# Initial Application Part I

Received 7/27/21

*This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete*

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

7/27/21

FORM C-108
Revised June 10, 2003

1QACQ-210520-C-1080

pBL2121742658

**APPLICATION FOR AUTHORIZATION TO INJECT**

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance XXX Disposal _____Storage
Application qualifies for administrative approval? XXX Yes _____No

II. OPERATOR: Redwood Operating LLC

ADDRESS: P.O. Box 1370 Artesia, NM 88210

CONTACT PARTY: Deana Weaver PHONE: 575-748-1288

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.

IV. Is this an expansion of an existing project? _____Yes X 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.

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.

VII. Attach data on the proposed operation, including:

SWD-2444

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or 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.

IX. Describe the proposed stimulation program, if any.

*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: Deana Weaver TITLE: Regulatory Technician II

SIGNATURE: Deana Weaver DATE: 7/27/2021

E-MAIL ADDRESS: regulatory@redwoodoperating.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: Original and one copy to Santa Fe with one copy to the appropriate District Office

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:

(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.

(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.

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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.

Side 1

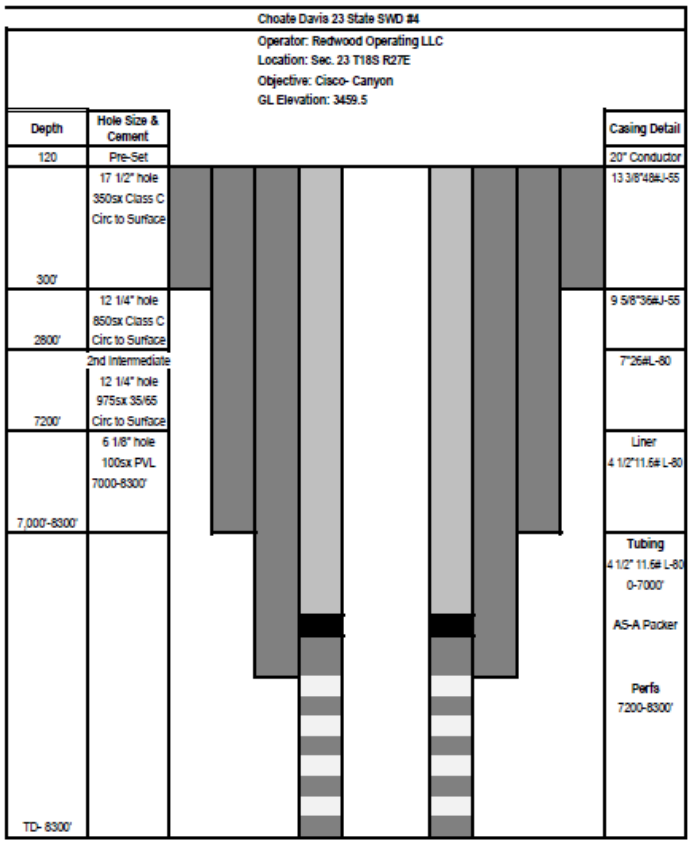
# INJECTION WELL DATA SHEET

OPERATOR: Redwood Operating LLC

WELL NAME & NUMBER: Choate Davis 23 State SWD #4

| WELL LOCATION: | 570 FNL & 750 FWL | D | 23 | 18S | 27E |
|---|---|---|---|---|---|
| | FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE |

## *WELLBORE SCHEMATIC*




## *WELL CONSTRUCTION DATA*

### Surface Casing

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

Cemented with: 350 sx. ***or*** _____ $ft^3$

Top of Cement: 0 Method Determined: Circ

### Intermediate Casing

Hole Size: 12 1/4" & 8 3/4" Casing Size: 9 5/8" & 7" (2nd Intermediate)

Cemented with: 1825 sx. ***or*** _____ $ft^3$

Top of Cement: 0 Method Determined: Circ

### Production Casing

Hole Size: 6 1/8" Casing Size: 4 1/2" (Production Liner)

Cemented with: 100 sx. ***or*** _____ $ft^3$

Top of Cement: 0 Method Determined: Circ

Total Depth: 8300'

### Injection Interval

7200' feet to 8300' Perforated

(Perforated or Open Hole; indicate which)

# INJECTION WELL DATA SHEET

Tubing Size: 4 1/2" Lining Material: Plastic Coated

Type of Packer: AS-A Packer

Packer Setting Depth: 7000'

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

## Additional Data

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

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

2. Name of the Injection Formation: Cisco, Canyon

3. Name of Field or Pool (if applicable): SWD; Cisco- Canyon

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: Queen (Oil) - 1500'
   Grayburg (Oil)- 2000'
   Morrow (Gas)- 9600'

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

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

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| [1] API Number | [2] Pool Code | [3] Pool Name |
|---|---|---|
| | 96186 | SWD; Cisco-Canyon |

| [4] Property Code | [5] Property Name | [6] Well Number |
|---|---|---|
| | CHOATE DAVIS 23 STATE SWD | 4 |

| [7] OGRID No. | [8] Operator Name | [9] Elevation |
|---|---|---|
| 330211 | REDWOOD OPERATING, LLC. | 3459.5 |

## [10] Surface Location

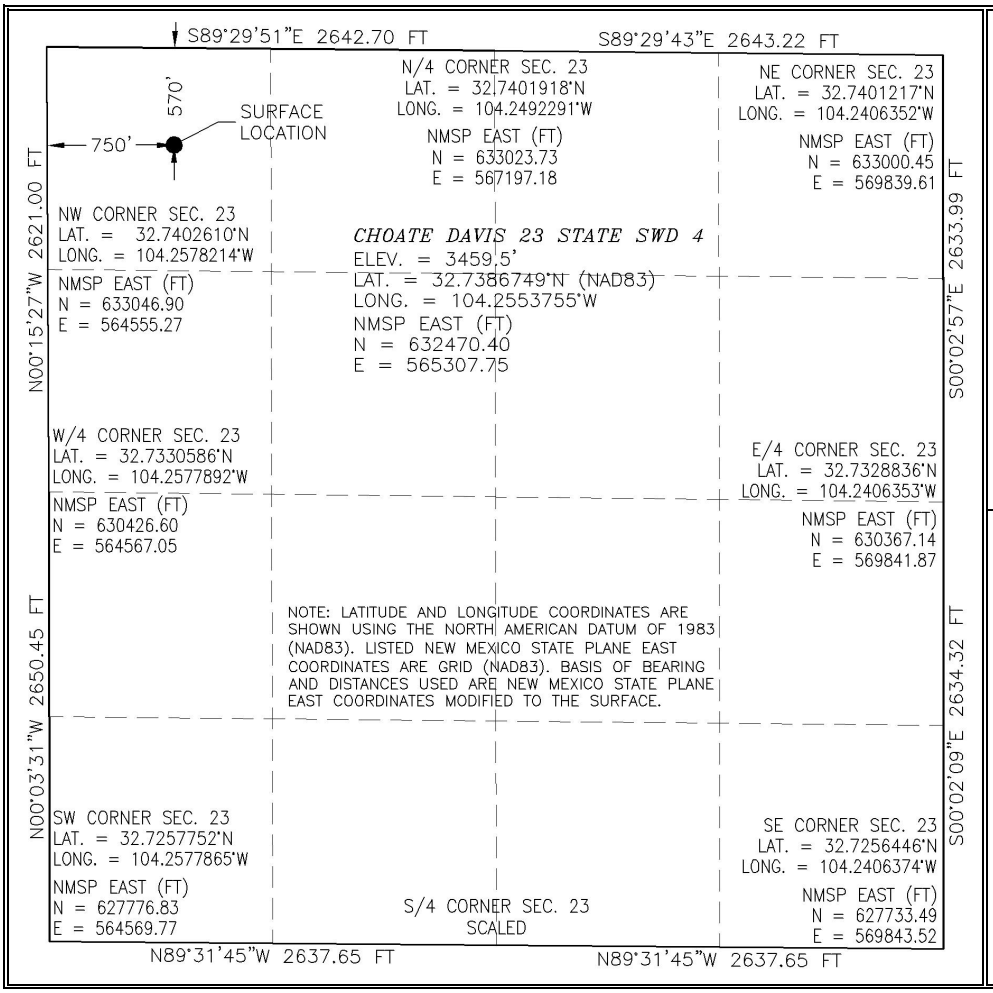
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| D | 23 | 18 S | 27 E | | 570 | NORTH | 750 | WEST | EDDY |

## [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 | 23 | 18 S | 27 E | | 570 | NORTH | 750 | WEST | EDDY |

| [12] Dedicated Acres | [13] Joint or Infill | [14] Consolidation Code | [15] Order No. |
|---|---|---|---|
| 40 | | | |

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.




## [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.*

Deana Weaver 7/27/2021
Signature Date

Deana Weaver
Printed Name

regulatory@redwoodoperating.com
E-mail Address

## [18] 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.*

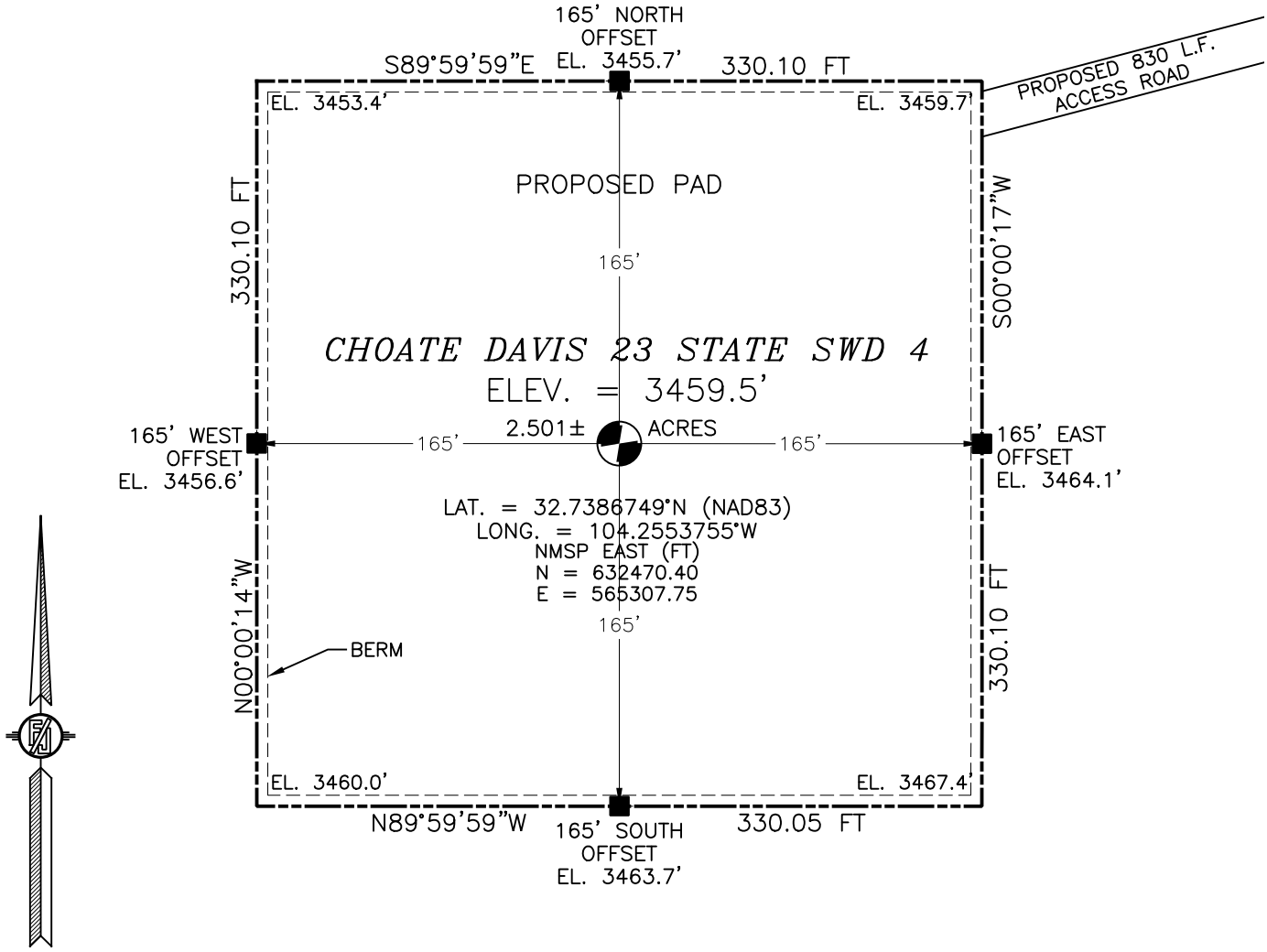
JANUARY 12, 2020
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number: EDMUND F. JARAMILLO, PLS 12797
SURVEY NO. 6577A

# SECTION 23, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
# EDDY COUNTY, STATE OF NEW MEXICO
# SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE.




0 8 40 80 160

SCALE 1" = 80'

**DIRECTIONS TO LOCATION**

FROM CR. 206 (ILLINOIS CAMP) & CR. 234 (OIL CENTER), GO NORTH ON CR. 206 0.7 MILE, TURN LEFT ON CALICHE ROAD AND GO WEST 2.1 MILES, TURN RIGHT AND GO NORTH 0.52 MILE, TURN LEFT AND GO SOUTHWEST 0.31 MILE, STAY RIGHT AND GO WEST–NORTHWEST 0.44 MILE, TURN LEFT AND GO SOUTH 0.44 MILE, TO ROAD SURVEY AND FOLLOW FLAGS WEST–SOUTHWEST 830' TO THE NORTHEAST PAD CORNER FOR THIS LOCATION.

I, FILIMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

FILIMON F. JARAMILLO, PLS #17078

*REDWOOD OPERATING, LLC.*

***CHOATE DAVIS 23 STATE SWD 4***

*LOCATED 570 FT. FROM THE NORTH LINE AND 750 FT. FROM THE WEST LINE OF SECTION 23, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO*

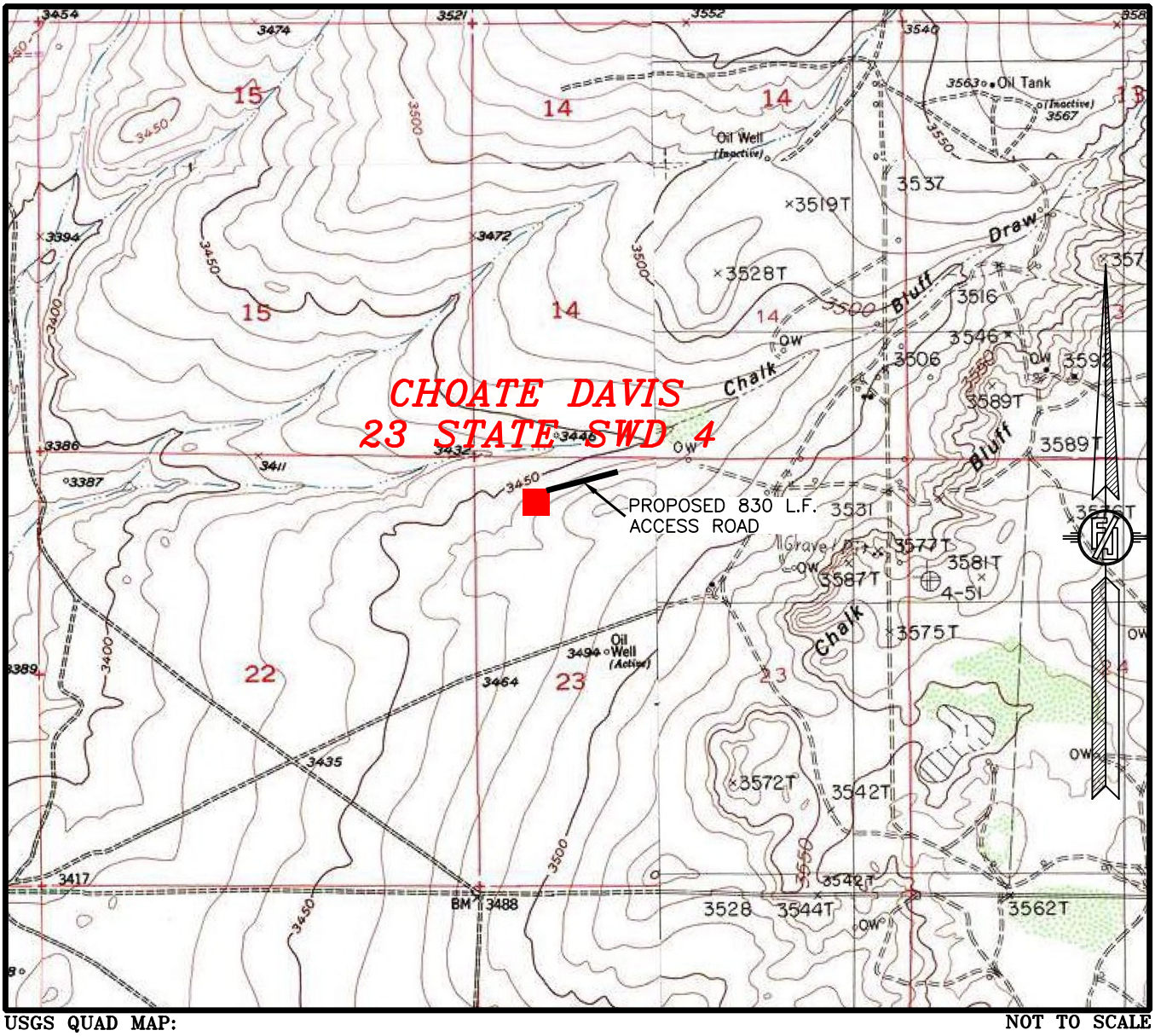
*JANUARY 12, 2021*

*SURVEY NO. 6577A*


*MADRON SURVEYING, INC.* 301 SOUTH CANAL (575) 234-3341 *CARLSBAD, NEW MEXICO*

SECTION 23, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

# LOCATION VERIFICATION MAP




USGS QUAD MAP:
LAKE McMILAN NORTH
ILLINOIS CAP

NOT TO SCALE

REDWOOD OPERATING, LLC.

**CHOATE DAVIS 23 STATE SWD 4**

LOCATED 570 FT. FROM THE NORTH LINE
AND 750 FT. FROM THE WEST LINE OF
SECTION 23, TOWNSHIP 18 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

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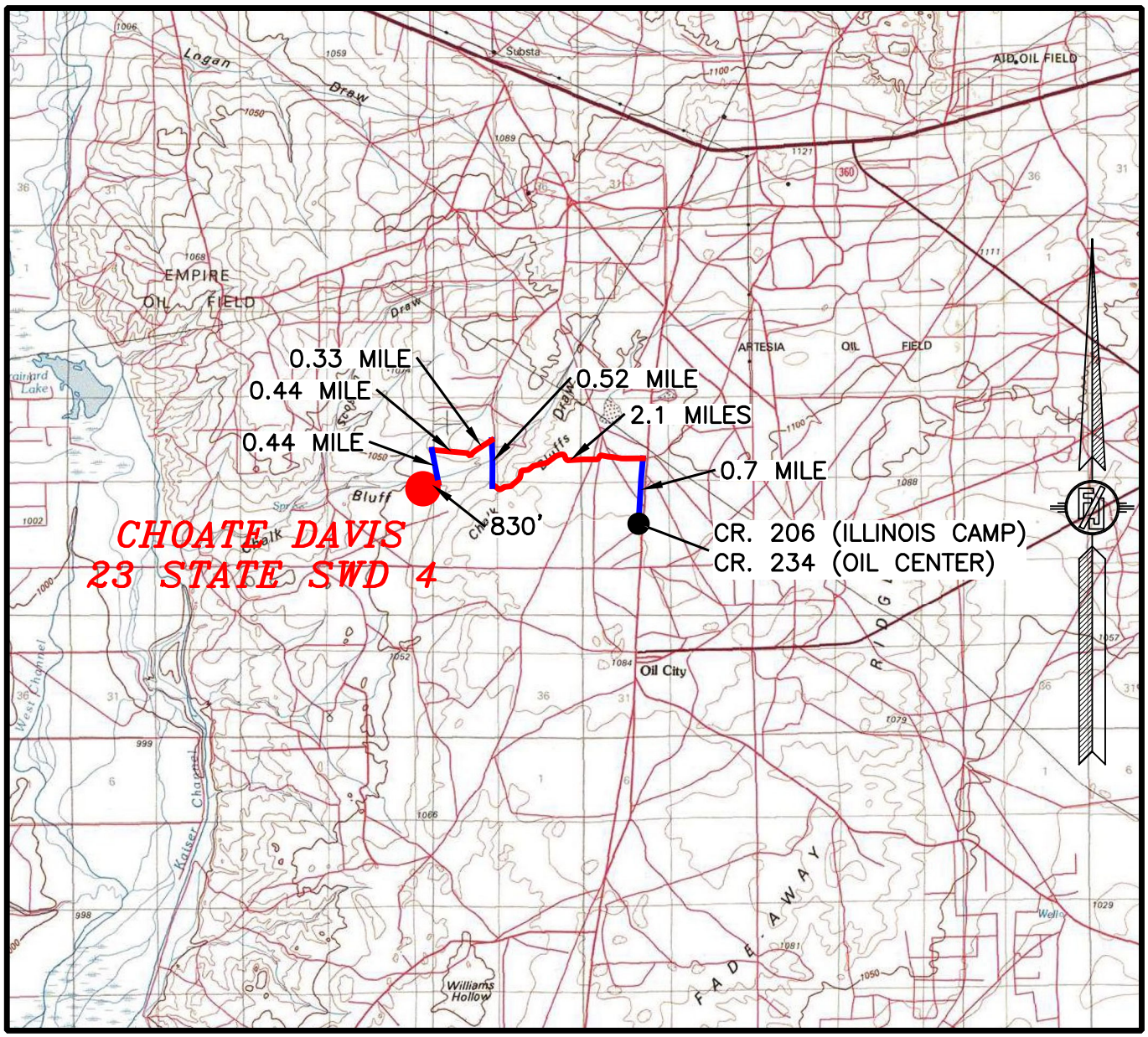
EDDY COUNTY, STATE OF NEW MEXICO

# VICINITY MAP




*DISTANCES IN MILES* *NOT TO SCALE*

**DIRECTIONS TO LOCATION**
FROM CR. 206 (ILLINOIS CAMP) & CR. 234 (OIL CENTER), GO NORTH ON CR. 206 0.7 MILE, TURN LEFT ON CALICHE ROAD AND GO WEST 2.1 MILES, TURN RIGHT AND GO NORTH 0.52 MILE, TURN LEFT AND GO SOUTHWEST 0.31 MILE, STAY RIGHT AND GO WEST–NORTHWEST 0.44 MILE, TURN LEFT AND GO SOUTH 0.44 MILE, TO ROAD SURVEY AND FOLLOW FLAGS WEST–SOUTHWEST 830' TO THE NORTHEAST PAD CORNER FOR THIS LOCATION.

*REDWOOD OPERATING, LLC.*
***CHOATE DAVIS 23 STATE SWD 4***
*LOCATED 570 FT. FROM THE NORTH LINE AND 750 FT. FROM THE WEST LINE OF SECTION 23, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.*
*EDDY COUNTY, STATE OF NEW MEXICO*

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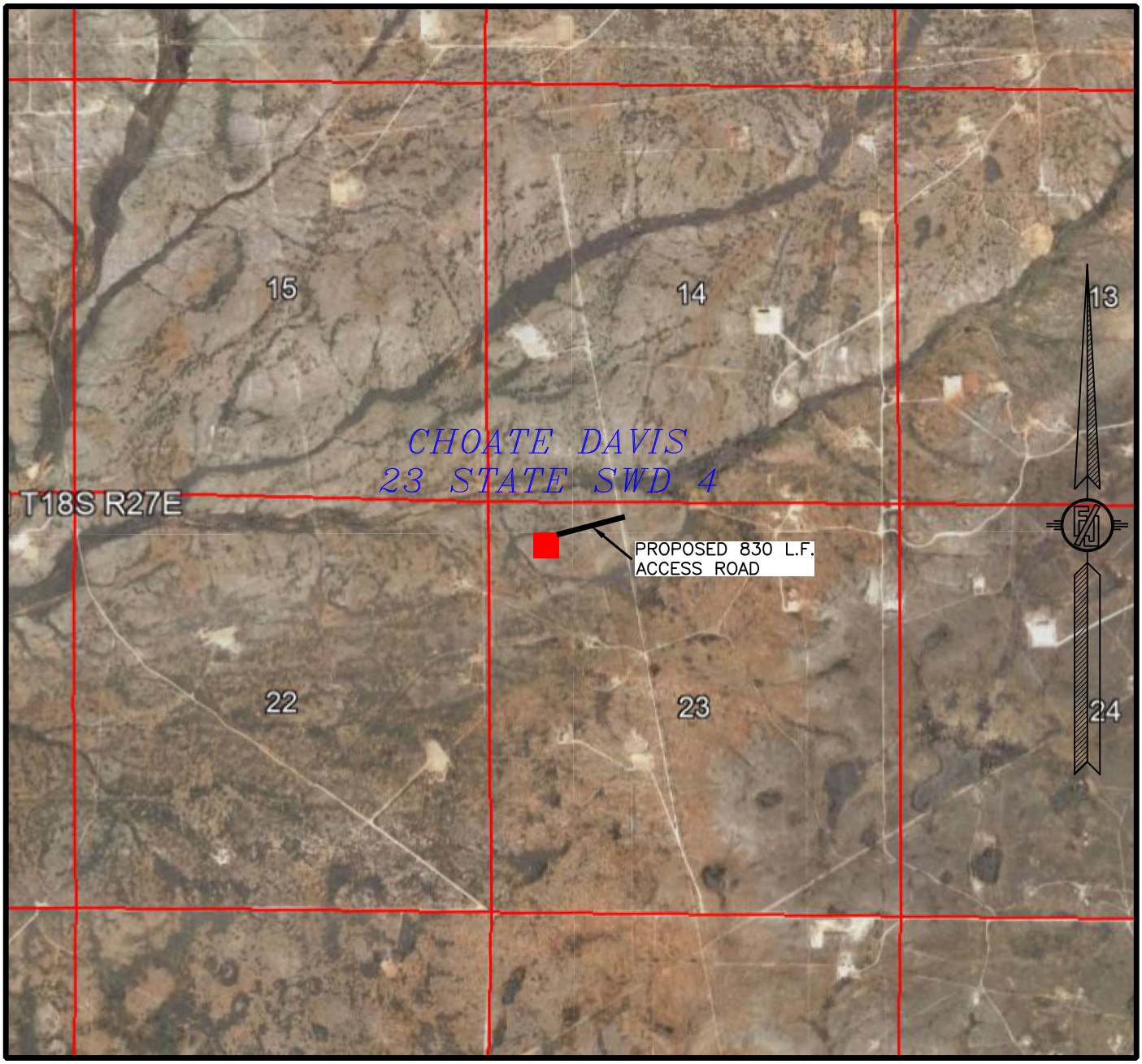
SECTION 23, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

# AERIAL PHOTO




NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MAR. 2016

REDWOOD OPERATING, LLC.

**CHOATE DAVIS 23 STATE SWD 4**

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AND 750 FT. FROM THE WEST LINE OF
SECTION 23, TOWNSHIP 18 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

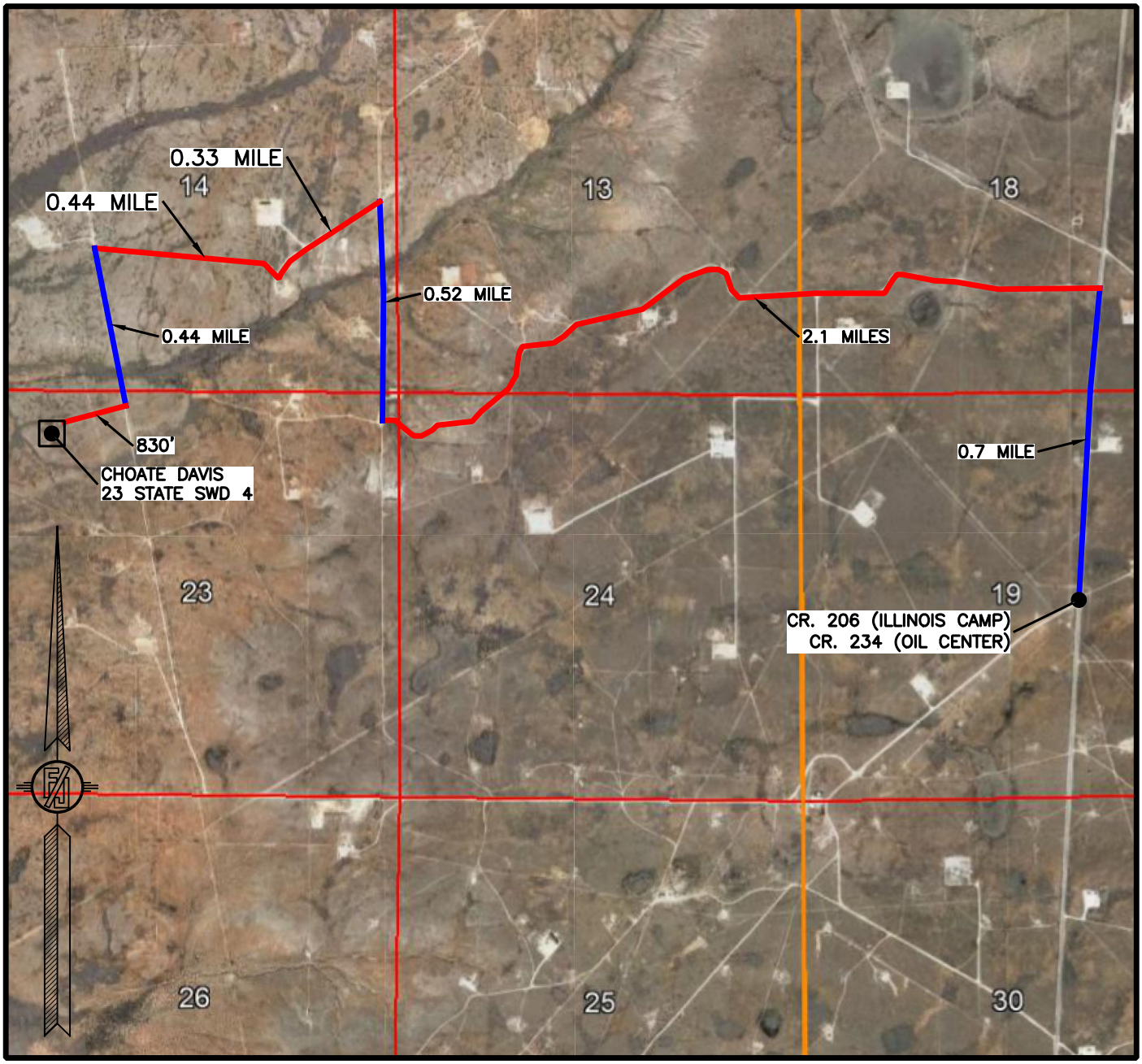
JANUARY 12, 2021

SURVEY NO. 6577A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 23, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

# AERIAL ACCESS ROUTE MAP




NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MAR. 2016

REDWOOD OPERATING, LLC.

