210' FEL LTP: 437' FNL 2290' FEL
-------------------------------	-----------------------------	--------------------	---

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.



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 undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well on 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: *Justin Morris* Date: **8/8/08**
Printed Name: **Justin Morris**
E-mail Address: **Justin_Morris@oxy.com**

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from the original surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: **SEPTEMBER 28, 2008**
Signature and Seal: *Terry J. As...*
Professional Surveyor

Certificate Number: **15079**

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 749-9720
District III
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) 476-3400 Fax: (505) 476-3462

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AMENDED REPORT
(As-drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-44065	Pool Code 96229	Pool Name Mesa Verde i Bone Spring
Property Code 319616	Property Name MESA VERDE "17-0" FEDERAL COM BS Unit	Well Number SH 7H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3559.9'

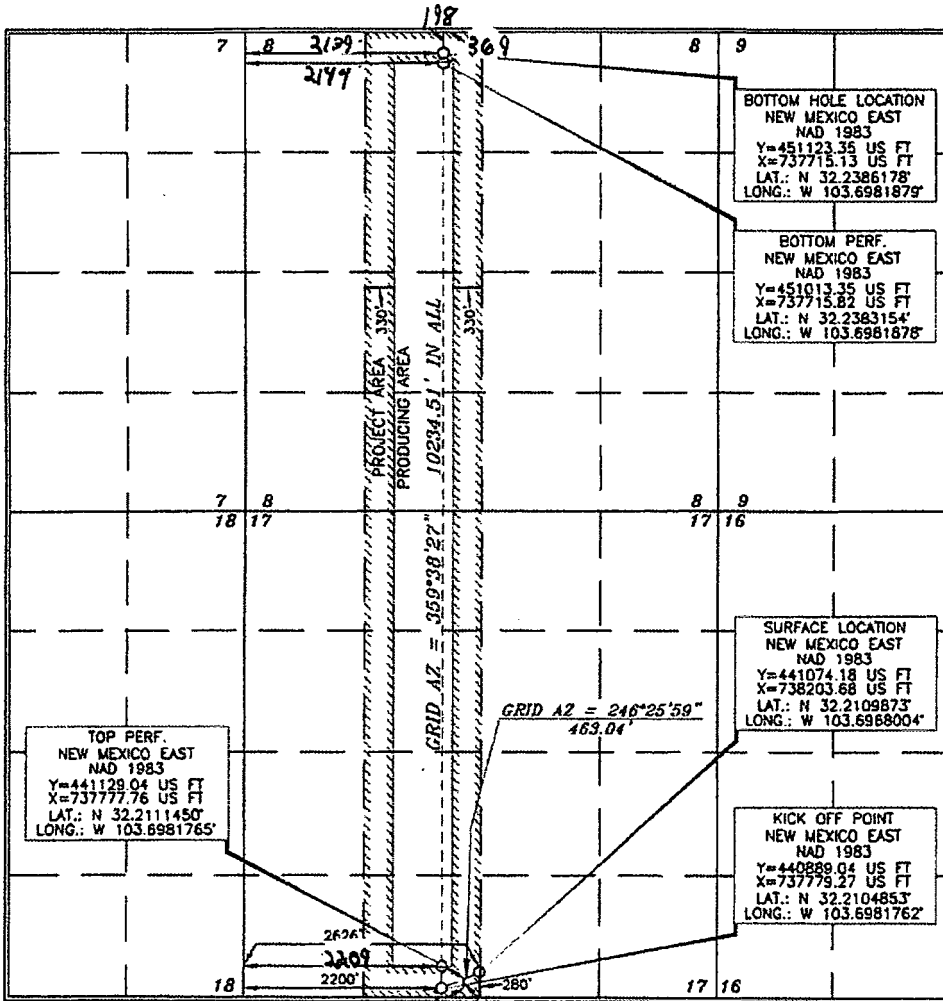
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	17	24 SOUTH	32 EAST, N.M.P.M.		280'	SOUTH	2626'	WEST	LEA

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	B	24 SOUTH	32 EAST, N.M.P.M.		198'	NORTH	2139'	WEST	LEA
Dedicated Acres 320	Joint or Infill Y	Consolidation Code	Order No.	FTP: 453' FSL 2209' FWL LTP: 369' FNL 2144' FWL					

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.



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 neither owns a working interest or undivided 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: *Justin Morris* Date: **8/8/18**
 Printed Name: **Justin Morris**
 E-mail Address: **Justin_Morris@oxy.com**

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from reliable notes by actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

Signature and Seal of Professional Land Surveyor: *Terry J. Asberry*
 Date of Survey: **SEPTEMBER 26, 2018**
 Certificate Number: **15079**

Professional Land Surveyor Seal: **TERRY J. ASBERRY (15079)**

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State of New Mexico

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AMENDED REPORT
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WELL LOCATION AND ACREAGE DEDICATION PLAT

APT Number 30-025-44559	Pool Code 96229	Pool Name Mesa Verde Bone Springs
Property Code 320828	Property Name MESA VERDE BONE SPRING UNIT	Well Number 22H
OGRID No 16696	Operator Name OXY USA INC.	Elevation 3568.2'

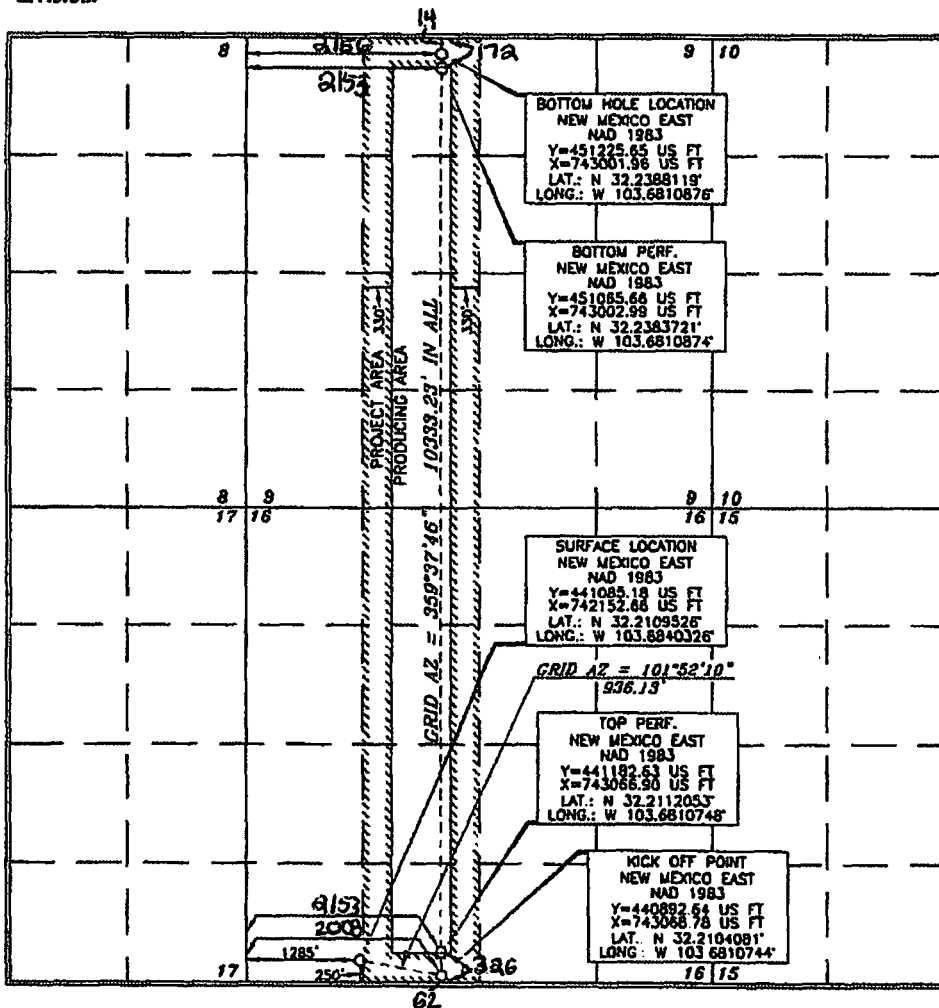
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	24 SOUTH	32 EAST, N.M.P.M.		250'	SOUTH	1285'	WEST	LEA

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	9	24 SOUTH	32 EAST, N.M.P.M.		14	NORTH	2153	WEST	LEA
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.	TP/FTP: 326' FSL 2153' FWL BP/LTP: 172' FNL 2153' FWL					

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.



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 retained 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.

Authorized by the date:
 Signature: *Leslie Reeves* Date: 1/16/18
 Name: LESLIE REEVES
 E-mail Address: LESLIE-REEVES@OXY.COM

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my personal supervision and that the same is true and correct to the best of my belief.

Signature and Seal of Professional Land Surveyor
 Date of Survey: JULY 3, 2017
 Signature: *Tommy J. As...*
 Certificate Number: 15079

WOL 170703WL (0A)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
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1000 Rio Bravo Road, Aztec, NM 87410
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District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-44500	Pool Code 96229	Pool Name Mesa Verde Bone Springs
Property Code 30828	Property Name MESA VERDE BONE SPRING UNIT	Well Number 23H
OGRID No 16696	Operator Name OXY USA INC.	Elevation 3568.2'

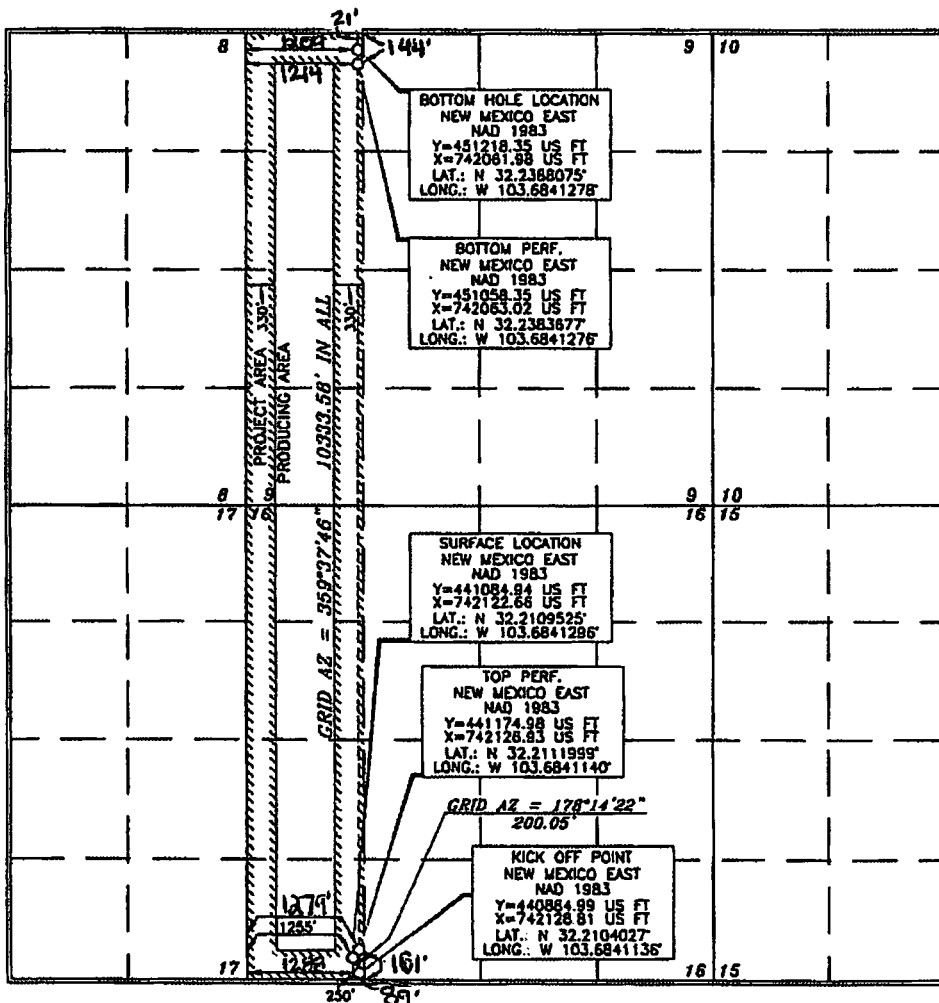
Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	24 SOUTH	32 EAST, N.M.P.M.		250'	SOUTH	1255'	WEST	LEA

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	9	24 SOUTH	32 EAST, N.M.P.M.		21	NORTH	1209	WEST	LEA
Dedicated Acres 320	Joint or Infill Y	Consolidation Code	Order No	TP/FTP: 161' FSL 1279' FNL BP/LTP: 144' FNL 1214' FNL					

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.



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 hereafter entered by the division

Signature: *Leslie Reeves* Date: **11/19/18**
LESLIE REEVES
Printed Name:
E-mail Address: **LESLIE-REEVES@OXY.COM**

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief

Date of Survey: **JUNE 27, 2017**
Signature and Seal of Professional Land Surveyor: *Tommy Neal*
Certificate Number: **15079**

WO# 170827WL-b (KA)

District I
1633 N French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-9720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 746-1283 Fax: (575) 746-9720
District III
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

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WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30025-44561	Pool Code 96229	Pool Name Mesa Verde Bone Springs
Property Code 30828	Property Name MESA VERDE BONE SPRING UNIT	Well Number 24H
OGRID No 16696	Operator Name OXY USA INC.	Elevation 3569.3'

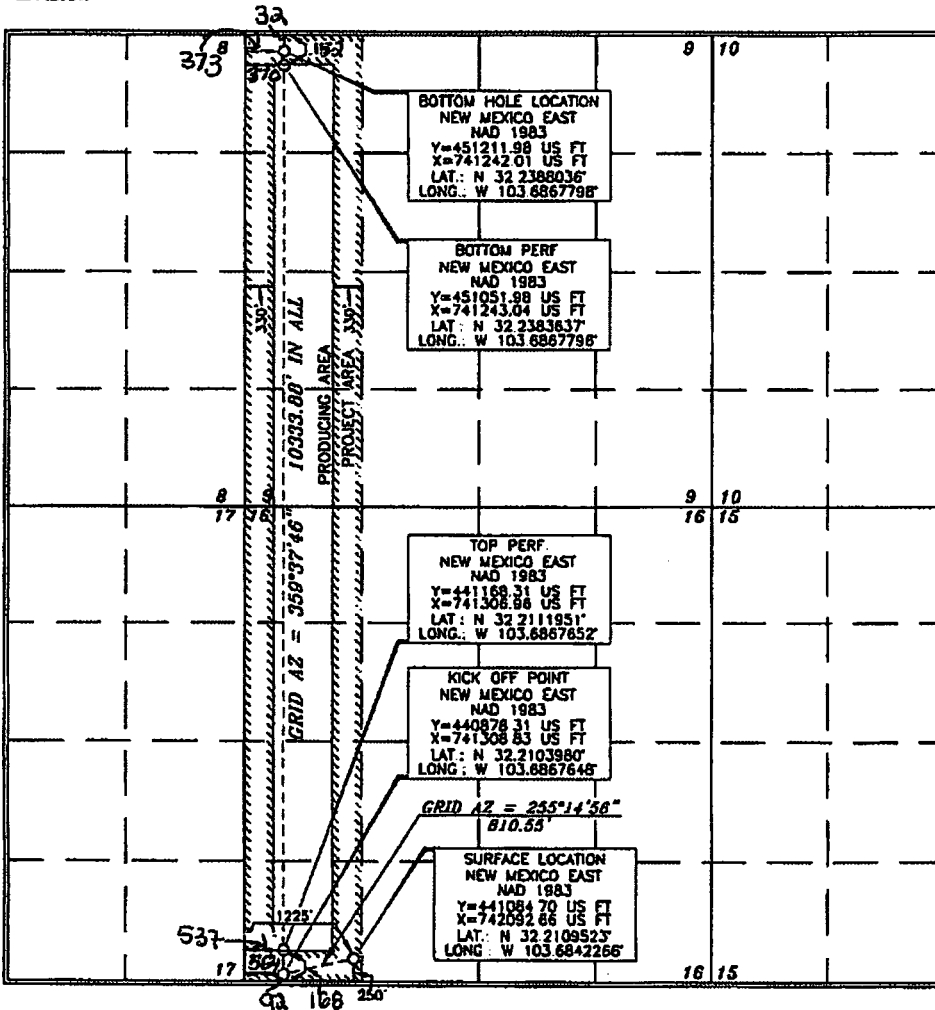
Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	24 SOUTH	32 EAST, N.M.P.M.		250'	SOUTH	1225'	WEST	LEA

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	9	24 SOUTH	32 EAST, N.M.P.M.		32	NORTH	373	WEST	LEA
Dedicated Acres 320	Joint or Infill 4	Consolidation Code	Order No.	TP/FTP: 108' FSL 687' FWL BP/LTP: 152' FNL 370' FWL					

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.



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.
Authorized by the operator:
Leslie Reeves 11/19/18
Date
LESLIE REEVES
Printed Name
LESLIE-REEVES@OXY.COM
E-mail Address

SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.
Date of Survey
15079
JERRY J. ASH
PROFESSIONAL LAND SURVEYOR
Signature and Seal of Professional Surveyor
Jerry Ash 8/11/2017
Certificate Number 15079

WO# 170627WL-o (NA)

1625 N. French Dr., Hobbs, NM 88240
 Phone: (575) 393-6161 Fax: (575) 393-0720
District II
 811 S. First St., Artesia, NM 88210
 Phone: (575) 748-1283 Fax: (575) 748-9720
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AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION AS-DRILLED PLAT

¹ API Number 30-025-48814		² Pool Code 96229		³ Pool Name MESA VERDE; BONE SPRING	
⁴ Property Code 320828		Property Name MESA VERDE BS UNIT			⁶ Well Number 44H
⁷ OGRID No. 16696		⁸ Operator Name OXY USA INC.			⁹ Elevation 3573'

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	16	24S	32E		635	SOUTH	1140	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	9	24S	32E		46	NORTH	450	WEST	LEA

¹² Dedicated Acres 640.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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: 743455.32' / Y: 451409.32'
 B - X: 743491.04' / Y: 446127.13'
 C - X: 743517.24' / Y: 440846.16'
 D - X: 740867.04' / Y: 440825.55'
 E - X: 740853.09' / Y: 443464.67'
 F - X: 740839.15' / Y: 446106.39'
 G - X: 740815.79' / Y: 448747.75'
 H - X: 740800.96' / Y: 451388.55'

CORNER COORDINATES NAD 27, SPCS NM EAST
 A - X: 702271.36' / Y: 451350.33'
 B - X: 702306.86' / Y: 448068.26'
 C - X: 702332.85' / Y: 440787.41'
 D - X: 699882.65' / Y: 440766.80'
 E - X: 699668.81' / Y: 443405.86'
 F - X: 699654.97' / Y: 446047.52'
 G - X: 699631.73' / Y: 448688.81'
 H - X: 699617.01' / Y: 451329.55'

BOTTOM HOLE LOCATION
 46' FNL 450' FWL, SECTION 9
 20152' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
 X: 741251.34' / Y: 451345.72'
 LAT: 32.23917102N / LON: 103.68674704W
NAD 27, SPCS NM EAST
 X: 700067.39' / Y: 451286.72'
 LAT: 32.23904749N / LON: 103.68626520W

LAST TAKE POINT
 205' FNL 453' FWL, SECTION 9
 19993' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
 X: 741255.50' / Y: 451187.24'
 LAT: 32.23873534N / LON: 103.68673667W
NAD 27, SPCS NM EAST
 X: 700071.54' / Y: 451128.24'
 LAT: 32.23861180N / LON: 103.68625486W

FIRST TAKE POINT
 142' FSL 426' FWL, SECTION 16
 9767' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
 X: 741292.53' / Y: 440970.96'
 LAT: 32.21065292N / LON: 103.68681573W
NAD 27, SPCS NM EAST
 X: 700108.14' / Y: 440912.21'
 LAT: 32.21052916N / LON: 103.68623543W

KICK OFF POINT
 214' FNL 525' FWL, SECTION 21
 8952' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
 X: 741392.90' / Y: 440615.51'
 LAT: 32.20967422N / LON: 103.68649813W
NAD 27, SPCS NM EAST
 X: 700208.50' / Y: 440556.77'
 LAT: 32.20955046N / LON: 103.68601789W

SURFACE HOLE LOCATION
 635' FSL 1140 FWL, SECTION 16
 0' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
 X: 742005.47' / Y: 441469.00'
 LAT: 32.21201009N / LON: 103.68450097W
NAD 27, SPCS NM EAST
 X: 700821.10' / Y: 441410.24'
 LAT: 32.21188634N / LON: 103.68402066W

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: Date: **1/24/23**

JANA MENDIOLA
 Printed Name
janalyn_mendiola@oxy.com
 E-mail Address

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.

