

ABOVE THIS LINE FOR DIVISION USE ONLY

1556

NEW MEXICO OIL CONSERVATION DIVISION
 - 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

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 _____

-SWS
 -Ray Westall Operating, Inc

119305

well
 -DHY 'A' state
 SWD#1
 30-015-21711

2015 APR 16 A 10:42

RECEIVED OGD

[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

Pool
 -SWS, CISCO-CANYON
 96182

[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.

Ben Stone

 Print or Type Name

Ben Stone

 Signature

Agent for Ray Westall Operating, Inc. 4/13/15

 Title Date

ben@sosconsulting.us

 e-mail Address



April 14, 2015

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

Attn: Mr. David Catanach, Director

Re: Application of Ray Westall Operating, Inc. to permit for salt water disposal the DHY 'A' State Well No.1 (currently named the East Millman Unit No.219) located in Section 15, Township 19 South, Range 28 East, NMMP, Eddy County, New Mexico.

Dear Mr. Catanach,

Please find enclosed form C-108 Application for Authority to Inject, supporting the above-referenced request to covert for disposal, the East Millman Unit Well No.219. Concurrent with this application, Ray Westall will be submitting a sundry to change the name of the well to the previous title resulting in the well being renamed the DHY 'A' State No.1 SWD, based on the original designation.

Ray Westall Operating seeks to optimize efficiency, both economically and operationally, of its operations. 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 in the April 8, 2015 edition of the Artesia Daily Press and all offset operators and other interested parties have been notified individually. The legal notice affidavit is included in this application package. This application also includes wellbore schematics, area of review maps, leaseholder plats and other required information for a complete Form C-108. The well is located on state land and minerals and a copy of this application has been submitted to the State Land Office, Oil and Gas Division.

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,

A handwritten signature in black ink, appearing to read 'Ben Stone', is written over a light blue background.

Ben Stone, Partner
SOS Consulting, LLC
Agent for Ray Westall Operating, Inc.

Cc: Application attachment and file

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: *Salt Water Disposal* and the application *qualifies* for administrative approval.
- II. OPERATOR: *Ray Westall Operating, Inc. Ogrid - 119305*
ADDRESS: *P.O. Box 4, Loco Hills, NM 88255*
- CONTACT PARTY: *Donnie Mathews (575) 677-2372*
Agent: SOS Consulting, LLC - Ben Stone (903) 488-9850
- III. WELL DATA: *All well data and applicable wellbore diagrams are ATTACHED hereto.*
- 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. *(1 AOR well penetrates the subject interval - No P&As penetrate.) The data includes* a description of each well's type, construction, date drilled, location, depth, and a schematic of any plugged 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 injection zone 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. *The well may be acidized to clean perforations and formation wall w/ 15% HCl w/ up to 2500 gals/1000'.*
- *X. *There is no applicable test data on the well however, any previous well logs (1 well log available via OCD Online) have been filed with the Division and they need not be resubmitted. A log strip of subject interval is ATTACHED.*
- *XI. *State Engineer's records indicate there are NO water wells within one mile the proposed salt water disposal well.*
- 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 6 offset lessees and/or operators plus state minerals within one mile - all have been noticed.*
- 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 / consultant for Ray Westall Operating, Inc.*

SIGNATURE:  DATE: *4/14/2015*

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:

III. WELL DATA – *The following information and data is included and ATTACHED:*

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.

CURRENT CONFIGURATION

**PLUGGED WELL SCHEMATIC
East Millman Unit No.219**

(Formerly DHY 'A' State No.1)

API 30-015-21711

1980' FSL & 1650' FEL, SEC. 15-T19S-R28E
EDDY COUNTY, NEW MEXICO

Spud Date: 1/26/1976

P&A Date: 3/17/1976

**Well Plugged by:
Depco, Inc.**

<PLUGGING ITEMS LISTED LEFT>

PLUGS:

Spot 10 sx
30'-0"

3/4" Tbg. Job w/
100 sx 450'-0"
(During Orig. Csg set)

Spot 50 sx
2850'- 2700'

Spot 50 sx
4750'- 4600'

Spot 50 sx
6250'- 6100'

Spot 50 sx
8850'-8700'

Spot 50 sx
9950'-9800'

Hole standing w/
Drig & Frmtn Fluids

Spot 50 sx
10750'-10600'

DTD @ 11510'

P&A Marker

G.L. 3449'

420'

SA 2465'

<PRE-P&A EXISTING ITEMS LISTED RIGHT>

Surface Casing

12.75", 40.0# Csg. (17.5" Hole) @420'
400 sx - Circulated to Surface

Intermediate Casing

8.625", 24.0 & 32.0# Csg. (11.0" Hole) @ 2800'
1500 sx - TOC @ 590' by Temp*

*Came back w/ 100 sx thru 3/4" Job in Annulus - Circ. to Surf.

