

ABOVE THIS LINE FOR DIVISION USE ONLY

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



**COPY**

**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

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR
- [D] Other: Specify \_\_\_\_\_

*229137 COG Operating LLC  
 30-95-33046  
 JR'S Horiz Federal #1  
 ULD 10 265 29E*

- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or  Does Not Apply
- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **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.

<u>BRIAN COLLINS</u>	<u><i>Brian Collins</i></u>	<u>SENIOR OPERATIONS ENGINEER</u>	<u>07/12/12</u>
Print or Type Name	Signature	Title	Date
		<u>bcollins@concho.com</u>	
		e-mail Address	



RECEIVED OCD

2012 JUL 24 P 12:39

July 20, 2012

New Mexico Oil Conservation Division  
Attn: William V. Jones  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Application For Authorization To Inject  
JR's Horz Federal #1 SWD  
Township 26 South, Range 29 East, N.M.P.M.  
Section 10: 380' FNL & 330' FWL  
Eddy County, New Mexico

Dear Mr. Jones:

COG Operating LLC respectfully requests administrative approval for authorization to inject the JR's Horz Federal #1 SWD well as referenced above. Enclosed, for your review, please find one complete copy of the C-108 application. Once we receive the newspaper publication and all certified return receipts, I will send you a copy.

Please do not hesitate to contact me at (575) 748-6940 should you have any questions.

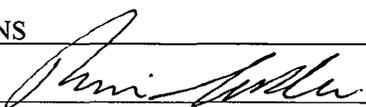
Sincerely,

A handwritten signature in cursive script, appearing to read "Brian Collins".

Brian Collins  
Senior Operations Engineer

BC/sw  
Enclosures

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance \_\_\_\_\_  Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? \_\_\_\_\_  Yes \_\_\_\_\_ No
- II. OPERATOR: \_\_\_\_\_ COG OPERATING LLC \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ 2208 W. Main Street, ARTESIA, NM 88210 \_\_\_\_\_  
CONTACT PARTY: \_\_\_\_\_ BRIAN COLLINS \_\_\_\_\_ PHONE: \_\_\_\_\_ 575-748-6940 \_\_\_\_\_
- 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 \_\_\_\_\_  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: \_\_\_\_\_ BRIAN COLLINS \_\_\_\_\_ TITLE: \_\_\_\_\_ Senior Operations Engineer \_\_\_\_\_  
SIGNATURE: \_\_\_\_\_  \_\_\_\_\_ DATE: \_\_\_\_\_ 7/12/2012 \_\_\_\_\_  
E-MAIL ADDRESS: \_\_\_\_\_ bcollins@concho.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: \_\_\_\_\_

C-108 Application for Authorization to Inject  
JR's HORZ FEDERAL #1 SWD  
380' FNL, 330' FWL  
Unit D, Sec 10 T26S R29E  
Eddy County, NM

COG Operating, LLC, proposes to convert the captioned well to salt water disposal service into the Delaware Sand from 3210' to 4800'.

- V. Map is attached.
- VI. Three wells within the ½ mile radius area of review penetrate the proposed injection zone. Wellbore schematics are attached. The Rocket Federal #1 has a before and after schematic because we are concurrently filing a C-108 application for it too.
- VII.
  1. Proposed average daily injection rate = 5000 BWPD  
Proposed maximum daily injection rate = 10000 BWPD
  2. Closed system
  3. Proposed maximum injection pressure = 642 psi  
(0.2 psi/ft. x 3210' ft.)
  4. Source of injected water will be Delaware Sand and Bone Spring Sand produced water. No compatibility problems are expected. Analyses of Delaware and Bone Spring waters from analogous source wells are attached.
- VIII. The injection zone is the Delaware Sandstone, a fine-grained sandstone from 3210' to 4800'. Any underground water sources will be shallower than 140'.
- IX. The Delaware sand injection interval might be acidized with approximately 20 gal/ft of 7 ½ % HCl acid.
- X. Well logs are filed with the Division. A section of the neutron-density porosity showing the injection interval is attached.
- XI. There are no fresh water wells within a mile of the proposed SWD well. The Pecos River is approximately 7300' west of the proposed SWD. Water analysis from the Pecos River is attached.
- XII. After examining the available geologic and engineering data, no evidence was found of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Proof of Notice is attached.

# **III.**

## **WELL DATA**

INJECTION WELL DATA SHEET

OPERATOR: COG Operating LLC

WELL NAME & NUMBER: JR's Horz Federal 1 SWD (Formerly JR's Horz Fed Com 1)

WELL LOCATION: 380' FNL 330' FWL D 10 26s 29e  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

See Before & After Schematics

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12 1/4" Casing Size: 9 5/8" @ 552'  
Cemented with: 375 sx. or - ft<sup>3</sup>  
Top of Cement: Surface Method Determined: Circ. cont

Intermediate Casing

Hole Size: \_\_\_\_\_ Casing Size: \_\_\_\_\_  
Cemented with: \_\_\_\_\_ sx. or \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: \_\_\_\_\_ Method Determined: \_\_\_\_\_

Production Casing

Hole Size: 8 7/16" x 7 7/8" Casing Size: 5 1/2" @ 6812' MD  
Cemented with: 1700 sx. or - ft<sup>3</sup>  
Top of Cement: Above 1860' Method Determined: Cont. Bond Log  
Total Depth: 6812' MD 5300' TVD (stepped log at 1860')

Injection Interval

3210' feet to 4800'

(Perforated or Open Hole; indicate which)

**INJECTION WELL DATA SHEET**

Tubing Size: 2 7/8" or 3 1/2" Lining Material: IPC / Dvoline 20  
Type of Packer: 5K nickel plated double grip retrievable  
Packer Setting Depth: ± 3160'  
Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

1. Is this a new well drilled for injection?             Yes   X   No  
If no, for what purpose was the well originally drilled? Oil & Gas Horizontal  
Lateral has watered out.
2. Name of the Injection Formation: Delaware Sand
3. Name of Field or Pool (if applicable): Corral Canyon South
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.        Yes  
Horizontal lateral 5495'- 6750' MD (5124' TVD)
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: \_\_\_\_\_  
Overlying: None  
Underlying: Delaware 5062', Bone Spring 7450'



JR's Horz Fed. 1 SWD

Zero = 10' AGL

380' N, 330' W Surface

KB = 3003'

2301' N, 441' W BHL

GL = 2993'

10-26s-29e  
Eddy NM

Size	Wt.	Grade	Conn	Depth
9 5/8"	36	J55	STC	552'
5 1/2"	17	J55	LTC	4181'
	17	J55	FL45	6801'
2 1/8"	6.5	J55	FVE	4
3 1/2"	9.3	J55	SpCI	

12 1/4"

42-381 200 SHEETS 1/2" EASE 5 SQUARE  
42-382 100 SHEETS 1/2" EASE 5 SQUARE  
42-383 200 SHEETS 1/2" EASE 5 SQUARE  
42-384 200 SHEETS 1/2" EASE 5 SQUARE  
42-385 200 RECYCLED WHITE 5 SQUARE  
McWANE U.S.A.



9 5/8" @ 552'  
375 "C" (Case 100 SX)

2 7/8" or 3 1/2" Inj Tbg

TOC Above 1860' CBL

After SWD Conversion

8 3/4"  
to 5411' MD

7 7/8"  
5441' MD  
to  
6812' MD

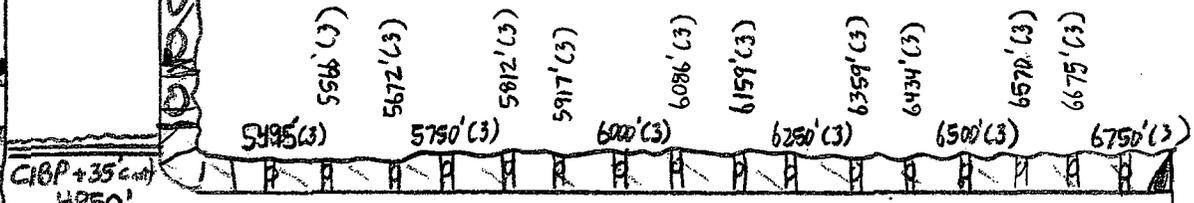
Inj Pkr ± 3160'

Delaware Sand  
3210 - 4800'

DN/IEP 4170'

Poor Cmt Coverage  
4170 - 4710' CBL  
KOP 4550'

Horizontal @ ± 5400' MD



330" C"  
+  
330" C"