JANUARY 23, 2023
 Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number
LOYD P. SHORT 21653

Distances/areas relative to NAD 83 Combined Scale Factor: 0.9990013 Convergence Angle: 0.68792778

1625 N. French Dr., Hobbs, NM 88240
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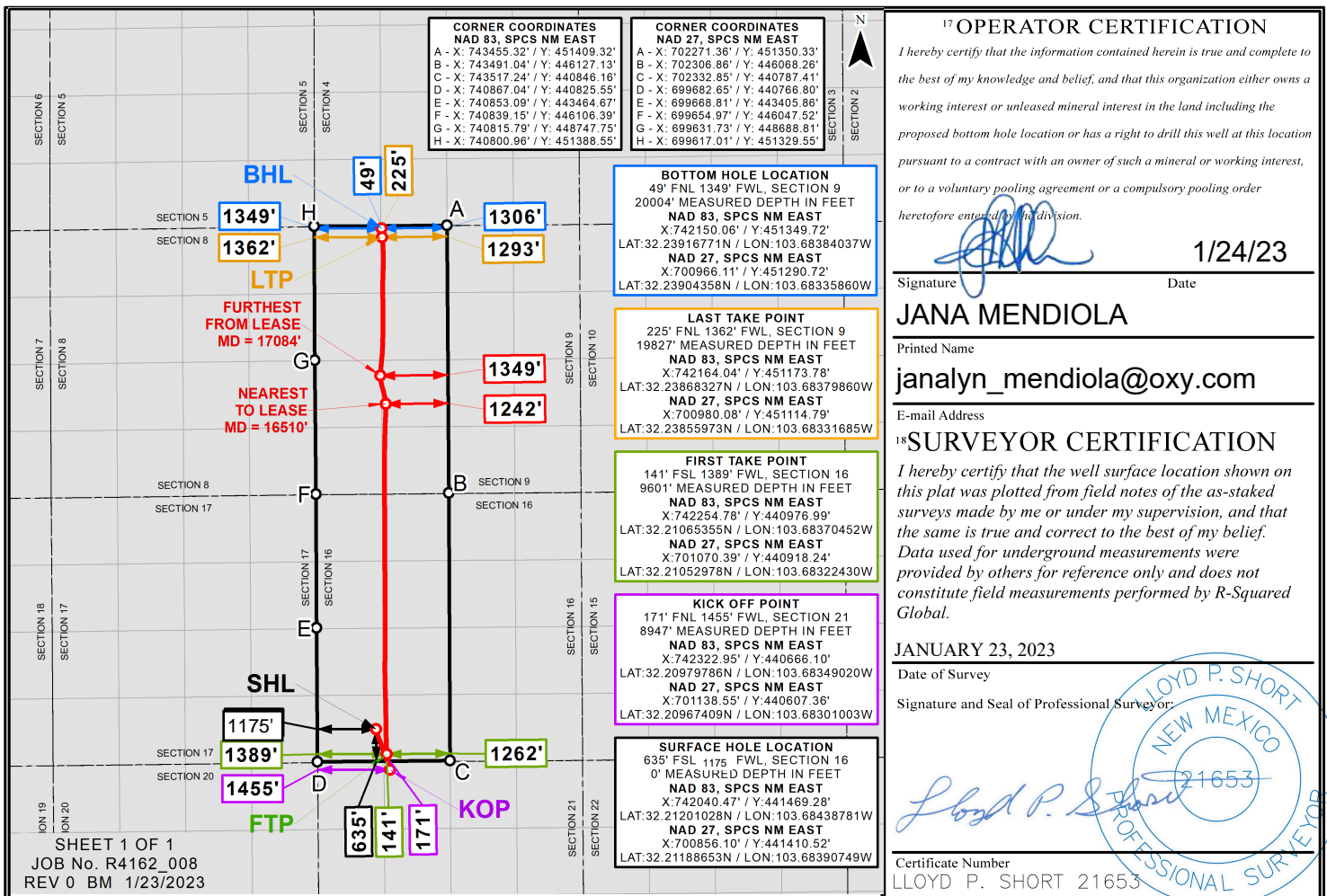
WELL LOCATION AND ACREAGE DEDICATION AS-DRILLED PLAT

¹ API Number 30-025-48815		² Pool Code 96229		³ Pool Name MESA VERDE; BONE SPRING	
⁴ Property Code 320828		Property Name MESA VERDE BS UNIT			⁶ Well Number 45H
⁷ OGRID No. 16696		⁸ Operator Name OXY USA INC.			⁹ Elevation 3572'

¹⁰ Surface Location

UL or lot no. M	Section 16	Township 24S	Range 32E	Lot Idn	Feet from the 635	North/South line SOUTH	Feet from the 1175	East/West line WEST	County LEA
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. C	Section 9	Township 24S	Range 32E	Lot Idn	Feet from the 49	North/South line NORTH	Feet from the 1349	East/West line WEST	County 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: 0.9990013 Convergence Angle: 0.68792778

1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos 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

Revised August 1, 2011
Submit one copy to appropriate
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION AS-DRILLED PLAT

¹ API Number 30-025-48816		² Pool Code 96229		³ Pool Name MESA VERDE; BONE SRPING	
⁴ Property Code 320828		Property Name MESA VERDE BS UNIT			⁶ Well Number 46H
⁷ OGRID No. 16696		⁸ Operator Name OXY USA INC.			⁹ Elevation 3573'

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	16	24S	32E		635	SOUTH	1210	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	9	24S	32E		44	NORTH	2301	WEST	LEA

¹² Dedicated Acres 640.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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: 743455.32 / Y: 451409.32'
B - X: 743491.04 / Y: 446127.13'
C - X: 743517.24 / Y: 440846.16'
D - X: 740867.04 / Y: 440825.55'
E - X: 740853.09 / Y: 443464.67'
F - X: 740839.15 / Y: 446106.39'
G - X: 740815.79 / Y: 448747.75'
H - X: 740800.96 / Y: 451388.55'

CORNER COORDINATES NAD 27, SPCS NM EAST
A - X: 702271.36 / Y: 451350.33'
B - X: 702306.86 / Y: 446068.26'
C - X: 702332.85 / Y: 440787.41'
D - X: 699682.65 / Y: 440766.80'
E - X: 699668.81 / Y: 443405.86'
F - X: 699654.97 / Y: 446047.52'
G - X: 699631.73 / Y: 443668.81'
H - X: 699617.01 / Y: 451329.55'

BOTTOM HOLE LOCATION
44' FNL 2301' FWL, SECTION 9
20496' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X: 743102.03 / Y: 451362.82'
LAT: 32.23918726N / LON: 103.68076130W
NAD 27, SPCS NM EAST
X: 701918.07 / Y: 451303.82'
LAT: 32.23906372N / LON: 103.68027960W

LAST TAKE POINT
204' FNL 2301' FWL, SECTION 9
20336' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X: 743102.83 / Y: 451202.83'
LAT: 32.23874748N / LON: 103.68076186W
NAD 27, SPCS NM EAST
X: 701918.87 / Y: 451143.84'
LAT: 32.23862393N / LON: 103.68028018W

FIRST TAKE POINT
139' FSL 2261' FWL, SECTION 16
10110' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X: 743126.90 / Y: 440982.31'
LAT: 32.21065365N / LON: 103.68088474W
NAD 27, SPCS NM EAST
X: 701942.51 / Y: 440923.56'
LAT: 32.21052988N / LON: 103.68040459W

KICK OFF POINT
222' FNL 2134' FWL, SECTION 21
9326' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X: 743002.24 / Y: 440620.30'
LAT: 32.20956096N / LON: 103.68129488W
NAD 27, SPCS NM EAST
X: 701817.83 / Y: 440561.56'
LAT: 32.20953688N / LON: 103.68081477W

SURFACE HOLE LOCATION
635' FSL 1210' FWL, SECTION 16
0' MEASURED DEPTH IN FEET
NAD 83, SPCS NM EAST
X: 742075.47 / Y: 441469.57'
LAT: 32.21201050N / LON: 103.68427464W
NAD 27, SPCS NM EAST
X: 700891.10 / Y: 441410.81'
LAT: 32.21188674N / LON: 103.68379433W

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]
Date: **1/24/23**

Signature: _____ Date: _____

JANA MENDIOLA
Printed Name
janalyn_mendiola@oxy.com
E-mail Address

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.

DATE: **JANUARY 23, 2023**
Date of Survey

[Signature]
Signature and Seal of Professional Surveyor

LOYD P. SHORT
Professional Surveyor
21653

Certificate Number
LOYD P. SHORT 21653

Distances/areas relative to NAD 83 Combined Scale Factor: 0.9990013 Convergence Angle: 0.68792778

PLANNED HSU

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-6170
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
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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

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-	Pool Code 96229	Pool Name MESA VERDE; BONE SPRING
Property Code 320828	Property Name MESA VERDE BS UNIT	Well Number 73H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3568.0'

Surface Location

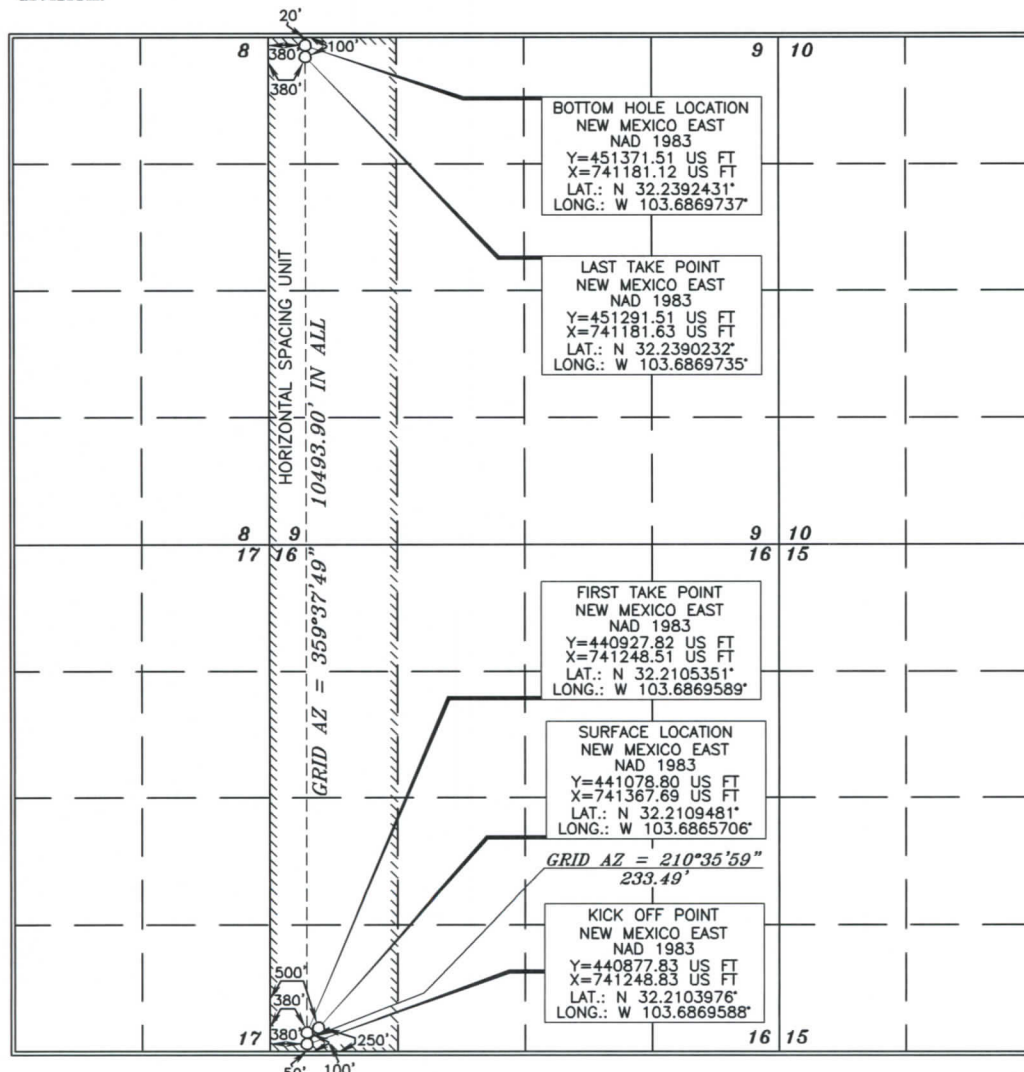
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	24 SOUTH	32 EAST, N.M.P.M.		250'	SOUTH	500'	WEST	LEA

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	9	24 SOUTH	32 EAST, N.M.P.M.		20'	NORTH	380'	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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.



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.

Leslie Reeves 12/13/19
Signature Date

LESLIE REEVES
Printed Name
LESLIE_REEVES@OXY.COM
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JUNE 25, 2019
Date of Survey

Jerry G. Reed
Signature and Seal of Professional Surveyor

Certificate Number 15079

WO# 190625WL-a (KA)

PLANNED HSU

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
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State of New Mexico
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Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
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AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-		Pool Code 96229	Pool Name MESA VERDE; BONE SPRING
Property Code 320828	Property Name MESA VERDE BS UNIT		Well Number 74H
OGRID No. 16696	Operator Name OXY USA INC.		Elevation 3568.2'

Surface Location

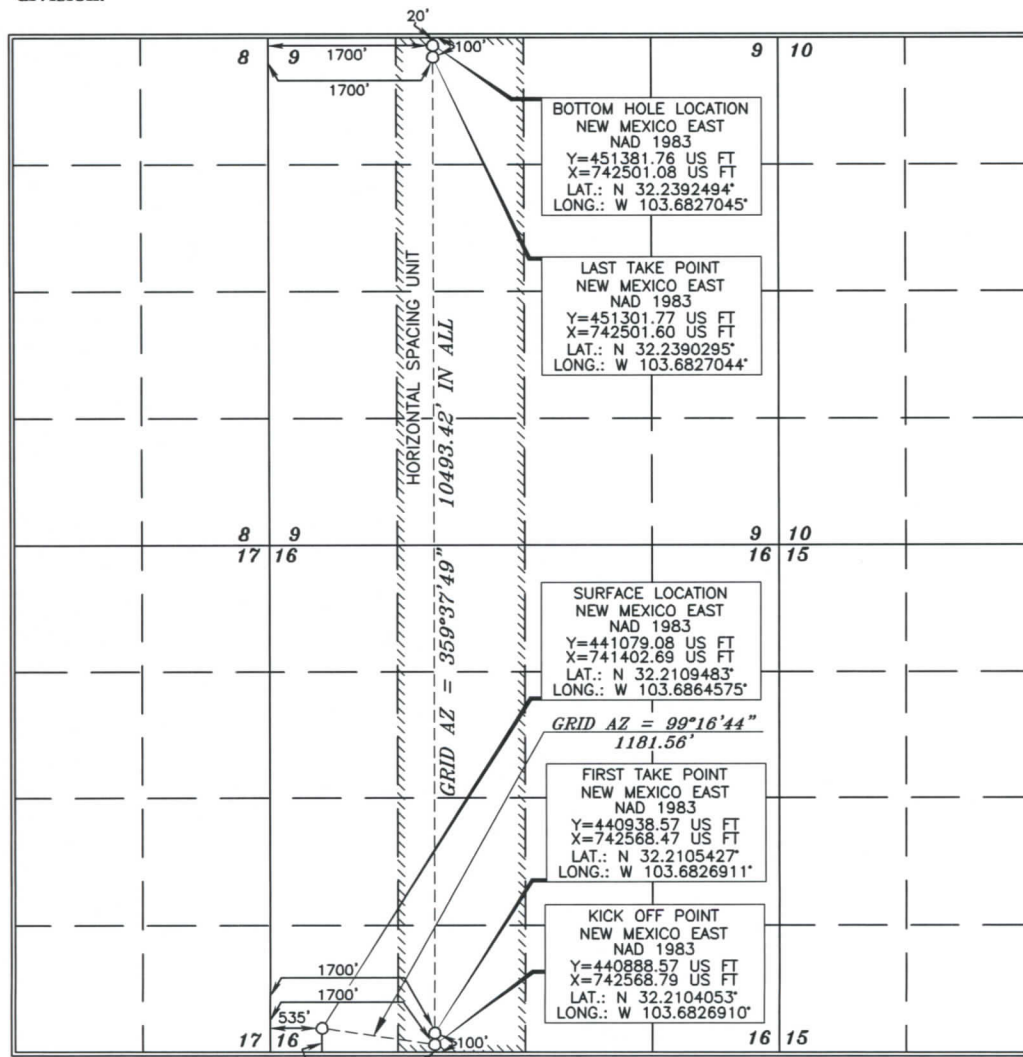
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	24 SOUTH	32 EAST, N.M.P.M.		250'	SOUTH	535'	WEST	LEA

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	9	24 SOUTH	32 EAST, N.M.P.M.		20'	NORTH	1700'	WEST	LEA

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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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.



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.

Leslie Reeves 12/16/19
Signature Date
LESLIE REEVES
Printed Name
LESLIE_REEVES@OXY.COM
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Terry J. Asst 15079
Date of Survey
JUNE 26, 2019
Signature and Seal of Professional Surveyor

Terry J. Asst 7/10/2019
Certificate Number 15079

WO# 190626WL-a (KA)

Side 1

OPERATOR: OXY USA INC

WELL NAME & NUMBER: MESA VERDE BONE SPRING UNIT 1H

API 30-025-44101

WELL LOCATION: 271' FSL 245' FEL
FOOTAGE LOCATION

P
UNIT LETTER

17
SECTION

24S
TOWNSHIP

32E
RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA
Surface Casing

Wellbore Hole OD-17.5000
13 3/8" CSA 949'
CMT CIRC TO SURFACE

TDC @ 4000'

Wellbore Hole OD-12.250
9 5/8" CSG Window from 6986 - 7003'
Circ Cmt to Surface

2 7/8" Tbg
PKR SA 3000'

Wellbore Hole OD-8.500
5 1/2" 23# HCP-110 to 19,350"
TDC @ 4000'

Hole Size: 17.5" Casing Size: 13-3/8"

Cemented with: 1264 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRC

Intermediate Casing

Hole Size: 12.25" Casing Size: 9-5/8"

Cemented with: 5905 sx. *or* _____ ft³

Top of Cement: 1985' Method Determined: CALC

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 2621 sx. *or* _____ ft³

Top of Cement: 4000' Method Determined: CBL

Total Depth: 19,350' MD/9290' TVD

Injection Interval

9451' MD/9247' TVD feet to 19,251' MD/9290' TVD

(Perforated or Open Hole; indicate which)

Side 2

PERF

Tubing Size: 2-7/8" Lining Material: _____

Type of Packer: ARROWSET PACKER 5.5"

Packer Setting Depth: 9065' MD/8970' TVD

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

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

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

PRODUCER-OIL

2. Name of the Injection Formation: AVALON

3. Name of Field or Pool (if applicable): [96229] MESA VERDE; BONE SPRING

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: _____

BRUSHY CANYON 6850' MD

WOLFCAMP 12150' MD

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

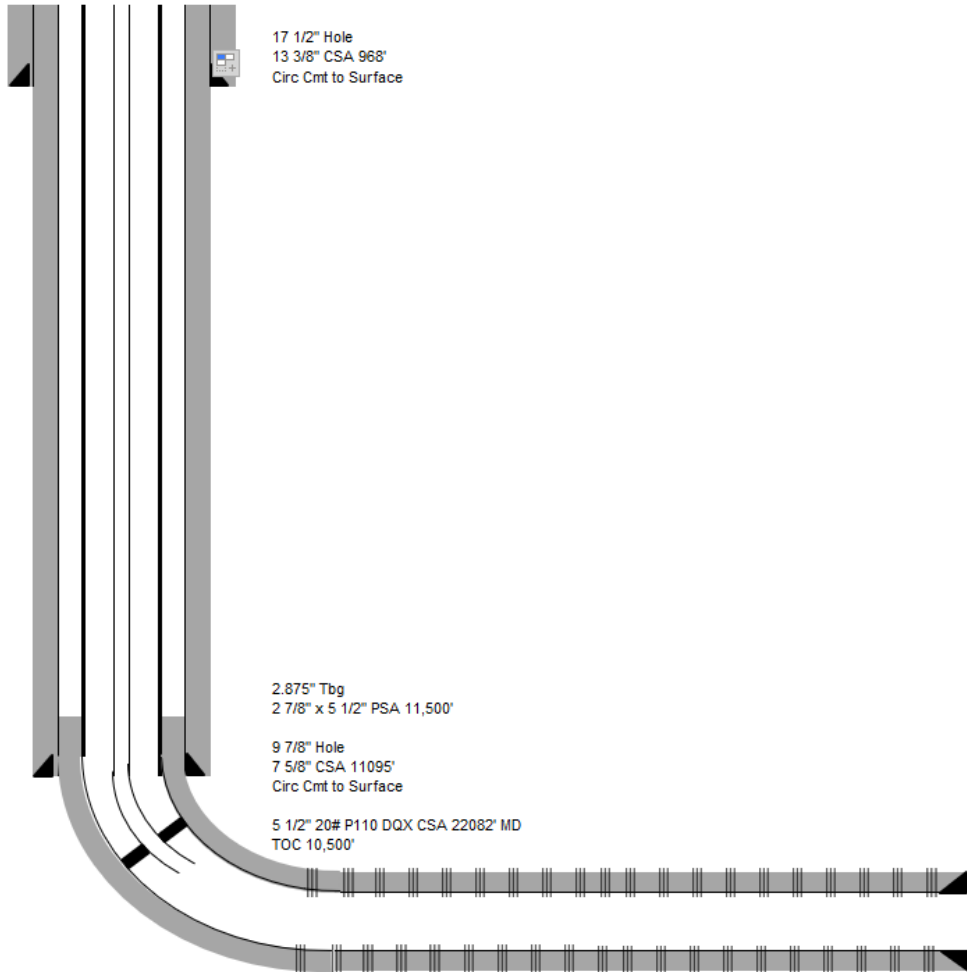
WELL NAME & NUMBER: Mesa Verde BS Unit #2H API 30-025-44196

WELL LOCATION: SWSE/240 FSL / 1614 FEL O 17 T24S R32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 17.5" Casing Size: 13.375"

Cemented with: 1202 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 2624 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 846 sx. *or* _____ ft³

Top of Cement: 10,500' Method Determined: Calc

Total Depth: 22,082 Total Vertical Depth: 11,860'

Injection Interval MD/TVD

12,165' MD / 1 1,817' TVD feet to 21,915' MD / 11,860' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 11,500' MD / 11,593 TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

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

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

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

WELL NAME & NUMBER: Mesa Verde BS Unit #3H API 30-025-44183

WELL LOCATION: 240 FSL / 1644 FEL O 17 T24S R32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.5" Casing Size: 13.375"
 Cemented with: 1220 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"
 Cemented with: 2399 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined: Circulated

Production Casing

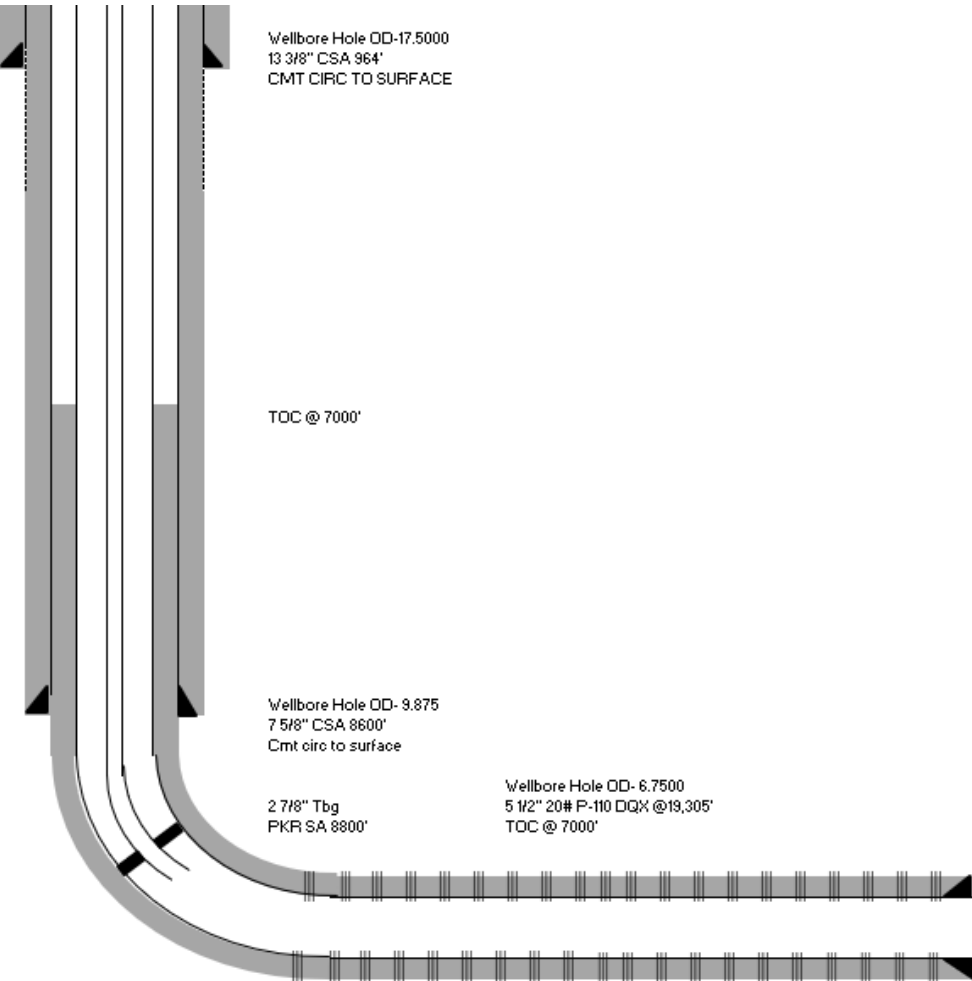
Hole Size: 6.75" Casing Size: 5.5"
 Cemented with: 826 sx. *or* _____ ft³
 Top of Cement: 7000' Method Determined: Calc