DVC @ 1640' to TOP QN

<P&A SUBSEQUENT SUNDRY>

NEW MEXICO OIL CONSERVATION COMMISSION		Form O-102 Submittal Form C-102 and C-103 Effective 1/1/80
SUNDRY NOTICES AND REPORTS ON WELLS		1.井名 Type of Well
DRY HOLE		2. 完井日期 Date
DEPCO, Inc.		3. 完井地点 Well Location
800 Central, Odessa, TEXAS 79761		4. 完井深度 Well Depth
D. C. C.		5. 完井深度 Well Depth
ARTERIA OFFICE		6. 完井深度 Well Depth
1980		7. 完井深度 Well Depth
1980		8. 完井深度 Well Depth
1980		9. 完井深度 Well Depth
1980		10. 完井深度 Well Depth
1980		11. 完井深度 Well Depth
1980		12. 完井深度 Well Depth
1980		13. 完井深度 Well Depth
1980		14. 完井深度 Well Depth
1980		15. 完井深度 Well Depth
1980		16. 完井深度 Well Depth
1980		17. 完井深度 Well Depth
1980		18. 完井深度 Well Depth
1980		19. 完井深度 Well Depth
1980		20. 完井深度 Well Depth

Production Casing - NEVER SET

Drilled as Morrow Gas well - non-economic
(7.875" Hole Size to 11,510')



WELL SCHEMATIC - PROPOSED DHY 'A' State Well No.1 SWD

(Sundry for Name Change Filed w/ Artesia OCD District Office)

API 30-015-21711

1980' FSL & 1650' FEL, SEC. 15-T19S-R28E
EDDY COUNTY, NEW MEXICO

P&A Date: 3/17/1976

Re-Entry Date: ~6/01/2015

Annulus Monitored
or open to atmosphere

Injection Pressure Regulated
and Volumes Reported
1901 psi Max



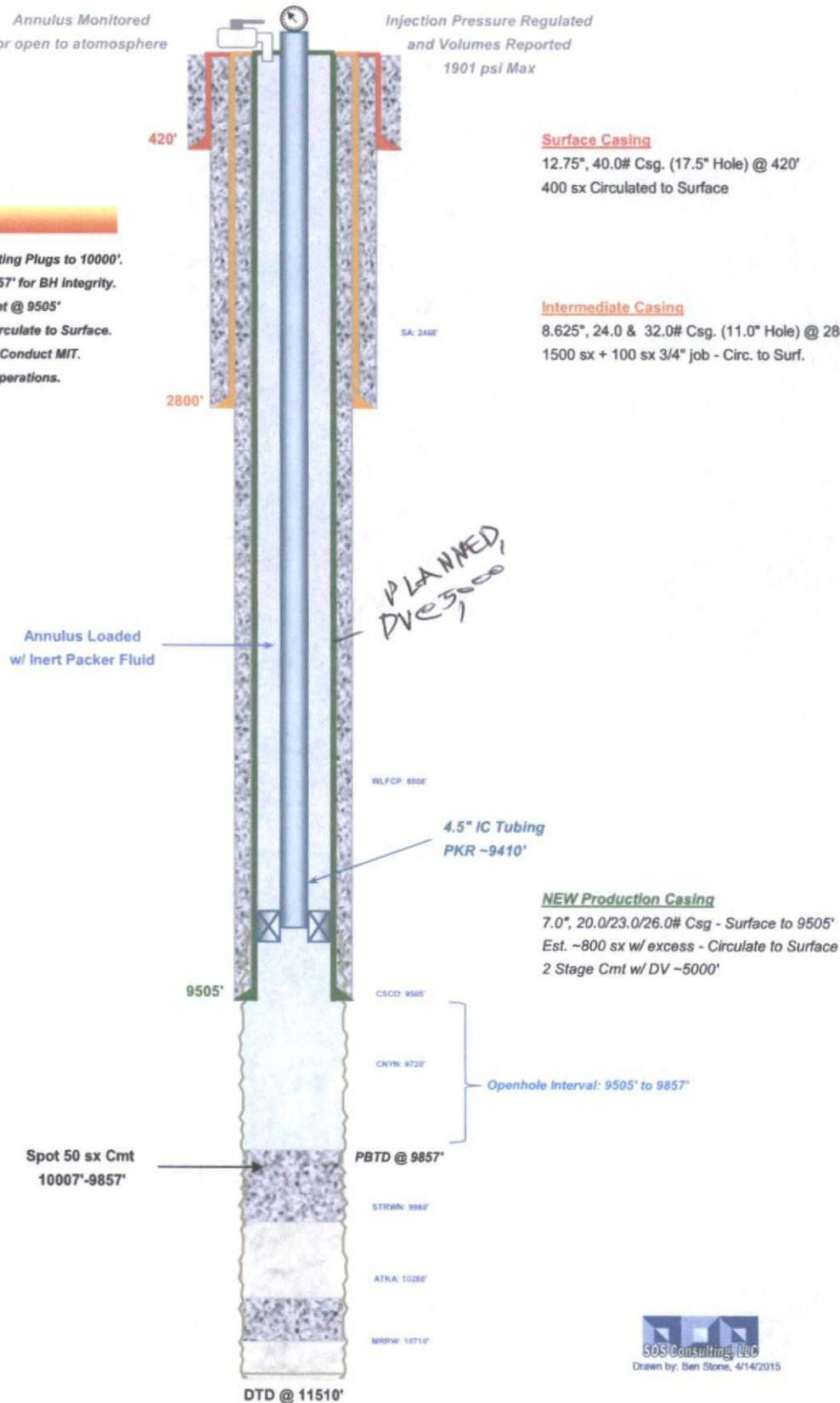
Convert to SWD: D/O & C/O Existing Plugs to 10000'.
PBD: Spot 50 sx Cmt 10007'-9857' for BH Integrity.
Run & Set New 7.0" - Set @ 9505'
Cement 2 stages w/ ~800 sx - Circulate to Surface.
Run PC Tubing and PKR - Conduct MIT.
Commence Disposal Operations.