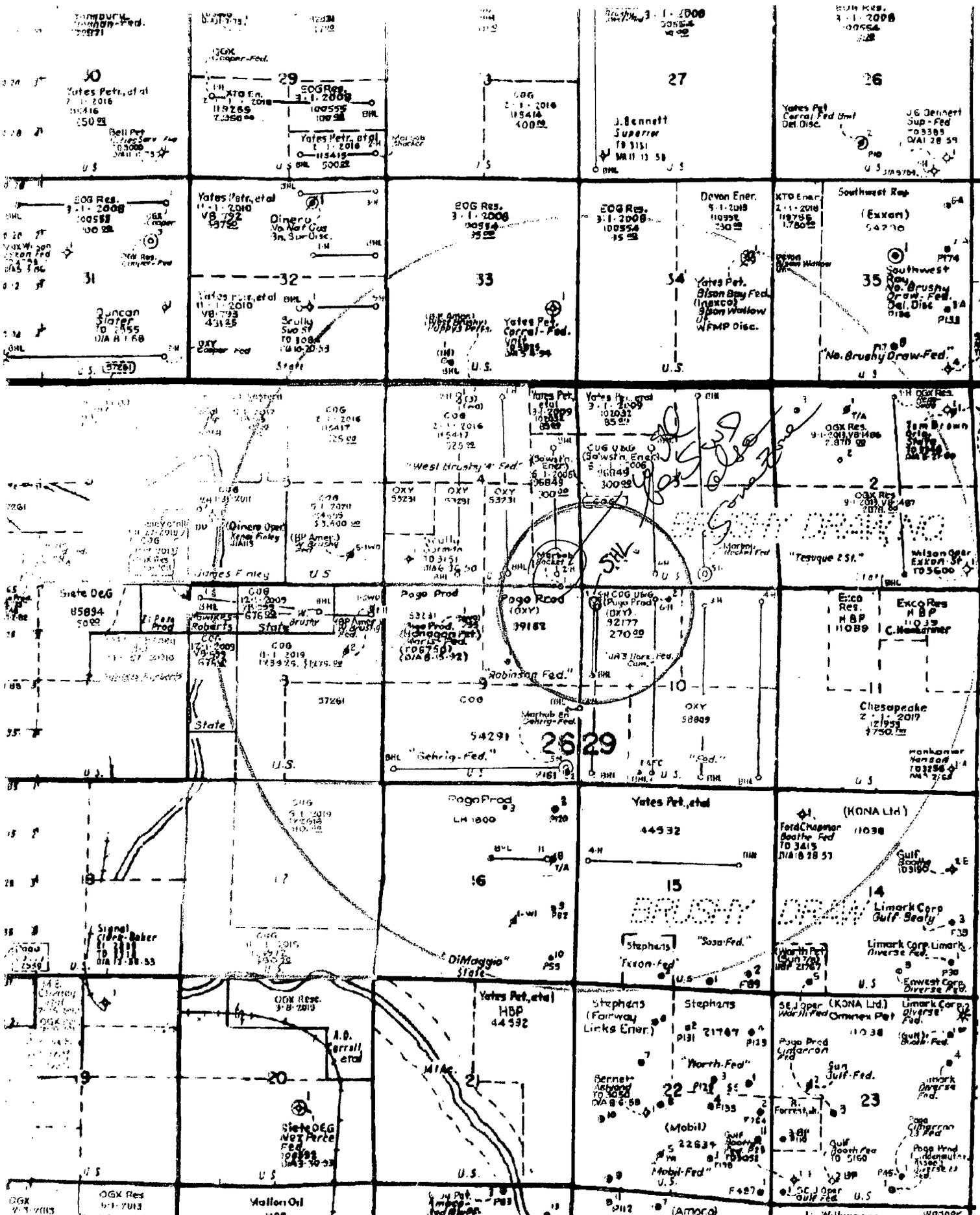
TVD 5124 - 5140' Delaware

5300'

5 1/2" @ 6812' MD  
1st: 400 "C" 2% Zonal  
2nd: 1200 HLC + 100 "C"  
(Didn't circ. either stage)  
KBC Collins /

**V.**

**MAP**



**COG Operating, LLC**  
**JR's Horz Federal #1 SWD**  
**Unit D, Sec 10-T26S-R29E**  
**Eddy County, NM**

# **VI.**

## **Wells Penetrating Proposed Disposal Interval Within Half Mile Area of Review**

# JR's Horiz Fed. ZH

Zero: 12' AGL

330' FWL, 2310' FWL (Surface)  
 2295' FWL, 2185' FWL (BHL)  
 10-26s-29e  
 Eddy NM

HIS: 2998'  
 GL: 2986'

Size	Wt	Gr	Conn.	Depth
9 5/8"	36	J55	STC	721'
5 1/2"	17	J55	LTC	6885'
2 7/8"	6.5	J55	EVE	

2 1/2" FWL

200 SHEETS CYCLES  
 42,389 100% RECYCLED WHITE  
 42,392 100% RECYCLED WHITE  
 42,399 200% RECYCLED WHITE  
 MADE IN U.S.A.

12 1/4"

7 7/8" @ 721'  
 550" C (circ 1228x)

8 3/4" to 5435'

7 7/8" to 6899'

TDC 2998' CBL

CMT below DV @ ?  
 OK

DV 4577'

ECP 4592'

TDP 4600' ±

5425' ±

5650' ±

5875' ±

6125' ±

6375' ±

6600' ±

6825' ±

FC 6940'

Horiz ± 5400'

430 3/8" X

5330'

TVD 5160'

Inflatable  
 Permat  
 BP 6251'

6899'  
 MD

5 1/2" @ 6885'  
 1st: 350 Acid Soluble  
 2nd: 1400 HLC + 100 C

30-015-37904

JR's Horz Fed Com 6H  
Surf: 330' FVL, 1980' FVL, Unit C  
EOL: 332' FSL, 1914' FVL, Unit N  
10-26s-29e  
Eddy NM

17 1/2"

12 1/4"

13 3/8" / 48 / H40 / STC @ 523' 500sx "C" (circ 115sx)

9 7/8" / 36 / J55 / BTCC @ 2919' 1025sx "C" (circ 138sx)

TDC 3080' TS

DV 6771'  
KOP 6850'

T700 - 11800' MD Bone Spring

5 1/2" / 17 / N80 / LTC  
@ 11910' MD

11912' MD

7450' TVD

235sx H 6719-7350'

75sx H 8300-8440'

75sx H 10059-254'

10254'

1st: 475sx Acid Sol (circ 86sx)

2nd: 1100sx HLC + 100sx "C"

3rd: 600sx HLC down  
9 7/8" x 5 1/2"

**Rocket Fed. 1**

116' FSL, 564' FEL (Surf)  
 2277' FSL, 387' FEL (bhl)  
 P-4-2bs-29e  
 Eddy, NM  
 30-015-34795

Zero: 17' AGL  
 KB: 2981'  
 GL: 2964'

Size	wt.	Grade	Conn	Depth
9 5/8"	36	J55	STC	670'
5 1/2"	17	J55	LTC	7064'
2 7/8"	6.5	J55	EVE	

12 1/4"

9 5/8" @ 670'  
 400' C" (circ 120%)

Before SWD Conversion

8 3/4" @ 5315'  
 7 7/8" @ 7064'

DN/ECP 4382'  
 KOP 4573'

5335' 5595' 5857' 6054' 6252' 6509' 6740' 7000' FC 7022'

Horiz 53350'  
 MD

630.5x  
 5500'  
 TVD 5101-5113' Delaware

5 1/2" @ 7064'  
 1st: 350 Acid Sol Cut (65s  
 2nd: 1675 HLC + 100' C" C89:  
 KBCollins/

42-381 50 SHEETS EYE-EASE® 5 SQUARE  
 42-382 100 SHEETS EYE-EASE® 5 SQUARE  
 42-389 200 SHEETS EYE-EASE® 5 SQUARE  
 42-392 100 RECYCLED WHITE 5 SQUARE  
 42-399 200 RECYCLED WHITE 5 SQUARE  
 Made in U.S.A.



42-381 50 SHEETS EYE-EASE® 5 SQUARE  
 42-382 100 SHEETS EYE-EASE® 5 SQUARE  
 42-383 200 SHEETS EYE-EASE® 5 SQUARE  
 42-384 200 RECYCLED WHITE 5 SQUARE  
 42-385 200 RECYCLED WHITE 5 SQUARE  
 Made in U.S.A.