**CHOATE DAVIS 23 STATE SWD 4**

LOCATED 570 FT. FROM THE NORTH LINE
AND 750 FT. FROM THE WEST LINE OF
SECTION 23, TOWNSHIP 18 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JANUARY 12, 2021

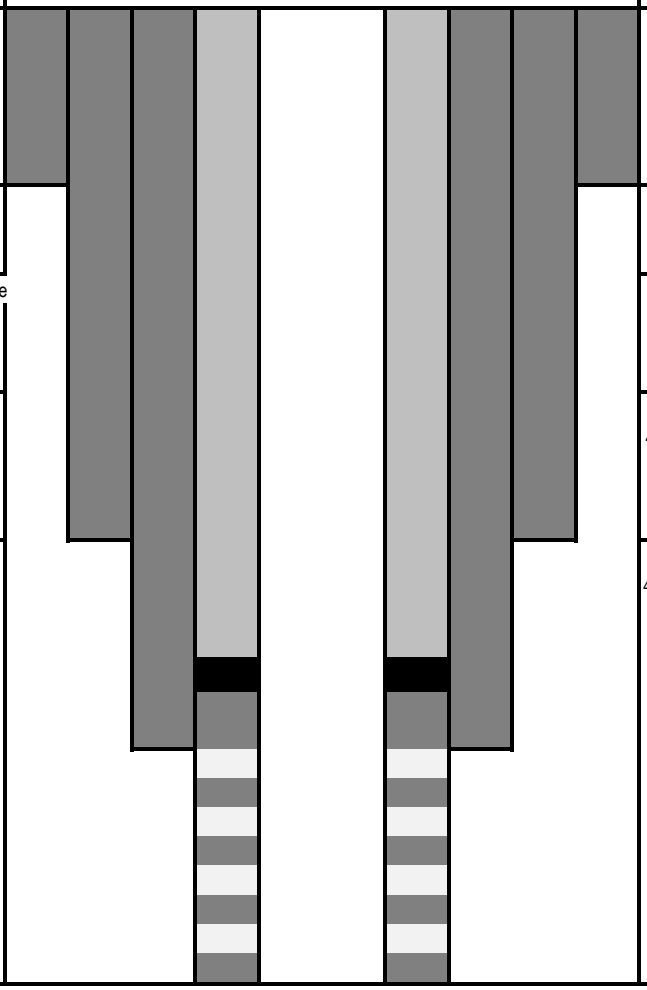
SURVEY NO. 6577A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

**Choate Davis 23 State SWD #4**

**Operator: Redwood Operating LLC**
**Location: Sec. 23 T18S R27E**
**Objective: Cisco- Canyon**
**GL Elevation: 3459.5**

| Depth | Hole Size & Cement | Casing Detail |
|---|---|---|
| 120 | Pre-Set | 20" Conductor |
| 300' | 17 1/2" hole<br>350sx Class C<br>Circ to Surface | 13 3/8"48#J-55 |
| 2800' | 12 1/4" hole<br>850sx Class C<br>Circ to Surface | 9 5/8"36#J-55 |
| 7200' | 2nd Intermediate<br>12 1/4" hole<br>975sx 35/65<br>Circ to Surface | 7"26#L-80 |
| 7,000'-8300' | 6 1/8" hole<br>100sx PVL<br>7000-8300' | Liner<br>4 1/2"11.6# L-80 |
| TD- 8300' | | **Tubing**<br>4 1/2" 11.6# L-80<br>0-7000'<br><br>AS-A Packer<br><br>**Perfs**<br>7200-8300' |



REDWOOD
OPERATING LLC
PO BOX 1370 ARTESIA NM 88211-1370

July 27, 2021

Phillip Goetze
NMOCD
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: C-108, SWD Application
Choate Davis 23 State SWD #4
NW/4 NW/4 Sec. 23 T18S R27E
Eddy County, NM

Dear Mr. Goetze

Redwood Operating, LLC as operator of the above referenced well, is submitting this application to permit the referenced well for produced water disposal in the Cisco-Canyon.

An APD (C-101) for this well will be submitted to the State of approval. There are two wells in the area of review that penetrated the proposed disposal interval and both have been P&Aed. See the attached list and their wellbore diagrams.

The State of New Mexico as the surface owner and all offsetting operators have been notified.

Attached is the necessary C-108 information, data, maps, and proof of notices for the application.

Should you have any questions, please contact me at 575-748-1288.

Thank you

Deana Weaver

Deana Weaver
Regulatory Technician II
Redwood Operating, LLC

O: 575.748.1288
F: 575.746.9539
INFO@REDWOODOPERATING.COM

## VII. DATA SHEET: PROPOSED OPERATIONS

1. Proposed average and maximum daily rate and volume of fluids to be injected;

**Respectively, 4000 BWPD and 6000 BWPD**

2. The system is closed or open;

**Closed**

3. Proposed average and maximum injection pressure;

**0-1,440#**

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water;

**We will be re-injecting produced water**

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;

**N/A**

## VIII. GEOLOGICAL DATA

1. Lithologic Detail; Dolomite with Limestone and Shale Stringers
2. Geological Name; Cisco- Canyon
3. Thickness; 1,100'
4. Depth; 7,200'

## IX. PROPOSED STIMULATION PROGRAM

1. To be treated with 10000 gallons 15% acid

## X. LOGS AND TEST DATA

1. Well data will be filed with the OCD.

## XI. ANALYSIS OF FRESHWATER WELLS

Additional Information

**Waters Injected:**

Queen(Oil)- 1500'
Grayburg (Oil)- 2000'
Morrow (Gas)- 9600'

## XII. AFFIRMATIVE STATEMENT

RE: Choate Davis 23 State SWD #4

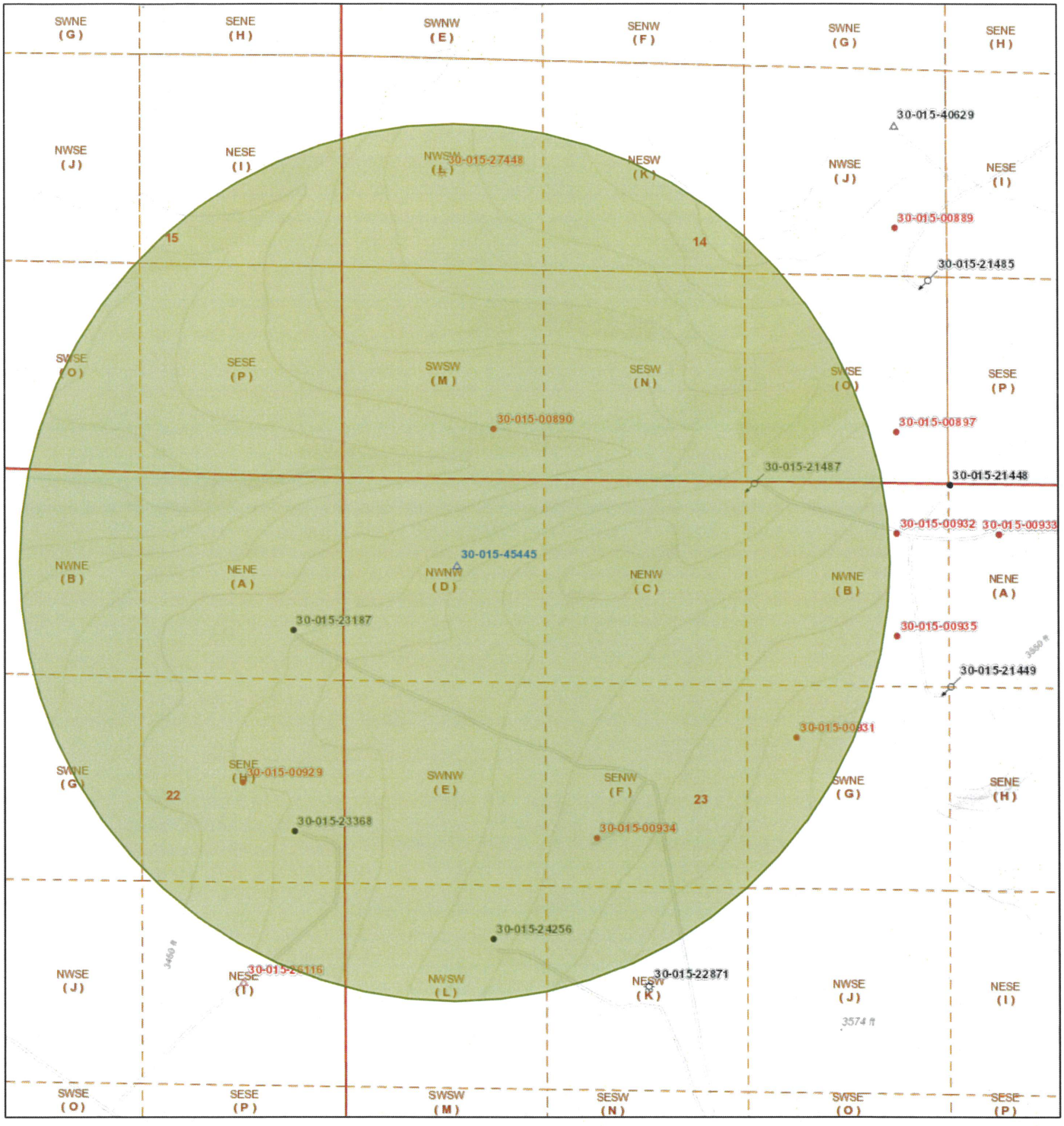
We have examined the available geologic and engineering data and find no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.

Redwood Operating LLC

Date: 6/28/2021

Charles Sadler, Geologist

# OCD Well Locations




5/21/2021, 7:33:52 AM

1:9,028

0 0.07 0.15 0.3 mi

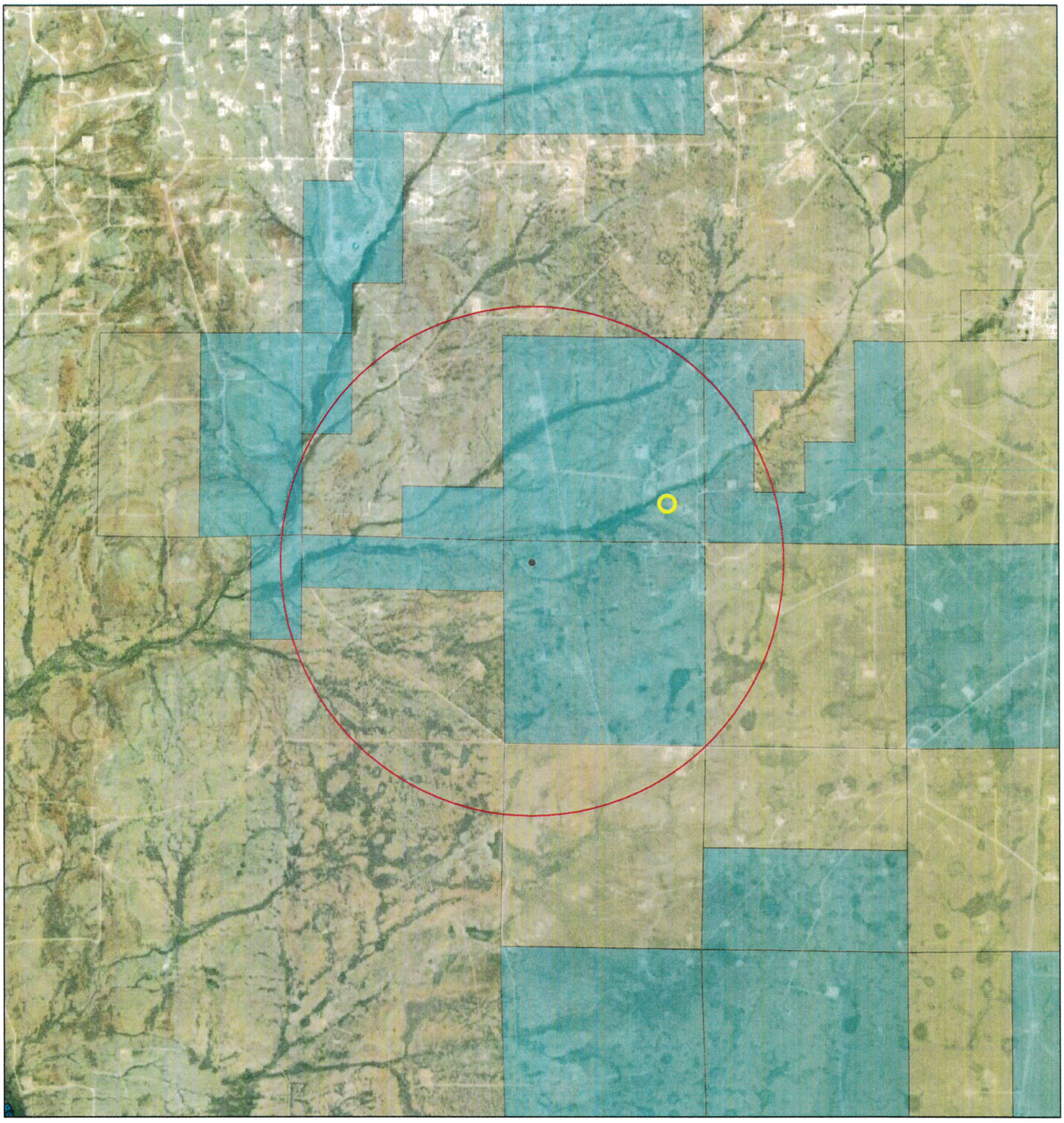
0 0.13 0.25 0.5 km

- Override 1

Wells - Large Scale

- undefined
- Miscellaneous
- CO2, Active
- CO2, Cancelled
- CO2, New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Gas, Active
- Gas, Cancelled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection, Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- OCD District Offices
- PLSS First Division
- PLSS Second Division

# OSE PUBLIC PRINT



5/21/2021, 10:55:59 AM

OSE District Boundary

New Mexico State Trust Lands

Subsurface Estate

Both Estates

SiteBoundaries

1:36,112

0 0.35 0.7 1.4 mi

0 0.5 1 2 km

Esri, HERE, Garmin, Esri, HERE, U.S. Department of Energy Office of Legacy Management, Maxar

Printed from Public Web Map
Unofficial Map from OSE POD Locations Web Application

