AE Order Number Banner

Application Number: pSYS2531834108

Initial Application Part I

SWD-2681

RAYBAW Operating, LLC [330220]

Received: 11/4/2025

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Geological & Engineering Bureau –
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: RAYBAW OPERATING, LLC **OGRID Number:** 330220
Well Name: STIVASON FEDERAL #003 **API:** 3002529544
Pool: SWD; QUEEN **Pool Code:** 96117

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

1) **TYPE OF APPLICATION:** Check those which apply for [A]
A. Location – Spacing Unit – Simultaneous Dedication
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]
[I] Commingling – Storage – Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

2) **NOTIFICATION REQUIRED TO:** Check those which apply.
A. ☒ Offset operators or lease holders
B. ☐ Royalty, overriding royalty owners, revenue owners
C. ☒ Application requires published notice
D. ☐ Notification and/or concurrent approval by SLO
E. ☒ Notification and/or concurrent approval by BLM
F. ☒ Surface owner
G. ☐ For all of the above, proof of notification or publication is attached, and/or,
H. ☐ No notice required

3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Jack Carter
Print or Type Name

Jack Carter
Signature

10/15/2025
Date

281-387-6515
Phone Number

jack@oaknrg.com
e-mail Address

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 ___X___Disposal _____Storage
Application qualifies for administrative approval? _____Yes _____No

II. OPERATOR: Raybaw Operating, LLC

ADDRESS: 2626 Cole Avenue, Suite 300, Dallas, Texas 75204

CONTACT PARTY: Ronda White PHONE: 432-425-3494

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:

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: Jack Carter TITLE: Land Consultant

SIGNATURE: Jack Carter DATE: 10/21/2025

E-MAIL ADDRESS: jack@oaknrg.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: Administrative Order SWD 420; Dated/approved May 22, 1991
C-108 filed by Strata Production Company; Dated April 3, 1991

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:

(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.

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.

APPLICATION FOR REINSTATEMENTOF PERMIT TO INJECT
DATA SECTION SUBMISSIONS
STIVASON FEDERAL #003 (30-025-29544)

Raybaw Operating, LLC
Stivason Federal #003
Unit Letter "B", Section 33, Township 19 South, Range 34 East
330' FNL, 1,650' FEL
Lea County, New Mexico

DOCUMENTATION FOR FORM C-108

Section "I"

- *Purpose*

The purpose of this application is seeking administrative approval for the reinstatement of the Stivason Federal #003 from shut-in status as a disposal well in the Queen Formation (4510' to 4555') to an active salt water disposal well on Federal Lease (NM-057285). (Original SWD authority was granted under Administrative Order SWD-420 Approved May 22, 1991)

Section "II"

- *Operator, Address, Contact Party, Phone.*
  - Raybaw Operating, LLC OGRID: 330220
  - 2626 Cole Avenue, Suite 300, Dallas, Texas 75204
  - Manager: Michael Lee Phone: 214-800-2301 Email: michael@raybawoperating.com

Section "III"

- *Complete the data required on the reverse side of Form C-108 for each well proposed for injection.*
  - Form C-108 provided data sheets completed additionally:
  - Exhibit "1": Stivason Federal #003 detail wellbore schematic
  - Exhibit "1a": Stivason Federal #003 well history

Section "IV"

- *Identify scope/nature of project.*
  - The Stivason Federal #003 request is not an expansion of an existing project
  - The Stivason Federal #003 application request is limited to seeking approval for the reinstatement of permit to dispose of produced waters from company only operated wells

Section "V"

- *Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.*
  - Exhibit "2": Well Base Map showing all wells within one (1) mile radius of the Stivason Federal #003 – Noted as the Area Of Review.
  - Exhibit "2a": Well Base Map showing all wells within two (2) mile radius of the Stivason Federal #003.
  - Exhibit "2b" Land Base Map showing all leases within two (2) mile radius of the Stivason Federal #003.
  - Exhibit "2c" Land Base Map showing all leases within one-half (1/2) mile radius of Stivason Federal #003 (AOR) for legal notice

Section "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.*

- Exhibit "3": Well data tabulation
- Exhibit "3a" Plugging schematic of Stivason Federal #5; Sec 27 Twn 19S Rng 34E
- Exhibit "3b" Plugging schematic of Sun Pearl Federal #2; Sec 28 Twn 19S Rng 34E
- Exhibit "3c" Plugging schematic of Stivason Federal #4; Sec 28 Twn 19S Rng 34E
- Exhibit "3d" Plugging schematic of Sun Pearl Federal #1; Sec 28 Twn 19S Rng 34E
- Exhibit "3e" Plugging schematic of Stivason Federal #2; Sec 28 Twn 19S Rng 34E
- Exhibit "3f" Plugging schematic of Stivason Federal #6; Sec 28 Twn 19S Rng 34E
- Exhibit "3g" Plugging schematic of Mallon 33 Federal #8; Sec 33 Twn 19S Rng 34E
- Exhibit "3h" Plugging schematic of Mallon 33 Federal #4; Sec 33 Twn 19S Rng 34E
- **Exhibit "3i" Plugging schematic of Stivason Federal #3; Sec 33 Twn 19S Rng 34E**
- Exhibit "3j" Plugging schematic of Stivason Federal #1; Sec 33 Twn 19S Rng 34E
- Exhibit "3k" Plugging schematic of Mallon 34 Federal #1; Sec 34 Twn 19S Rng 34E

Section "VII"

- *Attach data on the proposed operation, including:*
  - *Proposed average and maximum daily rate and volume of fluids to be injected.*
  - *Whether the system is open or closed.*
  - *Proposed average and maximum injection pressure.*
  - *Sources and appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,*
  - *If injection is for disposal purposes into a zone not production of oil and 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).*

- Proposed average daily injection rate: 700 bwpd
- Proposed maximum daily injection rate: 1,000 bwpd
- The Stivason Federal #003 is part of a closed SWD system. Raybaw Operating, LLC will operate and be the only user of the system. The water injected into the system will be from Raybaw operated Malachite 22 Federal #1H, & Malachite 22 Federal #2H, & Amethyst 22 Federal #1 all in Secs 22 T 19S R 33E; Anazazi 9 Federal #1 in Sec 9,T20S R33E; Caprock 27 Federal #1H in Sec 27, T 18S R 34E, and Maroon Bells Federal Com 16 32 36 SB in Sec 35 T 19S R 32E
- Proposed average injection pressure: 700 PSI SIP
- Proposed maximum injection pressure: 902 PSI SIP
  i. (previously authorized by the OCD dated 05/22/1991; Files SWD-420)
- Source of proposed injection fluid: Bones Springs, Abo Reef

The source of the proposed injection water is primarily from the Bone Springs. Produced water will be from Malachite 22 Federal #1H, & Malachite 22 Federal #2H, & Amethyst 22 Federal #1 all in Secs 22 T 19S R 33E; Anazazi 9 Federal #1 in Sec 9,T20S R33E; Caprock 27 Federal #1H in Sec 27, T 18S R 34E, and Maroon Bells Federal Com 16 32 36 SB in Sec 35 T 19S R 32E

- Exhibit "4" chemical analysis of Bone Springs produced water from the
- Exhibit "4a" chemical analysis of Bone Springs produced water from
- Exhibit "4b" chemical analysis of Bone Springs produced water from
- Exhibit "4c" chemical analysis of Abo Reef produced water from the

Section "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.*
  - Exhibit "5" Geologic data tabulation for the Stivason Federal #003
  - Exhibit "5a" Stivason Federal #003 Log Section of Queen Formation zone Injection Interval

proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

- Exhibit "5" Geologic data tabulation for the Stivason Federal #003
- Exhibit "5a" Stivason Federal #003 Log Section of Queen Formation zone Injection Interval
- Exhibit "5b" Stivason Federal #003 Structure Map, Top of Queen Formation, in AOR
- Exhibit "5c" Stivason Federal #003 Cross Section in AOR

Section "IX"

- *Describe the proposed stimulation program, if any:*
  - At time of application filing, proposed that the Stivason Federal #003 be stimulated with 630 gal of solvent, 50 gal of demulsifier, and 3,500 gal of acid. Treatment indicated for clearing existing injection interval

Section "X"

- *Attach appropriate logging and test data on the well. (If welllogs have been filed with the Division, they need not be resubmitted*
  - Dual Laterallog-Micro-SFL log for the Stivason Federal #3(Company Moroilco, Inc.) (Schlumberger Well Surveying, 12/24/1985) filed with the OCD (Injection Application approved under Administrative Order SWD-420, 05/22/1991
  - Compensated Neutron Litho Density log for the Stivason Federal #3 (Company Moroilco, Inc.) (Schlumberger Well Surveying, 12/24/1985) filed with the OCD (Injection Application approved under Administrative Order SWD-420, 05/22/1991.

Section "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).*
  - There are not any fresh water wells currently producing with a 1-mile radius of the Stivason Federal #003.

Section "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.*
  - Exhibit "7" - The available geologic and engineering data have been examined and I have found no evidence of open faults or any hydrologic connection between the disposal zone and any underground sources of drinking water.

Jack Carter

Jack Carter
Raybaw Consulting Geologist/Landman

Section “XIII”

- *Applicants must complete the “Proof of Notice” section on the reverse side of this form.*
  - Exhibit “8” Proof of publication – Legal Notice
  - Statement of Affected Person Notification

Entity Name	Entity Address	Mailing Date
Raybaw Operating	Khanie Nomichit, 2626 Cole Avenue, Suite 300, Dallas, Texas 75204	5/30/2025
Chevron USA	6301 Deauville Midland, Texas 79706-2964	10/28/2025
Coterra Energy	6001 Deauville Blvd., Suite 300N Midland, Texas 79706	10/28/2025
Matador Resources Co	5400 LBJ Freeway, Suite 1500 Dallas, Texas 75240	10/28/2025
Read & Stevens, Inc	300 N Marienfeld St, Suite 1000 Midland, Texas 79701	10/28/2025
Bureau of Land Management Carlsbad Field Office	620 E. Green Street Carlsbad, New Mexico 88220	10/28/2025
New Mexico State Land Office Oil, Gas, and Minerals Division	PO Box 1148 Santa Fe, New Mexico 87504-1148	10/28/2025

Side 1

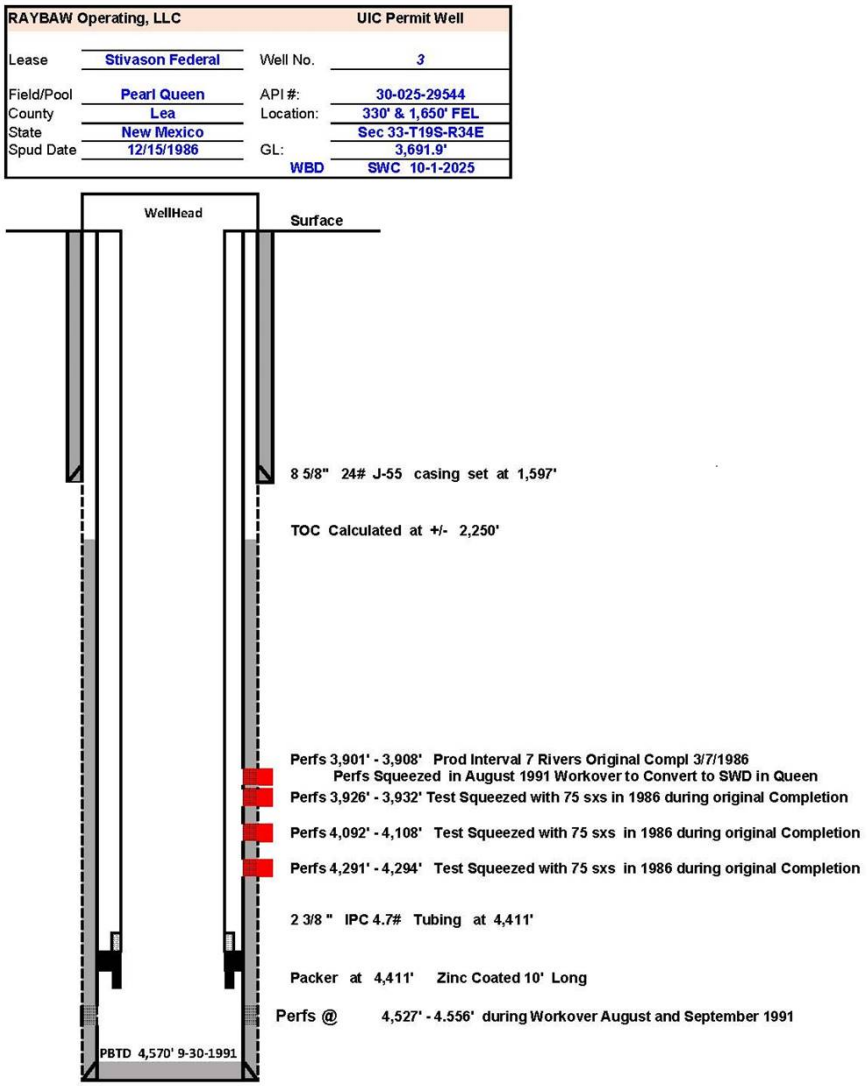
INJECTION WELL DATA SHEET

OPERATOR: Raybaw Operating, LLC

WELL NAME & NUMBER: Stivason Federal #003

WELL LOCATION:	330' FNL & 1650' FEL	B	33	19 South	34 East
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12 1/4" Casing Size: 8 5/8" 24# J-55 set at 1,597'

Cemented with: 400 sx Howco ; 150 sx Cl "C" sx. ***or*** _____ ft³

Top of Cement: Surf Method Determined: Visual (Circ to Surf)

Intermediate Casing

Hole Size: _____ Casing Size: _____

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

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 7 7/8" Casing Size: 5 1/2" 15.5# set at 4,630'

Cemented with: 375 sx Cl "C" sx. ***or*** _____ ft³

Top of Cement: 3,070' Method Determined: Calc @ +/- 2,250'

Total Depth: 4,630'

Injection Interval

Perfs 4,527 / Perfs 4,546' feet to 4,536' / 4,556'

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2 3/8" Lining Material: IPC J-55 4.7#

Type of Packer: Zinc Coated 10' long

Packer Setting Depth: 4.95 O.D. 4,411'

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? Production of Oil & Gas
   Originally completed 3/7/1986. Converted to SWD 02/20/1992 under Administrative Order SWD-420 approved May 22, 1991

2. Name of the Injection Formation: Queen Formation

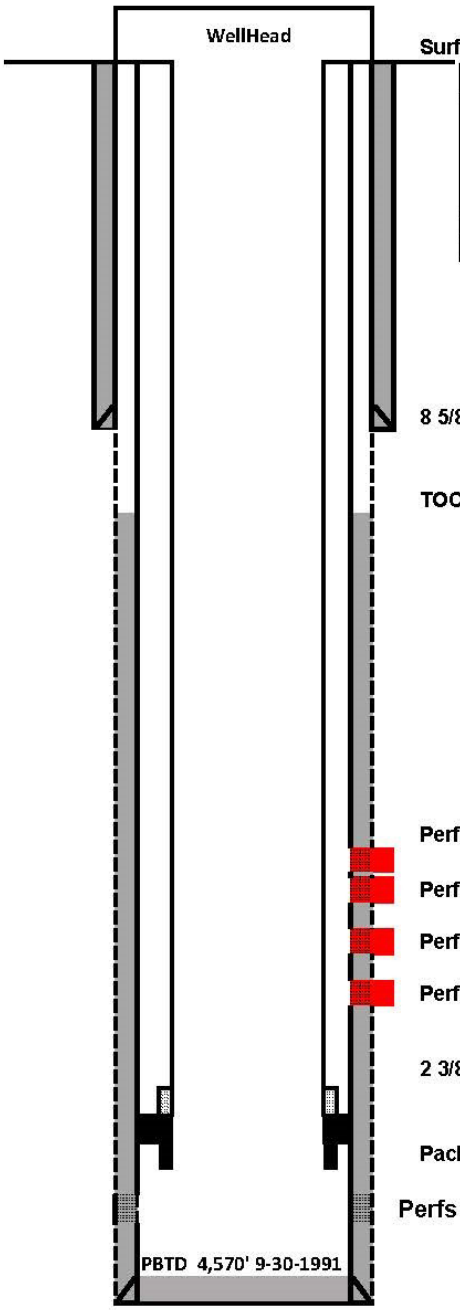
3. Name of Field or Pool (if applicable): Pearl Queen

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. Seven Rivers Formation tested at Perf & Sqzd 4,192'-94' & Perf & Sqzd 4,092'-4,108' & Perf & Sqzd/w 75 sx 3,926'-32' & Perf 3,901'-08' tested non economic and Sqzd w/ 75 sx class "C"

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Disposal interval is 10 feet down dip to the lowest Queen producer in the Pearl Queen field. CBL indicates good bond in and above Queen sandstone. Disposal interval is 600 feed below the Seven Rivers Formation only other potential pay zone in the wells within the area of review. Underlying known productive formation in the area Bone Springs at 9,450' and Wolfcamp at 10,890'

EXHIBIT 1 – INJECTION APPLICATION SECTION III
WELLBORE SCHEMATIC
STIVASON FEDERAL #3 SWD (30-025-29544)

RAYBAW Operating, LLC			UIC Permit Well
Lease	Stivason Federal	Well No.	3
Field/Pool	Pearl Queen	API #:	30-025-29544
County	Lea	Location:	330' & 1,650' FEL
State	New Mexico		Sec 33-T19S-R34E
Spud Date	12/15/1986	GL:	3,691.9'
		WBD	SWC 10-1-2025



Surface

Description	O.D.	Grade	Weight, #	Depth,ft	Hole, in.	Cmt Sx	TOC
Surface Csg	8 5/8	J-55	24	1,597	12 1/4	400	Surface
Prod Csg	5 1/2	-	15.5	4,630	7 7/8	375	2,250'
Tubing-IPC	2 3/8	J-55	4.7	4,411'			
Packer-Zinc	4.95	-	-	4,421'			

8 5/8" 24# J-55 casing set at 1,597'

TOC Calculated at +/- 2,250'

Perfs 3,901' - 3,908' Prod Interval 7 Rivers Original Compl 3/7/1986
Perfs Squeezed in August 1991 Workover to Convert to SWD in Queen

Perfs 3,926' - 3,932' Test Squeezed with 75 sxs in 1986 during original Completion

Perfs 4,092' - 4,108' Test Squeezed with 75 sxs in 1986 during original Completion

Perfs 4,291' - 4,294' Test Squeezed with 75 sxs in 1986 during original Completion

2 3/8 " IPC 4.7# Tubing at 4,411'

Packer at 4,411' Zinc Coated 10' Long

Perfs @ 4,527' - 4.556' during Workover August and September 1991

EXHIBIT 1A – INJECTION APPLICATION SECTION III
WELL DATA
STIVASON FEDERAL #3 SWD (30-025-29544)

Lease Name:

1. Lease:	Stivason Federal (BLM NM-57285)	2. Unit & Well No.:	3 SWD
3. Section:	33 (Lot B)	4. Township:	19 South
5. Range:	34 East	6. Footage:	330’ FNL, 1,650’ FEL

Casing Data:

1. 8-5/8” 24# J-55 @1,597’ w/400 sxs cmt. Howco Lite and tailed in with 150 sxs Cl “C” 2% CaCl, 1/4# floseal. (Circulated 25 sxs to pit. TOC @ Surface’). (12-1/4” hole)
2. 5-1/2” 15.5# @4,630’ w/375 sxs cmt Cl “C” (TOC Calculated @ +- 2,250’ (7-7/8” hole).

Tubing Data:

1. 2-7/8” 4.7# IPC tubing at 4,411’ (run from surface to the packer). Bottom packer set at 4,421’

Packer Data:

1. 4.95” O.D. Zinc Coated 10’ long set at 4,411’

Injection Data:

1. The Stivason Federal #3 SWD was originally drilled and completed as a gas producer on 5/5/1986 in the Seven Rivers Formation from the interval 3,901’-3,908’. Other intervals test prior to the above completion were 4,527’-4,536’ (made water) isolated by bridge plug, 4,291’-4,294’ & 4,092’ – 4,108’ squeezed perfs with 75 sacks cement; 3,926’-32’ squeezed perfs with 75 sacks of cement. Well last produced hydrocarbons 11/01/1991.
2. Under Administrative Order SWD 420, dated/approved May 22, 1991 (applicant Strata Production Company) the well was authorized to be utilized as a disposal well. Interval approved for injection was from 4,527’ to 4,556’ (Queen Formation).
3. The Stivason Federal #3 SWD actively injected through August 2018.
4. The Stivason Federal #3 SWD is currently open into the Queen Formation with perforations from 4,527’ to 4,536’ and 4,546’ to 4,556’ .

