

RECEIVED: <i>10/05/2018</i>	REVIEWER: <i>MJA</i>	TYPE: <i>SWD</i>	APP NO: <i>DMA18309 54824</i>
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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: Percussion Petroleum, LLC	OGRID Number: 371755
Well Name: Ross Ranch 22 No.1	API: 30-015-27457
Pool: Proposed: SWD; Cisco-Canyon	Pool Code: 96186

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

SWD 1843
 NOV 05 2018 AM 11:30

- 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

FOR OCD ONLY

Notice Complete

Application Content Complete

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.

Ben Stone
 Print or Type Name

Ben Stone
 Signature

11/02/2018
 Date

903-488-9850
 Phone Number

ben@sosconsulting.us
 e-mail Address

November 2, 2018

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

Attn: Ms. Heather Riley, Director

Re: Application of Percussion Petroleum, LLC to permit for salt water disposal the Ross Ranch 22 Well No.1, located in Section 22, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico.

Dear Ms. Riley,

Please find the enclosed form C-108 Application for Authority to Inject, supporting the above-referenced request for salt water disposal. Percussion selected this well for private disposal of produced water coming from their operations in the area.

Percussion Petroleum seeks to optimize efficiency, both economically and operationally, of its operations in southeast New Mexico. Approval of this application is consistent with that goal as well as the NMOCD's mission of preventing waste and protection of correlative rights.

Published legal notice ran October 28, 2018 in the Artesia Daily Press and all offset operators and other interested parties have been notified individually. The legal notice affidavit is included herein. This application also includes a wellbore schematic, area of review maps, affected party plat and other required information for a complete Form C-108. The well is located on private land and minerals. Within the one-half mile radius, all land and mineral are private.

I respectfully request that the approval of this salt water disposal well proceed swiftly and if you or your staff requires additional information or has any questions, please do not hesitate to call or email me.

Best regards,



Ben Stone, Partner
 SOS Consulting, LLC
 Agent for Percussion Petroleum, LLC

Cc: Application attachment and file

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: **Salt Water Disposal** and the application **QUALIFIES** for administrative approval.
- II. OPERATOR: **Percussion Petroleum Operating, LLC**
ADDRESS: **919 Milam, Ste.2475, Houston, TX 77002**
- CONTACT PARTY: **Agent: SOS Consulting, LLC – Ben Stone (903) 488-9850**
- III. WELL DATA: **All well data and applicable wellbore diagrams are ATTACHED.**
- IV. **This is not an expansion of an existing project.**
- V. **A map is attached** 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. A tabulation is attached of data on all wells of public record within the area of review which penetrate the proposed injection zone. **There are 9 Wells in the subject AOR which penetrate the target interval, 0 P&A.** The data includes a description of each well's type, construction, date drilled, location, depth, and a schematic of any P&A'd well illustrating all plugging detail.
- VII. **The following data is ATTACHED** 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. **Appropriate geologic data on the CISCO and CANYON formations is ATTACHED** 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. **Stimulation program – a conventional acid job may be performed to clean and open the formation.**
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). **Existing well logs are on file with OCD.**
- *XI. **There are 2 domestic water wells within one mile of the proposed salt water disposal well. Analysis will be forwarded.**
- XII. **An affirmative statement is ATTACHED that available geologic and engineering data has been examined and 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" section on the next page of this form has been completed and ATTACHED. There are 2 offset lessees, mineral owners or operators within ½ mile; Well location and minerals are PRIVATE and NO fed or state leases offsetting.**
- 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: **Ben Stone** TITLE: **SOS Consulting, LLC agent for Percussion Petroleum Operating, LLC**

SIGNATURE:  DATE: **11/02/2018**

E-MAIL ADDRESS: **ben@sosconsulting.us**

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

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

FORM C-108 – APPLICATION FOR AUTHORIZATION TO INJECT (cont.)

III. WELL DATA – *The following information and data is included (See ATTACHED Wellbore Schematic):*

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 *pursuant to the following criteria is ATTACHED.*

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.

C-108 - Items III, IV, V

Item III - Subject Well Data

Wellbore Diagram - CURRENT
Wellbore Diagram – PROPOSED

The well is the last remaining Upper Penn completion in the area
(all other producing wells have been recompleted in the Glorieta/ Yeso).
This well has not produced since November 2017.

Item IV – Tabulation of AOR Wells

Tabulation includes all construction data for all wells within a one-half mile radius.
9 wells penetrate the proposed interval; 0 P&A.

Item V – Area of Review Maps

1. Two Mile AOR Map with One-Mile Fresh Water Well Radius
2. One-Half Mile AOR Map

All Above Exhibits follow this page.

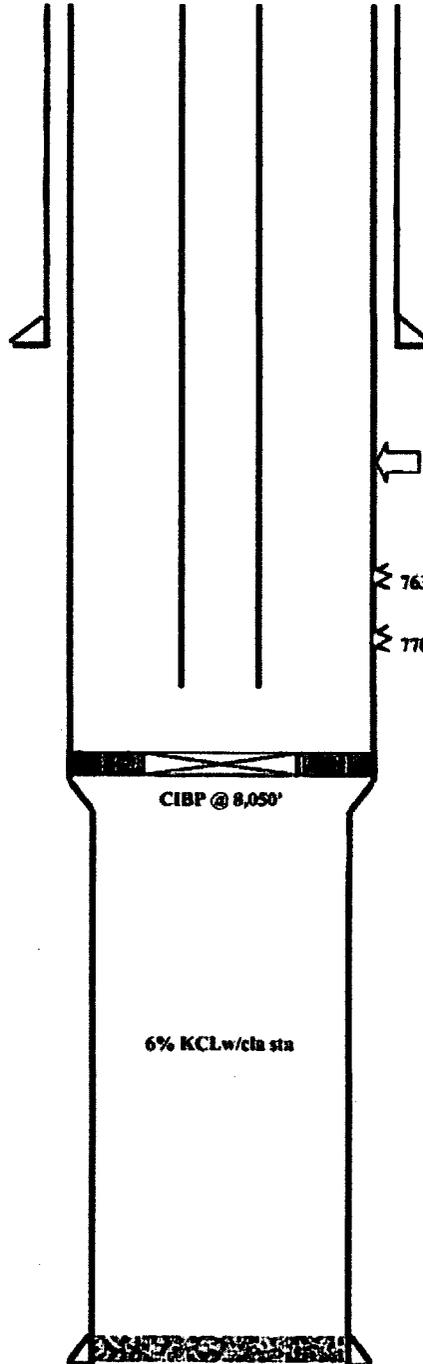
CURRENT WELLBORE DIAGRAM

Note: The Ross Ranch 22 No.1 is the last remaining completion in the Dagger Draw; Upper Penn, North pool. All area wells have been plugged back and recompleted in the Glorieta/ Yate interval.

This well has not produced since November 2017.

LEASE: <u>Ross Ranch 22 #1</u>	WELL: <u>#1</u>	FIELD: <u>Dagger Draw Upper Penn</u>	API: <u>30-015-27457</u>
LOC: <u>980' PSL & 660' FWL</u>	SEC: <u>22</u>	BLK: _____	Reservoir: <u>Upper Penn</u>
SVY: <u>Sec 22 T19S R25E</u>	GL: <u>3465'</u>	CTY/ST: <u>Eddy / NM</u>	SPUD: <u>8/8/1996</u>
CURRENT STATUS: _____	KB: <u>2478'</u>	DF: <u>3477'</u>	TD DATE: <u>9/16/1996</u>
			COMP. DATE: <u>10/3/1996</u>

FRESH WATER
DEPTH:



HOLE SIZE: 14.75"
 SURF CSG & SIZE: 9-5/8" 36#
 SET @: 1110'
 SXS CMT: 1300 sx
 CIRC: yes : 286 sx
 TOC AT:
 TOC BY:

COMMENTS:

*****GEOLOGY*****
 TOPS OF ALL ZONES
 PRODUCTIVE OF HYDRO-
 CARBONS:

TBG:
 JTS:
 SN:
 TAC:
 ROD SIZE: string

PKR:
 TYPE:

OH ID:
 COTD:
 PBDT:
 TD:

HOLE SIZE: 8-3/4"
 INT. CSG & SIZE: 7" 26 & 29# N90, L-80, & K-55
 SET @: 8060'
 SXS CMT: 1950 sx
 CIRC:
 TOC AT:
 TOC BY:

CURRENT PERFS:

SQUEEZE JOBS:

Swedged Down To:
 PROD. CSG & SIZE: 5.5" 17# N80
 SET @: 8060 to 9444'
 SXS CMT stage 1: 900 sx bump plug & circ 112 sx to pit
 SXS CMT stage 2: 950 sx closed DV & circ 146 sx to pit
 CIRC: YES
 TOC AT:
 TOC BY:

OPEN HOLE:

LINER:

BY: BHH
 5/30/2006

WELL SCHEMATIC - PROPOSED
Ross Ranch 22 SWD Well No.1

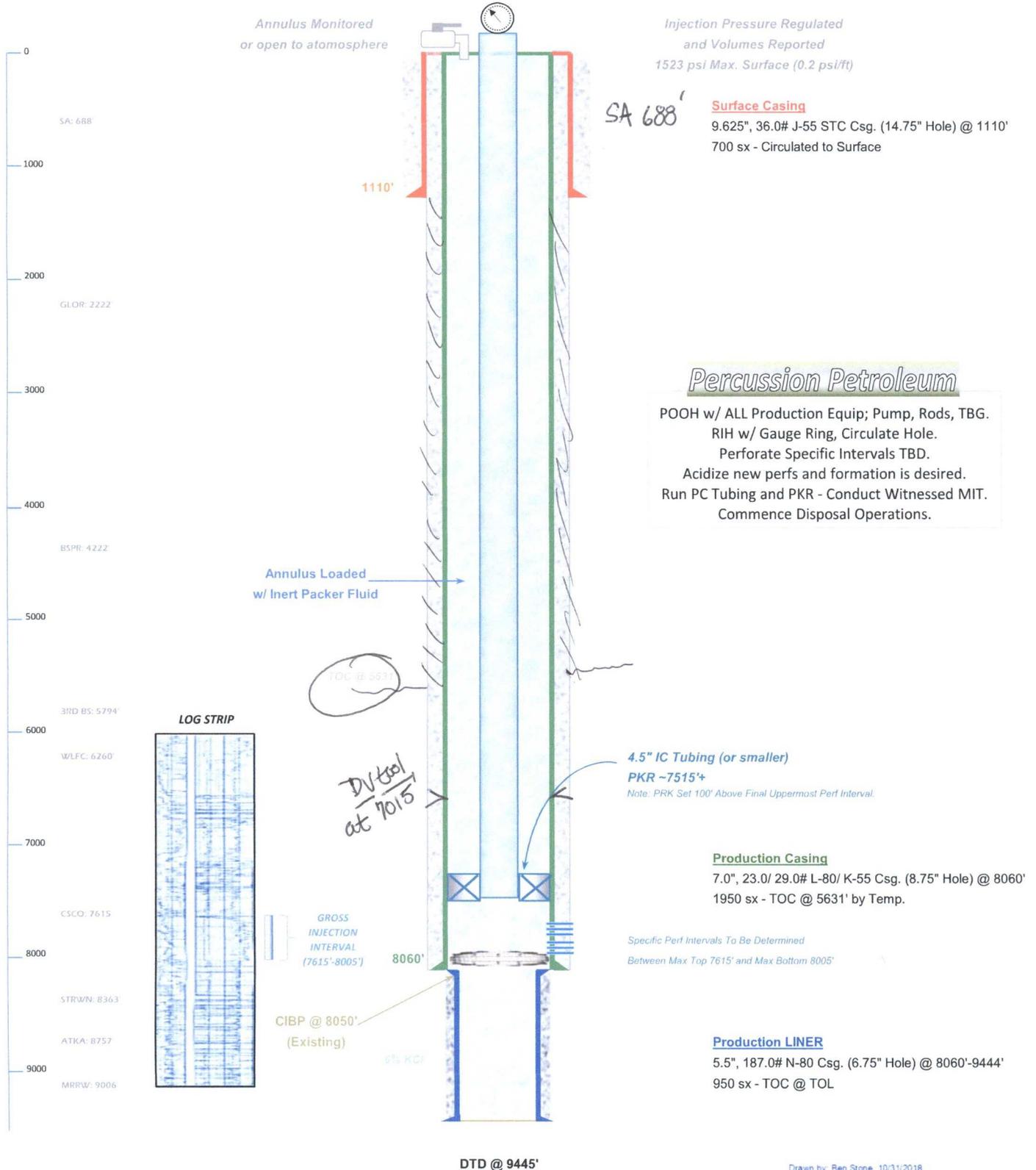
SWD; Cisco-Canyon (96186)