# Choate Davis 23 State SWD #4


5/25/2021, 12:58:12 PM

1:36,112

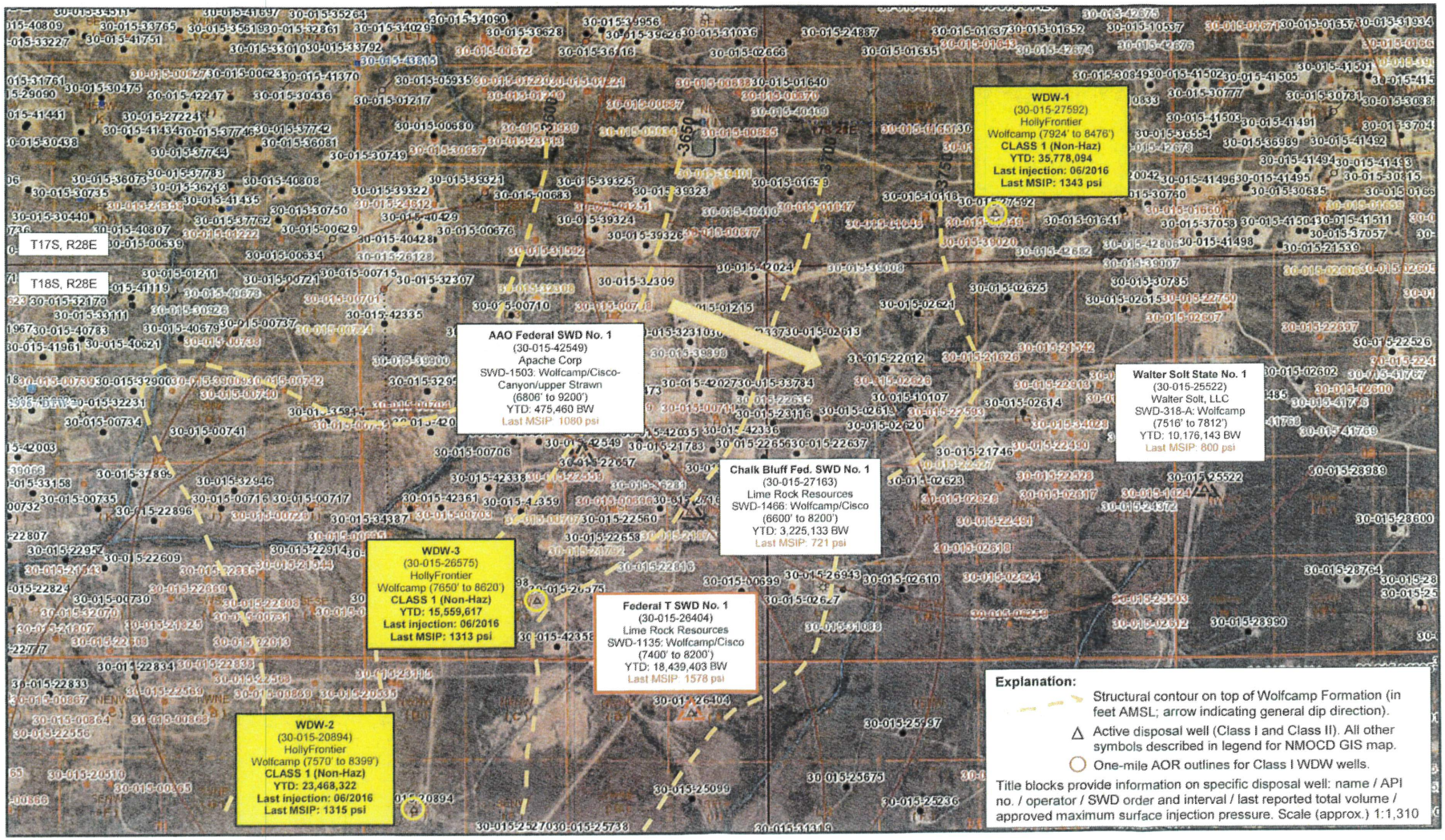
0 0.35 0.7 1.4 mi

0 0.5 1 2 km

Areas
- Override 1
- Override 2

Wells - Large Scale
- undefined
- Miscellaneous
- CO2, Active
- CO2, Cancelled
- CO2, New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Gas, Active
- Gas, Cancelled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection, Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- PLSS First Division
- PLSS Townships

HollyFrontier Class 1 Wells: Active Disposal Wells Within One-Mile AORs (All three Class 1 wells)



## CHOATE DAVIS 23 STATE #4

C-108 Item VI - Well Tabulation Penetrating Injection Zone in Review Area

Redwood Operating, LLC

Proposed Disposal Well

| Operator | Well Name | API # | Cty | Footage | Sec | Twn | Rnge | Type | Status | Spud Date | Comp Date | TD | PBTD | Comp Zone | Comp Interval-Ft | Casing Program | Cement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MARBOB ENERGY CORP. | SCOGGINS DRAW FED #1 | 30-015-25750 | Eddy | 1980' FNL 1980' FWL | 23 | 18S | 27E | GAS | P&A 9/28/1994 | 5/27/87 | 7/9/87 | 10000 | 9923 | RED LAKE ATOKA MORROW | 9732'-78' | 13-3/8" 54.5# @ 500' 8-5/8" 24# @ 2900' 5-1/2" 17# @ 10,PPP' | 525 SX 1230 SX 1000 SX-TOC =6000' TS |
| YATES PETR. CORP. | BEAUREGARD ANM ST COM #1 | 30-015-27448 | Eddy | 1980' FSL 660' FWL | 14 | 18S | 27E | GAS | P&A 9/2/2013 | 7/24/93 | 10/11/93 | 10100 | 10013 | RED LAKE ATOKA MORROW | 9633'-38' | 13-3/8" 59.5# @ 370' 9-5/8" 36# @ 2190' 7" 26# @ 7559' 4-1/2"@7304'-10095' | 750 sx 850 sx Circ 300 sx 365 sx |

# SCOGGINS DRAW FEDERAL COM #1

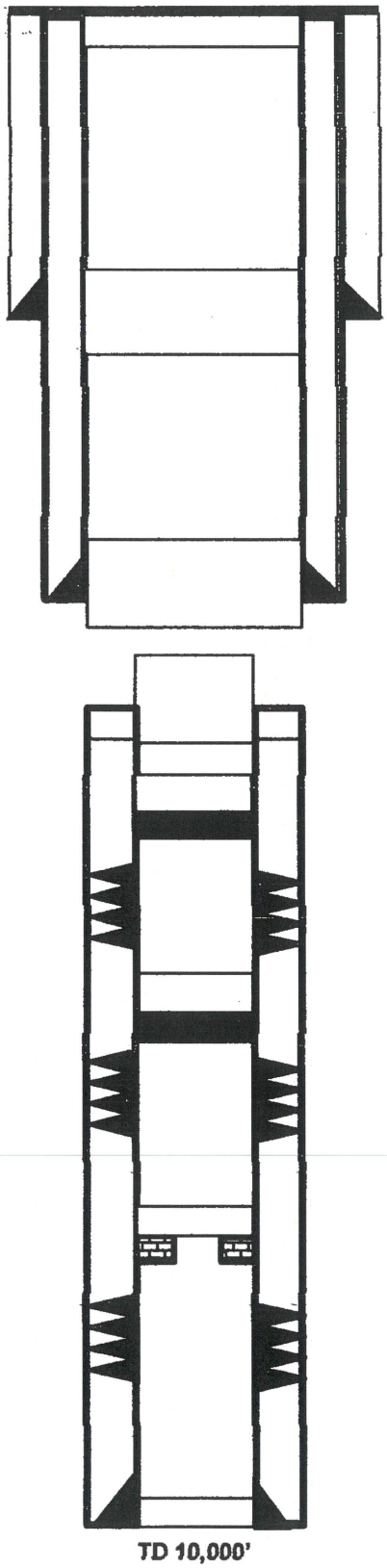
***P&A 9/28/94***

**(F) Section 22, T-18-S, R-27-E, Eddy County, NM**

Today's Date: 11/12/18
M. Pippin

**OPERATOR – MARBOB ENERGY CORP**

Elevation: 3417' GL



Spotted 15 sx @ Surface.

Spotted 30 sx across 13-3/8 shoe

17-1/2" Hole
To 500'

13-3/8" 54.5# Csg @ 500'
Cmted w/525 sx, Circ. Cmt

Queen @ 1012'

Grayburg @ 1548'

San Andres @ 1810'

Spotted 30 sx across 8-5/8 shoe
2843'-2962'.

11" Hole
To 2900'

8-5/8" 24# Csg @ 2900'
Cmt w/1200 sx, Circ. Cmt

Glorieta @ 3511'

Cut & pull 5-1/2" csg from 5590'.
Spotted 30 sx cmt across 5-1/2" csg stub 5527'-5643'.

Wolfcamp @ 6832'

Set 5-1/2" CIBP @ 8100' &
top w/35' cmt.

Canyon @ 8119'

Canyon Perfs @ 8142'-86'.
Not productive.

Strawn @ 8648'

Set 5-1/2" CIBP @ 8925' & top w/30' cmt.
TOC @ 8895'.

Strawn Perfs @ 8986'-9010'.
Not productive.

Atoka @ 9243'

Baker "F" PKR @ 9670' topped w/cmt to 9534'.

Morrow @ 9386'

Morrow Perfs @ 9732'-78'

Chester @ 9956'

6-1/8" Hole
To 10,000'

5-1/2" 17# L-80 @ 10,000'
Cmt w/1000 sx.
TOC @ 6000'- TS

TD 10,000'

# BEAUREGARD ANM STATE COM #1

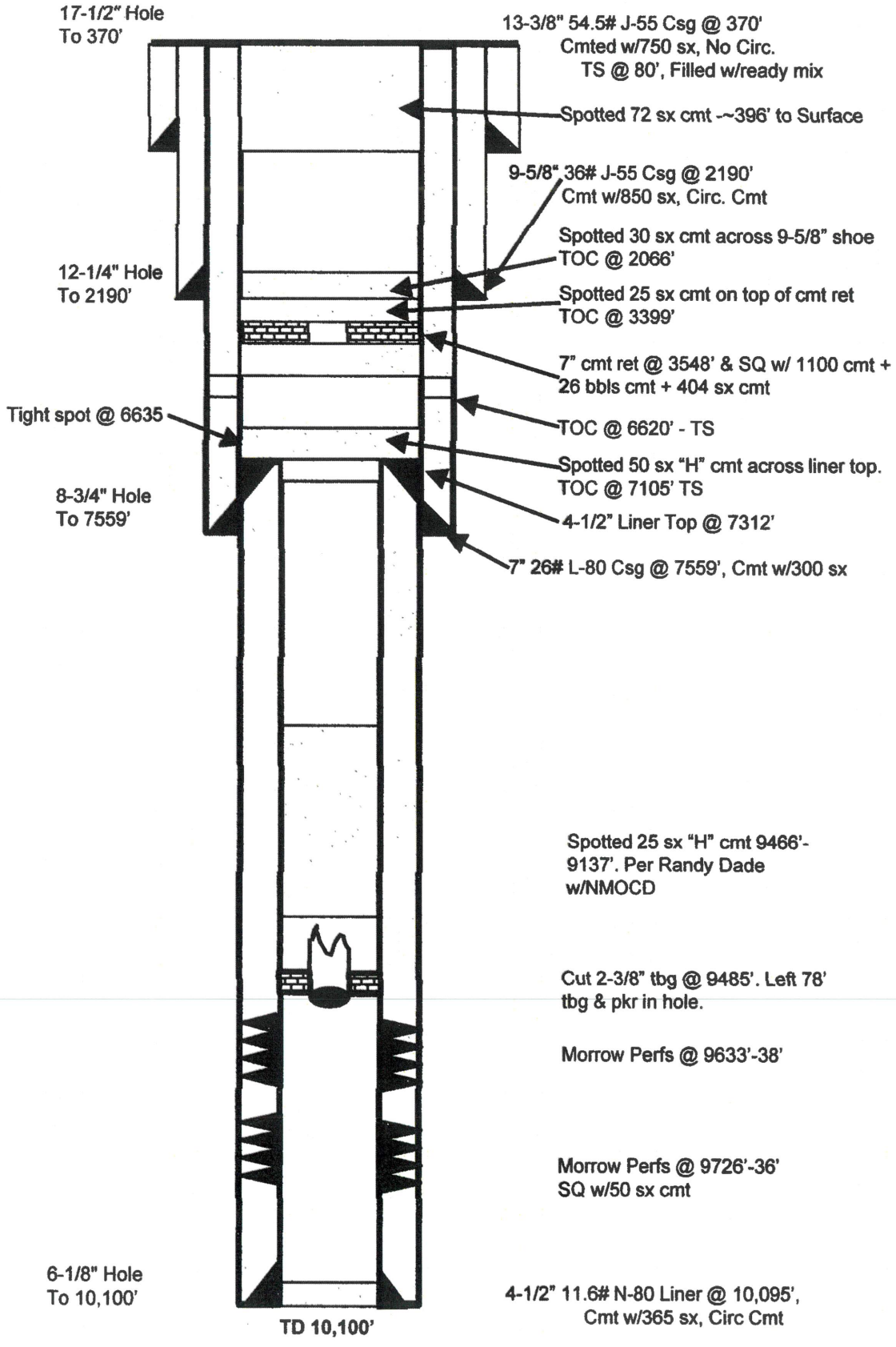
***P&A 9/2/13***

**(L) Section 14, T-18-S, R-27-E, Eddy County, NM**

Today's Date: 11/12/18
M. Pippin

**OPERATOR – YATES PETR CORP**

Elevation: 3475' GL



*New Mexico Office of the State Engineer*

# Active & Inactive Points of Diversion

**(with Ownership Information)**

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(acre ft per annum)

| WR File Nbr | Sub basin | Use | Diversion | Owner | County | POD Number | Well Tag | Code | Grant | Source | q 64 | q 16 | q 4 | Sec | Twn | Rng | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RA 12312 | RA | STK | 3 | KEY LIVESTOCK LLC | ED | RA 12312 POD1 | | | | | 4 | 1 | 3 | 26 | 18S | 27E | 569851 | 3620036 |

**Record Count:** 1

**POD Search:**

**POD Number:** RA 12312

**Sorted by:** File Number

J&L LABORATORIES
7509 W Industrial Ave
Suite A-1
Midland, TX 79706
info@jl-laboratories.com

# Complete Water Analysis

| | | | |
|---|---|---|---|
| **Customer** | Supreme Technologies | **Account Rep** | John Davis |
| **Operator** | Redwood Energy | **Date Sampled** | 7/2/2021 2:23:00 PM |
| **Well Name** | RA 12312 | **Date Submitted** | 7/8/2021 2:25:00 PM |
| **Sample Point** | Key Livestock Well | **Sample ID** | WA210708-001 |
| **Region** | | **Notes/Time Sampled** | |

## Analytical Lab Data

| Cations by ICP-OES | | Anions by HPIC | |
|---|---|---|---|
| **Analyte** | **ppm** | **Analyte** | **ppm** |
| Calcium (Ca) | 559 | Chloride (Cl) | 152 |
| Magnesium (Mg) | 216 | Sulfate ($SO_4$) | 44 |
| Barium (Ba) | 0.0 | | |
| Strontium (Sr) | 10.0 | Specific Gravity | |
| Potassium (K) | 0 | 1.001 | g/mL |
| Iron (Fe) | 0.0 | | |
| Manganese (Mn) | 0.0 | | |
| Boron (B) | 0 | | |
| Zinc (Zn) | 0 | | |
| Aluminum (Al) | 0 | | |
| Phosphorus (P) | 0.000 | Calc. Phosphate | 0.00 |
| Silicon (Si) | 16 | | |
| Sodium (Na) (calc.) | (875) | | |

## Sample Conditions

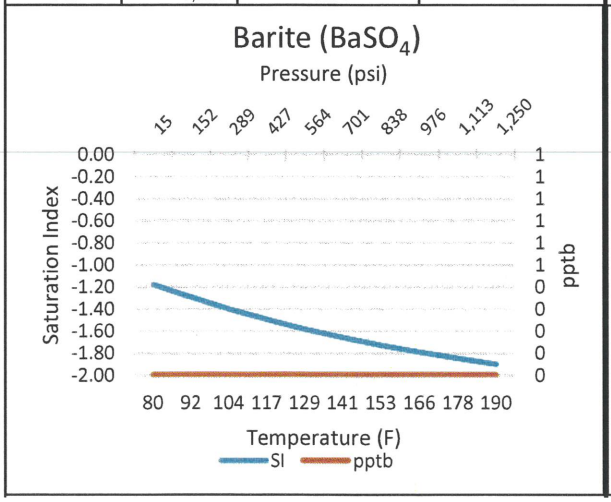
| Analyte | Result |
|---|---|
| pH | 7.32 |
| Diss. $H_2S$ (ppm) | 0.0 |
| Diss. $CO_2$ (ppm) | 9 |
| Bicarbonate (ppm $HCO_3$) | 160.0 |
| Carbonate (ppm $CO_3$) | N/A |
| Diss. $O_2$ (ppm) | N/A |
| Initial Temperature (°F) | 190 |
| Final Temperature (°F) | 80 |
| Initial Pressure (psi) | 1250 |
| Final Pressure (psi) | 15 |
| Calc. Resistivity (ohms/cm) | 340.72 |
| Conductivity (uS/cm) | 2935 |
| Calc. Total Hardness (as $CaCO_3$) | 2287 |
| Calc. TDS (ppm) | 121 |