Perforations:

a. Squeeze perfs:	3,901’-3,908’	Sqz’d with 75 sxs cmt Cl “C” (8/27/1991)
b. Squeeze perfs:	3,926’-3,932’	Sqz’d with 75 sxs cmt Cl “C” (3/1986)
c. Squeeze perfs:	4,527’-36’ & 4,092’-108’	Sqz’d with 75 sxs cmt Cl “C” (3/1986)
d. Queen perfs:	4,527’-4,556’	Current injection perfs (9/3/1991)

Next Higher and Lower Productive Zone In Area:

a. Seven Rivers:	3,901’	Top of formation depth
b. Nothing productive at a more shallow depth		

EXHIBIT 2 - INJECTION APPLICATION SECTION V - AOR WELLS
MAP - 1/2 MILE RADIUS STIVASON FEDERAL #003 SWD

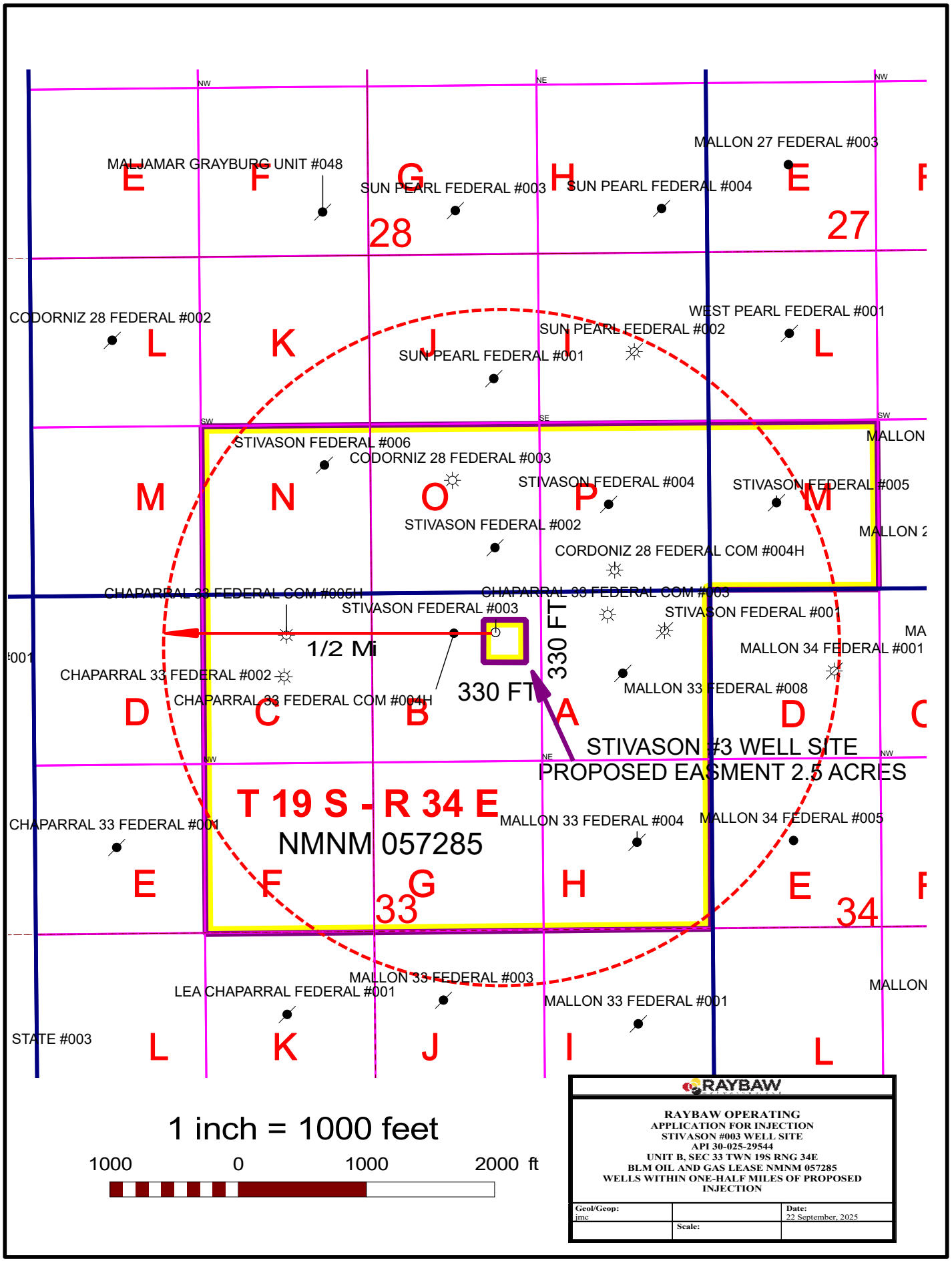
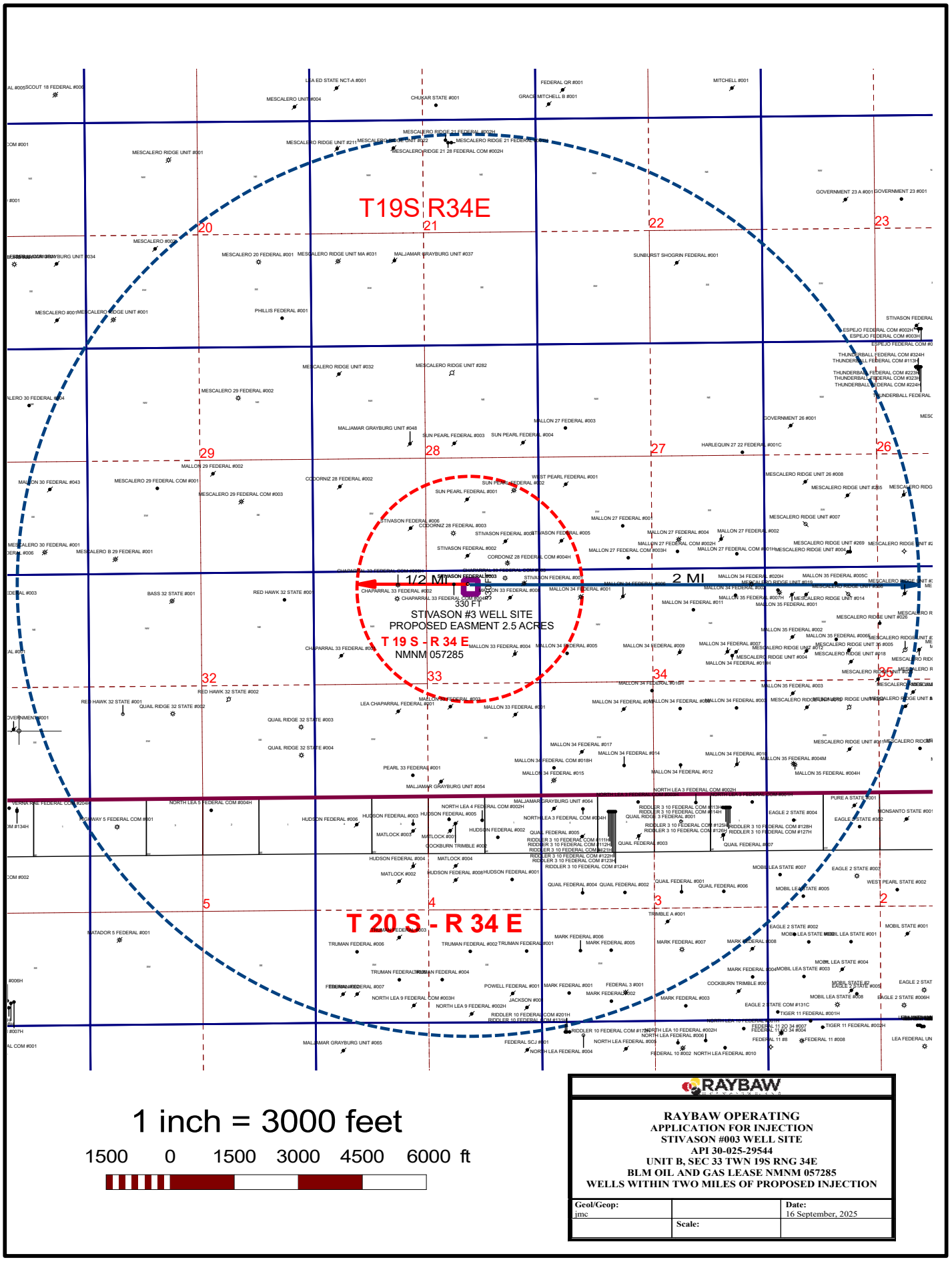


EXHIBIT 2a - INJECTION APPLICATION SECTION V - REVIEW AREA MAP - 2 MILE & 1/2 MILE RADIUS CENTER ON STIVASON FEDERAL #003 SWD



RAYBAW

RAYBAW OPERATING
APPLICATION FOR INJECTION
STIVASON #003 WELL SITE
API 30-025-29544
UNIT B, SEC 33 TWN 19S RNG 34E
BLM OIL AND GAS LEASE NMNM 057285
WELLS WITHIN TWO MILES OF PROPOSED INJECTION

Geol/Geop:		Date:
jmc		16 September, 2025
	Scale:	

EXHIBIT 2b - INJECTION APPLICATION SECTION V
LEASE MAP - 2 MILE RADIUS STIVASON FEDERAL #003 SWD (30-025-29544)

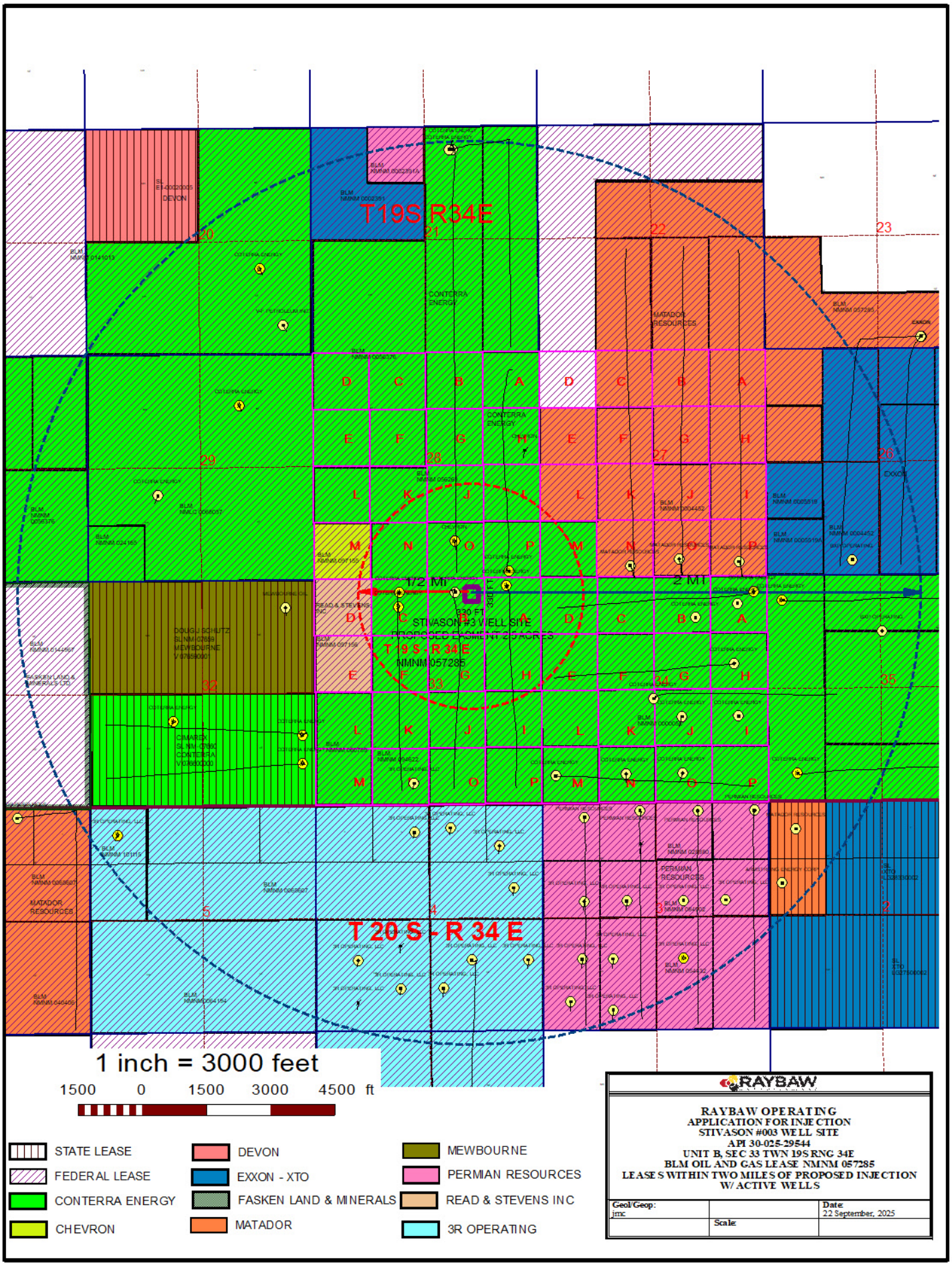


EXHIBIT 2c - INJECTION APPLICATION SECTION V
LEASE MAP - 1/2 MILE RADIUS STIVASON FEDERAL #003 SWD (30-025-29544)

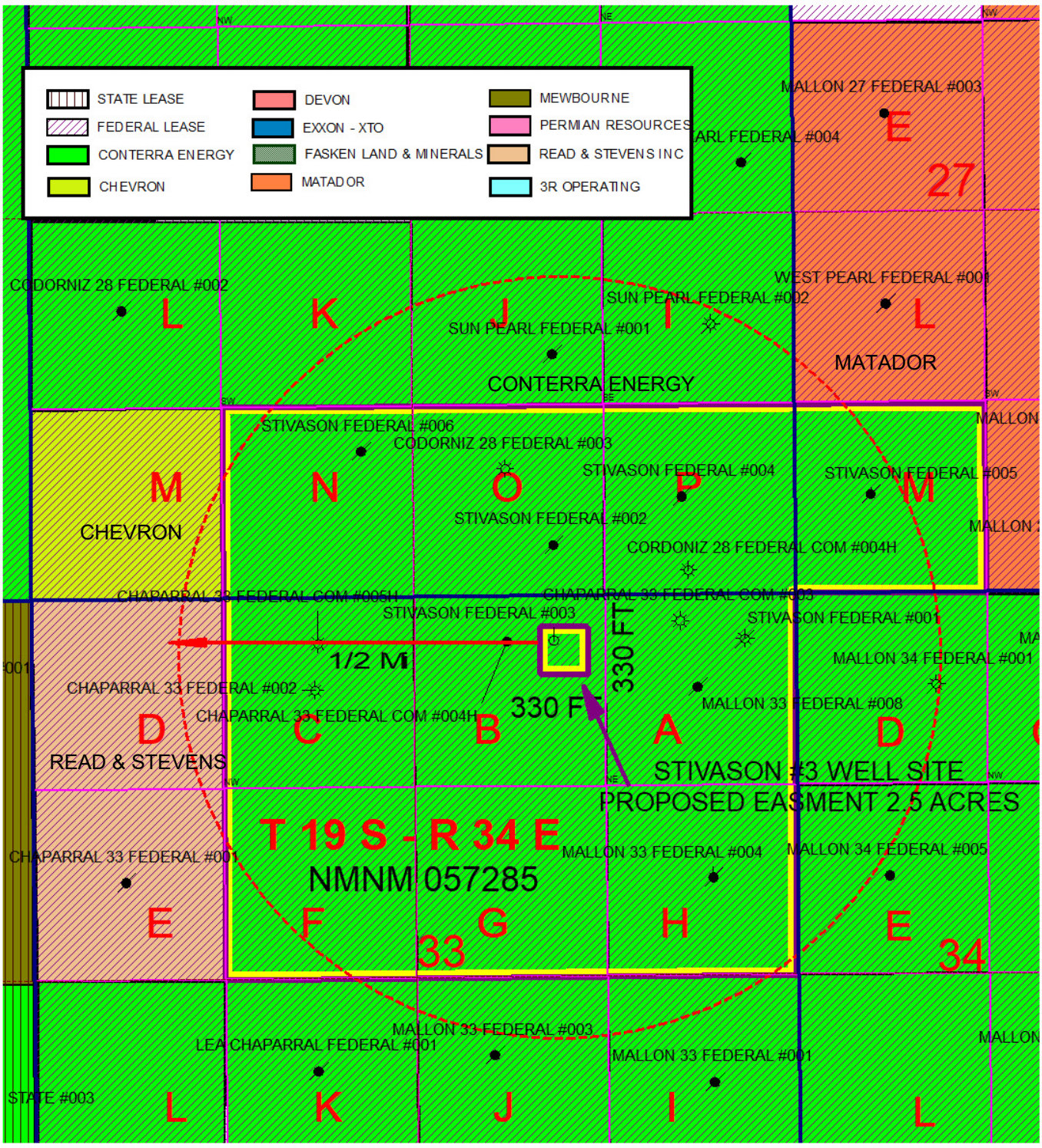


EXHIBIT 2 - INJECTION APPLIATION SECTION VI - AOR WELLS
STIVASON FEDERAL #003 SWD (30-025-29544)
AREA OF REVIEW - OFFSET WELLS - 1/2 MILE RADIUS

Section 27 Township 19 South Range 34 East															
Unit Letter	API #	Type	Lease/Well Name	Well No	Operator	MTD	TVD	Class	Status	Penetrates Injection Interval	Comp Date	Upr Perf	Lwr Perf	Comp Formation	Well Bore Diagram
M	3002530725	V	STIVASON FEDERAL	5	CRESCENT ENERGY CO	4955	4954	OIL	P & A	YES	12/18/1989	4794	4844	QUEEN	YES

Section 28 Township 19 South Range 34 East															
Unit Letter	API #	Type	Lease/Well Name	Well No	Operator	MTD	TVD	Class	Status	Penetrates Injection Interval	Comp Date	Upr Perf	Lwr Perf	Comp Formation	Well Bore Diagram
B,G,J,0	3002550724	H	MESCALERO RIDGE 21 28 FED COM	002H	COTERRA ENERGY	20679	10873	OIL	ACTIVE	YES	2/1/2023			BONE SPRING, S	
P	3002541834	H	CORDONIZ 28 FEDERAL COM	004H	COTERRA ENERGY	15386	10811	GAS	ACTIVE	YES	10/15/2014	10880	15355	BONE SPRING, S	
O	3002537523	V	CODORNIZ 28 FEDERAL	3	CHEVRON	13750	13750	GAS	ACTIVE	YES	2/24/2006	13276	13394	MULTIPLE	
I	3002530663	V	SUN PEARL FEDERAL	2	CHEVRON	5153	5153	GAS	P & A	YES	1/1/1990	4520	4835	QUEEN	YES
P	3002530629	V	STIVASON FEDERAL	4	CRESCENT ENGY CO	5067	5066	OIL	P & A	YES	7/21/1989	4508	4531	QUEEN	YES
J	3002530409	V	SUN PEARL FEDERAL	1	CHEVRON	5152	5152	OIL	P & A	YES	6/26/1989	5070	5080	QUEEN	YES
O	3002529070	V	STIVASON FEDERAL	2	STRATA PRODUCTION	4610	4610	OIL	P & A	YES	2/1/1985	4523	4531	QUEEN	YES
N	3002502397	V	STIVASON FEDERAL	6	STRATA PRODUCTION	5805	5805	OIL	D&A	YES	12/17/1959			NONE	YES

Section 33 Township 19 South Range 34 East															
Unit Letter	API #	Type	Lease/Well Name	Well No	Operator	MTD	TVD	Class	Status	Penetrates Injection Interval	Comp Date	Upr Perf	Lwr Perf	Comp Formation	Well Bore Diagram
C	3002541879	H	CHAPARRAL 33 FEDERAL COM	005H	COTERRA ENERGY	15129	10835	GAS	ACTIVE	YES	12/5/2014	10720	15100	BONE SPRING, S	
B	3002540328	H	CHAPARRAL 33 FEDERAL COM	004H	COTERRA ENERGY	15306	10846	OIL	ACTIVE	YES	8/24/2013	10620	15273	BONE SPRING, S	
A	3002540253	H	CHAPARRAL 33 FEDERAL COM	3	COTERRA ENERGY	15302	10851	GAS	ACTIVE	YES	12/18/2012	11100	15225	BONE SPRING, S	
C	3002536403	V	CHAPARRAL 33 FEDERAL	2	COTERRA ENERGY	13800	13800	GAS	ACTIVE	YES	12/11/2003	13352	13407	MORROW (GAS)	
A	3002534156	V	MALLON 33 FEDERAL	8	COTERRA ENERGY	10281	10281	OIL	P & A	YES	2/3/1998	9686	10210	BONE SPRING, S	YES
H	3002534114	V	MALLON 33 FEDERAL	4	COTERRA ENERGY	10302	10302	OIL	P & A	YES	11/23/1997	9674	9686	MULTIPLE	YES
B	**3002529544**	**V**	**STIVASON FEDERAL**	**3**	**RAYBAW OPERATING**	**4630**	**4630**	**SWD**	**INACTIVE**	**YES**	**3/13/1986**	**3901**	**3932**	**QUEEN**	**YES**
A	3002528745	V	STIVASON FEDERAL	1	GRIZZLY ENERGY	5207	5207	GAS	P & A	YES	6/6/1987	4511	5028	QUEEN; PENROSE	YES

Section 34 Township 19 South Range 34 East															
Unit Letter	API #	Type	Lease/Well Name	Well No	Operator	MTD	TVD	Class	Status	Penetrates Injection Interval	Comp Date	Upr Perf	Lwr Perf	Comp Formation	Well Bore Diagram
A	3002540135	H	MALLON 34 FEDERAL	020H	COTERRA ENERGY	15352	10870	GAS	ACTIVE	YES	11/2/2011	10702	12909	BONE SPRING, S	
D	3002532605	V	MALLON 34 FEDERAL	1	COTERRA ENERGY	6036	6306	GAS	P & A	YES	10/6/1994	5094	5138	SAN ANDRES	YES