12 1/4"

Horiz #5350

DN/ECR #392'  
KOP #573'

8 3/4" to 5315'  
7 7/8" to 7064'

5500'

630.5X

TVD 5101-5115' Delaware

KBC Gillius /  
 2nd: 1675 HLC + 100' C (898)  
 1st: 350 Aced 501 C + 655s  
 5 1/2" @ 7064'

7064'

7000' FC 7022'  
 6740'  
 6509'  
 6252'  
 6054'  
 5857'  
 5595'  
 5335'

4825'  
CIGP + 35' can

Delaware Sand  
3225' - 4775'

Inj. PKR ± 3175'

After SWD Conversion

2 7/8" or 3 1/2" Inj. Tbg

9 5/8" @ 670'  
400' C (Circ 1209x)

Size	Wt.	Grade	Conn	Depth
5 1/2"	36	J55	STC	670'
9 5/8"	17	J55	LTC	7064'
2 7/8"	6.5	J55	EYE	
3 1/2"	9.3	J55	SPCI	

2nd: 17' AGL  
 KB: 2981'  
 GL: 2964'

Rock + Fed. 1 SWD  
 116' FSL 564' FEL (SURT)  
 227' FSL 387' FEL (LBM)  
 P-4-265-29e  
 Eddy, NM  
 30-015-34795

# VII.

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## **Water Analysis Produced and Receiving Formation Water**

WATER SAMPLES REPRESENTATIVE OF WATER BEING INJECTED INTO AND NATIVE TO THE PROPOSED SWD WELL												
<b>Bone Spr</b>												
Lab Test #	Lease	Location	Salesman	Date Out	Sample Date	Specific Gravity	Ionic Strength	TDS	pH	conductivity	Ca (mg/L)	Mg (mg/L)
2011128836	Jr's Horz Federal Com	6H	William D Polk	9/30/2011	9/21/2011	1.13	3.30	195560.75	7.00		5293.00	1025.00
<b>Delaware</b>												
2012103128	Gehrig	Fed #2	William D Polk	2/15/2012	1/10/2012	1.16	4.00	251245.24	6.47		25915.00	3525.76

↖ Representative of Bone Spring Produced Water ↗

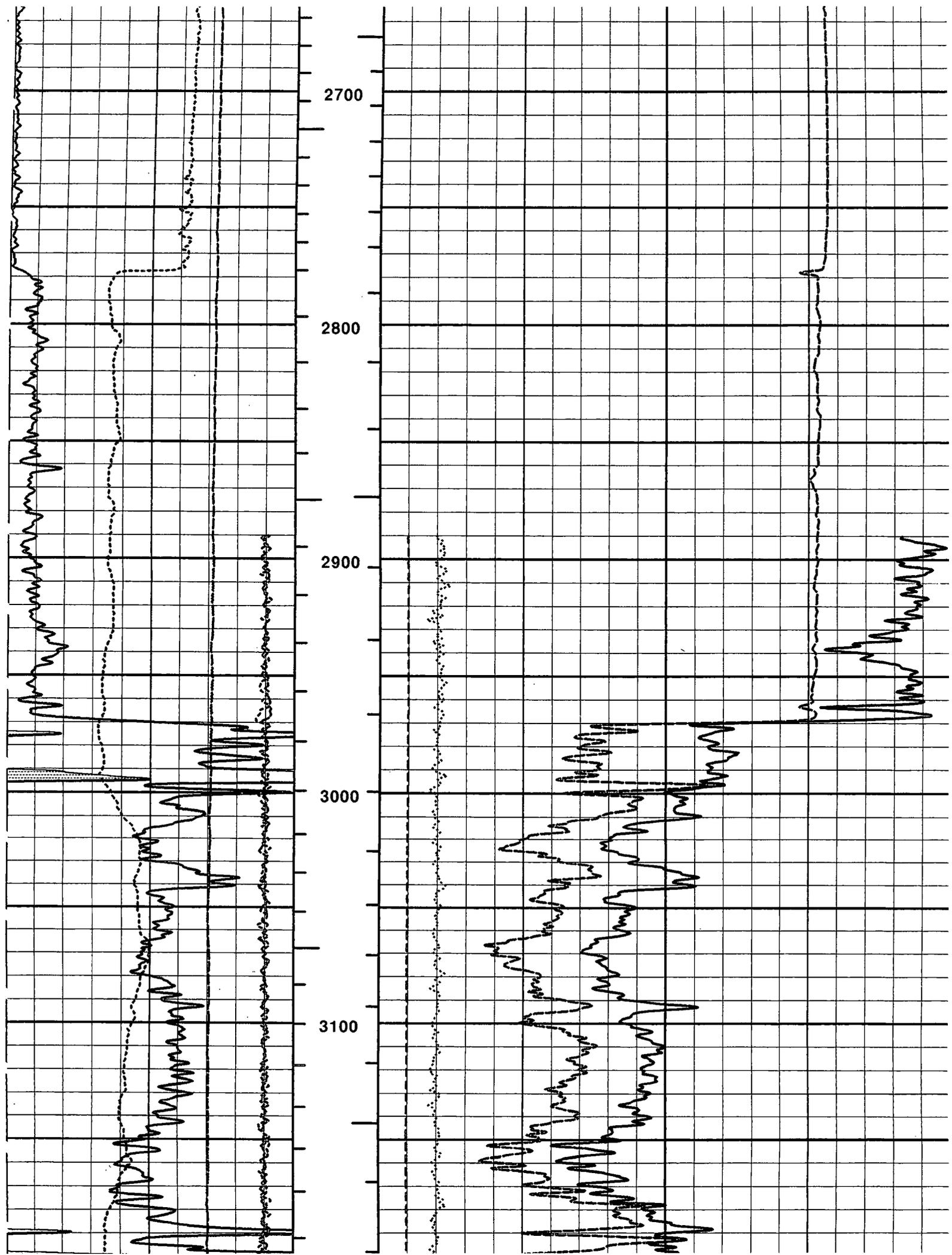
↖ Representative of Delaware Produced and Receiving Formation Water ↗

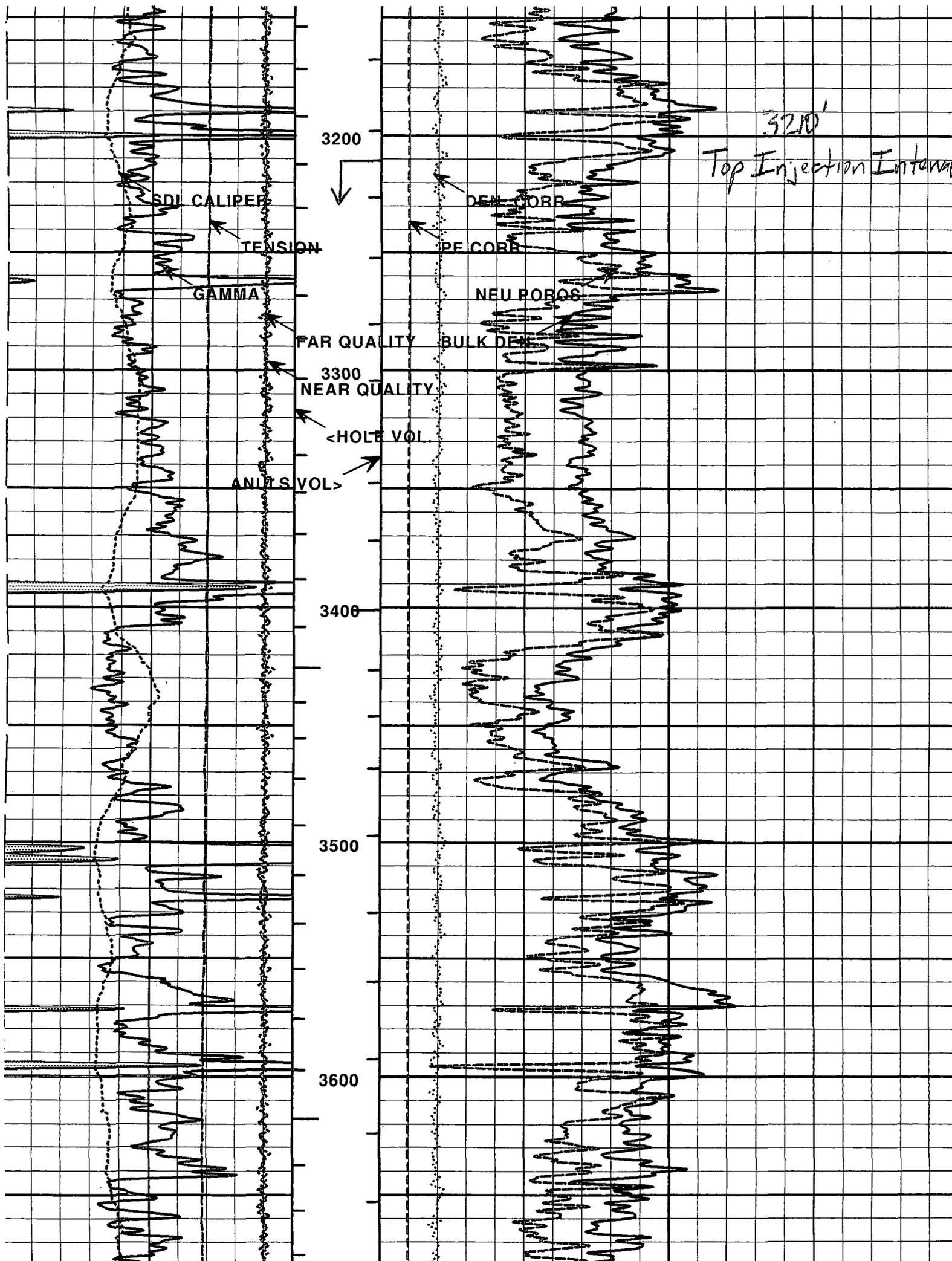
TH (CaCO3)	Na (mg/L)	K (mg/L)	Zn (mg/L)	Fe (mg/L)	Ba (mg/L)	Sr (mg/L)	Mn (mg/L)	Resistivity	HCO3 (mg/L)	CO3 (mg/L)	OH (mg/L)	SO4 (mg/L)	Cl (mg/L)	CO2 (mg/L)	H2S (mg/L)
18091.94	75830.00	1296.00		2.00	2.00	557.00	0.75		1830.00	0.00		325.00	109400.00	570.00	0.00
81017.80	66969.32	1342.77	64.22	35.40	4.51	1492.00	24.27		122.00	0.00		450.00	151300.00	250.00	0.00