API 30-015-27457

1980' FNL & 660' FWL, SEC. 22-T19S-R25E
 EDDY COUNTY, NEW MEXICO

Spud Date: 8/08/1996

Config SWD Dt (Est): ~12/15/



Annulus Monitored
 or open to atmosphere

Injection Pressure Regulated
 and Volumes Reported
 1523 psi Max. Surface (0.2 psi/ft)

SA 688'

Surface Casing

9.625", 36.0# J-55 STC Csg. (14.75" Hole) @ 1110'
 700 sx - Circulated to Surface

Percussion Petroleum

POOH w/ ALL Production Equip; Pump, Rods, TBG.
 RIH w/ Gauge Ring, Circulate Hole.
 Perforate Specific Intervals TBD.
 Acidize new perms and formation is desired.
 Run PC Tubing and PKR - Conduct Witnessed MIT.
 Commence Disposal Operations.

Annulus Loaded
 w/ Inert Packer Fluid

DVT tool
 at 7015'

4.5" IC Tubing (or smaller)

PKR ~7515'+

Note: PKR Set 100' Above Final Uppermost Perf Interval.

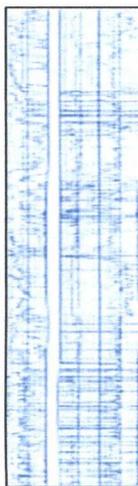
Production Casing

7.0", 23.0/ 29.0# L-80/ K-55 Csg. (8.75" Hole) @ 8060'
 1950 sx - TOC @ 5631' by Temp.

Specific Perf Intervals To Be Determined

Between Max Top 7615' and Max Bottom 8005'

LOG STRIP



GROSS
 INJECTION
 INTERVAL
 (7615'-8005')

CIBP @ 8050'
 (Existing)

Production LINER

5.5", 187.0# N-80 Csg. (6.75" Hole) @ 8060'-9444'
 950 sx - TOC @ TOL

DTD @ 9445'

Drawn by: Ben Stone 10/31/2018



Form C-108 Item VI - Tabulation of AOR Wells

Top of Proposed CISCO Interval 7615'

9 Wells Penetrate Proposed Interval.

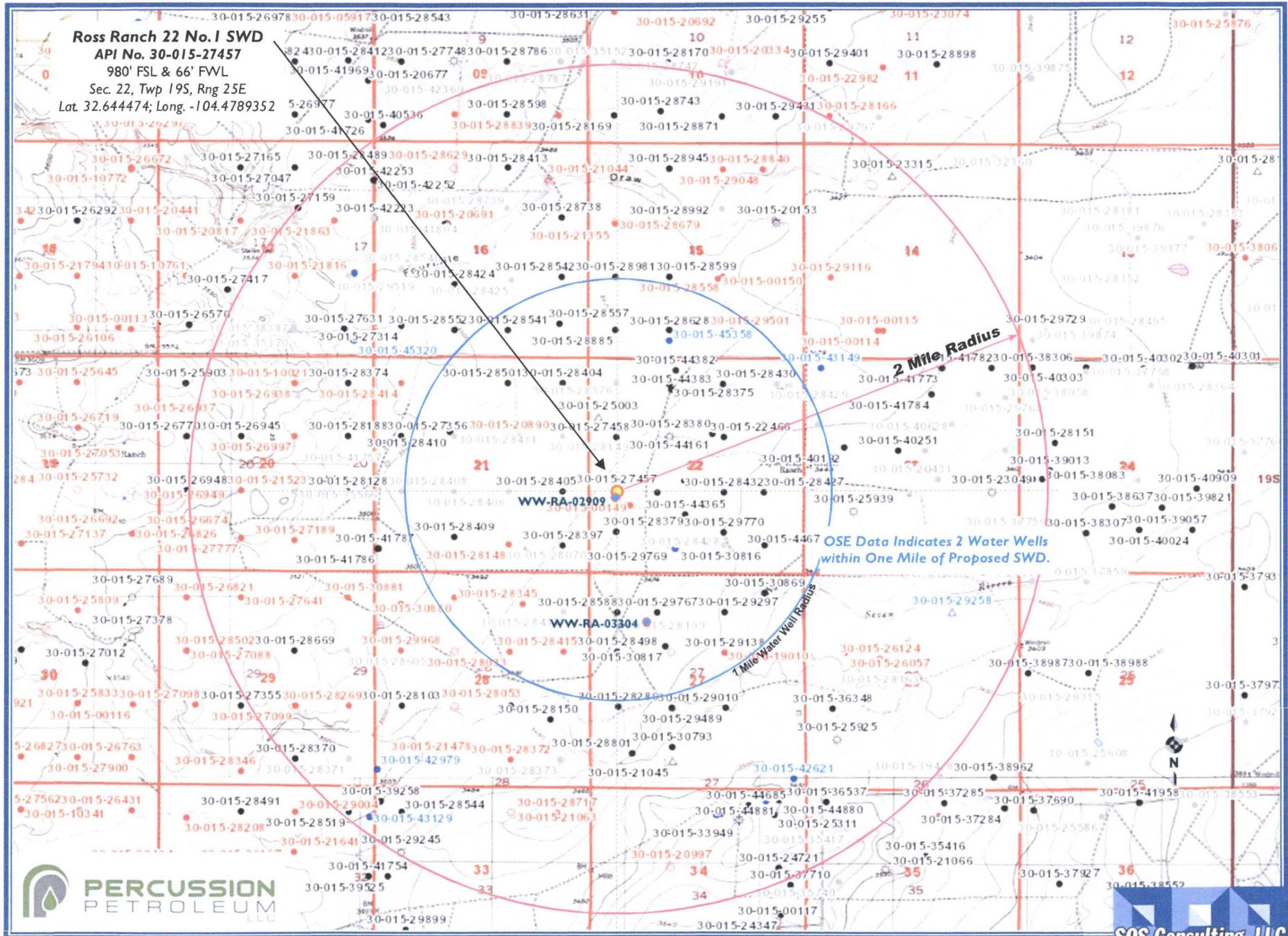
API	Current Operator	Well Name	Well No.	Type	Minerals	Status	ULSTR	Measured Depth	Plugged On
<i>Subject Well</i>									
30-015-27457	[371755] PERCUSSION PETROLEUM OPERATING, LLC	ROSS RANCH 22	#001	Gas	Private	Active	L-22-19S-25E	9444'	
<i>See attached CURRENT and PROPOSED Wellbore Diagrams.</i>									
<i>Section 22 Wells</i>									
30-015-27458	[371755] PERCUSSION PETROLEUM OPERATING, LLC	ROSS RANCH 22	#002	Oil	Private	Active	E-22-19S-25E	8100'	
<i>GLOR/YESO Perfs: 2192'-2200' - HZTL TVD 2400'; Lower Hole: 7.0" (8.75" hole) @ 8100' w/ 1330 sx tie back to shoe @ 1104'. PLUGBACK: CIBP 7598'; LOAD w/ 10# MUD; SPOT 30 sx TD; 30 sx 5500'-5321'; 30 sx 3000'-2820'.</i>									
30-015-25003	[370776] TACTICAL OIL & GAS, LLC	DAGGER DRAW SWD	#001	SWD	Private	Inactive	E-22-19S-25E	8128'	
<i>SWD CISCO Perfs: 7806'-7998'; 13.375" (17.5" hole) @ 365' w/ 500 sx circ; 8.625" (12.25" hole) @ 1328' w/ 700 sx circ; 5.5" (7.875" hole) @ 8126' w 1215 sx TOC @ 601' by CBL.</i>									
30-015-28380	[371755] PERCUSSION PETROLEUM OPERATING, LLC	ROSS RANCH 22	#004	Gas	Private	Active	F-22-19S-25E	8190'	
<i>GLOR/YESO Perfs: 2330'-3038'; 9.625" (14.75" hole) @ 1112' w/ 1100 sx circ; 7.0" (8.75" hole) @ 8190' w/ 1200 sx, TOC @ 2100' by Temp. PLUGBACK: CIBP 3782' w/ 35' Cmt. (Additional Plugs and Mud Below.)</i>									
30-015-28432	[371755] PERCUSSION PETROLEUM OPERATING, LLC	B & B	#009	Oil	Private	Active	J-22-19S-25E	8280'	
<i>GLOR/YESO Perfs: 2308'-2752'; 9.625" (14.75" hole) @ 1138' w/ 1100 sx circ; 7.0" (8.75" hole) @ 8280' w/ 1350 sx, Circ. 72 sx to pit; PLUGBACK: CIBP 3672' w/ 35' Cmt. (Additional Plugs and Mud Below.)</i>									
30-015-44365	[371755] PERCUSSION PETROLEUM OPERATING, LLC	GOODMAN 22	#006H	Oil	Private	Active	K-22-19S-25E	7998' HZ	
<i>DOES NOT PENETRATE - HORIZONTAL COMPLETION. Lateral TVD 2667'-2889'.</i>									
30-015-44366	[371755] PERCUSSION PETROLEUM OPERATING, LLC	GOODMAN 22	#004H	Oil	Private	Active	K-22-19S-25E	8033' HZ	
<i>DOES NOT PENETRATE - HORIZONTAL COMPLETION. Lateral TVD 2704'-2834'.</i>									
30-015-28378	[371755] PERCUSSION PETROLEUM OPERATING, LLC	ROSS RANCH 22	#007	Oil	Private	Active	K-22-19S-25E	8225'	
<i>GLOR/YESO Perfs: 2276'-3188'; 9.625" (14.75" hole) @ 1110' w/ 1200 sx circ; 7.0" (8.75" hole) @ 8225' w/ 1555 sx, Circ. To Surf. PLUGBACK: CIBP 3558' w/ 35' Cmt. (Additional Plugs and Mud Below.)</i>									
30-015-00149	[214263] PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil		P&A-R	L-22-19S-25E	1200'	2/4/1941
<i>P&A; DOES NOT PENETRATE.</i>									
30-015-28379	[371755] PERCUSSION PETROLEUM OPERATING, LLC	ROSS RANCH 22	#008	Oil	Private	Active	M-22-19S-25E	8120'	
<i>GLOR/YESO Perfs: 2280'-2952'; 9.625" (14.75" hole) @ 1104' w/ 850 sx circ; 7.0" (8.75" hole) @ 8120' w/ 1755 sx, Circ. To Surf. PLUGBACK: CIBP 3608' w/ 35' Cmt. (Additional Plugs and Mud Below.)</i>									
30-015-29769	[371755] PERCUSSION PETROLEUM OPERATING, LLC	ROSS RANCH 22	#006A	Oil	Private	Active	N-22-19S-25E	8150'	
<i>GLOR/YESO Perfs: 2292'-2957'; 9.625" (14.75" hole) @ 1110' w/ 1200 sx circ; 7.0" (8.75" hole) @ 8150' w/ 1200 sx, TOC @ 1050' by Temp. PLUGBACK: CIBP 3624' w/ 35' Cmt. (Additional Plugs and Mud Below.)</i>									
30-015-44746	[371755] PERCUSSION PETROLEUM OPERATING, LLC	GOODMAN 22	#005H	Oil	Private	New	N-22-19S-25E	0' HZ	
<i>DOES NOT PENETRATE - HORIZONTAL COMPLETION; NEW, NOT DRILLED.</i>									
30-015-44747	[371755] PERCUSSION PETROLEUM OPERATING, LLC	GOODMAN 22	#007H	Oil	Private	New	N-22-19S-25E	0' HZ	
<i>DOES NOT PENETRATE - HORIZONTAL COMPLETION; NEW, NOT DRILLED.</i>									
<i>Section 23 Wells</i>									
30-015-28405	[25575] EOG Y RESOURCES, INC.	PATRIOT AIZ	#006	Oil	Private	Active	I-21-19S-25E	8288'	
<i>GLOR/YESO Perfs: 2530'-2664'; 9.625" (14.75" hole) @ 1142' w/ 1300 sx circ; 7.0" (8.75" hole) @ 7632' w/ 1000 sx, Calc. to Circ./ NR. PLUGBACK: Spot 35 sx Cmt. @ 3762', Tag @ 3543'; (Additional Plugs and Mud Below.)</i>									
30-015-28397	[25575] EOG Y RESOURCES, INC.	CUTTER APC	#001	Oil	Private	Active	P-21-19S-25E	8300'	
<i>GLOR/YESO Perfs: 2350'-2750'; 9.625" (14.75" hole) @ 1205' w/ 1000 sx circ; 7.0" (8.75" hole) @ 8300' w/ 1525 sx, Circ. To Surf. PLUGBACK: Spot 35 sx Cmt. @ 3868', Tag @ 3700'; (Additional Plugs and Mud Below.)</i>									
<i>Section 27 Wells</i>									
30-015-45252	[371755] PERCUSSION PETROLEUM OPERATING, LLC	ROSS RANCH 22	#009H	Oil	Private	New	D-27-19S-25E	4000' HZ-PILOT	
<i>DOES NOT PENETRATE - HORIZONTAL COMPLETION; RECENTLY DRILLED, WILL TA.</i>									