EXHIBIT 3a APPLICATION SECTION VI
WELLBORE SCHEMATIC
STIVASON FEDERAL #5 (30-025-30725)
Unit M S27 T19S R34E

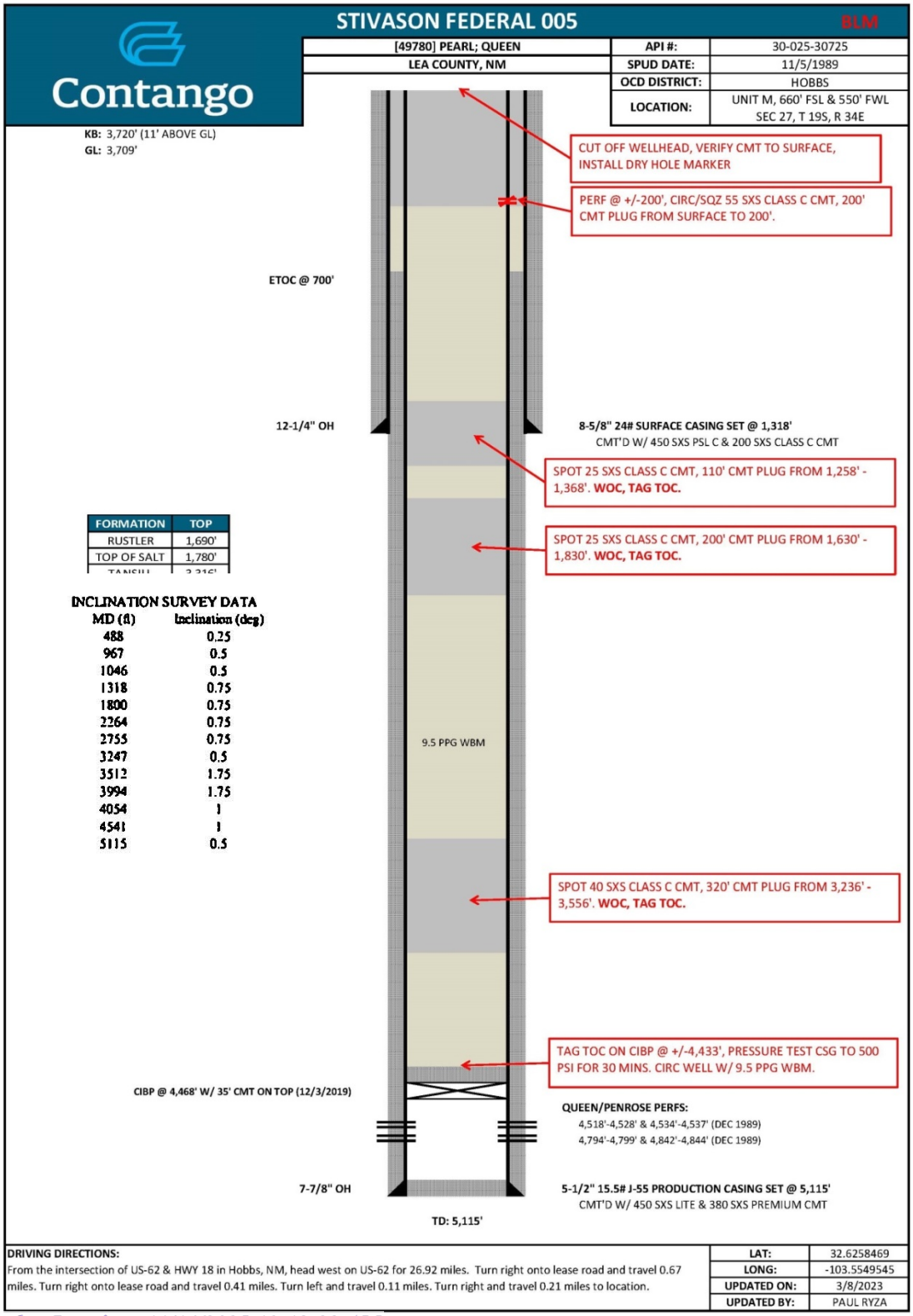
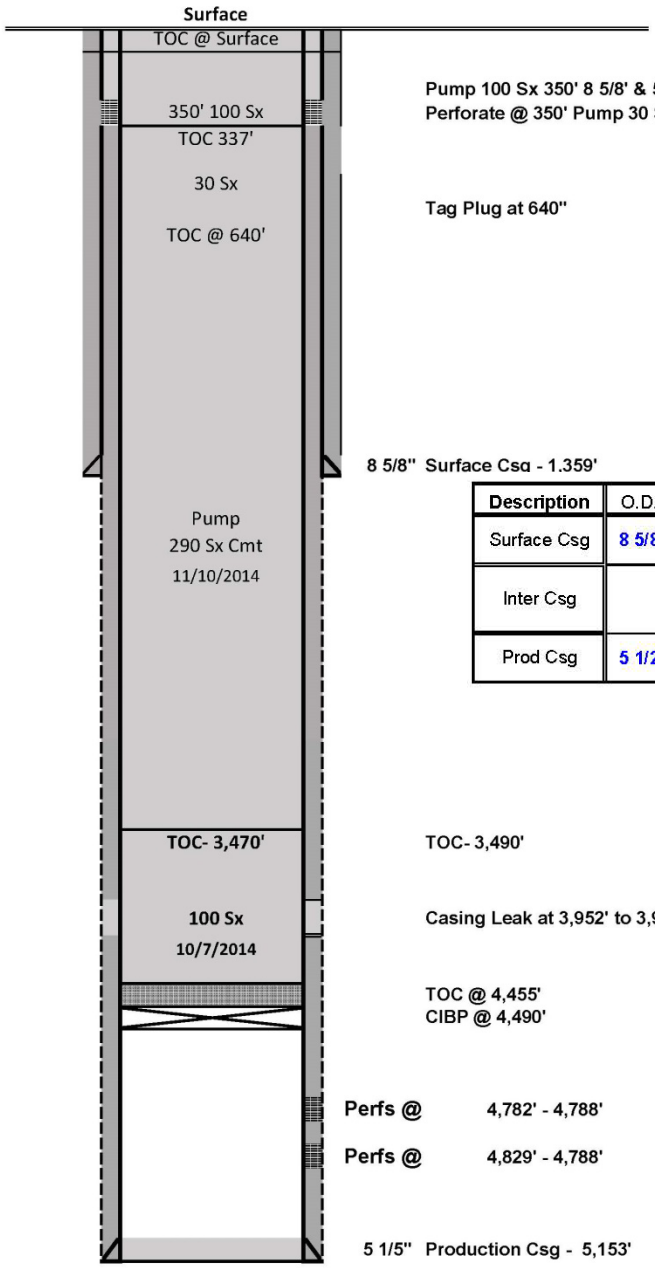


EXHIBIT 3b APPLICATION SECTION VI
WELLBORE SCHEMATIC
SUN PEARL FEDERAL #2 (30-025-30663)
Unit I S28 T19S R34E

Chevron U. S. A. , Inc. P&A and WBD by Raybaw Operating, LLC			
Lease	Sun Pearl Federal	Well No.	2
Field/Pool	Pearl Queen	API #:	30-025-30-663
County	Lea	Location:	1850' FSL and 550' FEL
State	New Mexico		Sec. 28-T19S-R38E
Spud Date	11/17/1989	GL:	3709'
P&A Date			By: SWC 9-28-2025



Pump 100 Sx 350' 8 5/8' & 5 1/2" Annulus.
Perforate @ 350' Pump 30 Sx @ 640' to 337'

Tag Plug at 640"

8 5/8" Surface Csg - 1,359'

Description	O.D.	Grade	Weight, #	Depth, ft	Hole, in.	Cmt Sx	TOC
Surface Csg	8 5/8	K55	24	1,359	12 1/4	600	Surface
Inter Csg							
Prod Csg	5 1/2	N80	17	5,153	7 7/8	1,100	300'

Chevron P&A Report 11-17-2014
11-07-2014 - Pumped 100 sks cement @ 4490', disp to 3477'
11-10-14 - Tagged Plug @ 3470', pump 290 sks © cement @ 3470'disp to 532' tagged Plug @ 640' Perf @ 350'
11-11-14 - pumped 30 sks of cement @ 640' disp to 337' pumped 100 sks @ 350' disp to Surface out 8-5/8" x 5-1/2" annulus

Accepted as to plugging of the well bore. Liability under bond is retained until Surface restoration is completed

TOC- 3,490'

Casing Leak at 3,952' to 3,974'

TOC @ 4,455'
CIBP @ 4,490'

Perfs @ 4,782' - 4,788'

Perfs @ 4,829' - 4,788'

5 1/5" Production Csg - 5,153'

EXHIBIT 3c APPLICATION SECTION VI
WELLBORE SCHEMATIC
STIVASON FEDERAL #4 (30-025-30629)
Unit P S28 T19S R34E

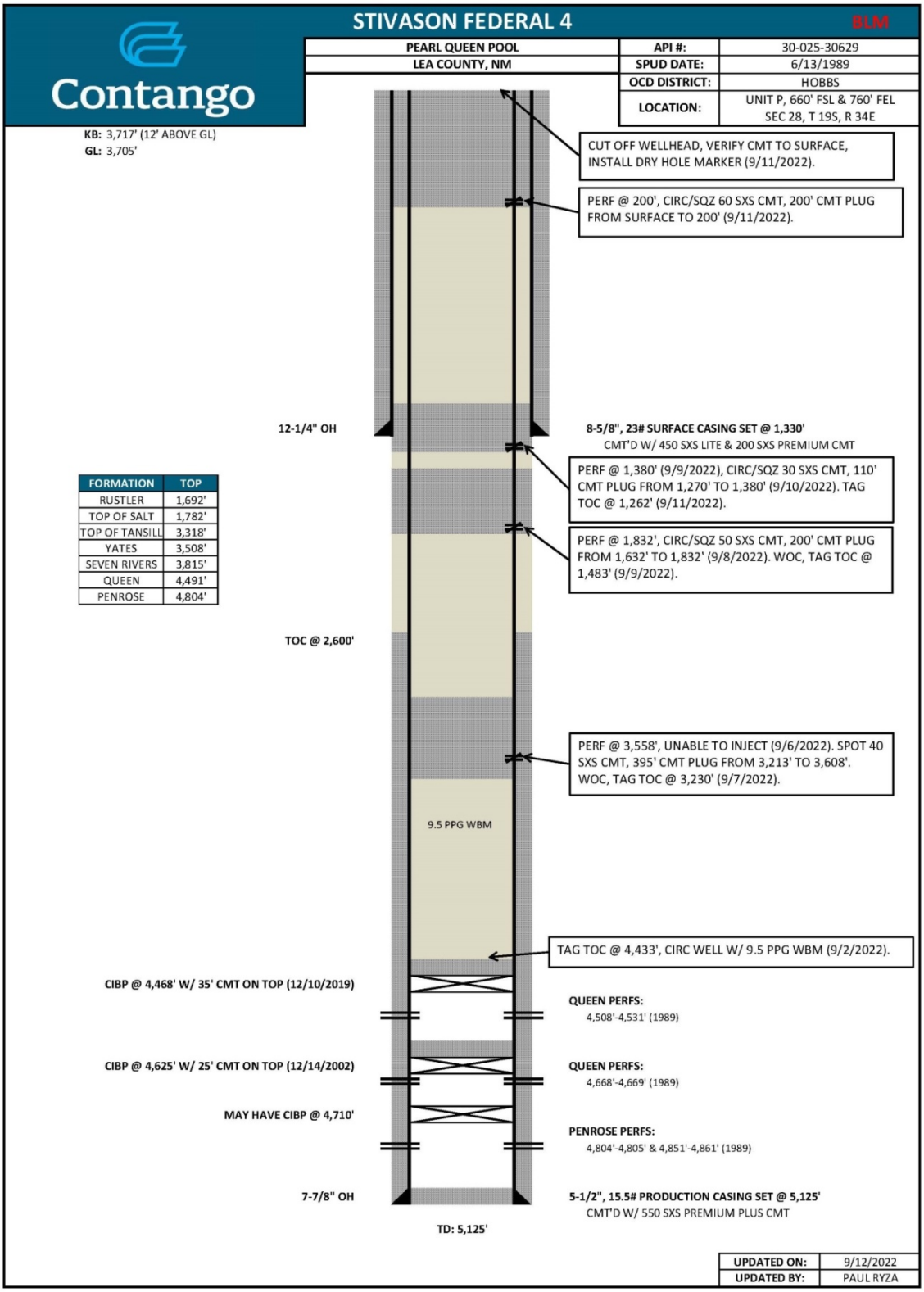
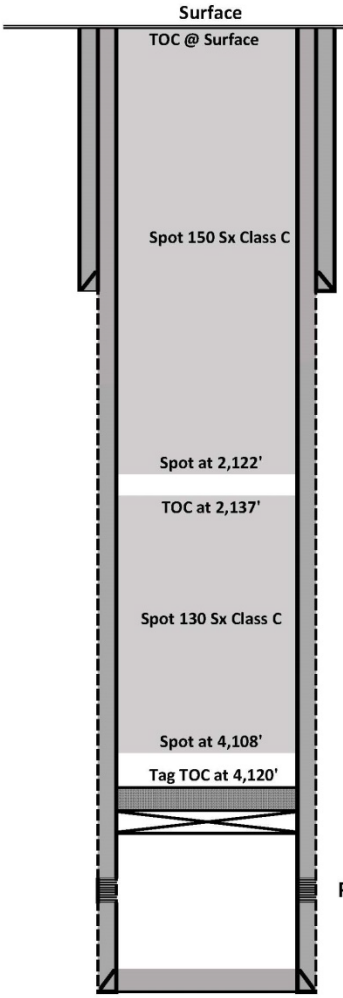


EXHIBIT 3d APPLICATION SECTION VI
WELLBORE SCHEMATIC
SUN PEARL FEDERAL #1 (30-025-30409)
Unit J S28 T19S R34E

Chevron U.S.A. , Inc		Raybaw Operating, Inc.	
Lease	Sun Pearl Federal	Well No.	1
Field/Pool	Pearl Queen	API #:	30-025-30409
County	Lea	Location:	1650 FSL & 1650 FEL
State	New Mexico		Sec. 23-T19S-R34E
Spud Date	6/2/1989	GL:	3,700.4 feet
P&A Date	11/15/2016		By: SWC 9-29-2025



Cut 3' below surface and install dry hole marker

Description	O.D.	Grade	Weight, #	Depth,ft	Hole, in.	Cmt Sx	TOC
Surface Csg	8 5/8	J-55	24	1,342	12 1/4"	700 Lite & C	Surface
Prod Casing	4 1/2"	J-55	11.6	5,150	7 7/8	1600 Lite/Poz	Surface

8 5/8" 24# J55 at 1,342"

Spot 25 Sx with Wireline
CIBP set at 4,500' with 25 Sx Cement

Perfs @ 5,070' to 5,080'

4 1/2" 11.6# J55 set at 5,150'

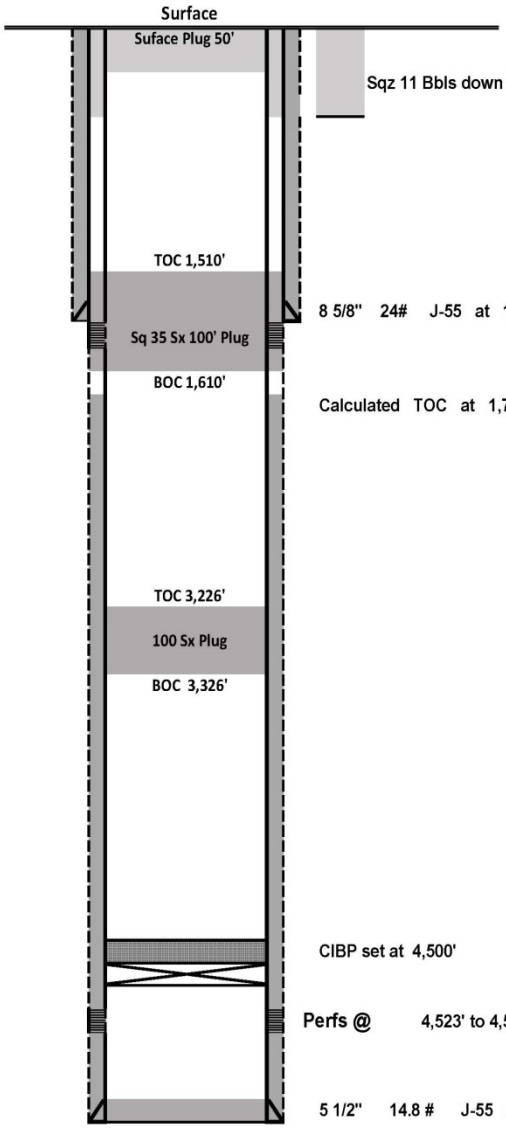
Chevon USA , Inc. P&A from OMB No. 1604-0137 Dated 11-15-2016

11/02/16 MOVE IN, ND WH & NU BOP, TEST SAME. POOH W/ RODS & TUBING. 11/03/16 PAT McKELVEY W/ NM BLM ON LOCATION, RIH SET CIBP @ 4,500', MIX & SPOT 25 SX CL "C' CMT 4,500'- 4,121'.
11/04/16 RIH TAG @ 4,120', MIX & SPOT 130 SX CL "C" CMT FROM 4,108'- 2,137*, MIX & SPOT 150 SX"C" 2,122'-SURFACE ON 5 1/2". CUT OFF WELL HEAD 3' BGL, INSTALL REQUIRED DRY HOLE MARKER AS PER COA' TURN OVER TO RECLAMATION.
CLASS "C" CEMENT USED W/ CLOSED LOOP SYSTEM. BOND COVERAGE: CA 0329
reclamation DUE 5-4-17

Accepted as to plugging of the well bore. Liability under bond is retained until Surface retoration is completed

EXHIBIT 3e APPLICATION SECTION VI
WELLBORE SCHEMATIC
STIVASON FEDERAL #2 (30-025-29070)
Unit J S28 T19S R34E

Strata Production Company		P&A WBD by Raybaw Operating, LLC	
Lease	Stivason Federal	Well No.	2
Field/Pool	Pearl Queen	API #:	30-025-29070
County	Lea	Location:	330' FSL & 1650' FEL
State	New Mexico		Sec 28-T19S-R34E
Spud Date	12/20/1984	GL:	3689.5'
P&A Date	2/25/1998	WBD: SWC 9-29-2025	



Sqz 11 Bbls down 8 5/8" and 5 1/2" Annulas to 1,250 psi.

Description	O.D.	Grade	Weight, #	Depth,ft	Hole, in.	Cmt Sx	TOC
Surface Csg	8 58"	J-55	24	4,610	12 1/4	550 Lite & C	Surface
Prod Csg	5 1/2"	J-55	14.8	4,610	7 7/8	450 Lite & C	Calc 1,710'

8 5/8" 24# J-55 at 1.560'

Calculated TOC at 1,710'

Strata Production Co. Form 1004-01354-15-1998

02/24/98: MIRU pulling unit. TOH with tubing. TIH with CIBP. Set at 4500'.
02/25/98:Set First Plug at 3326'-3226', 100', with 25 sacks Class "C" Neat cement. Perf squeeze holes at 1565'. Squeeze 100' plug across 8 5/8" casing shoe with 35 sacks cement. Set 50' Surface Plug. Pump 11 barrels cement between 8 5/8" casing and 5 1/2" casing. Squeeze to 1250#. Install Dry Hole Marker. Plugging witnessed by Steve Caffey with the Hobbs BLM.
02/26/98: RD. Clean location. Well plugged and abandoned. Approved well bore.

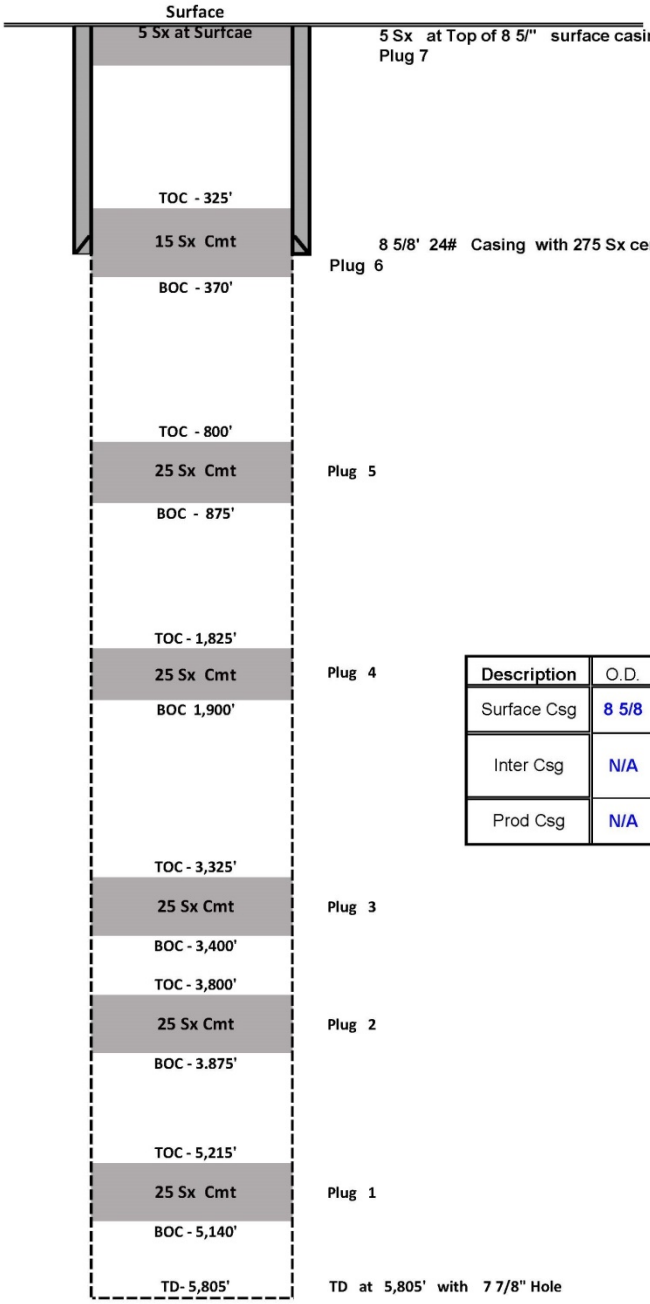
CIBP set at 4,500'

Perfs @ 4,523' to 4,531'

5 1/2" 14.8 # J-55 at 4,610'

EXHIBIT 3f APPLICATION SECTION VI
WELLBORE SCHEMATIC
STIVASON FEDERAL #6 (30-025-02397)
Unit N S28 T19S R34E

Drilling & Exploration Company, INC		WBD By Raybaw Operating, LLC	
Lease	Stivason Federal	Well No.	6
Field/Pool	N/A	API #:	30-025-02397
County	Lea	Location:	990' FSL & 2,310' FWL
State	New Mexico		Sec 28-T19S-R34E
Spud Date	11/21/1959	GL:	3,733'
D&A Date	12/17/1959	WBD	SWC 9-30-2025



Note: Strata Petroleum Company filed permit to re-enter the Federal 6 but did not re-enter and the Permit was canceled by Letter dated January 8, 1992

P&A Detail from P&A Report No. 42-358.4 Dtaed 12-31-1950 Disctrict Office

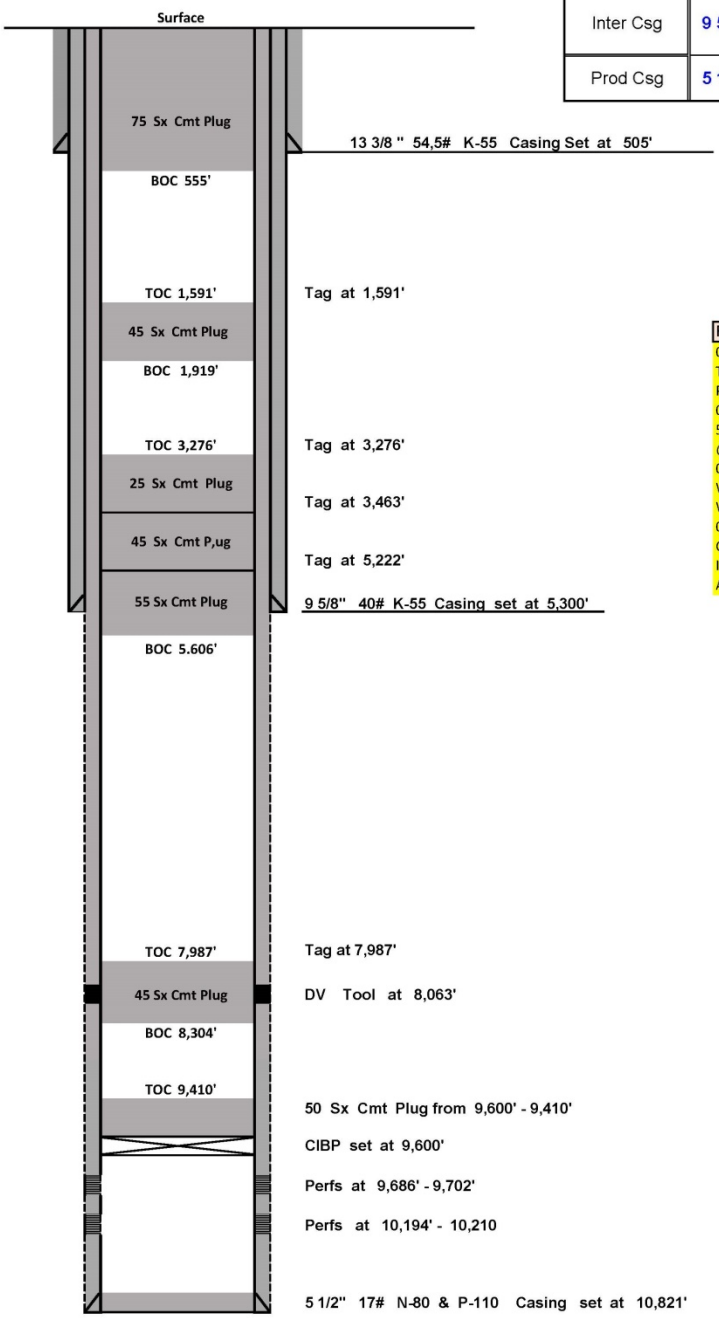
Subject well was drilled to 5805 feet for total depth. We propose to plug for abandonment as follows: 25 sacks cement from 5140 to 5215 (top San Andres 5178) 25 sacks coment from 3875 to 3900 (top Serem Rivers 3818) 25 sacks cement from 3325 to 3400 (base Salt 3330) 25 sacks cement from 1825 to 1900 (top Salt 1900) 25 sacks cement from 800 to 875 (Santa Rosa water sand 820-50) 15 sacks cement across bottom of 8 5/8" casing set at 362'. 5 sacks cement in top of 8 5/8" casing. A 4" X&' steel marker to be erected and location to be cleared and leveled. Above plugging program approved orally by Mr. Kleeman at 9145 A. M. 12-17-59.