Surface Casing

12.75", 40.0# Csg. (17.5" Hole) @ 420'
400 sx Circulated to Surface

Intermediate Casing

8.625", 24.0 & 32.0# Csg. (11.0" Hole) @ 2800'
1500 sx + 100 sx 3/4" job - Circ. to Surf.



NEW Production Casing

7.0", 20.0/23.0/26.0# Csg - Surface to 9505'
Est. ~800 sx w/ excess - Circulate to Surface
2 Stage Cmt w/ DV ~5000'

Openhole Interval: 9505' to 9857'

Spot 50 sx Cmt
10007'-9857'

PBD @ 9857'

STRWN: 990'

ATHA: 10280'

MRPW: 10710'

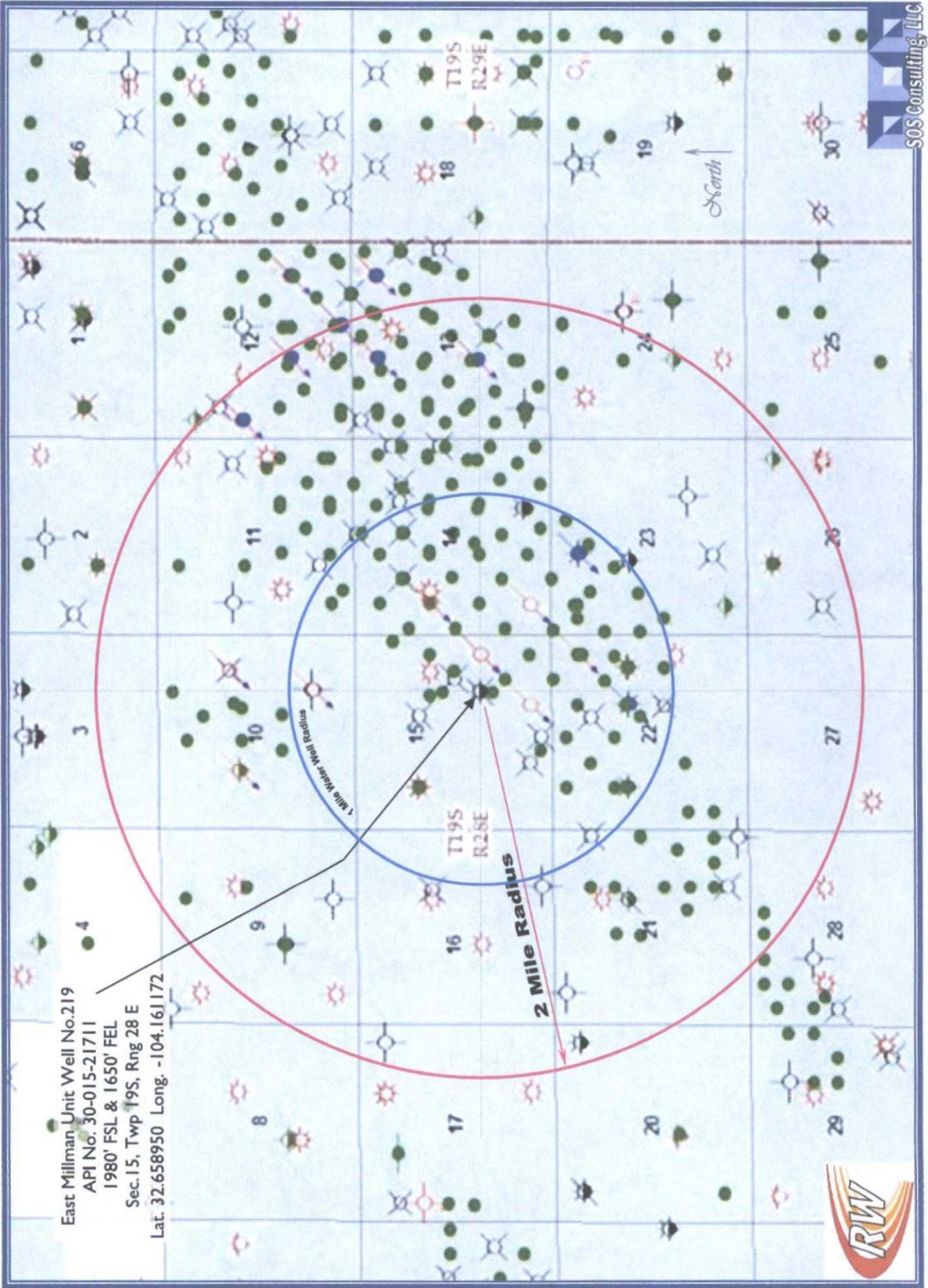
DTD @ 11510'



Drawn by: Ben Stone, 4/14/2015

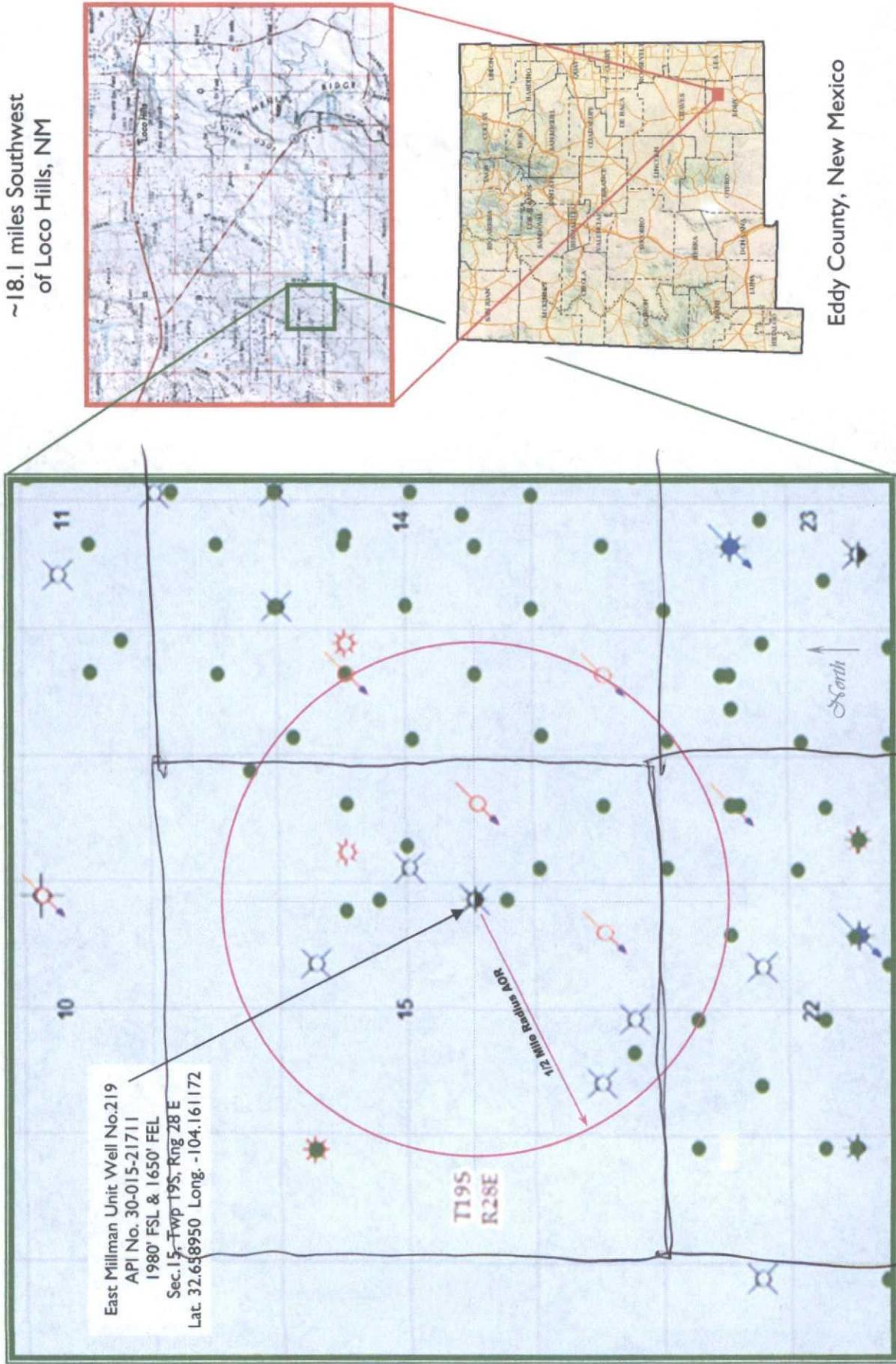
East Millman Unit No.219 - Area of Review / 2 Miles + 1 Mile WW