SUMMARY: 9 wells penetrate proposed disposal interval; 0 P&A.



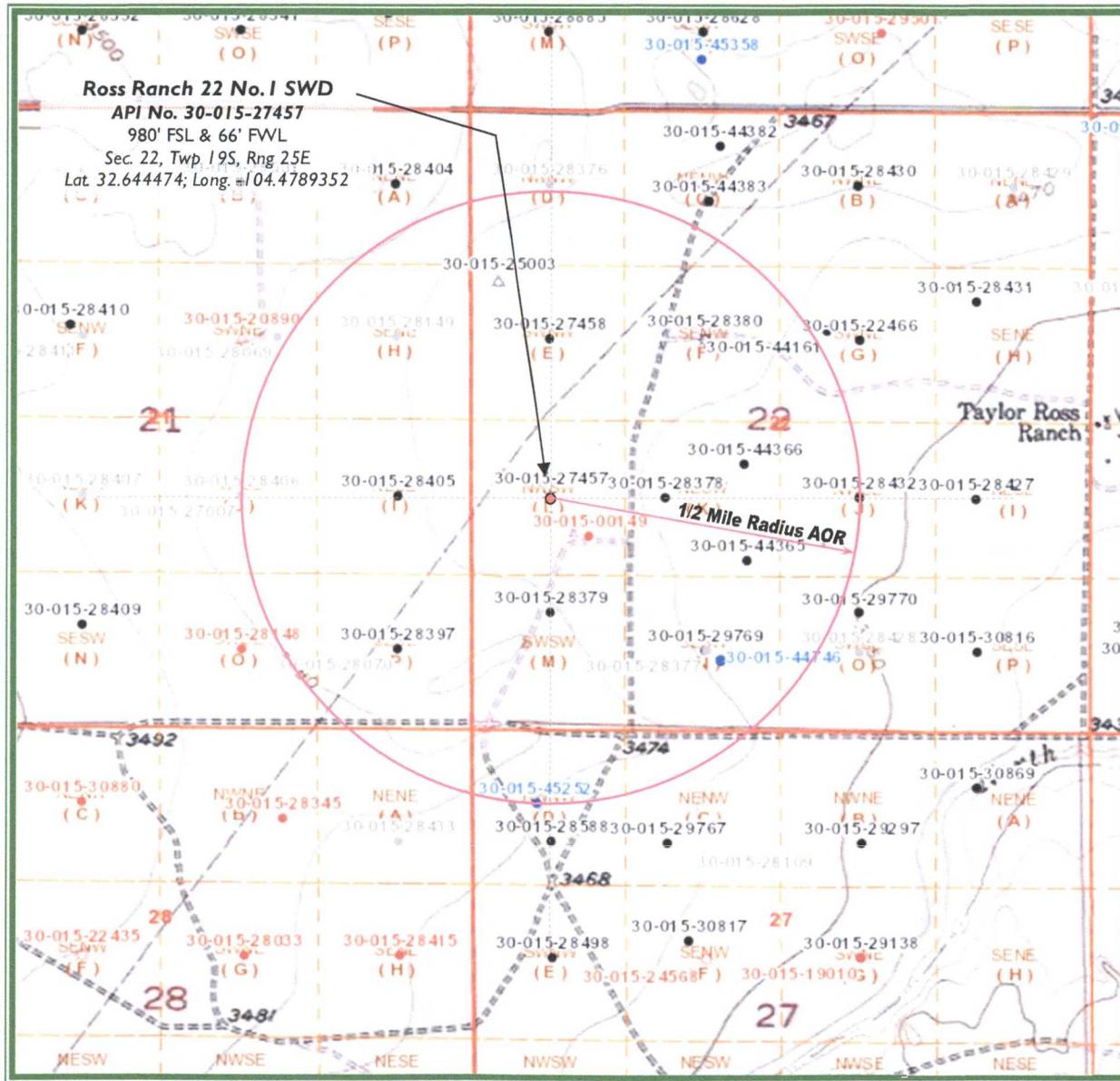
Ross Ranch 22 No.1 - Area of Review / 2 Miles

(Attachment to NMOCD Form C-108 - Item V)

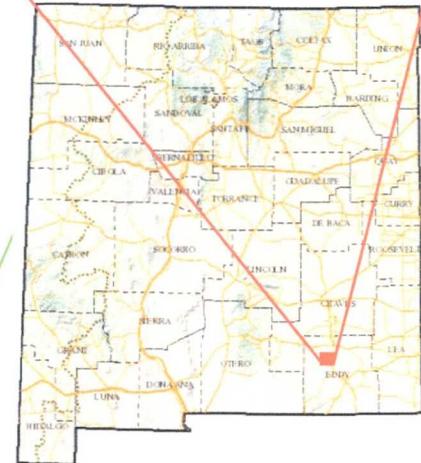
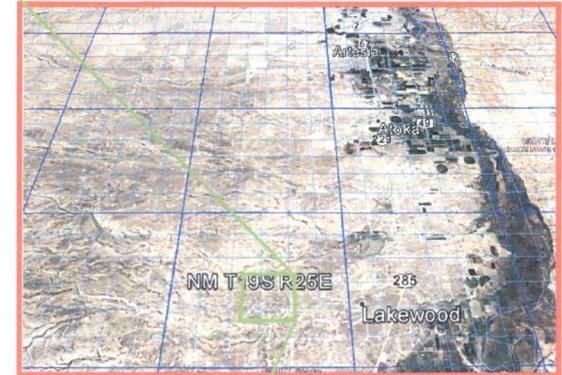


Ross Ranch 22 No.1 SWD Well No.1 - Area of Review / Overview Map

(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



14.7 miles S/SW of Artesia, NM



Eddy County, New Mexico

C-108 ITEM X – LOGS and AVAILABLE TEST DATA

A log strip from subject well is attached.

LOG STRIP FOLLOWS

ing Company

0.1

Penn) North

ATE: New Mexico

tho-Density
ompensated Neutron
atural Gamma-Ray

Elev. K.B. 3478 F
G.L. 3465 F
D.F. 3477 F

Elev. 3465 F
130 F above Perm. Datum

CTION 22 TOWNSHIP 19-S RANGE 25-E

PRINT

1110 F

(a)

70 DEGF
70 DEGF

(a) (a)
(a) (a)
(a) (a)

(a) 133

(a) (a)

0300
1200

hch

Run 1

Run 2

Run 3

Run 4

Logging Date
Run Number
Depth Driller
Schlumberger Depth
Bottom Log Interval
Top Log Interval
Casing Driller Size (a) Depth
Casing Schlumberger
Bit Size
Type Fluid In Hole
Density
Viscosity
Fluid Loss
PH
Source Of Sample
RM (a) Measured Temperature
RMF (a) Measured Temperature
RMC (a) Measured Temperature
Source RMF RMC
RM (a) MRT RMF (a) MRT
Maximum Recorded Temperatures
Circulation Stopped Time
Logger On Bottom Time
Unit Number Location
Recorded By
Witnessed By

ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT, AND DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFUL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS, DAMAGES OR EXPENSES INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS, AGENTS OR EMPLOYEES. THESE INTERPRETATIONS ARE ALSO SUBJECT TO CLAUSE 4 OF OUR GENERAL TERMS AND CONDITIONS AS SET OUT IN OUR CURRENT PRICE SCHEDULE.