Description	O.D.	Grade	Weight, #	Depth,ft	Hole, in.	Cmt Sx	TOC
Surface Csg	8 5/8		24	362	12 1/4	275	Surface
Inter Csg	N/A						
Prod Csg	N/A						

EXHIBIT 3g APPLICATION SECTION VI
WELLBORE SCHEMATIC
MALLON 33 FEDERAL #8 (30-025-34156)
Unit A S33 T19S R34E

Cimarex Energy Co. of Colorado		WBD by Raybaw Operating, LLC	
Lease	Mallon 33 Federal	Well No.	8
Field/Pool	Quail Ridge	API #:	30-025-34156
County	Lea	Location:	660' FNL&660' FEL Unit A
State	New Mexico		Sec 33-T19S-R34E
Spud Date	11/29/1997	GL:	3,695'
P&A Date	5/22/2014	WBD	SWC 10-1-2025

Description	O.D.	Grade	Weight, #	Depth,ft	Hole, in.	Cmt Sx	TOC
Surface Csg	13 3/8	K-55	54.5	505	17 1/2	410	Surface
Inter Csg	9 5/8	K-55	40	5,300	12 1/4	2,700	Surface
Prod Csg	5 1/2	N-80 and P-110	17	10,281	8 1/2	1,655	Surface



Form OMB No. 1004-0135 appoved 6-3-2014

05/18/14: SET 5-1/2" CIBP @ 9,600' ROWELL W/ MUD; PRES. TEST CSG. TO 750# X HELD FOR 15 MINS.;PUMP 50 SXS.CMT.@9,600'-9,410'; PUMP 45 SXS.CMT @ 8,304"; WOC

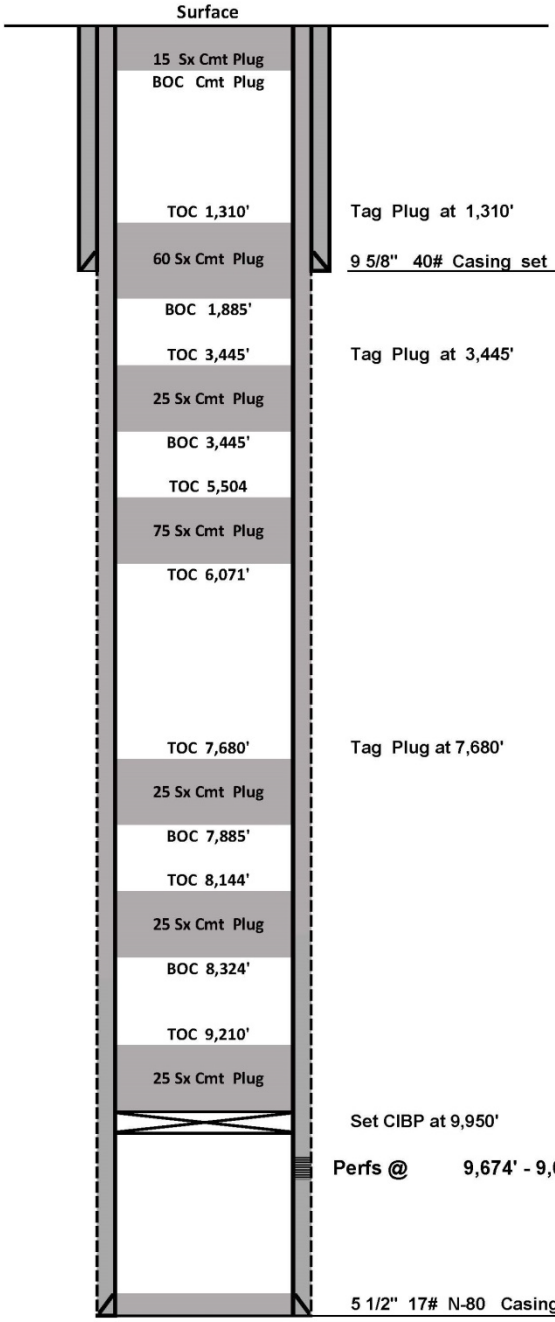
05/20/14: TAG CMT. @ 7,987' (OK'D BY BLM); PUMP 55 SXS.CMT. @ 5,606"; WOC X TAG CMT. @ 5,222'(OK'D BY BLM); PUMP 45 SXS.CMT. @ 3,573' WOC.

05/21/14: TAG CMT. @ 3,463', PUMP 25-SXS.CMT. @ 3,436' (PER BLM); WOC X TAG CMT. @ 3,276'(OK'D BY BLM); PUMP 45 SXS.CMT. @ 1,919', WOC

05/22/14: TAG CMT. @ 1.591' CIRC.75 SXS.CMT. @ 555'-3'; DIG OUT X CUT OFF WELLHEAD 3' B.G.L.; WELD ON STEEL PLATE TO CSGS. X INSTALL GROUND LEVEL DRY HOLE MARKER. WELL PLUGGED AND ABANDONED 05/22/14.

EXHIBIT 3h APPLICATION SECTION VI
WELLBORE SCHEMATIC
MALLON 33 FEDERAL #4 (30-025-34114)
Unit H S33 T19S R34E

Cimarex Energy Co. of Colorado		WBD by Raybaw Operating, LLC	
Lease	Mallon 33 Federal	Well No.	4
Field/Pool	Quail Ridge	API #:	30-025-34114
County	Lea	Location:	1980' FNL & 560' FEL-Unit H
State	New Mexico		Swc 33-T19S-R34E
Spud Date	9/10/1997	GL:	3,668.60
P&A Date	4/10/2019	WBD	SWC 10-1-2025



Tag Plug at 1,310'

9 5/8" 40# Casing set at 1,515'

Tag Plug at 3,445'

Tag Plug at 7,680'

Set CIBP at 9,950'

Perfs @ 9,674' - 9,686'

5 1/2" 17# N-80 Casing set at 10,302'

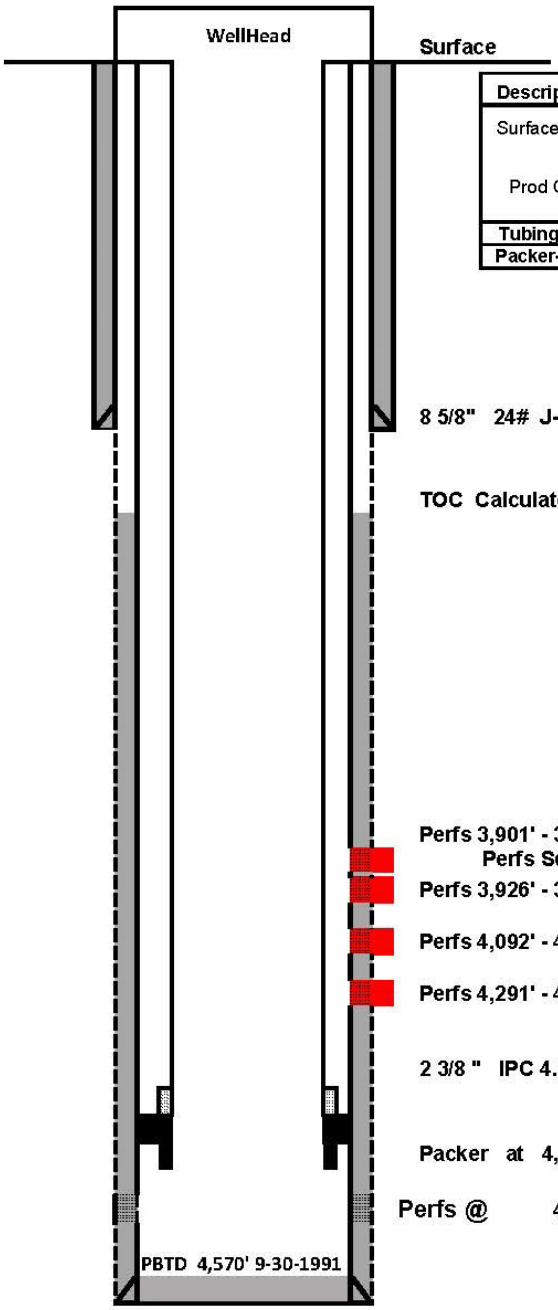
Description	O.D.	Grade	Weight, #	Depth,ft	Hole, in.	Cmt Sx	TOC
Surface Csg	9 5/8	-	40	1,515	14 3/4	1,050	Surface
Prod Csg	5 1/2	N-8-0	17	10,302	8 3/4	2,375	Surface

Form OMB No. 1004-0137 filed and approved 4-11-2019

04/05/19: SET 5-1/2"CIBP @9,650': CIRC. WELL W/ M.L.F: PUMP 25 SXS.CMT @ 9,650'-9,210'; PUMP 25 SXS. CMT @ 8,324'-8,144'; PUMP 25 SXS. CMT @ 7.885': WOC;
04/06/19: TAG CMT. @ 7,680' (OK'D BY BLM); PUMP 75-SXS.CMT. @ 6.071'-5.504': PUMP 25 SXS. CMT. 3,607': WOC X TAG CMT. @ 3,445' (OK'D BY BLM);
04/09/19: PUMP 60 SXS.CMT. @ 1,885': WOC X TAG CMT. @ 1.310'(OK'D BY BLM): CIRC TO SURF 15 SXS. CMT. @ 100'-3';
04/10/19: DIG OUT X CUT OFF WELLHEAD 3' B.G.L.; WELD ON STEEL PLATE TO CSG. X INSTALL BELOW GROUND DRY HOLE MARKER. WELL PLUGGED AND ABANDONED 04/10/19.

EXHIBIT 3i APPLICATION SECTION VI
WELLBORE SCHEMATIC
STIVASON FEDERAL #3 (30-025-29544)
Unit B S33 T19S R34E

RAYBAW Operating, LLC			UIC Permit Well
Lease	Stivason Federal	Well No.	3
Field/Pool	Pearl Queen	API #:	30-025-29544
County	Lea	Location:	330' & 1,650' FEL
State	New Mexico		Sec 33-T19S-R34E
Spud Date	12/15/1986	GL:	3,691.9'
		WBD	SWC 10-1-2025



Surface

Description	O.D.	Grade	Weight, #	Depth,ft	Hole, in.	Cmt Sx	TOC
Surface Csg	8 5/8	J-55	24	1,597	12 1/4	400	Surface
Prod Csg	5 1/2	-	15.5	4,630	7 7/8	375	2,250'
Tubing-IPC	2 3/8	J-55	4.7	4,411'			
Packer-Zinc	4.95	-	-	4,421'			

8 5/8" 24# J-55 casing set at 1,597'

TOC Calculated at +/- 2,250'

Perfs 3,901' - 3,908' Prod Interval 7 Rivers Original Compl 3/7/1986
Perfs Squeezed in August 1991 Workover to Convert to SWD in Queen

Perfs 3,926' - 3,932' Test Squeezed with 75 sxs in 1986 during original Completion

Perfs 4,092' - 4,108' Test Squeezed with 75 sxs in 1986 during original Completion

Perfs 4,291' - 4,294' Test Squeezed with 75 sxs in 1986 during original Completion

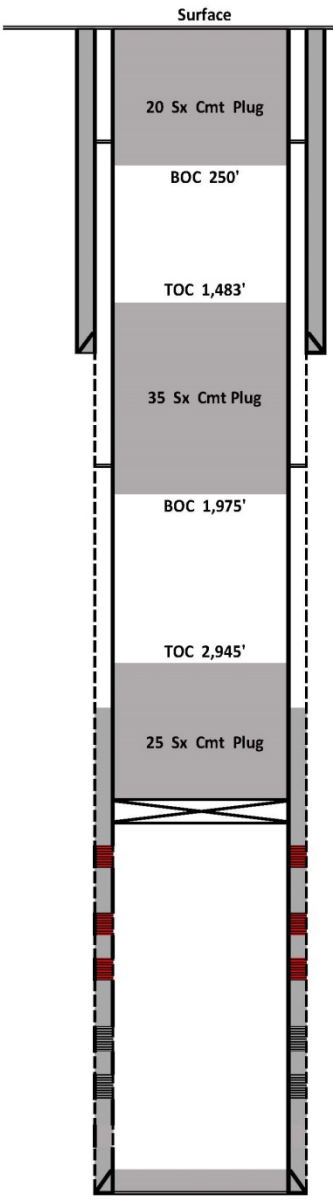
2 3/8 " IPC 4.7# Tubing at 4,411'

Packer at 4,411' Zinc Coated 10' Long

Perfs @ 4,527' - 4.556' during Workover August and September 1991

EXHIBIT 3j APPLICATION SECTION VI
WELLBORE SCHEMATIC
STIVASON FEDERAL #1 (30-025-28745)
Unit A S33 T19S R34E

Vanguard Permian, LLC		WBD Raybaw Operating , LLC	
Lease	Stivason Federal	Well No.	1
Field/Pool	Queen	API #:	30-025-28745
County	Lea	Location:	330' FNL & 330' FEL Unit A
State	New Mexico		Sec 33-T19S-R34E
Spud Date	5/31/1984	GL:	3.694.9'
P&A Date	4/2/2013	WBD	SWC 10-2-2025



Peforated at 200' and pressured up

8 5/8' 24# J-55 Casing set at 1,533'

Perforaed at 1,824' and pressured up

Tag Plug at 2,945'

CIBP 3,820'

Squeezed Perfs 3,908' - 3,914'

Squeezed Perfs 4,010' - 4,025'

Squeezed Perfs 4,095' - 4,100'

Perfs at 4,511' - 4,532'

Perfs at 5,022' - 5,028'

4 1/2' 10.5# J-55 Casing set at 5,207'

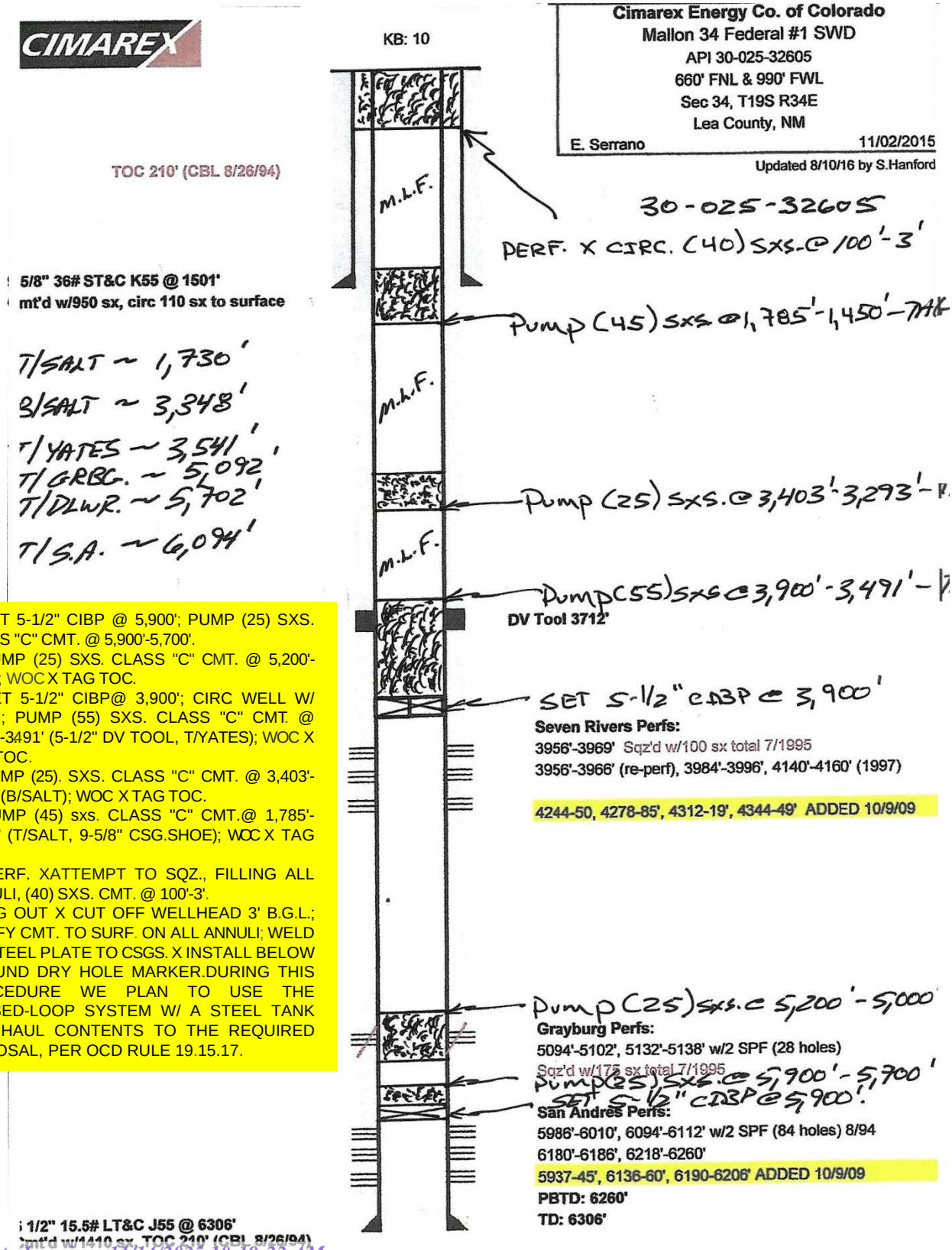
Form OMB No. 1004-0137
Line 13 Accepted Jun 1 2013

1. 3/26/13 Notify BLM of move in of P & A equipment
2. 3/28/13 Set CIBP @ 3820' circ 60 bbls of mlf w/ brine spot 25x of class c cmt on cibp 3820'; spot 25x 3360'-3230' tag @ 2945'
3. 4/2/13 Perf @ 1824' pressured up_call Pat @ BLM witness. drop down 50' & spot across spot 35X 1,875'-1,483' tag @ 1,413';
4. 4/2/13 Perf @ 200' pressured up Notified Pat w/ BLM drop down 50' and spot across spot 20X class c cmt 250'-surf RD P&A Equipment
5. 4/2/13 Cut off welfheads, install dry hole marker plate.

Accepted as to plugging of the well bore. Liability under bond is retained until Surface restoration is completed

Description	O.D.	Grade	Weight, #	Depth,ft	Hole, in.	Cmt Sx	TOC
Surface Csg	8 5/8	J-55	24	1,533	12 1/4	600 Lite&C	Surface
Inter Csg							
Prod Csg	4 1/2	J-55	10.5	5,207	7 7/8	600	3,504'

EXHIBIT 3k APPLICATION SECTION VI
WELLBORE SCHEMATIC
MALLON 34 FEDERAL #1 (30-025-32605)
Unit D S34 T19S R34E



1) SET 5-1/2" CIBP @ 5,900'; PUMP (25) SXS. CLASS "C" CMT. @ 5,900'-5,700'.
2) PUMP (25) SXS. CLASS "C" CMT. @ 5,200'-5,000'; WOC X TAG TOC.
3) SET 5-1/2" CIBP@ 3,900'; CIRC WELL W/ M.L.F.; PUMP (55) SXS. CLASS "C" CMT. @ 3,900'-3491' (5-1/2" DV TOOL, T/YATES); WOC X TAG TOC.
4) PUMP (25). SXS. CLASS "C" CMT. @ 3,403'-3,293'(B/SALT); WOC X TAG TOC.
5) PUMP (45) sxs. CLASS "C" CMT.@ 1,785'-1,450' (T/SALT, 9-5/8" CSG.SHOE); WOC X TAG TOC.
6) PERF. XATTEMPT TO SQZ., FILLING ALL ANNULI, (40) SXS. CMT. @ 100'-3'.
7) DIG OUT X CUT OFF WELLHEAD 3' B.G.L.; VERIFY CMT. TO SURF. ON ALL ANNULI; WELD ON STEEL PLATE TO CSGS. X INSTALL BELOW GROUND DRY HOLE MARKER.DURING THIS PROCEDURE WE PLAN TO USE THE CLOSED-LOOP SYSTEM W/ A STEEL TANK AND HAUL CONTENTS TO THE REQUIRED DISPOSAL, PER OCD RULE 19.15.17.

EXHIBIT 5 – INJECTION APPLICATION SECTION VIII
WELLBORE SCHEMATIC
STIVASON FEDERAL #3 SWD (30-025-29544)

Well: Stivason Federal #3 SWD
Operator: Raybaw Operating, LLC
API: 30-025-29544
Legal: Unit Letter "B", Section 33, Township 19 South, Range 34 East
330' FNL, 1,650' FEL, Lea County, New Mexico

Proposed disposal zone is in the Upper Queen Formation with injection occurring from currently open perforation at 4,527' to 4,556'. Last filed disposal was August 2018. Injection was previously active and authorized under Administrative Order SWD-420 dated May 22, 1991. The overall interval is laterally extensive 30 foot thick sandstone with porosities of 18 to 22%. Originally on test this zone tested 100% water with no shows of hydrocarbons. Top of cement calculations indicates isolation in and above the zone with the top of the interval 600 feet below the only other potential pay zone in the Area Of Review.