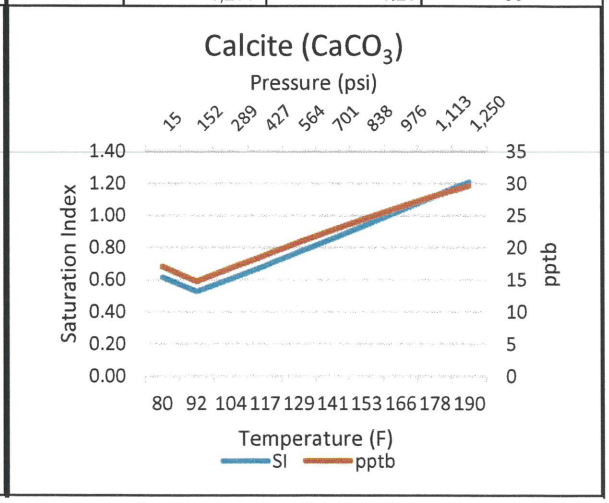
## Barite ($BaSO_4$)

| Temp. (°F) | PSI | SI | pptb |
|---|---|---|---|
| 80 | 15 | -1.18 | 0 |
| 92 | 152 | -1.30 | 0 |
| 104 | 289 | -1.40 | 0 |
| 117 | 427 | -1.50 | 0 |
| 129 | 564 | -1.58 | 0 |
| 141 | 701 | -1.66 | 0 |
| 153 | 838 | -1.73 | 0 |
| 166 | 976 | -1.80 | 0 |
| 178 | 1,113 | -1.85 | 0 |
| 190 | 1,250 | -1.90 | 0 |

## Calcite ($CaCO_3$)

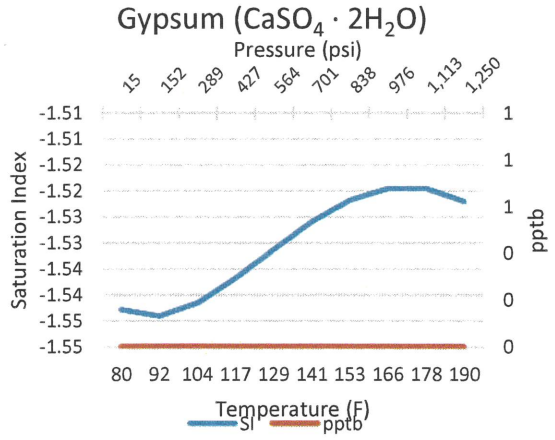
| Temp. (°F) | PSI | SI | pptb |
|---|---|---|---|
| 80 | 15 | 0.61 | 17 |
| 92 | 152 | 0.52 | 15 |
| 104 | 289 | 0.60 | 17 |
| 117 | 427 | 0.68 | 19 |
| 129 | 564 | 0.77 | 21 |
| 141 | 701 | 0.85 | 23 |
| 153 | 838 | 0.94 | 24 |
| 166 | 976 | 1.03 | 26 |
| 178 | 1,113 | 1.12 | 28 |
| 190 | 1,250 | 1.20 | 30 |

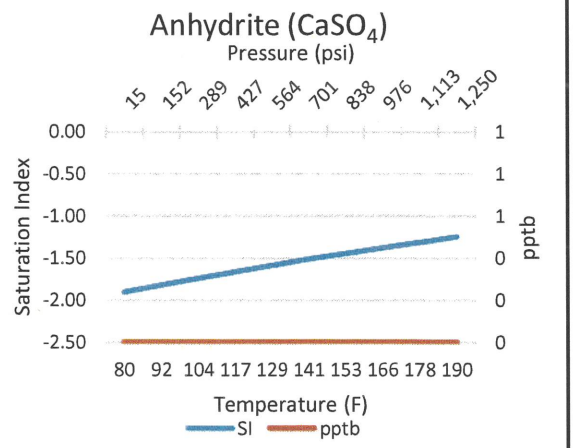


| Gypsum ($CaSO_4 \cdot 2H_2O$) | | | |
|---|---|---|---|
| Temp. (°F) | PSI | SI | pptb |
| 80 | 15 | -1.54 | 0 |
| 92 | 152 | -1.54 | 0 |
| 104 | 289 | -1.54 | 0 |
| 117 | 427 | -1.54 | 0 |
| 129 | 564 | -1.53 | 0 |
| 141 | 701 | -1.53 | 0 |
| 153 | 838 | -1.52 | 0 |
| 166 | 976 | -1.52 | 0 |
| 178 | 1,113 | -1.52 | 0 |
| 190 | 1,250 | -1.52 | 0 |

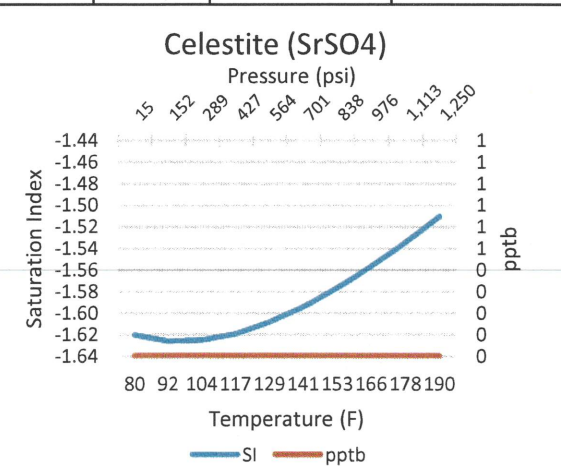
| Anhydrite ($CaSO_4$) | | | |
|---|---|---|---|
| Temp. (°F) | PSI | SI | pptb |
| 80 | 15 | -1.91 | 0 |
| 92 | 152 | -1.82 | 0 |
| 104 | 289 | -1.74 | 0 |
| 117 | 427 | -1.66 | 0 |
| 129 | 564 | -1.59 | 0 |
| 141 | 701 | -1.52 | 0 |
| 153 | 838 | -1.45 | 0 |
| 166 | 976 | -1.38 | 0 |
| 178 | 1,113 | -1.32 | 0 |
| 190 | 1,250 | -1.25 | 0 |

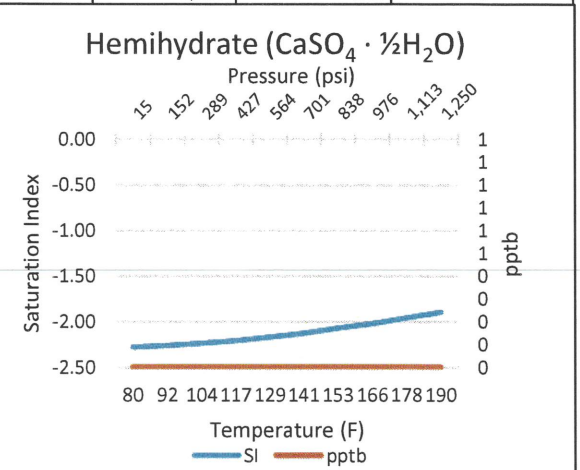



| Celestite ($SrSO_4$) | | | |
|---|---|---|---|
| Temp. (°F) | PSI | SI | pptb |
| 80 | 15 | -1.62 | 0 |
| 92 | 152 | -1.63 | 0 |
| 104 | 289 | -1.63 | 0 |
| 117 | 427 | -1.62 | 0 |
| 129 | 564 | -1.61 | 0 |
| 141 | 701 | -1.59 | 0 |
| 153 | 838 | -1.58 | 0 |
| 166 | 976 | -1.56 | 0 |
| 178 | 1,113 | -1.53 | 0 |
| 190 | 1,250 | -1.51 | 0 |

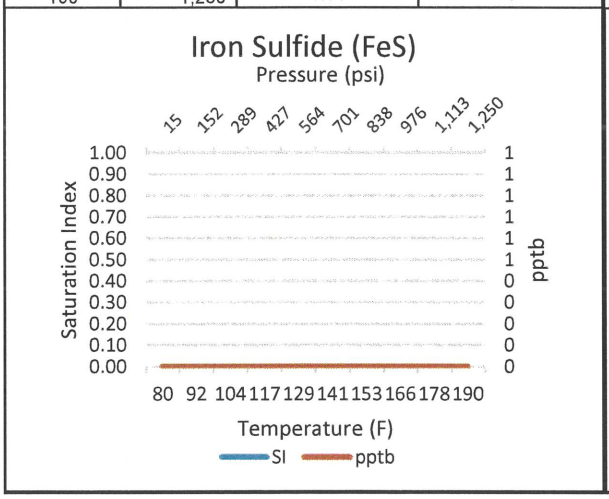
| Hemihydrate ($CaSO_4 \cdot \frac{1}{2}H_2O$) | | | |
|---|---|---|---|
| Temp. (°F) | PSI | SI | pptb |
| 80 | 15 | -2.28 | 0 |
| 92 | 152 | -2.27 | 0 |
| 104 | 289 | -2.24 | 0 |
| 117 | 427 | -2.21 | 0 |
| 129 | 564 | -2.17 | 0 |
| 141 | 701 | -2.13 | 0 |
| 153 | 838 | -2.08 | 0 |
| 166 | 976 | -2.02 | 0 |
| 178 | 1,113 | -1.96 | 0 |
| 190 | 1,250 | -1.90 | 0 |

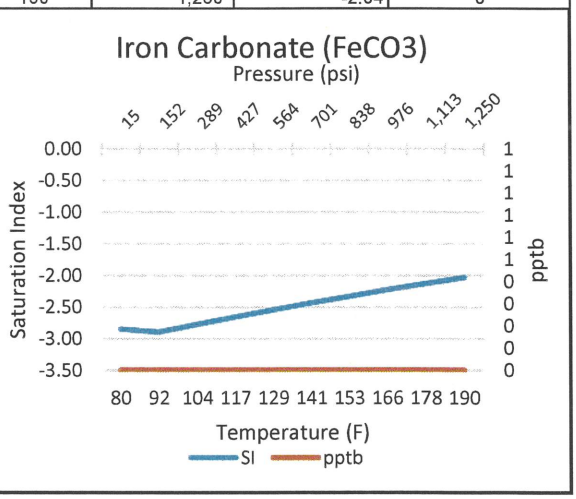


| Iron Sulfide (FeS) | | | |
|---|---|---|---|
| Temp. (°F) | PSI | SI | pptb |
| 80 | 15 | 0.00 | 0 |
| 92 | 152 | 0.00 | 0 |
| 104 | 289 | 0.00 | 0 |
| 117 | 427 | 0.00 | 0 |
| 129 | 564 | 0.00 | 0 |
| 141 | 701 | 0.00 | 0 |
| 153 | 838 | 0.00 | 0 |
| 166 | 976 | 0.00 | 0 |
| 178 | 1,113 | 0.00 | 0 |
| 190 | 1,250 | 0.00 | 0 |

| Iron Carbonate (FeCO3) | | | |
|---|---|---|---|
| Temp. (°F) | PSI | SI | pptb |
| 80 | 15 | -2.85 | 0 |
| 92 | 152 | -2.90 | 0 |
| 104 | 289 | -2.78 | 0 |
| 117 | 427 | -2.66 | 0 |
| 129 | 564 | -2.55 | 0 |
| 141 | 701 | -2.44 | 0 |
| 153 | 838 | -2.33 | 0 |
| 166 | 976 | -2.23 | 0 |
| 178 | 1,113 | -2.14 | 0 |
| 190 | 1,250 | -2.04 | 0 |



# *New Mexico Office of the State Engineer*
# Point of Diversion Summary

| Well Tag | POD Number | (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64 | Q16 | Q4 | Sec | Tws | Rng | (NAD83 UTM in meters) X | Y |
|---|---|---|---|---|---|---|---|---|---|
| | RA 04048 | 1 | 4 | 4 | 14 | 18S | 27E | 570841 | 3623030* |

**Driller License:** **Driller Company:**

**Driller Name:** STANLEY JONES

| | | | | | |
|---|---|---|---|---|---|
| **Drill Start Date:** | 11/05/1947 | **Drill Finish Date:** | 01/03/1948 | **Plug Date:** | |
| **Log File Date:** | 06/02/1959 | **PCW Rcv Date:** | | **Source:** | Artesian |
| **Pump Type:** | | **Pipe Discharge Size:** | | **Estimated Yield:** | |
| **Casing Size:** | | **Depth Well:** | 2096 feet | **Depth Water:** | |

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



5/21/21 11:04 AM POINT OF DIVERSION SUMMARY

# DownHole SAT™ Water Analysis Report

French Creek Software

## SYSTEM IDENTIFICATION

Supreme Technologies
Redwood
Leavitt 13 #2H WH
Glorieta-Yeso

Sample ID#: 0
ID 2021-06-04-39

Sample Date: 06-02-2021 at 2216
Report Date: 06-09-2021

## WATER CHEMISTRY

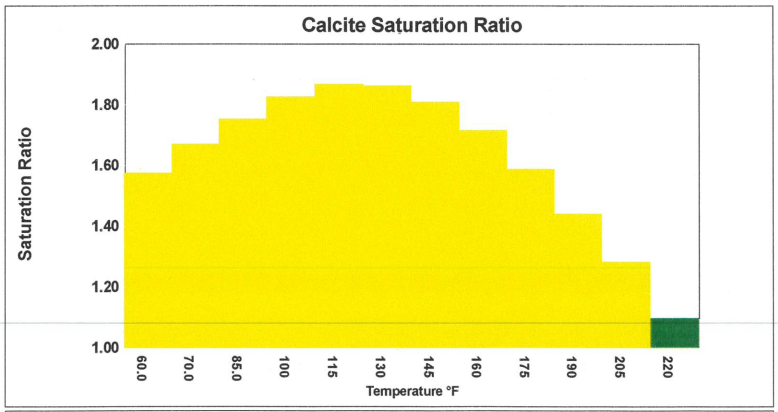
| CATIONS | | ANIONS | |
|---|---|---|---|
| Calcium(as Ca) | 4593 | Chloride(as Cl) | 121021 |
| Magnesium(as Mg) | 984.00 | Sulfate(as $SO_4$) | 2179 |
| Barium(as Ba) | 0.00 | Dissolved $CO_2$(as $CO_2$) | 225.06 |
| Strontium(as Sr) | 88.00 | Bicarbonate(as $HCO_3$) | 427.00 |
| Sodium(as Na) | 71855 | $H_2S$ (as $H_2S$) | 30.00 |
| Potassium(as K) | 978.00 | Boron(as B) | 12.00 |
| Lithium(as Li) | 24.00 | | |
| Iron(as Fe) | 0.00 | | |
| Manganese(as Mn) | 0.100 | | |
| Zinc(as Zn) | 0.00 | | |

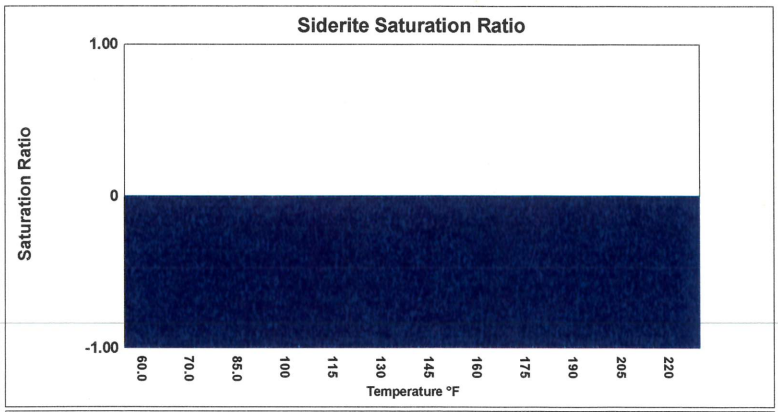
| PARAMETERS | | | |
|---|---|---|---|
| Temperature(°F) | 77.00 | Sample pH | 6.00 |
| Conductivity | 233708 | Sp.Gr.(g/mL) | 1.130 |
| Resistivity | 4.28 | T.D.S. | 217105 |