OTHER SERVICES 1
OS1: AIT/LDT/CNL/GR
OS2: BHC/GR
OS3: FMI
OS4:
OS5:

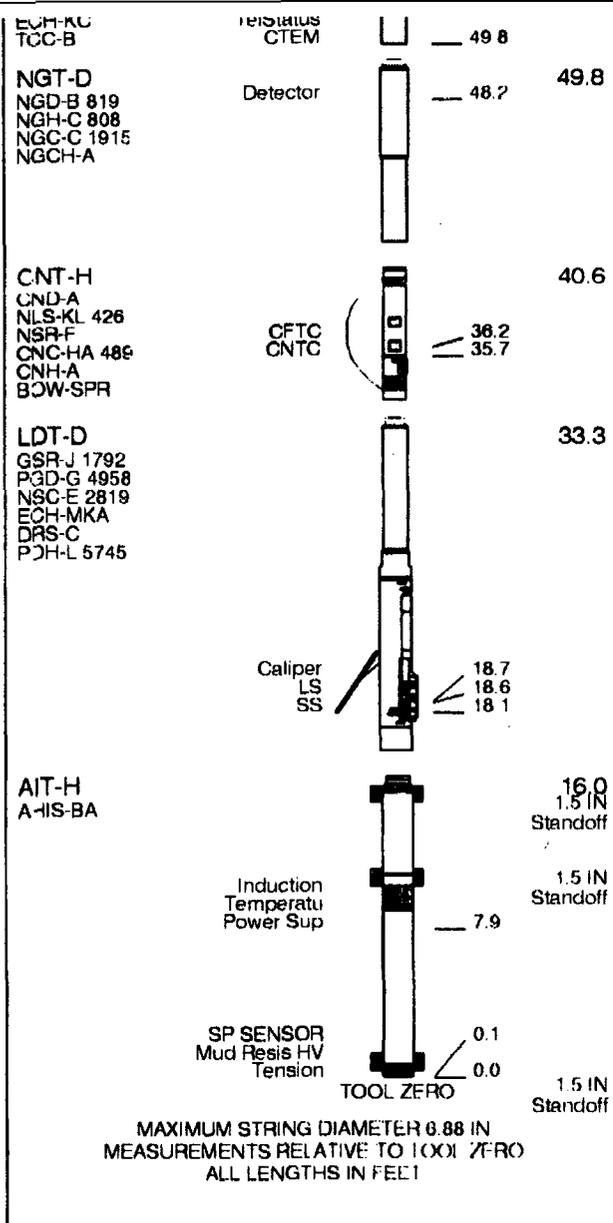
OTHER SERVICES 2
OS1:
OS2:
OS3:
OS4:
OS5:

REMARKS: RUN NUMBER 1
1.5 inch standoffs used on BHC and AIT.
All Scales are as client requested.

NGT Quality Windows ratio slightly out of tolerance.
However, this will not effect the quality or accuracy of the measurement

Feterson Rig #4

REMARKS: RUN NUMBER 2



Output DLIS Files						
DEFAULT	AITH .015	FN:13	FIELD	16-SEP-1996 12:33	9444.0 FT	151.5 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 4111.00 F3
 Cement Volume = 1883.66 F3 (assuming 7.00 IN casing O.D.)
 Computed from 9444.0 FT to 1110.0 FT using data channel(s) CALI

OP System Version: 7C0-428
MBM

AIT-H HOLEV	RPCAX-681 RPCAX-681	CNT-H	RPCAX-681
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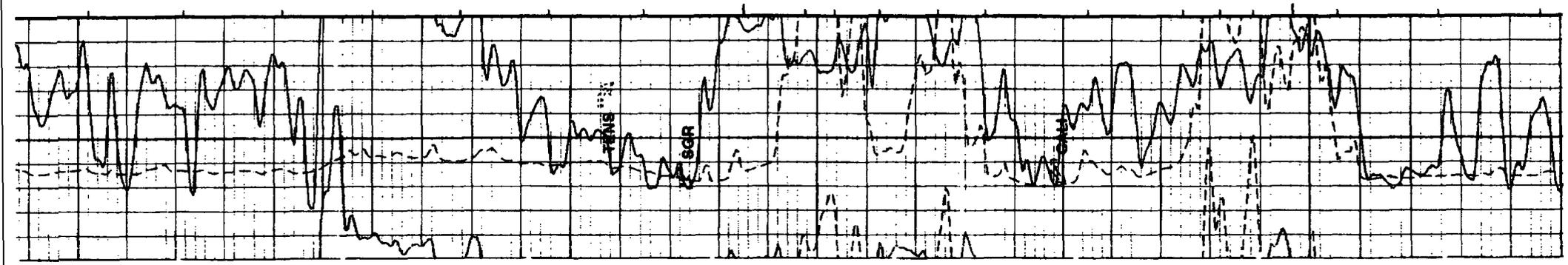
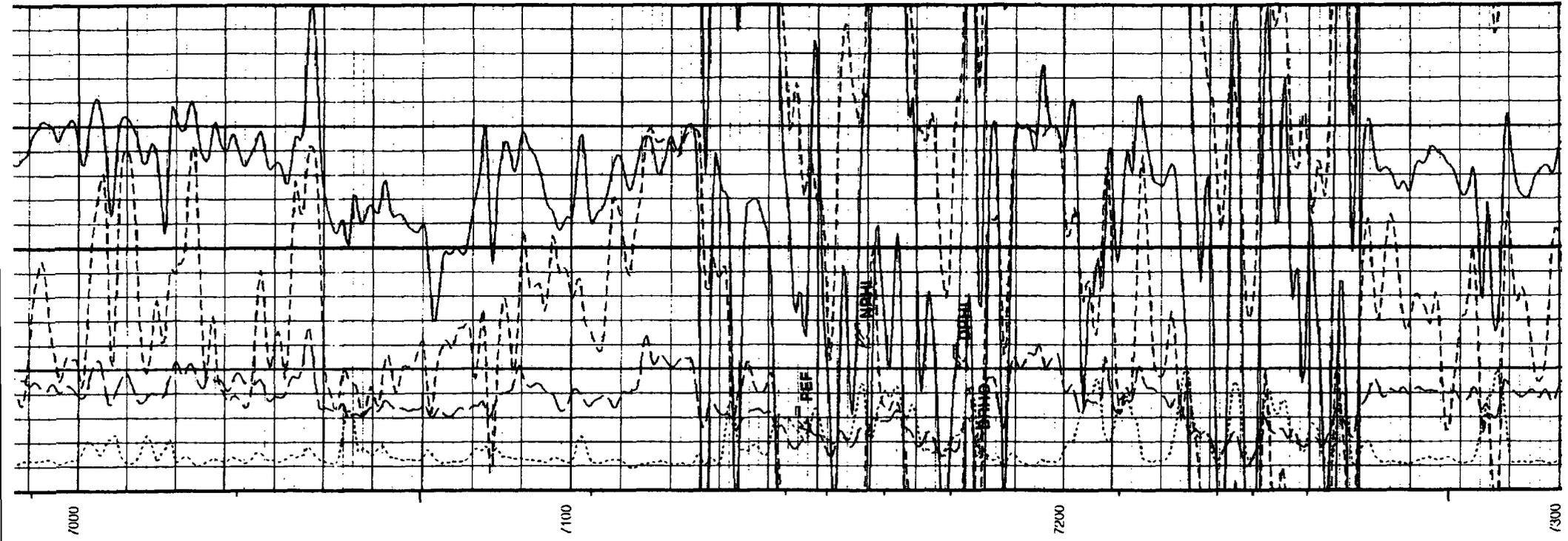
Changed Parameter Summary

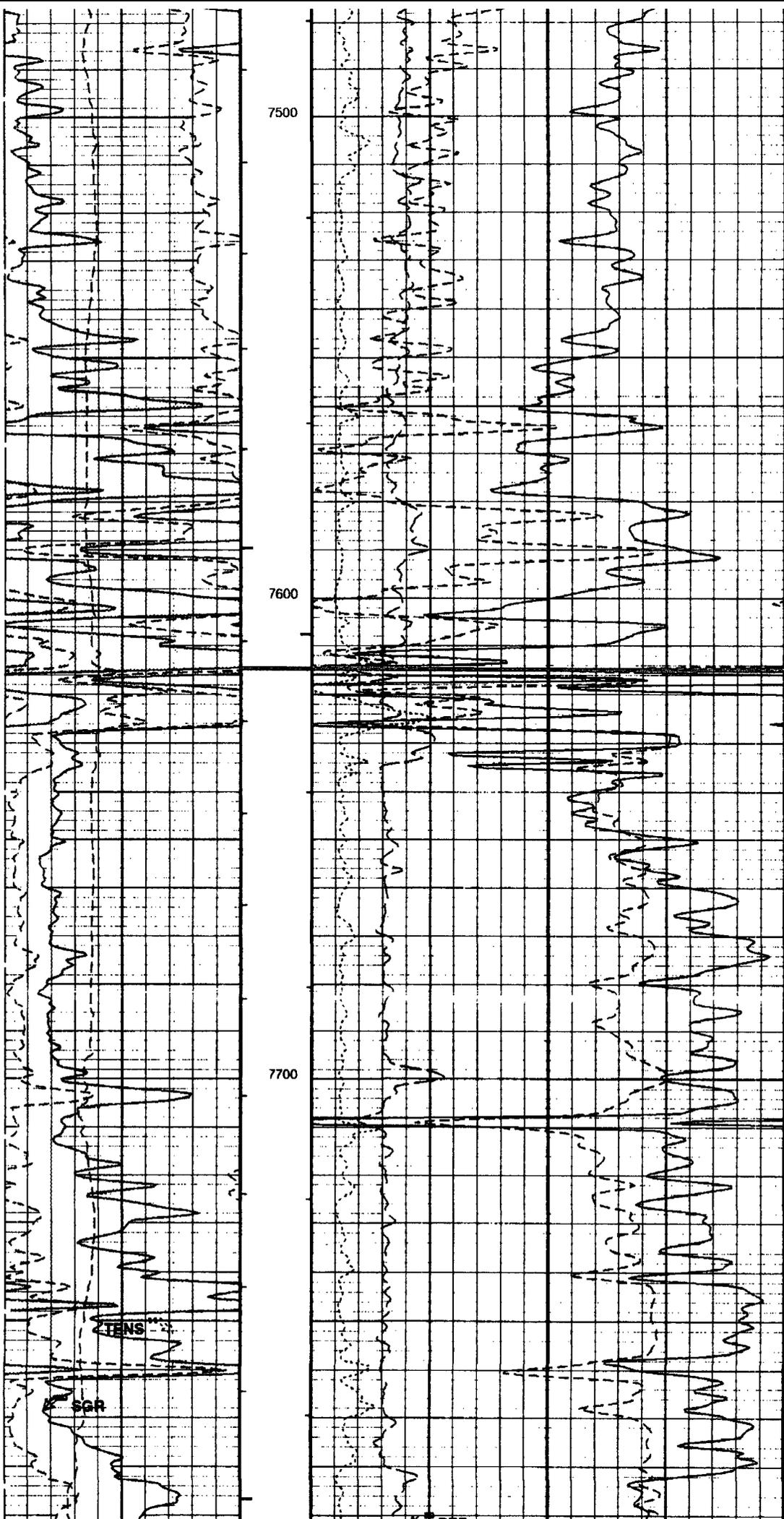
DLIS Name	New Value	Previous Value	Depth & Time
BHS BS	CASED 8.750 IN	OPEN 8.750 IN	1073.6 16:33:27 4319.8 15:13:24