Lease Number: BLM NM-057285

Geologic Name of Surface Formation:

- Quaternary Alluvium

Geologic Zones

Formation	Depth (MD)	Depth (SS)	Lithology
• Quaternary Alluvium	0'		
• Rustler	1,684'	2,019'	Red Beds
• Top of Salt	1,774'	1,929'	Anhydrite
• Base of Salt	3,310'	393'	Anhydrite
• Yates	3,500'	203'	Sandstone
• Seven Rivers	3,807'	-104'	Dolo/Sandstone
• Queen	4,487'	-780'	Sandstone
• TD	4,630'		

Depth of Fresh water

Formation	Depth
• Quaternary Alluvium	300'
• Base of Fresh Water	1,100'

The surface fresh water sands are protected by 8-5/8" surface casing set at 1,597' with cement circulated back to surface

JACAM CATALYST

DownHole SAT®

WATER CHEMISTRY

RAYBAW OPERATING LLC
JODY FORTNER
LEA NM

MALACHITE 22 FEDERAL 1H
WELLHEAD

Report Date: 09-29-2025
Sample #: 6311

Sampled: 09-23-2025 at 0000
Sample ID: 423537

CATIONS		ANIONS	
Calcium (as Ca)	1228	Chloride (as Cl)	87988
Magnesium (as Mg)	270.15	Sulfate (as SO_4)	452.68
Barium (as Ba)	1.45	Bromine (as Br)	0.00
Strontium (as Sr)	330.22	Dissolved CO_2 (as CO_2)	200.00
Sodium (as Na)	54738	Bicarbonate (as HCO_3)	976.00
Potassium (as K)	1265	Carbonate (as CO_3)	0.00
Lithium (as Li)	0.00	Oxalic acid (as C_2O_4)	0.00
Ammonia (as NH_3)	0.00	Silica (as SiO_2)	0.00
Aluminum (as Al)	0.00	Phosphate(as PO_4)	0.00
Iron (as Fe)	2.70	H_2S (as H_2S)	0.00
Manganese (as Mn)	0.100	Fluoride (as F)	0.00
Zinc (as Zn)	0.00	Nitrate (as NO_3)	0.00
Lead (as Pb)	0.00	Boron (as B)	100.82

PARAMETERS		BOUND IONS	TOTAL	FREE
Calculated T.D.S.	157706	Calcium	1351	1277
Molar Conductivity	165605	Barium	1.60	1.60
Resistivity	6.04	Carbonate	71.46	0.620
Sp.Gr.(g/mL)	1.100	Phosphate	0.00	0.00
Pressure(atm)	1.00	Sulfate	497.95	250.21
pCO_2(atm)	0.0992			
pH_2S(atm)	0.00			
Temperature (^oF)	75.00	**CORROSION RATE PREDICTION**		
pH	6.80	CO_2 - H_2S Rate(mpy)		0.129

COMMENTS

LEA NM

Jacam Catalyst
1656 Ave Q Building 8, Sterling, KS 67579

JACAM CATALYST

DownHole SAT®

DEPOSITION POTENTIAL INDICATORS

RAYBAW OPERATING LLC
JODY FORTNER
LEA NM

MALACHITE 22 FEDERAL 1H
WELLHEAD

Report Date: 09-29-2025
Sample #: 6311

Sampled: 09-23-2025 at 0000
Sample ID: 423537

SATURATION RATIO as IAP/Ksp	
Calcite ($CaCO_3$)	4.31
Aragonite ($CaCO_3$)	4.00
Witherite ($BaCO_3$)	0.00
Strontianite ($SrCO_3$)	1.61
Calcium oxalate (CaC_2O_4)	0.00
Magnesite ($MgCO_3$)	1.00
Anhydrite ($CaSO_4$)	0.07
Gypsum ($CaSO_4*2H_2O$)	0.10
Barite ($BaSO_4$)	3.82
Celestite ($SrSO_4$)	0.63
Fluorite (CaF_2)	0.00
Calcium phosphate	0.00
Hydroxyapatite	0.00
Silica (SiO_2)	0.00
Brucite ($Mg(OH)_2$)	< 0.001
Magnesium silicate	0.00
Iron hydroxide ($Fe(OH)_3$)	3.36
Strengite ($FePO_4*2H_2O$)	0.00
Siderite ($FeCO_3$)	7.23
Halite (NaCl)	0.10
Thenardite ($Na2SO_4$)	0.00
Iron sulfide (FeS)	0.00

FREE ION MOMENTARY EXCESS (Lbs/1000 Barrels)	
Calcite ($CaCO_3$)	0.277
Aragonite ($CaCO_3$)	0.271
Witherite ($BaCO_3$)	-25.29
Strontianite ($SrCO_3$)	0.202
Calcium oxalate (CaC_2O_4)	-0.0418
Magnesite ($MgCO_3$)	>-0.001
Anhydrite ($CaSO_4$)	-923.75
Gypsum ($CaSO_4*2H_2O$)	-809.84
Barite ($BaSO_4$)	0.696
Celestite ($SrSO_4$)	-52.66
Fluorite (CaF_2)	-6.65
Calcium phosphate	>-0.001
Hydroxyapatite	-313.48
Silica (SiO_2)	-31.17
Brucite ($Mg(OH)_2$)	-0.584
Magnesium silicate	-97.33
Iron hydroxide ($Fe(OH)_3$)	< 0.001
Strengite ($FePO_4*2H_2O$)	>-0.001
Siderite ($FeCO_3$)	0.348
Halite (NaCl)	-113451
Thenardite ($Na2SO_4$)	-81806
Iron sulfide (FeS)	-0.334

SIMPLE INDICES	
Langelier	1.03
Ryznar	4.74
Puckorius	2.70
Larson-Skold Index	145.61
Stiff Davis Index	0.569
Oddo-Tomson	-0.114

CARBONATE PRECIPITATION POTENTIAL (Lbs/1000 Barrels)	
Calcite ($CaCO_3$)	200.04
Aragonite ($CaCO_3$)	195.82
Witherite ($BaCO_3$)	-42.44
Strontianite ($SrCO_3$)	84.79
Magnesite ($MgCO_3$)	96.50
Siderite ($FeCO_3$)	2.10

OPERATING CONDITIONS

Temperature (^oF)	75.00
Time(secs)	0.00

Jacam Catalyst
1656 Ave Q Building 8, Sterling, KS 67579

JACAM CATALYST

Water Chemistry Report

SYSTEM IDENTIFICATION

RAYBAW OPERATING LLC
MALACHITE 22 FEDERAL 1H
JODY FORTNER
WELLHEAD
LEA NM

Sample ID#: 6311
ID 423537

Sample Date: 09-23-2025 at 0000
Report Date: 09-29-2025

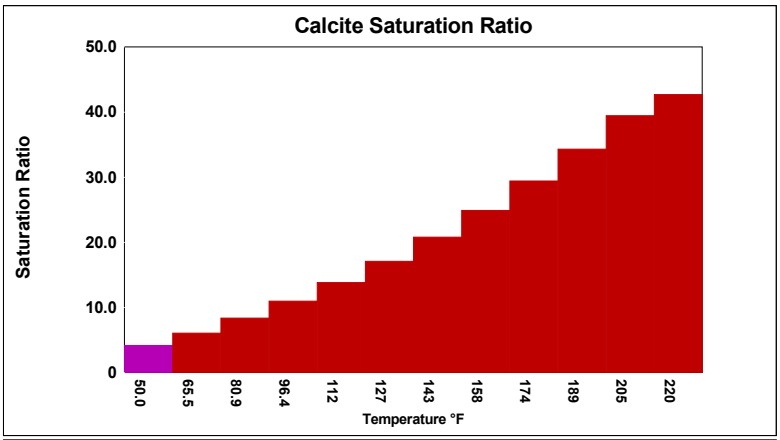
WATER CHEMISTRY

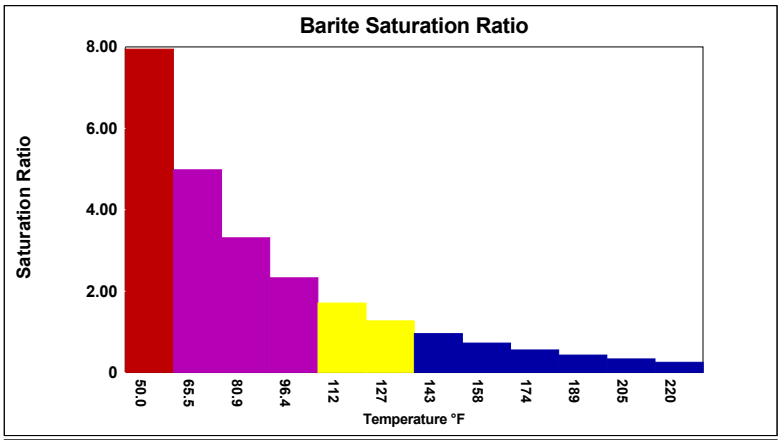
CATIONS		ANIONS	
Calcium(as Ca)	1228	Chloride(as Cl)	87988
Magnesium(as Mg)	270.15	Sulfate(as SO_4)	452.68
Barium(as Ba)	1.45	Bromine(as Br)	0.00
Strontium(as Sr)	330.22	Dissolved CO_2(as CO_2)	200.00
Sodium(as Na)	54738	Bicarbonate(as HCO_3)	976.00
Potassium(as K)	1265	Carbonate(as CO_3)	0.00
Lithium(as Li)	0.00	Silica(as SiO_2)	0.00
Iron(as Fe)	2.70	Phosphate(as PO_4)	0.00
Ammonia(as NH_3)	0.00	H_2S (as H_2S)	0.00
Aluminum(as Al)	0.00	Fluoride(as F)	0.00
Manganese(as Mn)	0.100	Nitrate(as NO_3)	0.00
Zinc(as Zn)	0.00	Boron(as B)	100.82
Lead(as Pb)	0.00		
PARAMETERS			
Temperature(°F)	75.00	Sample pH	6.80
Conductivity	165605	Sp.Gr.(g/mL)	1.100
Resistivity	6.04	T.D.S.	157706

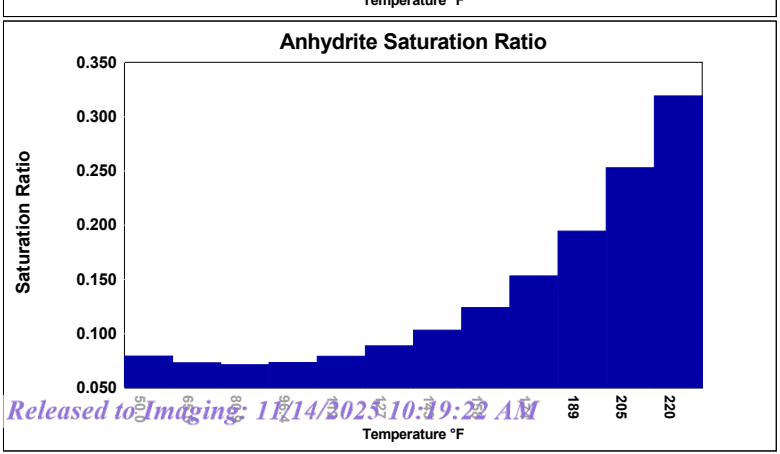
SCALE AND CORROSION POTENTIAL

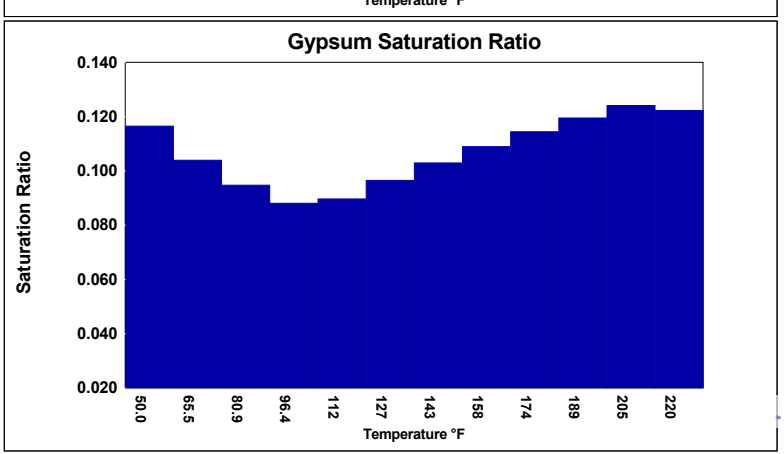
Temp. (°F)	Press. (atm)	Calcite $CaCO_3$		Anhydrite $CaSO_4$		Gypsum $CaSO_4*2H_2O$		Barite $BaSO_4$		Celestite $SrSO_4$		Siderite $FeCO_3$		Mackinawite FeS		CO_2 (mpy)	pCO_2 (atm)
50.00	1.000	4.16	0.329	0.0793	-905.42	0.116	-743.41	7.94	0.825	0.731	-36.25	5.88	0.397	0.00	-0.322	0.0884	0.0992
65.45	1.000	6.06	0.470	0.0732	-937.14	0.104	-796.16	4.98	0.754	0.660	-48.46	9.72	0.561	0.00	-0.329	0.166	0.0992
80.91	1.000	8.36	0.617	0.0715	-927.89	0.0947	-836.46	3.31	0.658	0.631	-53.09	15.09	0.729	0.00	-0.337	0.147	0.0992
96.36	1.000	10.97	0.762	0.0736	-883.46	0.0881	-864.72	2.33	0.537	0.623	-53.53	22.08	0.894	0.00	-0.345	0.192	0.0992
111.82	1.000	13.82	0.901	0.0793	-811.89	0.0896	-831.10	1.71	0.390	0.625	-52.24	30.79	1.05	0.00	-0.355	0.201	0.0992
127.27	1.000	17.08	1.05	0.0889	-722.18	0.0965	-763.18	1.27	0.200	0.623	-51.54	41.89	1.22	0.00	-0.365	0.169	0.0992
142.73	1.000	20.78	1.22	0.103	-622.33	0.103	-706.98	0.955	-0.0441	0.619	-51.51	55.81	1.40	0.00	-0.376	0.137	0.0992
158.18	1.000	24.90	1.40	0.124	-519.32	0.109	-660.64	0.725	-0.355	0.612	-52.06	72.85	1.59	0.00	-0.388	0.142	0.0992
173.64	1.000	29.42	1.60	0.153	-418.80	0.114	-622.65	0.556	-0.747	0.604	-53.09	93.25	1.78	0.00	-0.401	0.147	0.0992
189.09	1.000	34.28	1.81	0.195	-325.00	0.119	-591.87	0.431	-1.23	0.594	-54.51	117.03	1.92	0.00	-0.416	0.0743	0.0992
204.55	1.000	39.43	2.05	0.253	-240.71	0.124	-567.39	0.337	-1.83	0.584	-56.29	143.97	1.97	0.00	-0.431	0.0623	0.0992
220.00	18.207	42.68	2.36	0.319	-181.40	0.122	-578.36	0.252	-2.74	0.544	-65.31	168.86	1.96	0.00	-0.455	0.381	1.81
		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 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.









SECTION VII EXHIBIT 4A PRODUCED WATER FOR INJECTION

JACAM CATALYST

DownHole SAT®

WATER CHEMISTRY

RAYBAW OPERATING
JODY FORTNER
LEA NM

MALACHITE 22 FEDERAL 2H
WELLHEAD

Report Date: 10-09-2025
Sample #: 6311

Sampled: 09-23-2025 at 0000
Sample ID: 423813

CATIONS		ANIONS	
Calcium (as Ca)	1240	Chloride (as Cl)	80876
Magnesium (as Mg)	287.00	Sulfate (as SO_4)	612.03
Barium (as Ba)	0.890	Bromine (as Br)	0.00
Strontium (as Sr)	289.00	Dissolved CO_2 (as CO_2)	200.00
Sodium (as Na)	50163	Bicarbonate (as HCO_3)	976.00
Potassium (as K)	1296	Carbonate (as CO_3)	0.00
Lithium (as Li)	0.00	Oxalic acid (as C_2O_4)	0.00
Ammonia (as NH_3)	0.00	Silica (as SiO_2)	0.00
Aluminum (as Al)	0.00	Phosphate(as PO_4)	0.00
Iron (as Fe)	5.34	H_2S (as H_2S)	0.00
Manganese (as Mn)	0.150	Fluoride (as F)	0.00
Zinc (as Zn)	0.00	Nitrate (as NO_3)	0.00
Lead (as Pb)	0.00	Boron (as B)	83.11

PARAMETERS	
Calculated T.D.S.	144979
Molar Conductivity	152420
Resistivity	6.56
Sp.Gr.(g/mL)	1.093
Pressure(atm)	1.00
pCO_2(atm)	0.0989
pH_2S(atm)	0.00
Temperature (^oF)	75.00
pH	6.80

BOUND IONS	TOTAL	FREE
Calcium	1355	1274
Barium	0.973	0.973
Carbonate	55.83	0.651
Phosphate	0.00	0.00
Sulfate	668.95	347.02

CORROSION RATE PREDICTION

CO_2 - H_2S Rate(mpy) 0.129

COMMENTS

LEA NM

Jacam Catalyst
1656 Ave Q Building 8, Sterling, KS 67579

JACAM CATALYST

DownHole SAT®

DEPOSITION POTENTIAL INDICATORS

RAYBAW OPERATING
JODY FORTNER
LEA NM

MALACHITE 22 FEDERAL 2H
WELLHEAD

Report Date: 10-09-2025
Sample #: 6311

Sampled: 09-23-2025 at 0000
Sample ID: 423813

SATURATION RATIO as IAP/Ksp	
Calcite ($CaCO_3$)	4.25
Aragonite ($CaCO_3$)	3.94
Witherite ($BaCO_3$)	0.00
Strontianite ($SrCO_3$)	1.52
Calcium oxalate (CaC_2O_4)	0.00
Magnesite ($MgCO_3$)	1.01
Anhydrite ($CaSO_4$)	0.10
Gypsum ($CaSO_4*2H_2O$)	0.14
Barite ($BaSO_4$)	3.43
Celestite ($SrSO_4$)	0.81
Fluorite (CaF_2)	0.00
Calcium phosphate	0.00
Hydroxyapatite	0.00
Silica (SiO_2)	0.00
Brucite ($Mg(OH)_2$)	< 0.001
Magnesium silicate	0.00
Iron hydroxide ($Fe(OH)_3$)	13.61
Strengite ($FePO_4*2H_2O$)	0.00
Siderite ($FeCO_3$)	15.28
Halite (NaCl)	0.08
Thenardite ($Na2SO_4$)	0.00
Iron sulfide (FeS)	0.00

FREE ION MOMENTARY EXCESS (Lbs/1000 Barrels)	
Calcite ($CaCO_3$)	0.289
Aragonite ($CaCO_3$)	0.282
Witherite ($BaCO_3$)	-24.99
Strontianite ($SrCO_3$)	0.190
Calcium oxalate (CaC_2O_4)	-0.0445
Magnesite ($MgCO_3$)	0.00353
Anhydrite ($CaSO_4$)	-917.60
Gypsum ($CaSO_4*2H_2O$)	-782.68
Barite ($BaSO_4$)	0.408
Celestite ($SrSO_4$)	-25.62
Fluorite (CaF_2)	-6.89
Calcium phosphate	>-0.001
Hydroxyapatite	-322.53
Silica (SiO_2)	-32.01
Brucite ($Mg(OH)_2$)	-0.597
Magnesium silicate	-99.06
Iron hydroxide ($Fe(OH)_3$)	< 0.001
Strengite ($FePO_4*2H_2O$)	>-0.001
Siderite ($FeCO_3$)	0.406
Halite (NaCl)	-121781
Thenardite ($Na2SO_4$)	-80938
Iron sulfide (FeS)	-0.253

SIMPLE INDICES	
Langelier	0.990
Ryznar	4.82
Puckorius	2.79
Larson-Skold Index	135.95
Stiff Davis Index	0.456
Oddo-Tomson	-0.143

CARBONATE PRECIPITATION POTENTIAL (Lbs/1000 Barrels)	
Calcite ($CaCO_3$)	187.32
Aragonite ($CaCO_3$)	183.06
Witherite ($BaCO_3$)	-47.18
Strontianite ($SrCO_3$)	70.13
Magnesite ($MgCO_3$)	86.95
Siderite ($FeCO_3$)	3.97

OPERATING CONDITIONS

Temperature (^oF)	75.00
Time(secs)	0.00

Jacam Catalyst
1656 Ave Q Building 8, Sterling, KS 67579

JACAM CATALYST

Water Chemistry Report

SYSTEM IDENTIFICATION

RAYBAW OPERATING
MALACHITE 22 FEDERAL 2H
JODY FORTNER
WELLHEAD
LEA NM

Sample ID#: 6311
ID 423813

Sample Date: 09-23-2025 at 0000
Report Date: 10-09-2025

WATER CHEMISTRY

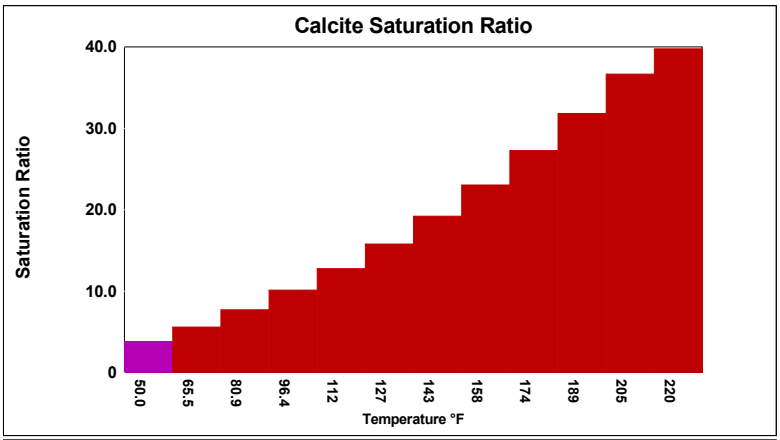
CATIONS		ANIONS	
Calcium(as Ca)	1240	Chloride(as Cl)	80876
Magnesium(as Mg)	287.00	Sulfate(as SO_4)	612.03
Barium(as Ba)	0.890	Bromine(as Br)	0.00
Strontium(as Sr)	289.00	Dissolved CO_2(as CO_2)	200.00
Sodium(as Na)	50163	Bicarbonate(as HCO_3)	976.00
Potassium(as K)	1296	Carbonate(as CO_3)	0.00
Lithium(as Li)	0.00	Silica(as SiO_2)	0.00
Iron(as Fe)	5.34	Phosphate(as PO_4)	0.00
Ammonia(as NH_3)	0.00	H_2S (as H_2S)	0.00
Aluminum(as Al)	0.00	Fluoride(as F)	0.00
Manganese(as Mn)	0.150	Nitrate(as NO_3)	0.00
Zinc(as Zn)	0.00	Boron(as B)	83.11
Lead(as Pb)	0.00		