Total Depth: 19,305' Total Vertical Depth: 9,125'

Injection Interval MD/TVD

9,252' MD / 9,075' TVD feet to 19,155' MD / 9,125' TVD

(Perforated or Open Hole; indicate which)



Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 8,800' MD / 8,750' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

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

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

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

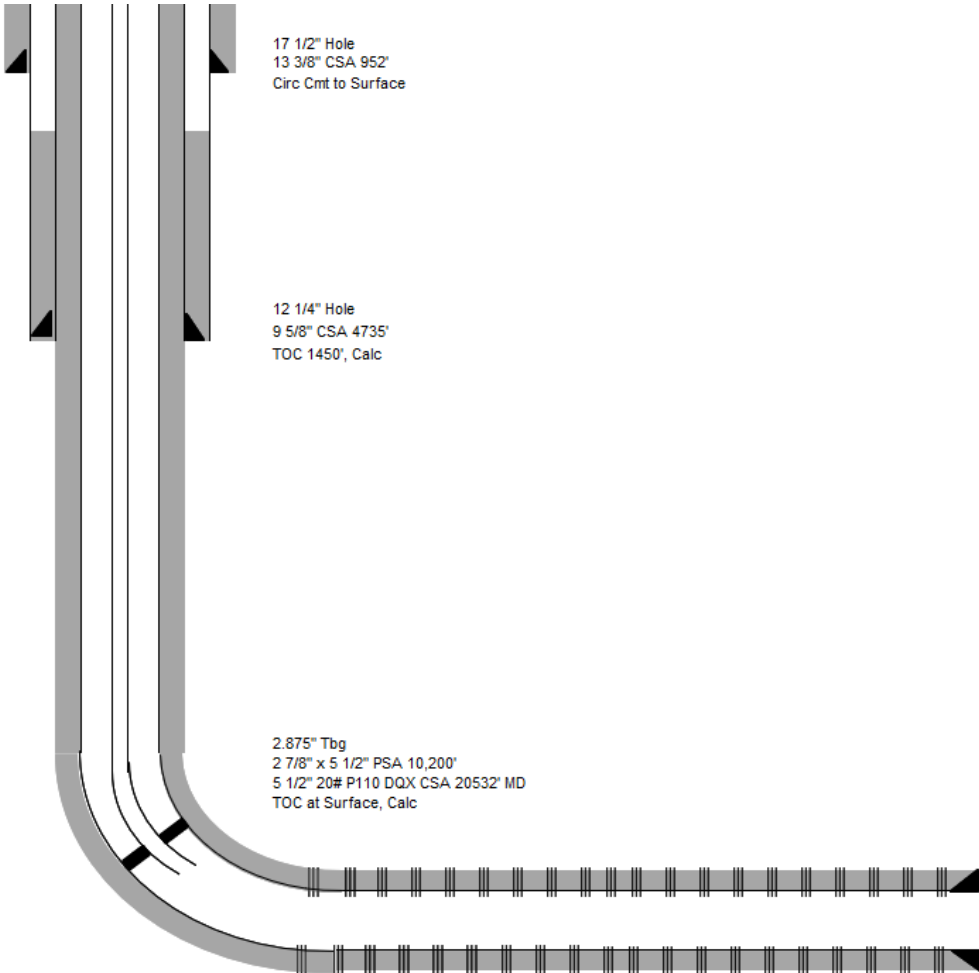
WELL NAME & NUMBER: Mesa Verde BS Unit #4H API 30-025-44064

WELL LOCATION: 280 FSL / 965 FEL O 17 T24S R32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 17.5" Casing Size: 13.375"
 Cemented with: 1712 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625"
 Cemented with: 2060 sx. *or* _____ ft³
 Top of Cement: 1450 Method Determined: Calc

Production Casing

Hole Size: 8.5" Casing Size: 5.5"
 Cemented with: 3050 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined: Calc

Total Depth: 20,490' Total Vertical Depth: 10,446'

Injection Interval MD/TVD

10,483' MD / 10,350' TVD feet to 20,385' MD / 10,447' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 10,200' MD / 10,200' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

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

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

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

WELL NAME & NUMBER: Mesa Verde BS Unit #5H API 30-025-44185

WELL LOCATION: 280 FSL / 995 FEL p 17 T24S R32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.5" Casing Size: 13.375"
 Cemented with: 1245 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625"
 Cemented with: 1290 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined: Circulated

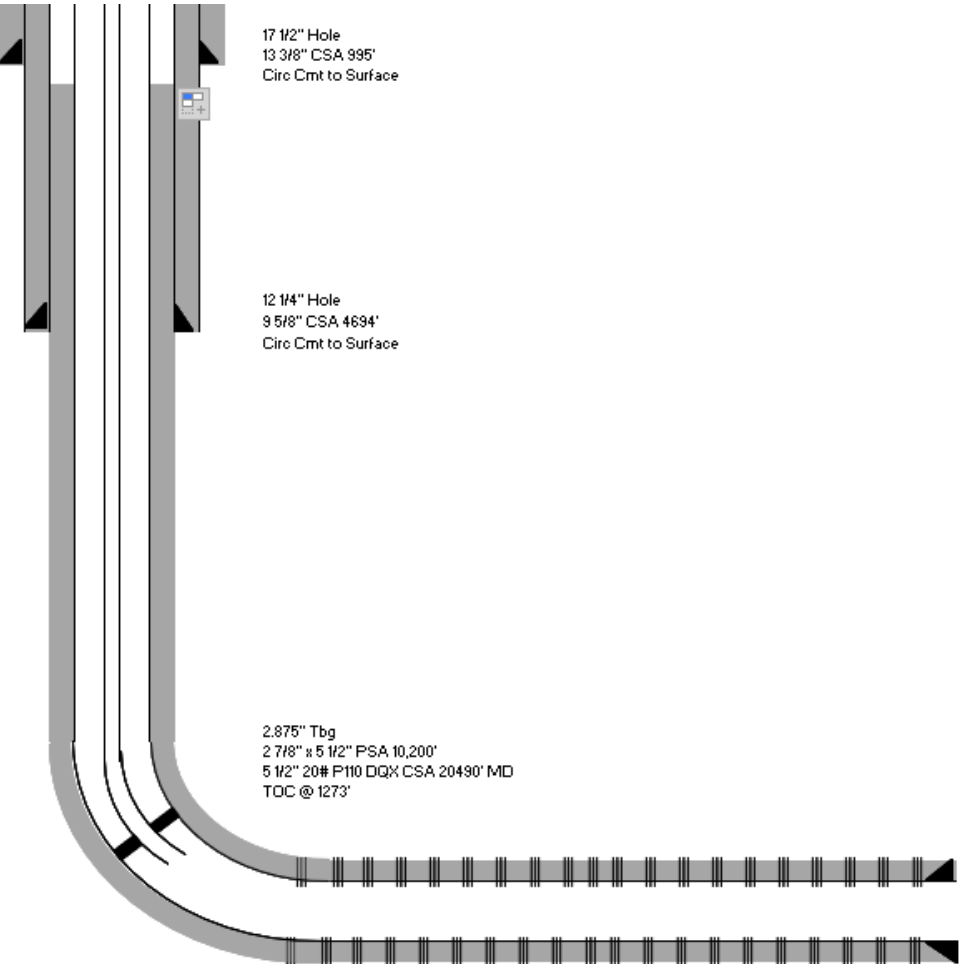
Production Casing

Hole Size: 8.5" Casing Size: 5.5"
 Cemented with: 2895 sx. *or* _____ ft³
 Top of Cement: 1273' Method Determined: Echo Meter
 Total Depth: 20,505' Total Vertical Depth: 10,449'

Injection Interval MD/TVD

10,441' MD / 10,342' TVD feet to 20,343' MD / 10,449' TVD

(Perforated or Open Hole; indicate which)



Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 10,200' MD / 10,200' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

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

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

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

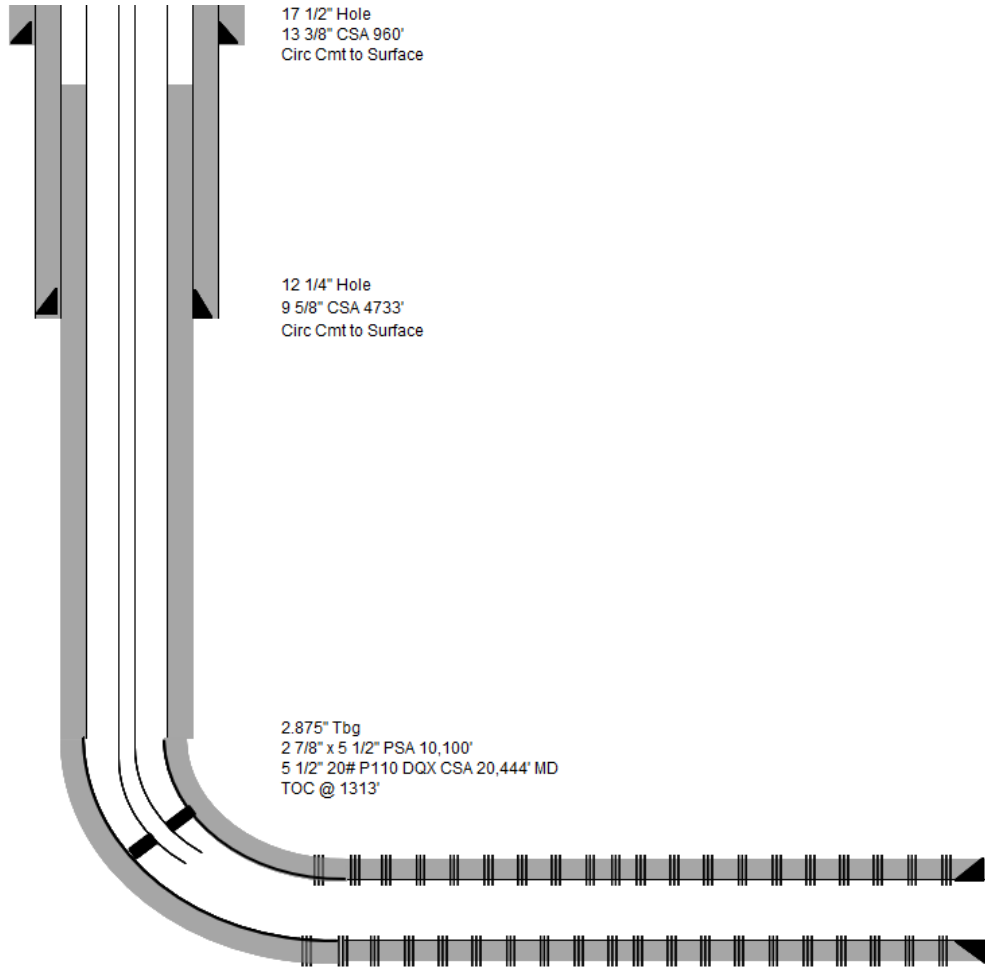
WELL NAME & NUMBER: Mesa Verde BS Unit #6H API 30-025-44042

WELL LOCATION: 280 FSL / 2624 FEL O 17 T24S R32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 17.5" Casing Size: 13.375"
 Cemented with: 1240 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625"
 Cemented with: 1300 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 8.5" Casing Size: 5.5"
 Cemented with: 2970 sx. *or* _____ ft³
 Top of Cement: 1312' Method Determined: Echo Meter
 Total Depth: 20,444 Total Vertical Depth: 10,411'

Injection Interval MD/TVD

10,539' MD / 10,340' TVD feet to 20,224' MD / 10,000' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 10,200' MD / 10,100' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

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

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

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

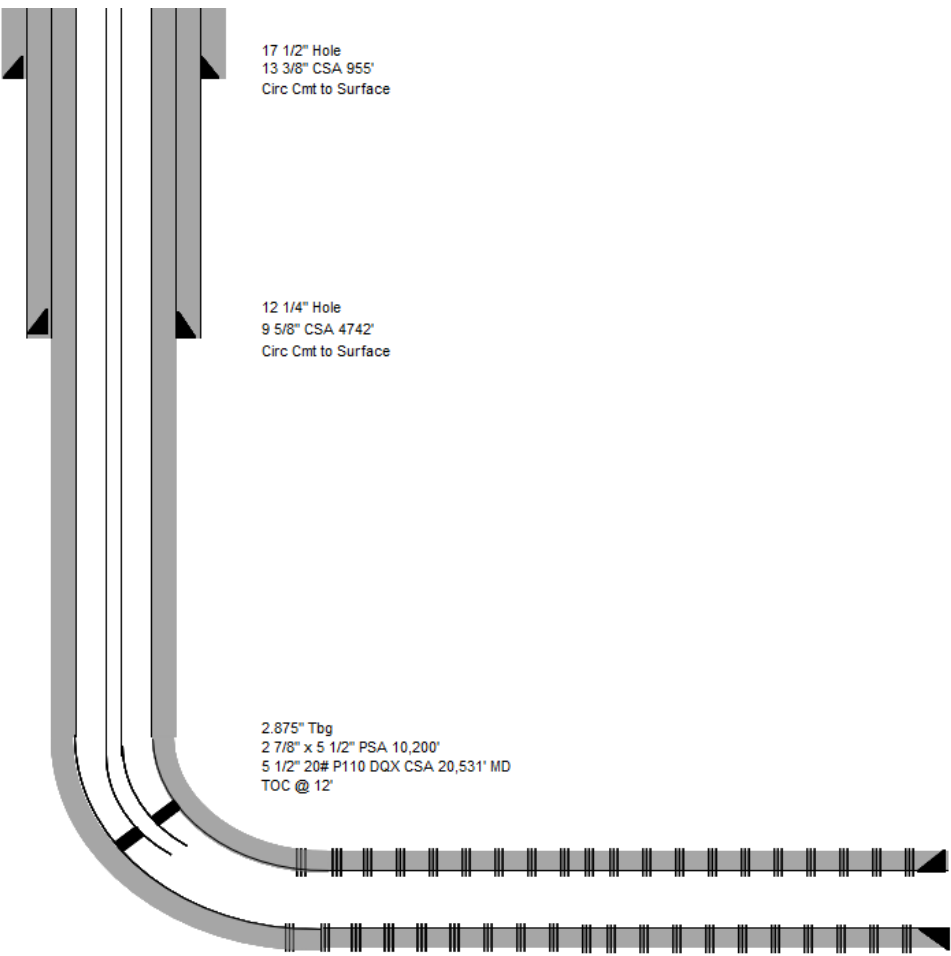
WELL NAME & NUMBER: Mesa Verde BS Unit #7H API 30-025-44065

WELL LOCATION: 280 FSL / 2626 FWL N 17 T24S R32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 17.5" Casing Size: 13.375"

Cemented with: 1240 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625"

Cemented with: 1300 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 8.5" Casing Size: 5.5"

Cemented with: 2965 sx. *or* _____ ft³

Top of Cement: 12' Method Determined: Echo Meter

Total Depth: 20,531' Total Vertical Depth: 10,429'

Injection Interval MD/TVD

10,619 MD / 10,364' TVD feet to 20,371' MD / 10,428' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 10,200' MD / 10,100' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

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

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

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

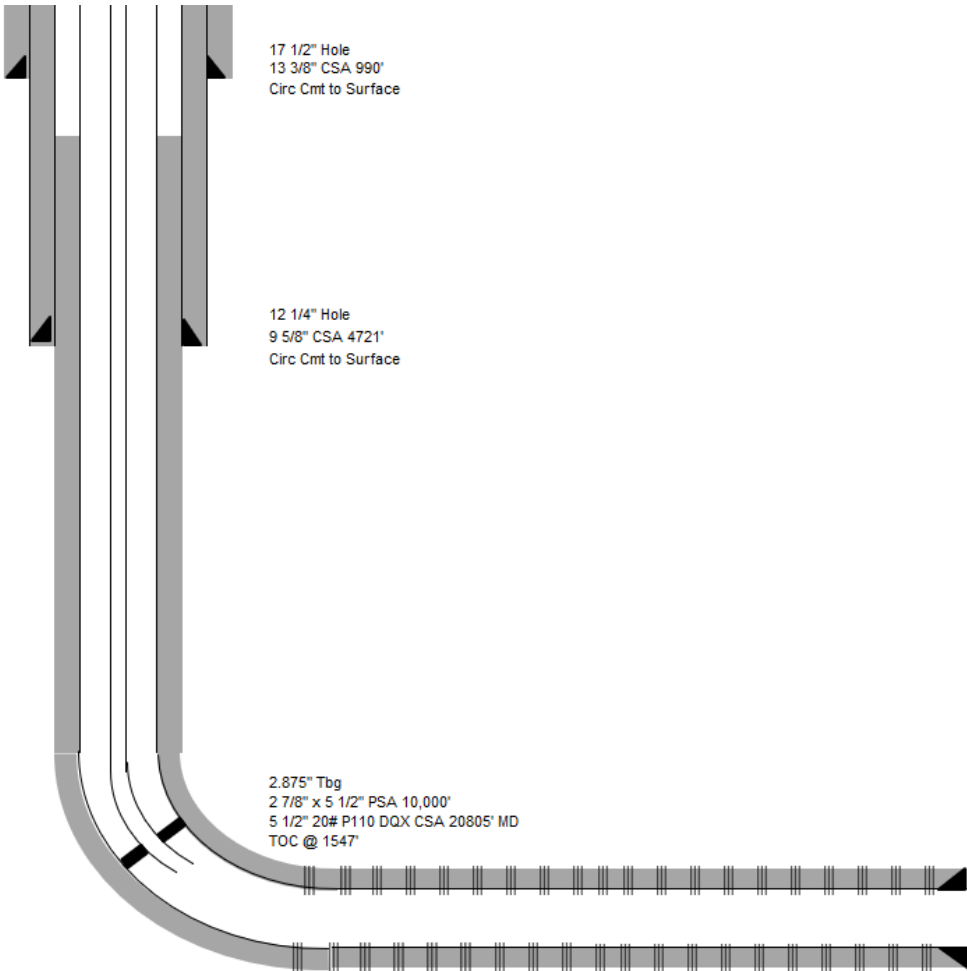
WELL NAME & NUMBER: Mesa Verde BS Unit #22H API 30-025-44559

WELL LOCATION: 250 FSL / 1285 FWL M 16 T24S R32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 17.5" Casing Size: 13.375"

Cemented with: 1254 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625"

Cemented with: 1565 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 8.5" Casing Size: 5.5"

Cemented with: 2980 sx. *or* _____ ft³

Top of Cement: 1547' Method Determined: CBL

Total Depth: 20,805 Total Vertical Depth: 10,522'

Injection Interval MD/TVD

10,616 MD / 10,425 TVD feet to 20,668' MD / 10,520' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 10,000' MD / 9,941' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

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

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

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

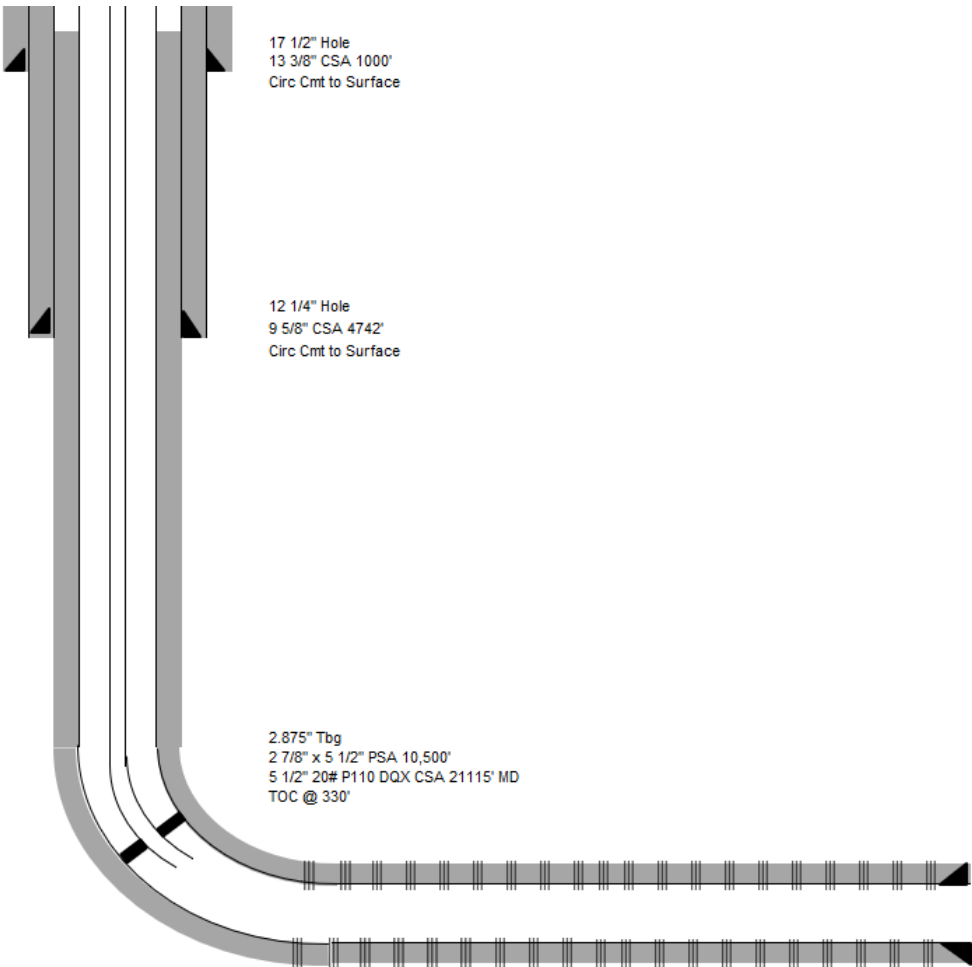
WELL NAME & NUMBER: Mesa Verde BS Unit #23H API 30-025-44560