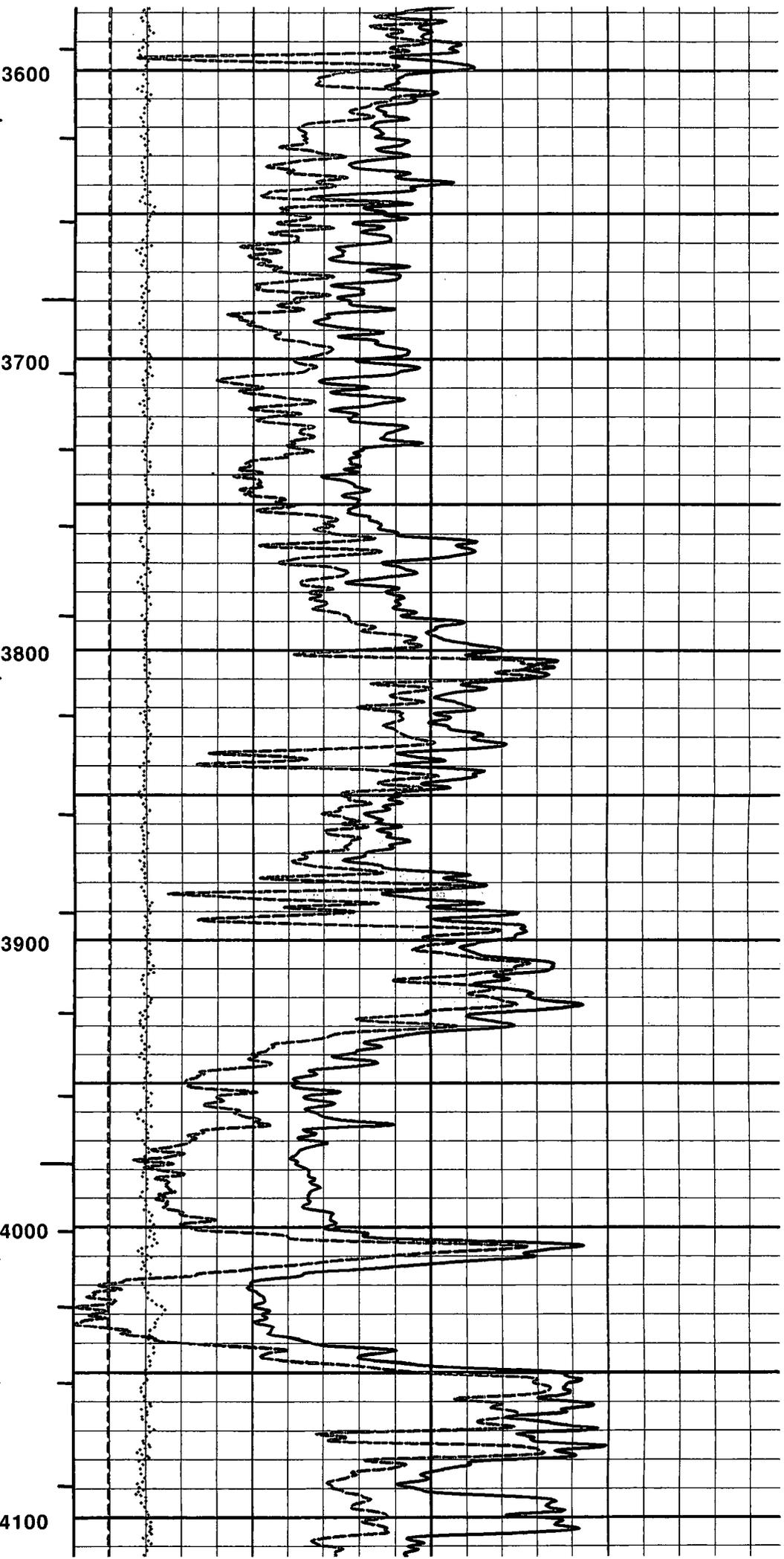
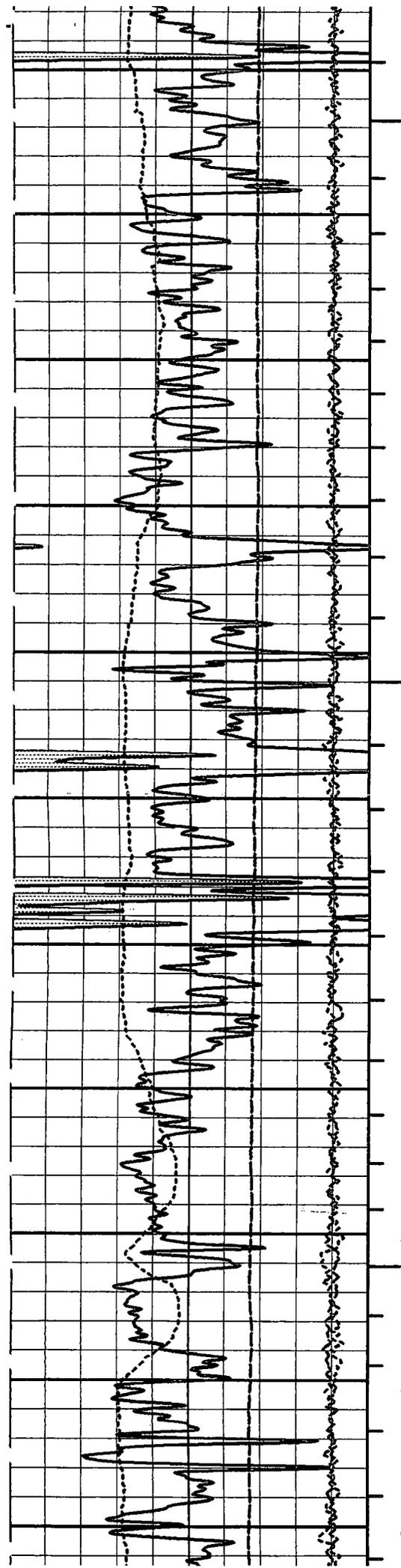
**X.**