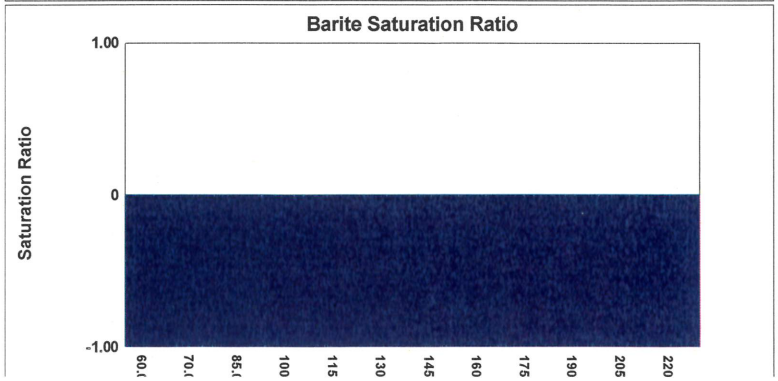
## SCALE AND CORROSION POTENTIAL

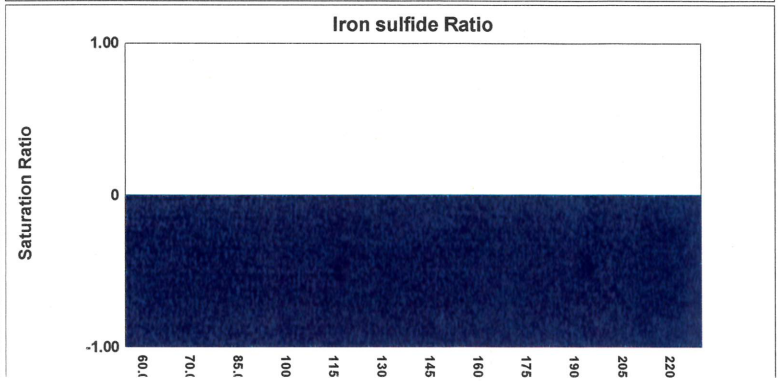
| Temp. (°F) | Press. (psia) | Calcite $CaCO_3$ | | | Anhydrite $CaSO_4$ | | Gypsum $CaSO_4*2H_2O$ | | Barite $BaSO_4$ | | Celestite $SrSO_4$ | | Siderite $FeCO_3$ | | | Mackinawite FeS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | xSAT | Lbs per 1000 Barrels | PP | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | PP | xSAT | Lbs per 1000 Barrels |
| 60.00 | 14.70 | 1.58 | 0.00963 | 178.84 | 1.05 | 17.58 | 1.38 | 108.98 | 0.00 | -0.0736 | 0.411 | -79.55 | 0.00 | -0.395 | 0.00 | 0.00 | -0.460 |
| 70.00 | 15.00 | 1.67 | 0.0104 | 184.07 | 1.01 | 3.67 | 1.28 | 83.70 | 0.00 | -0.0991 | 0.388 | -86.07 | 0.00 | -0.366 | 0.00 | 0.00 | -0.549 |
| 85.00 | 38.50 | 1.75 | 0.0106 | 174.23 | 0.989 | -3.45 | 1.16 | 50.30 | 0.00 | -0.148 | 0.367 | -91.83 | 0.00 | -0.329 | 0.00 | 0.00 | -0.378 |
| 100.00 | 62.00 | 1.83 | 0.0106 | 170.85 | 1.01 | 4.28 | 1.07 | 23.34 | 0.00 | -0.211 | 0.357 | -94.32 | 0.00 | -0.299 | 0.00 | 0.00 | -0.336 |
| 115.00 | 85.50 | 1.87 | 0.0103 | 168.46 | 1.09 | 22.87 | 1.11 | 32.79 | 0.00 | -0.289 | 0.350 | -95.57 | 0.00 | -0.274 | 0.00 | 0.00 | -0.331 |
| 130.00 | 109.00 | 1.86 | 0.00952 | 167.78 | 1.21 | 47.80 | 1.18 | 47.41 | 0.00 | -0.392 | 0.342 | -97.40 | 0.00 | -0.253 | 0.00 | 0.00 | -0.349 |
| 145.00 | 132.50 | 1.81 | 0.00841 | 168.21 | 1.39 | 75.32 | 1.24 | 58.25 | 0.00 | -0.526 | 0.333 | -99.84 | 0.00 | -0.236 | 0.00 | 0.00 | -0.384 |
| 160.00 | 156.00 | 1.71 | 0.00706 | 169.31 | 1.65 | 102.76 | 1.29 | 66.46 | 0.00 | -0.700 | 0.323 | -102.76 | 0.00 | -0.221 | 0.00 | 0.00 | -0.437 |
| 175.00 | 179.50 | 1.59 | 0.00556 | 170.82 | 2.01 | 127.90 | 1.34 | 72.41 | 0.00 | -0.923 | 0.312 | -106.28 | 0.00 | -0.209 | 0.00 | 0.00 | -0.508 |
| 190.00 | 203.00 | 1.44 | 0.00403 | 169.62 | 2.51 | 149.92 | 1.38 | 76.85 | 0.00 | -1.21 | 0.300 | -110.31 | 0.00 | -0.199 | 0.00 | 0.00 | -0.601 |
| 205.00 | 226.50 | 1.28 | 0.00252 | 168.50 | 3.20 | 168.52 | 1.42 | 80.17 | 0.00 | -1.57 | 0.289 | -114.86 | 0.00 | -0.190 | 0.00 | 0.00 | -0.719 |
| 220.00 | 250.00 | 1.10 | < 0.001 | 165.97 | 4.12 | 186.86 | 1.43 | 81.83 | 0.00 | -2.05 | 0.273 | -122.64 | 0.00 | -0.186 | 0.00 | 0.00 | -0.892 |

Saturation Ratios (xSAT) are the ratio of ion activity to solubility, e.g. $\{Ca\}\{CO_3\}/K_{sp}$. $pCO_2$ (atm) is the partial pressure of $CO_2$ in the gas phase.
Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.



# DownHole SAT(tm)

## SURFACE WATER CHEMISTRY INPUT

Supreme Technologies
Leavitt 13 #2H WH
Glorieta-Yeso

Redwood

Report Date: 06-09-2021
Sample #: 0
Sampled: 06-02-2021 at 2216
Sample ID: 2021-06-04-39

| CATIONS | |
|---|---|
| Calcium (as Ca) | 4593 |
| Magnesium (as Mg) | 984.00 |
| Barium (as Ba) | 0.00 |
| Strontium (as Sr) | 88.00 |
| Sodium (as Na) | 71855 |
| Potassium (as K) | 978.00 |
| Lithium (as Li) | 24.00 |
| Iron (as Fe) | 0.00 |
| Manganese (as Mn) | 0.100 |
| Zinc (as Zn) | 0.00 |

| ANIONS | |
|---|---|
| Chloride (as Cl) | 121021 |
| Sulfate (as $SO_4$) | 2179 |
| Dissolved $CO_2$ (as $CO_2$) | 225.06 |
| Bicarbonate (as $HCO_3$) | 427.00 |
| $H_2S$ (as $H_2S$) | 30.00 |
| Boron (as B) | 12.00 |

| PARAMETERS | |
|---|---|
| Calculated T.D.S. | 217105 |
| Molar Conductivity | 233708 |
| Resistivity | 4.28 |
| Sp.Gr.(g/mL) | 1.130 |
| Pressure(psia) | 15.00 |
| Temperature ($^{O}F$) | 77.00 |
| pH | 6.00 |

| BOUND IONS | TOTAL | FREE |
|---|---|---|
| Calcium | 5190 | 4753 |
| Barium | 0.00 | 0.00 |
| Carbonate | 20.07 | 0.0439 |
| Phosphate | 0.00 | 0.00 |
| Sulfate | 2462 | 696.30 |

**CORROSION RATE PREDICTION**

| | |
|---|---|
| $CO_2$ - $H_2S$ Rate(mpy) | 0.327 |

**FRENCH CREEK SOFTWARE, INC.**
**1220 VALLEY FORGE ROAD, SUITE 21, VALLEY FORGE, PA 19460**

# DownHole SAT(tm)

## SURFACE WATER
## DEPOSITION POTENTIAL INDICATORS

Supreme Technologies — Redwood
Leavitt 13 #2H WH
Glorieta-Yeso

Report Date: 06-09-2021 — Sampled: 06-02-2021 at 2216
Sample #: 0 — Sample ID: 2021-06-04-39

| SATURATION RATIO as IAP/Ksp | | FREE ION MOMENTARY EXCESS (Lbs/1000 Barrels) | |
|---|---|---|---|
| Calcite ($CaCO_3$) | 1.73 | Calcite ($CaCO_3$) | 0.0108 |
| Aragonite ($CaCO_3$) | 1.60 | Aragonite ($CaCO_3$) | 0.00959 |
| Witherite ($BaCO_3$) | 0.00 | Witherite ($BaCO_3$) | -27.73 |
| Strontianite ($SrCO_3$) | 0.03 | Strontianite ($SrCO_3$) | -1.28 |
| Calcium oxalate ($CaC_2O_4$) | 0.00 | Calcium oxalate ($CaC_2O_4$) | -0.00752 |
| Magnesite ($MgCO_3$) | 0.44 | Magnesite ($MgCO_3$) | -0.0271 |
| Anhydrite ($CaSO_4$) | 1.00 | Anhydrite ($CaSO_4$) | -1.15 |
| Gypsum ($CaSO_4*2H_2O$) | 1.22 | Gypsum ($CaSO_4*2H_2O$) | 67.84 |
| Barite ($BaSO_4$) | 0.00 | Barite ($BaSO_4$) | -0.120 |
| Celestite ($SrSO_4$) | 0.38 | Celestite ($SrSO_4$) | -89.07 |
| Fluorite ($CaF_2$) | 0.00 | Fluorite ($CaF_2$) | -2.78 |
| Calcium phosphate | 0.00 | Calcium phosphate | >-0.001 |
| Hydroxyapatite | 0.00 | Hydroxyapatite | -263.20 |
| Silica ($SiO_2$) | 0.00 | Silica ($SiO_2$) | -27.99 |
| Brucite ($Mg(OH)_2$) | < 0.001 | Brucite ($Mg(OH)_2$) | -0.233 |
| Magnesium silicate | 0.00 | Magnesium silicate | -87.51 |
| Iron hydroxide ($Fe(OH)_3$) | 0.00 | Iron hydroxide ($Fe(OH)_3$) | -0.211 |
| Strengite ($FePO_4*2H_2O$) | 0.00 | Strengite ($FePO_4*2H_2O$) | >-0.001 |
| Siderite ($FeCO_3$) | 0.00 | Siderite ($FeCO_3$) | -0.347 |
| Halite (NaCl) | 0.24 | Halite (NaCl) | -73627 |
| Thenardite ($Na2SO_4$) | 0.00 | Thenardite ($Na2SO_4$) | -84955 |
| Iron sulfide (FeS) | 0.00 | Iron sulfide (FeS) | -0.570 |

| SIMPLE INDICES | | CARBONATE PRECIPITATION POTENTIAL (Lbs/1000 Barrels) | |
|---|---|---|---|
| Langelier | 0.876 | Calcite ($CaCO_3$) | 187.56 |
| Ryznar | 4.25 | Aragonite ($CaCO_3$) | 185.27 |
| Puckorius | 1.66 | Witherite ($BaCO_3$) | 0.00 |
| Larson-Skold Index | 301.16 | Strontianite ($SrCO_3$) | -18.23 |
| Stiff Davis Index | 0.732 | Magnesite ($MgCO_3$) | 135.47 |
| Oddo-Tomson | -0.237 | Siderite ($FeCO_3$) | 0.00 |

### OPERATING CONDITIONS

| | |
|---|---|
| Temperature ($^oF$) | 77.00 |
| Time(mins) | 3.00 |

**FRENCH CREEK SOFTWARE, INC.**
**1220 VALLEY FORGE ROAD, SUITE 21, VALLEY FORGE, PA 19460**

# DownHole SAT™ Water Analysis Report

French Creek Software

## SYSTEM IDENTIFICATION

Supreme Technologies
Redwood
Leavitt 14 A #2 WH
Glorieta-Yeso

Sample ID#: 0
ID: 2021-06-03-28

Sample Date: 05-31-2021 at 1553
Report Date: 06-06-2021

## WATER CHEMISTRY

### CATIONS

| | |
|---|---|
| Calcium(as Ca) | 4646 |
| Magnesium(as Mg) | 964.00 |
| Barium(as Ba) | 0.00 |
| Strontium(as Sr) | 87.00 |
| Sodium(as Na) | 66750 |
| Potassium(as K) | 863.00 |
| Lithium(as Li) | 23.00 |
| Iron(as Fe) | 0.100 |
| Manganese(as Mn) | 0.00 |
| Zinc(as Zn) | 0.00 |

### ANIONS

| | |
|---|---|
| Chloride(as Cl) | 111832 |
| Sulfate(as $SO_4$) | 1796 |
| Dissolved $CO_2$(as $CO_2$) | 180.00 |
| Bicarbonate(as $HCO_3$) | 329.00 |
| $H_2S$ (as $H_2S$) | 136.00 |
| Boron(as B) | 13.00 |

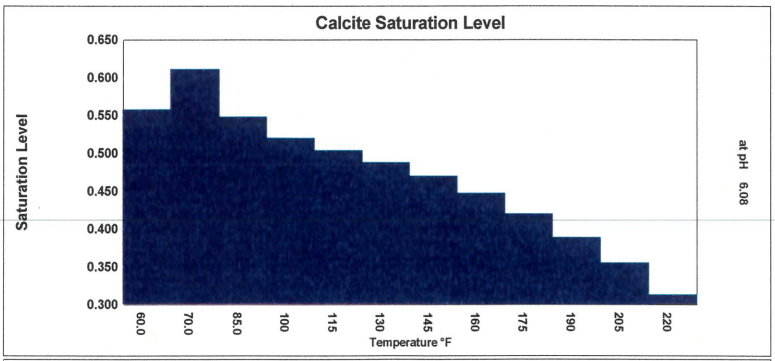
### PARAMETERS

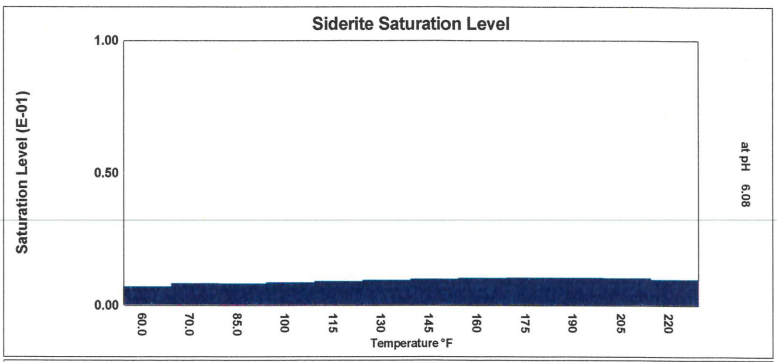
| | |
|---|---|
| Temperature(°F) | 77.00 |
| Sample pH | 6.00 |
| Conductivity | 286589 |
| T.D.S. | 180517 |
| Resistivity | 3.49 |
| Sp.Gr.(g/mL) | 1.13 |