WELL LOCATION: 250 FSL / 1255 FWL M 16 T24S R32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 17.5" Casing Size: 13.375"
 Cemented with: 1254 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625"
 Cemented with: 1705 sx. *or* _____ ft³
 Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 8.5" Casing Size: 5.5"
 Cemented with: 2965 sx. *or* _____ ft³
 Top of Cement: 330' Method Determined: Echometer
 Total Depth: 21,115' Total Vertical Depth: 10,812'

Injection Interval MD/TVD

10,648 MD / 10,630' TVD feet to 21,002' MD / 10,809' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 10,500' MD / 10,482' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

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

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

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

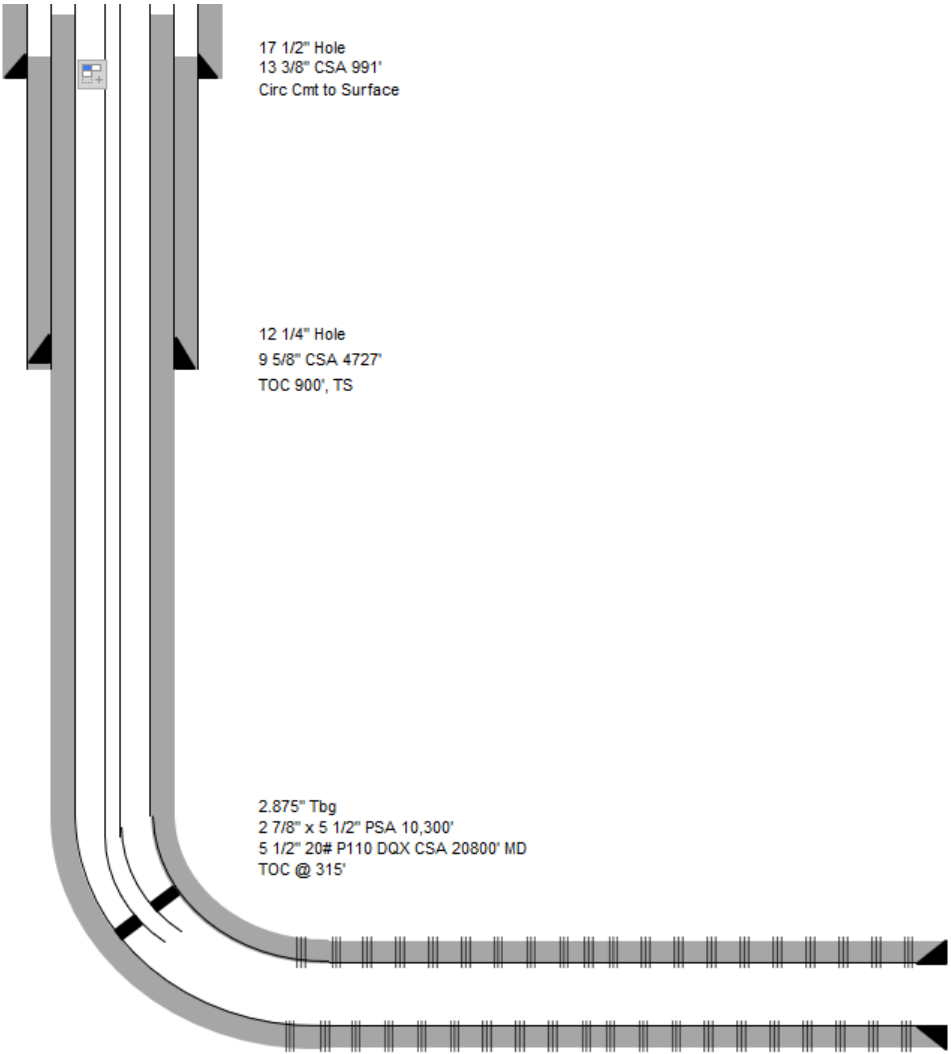
WELL NAME & NUMBER: Mesa Verde BS Unit #24H API 30-025-44561

WELL LOCATION: 250 FSL / 1225 FWL M 16 T24S R32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 17.5" Casing Size: 13.375"

Cemented with: 1254 sx. **or** _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625"

Cemented with: 1430 sx. **or** _____ ft³

Top of Cement: 900' Method Determined: Temp Survey

Production Casing

Hole Size: 8.5" Casing Size: 5.5"

Cemented with: 3095 sx. **or** _____ ft³

Top of Cement: 315' Method Determined: Echometer

Total Depth: 20,800' Total Vertical Depth: 10,426'

Injection Interval MD/TVD

10,338' MD / 10,230' TVD feet to 20,692' MD / 10,426' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 10,300' MD / 10,214' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

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

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

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

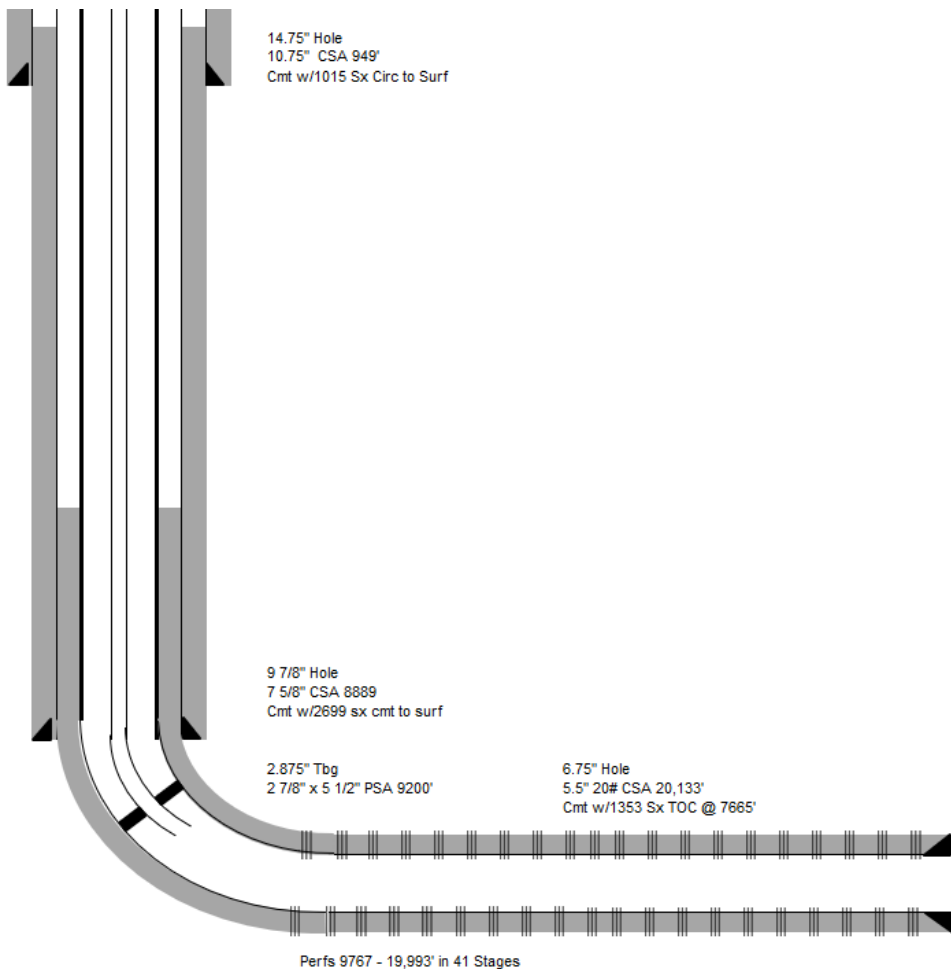
INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

WELL NAME & NUMBER: Mesa Verde BS Unit #44H API 30-025-08814

WELL LOCATION: 635FSL / 1140 FWL M 16 24S 32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 14.75" Casing Size: 10.75"
 Cemented with: 1015 sx. **or** _____ ft³
 Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"
 Cemented with: 2699 sx. **or** _____ ft³
 Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"
 Cemented with: 1353 sx. **or** _____ ft³
 Top of Cement: 7665' Method Determined: Echometer
 Total Depth: 20,152' Total Vertical Depth: 9,326'

Injection Interval MD/TVD

9,767' MD / 9453.7' TVD feet to 19,993' MD / 9325.3' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 9,500' MD / 9,305' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

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

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

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

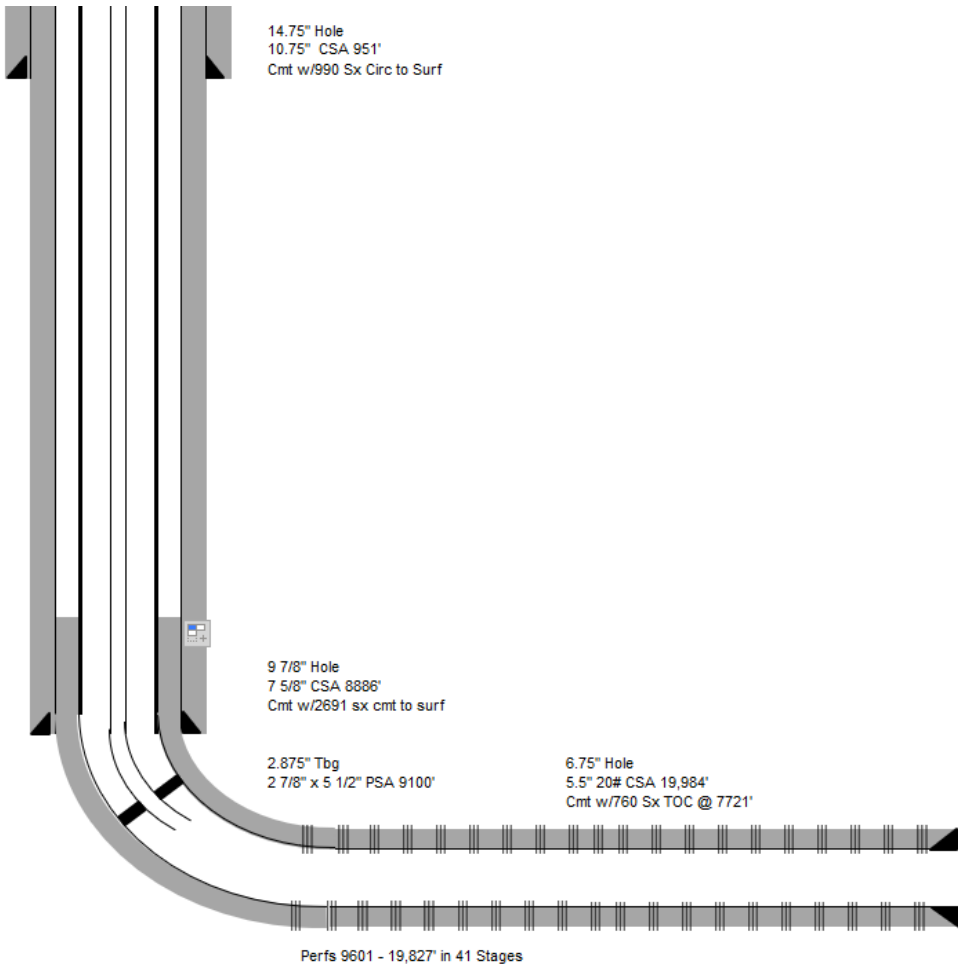
WELL NAME & NUMBER: MESA VERDE BONE SPRING UNIT #045H API 30-025-48815

WELL LOCATION: 635 FSL 1175 FWL M 16 24S 32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 990 sx. **or** _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 2691 sx. **or** _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 817 sx. **or** _____ ft³

Top of Cement: 7721' Method Determined: Echometer

Total Depth: 20,004' Total Vertical Depth: 9287'

Injection Interval MD/TVD

9601' MD / 9377.6' TVD feet to 19,827' MD / 9289.6' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 9,500' MD / 9,305' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

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

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

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

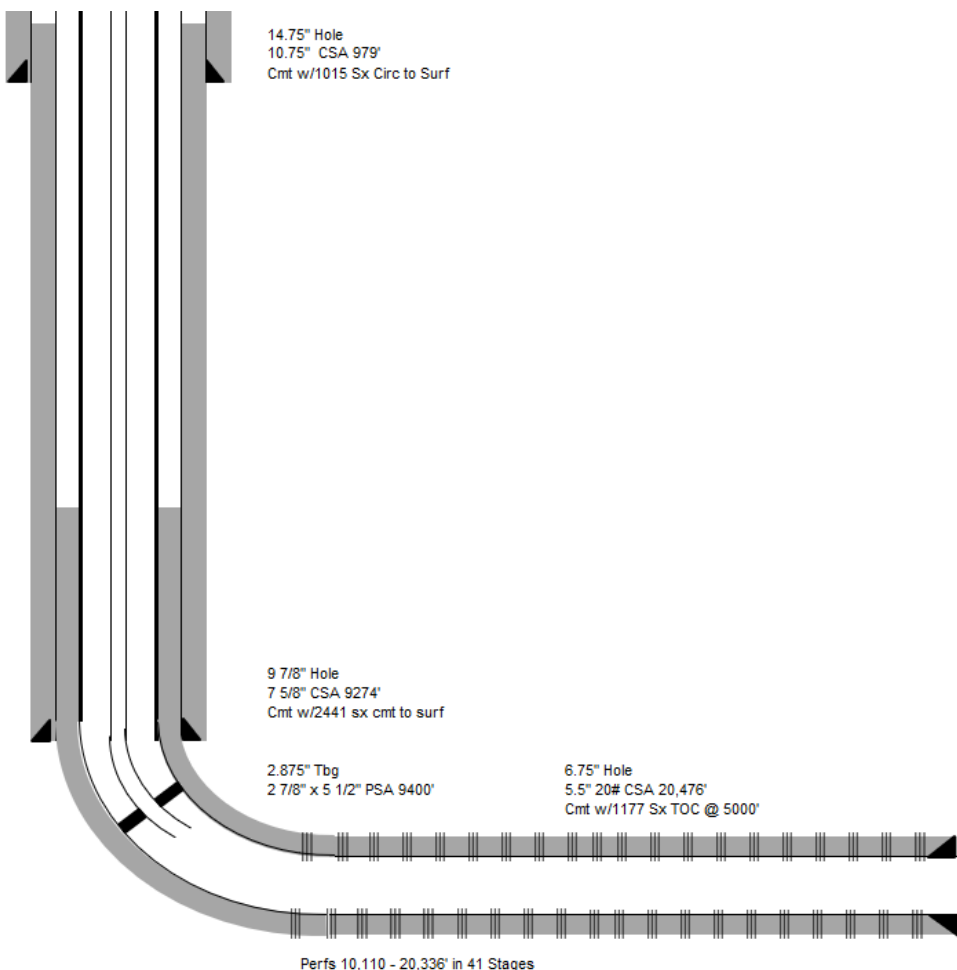
WELL NAME & NUMBER: MESA VERDE BONE SPRING UNIT #046H API 30-025-48816

WELL LOCATION: 635 FSL / 1210 FWL M 16 24S 32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 1015 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 2441 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.750" Casing Size: 5.5"

Cemented with: 1177 sx. *or* _____ ft³

Top of Cement: 5000' Method Determined: Theory

Total Depth: 20,476' Total Vertical Depth: 9742.3'

Injection Interval MD/TVD

10,110' MD / 9752.7' TVD feet to 20,336' MD / 9742.3' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 9700' MD / 9504.8' TVD (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

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

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

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

NOTE- SPUD LATE 2024. PENDING COMPLETION REPORT FILING. INFO BASED OFF APD.

OPERATOR: OXY USA INC

WELL NAME & NUMBER: MESA VERDE BONE SPRING UNIT 73H

API 30-025-48818

WELL LOCATION: 250 FSL, 500 FWL

M

17

24S

32E

FOOTAGE LOCATION

UNIT LETTER

SECTION

TOWNSHIP

RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 964 sx. **or** _____ ft³

Top of Cement: SURFACE Method Determined: PROPOSED

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 1515 sx. **or** _____ ft³

Top of Cement: SURFACE Method Determined: PROPOSED

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 620 sx. **or** _____ ft³

Top of Cement: 9711' Method Determined: PROPOSED

Total Depth: 20654' MD/9820' TVD

Injection Interval

NOT YET COMPLETED feet to NOT YET COMPLETED

(Perforated or Open Hole; indicate which)

14.75" Hole
10.75" CSA 964'
Cmt w/806 SX CMT, PLANNED CMT TO SURFACE

9 7/8" Hole
7 5/8" CSA 10,211'
Cmt w/1515 SX CMT, PLANNED CMT TO SURFACE

6.75" Hole
5.5" 20# CSA 20,654'
Cmt w/620 SX CMT, PLANNED CMT TO 9711'

PERFS NOT COMPLETED

Side 2

PERF

Tubing Size: 2-7/8" Lining Material: _____

Type of Packer: ARROWSET PACKER 5.5"

Packer Setting Depth: NOT YET COMPLETED

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

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

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

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

3. Name of Field or Pool (if applicable): [96229] MESA VERDE; BONE SPRING

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: _____

BRUSHY CANYON 6850' MD

WOLFCAMP 12150' MD

NOTE- WELL SPUD LATE 2024. PENDING COMPLETION REPORT FILING. INFO BASED OFF APD.

OPERATOR: OXY USA INC

WELL NAME & NUMBER: MESA VERDE BONE SPRING UNIT 74H

API 30-025-48819

WELL LOCATION: 250 FSL, 535 FWL

M

17

24S

32E

FOOTAGE LOCATION

UNIT LETTER

SECTION

TOWNSHIP

RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

14.75" Hole
10.75" CSA 1167'
Cmt w/821 Sx, PLANNED CMT TO SURFACE

Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 821 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: PROPOSED

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 1770 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: PROPOSED

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 647 sx. *or* _____ ft³

Top of Cement: 10260' Method Determined: PROPOSED

Total Depth: 22074' MD/11129' TVD

Injection Interval

NOT YET COMPLETED feet to NOT YET COMPLETED

(Perforated or Open Hole; indicate which)

9 7/8" Hole
7 5/8" CSA 10,760'
Cmt w/1770 SX, PLANNED CMT TO SURFACE

6.75" Hole
5.5" 20# CSA 22,074'
Cmt w/647 SX CMT, PLANNED TOC 10,260'

PERFS NOT YET COMPLETED

Side 2

PERF

Tubing Size: 2-7/8" Lining Material: _____

Type of Packer: ARROWSET PACKER 5.5"

Packer Setting Depth: NOT YET COMPLETED

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

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

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

2. Name of the Injection Formation: 3RD BONE SPRING LIME

3. Name of Field or Pool (if applicable): [96229] MESA VERDE; BONE SPRING

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: _____

BRUSHY CANYON 6850' MD

WOLFCAMP 12150' MD

Mesa Verde Bone Spring AOR Map 2/10/2025

35

36

31

32

T23S R32E

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02

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04

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T24S R32E

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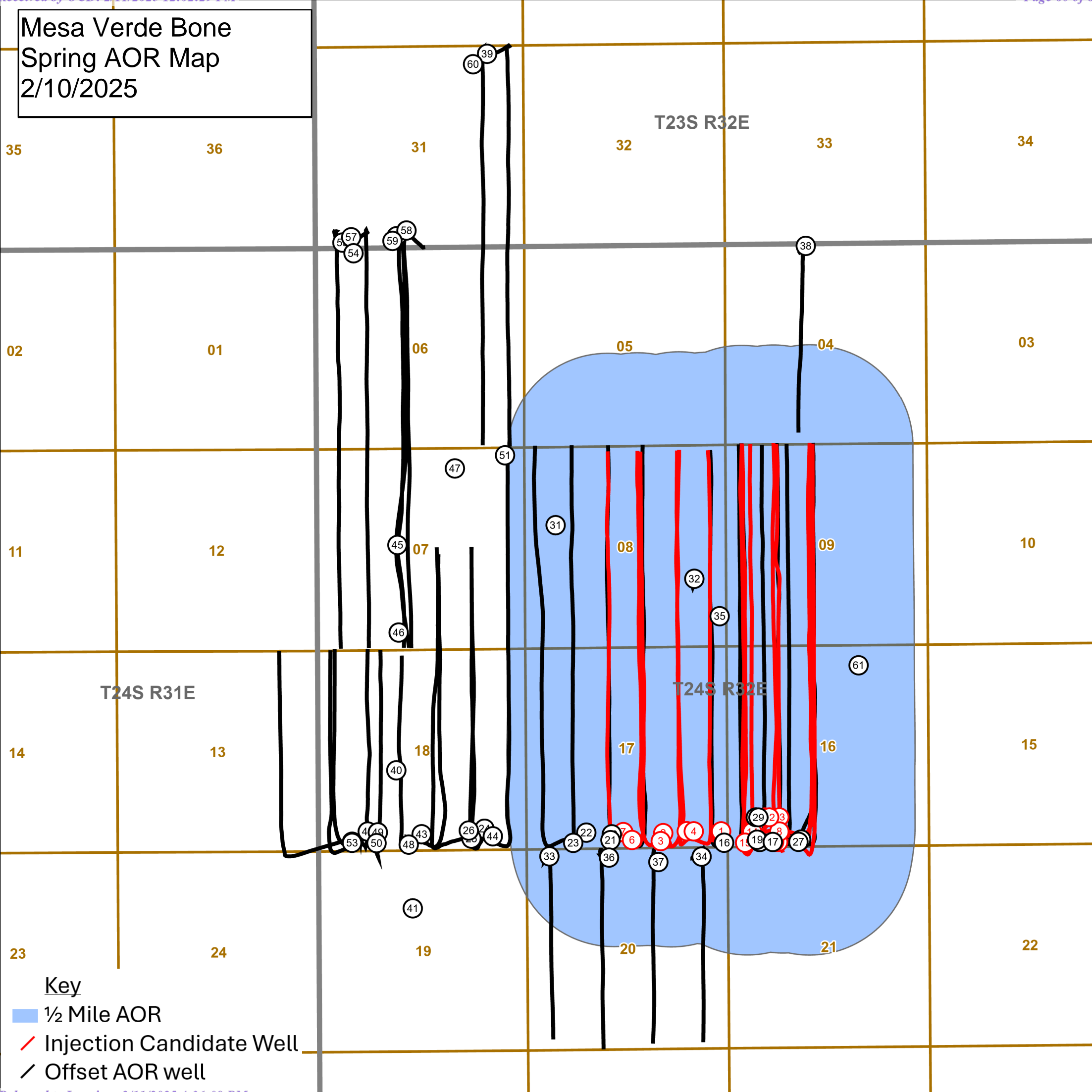
22