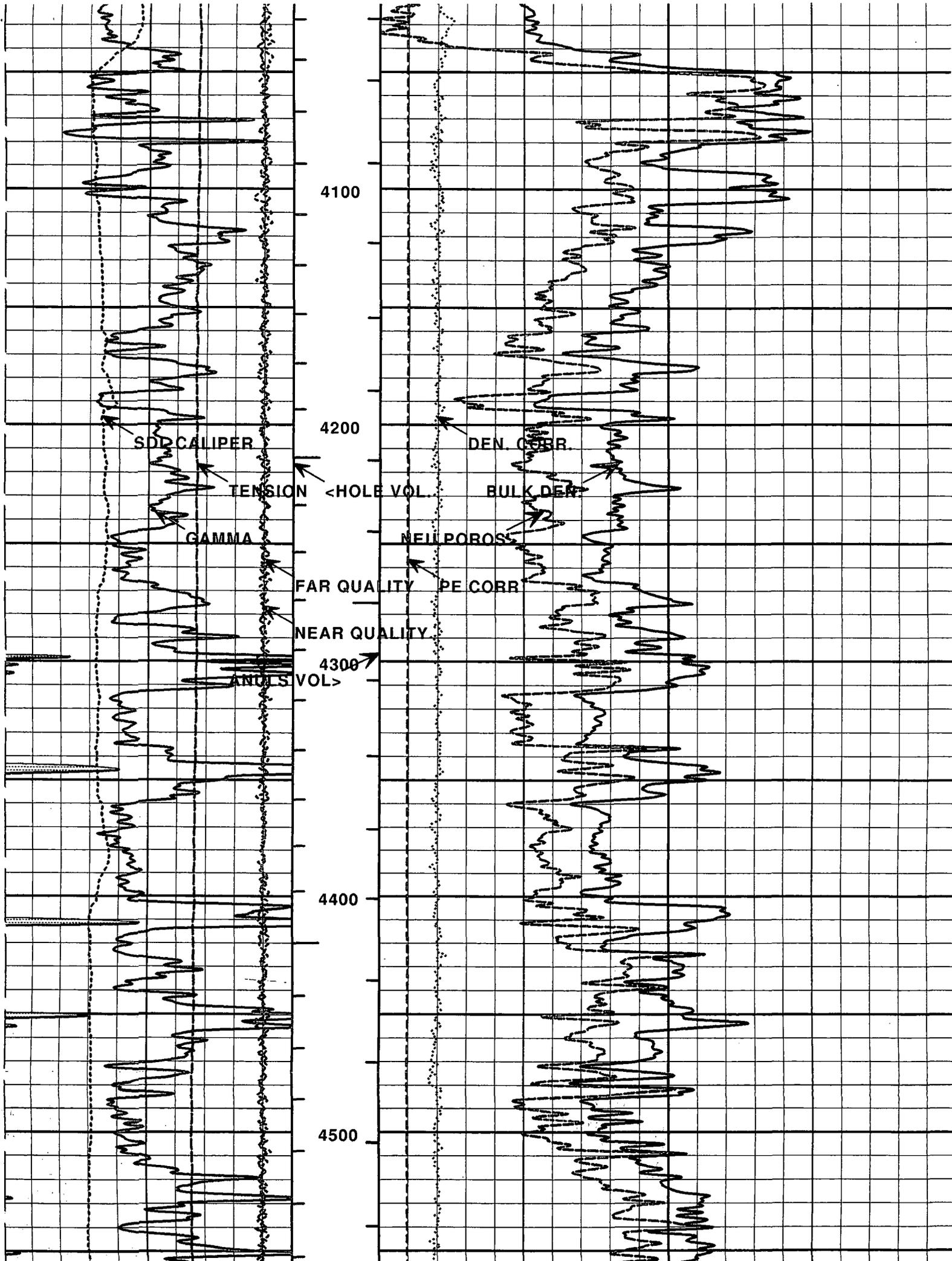
**Log Across Proposed  
Delaware Sand  
Injection Interval**

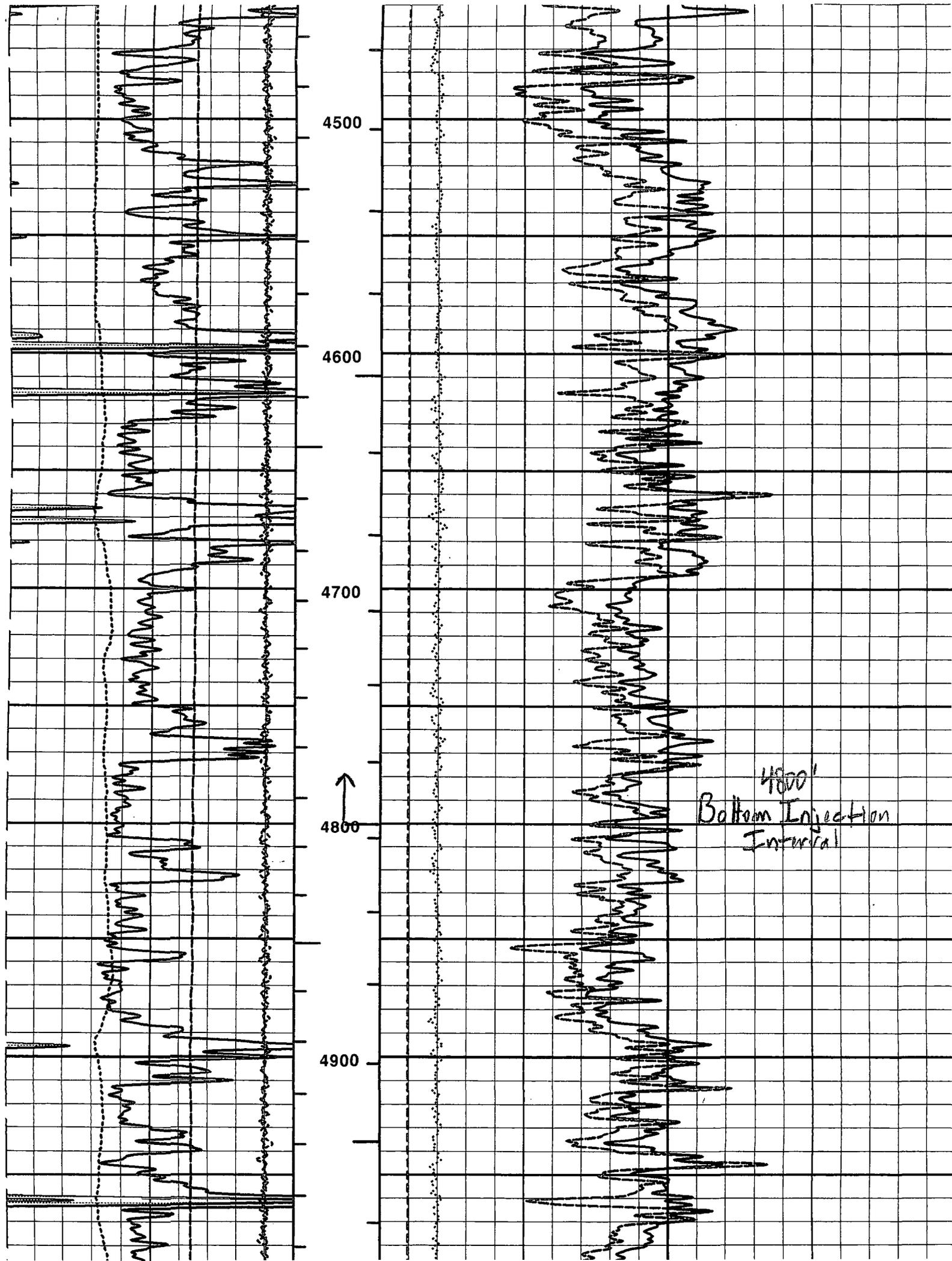












**XI.**

**Fresh Water Sample  
Analyses**



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*New Mexico Office of the State Engineer*  
**Active & Inactive Points of Diversion**  
(with Ownership Information)

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No PODs found.