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



East Millman Unit Well No.219 - Area of Review / Overview Map

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



RAY WESTALL OPERATING, INC.



Form C-108 Item VI - Tabulation of AOR Wells

Top of Proposed CISCO Interval 9505'

Only 1 Well Penetrates Proposed Interval.

API	Current Operator	Well Name	Well No.	Type	Lease	Status	ULSTR	Depth	Plugged On
30-015-21711	[20451] SDX RESOURCES INC	EAST MILLMAN UNIT	#219	Oil	State	P&A	J-15-19S-28E	11510'	2/22/2001

Section 14 Wells

30-015-02246	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#144	Oil	State	Active	L-14-19S-28E	2986'	
30-015-02247	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#145	Injection	State	P&A	M-14-19S-28E	2500'	12/1/2011
30-015-02249	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#147	Injection	State	Active	E-14-19S-28E	2255'	
30-015-27299	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#193	Oil	State	Active	M-14-19S-28E	2650'	
30-015-27302	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#196	Oil	State	Active	L-14-19S-28E	2650'	
30-015-27304	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#199	Oil	State	Active	E-14-19S-28E	2650'	

Section 15 Wells

API	Current Operator	Well Name	Well No.	Type	Lease	Status	ULSTR	Depth	Plugged On
30-015-33631	[873] APACHE CORP	HINT 15 STATE	#002	Gas	State	Active	H-15-19S-28E	11550'	
Morrow Perfs: 10,876'-10,930'; 13.375" (17.5" hole) @ 400' w 500 sx - circ.; 9.625 (12.25" hole) @ 2520' w/ 600 sx - circ.; 5.5" (8.75" hole) @ 11547' w/ 2075 sx - TOC @ 950' by Temp.									
30-015-10148	[214263] PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#190	Oil	State	P&A	G-15-19S-28E	2593'	1/1/1900
30-015-02261	[20451] SDX RESOURCES INC	EAST MILLMAN UNIT	#163	Oil	State	P&A	N-15-19S-28E	0'	3/17/2004
30-015-02256	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#001	Injection	State	Active	A-15-19S-28E	2295'	
30-015-02257	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#150	Oil	State	Active	P-15-19S-28E	2271'	
30-015-02258	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#151	Injection	State	Active	I-15-19S-28E	2141'	
30-015-02259	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#156	Injection	State	Active	O-15-19S-28E	2273'	
30-015-02260	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#157	Oil	State	Active	H-15-19S-28E	2295'	
30-015-02262	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#165	Oil	State	Active	J-15-19S-28E	1855'	
30-015-27469	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#212	Injection	State	Active	P-15-19S-28E	2650'	
30-015-34860	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#232	Oil	State	Active	H-15-19S-28E	3024'	