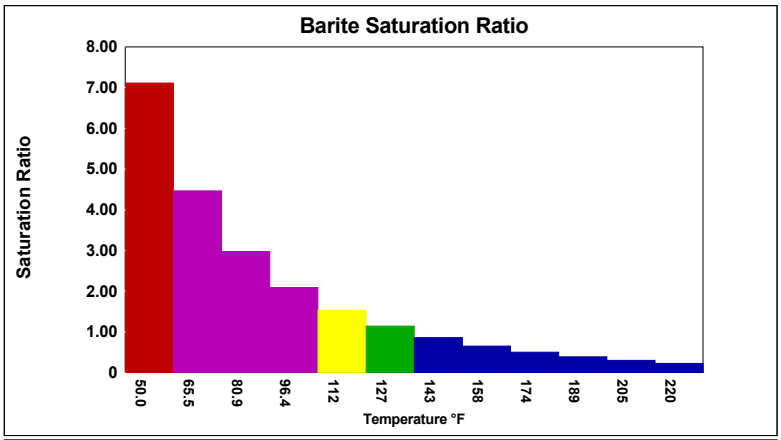
PARAMETERS			
Temperature(°F)	75.00	Sample pH	6.80
Conductivity	152420	Sp.Gr.(g/mL)	1.093
Resistivity	6.56	T.D.S.	144979

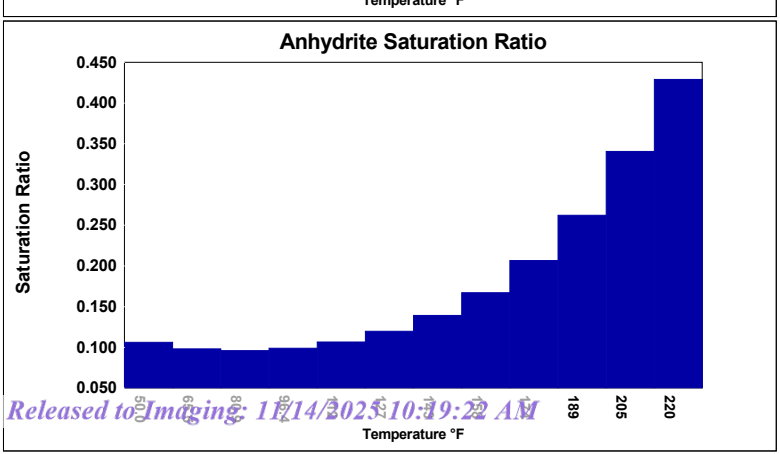
SCALE AND CORROSION POTENTIAL

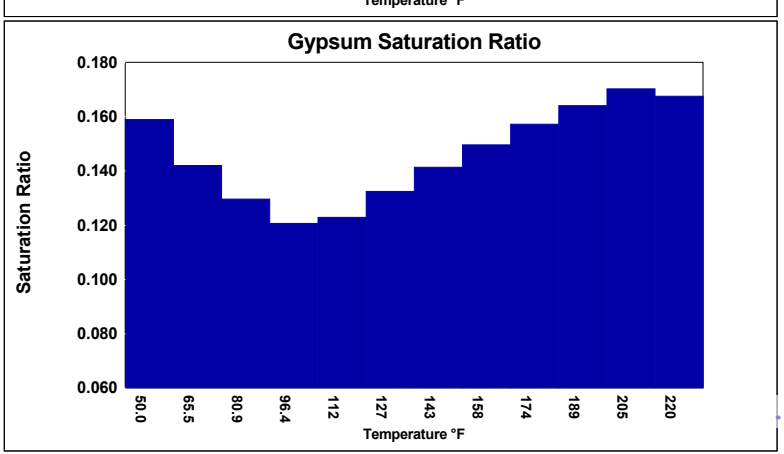
Temp. (°F)	Press. (atm)	Calcite $CaCO_3$		Anhydrite $CaSO_4$		Gypsum $CaSO_4*2H_2O$		Barite $BaSO_4$		Celestite $SrSO_4$		Siderite $FeCO_3$		Mackinawite FeS		CO_2 (mpy)	pCO_2 (atm)
50.00	1.000	3.82	0.312	0.106	-895.74	0.159	-711.61	7.11	0.495	0.932	-8.56	11.54	0.441	0.00	-0.241	0.0883	0.0989
65.45	1.000	5.58	0.451	0.0981	-928.76	0.142	-766.05	4.46	0.447	0.842	-21.15	19.10	0.597	0.00	-0.248	0.165	0.0989
80.91	1.000	7.70	0.595	0.0960	-919.71	0.130	-807.68	2.97	0.382	0.806	-26.26	29.65	0.758	0.00	-0.256	0.146	0.0989
96.36	1.000	10.12	0.736	0.0988	-874.63	0.121	-837.06	2.09	0.300	0.796	-27.27	43.43	0.917	0.00	-0.265	0.191	0.0989
111.82	1.000	12.76	0.873	0.107	-801.68	0.123	-803.56	1.53	0.200	0.798	-26.51	60.59	1.07	0.00	-0.274	0.201	0.0989
127.27	1.000	15.78	1.02	0.120	-710.02	0.132	-735.17	1.14	0.0711	0.797	-26.30	82.46	1.24	0.00	-0.285	0.168	0.0989
142.73	1.000	19.21	1.18	0.139	-607.86	0.141	-678.57	0.858	-0.0951	0.792	-26.74	109.89	1.42	0.00	-0.296	0.137	0.0989
158.18	1.000	23.04	1.36	0.167	-502.30	0.150	-631.87	0.651	-0.307	0.783	-27.73	143.50	1.62	0.00	-0.309	0.142	0.0989
173.64	1.000	27.26	1.55	0.207	-399.17	0.157	-593.56	0.499	-0.576	0.772	-29.17	183.73	1.84	0.00	-0.323	0.147	0.0989
189.09	1.000	31.82	1.76	0.262	-302.77	0.164	-562.44	0.386	-0.912	0.758	-30.99	230.62	2.09	0.00	-0.338	0.0742	0.0989
204.55	1.000	36.66	2.00	0.341	-216.00	0.170	-537.60	0.301	-1.33	0.744	-33.13	283.73	2.35	0.00	-0.355	0.0621	0.0989
220.00	18.207	39.75	2.29	0.429	-154.53	0.167	-548.11	0.225	-1.96	0.691	-42.26	332.81	2.70	0.00	-0.381	0.380	1.80
		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 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.









JACAM CATALYST

DownHole SAT®

WATER CHEMISTRY

RAYBAW OPERATING
JODY FORTNER
LEA NM

ANASAZI 9 FEDERAL 1
WELLHEAD

Report Date: 10-09-2025
Sample #: 6311

Sampled: 09-23-2025 at 0000
Sample ID: 423812

CATIONS		ANIONS	
Calcium (as Ca)	464.32	Chloride (as Cl)	6156
Magnesium (as Mg)	59.72	Sulfate (as SO_4)	30.45
Barium (as Ba)	4.54	Bromine (as Br)	0.00
Strontium (as Sr)	39.53	Dissolved CO_2 (as CO_2)	20.00
Sodium (as Na)	2972	Bicarbonate (as HCO_3)	0.00
Potassium (as K)	370.17	Carbonate (as CO_3)	0.00
Lithium (as Li)	0.00	Oxalic acid (as C_2O_4)	0.00
Ammonia (as NH_3)	0.00	Silica (as SiO_2)	0.00
Aluminum (as Al)	0.00	Phosphate(as PO_4)	0.00
Iron (as Fe)	168.47	H_2S (as H_2S)	0.00
Manganese (as Mn)	11.88	Fluoride (as F)	0.00
Zinc (as Zn)	0.00	Nitrate (as NO_3)	0.00
Lead (as Pb)	0.00	Boron (as B)	73.12

PARAMETERS		BOUND IONS	TOTAL	FREE
Calculated T.D.S.	10785	Calcium	468.96	466.89
Molar Conductivity	15830	Barium	4.59	4.59
Resistivity	63.17	Carbonate	0.00	0.00
Sp.Gr.(g/mL)	1.010	Phosphate	0.00	0.00
Pressure(atm)	1.00	Sulfate	30.76	22.01
pCO_2(atm)	0.00			
pH_2S(atm)	0.00			
Temperature (^oF)	75.00	**CORROSION RATE PREDICTION**		
pH	6.10	CO_2 - H_2S Rate(mpy)		0.00

COMMENTS

LEA NM

Jacam Catalyst
1656 Ave Q Building 8, Sterling, KS 67579

JACAM CATALYST

DownHole SAT®

DEPOSITION POTENTIAL INDICATORS

RAYBAW OPERATING
JODY FORTNER
LEA NM

ANASAZI 9 FEDERAL 1
WELLHEAD

Report Date: 10-09-2025
Sample #: 6311

Sampled: 09-23-2025 at 0000
Sample ID: 423812

SATURATION RATIO as IAP/Ksp	
Calcite ($CaCO_3$)	0.00
Aragonite ($CaCO_3$)	0.00
Witherite ($BaCO_3$)	0.00
Strontianite ($SrCO_3$)	0.00
Calcium oxalate (CaC_2O_4)	0.00
Magnesite ($MgCO_3$)	0.00
Anhydrite ($CaSO_4$)	0.01
Gypsum ($CaSO_4*2H_2O$)	0.01
Barite ($BaSO_4$)	6.64
Celestite ($SrSO_4$)	0.04
Fluorite (CaF_2)	0.00
Calcium phosphate	0.00
Hydroxyapatite	0.00
Silica (SiO_2)	0.00
Brucite ($Mg(OH)_2$)	< 0.001
Magnesium silicate	0.00
Iron hydroxide ($Fe(OH)_3$)	67.73
Strengite ($FePO_4*2H_2O$)	0.00
Siderite ($FeCO_3$)	0.00
Halite (NaCl)	0.00
Thenardite ($Na2SO_4$)	0.00
Iron sulfide (FeS)	0.00

FREE ION MOMENTARY EXCESS (Lbs/1000 Barrels)	
Calcite ($CaCO_3$)	-0.128
Aragonite ($CaCO_3$)	-0.138
Witherite ($BaCO_3$)	-10.60
Strontianite ($SrCO_3$)	-0.613
Calcium oxalate (CaC_2O_4)	-0.0640
Magnesite ($MgCO_3$)	-1.05
Anhydrite ($CaSO_4$)	-768.99
Gypsum ($CaSO_4*2H_2O$)	-625.29
Barite ($BaSO_4$)	2.25
Celestite ($SrSO_4$)	-81.10
Fluorite (CaF_2)	-9.13
Calcium phosphate	>-0.001
Hydroxyapatite	-256.87
Silica (SiO_2)	-40.35
Brucite ($Mg(OH)_2$)	-1.21
Magnesium silicate	-91.09
Iron hydroxide ($Fe(OH)_3$)	< 0.001
Strengite ($FePO_4*2H_2O$)	>-0.001
Siderite ($FeCO_3$)	>-0.001
Halite (NaCl)	-168352
Thenardite ($Na2SO_4$)	-50901
Iron sulfide (FeS)	-0.0127

SIMPLE INDICES	
Langelier	N/A
Ryznar	N/A
Puckorius	N/A
Larson-Skold Index	N/A
Stiff Davis Index	N/A
Oddo-Tomson	N/A

CARBONATE PRECIPITATION POTENTIAL (Lbs/1000 Barrels)	
Calcite ($CaCO_3$)	0.00
Aragonite ($CaCO_3$)	0.00
Witherite ($BaCO_3$)	0.00
Strontianite ($SrCO_3$)	0.00
Magnesite ($MgCO_3$)	0.00
Siderite ($FeCO_3$)	0.00

OPERATING CONDITIONS

Temperature (^oF)	75.00
Time(secs)	0.00

Jacam Catalyst
1656 Ave Q Building 8, Sterling, KS 67579

JACAM CATALYST

Water Chemistry Report

SYSTEM IDENTIFICATION

RAYBAW OPERATING
ANASAZI 9 FEDERAL 1
JODY FORTNER
WELLHEAD
LEA NM

Sample ID#: 6311
ID 423812

Sample Date: 09-23-2025 at 0000
Report Date: 10-09-2025

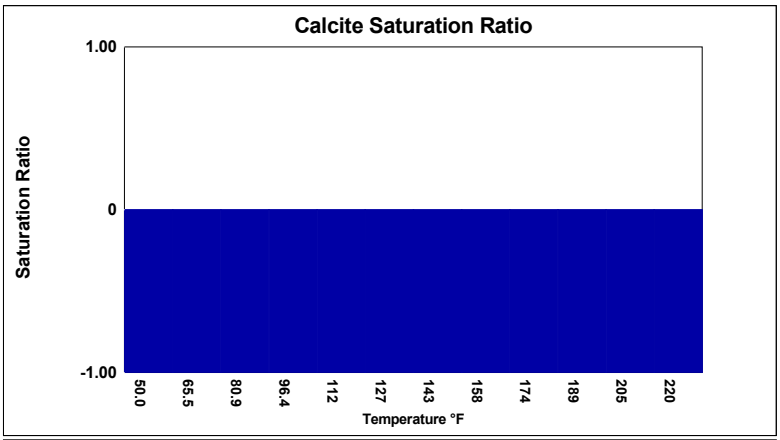
WATER CHEMISTRY

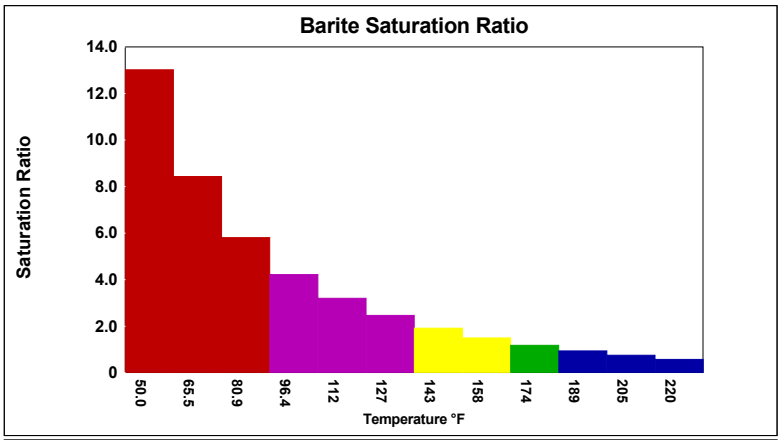
CATIONS		ANIONS	
Calcium(as Ca)	464.32	Chloride(as Cl)	6156
Magnesium(as Mg)	59.72	Sulfate(as SO_4)	30.45
Barium(as Ba)	4.54	Bromine(as Br)	0.00
Strontium(as Sr)	39.53	Dissolved CO_2(as CO_2)	20.00
Sodium(as Na)	2972	Bicarbonate(as HCO_3)	0.00
Potassium(as K)	370.17	Carbonate(as CO_3)	0.00
Lithium(as Li)	0.00	Silica(as SiO_2)	0.00
Iron(as Fe)	168.47	Phosphate(as PO_4)	0.00
Ammonia(as NH_3)	0.00	H_2S (as H_2S)	0.00
Aluminum(as Al)	0.00	Fluoride(as F)	0.00
Manganese(as Mn)	11.88	Nitrate(as NO_3)	0.00
Zinc(as Zn)	0.00	Boron(as B)	73.12
Lead(as Pb)	0.00		
PARAMETERS			
Temperature(°F)	75.00	Sample pH	6.10
Conductivity	15830	Sp.Gr.(g/mL)	1.010
Resistivity	63.17	T.D.S.	10785

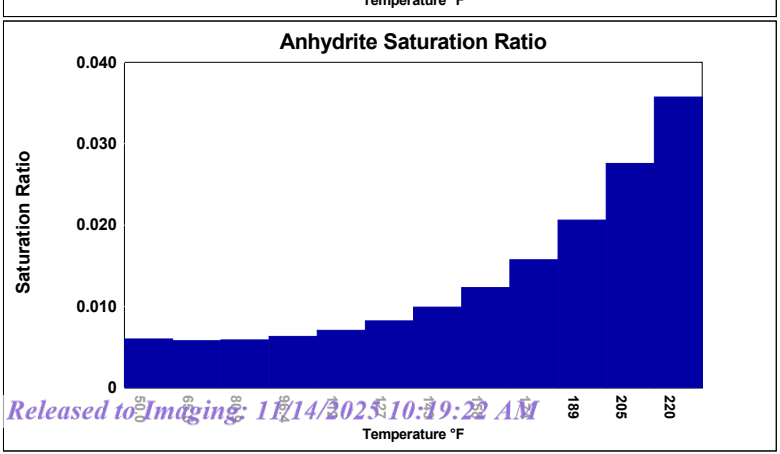
SCALE AND CORROSION POTENTIAL

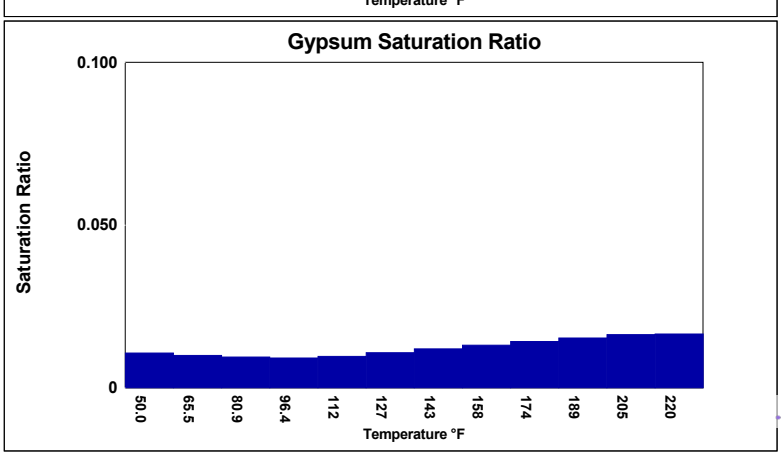
Temp. (°F)	Press. (atm)	Calcite $CaCO_3$		Anhydrite $CaSO_4$		Gypsum $CaSO_4*2H_2O$		Barite $BaSO_4$		Celestite $SrSO_4$		Siderite $FeCO_3$		Mackinawite FeS		CO_2 (mpy)	pCO_2 (atm)
50.00	1.000	0.00	-0.160	0.00602	-769.72	0.0107	-595.82	13.01	2.48	0.0440	-78.32	0.00	>-0.001	0.00	-0.0121	0.00	0.00
65.45	1.000	0.00	-0.139	0.00580	-777.90	0.00999	-616.52	8.43	2.35	0.0410	-81.04	0.00	>-0.001	0.00	-0.0125	0.00	0.00
80.91	1.000	0.00	-0.122	0.00591	-758.68	0.00950	-629.25	5.80	2.18	0.0406	-80.72	0.00	>-0.001	0.00	-0.0129	0.00	0.00
96.36	1.000	0.00	-0.109	0.00633	-716.76	0.00919	-634.62	4.21	1.99	0.0414	-78.79	0.00	>-0.001	0.00	-0.0133	0.00	0.00
111.82	1.000	0.00	-0.0977	0.00708	-657.80	0.00972	-603.24	3.20	1.77	0.0429	-76.25	0.00	>-0.001	0.00	-0.0138	0.00	0.00
127.27	1.000	0.00	-0.0886	0.00824	-587.63	0.0109	-551.98	2.46	1.51	0.0442	-74.02	0.00	>-0.001	0.00	-0.0144	0.00	0.00
142.73	1.000	0.00	-0.0812	0.00992	-511.70	0.0120	-508.24	1.91	1.18	0.0452	-72.16	0.00	>-0.001	0.00	-0.0150	0.00	0.00
158.18	1.000	0.00	-0.0750	0.0123	-434.69	0.0131	-470.84	1.49	0.802	0.0461	-70.63	0.00	>-0.001	0.00	-0.0157	0.00	0.00
173.64	1.000	0.00	-0.0699	0.0158	-360.34	0.0142	-438.82	1.17	0.352	0.0467	-69.40	0.00	>-0.001	0.00	-0.0165	0.00	0.00
189.09	1.000	0.00	-0.0657	0.0206	-291.43	0.0153	-411.44	0.932	-0.170	0.0470	-68.46	0.00	>-0.001	0.00	-0.0174	0.00	0.00
204.55	1.000	0.00	-0.0622	0.0276	-229.80	0.0164	-388.07	0.744	-0.770	0.0472	-67.79	0.00	>-0.001	0.00	-0.0185	0.00	0.00
220.00	18.207	0.00	-0.0629	0.0357	-184.58	0.0166	-381.76	0.569	-1.62	0.0448	-69.69	0.00	>-0.001	0.00	-0.0202	0.00	0.00
		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 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.