**PLSS Search:**

**Section(s):** 32-35

**Township:** 25S

**Range:** 29E



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source			X	Y						
									q	q	q								
C 03507	C	STK	3	M. BRAD BENNETT	ED	C 03507 POD1			Shallow	1	3	3	05	26S	29E	593063	3548313	NW SW SW	
C 03508	C	STK	3	M. BRAD BENNETT	ED	C 03508 POD1			Shallow	1	3	3	05	26S	29E	593063	3548361		
SP 03254	COM		6418	RED BLUFF WATER CONTROL DIST.	ED	SP 03254 (Peas River)													

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)  
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

} All outside  
1 mile radius  
AOR

**Record Count:** 3

**PLSS Search:**

**Section(s):** 2-5

**Township:** 26S

**Range:** 29E

**Sorted by:** File Number

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

<b>POD Number</b>	<b>Q64 Q16 Q4 Sec Tws Rng</b>	<b>X</b>	<b>Y</b>
C 03507 POD1	1 3 3 05 26S 29E	593064	3548313

**Driller License:** KEY DRILLING & PUMP SERVICE

**Driller Name:** KEY, CLINTON

**Drill Start Date:** 08/26/2011

**Drill Finish Date:** 08/26/2011

**Plug Date:**

**Log File Date:** 09/12/2011

**PCW Rcv Date:**

**Source:** Shallow

**Pump Type:** SUBMER

**Pipe Discharge Size:**

**Estimated Yield:** 35

**Casing Size:** 6.00

**Depth Well:** 140 feet

**Depth Water:** 78 feet

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	78	79	Shale/Mudstone/Siltstone
	105	106	Sandstone/Gravel/Conglomerate

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	75	112



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

**POD Number**

**Q64 Q16 Q4 Sec Tws Rng**

**X**

**Y**

C 03508 POD1

1 3 3 05 26S 29E

593063 3548361

**Driller License:** KEY DRILLING & PUMP SERVICE

**Driller Name:** KEY, CLINTON

**Drill Start Date:** 08/24/2011

**Drill Finish Date:** 08/24/2011

**Plug Date:**

**Log File Date:** 09/12/2011

**PCW Rcv Date:**

**Source:** Shallow

**Pump Type:** SUBMER

**Pipe Discharge Size:**

**Estimated Yield:** 40

**Casing Size:** 6.00

**Depth Well:** 140 feet

**Depth Water:** 75 feet

**Water Bearing Stratifications:** **Top Bottom Description**

75 76 Shale/Mudstone/Siltstone

**Casing Perforations:** **Top Bottom**

65 105

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# New Mexico Office of the State Engineer

## Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest) (NAD83 UTM in meters)

POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
SP 03254	3	1	05	26S	29E		593172	3549004*

<b>River Name:</b>	<b>Source:</b>	Surface
<b>Ditch Name:</b>		
<b>Start Date:</b>	<b>Finish Date:</b>	

*Pecos River*  
*Approx. 7300' to the West*

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



---

*New Mexico Office of the State Engineer*  
**Active & Inactive Points of Diversion**  
(with Ownership Information)

---

No PODs found.

**PLSS Search:**

**Section(s):** 8-11

**Township:** 26S

**Range:** 29E



---

*New Mexico Office of the State Engineer*  
**Active & Inactive Points of Diversion**  
(with Ownership Information)

---

No PODs found.

**PLSS Search:**

**Section(s):** 14-17

**Township:** 26S

**Range:** 29E

Analytical Laboratory Report for:  
**MARBOB ENERGY CORPORATION**



**Chemical Services**

Account Representative:  
William D Polk

## Production Water Analysis

Listed below please find water analysis report from:

Pecos River

Lab Test No: 2008151012  
Specific Gravity: 1.005

Sample Date: 12/04/2008

TDS: 6402  
pH: 7.19

Cations:	mg/L	as:
Calcium	672	(Ca <sup>++</sup> )
Magnesium	207	(Mg <sup>++</sup> )
Sodium	1340	(Na <sup>+</sup> )
Iron	0.08	(Fe <sup>++</sup> )
Potassium	53.0	(K <sup>+</sup> )
Barium	0.08	(Ba <sup>++</sup> )
Strontium	7.88	(Sr <sup>++</sup> )
Manganese	0.04	(Mn <sup>++</sup> )
Anions:	mg/L	as:
Bicarbonate	222	(HCO <sub>3</sub> <sup>-</sup> )
Sulfate	1400	(SO <sub>4</sub> <sup>-2</sup> )
Chloride	2500	(Cl <sup>-</sup> )
Gases:		
Carbon Dioxide		(CO <sub>2</sub> )
Hydrogen Sulfide		(H <sub>2</sub> S)

### Lab Comments:

Lab measured pH  
Lab measured alkalinity



July 20, 2012

Bureau of Land Management  
620 East Greene Street  
Carlsbad, NM 88220-6292

Re: Application to Inject  
JR's Horz Federal #1 SWD  
Township 26 South, Range 29 East, N.M.P.M.  
Section 10: 380' FNL & 330' FWL  
Eddy County, New Mexico

To Whom It May Concern:

Enclosed for your review is a copy of COG Operating LLC's application to convert the referenced well to salt water disposal. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as an operator or surface owner. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter.

Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

Brian Collins  
Senior Operations Engineer

BC/sw  
Enclosures

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No.  
NMNM92177

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well

Oil Well     Gas Well     Other

8. Well Name and No.  
JR's Horz Federal #1 SWD

2. Name of Operator

COG OPERATING, LLC

9. API Well No.  
30-015-33066

3a. Address

2208 W. Main Street, Artesia, NM 88210

3b. Phone No. (include area code)

575-748-6940

10. Field and Pool or Exploratory Area  
Brushy Draw, Delaware

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 10 T26S R29E  
380' FNL, 330' FWL

11. Country or Parish, State  
Eddy County, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Convert to SWD</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

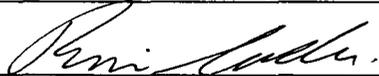
SUBMITTED FORM C-108 - COPY ATTACHED

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Brian Collins

Title Senior Operations Engineer

Signature



Date 7/13/12

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)



RECEIVED OCD

2012 AUG 10 P 12:40

August 9, 2012

New Mexico Oil Conservation Division  
Attn: William V. Jones  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Affidavit of Publication/Certified Return Receipts  
JR's Horz Federal #1 SWD  
Township 26 South, Range 29 East, N.M.P.M.  
Section 10: 380' FNL & 330' FWL  
Eddy County, New Mexico

Dear Mr. Jones:

COG Operating LLC submitted an application for authorization to inject the JR's Horz Federal #1 SWD on July 20, 2012. Enclosed, for your review, please find one copy of the affidavit of publication and one copy of the certified return receipts from each party that was notified.

Please do not hesitate to contact me at (575) 748-6940 should you have any questions.

Sincerely,

Brian Collins  
Senior Operations Engineer

BC/sw  
Enclosures

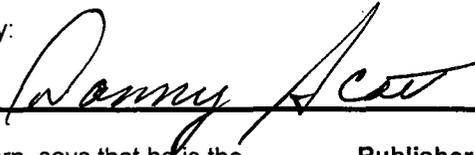
# Affidavit of Publication

NO. 22238

STATE OF NEW MEXICO

County of Eddy:

Danny Scott



being duly sworn, says 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 Notice

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 1 Consecutive weeks/days on the same

day as follows:

First Publication	<u>July 26, 2012</u>
Second Publication	
Third Publication	
Fourth Publication	
Fifth Publication	

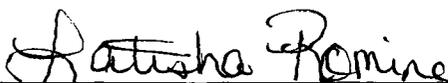
Subscribed and sworn to before me this

26th day of July 2012



OFFICIAL SEAL  
Latisha Romine  
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 5/12/2015



Latisha Romine  
Notary Public, Eddy County, New Mexico

# Copy of Publication:

## LEGAL NOTICE

COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210 has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the JR's Horiz Federal No. 1 SWD is located 380' FNL & 330' FWL Section 10, Township 26 South, Range 29 East, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware and Bone Spring formations. The disposal water will be injected into the Delaware formation at a depth of 3210' to 4800' at a maximum surface pressure of 642 psi and a maximum rate of 10,000 BWPD. The proposed SWD well is located approximately 15 miles southeast of the village of Loving. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Brian Collins at COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210, or call 575-748-6940. Published in the Artesia Daily Press, Artesia, N.M., July 26, 2012. Legal No 22238.



July 20, 2012

OXY USA Inc.  
P.O. Box 4294  
Houston, TX 77210-4294

Re: Application to Inject  
JR's Horz Federal #1 SWD  
Township 26 South, Range 29 East, N.M.P.M.  
Section 10: 380' FNL & 330' FWL  
Eddy County, New Mexico

To Whom It May Concern:

Enclosed for your review is a copy of COG Operating LLC's application to convert the referenced well to salt water disposal. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as an operator or surface owner. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter.

Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brian Collins".