Key

½ Mile AOR

Injection Candidate Well

Offset AOR well



Bone Spring AOR Table 2/6/2025 Red Text: Candidate EOR Injection well

AOR ID	API NUMBER	Current Operator	LEASE NAME	WELL NUMB ER	Well Type:	Status:	Footages N/S	Footag es E/W	Surface Location Unit	Surface Location Section	Surface Location TShip	Surface Location Range	Spud:	True Vertical Depth:	Current Completion	HOLE SIZE	CSG SIZE	SET AT	SX CM T	CM T TO	Top Of Cement How Measured	Comment	Pool
1	30-025-44101	OXY USA INC	MESA VERDE BONE SPRING UNIT	001H	Oil	Active	271 S	245 E	P	17 24S	32E	12/27/2017	9291 9451-19251	17,500 13,375 12,250 9,625 8,500	17,500 13,375 11,962 5,500 19,350	918 1264 5905 2621	1264 1985 4000	Surf Circ Active CLGC well	Intermediate casing parted at 8608'. Plugs set and whipstock at 7013'.	[96229] MESA VERDE; BONE SPRING			
2	30-025-44196	OXY USA INC	MESA VERDE BONE SPRING UNIT	002H	Oil	Active	240 S	1614 E	O	17 24S	32E	2/3/2018	11881 12165-21916	17,500 13,375 9,875 7,625 6,750	17,500 13,375 11,092 5,500 22,082	938 1202 2624 846	1202 1202 10500	Surf Circ Surf Circ	Permitted CLGC well		[96229] MESA VERDE; BONE SPRING		
3	30-025-44183	OXY USA INC	MESA VERDE BONE SPRING UNIT	003H	Oil	Active	240 S	1644 E	O	17 24S	32E	2/5/2018	9125 9253-19155	17,500 13,375 9,875 7,625 6,750	17,500 13,375 9,875 7,625 6,750	954 1220 8600 19,305	1220 1220 7000	Surf Circ Surf Circ	Active CLGC well		[96229] MESA VERDE; BONE SPRING		
4	30-025-44064	OXY USA INC	MESA VERDE BONE SPRING UNIT	004H	Oil	Active	280 S	965 E	P	17 24S	32E	1/25/2018	10447 10483-20385	17,500 13,375 12,250 9,625 8,500	17,500 13,375 9,625 5,500 20,532	952 1712 4735 2060 3050	1712 2060 3050	Surf Circ Surf Circ	Permitted CLGC well		[96229] MESA VERDE; BONE SPRING		
5	30-025-44185	OXY USA INC	MESA VERDE BONE SPRING UNIT	005H	Oil	Active	280 S	995 E	P	17 24S	32E	1/29/2018	10449 10441-20343	17,500 13,375 12,250 9,625 8,500	17,500 13,375 9,625 5,500 20,290	974 1245 4894 1290	1245 1290 1273	Surf Circ Surf Circ	Active CLGC well		[96229] MESA VERDE; BONE SPRING		
6	30-025-44042	OXY USA INC	MESA VERDE BONE SPRING UNIT	006H	Oil	Active	280 S	2624 E	O	17 24S	32E	1/6/2018	10411 10739-20223	17,500 13,375 12,250 9,625 8,500	17,500 13,375 9,625 5,500 20,444	939 1240 4735 1300 20444	1240 1300 1312	Surf Circ Surf Circ	Permitted CLGC well		[96229] MESA VERDE; BONE SPRING		
7	30-025-44065	OXY USA INC	MESA VERDE BONE SPRING UNIT	007H	Oil	Active	280 S	2626 W	N	17 24S	32E	1/3/2018	10429 10619-20370	17,500 13,375 12,250 9,625 8,500	17,500 13,375 9,625 5,500 20,531	935 1240 4742 1300	1240 1300 12	Surf Circ Surf Circ			[96229] MESA VERDE; BONE SPRING		
8	30-025-44559	OXY USA INC	MESA VERDE BONE SPRING UNIT	022H	Oil	Active	250 S	1285 W	M	16 24S	32E	6/6/2018	10522 10565-20668	17,500 13,375 12,250 9,625 8,500	17,500 13,375 9,625 5,500 20,806	964 1254 4721 1565 2980	1254 1565 2980	Surf Circ Surf Circ			[96229] MESA VERDE; BONE SPRING		
9	30-025-44560	OXY USA INC	MESA VERDE BONE SPRING UNIT	023H	Oil	Active	250 S	1255 W	M	16 24S	32E	6/8/2018	10812 10648-21001	17,500 13,375 12,250 9,625 8,500	17,500 13,375 9,625 5,500 21,114	970 1254 4741 1705	1254 1705 330	Surf Circ Surf Circ			[96229] MESA VERDE; BONE SPRING		
10	30-025-44561	OXY USA INC	MESA VERDE BONE SPRING UNIT	024H	Oil	Active	250 S	1225 W	M	16 24S	32E	6/10/2018	10426 10338-20691	17,500 13,375 12,250 9,625 8,500	17,500 13,375 9,625 5,500 20,810	970 1254 4725 1430 3095	1254 1430 315	Surf Circ Surf Circ			[96229] MESA VERDE; BONE SPRING		
11	30-025-48814	OXY USA INC	MESA VERDE BONE SPRING UNIT	044H	Oil	Active	635 S	1140 W	M	16 24S	32E	10/12/2022	9326 9767-19993	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,875 7,625 6,750	949 1015 8889 2699 20133	1015 2441 1353	Surf Circ Surf Circ			[96229] MESA VERDE; BONE SPRING		
12	30-025-48815	OXY USA INC	MESA VERDE BONE SPRING UNIT	045H	Oil	Active	635 S	1175 W	M	16 24S	32E	10/14/2022	9287 9601-19627	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 19,984	951 990 8886 2691 817	990 2691 7721	Surf Circ Surf Circ			[96229] MESA VERDE; BONE SPRING		
13	30-025-48816	OXY USA INC	MESA VERDE BONE SPRING UNIT	046H	Oil	Active	635 S	1210 W	M	16 24S	32E	10/15/2022	9742 10110-20336	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 20,476	979 1015 9274 2441 20476	1015 2441 1177	Surf Circ Surf Circ			[96229] MESA VERDE; BONE SPRING		
14	30-025-48818	OXY USA INC	MESA VERDE BONE SPRING UNIT	073H	Oil	New	250 S	500 W	M	16 24S	32E	9/19/2024	9820 Not Yet Complete	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 20,654	964 906 10211 1515 20654	906 1515 9711	Surf Planned Surf Planned	Spud in late 2024. Completion report has not been filed.		[96229] MESA VERDE; BONE SPRING		
15	30-025-48819	OXY USA INC	MESA VERDE BONE SPRING UNIT	074H	Oil	New	250 S	535 W	M	16 24S	32E	9/21/2024	11150 Not Yet Complete	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 22,074	1167 821 10760 1658 22074	821 1658 10260	Surf Planned Surf Planned	Spud in late 2024. Completion report has not been filed.		[96229] MESA VERDE; BONE SPRING		
16	30-025-44195	OXY USA INC	MESA VERDE WOLFCAMP UNIT	001H	Oil	Active	241 S	245 E	P	17 24S	32E	12/30/2017	12054 12240-22116	17,500 13,375 12,250 9,625 8,500	17,500 13,375 10,933 5,500 10764-22271	922 1190 10933 3620 2193	1190 3620 10764	Surf Circ Surf Circ	8.5' Vertical pilot hole to 14150' MD. 5.5" Production Liner. 5.5" frac string from 0'-10764'		[96252] MESA VERDE; WOLFCAMP		
17	30-025-46110	OXY USA INC	MESA VERDE WOLFCAMP UNIT	002H	Oil	Active	250 S	1035 W	M	16 24S	32E	11/25/2019	12280 12395-22413	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 22,585	959 975 11725 3015 22585	975 3015 855	Surf Circ Surf Circ			[96252] MESA VERDE; WOLFCAMP		
18	30-025-46111	OXY USA INC	MESA VERDE WOLFCAMP UNIT	003H	Oil	Active	250 S	1000 W	M	16 24S	32E	11/29/2019	12087 12270-22288	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 22,351	890 975 11420 2824 842	975 2824 9031	Surf Circ Surf Circ			[96252] MESA VERDE; WOLFCAMP		
19	30-025-46112	OXY USA INC	MESA VERDE WOLFCAMP UNIT	004H	Oil	Active	250 S	965 W	M	16 24S	32E	12/1/2019	12225 12668-22488	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 22,534	941 975 11800 2745 834	975 2745 9289	Surf Circ Surf Circ			[96252] MESA VERDE; WOLFCAMP		
20	30-025-45862	OXY USA INC	MESA VERDE WOLFCAMP UNIT	005H	Oil	Active	280 S	2436 W	N	17 24S	32E	5/18/2019	12211 12327-22387	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 22,445	942 908 11567 3988 840	908 3988 11050	Surf Circ Surf Circ			[96252] MESA VERDE; WOLFCAMP		
21	30-025-45863	OXY USA INC	MESA VERDE WOLFCAMP UNIT	006H	Oil	Active	280 S	2401 W	N	17 24S	32E	5/18/2019	12067 12157-22218	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 22,227	942 908 11278 1655 887	908 1655 10775	Surf Circ Surf Circ			[96252] MESA VERDE; WOLFCAMP		
22	30-025-45920	OXY USA INC	MESA VERDE WOLFCAMP UNIT	007H	Oil	Active	280 S	1421 W	N	17 24S	32E	5/25/2019	12211 12047-22108	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 22,433	944 970 11461 1530 805	970 1530 10960	Surf Circ Surf Circ			[96252] MESA VERDE; WOLFCAMP		
23	30-025-45921	OXY USA INC	MESA VERDE WOLFCAMP UNIT	008H	Oil	Active	280 S	1386 W	N	17 24S	32E	5/26/2019	12016 12137-22108	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 22,327	950 970 11445 1220 790	970 1220 10940	Surf Circ Surf Circ			[96252] MESA VERDE; WOLFCAMP		
24	30-025-45871	OXY USA INC	MESA VERDE WOLFCAMP UNIT	009H	Oil	Active	422 S	1254 E	P	18 24S	32E	1/27/2020	12316 12427-22488	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 22,605	860 870 11290 2540 905	870 2540 10100	Surf Circ Surf Circ			[96252] MESA VERDE; WOLFCAMP		
25	30-025-45872	OXY USA INC	MESA VERDE WOLFCAMP UNIT	010H	Oil	Active	422 S	1289 E	P	18 24S	32E	1/28/2020	12064 12017-19438	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 19,981	861 870 11356 2975 652	870 2975 7965	Surf Circ Surf Circ			[96252] MESA VERDE; WOLFCAMP		
26	30-025-45873	OXY USA INC	MESA VERDE WOLFCAMP UNIT	011H	Oil	Active	422 S	1324 E	O	18 24S	32E	1/29/2020	12267 12258-19918	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 20,015	860 870 11662 2242 648	870 2242 11137	Surf Circ Surf Circ			[96252] MESA VERDE; WOLFCAMP		
27	30-025-48824	OXY USA INC	MESA VERDE WOLFCAMP UNIT	039H	Oil	New	250 S	1715 W	N	16 24S	32E	9/22/2024	12851 Not Yet Complete	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 24,030	1158 807 12696 1851 620	807 1851 12196	Surf Planned Surf Planned	Spud in late 2024. Completion report has not been filed.		[96252] MESA VERDE; WOLFCAMP		
28	30-025-48825	OXY USA INC	MESA VERDE WOLFCAMP UNIT	040H	Oil	New	250 S	1750 W	N	16 24S	32E	9/23/2024	12851 Not Yet Complete	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 23,957	1158 819 12613 1827 620	819 1827 12113	Surf Planned Surf Planned	Spud in late 2024. Completion report has not been filed.		[96252] MESA VERDE; WOLFCAMP		
29	30-025-48817	OXY USA INC	MESA VERDE WOLFCAMP UNIT	054H	Oil	New	635 S	865 W	M	16 24S	32E	9/25/2024	12950 Not Yet Complete	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 23,149	971 812 12560 1831 626	812 1831 12060	Surf Planned Surf Planned	Spud in late 2024. Completion report has not been filed.		[96252] MESA VERDE; WOLFCAMP		
30	30-025-48863	OXY USA INC	MESA VERDE WOLFCAMP UNIT	055H	Oil	New	635 S	1004 W	M	16 24S	32E	9/27/2024	12950 Not Yet Complete	14,750 10,750 9,875 7,625 6,750	14,750 10,750 9,625 5,500 23,242	1158 823 12654 1843 626	823 1843 12154	Surf Planned Surf Planned	Spud in late 2024. Completion report has not been filed.		[96252] MESA VERDE; WOLFCAMP		
31	30-025-32192	EOG RESOURCES INC	JACK TANK 8 FEDERAL	002	Oil	PA	2180 N	660 W	E	8 24S	32E	9/10/1993	15460 NA	26,000 20,000 17,000 13,325 12,250 9,625 9,625 7,000 8,625 4,500 17,500 13,375 11,000 8,625 7,875	20,000 15,460 4521 4500 3625 12108 750 200 650 4580 1470 10000 1340	98 932 4500 4500 TS 750 ? ? 12654 1843 12154	Surf Circ Surf Circ		NA				
32	30-025-33195	OXY USA INC	NAFTA 8 FEDERAL	001	Oil	PA	1650 S	990 E	I	8 24S	32E	4/16/1997	10000 NA	17,500 13,375 11,000 8,625 7,875	17,500 13,375 9,625 5,500 15,029	650 725 4580 1470 10000 1340	725 1470 6436	Surf Circ Surf Circ		NA			
33	30-025-42769	DEVON ENERGY PRODUCTION COMPANY, LP	REBEL 20 FEDERAL	005H	Oil	Active	314 N	472 W	D	20 24S	32E	9/27/2015	10740 11067-15034	17,500 13,375 12,250 9,625 8,750 5,500	17,500 13,375 11,962 5,500 15,284	885 960 4576 1295 1880 689 ?	960 1295 689 ?	Surf Circ Surf Circ		[96556] COTTON DRAW; BONE SPRING, EAST			
34	30-025-43159	DEVON ENERGY PRODUCTION COMPANY, LP	REBEL 20 FEDERAL	008H	Oil	Active	250 N	870 E	A	20 24S	32E	6/9/2017	10787 10930-15493	17,500 13,375 12,250 9,625 8,500	17,500 13,375 9,625 5,500 15,630	913 960 4623 2060 1380	960 2060 390 ?	Surf Circ Surf Circ		NA			
35	30-025-37914	OXY USA INC	MESA VERDE 8 FEDERAL	002H	Oil	Active	660 S	330 E	P	8 24S	32E	8/1/2006	9764 10152-12710	17,500 13,375 12,250 9,625 8,500	17,500 13,375 9,625 5,500 12,900	850 745 4600 2200 1350	745 2200 7290	Surf Circ Surf Circ		[96229] MESA VERDE; BONE SPRING			
36	30-025-43449	DEVON ENERGY PRODUCTION COMPANY, LP	REBEL 20 FEDERAL																				

47 30-025-32388	DEVON ENERGY PRODUCTION COMPANY, LP	MESA VERDE 7 FEDERAL	001	Oil	PA	660 N	1980 E	B	7 24S	32E	5/28/1994	9880 7178-7205	14,750 11,000 7,875	11,750 8,625 5,500	610 4450 9880	425 1275 1179	Surf Circ Surf Circ 3800 TS	NA
48 30-025-44192	OXY USA INC	MESA VERDE BONE SPRING UNIT	013H	Oil	Active	280 S	2533 W	N	18 24S	32E	3/20/2018	10383 10483-15055	14,750 9,875 6,750 6,750	10,750 7,625 5,500 4,500	950 9854 15196 10404-15196	1020 2320 890 890	Surf Circ Surf Calc Surf Calc Surf Calc	[96229] MESA VERDE; BONE SPRING
49 30-025-45864	OXY USA INC	MESA VERDE WOLFCAMP UNIT	014H	Oil	Active	400 S	1378 W	M	18 24S	32E	3/19/2021	11929 12670-17211	14,750 9,875 6,750	10,750 7,625 5,500	957 11617 17286	890 2816 465	Surf Circ Surf Circ 10000 Calc	[98252] MESA VERDE; WOLFCAMP
50 30-025-45875	OXY USA INC	MESA VERDE WOLFCAMP UNIT	013H	Oil	Active	330 S	1378 W	M	18 24S	32E	3/16/2021	12075 12509-17050	14,750 9,875 6,125	10,750 7,625 5,500 x 4.5	960 11365 11275	890 2615 512	Surf Circ Surf Circ 10200 Calc	[98252] MESA VERDE; WOLFCAMP
51 30-025-32482	BURLINGTON RESOURCES OIL & GAS CO	JACK TANK 7 FEDERAL	002	Oil	PA	330 N	660 E	A	7 24S	32E	11/10/1994	9900 PA	17,500 12,250 7,875	13,375 8,625 NA	623 4509 8546	630 1600 NA	Surf Circ Surf Circ NA	Dry hole. OH to 8546'. NA
52 30-025-44191	OXY USA INC	MESA VERDE BONE SPRING UNIT	014H	Oil	Active	310 S	1078 W	M	18 24S	32E	3/3/2018	10700 10689-15416	14,750 9,875 6,750	10,750 7,625 5,500	990 9958 15556	1351 2880 375	Surf Circ Surf Circ 8862 Calc	[96229] MESA VERDE; BONE SPRING
53 30-025-44190	OXY USA INC	MESA VERDE BONE SPRING UNIT	015H	Oil	Active	280 S	1078 W	M	18 24S	32E	3/5/2018	10421 10483-15210	14,750 9,875 6,750	10,750 7,625 5,500	977 9554 15345	1010 1860 370	Surf Circ Surf Circ 8043 Calc	[96229] MESA VERDE; BONE SPRING
54 30-025-47306	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	210H	Oil	Active	10 S	860 W	M	31 23S	32E	8/24/2020	10642 10778-21282	17,500 12,250 8,750	13,375 9,625 5,500	1004 8593 21294	928 975 2655	Surf Circ Surf Calc Surf Circ	[96229] MESA VERDE; BONE SPRING
55 30-025-47307	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	211H	Oil	Active	10 S	800 W	M	31 23S	32E	8/21/2020	10376 10600-20961	17,500 12,250 8,750	13,375 9,625 5,500	1004 7300 20973	780 3165 2655	Surf Circ Surf Circ Surf Circ	[96229] MESA VERDE; BONE SPRING
56 30-025-47308	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	212H	Oil	Active	165 S	2225 W	N	31 23S	32E	7/24/2020	10425 10550-20913	17,500 12,250 8,750	13,375 9,625 5,500	974 8591 20926	835 975 2625	Surf Circ Surf Circ Surf Circ	[96229] MESA VERDE; BONE SPRING
57 30-025-48486	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	711H	Oil	Active	150 S	800 W	M	31 23S	32E	5/4/2021	12131 12437-22787	17,500 9,625 7,875	13,375 8,625 5,500	999 11563 22801	630 2295 2700	Surf Circ Surf Calc Surf Circ	[96248] WC-025 G-08 S243217P; UPR WOLFCAMP
58 30-025-48485	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	623H	Oil	Active	315 S	2285 W	N	31 23S	32E	4/7/2021	12007 12277-22657	17,500 9,625 7,875	13,375 8,625 5,500	978 11197 22672	850 1720 2609	Surf Circ Surf Circ Surf Circ	[96248] WC-025 G-08 S243217P; UPR WOLFCAMP
59 30-025-48487	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	713H	Oil	Active	315 S	2195 W	N	31 23S	32E	4/8/2021	12174 12379-22759	17,500 9,625 7,875	13,375 8,625 5,500	996 11601 22773	740 1030 2860	Surf Circ Surf Circ Surf Circ	[96248] WC-025 G-08 S243217P; UPR WOLFCAMP
60 30-025-48460	DEVON ENERGY PRODUCTION COMPANY, LP	RIGHT MEOW 31 6 FEDERAL COM	716H	Oil	Active	350 N	1155 E	A	31 23S	32E	4/13/2021	12220 12355-22373	17,500 9,625 7,875	13,375 8,625 5,500	1067 11639 22388	910 710 3130	Surf Circ Surf Circ Surf Circ	[96248] WC-025 G-08 S243217P; UPR WOLFCAMP
61 30-025-30746	COG OPERATING LLC	DOUBLE ABI STATE	001	Gas	PA	660 N	1980 E	B	16 24S	32E	7/31/1990	15800 PA	17,500 12,250 8,750 7,875	13,375 9,625 7,000 4,500	511 4975 13000 12749-15798	525 2700 1225 350	Surf Circ Surf Circ 6320 CBL 12749 Circ	NA

Final Wellbore Diagram 2/2/2023

Diaga 18 Fed Com #1
API No. 30-025-33626

perf @ 680' - squeeze 135 sx class C cmt from 680' - 0', Top of with 15 sx at surface. (Verified Cement to Surface).

perf @ 1163' - squeeze 25 sx class C cmt from 1163' - 1020' (tag).

perf @ 4600' - squeeze 40 sx class C cmt from 4600' - 4380' (tag).

Balanced Plug, Pumped 60 sx class C cement from 5568' -4660' (Tag)

Set CIBP @ 6790'. Pumped 25 sx class H cement from 6775' -6460' (Tag)

Perfs: 7236', 7239', 7255-58', 7053-54, 7059, 6997-98', 6873', 6680', 6823-40' @ 2spf, acid (Sept-'97)

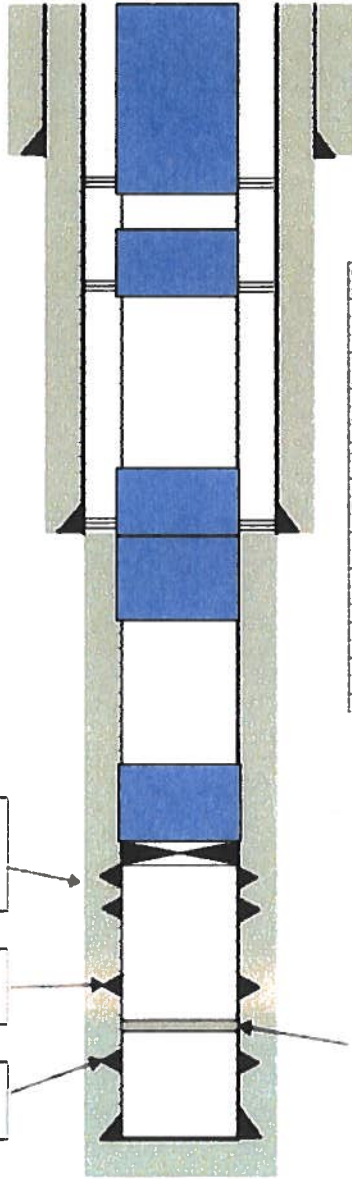
Perfs: 8300-38', 7860-88 @ 2 spf, acid (Mar '97)

Perfs: 8590-8600' 2 spf, acid+frac (Dec-'96)

Casing Detail					
Size (in)	Weight (lb/ft)	Grade	Depth (ft)	CWI (ss)	TOC (ft)
10.75	40.5		630	600	Surf
7.625	26.4		4507	950	Surf
4.5	11.6		8720	635	4650

Tubing Detail					
Description	Qty	Length (ft)	Top (ft)	Bottom (ft)	Comments
2-3/8" N80 4.7# T&C	267	8373.12	14	8387.12	
2-3/8" Cup Seat Nipple	1	1.1	8387.12	8388.22	
2-3/8" Slotted Cup Seat Nipple	1	1.1	8388.22	8389.32	
4.5" Tubing Anchor	1	1	8389.32	8392.32	
2-3/8" Mud Anchor	1	30.4	8392.32	8423.72	
2-3/8" Bull Plug	1	67.35	8423.72	8493.57	

Rod Detail					
Description	Qty	Length (ft)	Top (ft)	Bottom (ft)	Comments
1-1/4" C Polish Rod Uner	1	26	14	40	
Rod Sub	1	4	50	44	
7/8" DK25 Rod	1	25	44	69	
1" FG x 37.5' Rod	112	4950	69	5019	
7/8" DK25 Rod	113	1325	5019	6344	
1" Shear Tool	1	1	6344	6345	
7/8" D+25' Rod	1	25	6345	6370	
7/8" Rod Sub	1	2	6370	6372	
20-125-PMBC-20-0 1-1/4" Insert Pump	1	20	6372	6392	
1" Strainer Nipple	1	3	6392	6395	



TD: 8720 MD
PBTD: 8676 MD

CIBP pushed from 8200' to 8500' (Aug-'00)

EOG Y Resources, INC. P&A
Haracz Amo Federal #7
API No. 30-025-33345

Perf'd @ 60". Squeezed 15sx Cmt to Surface

Perf'd @ 830'. Squeezed 30sx Cmt. Tagged TOC @ 680'.