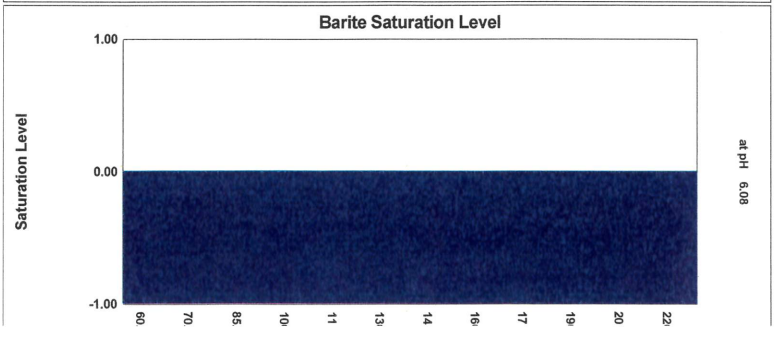
## SCALE AND CORROSION POTENTIAL

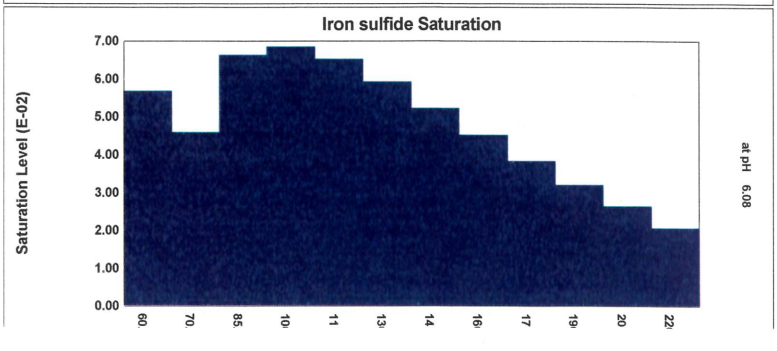
| Temp. (°F) | Press. (psig) | Calcite $CaCO_3$ | | Anhydrite $CaSO_4$ | | Gypsum $CaSO_4*2H_2O$ | | Barite $BaSO_4$ | | Celestite $SrSO_4$ | | Siderite $FeCO_3$ | | Mackawenite FeS | | $CO_2$ (mpy) | $pCO_2$ (atm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 60.00 | 0.00 | 0.557 | -0.0110 | 0.677 | -140.34 | 0.950 | -18.16 | 0.00 | -0.0765 | 0.345 | -89.18 | 0.00676 | -0.368 | 0.0566 | -0.139 | 0.239 | 0.0870 |
| 70.00 | 0.30 | 0.610 | -0.00898 | 0.652 | -151.80 | 0.885 | -42.84 | 0.00 | -0.103 | 0.326 | -95.07 | 0.00796 | -0.338 | 0.0456 | -0.171 | 0.367 | 0.0888 |
| 85.00 | 23.80 | 0.547 | -0.00941 | 0.641 | -151.98 | 0.806 | -75.10 | 0.00 | -0.153 | 0.310 | -100.05 | 0.00794 | -0.303 | 0.0660 | -0.115 | 0.966 | 0.228 |
| 100.00 | 47.30 | 0.519 | -0.00912 | 0.661 | -133.98 | 0.748 | -100.40 | 0.00 | -0.216 | 0.303 | -101.79 | 0.00832 | -0.273 | 0.0683 | -0.109 | 1.75 | 0.367 |
| 115.00 | 70.80 | 0.503 | -0.00871 | 0.710 | -102.98 | 0.777 | -82.25 | 0.00 | -0.295 | 0.299 | -102.38 | 0.00886 | -0.247 | 0.0651 | -0.113 | 2.25 | 0.506 |
| 130.00 | 94.30 | 0.487 | -0.00837 | 0.791 | -64.36 | 0.826 | -58.49 | 0.00 | -0.398 | 0.293 | -103.55 | 0.00940 | -0.226 | 0.0591 | -0.122 | 2.52 | 0.645 |
| 145.00 | 117.80 | 0.469 | -0.00816 | 0.912 | -22.83 | 0.870 | -40.00 | 0.00 | -0.533 | 0.287 | -105.29 | 0.00986 | -0.208 | 0.0521 | -0.135 | 2.74 | 0.784 |
| 160.00 | 141.30 | 0.447 | -0.00809 | 1.08 | 17.91 | 0.911 | -25.62 | 0.00 | -0.706 | 0.279 | -107.59 | 0.0102 | -0.193 | 0.0450 | -0.154 | 2.99 | 0.923 |
| 175.00 | 164.80 | 0.419 | -0.00814 | 1.32 | 55.27 | 0.946 | -14.54 | 0.00 | -0.927 | 0.271 | -110.46 | 0.0104 | -0.180 | 0.0382 | -0.177 | 3.19 | 1.06 |
| 190.00 | 188.30 | 0.388 | -0.00831 | 1.66 | 87.92 | 0.976 | -6.06 | 0.00 | -1.21 | 0.261 | -113.86 | 0.0103 | -0.169 | 0.0319 | -0.206 | 1.48 | 1.20 |
| 205.00 | 211.80 | 0.355 | -0.00857 | 2.12 | 115.46 | 1.00 | 0.432 | 0.00 | -1.56 | 0.252 | -117.80 | 0.0102 | -0.160 | 0.0262 | -0.244 | 0.706 | 1.34 |
| 220.00 | 235.30 | 0.313 | -0.00929 | 2.72 | 139.62 | 1.01 | 2.06 | 0.00 | -2.04 | 0.239 | -124.90 | 0.00961 | -0.156 | 0.0205 | -0.298 | 0.273 | 1.48 |
| | | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | | |

Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. $\{Ca\}\{CO_3\}/K_{sp}$. $pCO_2$ (atm) is the partial pressure of $CO_2$ in the gas phase.
Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.



# DownHole SAT(tm)

## SURFACE WATER CHEMISTRY INPUT

Supreme Technologies — Redwood
Leavitt 14 A #2 WH
Glorieta-Yeso

Report Date: 06-06-2021 Sampled: 05-31-2021 at 1553
Sample ID: 2021-06-03-28 Sample ID: 2021-06-03-28

| CATIONS | | ANIONS | |
|---|---|---|---|
| Calcium (as Ca) | 4646 | Chloride (as Cl) | 111832 |
| Magnesium (as Mg) | 964.00 | Sulfate (as $SO_4$) | 1796 |
| Barium (as Ba) | 0.00 | Dissolved $CO_2$ (as $CO_2$) | 180.00 |
| Strontium (as Sr) | 87.00 | Bicarbonate (as $HCO_3$) | 329.00 |
| Sodium (as Na) | 66750 | $H_2S$ (as $H_2S$) | 136.00 |
| Potassium (as K) | 863.00 | Boron (as B) | 13.00 |
| Lithium (as Li) | 23.00 | | |
| Iron (as Fe) | 0.100 | | |
| Manganese (as Mn) | 0.00 | | |
| Zinc (as Zn) | 0.00 | | |

### PARAMETERS

| | |
|---|---|
| Calculated T.D.S. | 180517 |
| Molar Conductivity | 286589 |
| Resistivity | 3.49 |
| Sp.Gr.(g/mL) | 1.13 |
| Pressure(psia) | 15.00 |
| Temperature ($^oF$) | 77.00 |
| pH | 6.00 |

### CORROSION RATE PREDICTION

| | |
|---|---|
| $CO_2$ - $H_2S$ Rate(mpy) | 0.452 |

**FRENCH CREEK SOFTWARE, INC.**
**1220 VALLEY FORGE ROAD, SUITE 21, VALLEY FORGE, PA 19460**

# DownHole SAT(tm)

## SURFACE WATER
## DEPOSITION POTENTIAL INDICATORS

Supreme Technologies — Redwood
Leavitt 14 A #2 WH
Glorieta-Yeso

Report Date: 06-06-2021 Sampled: 05-31-2021 at 1553
Sample ID: 2021-06-03-28 Sample ID: 2021-06-03-28

| SATURATION LEVEL | | MOMENTARY EXCESS (Lbs/1000 Barrels) | |
|---|---|---|---|
| Calcite ($CaCO_3$) | 0.561 | Calcite ($CaCO_3$) | -0.00958 |
| Aragonite ($CaCO_3$) | 0.519 | Aragonite ($CaCO_3$) | -0.0114 |
| Witherite ($BaCO_3$) | 0.00 | Witherite ($BaCO_3$) | -27.60 |
| Strontianite ($SrCO_3$) | 0.0118 | Strontianite ($SrCO_3$) | -1.47 |
| Calcium oxalate ($CaC_2O_4$) | 0.00 | Calcium oxalate ($CaC_2O_4$) | -0.0111 |
| Magnesite ($MgCO_3$) | 0.132 | Magnesite ($MgCO_3$) | -0.0681 |
| Anhydrite ($CaSO_4$) | 0.644 | Anhydrite ($CaSO_4$) | -153.56 |
| Gypsum ($CaSO_4*2H_2O$) | 0.847 | Gypsum ($CaSO_4*2H_2O$) | -58.02 |
| Barite ($BaSO_4$) | 0.00 | Barite ($BaSO_4$) | -0.124 |
| Celestite ($SrSO_4$) | 0.318 | Celestite ($SrSO_4$) | -97.77 |
| Fluorite ($CaF_2$) | 0.00 | Fluorite ($CaF_2$) | -3.47 |
| Calcium phosphate | 0.00 | Calcium phosphate | >-0.001 |
| Hydroxyapatite | 0.00 | Hydroxyapatite | -304.59 |
| Silica ($SiO_2$) | 0.00 | Silica ($SiO_2$) | -31.47 |
| Brucite ($Mg(OH)_2$) | < 0.001 | Brucite ($Mg(OH)_2$) | < 0.001 |
| Magnesium silicate | 0.00 | Magnesium silicate | -96.47 |
| Iron hydroxide ($Fe(OH)_3$) | < 0.001 | Iron hydroxide ($Fe(OH)_3$) | < 0.001 |
| Strengite ($FePO_4*2H_2O$) | 0.00 | Strengite ($FePO_4*2H_2O$) | >-0.001 |
| Siderite ($FeCO_3$) | 0.00769 | Siderite ($FeCO_3$) | -0.321 |
| Halite (NaCl) | 0.133 | Halite (NaCl) | -102986 |
| Thenardite ($Na2SO_4$) | < 0.001 | Thenardite ($Na2SO_4$) | -85717 |
| Iron sulfide (FeS) | 0.0429 | Iron sulfide (FeS) | -0.181 |

| SIMPLE INDICES | | BOUND IONS | TOTAL | FREE |
|---|---|---|---|---|
| Langelier | 0.246 | Calcium | 4646 | 4389 |
| Ryznar | 5.51 | Barium | 0.00 | 0.00 |
| Puckorius | 3.56 | Carbonate | 4.12 | 0.0211 |
| Larson-Skold Index | 660.02 | Phosphate | 0.00 | 0.00 |
| Stiff Davis Index | -0.0648 | Sulfate | 1796 | 612.62 |
| Oddo-Tomson | -0.901 | | | |

### OPERATING CONDITIONS

| | |
|---|---|
| Temperature ($^oF$) | 77.00 |
| Time(mins) | 3.00 |

**FRENCH CREEK SOFTWARE, INC.**
**1220 VALLEY FORGE ROAD, SUITE 21, VALLEY FORGE, PA 19460**

# DownHole SAT™ Water Analysis Report

French Creek Software

## SYSTEM IDENTIFICATION

Supreme Technologies
Redwood
Kaiser B #1 WH
Queen-Grayburg-
San Andres

Sample ID#: 0
ID: 2021-06-03-9

Sample Date: 05-31-2021 at 1553
Report Date: 06-06-2021

## WATER CHEMISTRY

### CATIONS

| | |
|---|---|
| Calcium(as Ca) | 3262 |
| Magnesium(as Mg) | 556.00 |
| Barium(as Ba) | 0.00 |
| Strontium(as Sr) | 59.00 |
| Sodium(as Na) | 88835 |
| Potassium(as K) | 50.00 |
| Lithium(as Li) | 22.00 |
| Iron(as Fe) | 0.00 |
| Manganese(as Mn) | 0.00 |
| Zinc(as Zn) | 0.00 |

### ANIONS

| | |
|---|---|
| Chloride(as Cl) | 139429 |
| Sulfate(as $SO_4$) | 3973 |
| Dissolved $CO_2$(as $CO_2$) | 250.00 |
| Bicarbonate(as $HCO_3$) | 390.00 |
| $H_2S$ (as $H_2S$) | 17.00 |
| Boron(as B) | 8.90 |

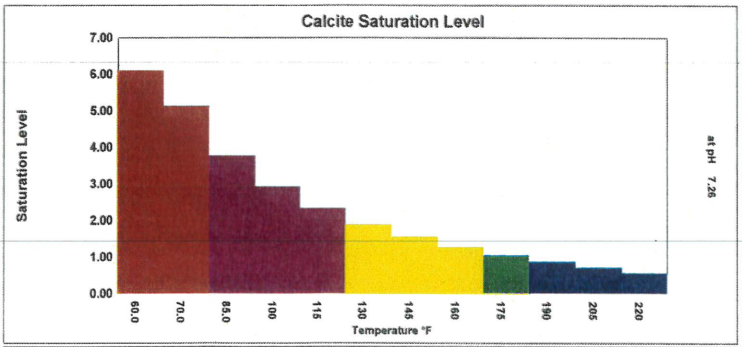
### PARAMETERS

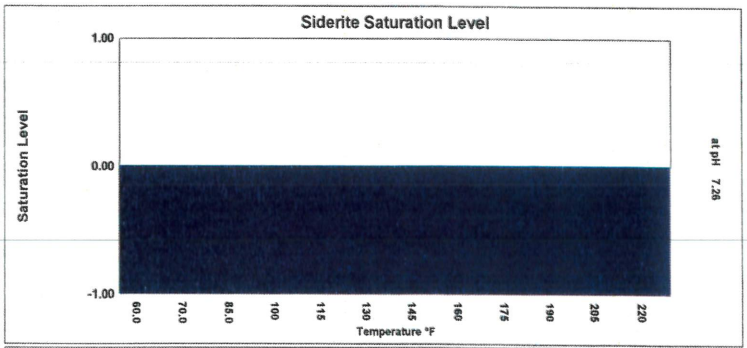
| | |
|---|---|
| Temperature(°F) | 77.00 |
| Sample pH | 7.00 |
| Conductivity | 396368 |
| T.D.S. | 223486 |
| Resistivity | 2.52 |
| Sp.Gr.(g/mL) | 1.15 |