Brian Collins  
Senior Operations Engineer

BC/sw  
Enclosures

7011 1570 0000 7781 2052

U.S. Postal Service™  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To **Bureau of Land Management**  
**620 East Greene Street**  
 Street, Apt. No., or PO Box No. **Carlsbad, NM 88220-6292**  
 City, State, ZIP+4 **JR's Horz Fed #1 SWD/Notification**

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0000 7781 2069

U.S. Postal Service™  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To **OXY USA Inc.**  
**P.O. Box 4294**  
 Street, Apt. No., or PO Box No. **Houston, TX 77210-4294**  
 City, State, ZIP+4 **JR's Horz Fed #1 SWD/Notification**

PS Form 3800, August 2006 See Reverse for Instructions

# JR's Horz Federal #1 SWD

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul> <p>1. Article Addressed to:</p> <p style="text-align: center;">Bureau of Land Management 620 East Greene Street Carlsbad, NM 88220-6292 <b>JR's Horz Fed #1 SWD/Notification</b></p>	<p>A. Signature <i>[Signature]</i> <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>LISA J SCOTT</i> C. Date of Delivery <i>7/24</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
2. Article Number (Transfer from service label)	7011 1570 0000 7781 2052
PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul> <p>1. Article Addressed to:</p> <p style="text-align: center;">OXY USA Inc. P.O. Box 4294 Houston, TX 77210-4294 <b>JR's Horz Fed #1 SWD/Notification</b></p>	<p>A. Signature <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>JUL 2</i> C. Date of Delivery <i>2002</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
2. Article Number (Transfer from service label)	7011 1570 0000 7781 20691
PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540	



July 20, 2012

Artesia Daily Press  
P. O. Box 190  
Artesia, NM 88211-0190

Re: Legal Notice  
Salt Water Disposal Well  
JR's Horz Federal #1 SWD

To Whom It May Concern:

Enclosed is a legal notice regarding New Mexico Oil Conservation Division C-108 Application for Authorization to Inject for a salt water disposal well.

Please run this notice and return the proof of notice to the undersigned at:

**COG Operating LLC, 2208 W. Main St., Artesia, NM 88210**

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

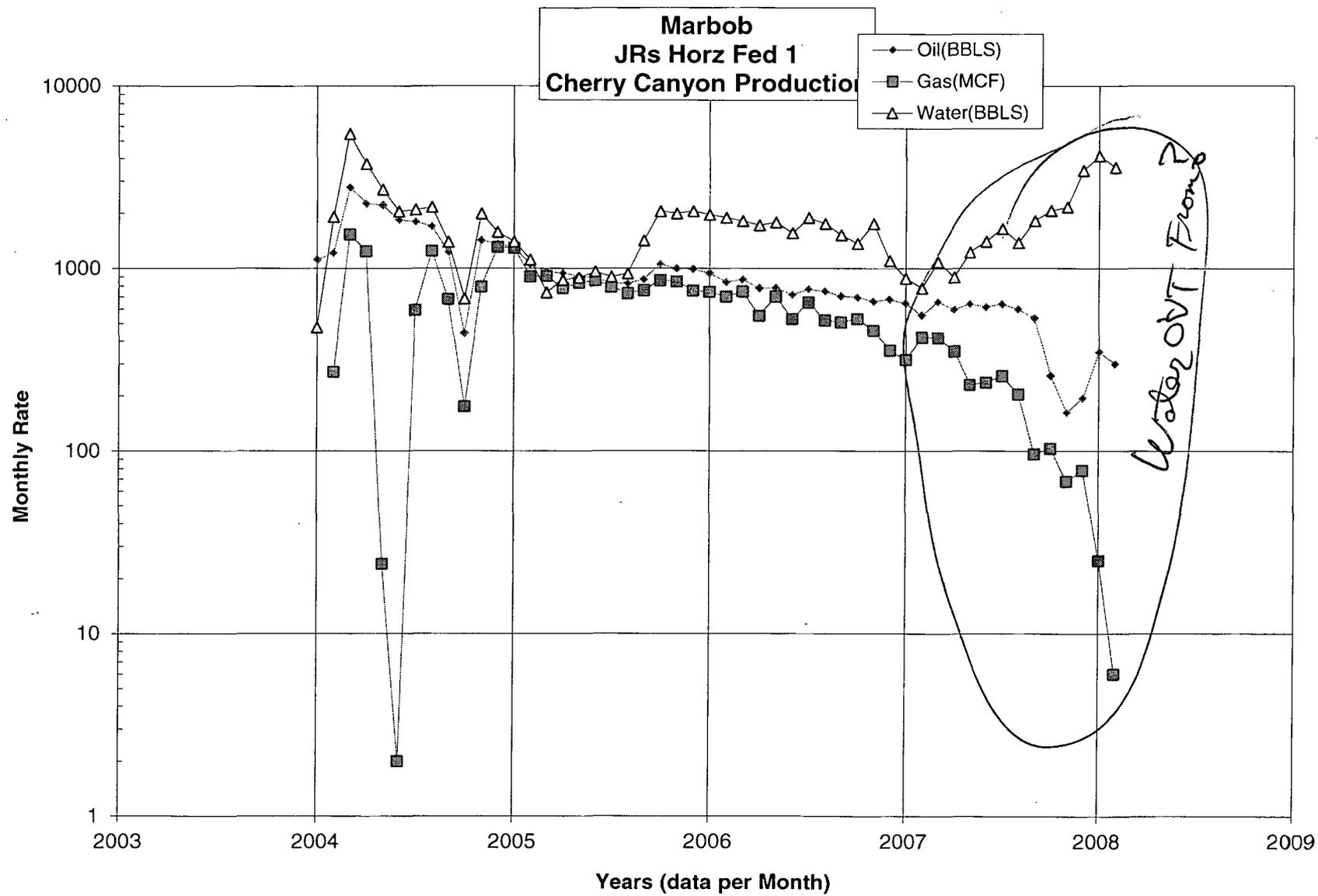
Brian Collins  
Senior Operations Engineer

BC/sw  
Enclosures

**ARTESIA DAILY PRESS**  
**LEGAL NOTICES**

COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210 has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the JR's Horz Federal No. 1 SWD is located 380' FNL & 330' FWL, Section 10, Township 26 South, Range 29 East, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware and Bone Spring formations. The disposal water will be injected into the Delaware formation at a depth of 3210' to 4800' at a maximum surface pressure of 642 psi and a maximum rate of 10,000 BWPD. The proposed SWD well is located approximately 15 miles southeast of the village of Loving. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Brian Collins at COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210, or call 575-748-6940.

Published in the Artesia Daily Press, Artesia, New Mexico  
\_\_\_\_\_, 2012.



## Jones, William V., EMNRD

---

**From:** Jones, William V., EMNRD  
**Sent:** Thursday, August 09, 2012 2:03 PM  
**To:** 'bcollins@concho.com'  
**Cc:** Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD  
**Subject:** Disposal application from Concho: JR's Horz Federal #1SWD 30-015-33066 Delaware from 3210 to 4800 feet  
**Attachments:** EddyNM\_NASH\_53\_SWD.pdf

Hello Brian,

I talked with someone from your office yesterday and passed at least the first item on, but just sending an email for the records,

Would you let me know where the separately owned tracts of land exist within the ½ mile AOR and the owner(s) of each tract? Attaching an example...

Please send a copy of the newspaper notice after you see it in the paper.

The fresh water sands may exist down to 140 feet – what does the Geologists call this interval? Is it alluvium or what.

Hope all is well,

William V. Jones, P.E.

505-476-3448W 505-476-3462F  
Engineering Bureau, Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## Jones, William V., EMNRD

---

**From:** Brian Collins <BCollins@concho.com>  
**Sent:** Friday, August 10, 2012 7:44 AM  
**To:** Jones, William V., EMNRD  
**Cc:** Dean Chumbley; Jan Spradlin; Gary Young; Savannah Wilkinson  
**Subject:** RE: Disposal application from Concho: JR's Horz Federal #1SWD 30-015-33066 Delaware from 3210 to 4800 feet

Will:

We are working on plotting leasehold operator tracts on a lease map and will get it to you ASAP.

The geologists called the formation from surface to the Rustler "Permian" on the drilling permits. The nearest fresh water well records I found, which were outside the 1 mile AOR, showed the well TD's to be 140' which is the depth I used for potential fresh water. One well (C03507) had casing perforations 75-112' with water bearing strata 78-79' described as shale/mudstone/siltstone and 105-106' described as sandstone/gravel/conglomerate. The other well (C03508) had casing perforations 65-105' with water bearing strata 75-76' described as shale/mudstone/siltstone.

A copy of the return receipts and public notice have been mailed to you and should arrive soon. All these comments are applicable to the Rocket Fed C108 too as it is very close to the JR's Horz lease. Hope I answered your questions. Take care.