PIP SUMMARY

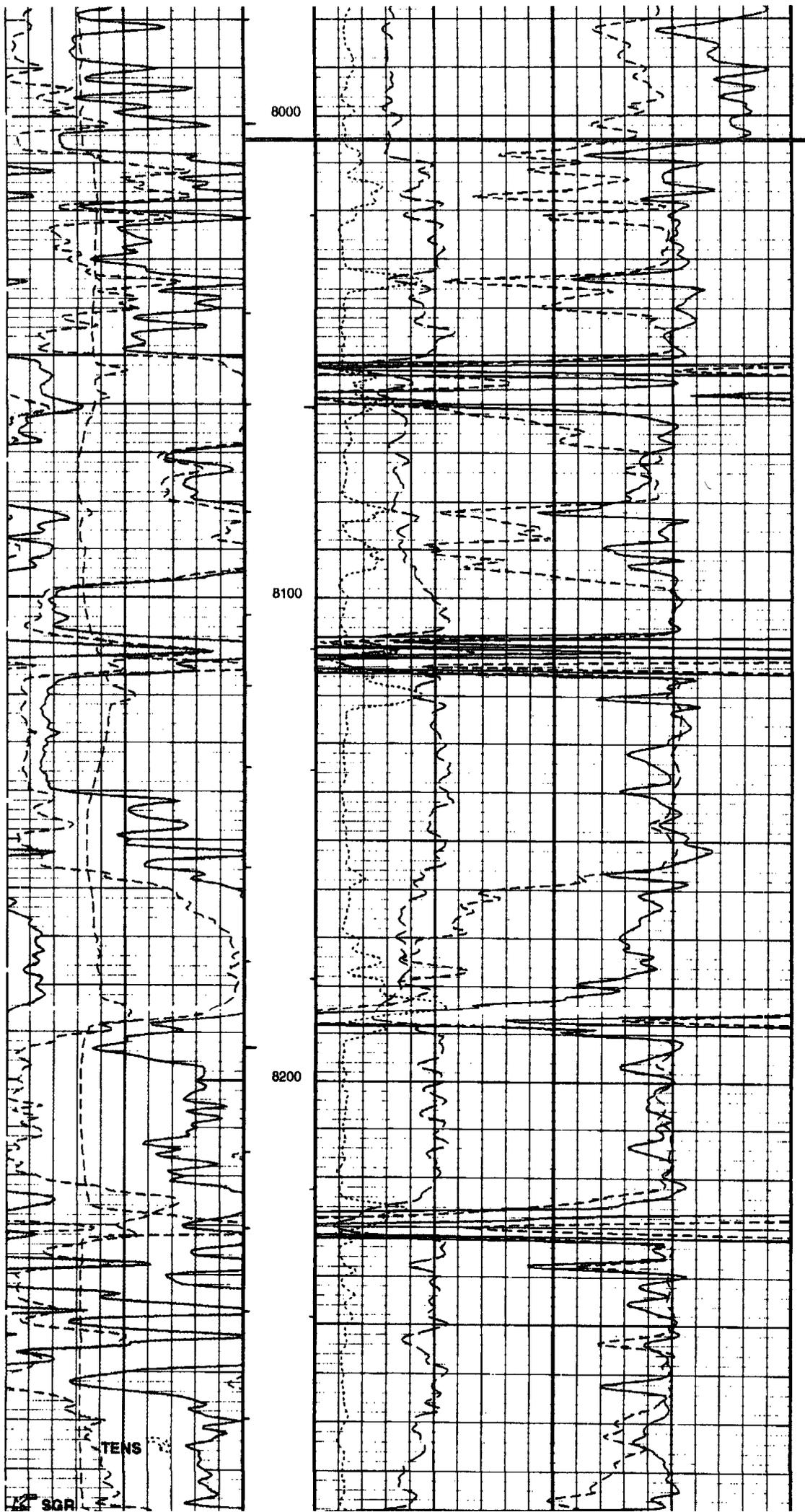
- ┌ Integrated Hole Volume Minor Pip Every 10 F3
- ┌ Integrated Hole Volume Major Pip Every 100 F3
 - └ Integrated Cement Volume Minor Pip Every 10 F3
 - └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S
 Uranium Indicator





PROP
TOF
INJEC
INTE
76



TENS

902

C-108 ITEM VII – PROPOSED OPERATION

Ross Ranch 22 SWD No.1

Private Use SWD Facility

Upon approval of all permits for SWD, operations would begin within 30 days. Completion of the well operations will take approximately 6-8 weeks. Facility construction including installation of the tank battery, berms, plumbing and other and associated equipment would be occurring during the same interval but not to interfere with well operations. In any event, it is not expected for the construction phase of the project to last more than 60 days, depending on availability of contractors and equipment.

Configure for Salt Water Disposal

POOH w/ ALL Production Equipment; Pump, Rods and tubing. Run in hole w/ gauge ring and circulate hole. Perforate Specific Intervals TBD. Acidize new perms and formation is desired. Run PC Tubing and PKR - Conduct Witnessed MIT. Commence Disposal Operations.

Prior to commencing any work, an NOI sundry(ies) will be submitted to configure the well for SWD and will detail the completion workover including all work otherwise described above, any change to the procedure noted herein and to perform mechanical integrity pressure test per OCD test procedures. (Notify NMOCD 24 hours prior.) The casing/tubing annulus will be monitored for communication with injection fluid or loss of casing integrity.

Operational Summary

The Ross Ranch 22 SWD well will be for Percussion's area production from Gloieta/ Yeso wells.

The SWD facility will not be fenced. Primary water transportation will be via pipeline but offloading hookups will be available so that trucks may access for load disposal in needed.

The well and injection equipment will be a closed system and equipped with pressure limiting devices and volume meters. The annulus, loaded with an inert, anti-corrosion packer fluid, will be monitored for pressure.

The tanks will be equipped with telemetry devices and visual alarms to alert the operator and customers of full tanks or an overflow situation.

Anticipated daily maximum volume is 5,000 bpd and an average of 3,500 bpd at a maximum surface injection pressure of 1523 psi (.2 psi/ft gradient – maximum pressure will be adjusted if the top of interval is modified after well logs are run).

Potential releases will be contained and cleaned up immediately. The operator shall repair or otherwise correct the situation within 48 hours before resuming operations. OCD will be notified within 24 hours of any release greater than 5 bbls. If required, remediation will start as soon as practicable. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as necessary and appropriate.

C-108 ITEM VII – PRODUCED WATER ANALYSES

Item VII.4 – Water Analysis of Source Zone Water

Glorieta/ Yeso
Bone Spring

Item VII.5 – Water Analysis of Disposal Zone Water

Cisco/ Canyon

Water Analyses follow this page.

**C-108 Item VII.5 - Produced Water Data
Percussion Petroleum, LLC - Ross Ranch SWD Project**

SOURCE ZONE

GLO/YESO

API No	3001524754	Lab ID	
Well Name	PLATT PA	Sample ID	1146
	009	Sample No	
Location	ULSTR 26 18 S 26 E	Lat / Long	32.71216 -104.35742
	330 S 990 W	County	Eddy
Operator (when sampled)	Yates Petroleum Corp.		
	Field	ATOKA	Unit M
Sample Date	8/4/1984	Analysis Date	

	Sample Source Wellhead	Depth (if known)
	Water Typ	Produced Water
ph	7.5	alkalinity_as_caco3_mgL
ph_temp_F		hardness_as_caco3_mgL
specificgravity		hardness_mgL
specificgravity_temp_F		resistivity_ohm_cm
tds_mgL	120382	resistivity_ohm_cm_temp
tds_mgL_180C		conductivity
chloride_mgL	113000	conductivity_temp_F
sodium_mgL	71415	carbonate_mgL
calcium_mgL	2560	bicarbonate_mgL
iron_mgL	0	sulfate_mgL
barium_mgL		hydroxide_mgL
magnesium_mgL	0	h2s_mgL
potassium_mgL		co2_mgL
strontium_mgL		o2_mgL
manganese_mgL		anionremarks

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 Item VII.5 - Produced Water Data
Percussion Petroleum, LLC - Ross Ranch SWD Project

SOURCE ZONE

GLO/YESO

API No	3001524619	Lab ID	
Well Name	PLATT PA	Sample ID	1207
	008	Sample No	
Location	ULSTR 26 18 S 26 E	Lat / Long	32.71245 -104.35329
	430 S 2260 W	County	Eddy
Operator (when sampled)	Yates Petroleum Corporation		
	Field	ATOKA	Unit N
Sample Date	1/19/1985	Analysis Date	

	Sample Source well head	Depth (if known)
	Water Typ	Produced Water
ph	6	alkalinity_as_caco3_mgL
ph_temp_F		hardness_as_caco3_mgL
specificgravity		hardness_mgL
specificgravity_temp_F		resistivity_ohm_cm
tds_mgL	136324	resistivity_ohm_cm_temp
tds_mgL_180C		conductivity
chloride_mgL	121000	conductivity_temp_F
sodium_mgL	61571	carbonate_mgL
calcium_mgL	4160	bicarbonate_mgL
iron_mgL	0	sulfate_mgL
barium_mgL		hydroxide_mgL
magnesium_mgL	7340	h2s_mgL
potassium_mgL		co2_mgL
strontium_mgL		o2_mgL
manganese_mgL		anionremarks

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



**C-108 Item VII.5 - Produced Water Data
Percussion Petroleum, LLC - Ross Ranch SWD Project**

SOURCE ZONE

BONE SPRING

API No	3001520225	Lab ID	
Well Name	BIG EDDY UNIT	Sample ID	5847
	012	Sample No	
Location	ULSTR 21 20 S 31 E	Lat / Long	32.56399 -103.87994
	660 N 660 W	County	Eddy
Operator (when sampled)	MALLON OIL COMPANY		
	Field	Unit D	
	BIG EDDY		
Sample Date	8/27/1999	Analysis Date	8/31/1999
	Sample Source	Depth (if known)	
	Water Typ		
ph	5.2	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity	1.125	hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	181697	resistivity_ohm_cm_temp	
tds_mgL_180C		conductivity	
chloride_mgL	123750	conductivity_temp_F	
sodium_mgL	73895.6	carbonate_mgL	
calcium_mgL	5625	bicarbonate_mgL	13.725
iron_mgL	337.5	sulfate_mgL	787.5
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	0
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



**C-108 Item VII.5 - Produced Water Data
Percussion Petroleum, LLC - Ross Ranch SWD Project**

DISPOSAL ZONE

CIS

API No	3001526468	Lab ID	
Well Name	JOHN AGU 002	Sample ID	5945
		Sample No	
Location	ULSTR 14 20 S 24 E 660 N 660 E	Lat / Long	32.57883 -104.55197
		County	Eddy
Operator (when sampled)			
	Field DAGGER DRAW	Unit	A
Sample Date	5/13/2000	Analysis Date	
	Sample Source	Depth (if known)	
	Water Typ		
ph	6.1	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity	1.05	hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	216236	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	53321	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL	4576	bicarbonate_mgL	72619
iron_mgL	1000	sulfate_mgL	952
barium_mgL	0	hydroxide_mgL	
magnesium_mgL	463	h2s_mgL	0
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 - Item VIII

Geological Data

The Cisco Formation (Upper Penn) is a gray micritic (fine grained) fossiliferous limestone with vugular porosity as well as dolomite. The reservoirs in this area are usually limited in size with up dip porosity loss due to shelf margin carbonate build up. The upper portion becomes very shaley and is not proposed for injection.

The [Pennsylvanian] Canyon formation consists of similarly medium-grained carbonates, primarily dolomite and porous and permeable sandstone interbedded with shale and is generally 150 to 200 feet in thickness.