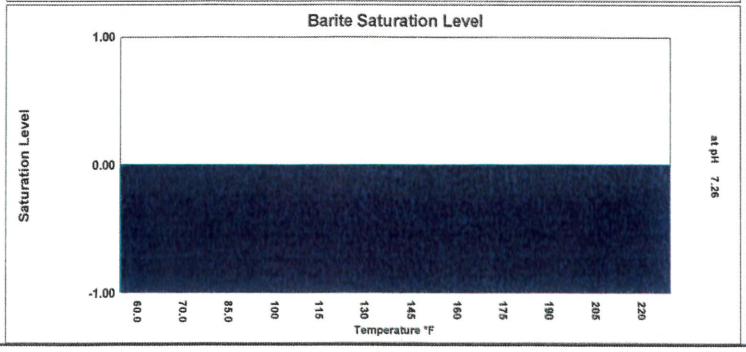
## SCALE AND CORROSION POTENTIAL

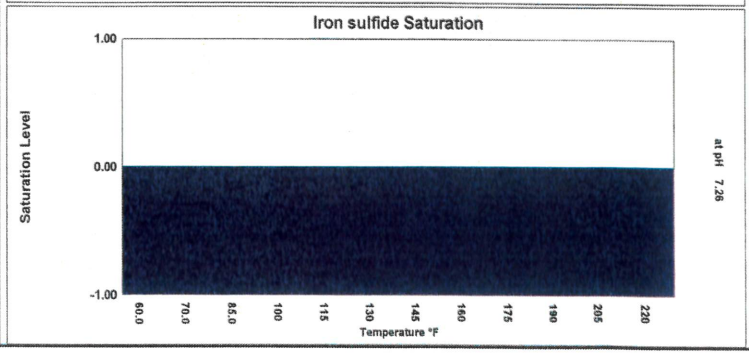
| Temp. (°F) | Press. (psig) | Calcite $CaCO_3$ | | Anhydrite $CaSO_4$ | | Gypsum $CaSO_4*2H_2O$ | | Barite $BaSO_4$ | | Celestite $SrSO_4$ | | Siderite $FeCO_3$ | | Mackawenite FeS | | $CO_2$ (mpy) | $pCO_2$ (atm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 60.00 | 0.00 | 6.08 | 0.146 | 1.21 | 103.63 | 1.57 | 257.16 | 0.00 | -0.0385 | 0.467 | -45.14 | 0.00 | -0.326 | 0.00 | -0.0184 | 0.0458 | 0.0225 |
| 70.00 | 0.30 | 5.12 | 0.110 | 1.17 | 84.09 | 1.47 | 218.84 | 0.00 | -0.0514 | 0.443 | -49.29 | 0.00 | -0.315 | 0.00 | -0.0323 | 0.0447 | 0.0230 |
| 85.00 | 23.80 | 3.77 | 0.0667 | 1.15 | 75.36 | 1.34 | 167.95 | 0.00 | -0.0761 | 0.424 | -52.94 | 0.00 | -0.299 | 0.00 | -0.0303 | 0.102 | 0.0590 |
| 100.00 | 47.30 | 2.92 | 0.0423 | 1.19 | 89.72 | 1.25 | 127.15 | 0.00 | -0.107 | 0.416 | -54.40 | 0.00 | -0.282 | 0.00 | -0.0391 | 0.167 | 0.0951 |
| 115.00 | 70.80 | 2.33 | 0.0271 | 1.29 | 121.66 | 1.31 | 145.21 | 0.00 | -0.146 | 0.412 | -55.00 | 0.00 | -0.264 | 0.00 | -0.0535 | 0.0641 | 0.131 |
| 130.00 | 94.30 | 1.89 | 0.0168 | 1.45 | 164.10 | 1.40 | 171.41 | 0.00 | -0.196 | 0.406 | -56.09 | 0.00 | -0.248 | 0.00 | -0.0744 | 0.179 | 0.167 |
| 145.00 | 117.80 | 1.54 | 0.00963 | 1.68 | 212.03 | 1.49 | 191.96 | 0.00 | -0.261 | 0.399 | -57.55 | 0.00 | -0.234 | 0.00 | -0.103 | 0.307 | 0.203 |
| 160.00 | 141.30 | 1.26 | 0.00440 | 2.01 | 260.44 | 1.57 | 207.82 | 0.00 | -0.344 | 0.390 | -59.43 | 0.00 | -0.222 | 0.00 | -0.143 | 0.489 | 0.239 |
| 175.00 | 164.80 | 1.03 | < 0.001 | 2.47 | 306.07 | 1.64 | 220.17 | 0.00 | -0.451 | 0.380 | -61.72 | 0.00 | -0.211 | 0.00 | -0.195 | 0.677 | 0.275 |
| 190.00 | 188.30 | 0.842 | -0.00248 | 3.11 | 346.75 | 1.70 | 229.68 | 0.00 | -0.586 | 0.368 | -64.45 | 0.00 | -0.202 | 0.00 | -0.264 | 0.339 | 0.311 |
| 205.00 | 211.80 | 0.686 | -0.00480 | 4.00 | 381.83 | 1.76 | 237.18 | 0.00 | -0.757 | 0.356 | -67.60 | 0.00 | -0.194 | 0.00 | -0.353 | 0.307 | 0.347 |
| 220.00 | 235.30 | 0.541 | -0.00713 | 5.17 | 416.73 | 1.78 | 242.20 | 0.00 | -0.988 | 0.337 | -73.08 | 0.00 | -0.190 | 0.00 | -0.484 | 0.414 | 0.383 |
| | | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | xSAT | Lbs per 1000 Barrels | | |

Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. $\{Ca\}\{CO_3\}/K_{sp}$. $pCO_2$ (atm) is the partial pressure of $CO_2$ in the gas phase.
Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.



# DownHole SAT(tm)

## SURFACE WATER CHEMISTRY INPUT

Supreme Technologies — Redwood
Kaiser B #1 WH
Queen-Grayburg- San Andres

Report Date: 06-06-2021 Sampled: 05-31-2021 at 1553
Sample ID: 2021-06-03-9 Sample ID: 2021-06-03-9

| CATIONS | | ANIONS | |
|---|---|---|---|
| Calcium (as Ca) | 3262 | Chloride (as Cl) | 139429 |
| Magnesium (as Mg) | 556.00 | Sulfate (as $SO_4$) | 3973 |
| Barium (as Ba) | 0.00 | Dissolved $CO_2$ (as $CO_2$) | 250.00 |
| Strontium (as Sr) | 59.00 | Bicarbonate (as $HCO_3$) | 390.00 |
| Sodium (as Na) | 88835 | $H_2S$ (as $H_2S$) | 17.00 |
| Potassium (as K) | 50.00 | Boron (as B) | 8.90 |
| Lithium (as Li) | 22.00 | | |
| Iron (as Fe) | 0.00 | | |
| Manganese (as Mn) | 0.00 | | |
| Zinc (as Zn) | 0.00 | | |

### PARAMETERS

| | |
|---|---|
| Calculated T.D.S. | 223486 |
| Molar Conductivity | 396368 |
| Resistivity | 2.52 |
| Sp.Gr.(g/mL) | 1.15 |
| Pressure(psia) | 15.00 |
| Temperature ($^oF$) | 77.00 |
| pH | 7.00 |

### CORROSION RATE PREDICTION

| | |
|---|---|
| $CO_2$ - $H_2S$ Rate(mpy) | 0.0528 |

**FRENCH CREEK SOFTWARE, INC.**
**1220 VALLEY FORGE ROAD, SUITE 21, VALLEY FORGE, PA 19460**

# DownHole SAT(tm)

## SURFACE WATER
## DEPOSITION POTENTIAL INDICATORS

Supreme Technologies — Redwood
Kaiser B #1 WH
Queen-Grayburg-San Andres

Report Date: 06-06-2021 Sampled: 05-31-2021 at 1553
Sample ID: 2021-06-03-9 Sample ID: 2021-06-03-9

| SATURATION LEVEL | | MOMENTARY EXCESS (Lbs/1000 Barrels) | |
|---|---|---|---|
| Calcite ($CaCO_3$) | 3.94 | Calcite ($CaCO_3$) | 0.0745 |
| Aragonite ($CaCO_3$) | 3.65 | Aragonite ($CaCO_3$) | 0.0724 |
| Witherite ($BaCO_3$) | 0.00 | Witherite ($BaCO_3$) | -28.05 |
| Strontianite ($SrCO_3$) | 0.0629 | Strontianite ($SrCO_3$) | -2.06 |
| Calcium oxalate ($CaC_2O_4$) | 0.00 | Calcium oxalate ($CaC_2O_4$) | -0.0129 |
| Magnesite ($MgCO_3$) | 0.793 | Magnesite ($MgCO_3$) | -0.0219 |
| Anhydrite ($CaSO_4$) | 1.16 | Anhydrite ($CaSO_4$) | 78.07 |
| Gypsum ($CaSO_4*2H_2O$) | 1.41 | Gypsum ($CaSO_4*2H_2O$) | 194.92 |
| Barite ($BaSO_4$) | 0.00 | Barite ($BaSO_4$) | -0.0621 |
| Celestite ($SrSO_4$) | 0.433 | Celestite ($SrSO_4$) | -51.26 |
| Fluorite ($CaF_2$) | 0.00 | Fluorite ($CaF_2$) | -3.67 |
| Calcium phosphate | 0.00 | Calcium phosphate | >-0.001 |
| Hydroxyapatite | 0.00 | Hydroxyapatite | -267.07 |
| Silica ($SiO_2$) | 0.00 | Silica ($SiO_2$) | -28.17 |
| Brucite ($Mg(OH)_2$) | < 0.001 | Brucite ($Mg(OH)_2$) | 0.00303 |
| Magnesium silicate | 0.00 | Magnesium silicate | -89.14 |
| Iron hydroxide ($Fe(OH)_3$) | 0.00 | Iron hydroxide ($Fe(OH)_3$) | -0.214 |
| Strengite ($FePO_4*2H_2O$) | 0.00 | Strengite ($FePO_4*2H_2O$) | >-0.001 |
| Siderite ($FeCO_3$) | 0.00 | Siderite ($FeCO_3$) | -0.314 |
| Halite (NaCl) | 0.259 | Halite (NaCl) | -72069 |
| Thenardite ($Na2SO_4$) | < 0.001 | Thenardite ($Na2SO_4$) | -86536 |
| Iron sulfide (FeS) | 0.00 | Iron sulfide (FeS) | -0.0416 |

| SIMPLE INDICES | | BOUND IONS | TOTAL | FREE |
|---|---|---|---|---|
| Langelier | 1.39 | Calcium | 3262 | 2858 |
| Ryznar | 4.21 | Barium | 0.00 | 0.00 |
| Puckorius | 3.03 | Carbonate | 88.17 | 0.172 |
| Larson-Skold Index | 570.61 | Phosphate | 0.00 | 0.00 |
| Stiff Davis Index | 1.25 | Sulfate | 3973 | 1385 |
| Oddo-Tomson | 0.281 | | | |

### OPERATING CONDITIONS

| | |
|---|---|
| Temperature ($^oF$) | 77.00 |
| Time(mins) | 3.00 |

**FRENCH CREEK SOFTWARE, INC.**
**1220 VALLEY FORGE ROAD, SUITE 21, VALLEY FORGE, PA 19460**

## Redwood Operating, LLC

Choate Davis 24 State #4 Formation Tops

| | |
|---|---|
| Yates | 175' |
| Seven Rivers | 485' |
| Queen | 1100' |
| Grayburg | 1535' |
| San Andres | 1900' |
| Glorieta | 3560' |
| Abo | 5100' |
| Wolfcamp | 6575' |
| Cisco | 7150' |
| Canyon | 8110' |
| Strawn | 8680' |

# Affidavit of Publication

No. 25808

State of New Mexico Publisher

County of Eddy:

**Danny Scott**

being duly sworn sayes that he is the **Publisher**

of the Artesia Daily Press, a daily newspaper of General circulation, published in English at Artesia, said county and state, and that the hereto attached

**Legal Ad**

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for

2 Consecutive weeks/day on the same day as follows:

| | |
|---|---|
| First Publication | July 1, 2021 |
| Second Publication | July 8, 2021 |
| Third Publication | |
| Fourth Publication | |
| Fifth Publication | |
| Sixth Publication | |
| Seventh Publication | |

Subscribed and sworn before me this

8th day of July 2021

OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 5/12/2023

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

# Copy of Publication:

**Legal Notice**

Redwood Operating LLC, Post Office Box 1370, Artesia, NM 88211-1370, has filed an Application the New Mexico Oil Conservation Division seeking authorization to inject produced water into the Choate Davis 23 State SWD #4 570 FNL 750 FWL of Section 23, T18S, R27E, NMPM, Eddy County, New Mexico. The water will be injected into the Cisco- Canyon at a disposal depth of 7200'-8300'. Water will be injected at a maximum surface pressure of 1440# and a maximum injection rate of 4000-6000 BWPD.

Any interest party with questions or comments may contact Deana Weaver at Redwood Operating LLC, Post Office Box 1370, Artesia, NM 88211-1370 or call 575-748-1288. Objections to this application or requests for hearing must be filed with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within fifteen days of the date of publication of this notice.

Published in the Artesia Daily Press, Artesia, N.M., July 1, 2021 Legal No. 25808.

## Legal Notice

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Published in the Artesia Daily Press, Artesia, N.M., July 1, 2021 Legal No. 25808.

Application for SWD
Offset Operators Within ½ Mile of
Choate Davis 23 State SWD #4
Redwood Operating, LLC

| OGRID | OPERATOR | ADDRESS |
|---|---|---|
| 3719878 | Sellers&Fulton Oil, LLC | 422 W. Main, STE.5, PO Box 1176, Artesia, NM 88210 |
| 371484 | Rover Operating, LLC | 55 Old Santa Fe Trail, Santa FE, NM 87501 |
| 25575 | EOG Y Resources, INC | 104 S. 4th St., Artesia, NM 88210 |
| 280554 | CFM Oil, LLC | PO Box 1176, Artesia, NM 88210 |
| | New Mexico State Land Office | 310 Old Santa Fe Trail, Santa Fe, NM 87501 |

REDWOOD
OPERATING LLC
PO BOX 1370 ARTESIA NM 88211-1370

July 27, 2021

Via Certified Mail 7019 1640 0002 0377 9617
Return Receipt Requested

New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, NM 87501

To all Interest Owners:

Enclosed for you review is a copy of Redwood Operating, LLC's application for a Cisco-Canyon SWD well. Produced water will be injected at a proposed depth of 7200-8300'. The Choate Davis 23 State SWD #4 located 570 FNL & 750 FWL, Sec. 23 T18S R27E, Eddy County.

The letter will serve as a notice that Redwood Operating LLC has requested administrative approval from the NMOCD to drill this well as a water disposal. If you have any objections, you must notify the Oil Conservation Division in Santa Fe in writing at 1220 South St. Francis Drive, Santa Fe, NM 87505 within fifteen (15) days of receiving this letter.

Sincerely,

Redwood Operating, LLC

Deana Weaver

Deana Weaver
Regulatory Technician II

DW/

Attachments

O: 575.748.1288
F: 575.746.9539
INFO@REDWOODOPERATING.COM

REDWOOD
OPERATING LLC
PO BOX 1370 ARTESIA NM 88211-1370

July 27, 2021

Via Certified Mail 7019 1640 0002 0377 9600
Return Receipt Requested

Sellers & Fulton Oil, LLC
P.O. Box 1176
Artesia, NM 88210

To all Interest Owners:

Enclosed for you review is a copy of Redwood Operating, LLC's application for a Cisco-Canyon SWD well. Produced water will be injected at a proposed depth of 7200-8300'. The Choate Davis 23 State SWD #4 located 570 FNL & 750 FWL, Sec. 23 T18S R27E, Eddy County.

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Redwood Operating, LLC

Deana Weaver

Deana Weaver
Regulatory Technician II

DW/

Attachments

O: 575.748.1288
F: 575.746.9539
INFO@REDWOODOPERATING.COM

REDWOOD
OPERATING LLC
PO BOX 1370 ARTESIA NM 88211-1370

July 27, 2021

Via Certified Mail 7019 1640 0002 0377 9594
Return Receipt Requested

Rover Operating, LLC
55 Old Santa Fe Trail
Santa Fe, NM 87501

To all Interest Owners:

Enclosed for you review is a copy of Redwood Operating, LLC's application for a Cisco-Canyon SWD well. Produced water will be injected at a proposed depth of 7200-8300'. The Choate Davis 23 State SWD #4 located 570 FNL & 750 FWL, Sec. 23 T18S R27E, Eddy County.

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Redwood Operating, LLC

Deana Weaver

Deana Weaver
Regulatory Technician II

DW/

Attachments

O: 575.748.1288
F: 575.746.9539
INFO@REDWOODOPERATING.COM

REDWOOD
OPERATING LLC
PO BOX 1370 ARTESIA NM 88211-1370

July 21, 2021

Via Certified Mail 7019 1640 0002 0377 9587
Return Receipt Requested

EOG Y Resources, INC
104 S. 4th Street
Artesia, NM 88210

To all Interest Owners:

Enclosed for you review is a copy of Redwood Operating, LLC's application for a Cisco- Canyon SWD well. Produced water will be injected at a proposed depth of 7200-8300'. The Choate Davis 23 State SWD #4 located 570 FNL & 750 FWL, Sec. 23 T18S R27E, Eddy County.

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Deana Weaver

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REDWOOD
OPERATING LLC
PO BOX 1370 ARTESIA NM 88211-1370

July 27, 2021

Via Certified Mail 7019 1640 0002 0377 9570
Return Receipt Requested

CFM Oil, LLC
P.O. Box 1176
Artesia, NM 88210

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Redwood Operating, LLC

Deana Weaver

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