Spot 30sx cmt @ 4650' TOC @ 4354'

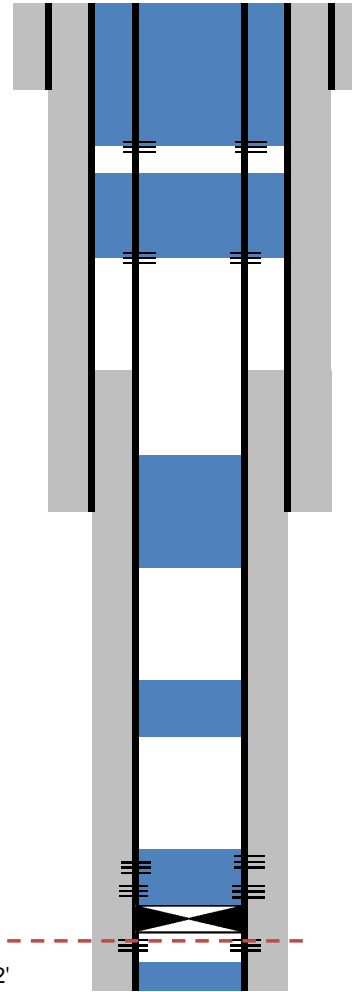
Spot 40sx cmt Tag TOC @ 6336'

Tagged Existing CIBP @ 8200'. Pumped 30 sx Class H Cmt
WOC Tagged TOC @ 7962'.

Top of Proposed Injection Interval 8514' (Bone Spring)

PBTD -9752'

TD - 9900'



Spud 03/21/1996

17.5" hole @ 766'
13.375" @ 766'
w/ 725 sx-TOC-Surf-Circ.

11" hole @ 4477'
8.625" csg @ 4477'
w/1200sx-TOC-Surf-Circ.

7.875" hole @ 9900'
5.5" csg @ 9900'
w/ 1125sx - TOC @ ~3023' CBL
DV Tool @ 6668'

Perfs 8245'-74', 8593-8609', 9028-9230', 9611-9752'

CIBP @ 8200'

Burlington Resources Oil & Gas CO - Dry Hole P&A

Jack Tank 7 Federal #2

API No. 30-025-32482

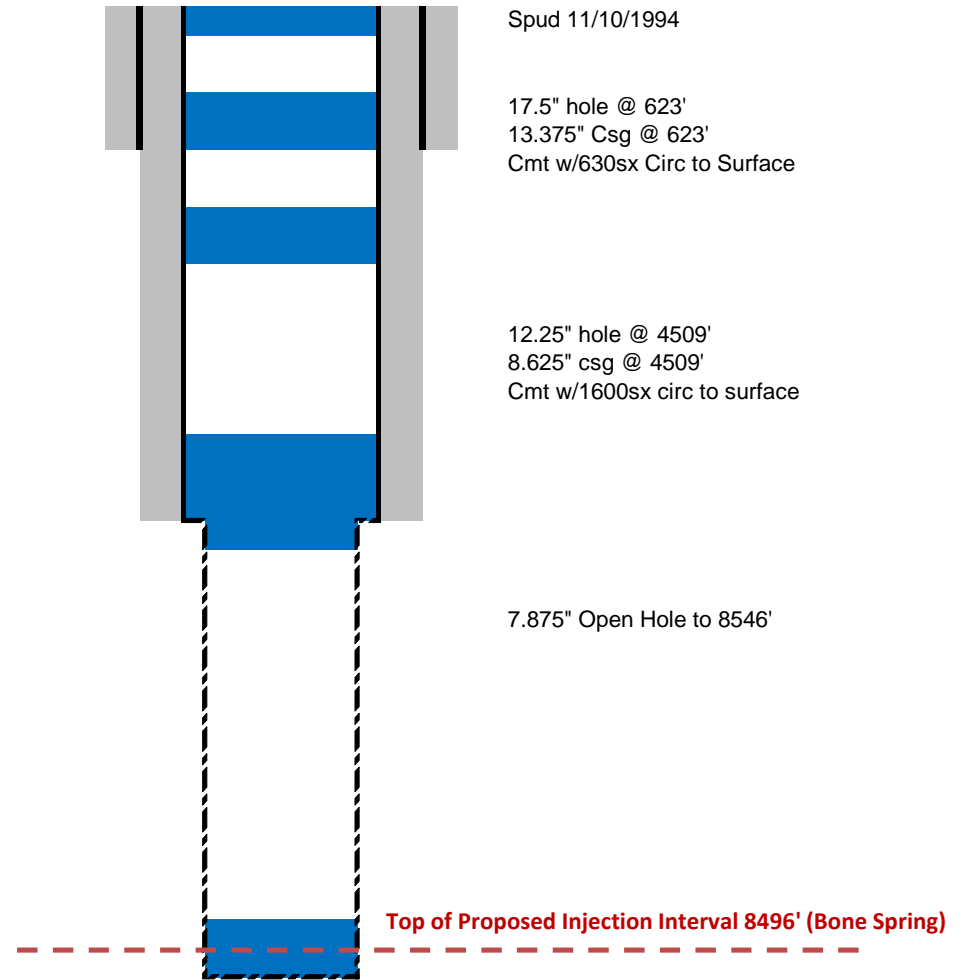
Set plug @ 63 to Surface' w/20sx Cmt

Set plug @ 673' - 573' w/35sx Cmt

Set plug @ 1050' - 1150' w/40sx Cmt

Set plug @ 4370' - 4690' w/150sx Cmt

Set Cmt Plug 8546' - 8360' w/60sx Cmt



1/4/2021

Current Wellbore
Jack Tank 8 Federal #2
30-025-32192-0000
Lea

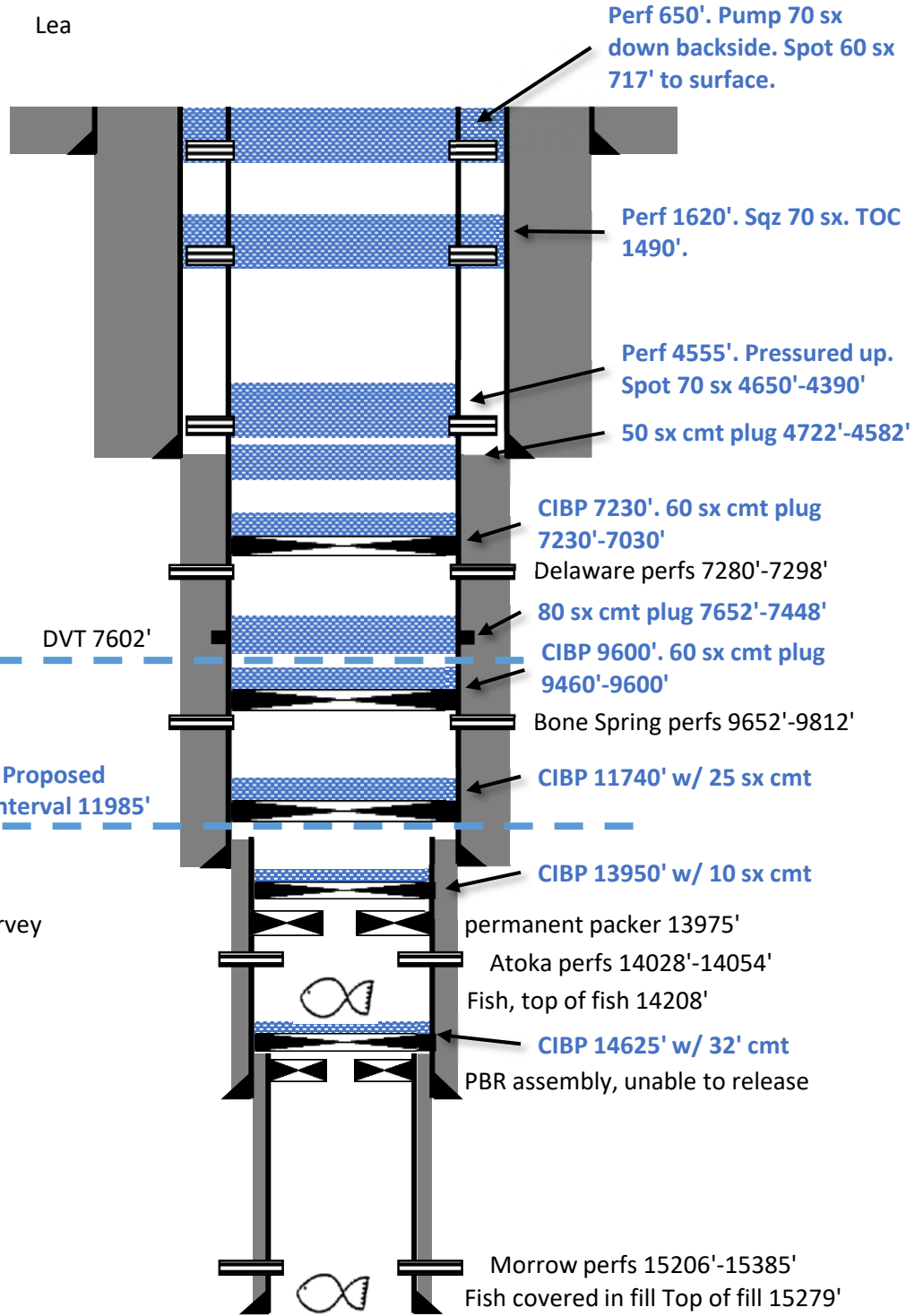
String 1
OD 20 in
TD 598 ft
TOC 0 ft
932 sx, circ

String 2
OD 13.375 in
TD 4521 ft
TOC 0 ft
4500 sx, circ

String 3
OD 9.625 in
TD 12108 ft
TOC 4500 ft
3625 sx, Temp Survey

String 4, liner
OD 7 in
11768'-14950'
750 sxs

String 5, liner
OD 4.5 in
14656'-15452'
200 sxs



DEVON ENERGY PRODUCTION COMPANY LP

Well Name: MESA VERDE 7 FEDERAL 1		Field: MESA VERDE	
Location: 660' FNL & 1980' FEL; 7-24S-32E		County: LEA	State: NM
Elevation: 3572' KB; 3556' GL; 16' KB to GL		Spud Date: 5/28/94	Compl Date: 6/30/94
API#: 30-025-32398	Prepared by: Ronnie Slack	Date: 2/21/18	Rev:

PLUGGED & ABANDONED
2/20/18

14-3/4" Hole
11-3/4", 42#, H40, @ 610'
Cmt'd w/425 sx, circ to surface

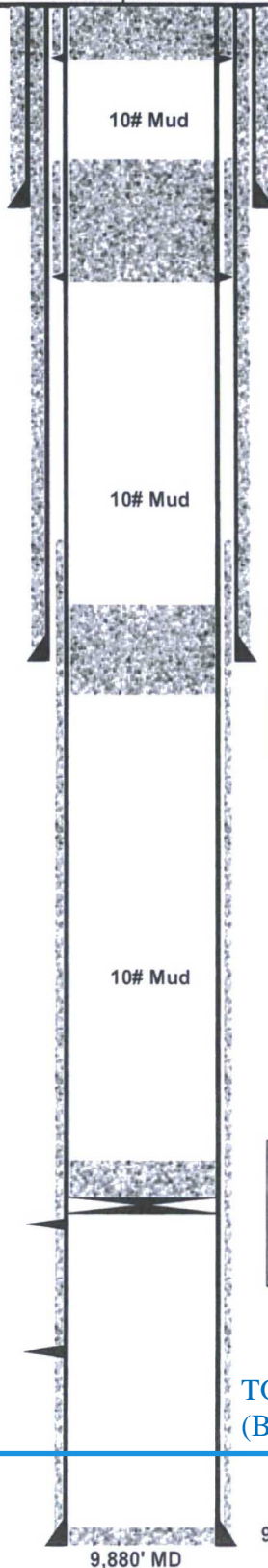
11" Hole
8-5/8", 32#, S80, @ 4,450'
Cmt'd w/1275 sx, circ to surface

TOC @ 3,800' TS

DELAWARE
7,178' - 7,205' (6/24/94)

DELAWARE
8,252' - 8,278' (6/15/97)

7-7/8" Hole
5-1/2", 15.5# & 17#, J55 & N80 @ 9,880'
Cmt'd w/1179 sx. TOC @ 3800', TS.



Actual:
3. Cut wellhead off 3' bgl. Set BGL dry hole marker. (2/20/18)
2. Pmp 35 sx CI C in/out to surface. (2/20/18)
1. Perf @ 140'. (2/20/18)

Actual:
3. Tagged TOC @ 509'. (2/20/18)
2. Pmp 165 sx (700') CI C in/out @ 1,250'. (2/19/18)
1. Perf @ 1,250'. (2/19/18)
(T.Salt @ 1194')

Actual:
2. Tagged TOC @ 4,309'. (2/19/18)
1. Spot 40 sx (400') CI C @ 4,673'. (2/16/18)
(T.Delaware @ 4623'; B.Salt @ 4371')

Actual:
2. Spot 25 sx CI C @ 7,145' - 6,895'. (2/16/18)
2. Tagged CIBP @ 7,145'. Circ'd 10# salt gel. (2/16/18)
1. Set CIBP @ 7,145'. (2/15/18).

TOP OF PROPOSED INJECTION INTERVAL
(BONE SPRING) 8463' MD

9,814' PBD

9,880' MD

NAFTA 8 Federal 1

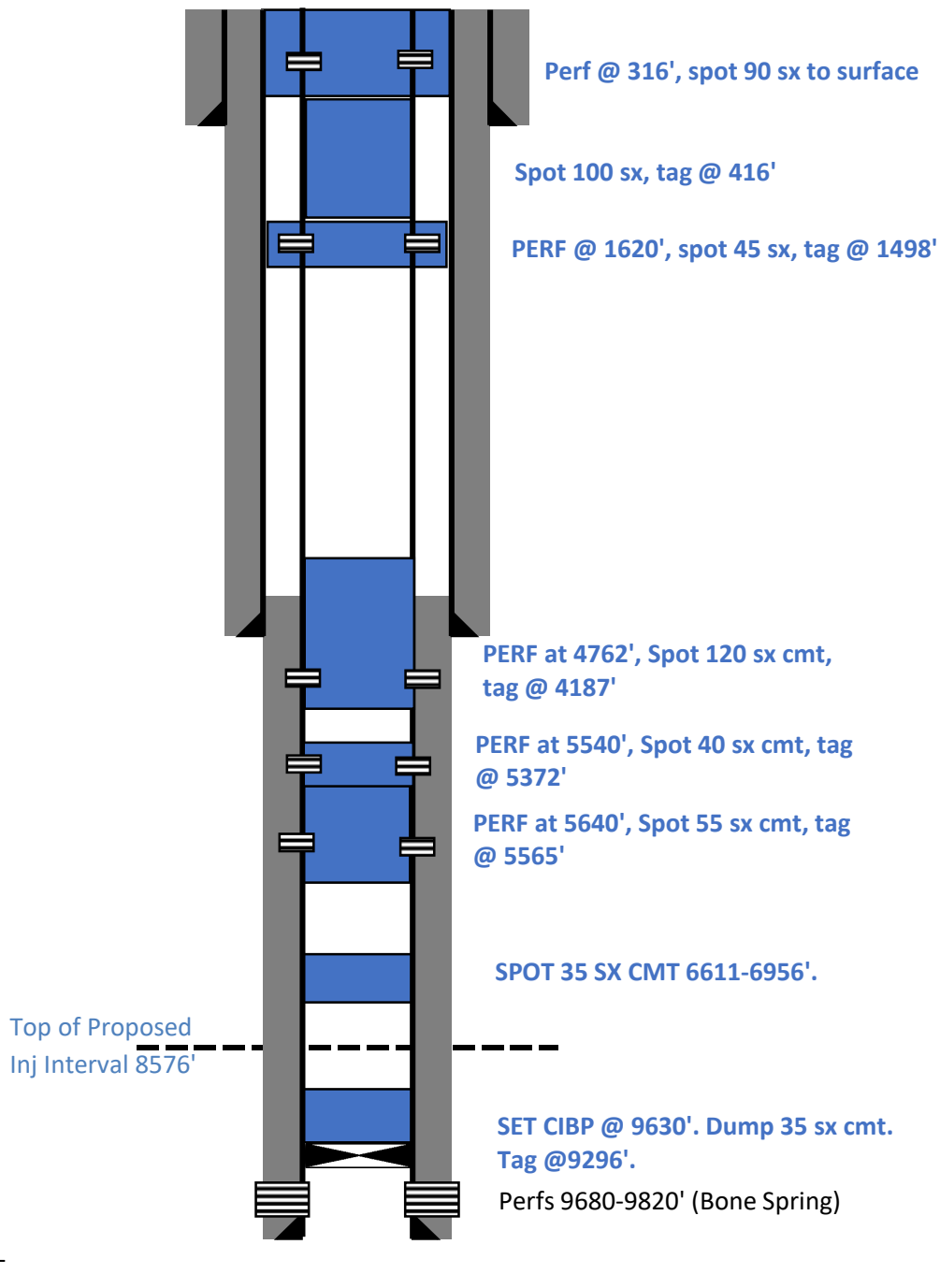
30-025-33195-0000

Lea

String 1
OD 13.375 in
TD 650 ft
TOC 0 ft, Circ

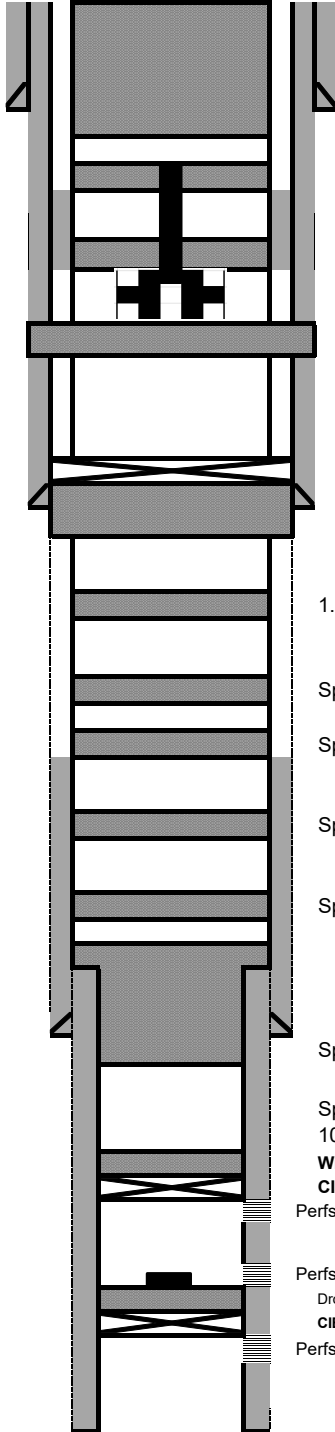
String 2
OD 8.625 in
TD 4578 ft
TOC 0 ft, Circ

String 3
OD 5.5 in
TD 10000 ft
TOC 13 ft, CBL
PBTD 10000 ft



COG		Plugged	
Author:	Abby @ JMR	Well No.	#1
Well Name	Double ABJ State	API #:	30-025-30746
Field	Und. Lea Strawn Gas	Location	660 FNL & 1980 FEL
County	Lea	State	Sec 16, T24S, R32E
State	NM	GL	3605
Spud Date	5/1/1980		

Description	O.D.	Grade	Weight	Depth	Hole	Cmt Sx	TOC
Surface Csg	13 3/8	K55	54.5#	511	17 1/2	300	0
Inter Csg	9 5/8	K55	36 to 32#	4,975	12 1/4	875	0
Prod Csg	7	P110	26#	13,000	8 3/4	1,225	6,320
Liner	4 1/2	P110	15.1 to 13.5#	12,749-15,798'	7 7/8	350	12,749



Formation Tops	

13 3/8 csg set @ 511 with 300 cmt sx

6. Spotted 75 sx class C cmt @ 310' & circulated to surface inside the 7".

5. Spotted 50 sx class C cmt @ 590-300'. WOC & tagged @ 310'.
Cut 2 3/8" tbg @ 590'. POH w/ tbg & cut jt.

4. Perf'd @ 1590'. Sqz'd 80 sx class C cmt @ 1590-1100'. RIH w/ wireline inside tbg, tagged plug @ 910'. RIH inside 7", tagged TOC @ 590'.

3. Perf'd @ 1600'. Sqz'd 84 sx class C cmt @ 1600-1400'. Pkr & tbg stuck @ 1600'. Could not fish out of hole. RIH w/ wireline in tbg, tagged @ 1600'. RIH w/ wireline in 7" annulus, tagged @ 592'.

2. Perf'd @ 5025'. Set 7" CICR @ 4567'. Sqz'd 300 sx class C cmt from 4567-5025'.

9 5/8 csg set 4,975 with 875 cmt sx

1. Spotted 57 sx class C cmt @ 5512-5150'. WOC & tagged @ 5159'.
Drilled down to 6632'. Ran CBL. CBL does not show cmt across the 9 5/8" shoe.

Spotted 30 sx class H cmt @ 7805' & displaced to 7649'.

Spotted 30 sx class H cmt @ 8679' & displaced to 8515'.

Spotted 30 sx class H cmt @ 10,365' & displaced to 10,201'.

Spotted 30 sx class H cmt @ 12,175' & displaced to 12,011'.