Section 22 Wells

30-015-02288	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#154	Oil	State	Active	B-22-19S-28E	2571'	
30-015-27297	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#191	Oil	State	Active	A-22-19S-28E	2625'	
30-015-27348	[19958] STEPHENS & JOHNSON OP CO	EAST MILLMAN UNIT	#203	Oil	State	Active	B-22-19S-28E	2900'	
30-015-02284	[19958] STEPHENS & JOHNSON OP CO	WELCH FEDERAL	#001	Oil	Federal	Active	C-22-19S-28E	2233'	

SUMMARY: 1 well penetrates proposed disposal interval. 0 P&A.



C-108 ITEM VII – PROPOSED OPERATION

The DHY 'A' State Well No.1 SWD (currently known as the East Millman Unit No.219) will be operated as a commercial disposal service to area operators to facilitate in disposal of produced water from typical producing formations in the area. (Samples are included in this application from San Andres, Delaware and Morrow formation waters - chlorides and TDS are relative compatible with Cisco and Canyon formation waters.)

The system will be closed utilizing a tank battery facility located on the well site.

Injection pressure will be 1901 psi with rates limited only by that pressure. In the future, Ray Westall Operating, Inc. may opt to conduct a step rate test if it is determined that greater rates may be required. This would be submitted to OCD as a request to increase the injection pressure.

Routine maintenance will be ongoing and any releases will be reported within 24 hours to OCD on form C-141 pursuant to various portions of 19.15.30 NMAC.

The facility will not be manned but will be available to Ray Westall's customers 24/7. The facility will be available for inspections at any time deemed necessary by OCD.

C-108 - Item VIII

Geological Data

The Cisco Formation (Upper Penn) is a gray micritic (fine grained) fossiliferous limestone with vugular porosity. The reservoirs in this area are usually limited in size with up dip porosity loss due to shelf margin carbonate build up.

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 good porosity in the proposed injection interval located from 9505 feet to 9857 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 Santa Rosa formation (Capitan Basin). Based on State Engineer's records for a water well in Section 9, Twp 19S, Rng 28E, groundwater is at a depth to water of 265 feet.

There are no water wells located within one mile of the proposed SWD.

SEC 15 TWP 19 RGE 28

APT # 30-015-21711

OPERATOR SDX

WELL NAME OHY ST-A #1 E Millman #219

STATE OGD TOPS AS PER MA

DATE 6-15-93

Southeastern New Mexico

Northwestern New Mexico

T. Anhy _____	T. Canyon _____ 9720	T. Ojo Alamo _____	T. Penn. B' _____
T. Salt _____	T. Strawn _____ 9980	T. Kirtland-Froidland _____	T. Penn. C' _____
B. Salt _____	T. Atoka _____ 10280	T. Picured Cliff _____	T. Penn. D' _____
T. Yates _____ 808	T. Miss _____ 11214	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____ 1120	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen _____ 1675	T. Silurian _____	T. Point Lookout _____	T. Eibert _____
T. Grayburg _____ 2020	T. Monroya _____	T. Mancos _____	T. McCracken _____
T. San Andres _____ 2468	T. Simpson _____	T. Gallup _____	T. Ignacio Otze _____
T. Glorietta _____	T. McKee _____	Base Goshute _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blinberry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Delaware Sand _____	T. Todillo _____	T. _____
T. Drinkard _____	T. Bone Springs _____ ? 3195	T. Escada _____	T. _____
T. Abo _____	T. Morrow LS _____ 10710	T. Wingate _____	T. _____
T. Wolfcamp _____ 8808	T. " CLS _____ 10820	T. Chinle _____	T. _____
T. Penn _____ 9505	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn "A" _____	T. _____

OIL OR GAS SANDS OR ZONES

No. 1. from _____ to _____ No. 3. from _____ to _____
No. 2. from _____ to _____ No. 4. from _____ to _____