Brian Collins

---

**From:** Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]  
**Sent:** Thursday, August 09, 2012 3:02 PM  
**To:** Brian Collins  
**Cc:** Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD  
**Subject:** Disposal application from Concho: JR's Horz Federal #1SWD 30-015-33066 Delaware from 3210 to 4800 feet

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Hope all is well,

William V. Jones, P.E.  
505-476-3448W 505-476-3462F  
Engineering Bureau, Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505



RECEIVED OGD

2012 SEP -4 P 1:03

August 30, 2012

New Mexico Oil Conservation Division  
Attn: William V. Jones  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Lease Map  
JR's Horz Federal #1 SWD  
Township 26 South, Range 29 East, N.M.P.M.  
Section 10: 380' FNL & 330' FWL  
Eddy County, New Mexico

Dear Mr. Jones:

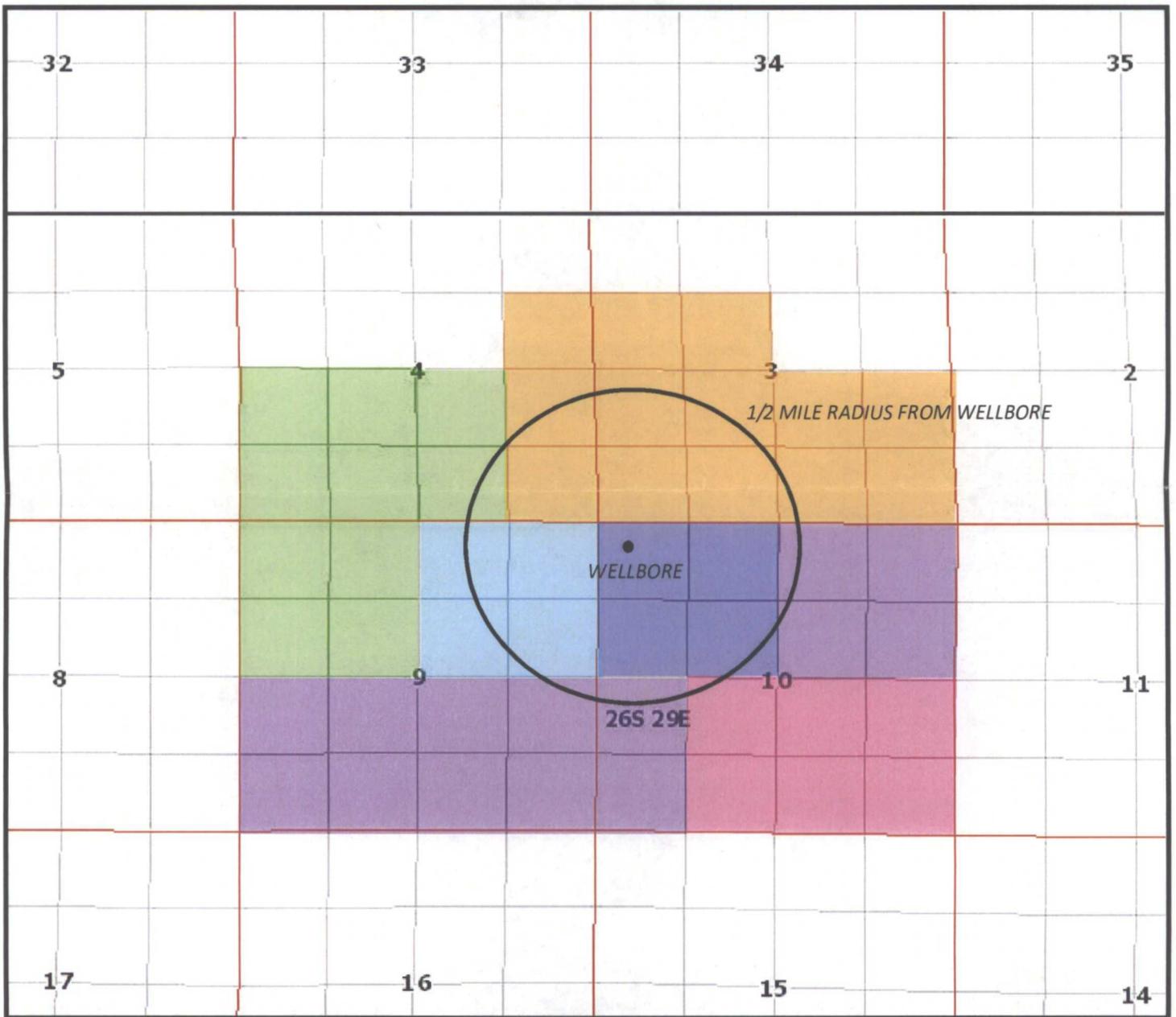
COG Operating LLC recently submitted to you a C-108 application for the JR's Horz Federal #1 SWD well referenced above. Per your request, please find the enclosed lease map identifying all of the separately owned tracts of land along with the owners of each tract.

Please do not hesitate to contact me at (575) 748-6940 should you have any questions.

Sincerely,

Brian Collins  
Senior Operations Engineer

BC/sw  
Enclosure



- Oxy USA Inc
- COG Operating LLC
- Oxy USA Inc
- Oxy USA Inc
- Oxy USA Inc
- COG Operating LLC

JR's Horz Federal 1 SWD  
 380' FNL & 330' FWL  
 Sec 10; T26s - R29e  
 Eddy County, New Mexico

**Injection Permit Checklist** (11/15/2010)

WFX \_\_\_\_\_ PMX \_\_\_\_\_ SWD 1395 Permit Date 9/6/12 UIC Qtr (JA/S)  
~~(A/S/O)~~

# Wells 1 Well Name(s): JRS HORZ FEDERAL #1 SWD (Formerly JRS HORZ Fed Com #1)

API Num: 30-0 15-33066 Spud Date: 2003 New/Old: N (UIC primacy March 7, 1982)

Footages SHL 380 FNL / 330 FUL Unit D Sec 10 Tsp 26S Rge 29E County EDDY

General Location: JUST 2.5mi N of Red Bluff

Operator: COG OPERATING LLC Contact BRYAN COLLINS

OGRID: 229137 RULE 5.9 Compliance (Wells) 0/3105 (Finan Assur) O.K. IS 5.9 OK? OK

Well File Reviewed \_\_\_\_\_ Current Status: depleted Lower Delaware HORIZ well

Planned Work to Well: PLUG BACK, Perf, inject

Diagrams: Before Conversion  After Conversion  Elogs in Imaging File:

Well Details:	Sizes		Setting Depths	Stage Tool	Cement Sx or Cf	Determination Method
	Hole.....	Pipe				
New ___ Existing <input checked="" type="checkbox"/> Surface	<u>12 7/4</u>	<u>9 5/8</u>	<u>552'</u>		<u>375 SX</u>	<u>CIRC</u>
New ___ Existing ___ Interm						
New ___ Existing <input checked="" type="checkbox"/> LongSt	<u>8 3/4</u>	<u>7 1/8 - 5 1/2</u>	<u>6812 MD</u> <u>(5300 TVD)</u>	<u>4,170'</u>	<u>1700 SX</u> <u>400 + 1200</u> <u>(POOR CMT)</u>	<u>&lt; 1860' CBL</u> <u>4,170' to 4,710'</u>
New ___ Existing ___ Liner						
New ___ Existing ___ OpenHole						

Depths/Formations:	Depths, Ft.	Formation	Tops?
Formation(s) Above			
Injection TOP:	<u>3210' MD</u>	<u>Del</u>	Max PSI <u>692</u> OpenHole Perfs <input checked="" type="checkbox"/>
Injection BOTTOM:	<u>4800' MD</u>	<u>Del</u>	tubing Size <u>2 7/8</u> Packer Depth <u>3160'</u>
Formation(s) Below			

SOUTH CORRAL CANYON  
Pool area

~~Capitan Reef? (Porash? Noticed?) (WIPP? Noticed?) Salado Top/Bot \_\_\_\_\_ Giff House? \_\_\_\_\_~~

Fresh Water: Depths: < 140' Formation Del Wells? NO Analysis? Y Affirmative Statement

Disposal Fluid Analysis?  Sources: Del / B.S.

Disposal Interval: Analysis?  Production Potential/Testing: only in Del 5000' ± BSC @ 7450'

Notice: Newspaper Date 7/20/12 Surface Owner BLM Mineral Owner(s) \_\_\_\_\_

RULE 26.7(A). Affected Persons: OK

AOR: Maps?  Well List?  Producing in Interval? NO Wellbore Diagrams?

.....Active Wells 3 Repairs? 0 Which Wells? \_\_\_\_\_

.....P&A Wells 0 Repairs? 0 Which Wells? \_\_\_\_\_

Issues: RUN T.T.L. within 1 year Request Sent \_\_\_\_\_ Reply: \_\_\_\_\_