7 csg set @ 13,000 with 1,225 cmt sx

Spotted 40 sx class H cmt @ 13,050-12,639'. Tagged plug @ 12,639'.

Spotted 25 sx class H cmt @ 13,986' & displaced with 4 BBLs fresh brine H2O to 13,621'. Circ'd hole w/ 55 BBLs 10# brine H2O. WOC & Tagged plug @ 13,615'.

Wireline & ran CBL from 13,975' to surface. Found TOC @ 8300'.

CIBP @ 14,000'. Dump bailed 3 sx class H cmt. WOC & Tagged TOC @ 13,986'.

Perfs @ 14,050-14,158'

Perfs @ 14,373-14,384'
Dropped TCP GUN
CIBP @ 15,260' w 30' cmt on top

Perfs @ 15,332-15,404'

4 1/2 csg set @ 12,749-15,798' with 350 cmt sx

PROPOSED OPERATIONS- PRESSURES AND RATES

1. Calculated Maximum Allowable Surface Pressure for water based on 0.2 psi/ft gradient.
2. Calculated bottom hole pressure based on 0.2 psi/ft (OCD gradient), 0.433 psi/ft (freshwater gradient), and true vertical depth of top perforation.
3. Calculated Maximum Allowable Surface Pressure for hydrocarbon gas and CO2 based on *PROSPER* model
 - Various inputs for fluid composition, downhole equipment, bottomhole temperature, and injection rate.

Zone	Water				Hydrocarbon Gas				CO2			
	Average Daily Injection Rate [BWIPD]	Max Daily Injection Rate [BWIPD]	Average Injection Pressure [PSI]	Max Allowable Surface Pressure [PSI]	Average Daily Injection Rate [MMSCFP D]	Max Daily Injection Rate [MMSCFP D]	Average Injection Pressure [PSI]	Max Allowable Surface Pressure [PSI]	Average Daily Injection Rate [MMSCFP D]	Max Daily Injection Rate [MMSCFP D]	Average Injection Pressure [PSI]	Max Allowable Surface Pressure [PSI]
Avalon	5000	10000	1813	1813	22	50	4510	4510	22	50	2490	2490
1BSS	5000	10000	1949	1949	22	50	4810	4810	22	50	2630	2630
2BSS	5000	10000	2022	2022	22	50	4980	4980	22	50	2700	2700
3BSS / 3BSL	5000	10000	2361	2361	22	50	5700	5700	22	50	3080	3080

Mesa Verde Water Mixing Analysis

12/18/2024

An analysis was conducted to review scale risk due to water mixing from the Mesa Verde 18 CTB with the Avalon, 2nd Bone Spring, 3rd Bone Spring, Wolfcamp XY, and Wolfcamp A formation water from respective producing wells. To model the scale risks, ScaleSoftPitzer 2025 was used with its Mixing Two Wells function. Average water chemistry values from ChampionX were used for this analysis for all locations. The waters were mixed in the downhole conditions (temperature/pressure) for their respective formations. The Mixing Two Wells function allowed us to review the scale risk at various ratios of the two fluids being mixed.

Overall, there is little risk for scale to be formed when mixing Mesa Verde 18 CTB with formation waters downhole. The only scale that has slight risk for forming is Celestite (SrSO₄) scale that increases as the ratio between the CTB and formation water increases, i.e. more CTB water, more scale risk. Realistically, the water mixing ratio in the formation would heavily lean towards more formation water but the contact point between the two fluids would likely have more CTB water.

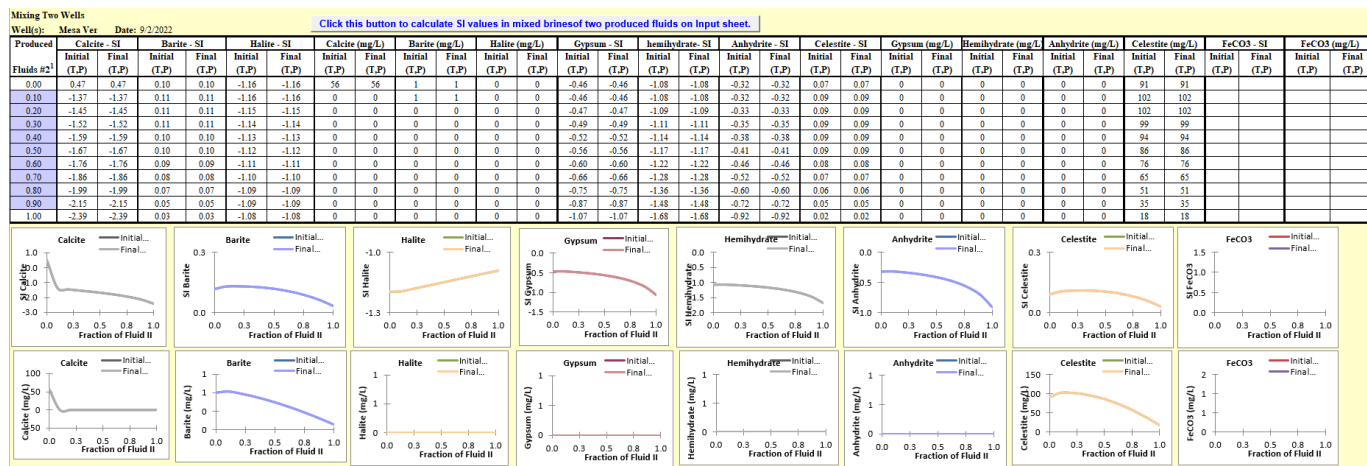
- At a 10/90 ratio of CTB/formation water, Celestite SI peaked at 0.06 SI and Celestite mg/L peaked at 60 mg/L (20 PTB). Both values are relatively low.
- At a 50/50 ratio of CTB/formation water, Celestite SI peaked at 0.10 SI and Celestite mg/L peaked at 100 mg/L (33 PTB). Both values are low.
- At a 90/10 ratio of CTB/formation water, Celestite SI peaked at 0.12 SI and Celestite mg/L peaked at 140 mg/L (47 PTB). SI values are low, but mg/L starts to hit the moderate range.

If scale risk needs to be minimized further, it is possible to inject a scale inhibitor chemistry with the CTB injection water. We would need discuss with the chemical vendor to see what chemistries they would recommend and any lab testing as needed. With scale risk being low, I do not believe a scale inhibitor would be needed for this application.

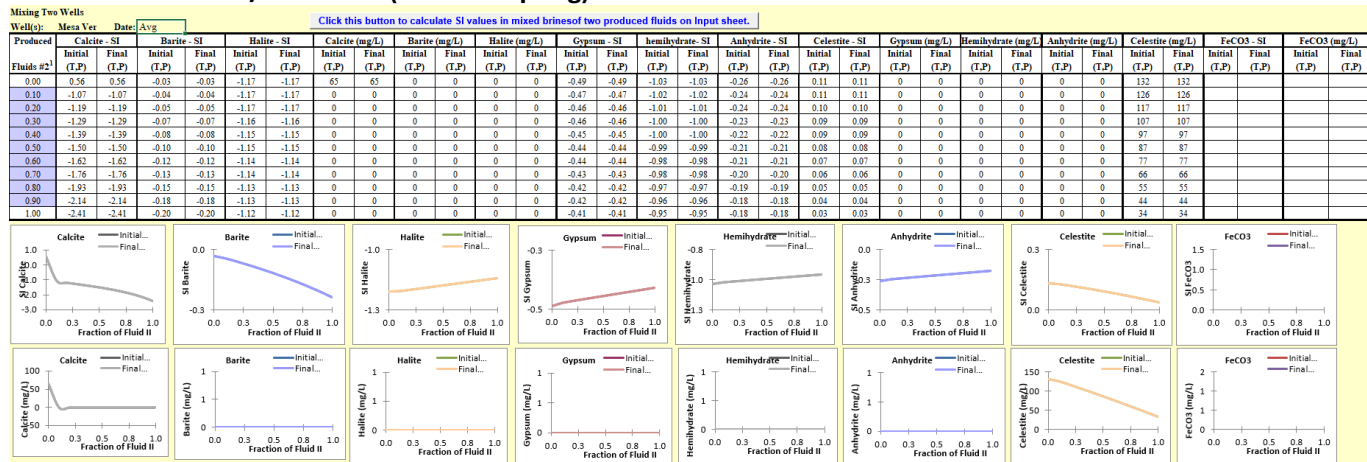
Below is supporting information and the SSP2025 results that were modeled. Additional files have the raw water chemistry information and the SSP2025 models that were ran.

Locations	Formation	Temperature (F)	Pressure (PSI)
Mesa Verde 18 CTB	CTB		
MV BS 1H-ST1	Avalon	135	5700
MV BS 4H	2nd Bone Spring	155	6400
MV BS 2H	3rd Bone Spring	170	7500
MV WC 5H	WCXY	170	7500
MV WC 7H	WCA	170	7500

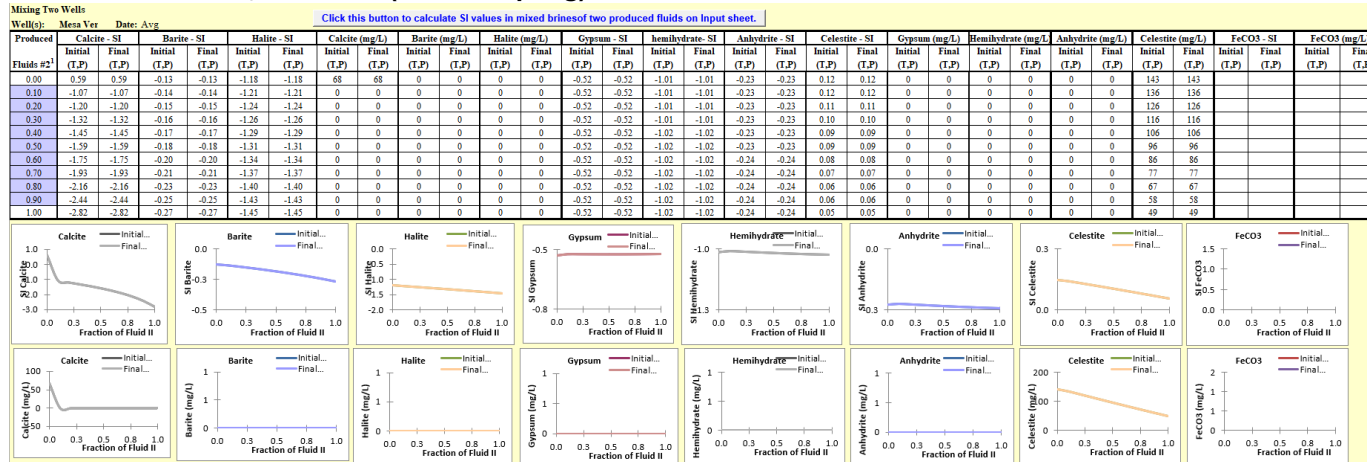
Mesa Verde 18 CTB / MV BS 1H-ST1 (Avalon)



Mesa Verde 18 CTB / MV BS 4H (2nd Bone Spring)



Mesa Verde 18 CTB / MV BS 2H (3rd Bone Spring)



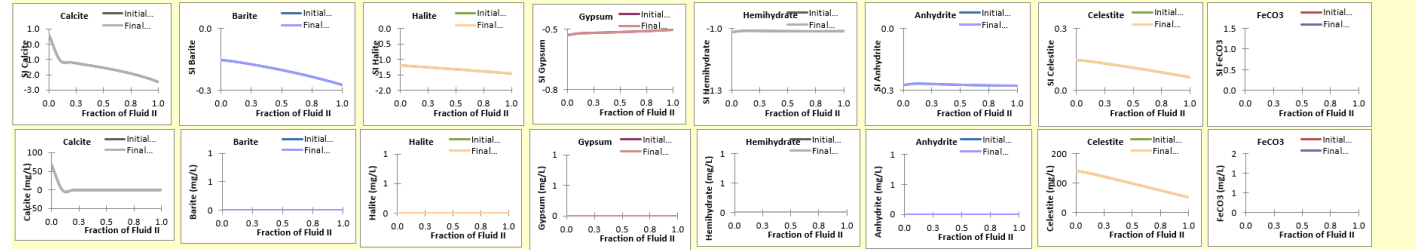
Mesa Verde 18 CTB / MV WC 5H (WCXY)

Mixing Two Wells

Well(s): Mesa Ver Date: 9/2/2022

[Click this button to calculate SI values in mixed brines of two produced fluids on input sheet.](#)

Produced Fluids #2	Calcite - SI		Barite - SI		Halite - SI		Calcite (mg/L)		Barite (mg/L)		Halite (mg/L)		Gypsum - SI		hemihydrate - SI		Anhydrite - SI		Celestite - SI		Gypsum (mg/L)		Hemihydrate (mg/L)		Anhydrite (mg/L)		Celestite (mg/L)		FeCO ₃ - SI		FeCO ₃ (mg/L)	
	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)		
0.00	0.61	0.61	-0.13	-0.13	-1.18	-1.18	69	69	0	0	0	0	-0.52	-0.52	-1.01	-1.01	-0.23	-0.23	0.12	0.12	0	0	0	0	0	0	0	0	143	143		
0.10	-1.04	-1.04	-0.13	-0.13	-1.21	-1.21	0	0	0	0	0	0	-0.52	-0.52	-1.01	-1.01	-0.22	-0.22	0.12	0.12	0	0	0	0	0	0	0	0	137	137		
0.20	-1.18	-1.18	-0.14	-0.14	-1.24	-1.24	0	0	0	0	0	0	-0.52	-0.52	-1.01	-1.01	-0.22	-0.22	0.11	0.11	0	0	0	0	0	0	0	0	128	128		
0.30	-1.29	-1.29	-0.15	-0.15	-1.27	-1.27	0	0	0	0	0	0	-0.51	-0.51	-1.01	-1.01	-0.23	-0.23	0.10	0.10	0	0	0	0	0	0	0	0	119	119		
0.40	-1.41	-1.41	-0.16	-0.16	-1.29	-1.29	0	0	0	0	0	0	-0.51	-0.51	-1.01	-1.01	-0.23	-0.23	0.10	0.10	0	0	0	0	0	0	0	0	110	110		
0.50	-1.53	-1.53	-0.17	-0.17	-1.32	-1.32	0	0	0	0	0	0	-0.51	-0.51	-1.01	-1.01	-0.23	-0.23	0.09	0.09	0	0	0	0	0	0	0	0	100	100		
0.60	-1.67	-1.67	-0.18	-0.18	-1.35	-1.35	0	0	0	0	0	0	-0.51	-0.51	-1.01	-1.01	-0.23	-0.23	0.08	0.08	0	0	0	0	0	0	0	0	91	91		
0.70	-1.82	-1.82	-0.19	-0.19	-1.38	-1.38	0	0	0	0	0	0	-0.51	-0.51	-1.01	-1.01	-0.23	-0.23	0.08	0.08	0	0	0	0	0	0	0	0	82	82		
0.80	-2.00	-2.00	-0.20	-0.20	-1.41	-1.41	0	0	0	0	0	0	-0.51	-0.51	-1.01	-1.01	-0.23	-0.23	0.07	0.07	0	0	0	0	0	0	0	0	72	72		
0.90	-2.20	-2.20	-0.22	-0.22	-1.44	-1.44	0	0	0	0	0	0	-0.50	-0.50	-1.01	-1.01	-0.23	-0.23	0.06	0.06	0	0	0	0	0	0	0	0	63	63		
1.00	-2.46	-2.46	-0.23	-0.23	-1.47	-1.47	0	0	0	0	0	0	-0.50	-0.50	-1.01	-1.01	-0.23	-0.23	0.05	0.05	0	0	0	0	0	0	0	0	53	53		



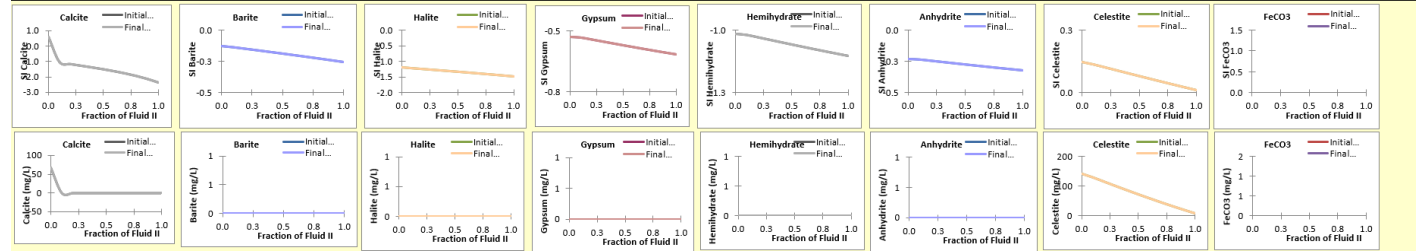
Mesa Verde 18 CTB / MV WC 7H (WCA)

Mixing Two Wells

Well(s): Mesa Ver Date: 9/2/2022

[Click this button to calculate SI values in mixed brines of two produced fluids on input sheet.](#)

Produced Fluids #2	Calcite - SI		Barite - SI		Halite - SI		Calcite (mg/L)		Barite (mg/L)		Halite (mg/L)		Gypsum - SI		hemihydrate - SI		Anhydrite - SI		Celestite - SI		Gypsum (mg/L)		Hemihydrate (mg/L)		Anhydrite (mg/L)		Celestite (mg/L)		FeCO ₃ - SI		FeCO ₃ (mg/L)	
	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)		
0.00	0.58	0.58	-0.13	-0.13	-1.18	-1.18	67	67	0	0	0	0	-0.52	-0.52	-1.01	-1.01	-0.23	-0.23	0.12	0.12	0	0	0	0	0	0	0	0	143	143		
0.10	-1.04	-1.04	-0.14	-0.14	-1.21	-1.21	0	0	0	0	0	0	-0.52	-0.52	-1.02	-1.02	-0.23	-0.23	0.11	0.11	0	0	0	0	0	0	0	0	131	131		
0.20	-1.17	-1.17	-0.15	-0.15	-1.24	-1.24	0	0	0	0	0	0	-0.53	-0.53	-1.03	-1.03	-0.24	-0.24	0.10	0.10	0	0	0	0	0	0	0	0	116	116		
0.30	-1.27	-1.27	-0.16	-0.16	-1.27	-1.27	0	0	0	0	0	0	-0.54	-0.54	-1.04	-1.04	-0.25	-0.25	0.09	0.09	0	0	0	0	0	0	0	0	102	102		
0.40	-1.38	-1.38	-0.17	-0.17	-1.30	-1.30	0	0	0	0	0	0	-0.55	-0.55	-1.05	-1.05	-0.26	-0.26	0.08	0.08	0	0	0	0	0	0	0	0	88	88		
0.50	-1.50	-1.50	-0.19	-0.19	-1.33	-1.33	0	0	0	0	0	0	-0.56	-0.56	-1.06	-1.06	-0.27	-0.27	0.07	0.07	0	0	0	0	0	0	0	0	74	74		
0.60	-1.62	-1.62	-0.20	-0.20	-1.36	-1.36	0	0	0	0	0	0	-0.57	-0.57	-1.07	-1.07	-0.28	-0.28	0.05	0.05	0	0	0	0	0	0	0	0	60	60		
0.70	-1.77	-1.77	-0.21	-0.21	-1.39	-1.39	0	0	0	0	0	0	-0.57	-0.57	-1.08	-1.08	-0.29	-0.29	0.04	0.04	0	0	0	0	0	0	0	0	47	47		
0.80	-1.93	-1.93	-0.22	-0.22	-1.42	-1.42	0	0	0	0	0	0	-0.58	-0.58	-1.09	-1.09	-0.30	-0.30	0.03	0.03	0	0	0	0	0	0	0	0	34	34		
0.90	-2.12	-2.12	-0.24	-0.24	-1.45	-1.45	0	0	0	0	0	0	-0.59	-0.59	-1.09	-1.09	-0.31	-0.31	0.02	0.02	0	0	0	0	0	0	0	0	22	22		
1.00	-2.35	-2.35	-0.25	-0.25	-1.48	-1.48	0	0	0	0	0	0	-0.60	-0.60	-1.10	-1.10	-0.32	-0.32	0.01	0.01	0	0	0	0	0	0	0	0	10	10		



Atchafalaya Measurement Inc
416 East Main Street, Artesia NM 88210 575-746-3481

Sample Information

Sample Information	
Sample Name	OXY__Mesa Verde 2H__GC2-41619-10
Station Number	15504T
Lease Name	Mesa Verde 2H
Analysis For	OXY USA
Producer	OXY USA
Field Name	Basin
County/State	Eddy,NM
Frequency/Spot Sample	Quarterly
Sampling Method	Fill Empty
Sample Deg F	86.5
Atmos Deg F	60
Flow Rate	1575.9771
Line PSIG	112.4
Date Sampled/Time Sampled	4-11-19
Cylinder Number	N/A
Cylinder Clean Date	N/A
Sampled By	Victor Urias
Analysis By	Pat Silvas
Verified/Calibrated Date	4-15-19
Report Date	2019-04-16 14:03:56

Component Results

Component Name	Ret. Time	Peak Area	Norm%	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	22.960	21911.2	1.6270	0.000
H2S	0.000	0.0	0.0000	0.000
Methane	23.740	732471.0	71.9846	0.000
Carbon Dioxide	27.640	44300.2	2.8176	0.000
Ethane	36.960	211191.6	12.5633	3.354
Propane	77.160	149546.1	6.7228	1.849
i-Butane	29.820	71692.4	0.8789	0.287
n-Butane	32.080	168721.6	2.0529	0.646
i-Pentane	39.180	40565.8	0.4290	0.157
n-Pentane	41.980	44912.8	0.4623	0.167
C6's	50.750	26514.0	0.2401	0.099
C7's	67.000	19009.0	0.1657	0.076
C8's	84.000	5233.0	0.0486	0.025
C9's	102.000	1531.0	0.0051	0.003
C10 Plus	146.000	557.0	0.0021	0.001
Total:			100.0000	6.664

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	100.9186	
Pressure Base (psia)	14.650	
Temperature Base	60.00	
Gross Heating Value (BTU / Ideal cu.ft.)	1269.9	1247.7
Gross Heating Value (BTU / Real cu.ft.)	1275.0	1253.2
Relative Density (G), Ideal	0.7862	0.7833
Relative Density (G), Real	0.7891	0.7865
Compressibility (Z) Factor	0.9960	0.9955



Certificate of Analysis

Number: 6030-20110021-001A

Artesia Laboratory
 200 E Main St.
 Artesia, NM 88210
 Phone 575-746-3481

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

Nov. 05, 2020

Field: Mesa Verde
 Station Name: Mesa Verde East CGL
 Station Number: N/A
 Sample Point: Inlet to Dehy
 Meter Number:
 County: Lea
 Type of Sample: Spot-Cylinder
 Heat Trace Used: N/A
 Sampling Method: Fill and Purge
 Sampling Company: OXY