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

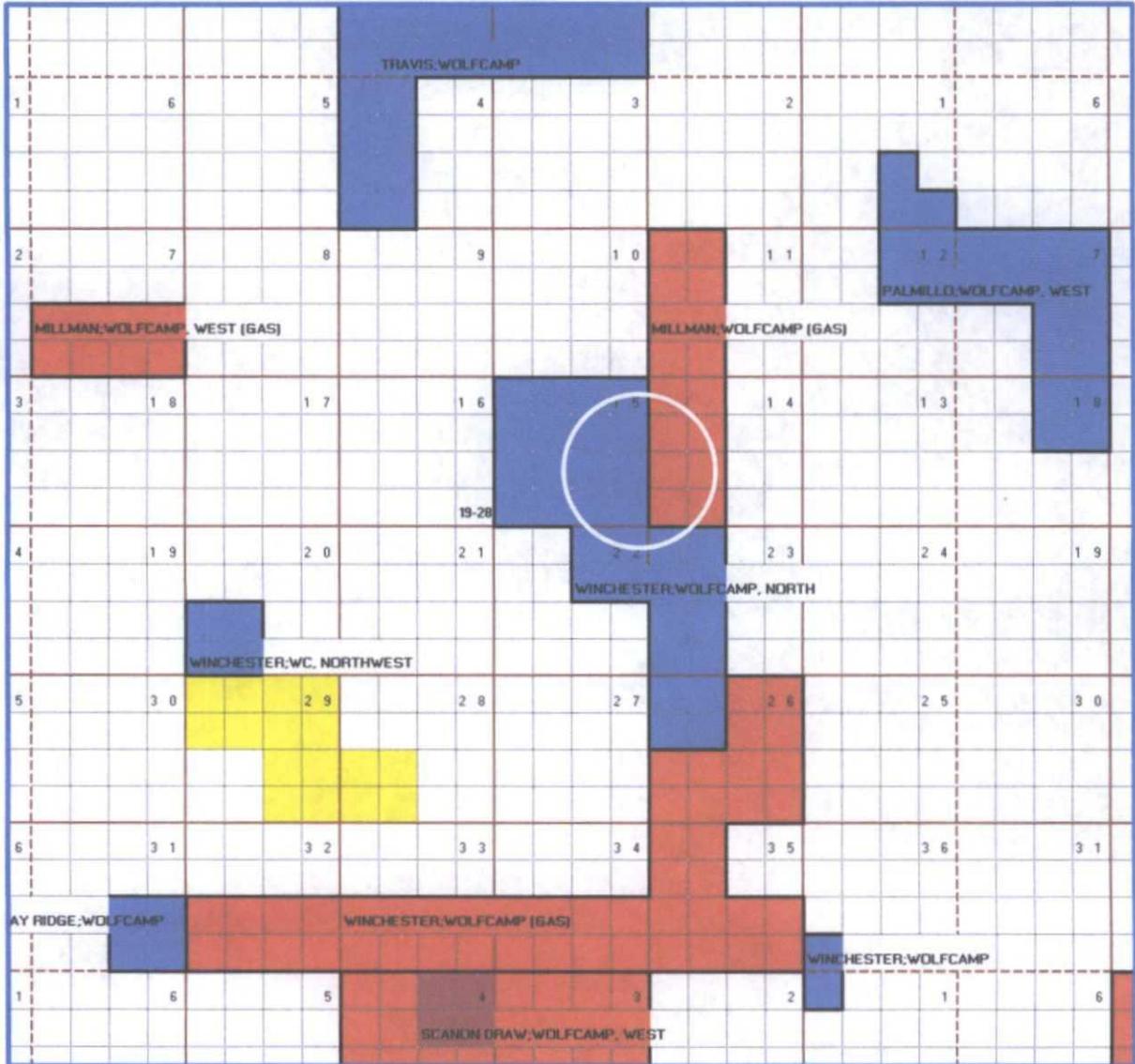
No. 1. from _____ to _____ feet
No. 2. from _____ to _____ feet
No. 3. from _____ to _____ feet

REMARKS:

**C-108 – Item VIII – Geologic Data
SUPPLEMENTAL INFORMATION – POOL DATA**

WOLFCAMP POOLS IN REGION

(Overlying Disposal Formation)