The combined zones offer some good porosity in the proposed injection interval located from 7615 feet to 8005 feet with some very good porosity interspersed throughout the overall interval.

The Cisco is overlain by the Wolfcamp and the Canyon is underlain by the Strawn and Atoka. (See Pool Map and Data exhibit included.)

Fresh water in the area is generally available from the karstic San Andres limestone formation which is a prime example of an artesian recharged aquifer. Based on State Engineer's records for water wells in Sections 22-27, Twp 19S, Rng 25E, groundwater is found from 40 feet to 220 feet, average depth 102 feet.

There is 3 water wells located within one mile of the proposed SWD. One sample analysis is included in this application.

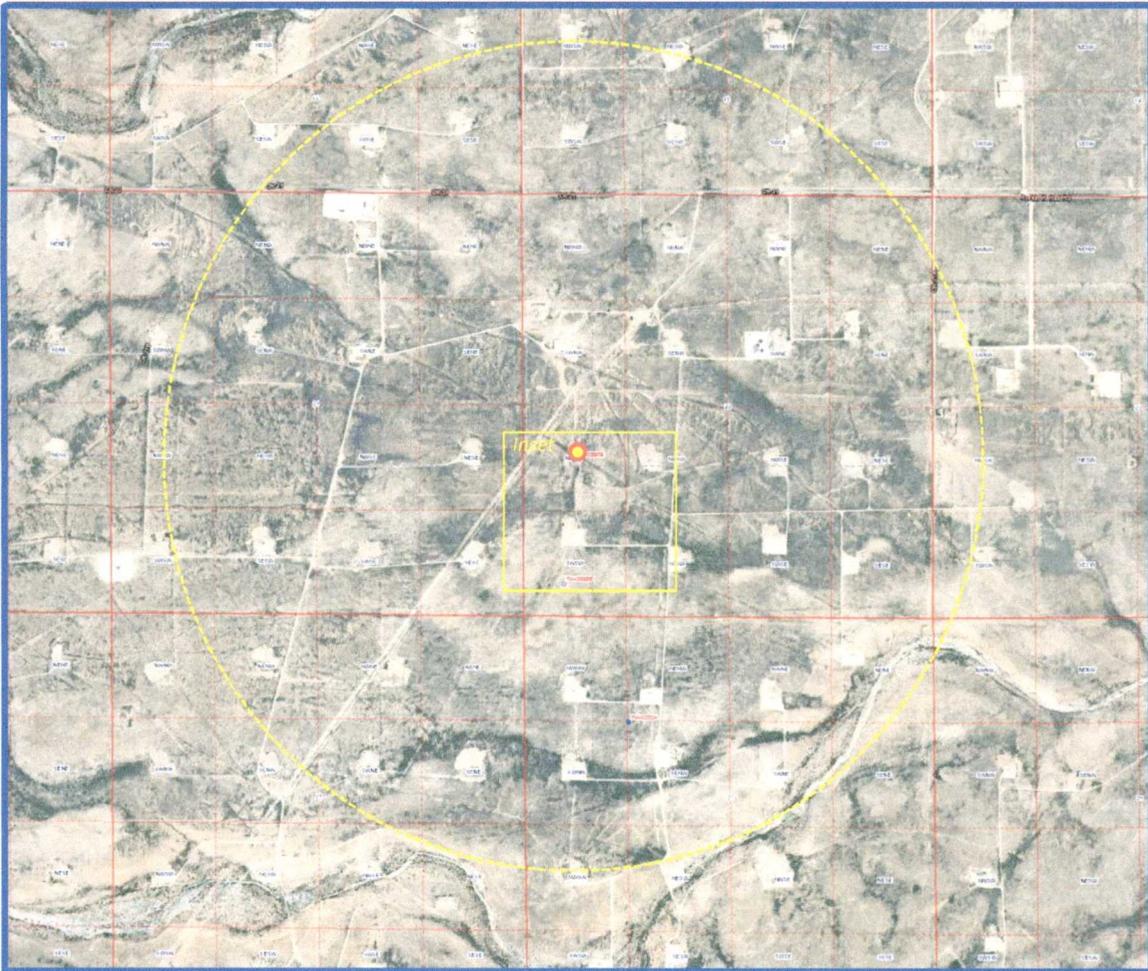
C-108 Item XI

Water Wells Within One Mile

Ross Ranch SWD No.1 - Water Well Locator Map

There are 3 water wells/PODs within a one-mile radius of the proposed SWD.

Inset View is displayed on next page for closest water well identification.



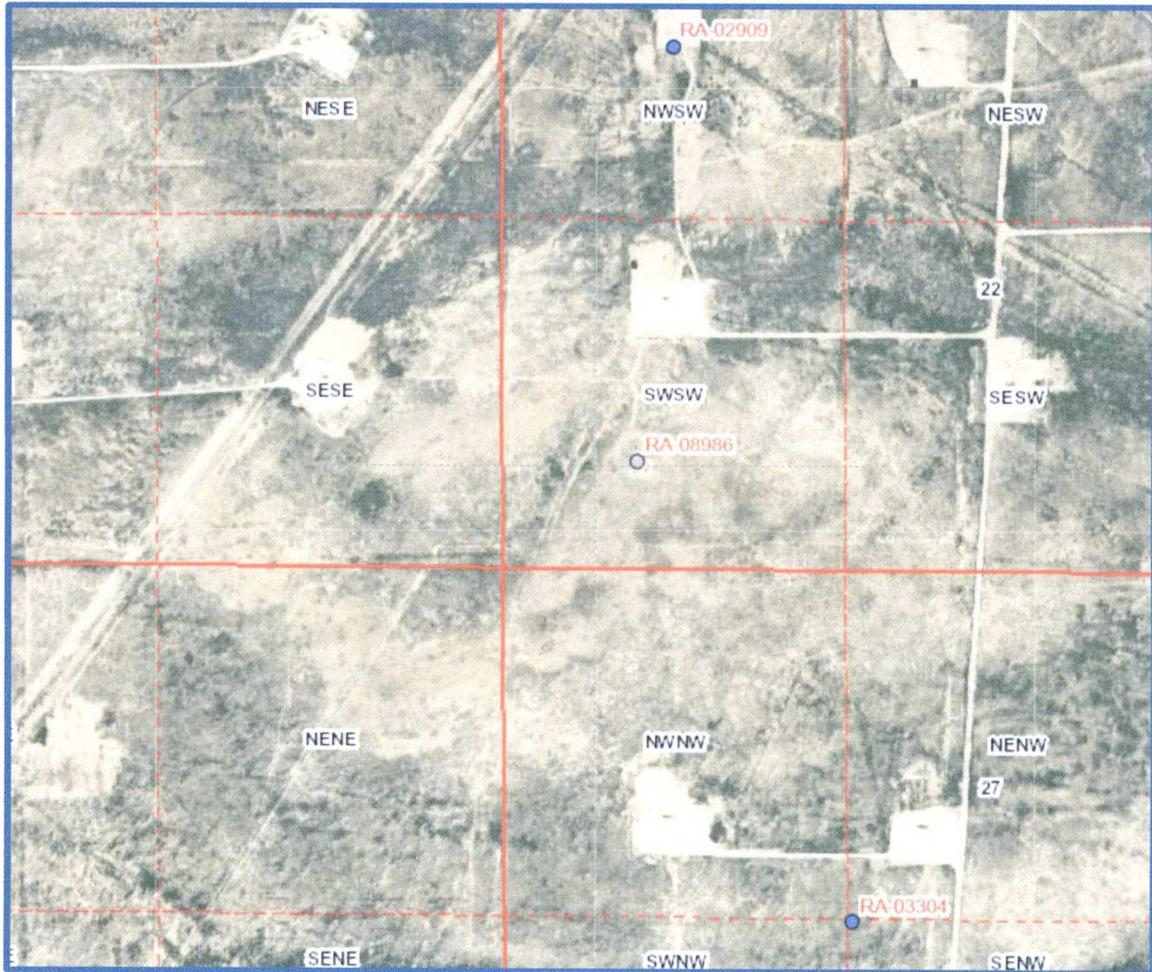
Data from NM Office of the State Engineer displayed in OSE-GIS System.

C-108 Item XI

Water Wells Within One Mile

Ross Ranch SWD No.1 - Water Well Locator Map

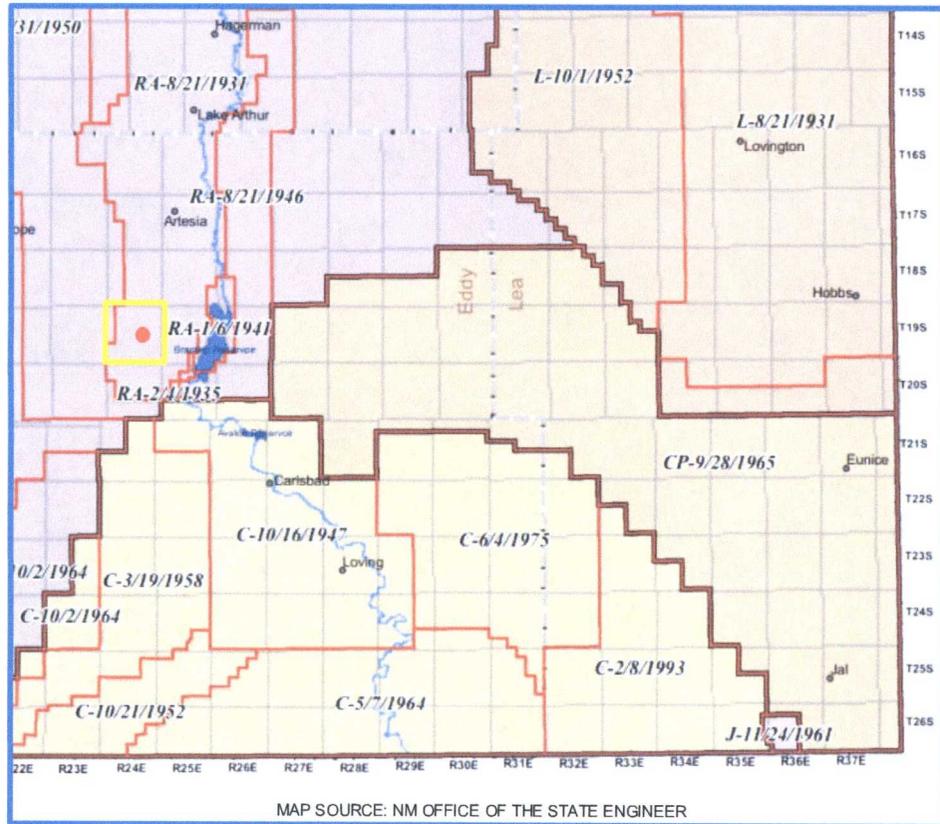
Inset View Display
for closest water well identification.



Data from NM Office of the State Engineer displayed in OSE-GIS System.

C-108 - Item XI

Groundwater Basins - Water Column / Depth to Groundwater



The subject well is located within the Roswell Artesian Basin.

Fresh water in the area is generally available from the karstic San Andres limestone formation which is a prime example of an artesian recharged aquifer.

State Engineer's records show there is fresh water wells in the area with an depth of 200 feet and average depth to water at 175 feet.