JACAM CATALYST

DownHole SAT®

WATER CHEMISTRY

RAYBAW OPERATING LLC
JODY FORTNER
LEA NM

CAPROCK 27 STATE FEDERAL COM # 1H
WELLHEAD

Report Date: 06-15-2023
Sample #: 6311
Sampled: 06-01-2023 at 0000
Sample ID: 333864

CATIONS		ANIONS	
Calcium (as Ca)	3660	Chloride (as Cl)	145988
Magnesium (as Mg)	3034	Sulfate (as SO_4)	1080
Barium (as Ba)	0.692	Bromine (as Br)	0.00
Strontium (as Sr)	161.90	Dissolved CO_2 (as CO_2)	290.00
Sodium (as Na)	83259	Bicarbonate (as HCO_3)	146.40
Potassium (as K)	2647	Carbonate (as CO_3)	0.00
Lithium (as Li)	0.00	Oxalic acid (as C_2O_4)	0.00
Ammonia (as NH_3)	0.00	Silica (as SiO_2)	0.00
Aluminum (as Al)	0.00	Phosphate(as PO_4)	0.00
Iron (as Fe)	49.94	H_2S (as H_2S)	0.00
Manganese (as Mn)	1.27	Fluoride (as F)	0.00
Zinc (as Zn)	0.00	Nitrate (as NO_3)	0.00
Lead (as Pb)	0.00	Boron (as B)	149.88

PARAMETERS	
Calculated T.D.S.	260355
Molar Conductivity	279104
Resistivity	3.58
Sp.Gr.(g/mL)	1.165
Pressure(atm)	1.00
pCO_2(atm)	0.0443
pH_2S(atm)	0.00
Temperature (^oF)	75.00
pH	6.10

BOUND IONS	TOTAL	FREE
Calcium	4264	4138
Barium	0.806	0.806
Carbonate	6.93	0.00666
Phosphate	0.00	0.00
Sulfate	1258	220.27

CORROSION RATE PREDICTION

CO_2 - H_2S Rate(mpy) 0.197

COMMENTS

LEA NM

Jacam Catalyst
1656 Ave Q Building 8, Sterling, KS 67579

JACAM CATALYST

DownHole SAT®

DEPOSITION POTENTIAL INDICATORS

RAYBAW OPERATING LLC
JODY FORTNER
LEA NM

CAPROCK 27 STATE FEDERAL COM # 1H
WELLHEAD

Report Date: 06-15-2023
Sample #: 6311

Sampled: 06-01-2023 at 0000
Sample ID: 333864

SATURATION RATIO as IAP/Ksp	
Calcite ($CaCO_3$)	0.31
Aragonite ($CaCO_3$)	0.29
Witherite ($BaCO_3$)	0.00
Strontianite ($SrCO_3$)	0.01
Calcium oxalate (CaC_2O_4)	0.00
Magnesite ($MgCO_3$)	0.34
Anhydrite ($CaSO_4$)	0.34
Gypsum ($CaSO_4*2H_2O$)	0.40
Barite ($BaSO_4$)	1.12
Celestite ($SrSO_4$)	0.19
Fluorite (CaF_2)	0.00
Calcium phosphate	0.00
Hydroxyapatite	0.00
Silica (SiO_2)	0.00
Brucite ($Mg(OH)_2$)	< 0.001
Magnesium silicate	0.00
Iron hydroxide ($Fe(OH)_3$)	0.75
Strengite ($FePO_4*2H_2O$)	0.00
Siderite ($FeCO_3$)	1.33
Halite (NaCl)	0.42
Thenardite ($Na2SO_4$)	0.00
Iron sulfide (FeS)	0.00

FREE ION MOMENTARY EXCESS (Lbs/1000 Barrels)	
Calcite ($CaCO_3$)	-0.00843
Aragonite ($CaCO_3$)	-0.00937
Witherite ($BaCO_3$)	-28.23
Strontianite ($SrCO_3$)	-0.740
Calcium oxalate (CaC_2O_4)	-0.00615
Magnesite ($MgCO_3$)	-0.00624
Anhydrite ($CaSO_4$)	-194.50
Gypsum ($CaSO_4*2H_2O$)	-178.70
Barite ($BaSO_4$)	0.0515
Celestite ($SrSO_4$)	-181.37
Fluorite (CaF_2)	-2.47
Calcium phosphate	>-0.001
Hydroxyapatite	-223.66
Silica (SiO_2)	-24.63
Brucite ($Mg(OH)_2$)	-0.0998
Magnesium silicate	-79.27
Iron hydroxide ($Fe(OH)_3$)	< 0.001
Strengite ($FePO_4*2H_2O$)	>-0.001
Siderite ($FeCO_3$)	0.00111
Halite (NaCl)	-45139
Thenardite ($Na2SO_4$)	-86269
Iron sulfide (FeS)	-0.223

SIMPLE INDICES	
Langelier	0.387
Ryznar	5.33
Puckorius	3.81
Larson-Skold Index	1653
Stiff Davis Index	0.444
Oddo-Tomson	-0.631

CARBONATE PRECIPITATION POTENTIAL (Lbs/1000 Barrels)	
Calcite ($CaCO_3$)	28.99
Aragonite ($CaCO_3$)	28.08
Witherite ($BaCO_3$)	-52.68
Strontianite ($SrCO_3$)	-28.57
Magnesite ($MgCO_3$)	30.24
Siderite ($FeCO_3$)	30.19

OPERATING CONDITIONS

Temperature (^oF)	75.00
Time(secs)	0.00

Jacam Catalyst
1656 Ave Q Building 8, Sterling, KS 67579

JACAM CATALYST

Water Chemistry Report

SYSTEM IDENTIFICATION

RAYBAW OPERATING LLC
CAPROCK 27 STATE FEDERAL COM # 1H
JODY FORTNER
WELLHEAD
LEA NM

Sample ID#: 6311
ID 333864

Sample Date: 06-01-2023 at 0000
Report Date: 06-15-2023

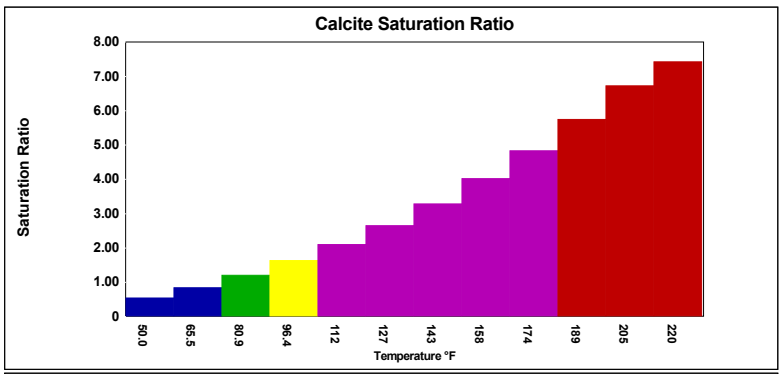
WATER CHEMISTRY

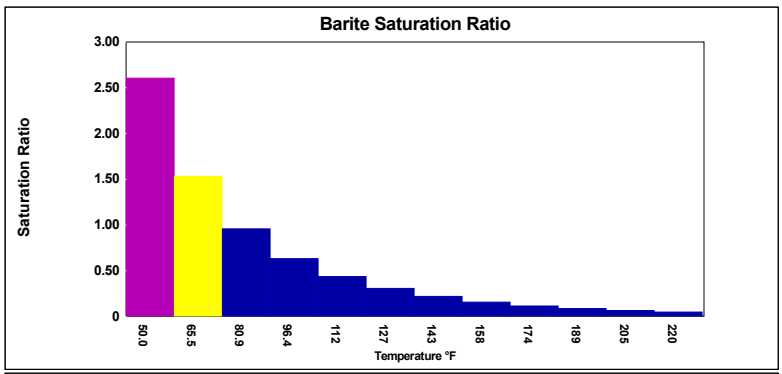
CATIONS		ANIONS	
Calcium(as Ca)	3660	Chloride(as Cl)	145988
Magnesium(as Mg)	3034	Sulfate(as SO_4)	1080
Barium(as Ba)	0.692	Bromine(as Br)	0.00
Strontium(as Sr)	161.90	Dissolved CO_2(as CO_2)	290.00
Sodium(as Na)	83259	Bicarbonate(as HCO_3)	146.40
Potassium(as K)	2647	Carbonate(as CO_3)	0.00
Lithium(as Li)	0.00	Silica(as SiO_2)	0.00
Iron(as Fe)	49.94	Phosphate(as PO_4)	0.00
Ammonia(as NH_3)	0.00	H_2S (as H_2S)	0.00
Aluminum(as Al)	0.00	Fluoride(as F)	0.00
Manganese(as Mn)	1.27	Nitrate(as NO_3)	0.00
Zinc(as Zn)	0.00	Boron(as B)	149.88
Lead(as Pb)	0.00		
PARAMETERS			
Temperature(^{0}F)	75.00	Sample pH	6.10
Conductivity	279104	Sp.Gr.(g/mL)	1.165
Resistivity	3.58	T.D.S.	260355

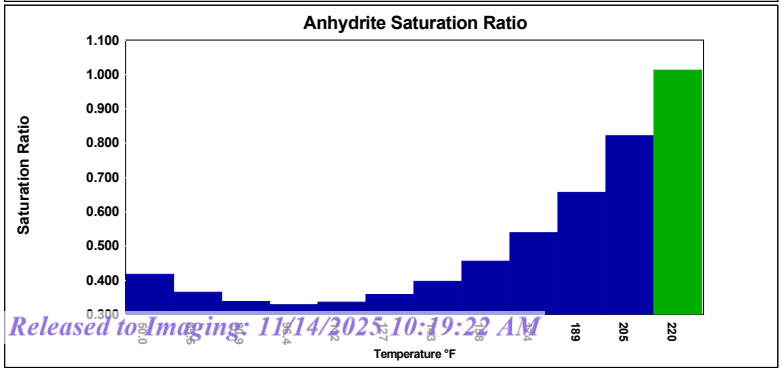
SCALE AND CORROSION POTENTIAL

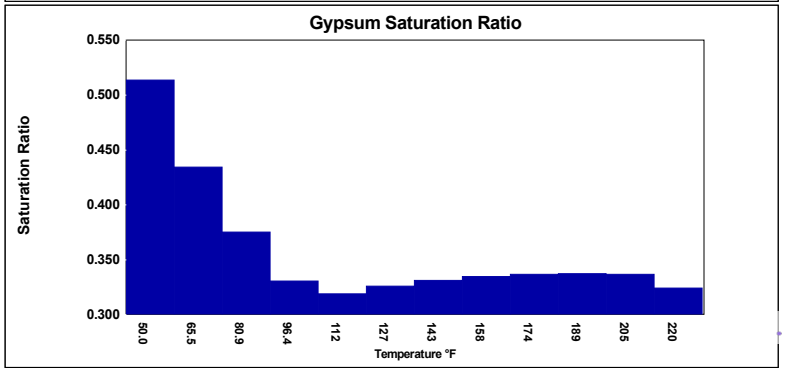
Temp.	Press.	Calcite $CaCO_3$		Anhydrite $CaSO_4$		Gypsum $CaSO_4*2H_2O$		Barite $BaSO_4$		Celestite $SrSO_4$		Siderite $FeCO_3$		Mackinawite FeS	
(^{0}F)	(atm)	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels
50.00	1.000	0.536	-0.00685	0.417	-170.26	0.513	-131.90	2.60	0.294	0.248	-155.45	1.91	0.00462	0.00	-0.207
65.45	1.000	0.830	-0.00207	0.364	-191.72	0.434	-163.74	1.53	0.165	0.210	-174.07	3.32	0.00918	0.00	-0.216
80.91	1.000	1.20	0.00262	0.337	-196.21	0.375	-189.64	0.955	-0.0224	0.189	-182.87	5.34	0.0138	0.00	-0.227
96.36	1.000	1.62	0.00709	0.329	-186.36	0.330	-209.69	0.631	-0.278	0.175	-186.07	8.03	0.0182	0.00	-0.239
111.82	1.000	2.09	0.0113	0.336	-166.03	0.319	-202.85	0.436	-0.612	0.166	-186.75	11.40	0.0224	0.00	-0.252
127.27	1.000	2.64	0.0156	0.358	-139.46	0.326	-181.42	0.307	-1.07	0.156	-187.91	15.77	0.0269	0.00	-0.268
142.73	1.000	3.28	0.0203	0.397	-110.31	0.331	-164.63	0.218	-1.68	0.147	-189.76	21.36	0.0319	0.00	-0.285
158.18	1.000	4.01	0.0253	0.455	-81.51	0.335	-151.51	0.157	-2.50	0.138	-192.29	28.37	0.0374	0.00	-0.304
173.64	1.000	4.83	0.0308	0.538	-55.03	0.337	-141.31	0.115	-3.56	0.129	-195.51	36.97	0.0435	0.00	-0.326
189.09	1.000	5.73	0.0368	0.656	-31.99	0.337	-133.50	0.0845	-4.93	0.121	-199.44	47.32	0.0503	0.00	-0.351
204.55	1.000	6.72	0.0433	0.821	-12.77	0.337	-127.70	0.0630	-6.64	0.113	-204.12	59.53	0.0578	0.00	-0.380
220.00	18.207	7.42	0.0515	1.01	0.648	0.324	-133.42	0.0457	-9.10	0.102	-218.95	71.81	0.0677	0.00	-0.426

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.









JACAM CATALYST

DownHole SAT®

WATER CHEMISTRY

RAYBAW OPERATING LLC
JODY FORTNER
LEA NM

MAROON BELLS FEDERAL COM SB 1H
WELLHEAD

Report Date: 09-29-2025
Sample #: 6311

Sampled: 09-23-2025 at 0000
Sample ID: 423536

CATIONS		ANIONS	
Calcium (as Ca)	6262	Chloride (as Cl)	90243
Magnesium (as Mg)	1031	Sulfate (as SO_4)	1196
Barium (as Ba)	0.410	Bromine (as Br)	0.00
Strontium (as Sr)	256.47	Dissolved CO_2 (as CO_2)	100.00
Sodium (as Na)	49119	Bicarbonate (as HCO_3)	244.00
Potassium (as K)	1198	Carbonate (as CO_3)	0.00
Lithium (as Li)	0.00	Oxalic acid (as C_2O_4)	0.00
Ammonia (as NH_3)	0.00	Silica (as SiO_2)	0.00
Aluminum (as Al)	0.00	Phosphate(as PO_4)	0.00
Iron (as Fe)	24.18	H_2S (as H_2S)	0.00
Manganese (as Mn)	0.810	Fluoride (as F)	0.00
Zinc (as Zn)	0.00	Nitrate (as NO_3)	0.00
Lead (as Pb)	0.00	Boron (as B)	179.12

PARAMETERS		BOUND IONS	TOTAL	FREE
Calculated T.D.S.	161274	Calcium	6907	6646
Molar Conductivity	159119	Barium	0.452	0.452
Resistivity	6.28	Carbonate	5.62	0.0457
Sp.Gr.(g/mL)	1.103	Phosphate	0.00	0.00
Pressure(atm)	1.00	Sulfate	1320	405.15
pCO_2(atm)	0.0481			
pH_2S(atm)	0.00			
Temperature (^oF)	75.00	**CORROSION RATE PREDICTION**		
pH	6.40	CO_2 - H_2S Rate(mpy)		0.0987

COMMENTS

LEA NM

Jacam Catalyst
1656 Ave Q Building 8, Sterling, KS 67579

JACAM CATALYST

DownHole SAT®

DEPOSITION POTENTIAL INDICATORS

RAYBAW OPERATING LLC
JODY FORTNER
LEA NM

MAROON BELLS FEDERAL COM SB 1H
WELLHEAD

Report Date: 09-29-2025
Sample #: 6311

Sampled: 09-23-2025 at 0000
Sample ID: 423536

SATURATION RATIO as IAP/Ksp	
Calcite ($CaCO_3$)	1.75
Aragonite ($CaCO_3$)	1.62
Witherite ($BaCO_3$)	0.00
Strontianite ($SrCO_3$)	0.09
Calcium oxalate (CaC_2O_4)	0.00
Magnesite ($MgCO_3$)	0.31
Anhydrite ($CaSO_4$)	0.63
Gypsum ($CaSO_4*2H_2O$)	0.87
Barite ($BaSO_4$)	1.63
Celestite ($SrSO_4$)	0.75
Fluorite (CaF_2)	0.00
Calcium phosphate	0.00
Hydroxyapatite	0.00
Silica (SiO_2)	0.00
Brucite ($Mg(OH)_2$)	< 0.001
Magnesium silicate	0.00
Iron hydroxide ($Fe(OH)_3$)	1.77
Strengite ($FePO_4*2H_2O$)	0.00
Siderite ($FeCO_3$)	4.59
Halite (NaCl)	0.10
Thenardite ($Na2SO_4$)	0.00
Iron sulfide (FeS)	0.00

FREE ION MOMENTARY EXCESS (Lbs/1000 Barrels)	
Calcite ($CaCO_3$)	0.0113
Aragonite ($CaCO_3$)	0.0102
Witherite ($BaCO_3$)	-26.50
Strontianite ($SrCO_3$)	-0.402
Calcium oxalate (CaC_2O_4)	-0.00761
Magnesite ($MgCO_3$)	-0.0490
Anhydrite ($CaSO_4$)	-110.88
Gypsum ($CaSO_4*2H_2O$)	-33.84
Barite ($BaSO_4$)	0.104
Celestite ($SrSO_4$)	-37.17
Fluorite (CaF_2)	-2.85
Calcium phosphate	>-0.001
Hydroxyapatite	-306.56
Silica (SiO_2)	-31.18
Brucite ($Mg(OH)_2$)	-0.283
Magnesium silicate	-95.37
Iron hydroxide ($Fe(OH)_3$)	< 0.001
Strengite ($FePO_4*2H_2O$)	>-0.001
Siderite ($FeCO_3$)	0.0240
Halite (NaCl)	-112267
Thenardite ($Na2SO_4$)	-83326
Iron sulfide (FeS)	-0.206

SIMPLE INDICES	
Langelier	0.749
Ryznar	4.90
Puckorius	3.37
Larson-Skold Index	627.81
Stiff Davis Index	0.364
Oddo-Tomson	-0.402

CARBONATE PRECIPITATION POTENTIAL (Lbs/1000 Barrels)	
Calcite ($CaCO_3$)	47.58
Aragonite ($CaCO_3$)	46.41
Witherite ($BaCO_3$)	-54.39
Strontianite ($SrCO_3$)	-14.77
Magnesite ($MgCO_3$)	13.70
Siderite ($FeCO_3$)	16.39

OPERATING CONDITIONS

Temperature (^oF)	75.00
Time(secs)	0.00

Jacam Catalyst
1656 Ave Q Building 8, Sterling, KS 67579

JACAM CATALYST

Water Chemistry Report

SYSTEM IDENTIFICATION

RAYBAW OPERATING LLC
MAROON BELLS FEDERAL COM SB 1H
JODY FORTNER
WELLHEAD
LEA NM

Sample ID#: 6311
ID 423536

Sample Date: 09-23-2025 at 0000
Report Date: 09-29-2025

WATER CHEMISTRY

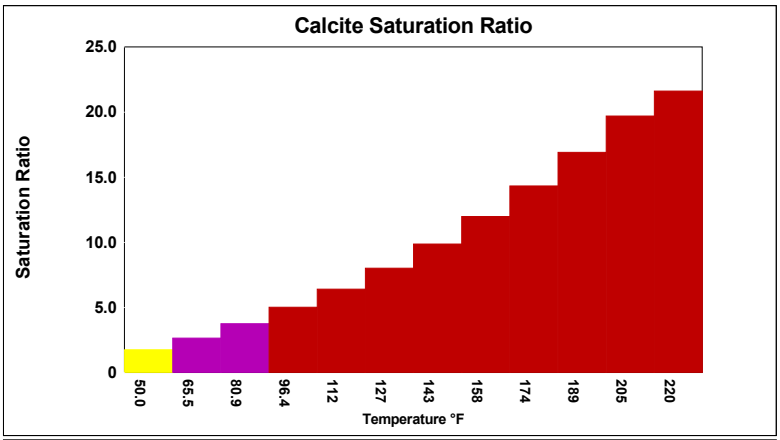
CATIONS		ANIONS	
Calcium(as Ca)	6262	Chloride(as Cl)	90243
Magnesium(as Mg)	1031	Sulfate(as SO_4)	1196
Barium(as Ba)	0.410	Bromine(as Br)	0.00
Strontium(as Sr)	256.47	Dissolved CO_2(as CO_2)	100.00
Sodium(as Na)	49119	Bicarbonate(as HCO_3)	244.00
Potassium(as K)	1198	Carbonate(as CO_3)	0.00
Lithium(as Li)	0.00	Silica(as SiO_2)	0.00
Iron(as Fe)	24.18	Phosphate(as PO_4)	0.00
Ammonia(as NH_3)	0.00	H_2S (as H_2S)	0.00
Aluminum(as Al)	0.00	Fluoride(as F)	0.00
Manganese(as Mn)	0.810	Nitrate(as NO_3)	0.00
Zinc(as Zn)	0.00	Boron(as B)	179.12
Lead(as Pb)	0.00		

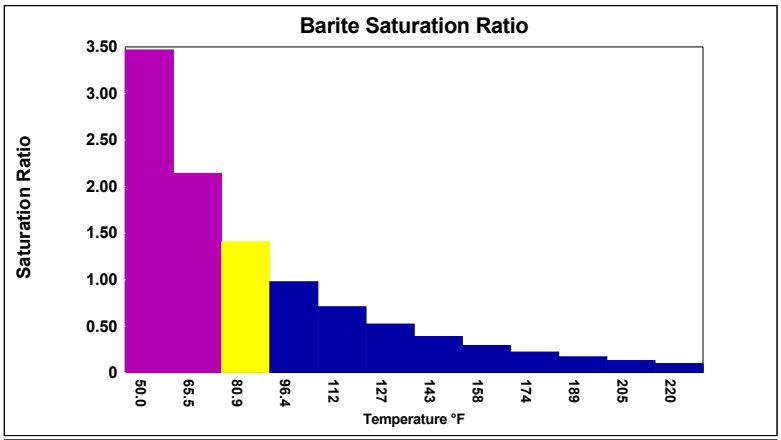
PARAMETERS			
Temperature(°F)	75.00	Sample pH	6.40
Conductivity	159119	Sp.Gr.(g/mL)	1.103
Resistivity	6.28	T.D.S.	161274

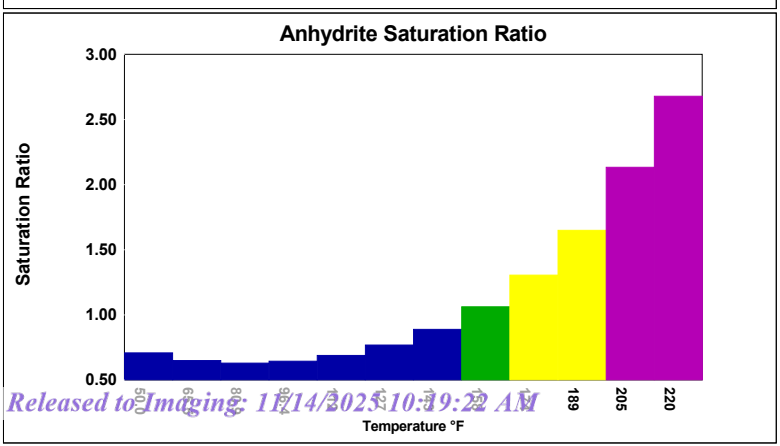
SCALE AND CORROSION POTENTIAL

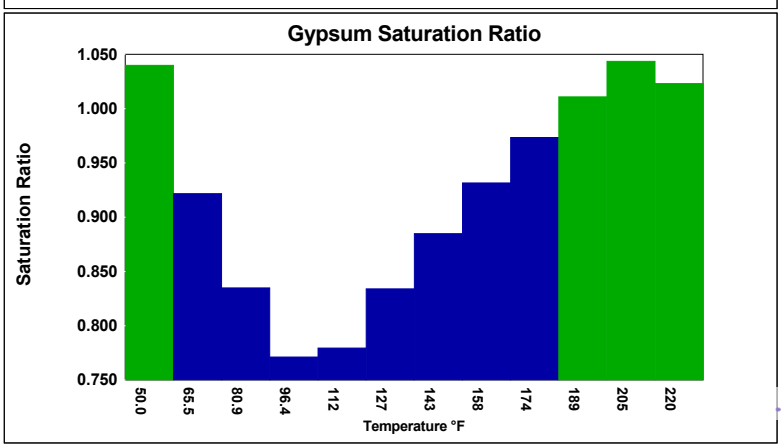
Temp.	Press.	Calcite $CaCO_3$		Anhydrite $CaSO_4$		Gypsum $CaSO_4*2H_2O$		Barite $BaSO_4$		Celestite $SrSO_4$		Siderite $FeCO_3$		Mackinawite FeS		CO_2	pCO_2
(°F)	(atm)	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	(mpy)	(atm)
50.00	1.000	1.75	0.0143	0.708	-86.84	1.04	9.15	3.47	0.190	0.878	-16.38	3.84	0.0282	0.00	-0.193	0.0715	0.0481
65.45	1.000	2.65	0.0275	0.649	-107.92	0.922	-19.50	2.14	0.143	0.780	-31.52	6.53	0.0431	0.00	-0.201	0.152	0.0481
80.91	1.000	3.75	0.0410	0.630	-111.54	0.835	-43.01	1.41	0.0771	0.736	-38.56	10.34	0.0583	0.00	-0.209	0.112	0.0481
96.36	1.000	5.02	0.0543	0.644	-100.46	0.771	-61.42	0.975	-0.00685	0.719	-41.00	15.36	0.0732	0.00	-0.219	0.147	0.0481
111.82	1.000	6.40	0.0670	0.689	-78.78	0.779	-56.17	0.708	-0.111	0.712	-41.41	21.65	0.0875	0.00	-0.231	0.154	0.0481
127.27	1.000	8.01	0.0805	0.768	-50.88	0.834	-38.10	0.521	-0.246	0.703	-42.26	29.74	0.103	0.00	-0.243	0.130	0.0481
142.73	1.000	9.87	0.0954	0.888	-20.61	0.885	-24.12	0.388	-0.422	0.692	-43.71	40.00	0.120	0.00	-0.257	0.105	0.0481
158.18	1.000	11.97	0.112	1.06	9.07	0.931	-13.26	0.292	-0.649	0.677	-45.70	52.76	0.138	0.00	-0.273	0.105	0.0481
173.64	1.000	14.32	0.130	1.31	36.15	0.973	-4.84	0.221	-0.939	0.661	-48.23	68.27	0.159	0.00	-0.291	0.106	0.0481
189.09	1.000	16.90	0.149	1.65	59.69	1.01	1.77	0.169	-1.31	0.643	-51.20	86.75	0.181	0.00	-0.311	0.0522	0.0481
204.55	1.000	19.69	0.171	2.13	79.35	1.04	6.94	0.131	-1.77	0.624	-54.64	108.27	0.206	0.00	-0.334	0.0431	0.0481
220.00	18.207	21.60	0.199	2.68	93.94	1.02	3.71	0.0968	-2.47	0.574	-65.66	129.32	0.239	0.00	-0.371	0.262	0.876

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.