Sampled By: Scott Beasley
 Sample Of: Gas Spot
 Sample Date: 10/30/2020 10:00
 Sample Conditions: 1290 psig, @ 60 °F Ambient: 45 °F
 Effective Date: 10/30/2020 10:00
 Method: GPA 2286
 Cylinder No: 1111-002316
 Instrument: 6030_GC2 (Agilent GC-7890B)
 Last Inst. Cal.: 08/25/2020 8:12 AM
 Analyzed: 11/05/2020 08:47:32 by PGS

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Nitrogen	1.206	1.189	1.495		GPM TOTAL C2+	6.645
Methane	75.248	74.177	53.401		GPM TOTAL C3+	3.314
Carbon Dioxide	1.152	1.136	2.244		GPM TOTAL iC5+	0.562
Ethane	12.654	12.474	16.832	3.331		
Propane	6.662	6.567	12.995	1.806		
Iso-butane	0.889	0.876	2.285	0.286		
n-Butane	2.126	2.096	5.467	0.660		
Iso-pentane	0.443	0.437	1.415	0.159		
n-Pentane	0.488	0.481	1.557	0.174		
Hexanes Plus	0.575	0.567	2.309	0.229		
	101.443	100.000	100.000	6.645		

Calculated Physical Properties

	Total	C6+
Relative Density Real Gas	0.7722	3.1348
Calculated Molecular Weight	22.28	90.79
Compressibility Factor	0.9960	

GPA 2172 Calculation:

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

Real Gas Dry BTU	1298	4897
Water Sat. Gas Base BTU	1275	4811
Ideal, Gross HV - Dry at 14.65 psia	1292.6	4896.9
Ideal, Gross HV - Wet	1270.0	0.000
Net BTU Dry Gas - real gas	1179	
Net BTU Wet Gas - real gas	1158	

Comments: H2S Field Content 0 ppm

Hydrocarbon Laboratory Manager

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



Certificate of Analysis

Number: 6030-20110021-001A

Artesia Laboratory
 200 E Main St.
 Artesia, NM 88210
 Phone 575-746-3481

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

Nov. 05, 2020

Field: Mesa Verde
 Station Name: Mesa Verde East CGL
 Station Number: N/A
 Sample Point: Inlet to Dehy
 Meter Number:
 County: Lea
 Type of Sample: Spot-Cylinder
 Heat Trace Used: N/A
 Sampling Method: Fill and Purge

Sampled By: Scott Beasley
 Sample Of: Gas Spot
 Sample Date: 10/30/2020 10:00
 Sample Conditions: 1290 psig, @ 60 °F
 Method: GPA 2286
 Cylinder No: 1111-002316
 Analyzed: 11/05/2020 14:31:50 by PGS
 Sampling Company: OXY

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia	
Nitrogen	1.189	1.495		GPM TOTAL C2+ 6.645
Methane	74.177	53.401		GPM TOTAL C3+ 3.314
Carbon Dioxide	1.136	2.244		GPM TOTAL iC5+ 0.562
Ethane	12.474	16.832	3.331	
Propane	6.567	12.995	1.806	
Iso-Butane	0.876	2.285	0.286	
n-Butane	2.096	5.467	0.660	
Iso-Pentane	0.437	1.415	0.159	
n-Pentane	0.481	1.557	0.174	
Hexanes	0.260	1.017	0.107	
Heptanes Plus	0.307	1.292	0.122	
	100.000	100.000	6.645	

Calculated Physical Properties	Total	C7+
Relative Density Real Gas	0.7722	3.3040
Calculated Molecular Weight	22.28	95.69
Compressibility Factor	0.9960	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1298	5090
Water Sat. Gas Base BTU	1275	5000
Ideal, Gross HV - Dry at 14.65 psia	1292.6	5089.5
Ideal, Gross HV - Wet	1270.0	NIL

Comments: H2S Field Content 0 ppm

Hydrocarbon Laboratory Manager

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



Certificate of Analysis

Number: 6030-20110021-001A

Artesia Laboratory
 200 E Main St.
 Artesia, NM 88210
 Phone 575-746-3481

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

Nov. 05, 2020

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Analytical Data

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Propane	6.567	12.995	1.806	
Iso-Butane	0.876	2.285	0.286	
n-Butane	2.096	5.467	0.660	
Iso-Pentane	0.437	1.415	0.159	
n-Pentane	0.481	1.557	0.174	
i-Hexanes	0.161	0.616	0.065	
n-Hexane	0.099	0.401	0.042	
Benzene	0.019	0.064	0.005	
Cyclohexane	0.059	0.227	0.021	
i-Heptanes	0.101	0.415	0.040	
n-Heptane	0.026	0.119	0.012	
Toluene	0.001	0.002	NIL	
i-Octanes	0.077	0.352	0.034	
n-Octane	0.005	0.026	0.003	
Ethylbenzene	0.001	0.004	NIL	
Xylenes	0.005	0.020	0.002	
i-Nonanes	0.009	0.047	0.004	
n-Nonane	0.002	0.009	0.001	
i-Decanes	NIL	0.002	NIL	
n-Decane	0.001	0.002	NIL	
Undecanes	0.001	0.003	NIL	
Dodecanes	NIL	NIL	NIL	
Tridecanes	NIL	NIL	NIL	
Tetradecanes Plus	NIL	NIL	NIL	
	<u>100.000</u>	<u>100.000</u>	<u>6.645</u>	



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Number: 6030-20110021-001A

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Nov. 05, 2020

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Sample Conditions: 1290 psig, @ 60 °F
Method: GPA 2286
Cylinder No: 1111-002316
Analyzed: 11/05/2020 14:31:50 by PGS
Sampling Company: OXY

Calculated Physical Properties	Total
Calculated Molecular Weight	22.284
GPA 2172 Calculation:	
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F	
Real Gas Dry BTU	1297.8
Water Sat. Gas Base BTU	1275.1
Relative Density Real Gas	0.7722
Compressibility Factor	0.9960

Comments: H2S Field Content 0 ppm

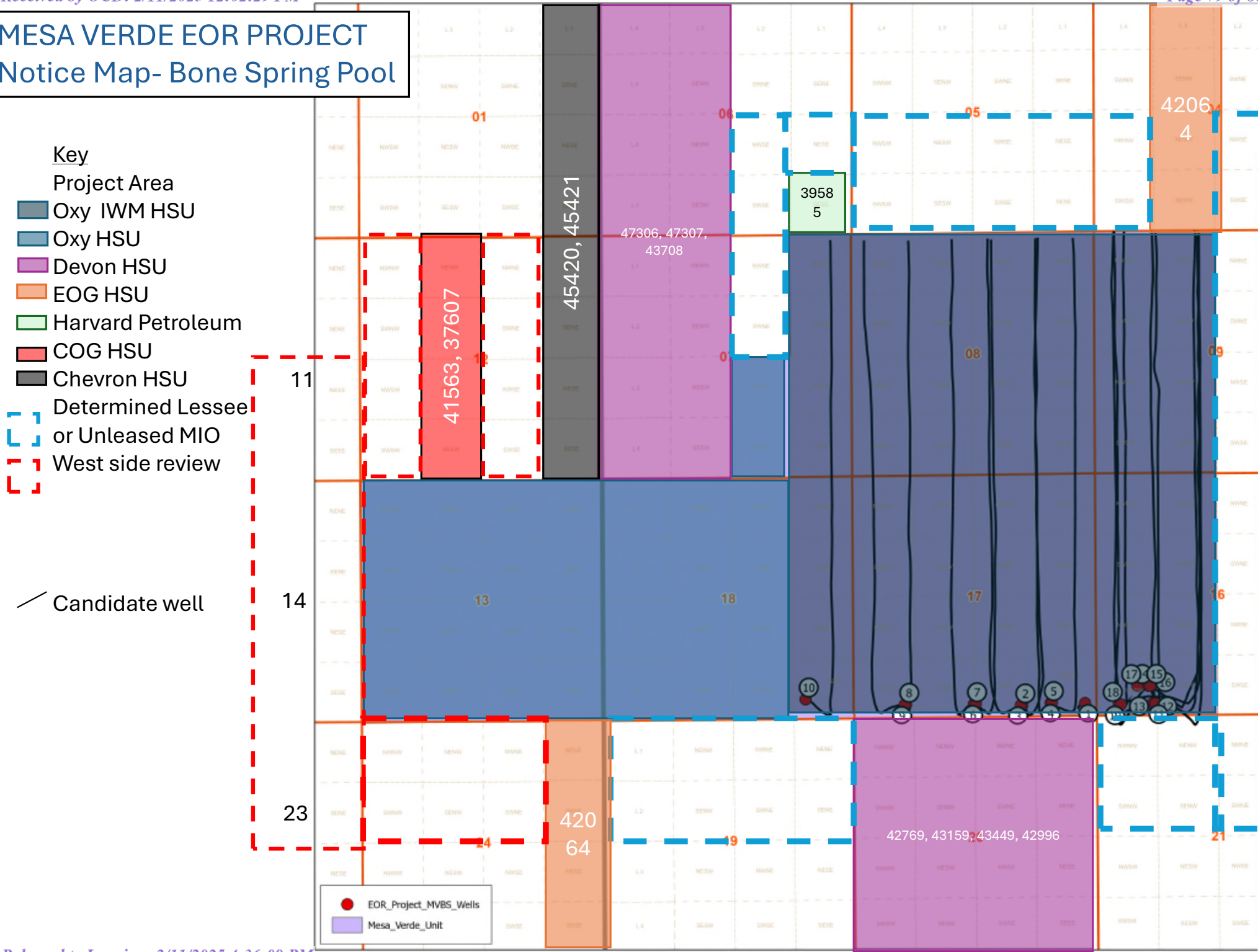
Hydrocarbon Laboratory Manager

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

MESA VERDE EOR PROJECT Notice Map- Bone Spring Pool

- Key**
- Project Area
 - Oxy IWM HSU
 - Oxy HSU
 - Devon HSU
 - EOG HSU
 - Harvard Petroleum
 - COG HSU
 - Chevron HSU
 - Determined Lessee or Unleased MIO
 - West side review

— Candidate well



Mesa Verde BS EOR Project- Notice List

2/10/2025

Party	Address
Agencies and Surface Owners	
Bureau of Land Mangment- Carlsbad Field Office	620 E. Greene Street Carlsbad, New Mexico 88220-6292
State Land Office	P.O. Box 1148 Santa Fe, NM 87504
Offset Operators	
BURLINGTON RESOURCES OIL & GAS CO	P.O. Box 51810 Midland, TX 79710
BURLINGTON RESOURCES OIL & GAS COMPANY LP	600 W. Illinois Avenue Midland, TX 79701
CHEVRON U S A INC	6301 Deauville Blvd Midland, TX 79706
COG OPERATING LLC	600 W. Illinois Avenue Midland, TX 79701
COG PRODUCTION, LLC	600 W. Illinois Avenue Midland, TX 79701
DEVON ENERGY PRODUCTION COMPANY, LP	333 West Sheridan Avenue Oklahoma City, OK 73102
DEVON SFS OPERATING INC	20 N. Broadway Suite 1500 Oklahoma City, OK 73102
EOG RESOURCES INC	5509 Champions Drive Midland, TX 79706
EOG Y RESOURCES, INC.	104 S. 4th Street Artesia, NM 88210
HARVARD PETROLEUM COMPANY, LLC	P.O. Box 936 Roswell, NM 88202
MESQUITE SWD, INC	P.O Box 1479 Carlsbad, NM 88221
NGL WATER SOLUTIONS PERMIAN, LLC	865 North Albion Street Suite 500 Denver, CO 80220
TAP ROCK OPERATING, LLC	523 Park Point Drive Suite 200 Golden, CO 80401
XTO ENERGY, INC	6401 Holiday Hill Road Building #5 Midland, TX 79707
Other Affected Persons and Parties	
28TwentyEight Energy LLC	5790 Saintsbury Drive The Colony, TX 75056

3 Knights Operating LLC	6404 County Road 1440 Lubbock, TX 79407
3XT Holding LLC	5325 County Road 7560 Lubbock, TX 79424
Abo Petroleum	P.O. Box 900 Artesia, NM 88211
Burlington Resources Oil & Gas Company LP	P.O. Box 51810 Midland, TX 79710
Chevron USA Inc.	1400 Smith Street Houston, TX 77002
COG Operating LLC	600 W. Illinois Avenue Midland, TX 79701
Devon Energy Production Company, LP	333 W. Sheridan Avenue Oklahoma City, OK 73102
EOG Resources	1111 Bagby Street Sky Lobby 2 Houston, TX 77002
Hilcorp Energy	1000 Louisiana #3760 Houston, TX 77002
LMS Limited Liability Company	Box 621402 Littleton, CO 80162
Mersereau Enterprises LLC	132 Castillo Avenue San Antonio, TX 78210
Oxy Y-1 Company	5 Greenway Plaza, Suite 110 Houston, TX 77046
Panada Pipe & Equipment	P.O. Box 3721 Midland, TX 79702
PXP Producing Company LLC	717 Texas Street Suite 2100 Houston, TX 77002
Sabine Oil & Gas Corporation	1415 Louisiana Street Suite 1600 Houston, TX 77002
T E F Corporation	P.O. Box 3721 Midland, TX 79702
Tempo Energy Inc.	P.O. Box 1034 Midland, TX 79702
Thomas E. Jennings	P.O. Box 1797 Roswell, NM 88202
Timothy Z. Jennings	P.O. Box 1797 Roswell, NM 88202
Vladin LLC	P.O. Box 100 Artesia, NM 88211
XTO Holdings LLC	22777 Springwoods Village Parkway Spring, TX 77389

Part VIII- Geologic Information for Mesa Verde – Avalon

Table 1. Mesa Verde Avalon Laterals (4).

Well Name	API
MESA VERDE BS UNIT 1H ST1	3002544101
MESA VERDE BS UNIT 3H	3002544183
MESA VERDE BS UNIT 44H	3002548814
MESA VERDE BS UNIT 45H	3002548815

The Mesa Verde Avalon lateral wells (Table 1) will be injecting into the Avalon Formation of the Bone Spring Formation. These wells have a subsea true vertical depth (SSTVD) of approximately -5500 to -5700 ft. with lateral lengths of approximately 10,000 ft. They will be injecting into a reservoir composed of kerogen-rich mudrock. The reservoir rock has porosity of 3-15% with an average porosity of 10%. Rock matrix permeability measured on whole core and rotary sidewall cores with GRI tests averages 0.0009 millidarcies, ranging from 0.0000001 to 0.00655 millidarcies.

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.

The top of the Bone Spring Formation measures at 8,482 MD depth at the Jack Tank Federal 2 well (30-025-32192) in Mesa Verde with a total thickness of 640 to 800 ft. above the injection zone with tight carbonates and shales acting as permeability baffles to upward migration of injected gas. These low-permeability barriers acted as seals above and below the reservoir to historically trap hydrocarbons. Above that, the Delaware Mountain Group consists of connate-water bearing and hydrocarbon-bearing sands, with minor limestone and shale intervals and is over 3,800 ft. thick. Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,400 ft. thick barrier to upward movement of fluids. The Salado overlies the Castile and forms a 2,000 ft. thick barrier of salt. The top of the Salado is at 1,285 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 930 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. Water wells drilled in the area typically have not reached this depth. 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.

Locate freshwater wells within two miles:

An investigation of existing shallow water wells has found freshwater wells within a two mile radius of Mesa Verde.

I hereby certify that the information presented above is true and correct to the best of my knowledge and belief.

Stephanie Noonan

Stephanie Noonan
Geologist Staff Sr.

2/6/25

Date

Part VIII- Geologic Information for Mesa Verde – First Bone Spring Sandstone

Table 1. Mesa Verde First Bone Spring Sandstone Laterals (2).

Well Name	API
MESA VERDE BS UNIT 46H	3002548816
MESA VERDE BS UNIT 73H	3002548818

The Mesa Verde First Bone Spring lateral wells (Table 1) will be injecting into the First Bone Spring Sandstone of the Bone Spring Formation. These wells have a subsea true vertical depth (SSTVD) of approximately -6200 ft. with lateral lengths of approximately 10,000 ft. They will be injecting into a reservoir composed of tight siltstone. The reservoir rock has porosity of 2-13% with an average porosity of 6%. Rock matrix permeability measured on whole core and rotary sidewall cores with GRI tests averages 0.0001489 millidarcies, ranging from 0.0000013 to 0.0005076 millidarcies.

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.

The top of the Bone Spring Formation measures at 8,482 MD depth at the Jack Tank Federal 2 well (30-025-32192) in Mesa Verde with a total thickness of 1,000 ft. above the injection zone with tight carbonates and shales acting as permeability baffles to upward migration of injected gas. These low-permeability barriers acted as seals above and below the reservoir to historically trap hydrocarbons. Above that, the Delaware Mountain Group consists of connate-water bearing and hydrocarbon-bearing sands, with minor limestone and shale intervals and is over 3,800 ft. thick. Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,400 ft. thick barrier to upward movement of fluids. The Salado overlies the Castile and forms a 2,000 ft. thick barrier of salt. The top of the Salado is at 1,285 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 930 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. Water wells drilled in the area typically have not reached this depth. 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.

Locate freshwater wells within two miles:

An investigation of existing shallow water wells has found freshwater wells within a two mile radius of Mesa Verde.

I hereby certify that the information presented above is true and correct to the best of my knowledge and belief.

Stephanie Noonan

Stephanie Noonan
Geologist Staff Sr.

2/6/25

Date

Part VIII- Geologic Information for Mesa Verde Second Bone Spring Sandstone Lateral Wells:*Table 1. Mesa Verde 2nd Bone Sandstone Laterals (7).*

Well Name	API
MESA VERDE BS UNIT 4H	3002544064
MESA VERDE BS UNIT 5H	3002544185
MESA VERDE BS UNIT 6H	3002544042
MESA VERDE BS UNIT 7H	3002544065
MESA VERDE BS UNIT 22H	3002544559
MESA VERDE BS UNIT 23H	3002544560
MESA VERDE BS UNIT 24H	3002544561

The Mesa Verde Second Bone Spring Sandstone lateral wells (Table 1) will be injecting into the Second Bone Spring Sandstone of the Bone Spring Formation. These wells have a subsea true vertical depth (SSTVD) of approximately -6700 ft. to -7100 ft. with lateral lengths of approximately 10,000 ft. They will be injecting into a reservoir composed of tight siltstone. The reservoir rock has porosity of 2-11% with an average porosity of 7%. Rock matrix permeability measured on whole core and rotary sidewall cores with GRI tests averages 0.0002106 millidarcies, ranging from 0.0000003 to 0.0014078 millidarcies.

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.

The top of the Bone Spring Formation measures at 8,482 MD depth at the Jack Tank Federal 2 well (30-025-32192) in Mesa Verde with a total thickness of 1,800 ft. above the injection zone, with carbonate mudstones and shales acting as permeability baffles to upward migration of injected gas. These low-permeability barriers acted as seals above and below the reservoir to historically trap hydrocarbon 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 3,800 ft. thick. Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,400 ft. thick barrier to upward movement of fluids. The Salado overlies the Castile and forms a 2,000 ft. thick barrier of salt. The top of the Salado is at 1,285 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 930 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. Water wells drilled in the area typically have not reached this depth. 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.

Locate freshwater wells within two miles:

An investigation of existing shallow wells has found freshwater wells within a two mile radius of Mesa Verde.

I hereby certify that the information presented above is true and correct to the best of my knowledge and belief.

Stephanie Noonan

Stephanie Noonan

Geologist Staff Sr.

2/6/25

Date

Part VIII- Geologic Information for Mesa Verde – Third Bone Spring Sand Mesa Verde BS 2H Well

The Mesa Verde Third Bone Spring lateral well, Mesa Verde BS 2H (3002544196), will be injecting into the Third Bone Spring Sandstone of the Bone Spring Formation. This well has a subsea true vertical depth (SSTVD) of approximately -8275 ft. with a lateral length of approximately 10,000 ft. It will be injecting into a reservoir composed of tight siltstone. The reservoir rock has porosity of 1-9% with an average porosity of 8%. Rock matrix permeability measured on whole core and rotary sidewall cores with GRI tests averages 0.001 millidarcies, ranging from 0.0000008 to 0.0023809 millidarcies.

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.

The top of the Bone Spring Formation measures at 8,482 MD depth at the Jack Tank Federal 2 well (API #30-025-32192) in Mesa Verde with a total thickness of 3,300 ft. above the injection zone, with carbonate mudstones and shales acting as permeability baffles to upward migration of injected gas. These low-permeability barriers acted as seals above and below the reservoir to historically trap hydrocarbon 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 3,800 ft. thick. Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,400 ft. thick barrier to upward movement of fluids. The Salado overlies the Castile and forms a 2,000 ft. thick barrier of salt. The top of the Salado is at 1,285 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 930 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. Water wells drilled in the area typically have not reached this depth. 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.

Locate freshwater wells within two miles:

An investigation of existing shallow water wells has found any freshwater wells within a two mile radius of Mesa Verde.

I hereby certify that the information presented above is true and correct to the best of my knowledge and belief.

Stephanie Noonan

Stephanie Noonan
Geologist Staff Sr.

2/6/25

Date

Part VIII- Geologic Information for Mesa Verde – Third Bone Spring Limestone Mesa Verde BS 74H Well

The Mesa Verde Third Bone Spring Limestone lateral well Mesa Verde BS 74H (3002548819) will be injecting into the Harkey Member of the Third Bone Spring Limestone of the Bone Spring Formation. This well has a subsea true vertical depth (SSTVD) of approximately -7560 ft. with a lateral length of approximately 10,000 ft. It will be injecting into a reservoir composed of tight siltstone. The reservoir rock has porosity of 2-10% with an average porosity of 5%. Rock matrix permeability measured on whole core and rotary sidewall cores with GRI tests averages 0.002 millidarcies, ranging from 0.0000003 to 0.0053 millidarcies.

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.

The top of the Bone Spring Formation measures at 8,482 MD depth at the Jack Tank Federal 2 well (API #30-025-32192) in Mesa Verde with a total thickness of 2,500 ft. above the injection zone, with carbonate mudstones and shales acting as permeability baffles to upward migration of injected gas. These low-permeability barriers acted as seals above and below the reservoir to historically trap hydrocarbon 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 3,800 ft. thick. Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,400 ft. thick barrier to upward movement of fluids. The Salado overlies the Castile and forms a 2,000 ft. thick barrier of salt. The top of the Salado is at 1,285 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 930 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. Water wells drilled in the area typically have not reached this depth. 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.

Locate freshwater wells within two miles:

An investigation of existing shallow water wells has found freshwater wells within a two mile radius of Mesa Verde.

I hereby certify that the information presented above is true and correct to the best of my knowledge and belief.

Stephanie Noonan

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Geologist Staff Sr.

2/6/25

Date