There are 3 water wells located within one mile of the proposed SWD. Samples will be taken of at least one and analysis forwarded when available.

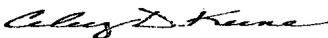
Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 PERCUSSION PETROLEUM
 JERRY MATHEWS
 919 MILAM , STE 2475
 HOUSTON TX, 77002
 Fax To:

Received:	11/05/2018	Sampling Date:	11/05/2018
Reported:	11/07/2018	Sampling Type:	Water
Project Name:	FRESH WATER WELLS	Sampling Condition:	** (See Notes)
Project Number:	ROSS RANCH 22 SWD	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO NM		

Sample ID: SAMPLE # 02909 (H803163-01)

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	2410	5.00	11/06/2018	ND	472	89.6	527	7.48		

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Celey D. Keene, Lab Director/Quality Manager

November 07, 2018

JERRY MATHEWS

PERCUSSION PETROLEUM

919 MILAM , STE 2475

HOUSTON, TX 77002

RE: FRESH WATER WELLS

Enclosed are the results of analyses for samples received by the laboratory on 11/05/18 10:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: <i>Recreation Petroleum</i>				BILL TO				ANALYSIS REQUEST																							
Project Manager: <i>Jeff Matthews</i>				P.O. #:																											
Address:				Company:																											
City:		State:		Zip:		Attn:																									
Phone #:		Fax #:		Address:																											
Project #:		Project Owner:		City:																											
Project Name: <i>Boss Ranch 22 SWD</i>				State:		Zip:																									
Project Location:				Phone #:																											
Sampler Name:				Fax #:																											
FOR LAB USE ONLY:																															
Lab I.D.	Sample I.D.			(GRAB OR C/JOMP. # CONTAINERS)	MATRIX															PRESERV.		SAMPLING		TDS							
H803163	Sample # 02909				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE		TIME															
				✓									11-5-18		8:45																

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Relinquished By: <i>[Signature]</i>		Date: 11-5-18	Received By: <i>[Signature]</i>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
		Time: 10:20			Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:		Date:	Received By:		REMARKS: <i>[Signature]</i>	
		Time:				
Delivered By: (Circle One)			Sample Condition		CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other: <i>8.3c #97</i>			Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No		<i>TD</i>	

* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326



Case No. 15487. Application of the New Mexico Oil Conservation Division Through the Supervisor of District II for an Emergency Order Suspending Certain Approved Applications for Permits to Drill, and for Adoption of a Special Rule for Drilling in Certain Areas, for the Protection of Fresh Water, Chaves and Eddy Counties, New Mexico.

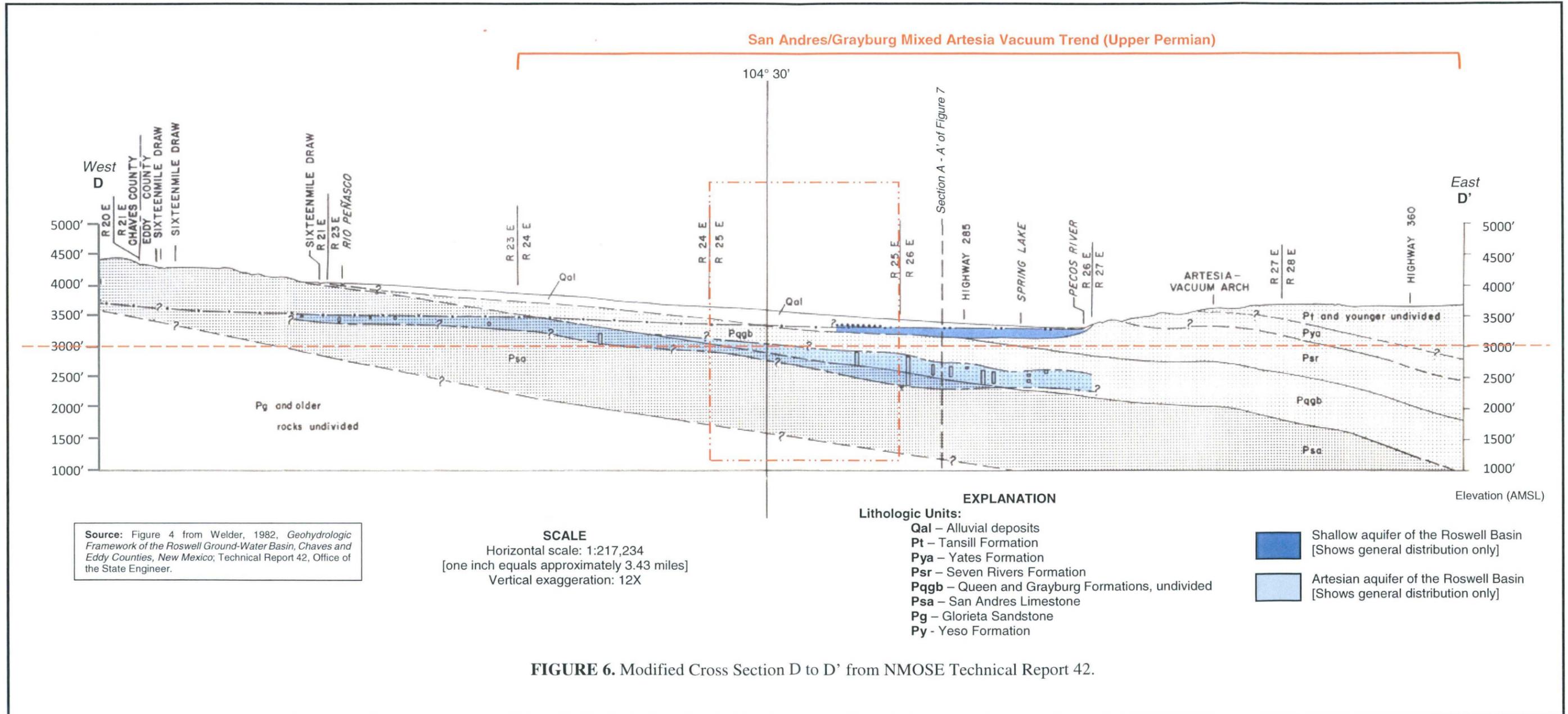


FIGURE 6. Modified Cross Section D to D' from NMOSE Technical Report 42.

C-108 ITEM XI – WATER WELLS IN AOR

Depth to Ground Water



New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

Alluvial Valley Fill Aquifer

POD Number
[RA 02909](#)
[RA 08986](#)

POD Sub-Code	basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
ED			1	3	22	19S	25E		548864	3611989*	188	130	58
ED			1	3	3	22	19S	25E	548825	3611507	320	220	100

Average Depth to Water: **175 feet**
Minimum Depth: **130 feet**
Maximum Depth: **220 feet**

Record Count: 2

PLSS Search:

Section(s): 21, 22

Township: 19S

Range: 25E

Artesian Aquifer per NMOSE Tech Rpt 4/2
Average thickness for AR - 380'
San Andres at 688' - Figure 6 top of aquifer at 3200'
Thickness of aquifer Per Fig. 6 & Fig. 7

3465
3200'

265'
↓ 380'
645'

Analytical Results For:

 PERCUSSION PETROLEUM
 LELAN
 919 MILAM , STE 2475
 HOUSTON TX, 77002
 Fax To:

 Received: 01/23/2018
 Reported: 01/24/2018
 Project Name: B & B 22 #4 SWD
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 01/21/2018
 Sampling Type: Water
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: 32.39' 44" N (H800252-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	36.0	4.00	01/24/2018	ND	104	104	100	0.00		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	2270	5.00	01/24/2018	ND	207	97.2	213	3.25		

Sample ID: 32.38' 52" N (H800252-02)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	20.0	4.00	01/24/2018	ND	104	104	100	0.00		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1980	5.00	01/24/2018	ND	207	97.2	213	3.25		

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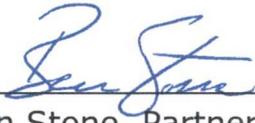


Celey D. Keene, Lab Director/Quality Manager

C-108 ITEM XII

Geologic Affirmation

We have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and any underground sources of drinking water.



Ben Stone, Partner
SOS Consulting, LLC

Project: Percussion Petroleum Operating, LLC
Ross Ranch 22 SWD No.1
Reviewed 10/29/2018

C-108 ITEM XIII – PROOF OF NOTIFICATION

IDENTIFICATION AND NOTIFICATION OF INTERESTED PARTIES

Exhibits for Section

Affected Parties Map

List of Interested Parties

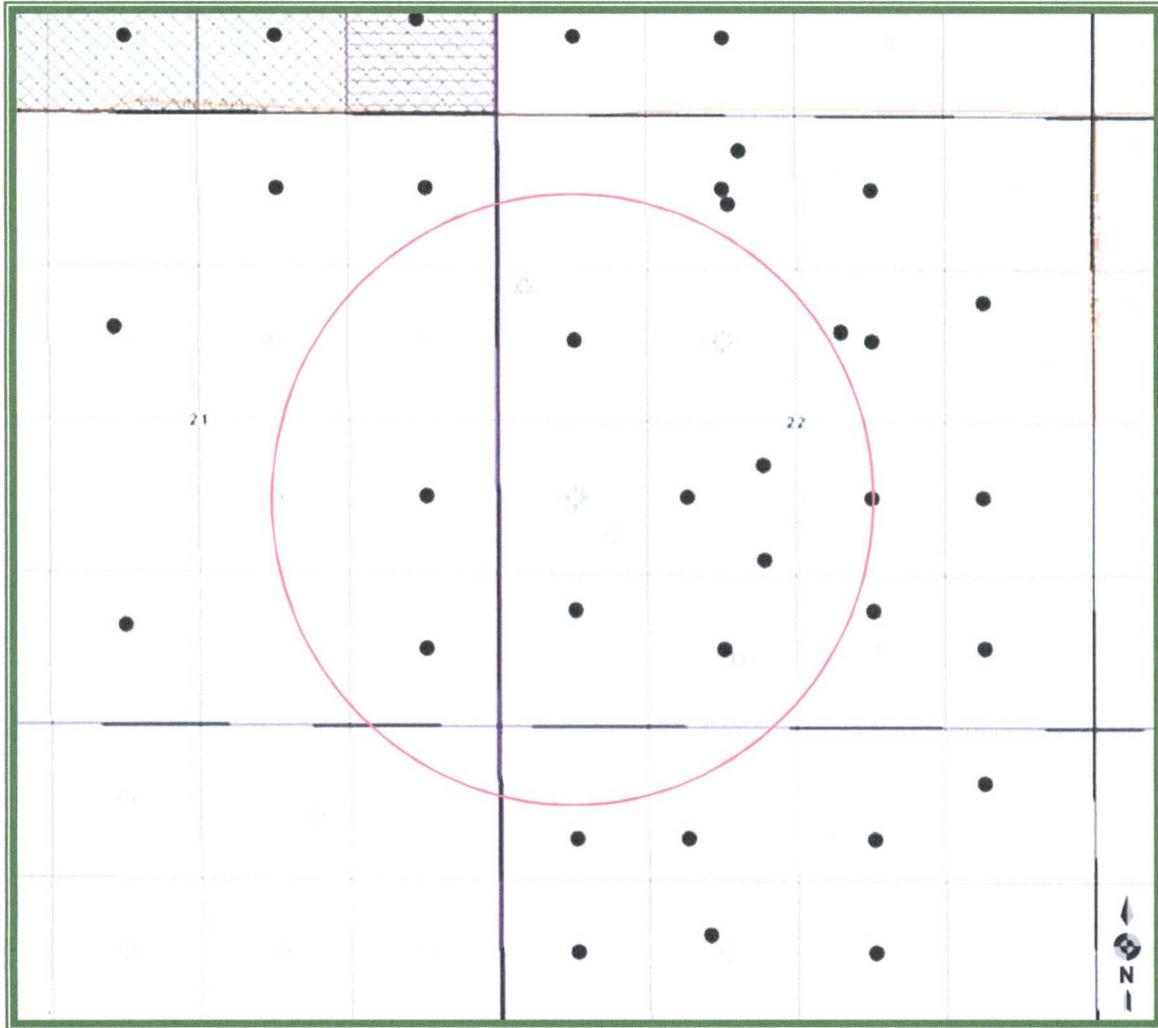
Notification Letter to Interested Parties

Proof of Certified Mailing

Published Legal Notice

Ross Ranch 22 SWD No.1 – Affected Parties Map

(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



LEGEND

Sections 22 & 27

Operator: Percussion Petroleum Operating, LLC

Sections 21 & 28

Operator: EOG Y Resources, Inc.