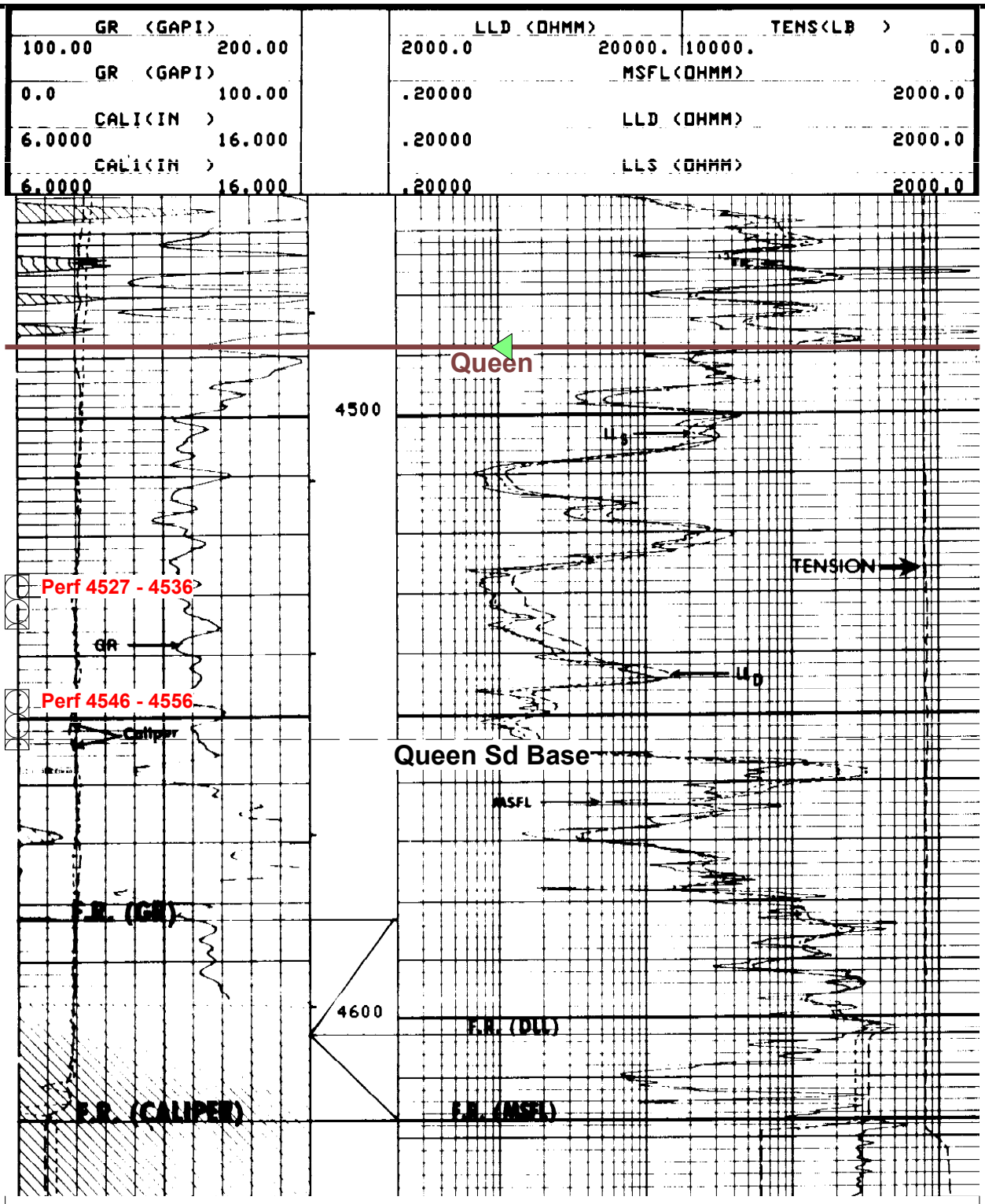


STIVASON FEDERAL #003 SWD
TYPE SECTION - QUEEN INJECTION INTERVAL

3002529544

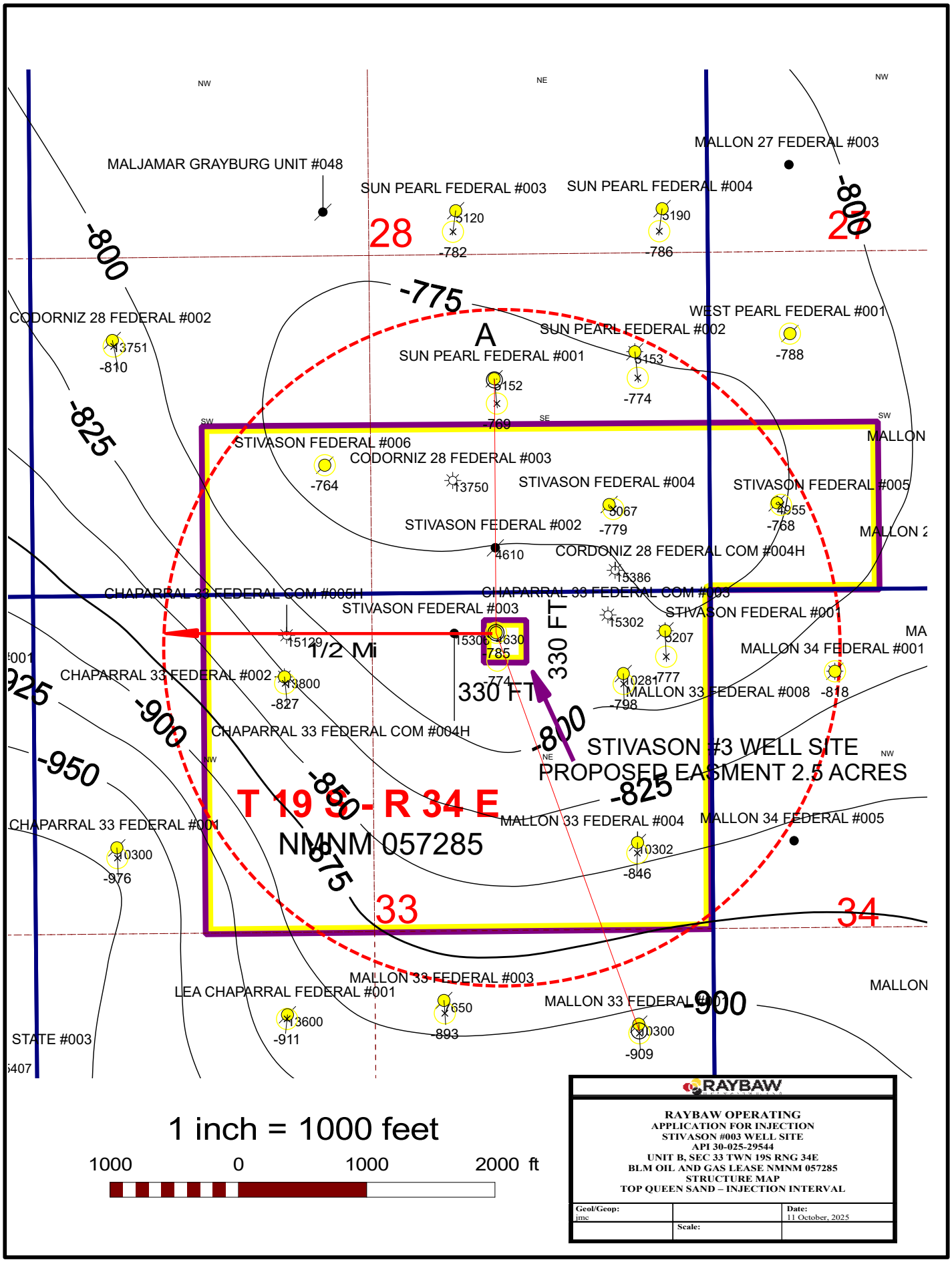
W

RAYBAW OPERATING, LLC
STIVASON FEDERAL 003
TWP: 19 S - Range: 34 E - Sec. 33



TD=4630.00

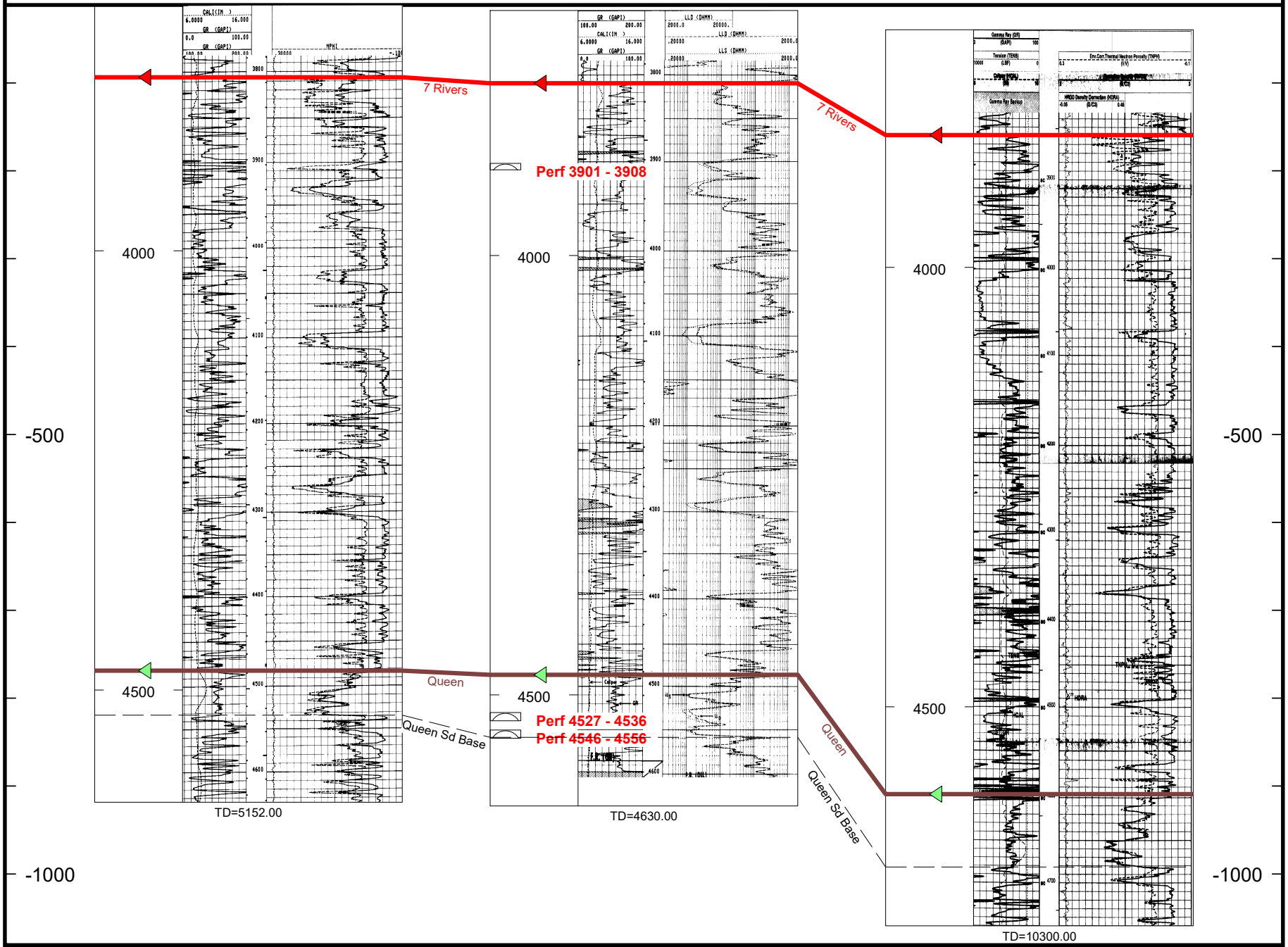
EXHIBIT 5b INJECTION APPLICATION SECTION VIII
STRUCTURE MAP TOP QUEEN INJECTION INTERVAL



Structural Cross Section Stivason Fed 3 AOR : Equally Spaced Logs
Vertical Scale = 1 in per 100 ft

A — A'

3002530409	2003 ft	3002529544	3134 ft	3002533738
CHEVRON SUN PEARL FEDERAL 001 TWP: 19 S - Range: 34 E - Sec. 28		RAYBAW OPERATING, LLC STIVASON FEDERAL 003 TWP: 19 S - Range: 34 E - Sec. 33		COTERRA ENERGY MALLON 33 FEDERAL 001 TWP: 19 S - Range: 34 E - Sec. 33



RAYBAW OPERATING LLC
2626 Cole Avenue, Suite 300
Dallas, Texas 75204
214-600-9185

Subject C-108 Application for Authorization to inject.
Raybaw Operating, LLC
Stivason Federal #3 SWD
Unit Letter "B", Section 33, Township 19 South, Range 34 East
330' FNL, 1,650' FEL,
Lea County, New Mexico

Raybaw Operating, LLC has examined available geological and engineering data and finds no evidence of open faults or any other hydrological connection between the disposal zone and any underground sources of drinking water.

Jack Carter
Consulting Geologist/Landman
Raybaw Operating, LLC

Date 10/15/2025

EXHIBIT "7"

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

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

Beginning with the issue dated
October 23, 2025
and ending with the issue dated
October 23, 2025.

Publisher

Sworn and subscribed to before me this
23rd day of October 2025.

Notary

My commission expires
August 09, 2029
(Seal)

PAULA GUELL-RISING
Notary Public
State of New Mexico
Comm. # 1135156
My Comm. Exp. Aug 9, 2029

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

LEGAL NOTICE
October 23, 2025

Salt Water Disposal Well Application
Lease Name of Application:
Lease: Stivason Federal #3
Location: Unit Letter "B", Section 33, Township 19 South, Range 34 East, Lea Co., NM
Footage Call: 330' FNL, 1,650' FEL
Contact Information for Application:
Raybaw Operating, LLC
2626 Cole Ave, Suite 300, Dallas, Texas 75204
Contact Person: Tom Campbell, 713-540-0619,
Email: tom@oaknrg.com
Intended Purpose of Well:
The Stivason Federal #3 Is a salt water disposal well that was first approved to disposing of produced water In 1991. The #3 is open in the Queen Formation from 4,510' to 4,555'. Raybaw Operating is seeking reinstatement of the Injection permit to continue to utilize the #3 as a salt water disposal well.
The minimum injection rate Is expected to be approximately 400 barrels of water per day. The maximum injection rate is expected to be approximately 1000 barrels of water per day. Minimum Injection pressure will be approximately 700 psi. The maximum injection pressure Is expected to be 902 psi.
Any Interested parties may file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.
#00305530

67118566 00305530

ABBIE PSHIGODA
FLINT OAK ENERGY
21105 EVAST..STE. 220
MONTGOMERY, TX 77356

Exhibit "8"

RAYBAW OPERATING, LLC

October 28, 2025

Chevron USA
6301 Deauville
Midland, TX 79706-2964

You have been identified as a party with oil and gas lease interests within one-half mile of the Stivason Federal #3 SWD, located 330' FNL & 1,650' FEL, Unit letter B of Section 33, Township 19 South, Range 34 East, NMPM, Lea County, New Mexico.

Raybaw Operating, 2626 Cole Avenue, Suite 300, Dallas, Texas, 75204, has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval to reauthorize the Stivason Federal #3 SWD, API #30-025-29544, for salt water disposal. As a concerned party enclosed is a copy of NMOCD Form C-108 Application.

The plan is to take the currently shut-in well to active disposal with resuming injection of produced waters into the Queen Formation. The disposal interval would be through currently open perfs 4,510' – 4,555'. Estimated is a disposal rate of 700 BWPD with a maximum disposal rate of 1,000 BWPD at a calculated disposal pressure 800 psi with a maximum disposal pressure of 902 psi.

All interested parties opposing the aforementioned must file objections with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, within 15 days. Additional information can be obtained by contacting Jack Carter at 281-387-6515.

If you have no objections to the above-mentioned Application, please sign on copy of this letter in the space provided and return to the undersigned by mail or email. My contact information is provided below.

Sincerely,

Jack Carter
Flint Oak Energy/Raybaw Operating, LLC
21105 Eva St., Suite 220
Montgomery, Texas 77356
Email: jack@oaknrg.com

We Have No Objections:

_____

By:

RAYBAW OPERATING, LLC

October 28, 2025

Coterra Energy
6001 Deauville Blvd, Suite 300N
Midland, TX 79706

You have been identified as a party with oil and gas lease interests within one-half mile of the Stivason Federal #3 SWD, located 330' FNL & 1,650' FEL, Unit letter B of Section 33, Township 19 South, Range 34 East, NMPM, Lea County, New Mexico.

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Sincerely,

Jack Carter
Flint Oak Energy/Raybaw Operating, LLC
21105 Eva St., Suite 220
Montgomery, Texas 77356
Email: jack@oaknrg.com

We Have No Objections:

_____

By:

RAYBAW OPERATING, LLC

October 28, 2025

Matador Resources Company
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

You have been identified as a party with oil and gas lease interests within one-half mile of the Stivason Federal #3 SWD, located 330' FNL & 1,650' FEL, Unit letter B of Section 33, Township 19 South, Range 34 East, NMPM, Lea County, New Mexico.

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Sincerely,

Jack Carter
Flint Oak Energy/Raybaw Operating, LLC
21105 Eva St., Suite 220
Montgomery, Texas 77356
Email: jack@oaknrg.com

We Have No Objections:

_____

By:

RAYBAW OPERATING, LLC

October 28, 2025

Read & Stevens, Inc.
300 N. Marienfeld St., Suite 1000
Midland, TX 79701

You have been identified as a party with oil and gas lease interests within one-half mile of the Stivason Federal #3 SWD, located 330' FNL & 1,650' FEL, Unit letter B of Section 33, Township 19 South, Range 34 East, NMPM, Lea County, New Mexico.

Raybaw Operating, 2626 Cole Avenue, Suite 300, Dallas, Texas, 75204, has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval to reauthorize the Stivason Federal #3 SWD, API #30-025-29544, for salt water disposal. As a concerned party enclosed is a copy of NMOCD Form C-108 Application.

The plan is to take the currently shut-in well to active disposal with resuming injection of produced waters into the Queen Formation. The disposal interval would be through currently open perfs 4,510' – 4,555'. Estimated is a disposal rate of 700 BWPD with a maximum disposal rate of 1,000 BWPD at a calculated disposal pressure 800 psi with a maximum disposal pressure of 902 psi.

All interested parties opposing the aforementioned must file objections with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, within 15 days. Additional information can be obtained by contacting Jack Carter at 281-387-6515.

If you have no objections to the above-mentioned Application, please sign on copy of this letter in the space provided and return to the undersigned by mail or email. My contact information is provided below.

Sincerely,

Jack Carter
Flint Oak Energy/Raybaw Operating, LLC
21105 Eva St., Suite 220
Montgomery, Texas 77356
Email: jack@oaknrg.com

We Have No Objections:

_____

By:

RAYBAW OPERATING, LLC

October 28, 2025

Bureau of Land Management
Carlsbad Field Office
620 E. Green Street
Carlsbad, New Mexico 88220

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Email: jack@oaknrg.com

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By:

RAYBAW OPERATING, LLC

October 28, 2025

New Mexico State Land Office
Oil, Gas and Minerals Division
PO Box 1148
Santa Fe, New Mexico 87504-1148

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21105 Eva St., Suite 220
Montgomery, Texas 77356
Email: jack@oaknrg.com

We Have No Objections:

_____

By:

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: RAYBAW Operating, LLC 2626 Cole Avenue Dallas, TX 75204	OGRID: 330220
	Action Number: 522814
	Action Type: [C-108] Fluid Injection Well (C-108)

CONDITIONS

Created By	Condition	Condition Date
stacy.sandoval	None	11/14/2025