Well Location NWSW Section 22-19S-25E

Surface Owner: Ross Ranch

C-108 ITEM XIII – PROOF OF NOTIFICATION

AFFECTED PARTIES LIST

SOS Consulting is providing electronic delivery of C-108 applications.
ALL APPLICABLE AFFECTED PARTIES ARE PROVIDED A LINK IN THE NOTICE LETTER
TO A SECURE SOS/ CITRIX SHAREFILE® SITE TO VIEW AND DOWNLOAD
A FULL COPY OF THE SUBJECT C-108 APPLICATION IN PDF FORMAT.

SURFACE OWNER

- 1 ROSS RANCH
P.O. Box 216
Lakewood, NM 88254-0216
Certified: 7018 0360 0001 8569 5197

OFFSET MINERALS LESSEES and OPERATORS (All Notified via USPS Certified Mail)

Sections 22 & 27

Operator

PERCUSSION PETROLEUM OPERATING, LLC (Applicant)
919 Milam, Ste.2475
Houston, TX 77002

Sections 21 & 28

Operator

- 2 EOG Y RESOURCES
104 South 4th Street
Artesia, NM 77002
Certified: 7018 0360 0001 8569 5203

REGULATORY

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed original and copy)
1220 S. St. Francis Dr.
Santa Fe, NM 87505

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed copy)
811 S. First St.
Artesia, NM 88210



October 30, 2018

NOTIFICATION TO INTERESTED PARTIES
via U.S. Certified Mail – Return Receipt Requested

To Whom It May Concern:

Percussion Petroleum Operating, LLC, Houston, Texas, has made application to the New Mexico Oil Conservation Division to reenter and complete for salt water disposal the Ross Ranch 22 No.1. The proposed SWD will be for private produced water disposal from Percussion's area operations. As indicated in the notice below, the well is located in Section 22, Township 19 South, Range 25 East in Eddy County, New Mexico.

The published notice states that the interval will be from 7615 feet to 8005 feet.

Following is the notice published in the Artesia Daily Press, New Mexico on or about October 29, 2018.

LEGAL NOTICE

Percussion Petroleum Operating, LLC – 919 Milam, Ste.2475, Houston, Texas 77002, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval to reenter and configure the Ross Ranch 22 Well No.1 for salt water disposal; located 1980' FNL and 660' FWL, Section 22, Township 19 South, Range 25 East, Eddy County, New Mexico; approximately 14.2 miles south/ southwest of Artesia, NM.

Produced water from Percussion's area production will be privately disposed into the Cisco/ Canyon formation at a maximum interval depth of 7615 feet to 8005 feet at a maximum surface pressure of 1523 psi and a rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850 or, email info@sosconsulting.us.

You have been identified as a party who may be interested as an offset lessee or operator.

You are entitled to a full copy of the application. A full copy in PDF format is posted on the SOS Consulting **ShareFile** site and is available for immediate download.

Use the URL link <https://sosconsulting.sharefile.com/d-s45e21b50e304359b>

(Please Note: The ShareFile service is powered by Citrix Systems and is completely secure.)*

The link to this file will be active for 30 days from the date of this letter. Your company can access and download the file a maximum of five (5) times. (Copies may be downloaded and shared as needed among your company.)

Alternatively, you may call SOS Consulting, LLC at 903-488-9850, or email info@sosconsulting.us, and the same PDF file copy will be expedited to you via email.

Please use a subject like, "**Ross Ranch SWD November 2018 PDF Copy Request**".

Thank you for your attention in this matter.

Best regards,



Ben Stone, SOS Consulting, LLC
Agent for Percussion Petroleum Operating, LLC

Cc: Application File

SOS Consulting is committed to providing superior quality work using technology to assist clients and interested parties in obtaining the documentation required. SOS will continue to utilize methods for reducing papers copies and are less energy and resource intensive.

We hope you'll partner with us and appreciate these efforts.

* You will be asked for your email, name and company.

This will not be used by anyone except keeping track of the file downloads.

You will not be solicited by SOS or anyone else. Data is stored on Citrix Systems servers only.



C-108 - Item XIV

Proof of Notice (Certified Mail Receipts)

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<input type="checkbox"/> Adult Signature Restricted Delivery	\$
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Total Postage and Fees \$	4.15
Sent To	
Street and	ROSS RANCH
City, State	P.O. Box 216 Lakewood, NM 88254-0216
PS Form 3849	Postmark Here OCT 30 2018 COMO TX 75437

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City, State	104 South 4th Street Artesia, NM 77002
PS Form 3849	Postmark Here OCT 30 2018 COMO TX 75437

Affidavit of Publication

No. 24886

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 Ad

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

1 Consecutive weeks/day on the same

day as follows:

First Publication October 28, 2018

Second Publication _____

Third Publication _____

Fourth Publication _____

Fifth Publication _____

Sixth Publication _____

Seventh Publication _____

Subscribed and sworn before me this

29th day of October 2018



OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 5/12/2019



Latisha Romine

Notary Public, Eddy County, New Mexico

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Copy of Publication:

Legal Notice

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published in the Artesia Daily Press, Artesia, N.M., Oct. 28, 2018, 3 Legal No. 24886.



FORM C-108 Technical Review Summary [Prepared by reviewer and included with application; V16.2]

DATE RECORD: First Rec: 10/10/2018 Admin Complete: _____ or Suspended: _____ Add. Request/Reply: 12/1/2018

ORDER TYPE: WFX / PMX / SWD Number: _____ Order Date: _____ Legacy Permits/Orders: _____

Well No. 1 Well Name(s): ROSS RANCH 22

API : 30-0 15-27457 Spud Date: _____ New or Old (EPA): _____ (UIC Class II Primacy 03/07/1982)

Footages 1980FSL 660FWL Lot _____ or Unit L Sec 22 Tsp 19S Rge 2SE County EDG

General Location: 315 South Antesia Pool: SWD, Cisco Canyon Pool No.: 96186

BLM 100K Map: Antesia Operator: Percussion Petroleum, LLC OGRID: 371755 Contact: Ben Stone, Agent

COMPLIANCE RULE 5.9: Total Wells: 261 Inactive: 3 Fincl Assur OK Compl. Order? MAHS 5.9 OK Date: 12-10-2018

WELL FILE REVIEWED Current Status: Active -> NO production since Dec 2017

WELL DIAGRAMS: NEW: Proposed or RE-ENTER: Before Conv. After Conv. Logs in Imaging: _____

Planned Rehab Work to Well: _____

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned ___ or Existing ___ Surface	<u>14 3/4" / 9 5/8"</u>	<u>1110</u>	<u>1300</u>	<u>SURFACE / VISUAL</u>
Planned ___ or Existing ___ Interm/Prod	8 3/4" / 5 1/2"	<u>8050</u>	<u>1450</u>	SURFACE / VISUAL
Planned ___ or Existing ___ Interm/Prod	<u>8 3/4" / 5 1/2"</u>	<u>9444</u>		
Planned ___ or Existing ___ Prod/Liner				
Planned ___ or Existing ___ Liner				
Planned ___ or Existing ___ OH / PEB	<u>7615 / 8005</u>			

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops	Completion/Operation Details:
Adjacent Unit: Litho. Struc. Por.		<u>CH</u>	<u>7615</u>	Drilled TD <u>9444</u> PBTB _____
Confining Unit: Litho. Struc. Por.		<u>STU</u>	<u>8363</u>	NEW TD _____ NEW PBTB <u>8050</u>
Proposed Inj Interval TOP:		<u>SHALE US</u>	<u>8050</u>	NEW Open Hole <input type="radio"/> or NEW Perfs <input checked="" type="radio"/>
Proposed Inj Interval BOTTOM:				Tubing Size <u>4 1/2</u> in. Inter Coated? <input checked="" type="checkbox"/>
Confining Unit: Litho. Struc. Por.				Proposed Packer Depth <u>7515</u> ft
Adjacent Unit: Litho. Struc. Por.				Min. Packer Depth <u>7515</u> (100-ft limit)
				Proposed Max. Surface Press. <u>1523</u> psi
				Admin. Inj. Press. <u>1523</u> (0.2 psi per ft)

563/1.5

AOR: Hydrologic and Geologic Information

POTASH: R-111-P _____ Noticed? _____ BLM Sec Ord WIPP Noticed? _____ Salt/Salado T: _____ B: _____ NW: Cliff House fm _____

FRESH WATER: Aquifer Su Andres Ls Max Depth 220 HYDRO AFFIRM STATEMENT By Qualified Person

NMOSE Basin: Roswell-Antesia CAPITAN REEF: thru _____ adj _____ NA _____ No. GW Wells in 1-Mile Radius? 3 FW Analysis? _____

Disposal Fluid: Formation Source(s) Bone Spring Analysis? On Lease Operator Only Commercial

Disposal Interval: Inject Rate (Avg/Max BWPD): 35615 Protectable Waters? _____ Source: _____ System: Closed or Open

HC Potential: Producing Interval? _____ Formerly Producing? Method: Logs/DST/P&A/Other Production reported 2-Mi Radius Pool Map

AOR Wells: 1/2-M Radius Map and Well List? _____ No. Penetrating Wells: 9 [AOR Horizontals: _____ AOR SWDs: _____]

Penetrating Wells: No. Active Wells 9 Num Repairs? _____ on which well(s)? _____ Diagrams? _____

Penetrating Wells: No. P&A Wells _____ Num Repairs? _____ on which well(s)? _____ Diagrams? _____

NOTICE: Newspaper Date 10-28-2018 Mineral Owner MA Surface Owner ROSS RANCH N. Date 10-30-2018

RULE 26.7(A): Identified Tracts? _____ Affected Persons: EDG-y, Percussion Applicant N. Date 10-30-2018

Order Conditions: Issues: 1. Operator only, 2. B.S. -> yes 2. LTD tubing size

Additional COAs: DAGGER DRILLING OPERATIONS PERMITS 7704-7778 (depleted)