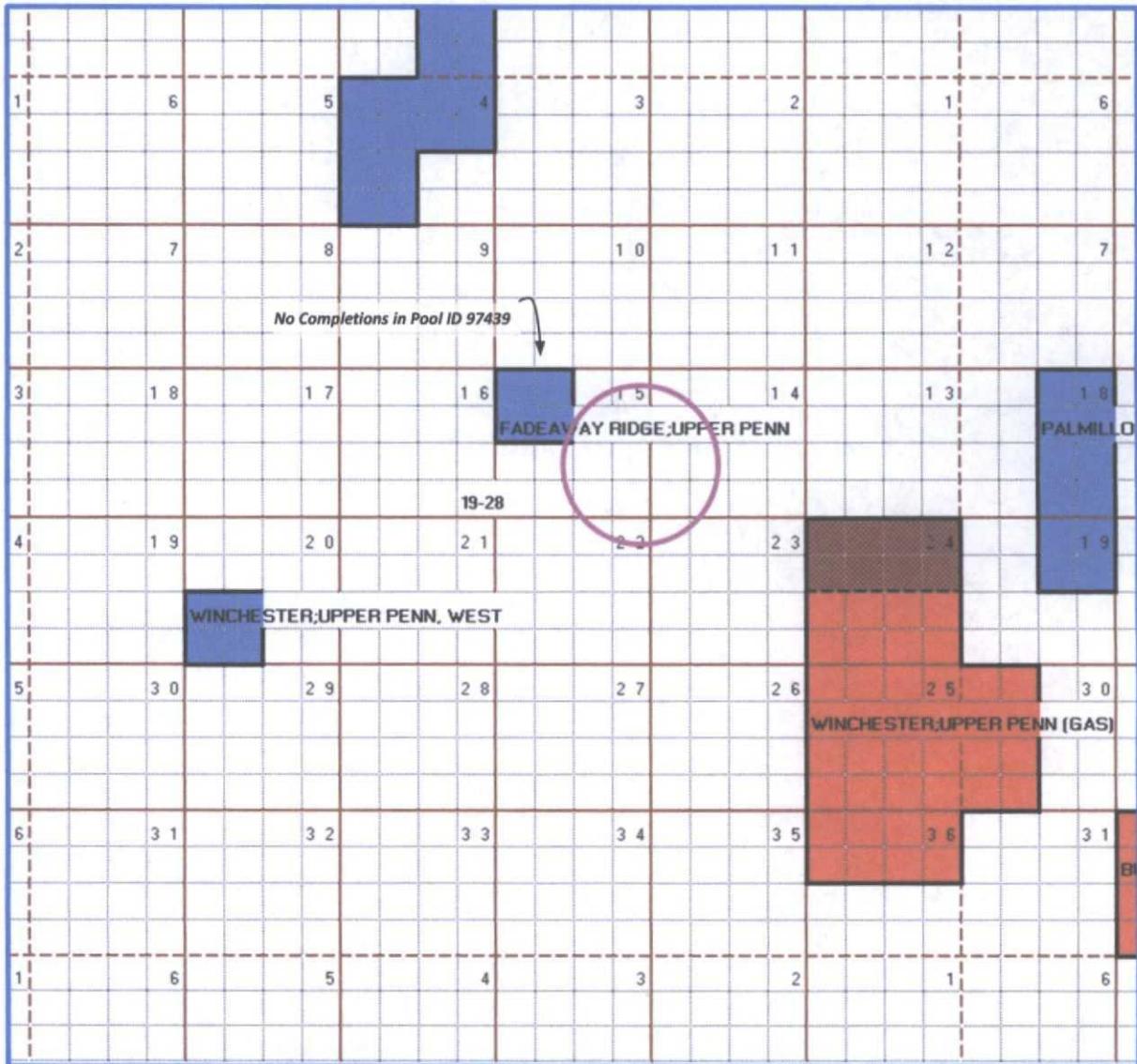


Pool Maps Courtesy of Paul Kautz

C-108 – Item VIII – Geologic Data
SUPPLEMENTAL INFORMATION – POOL DATA

UPPER PENN / CISCO / CANYON POOLS IN REGION

(Cisco & Canyon Disposal Formations)

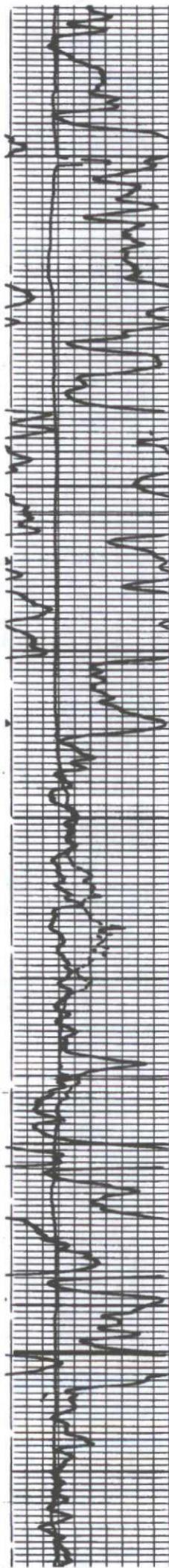


Pool Maps Courtesy of Paul Kautz

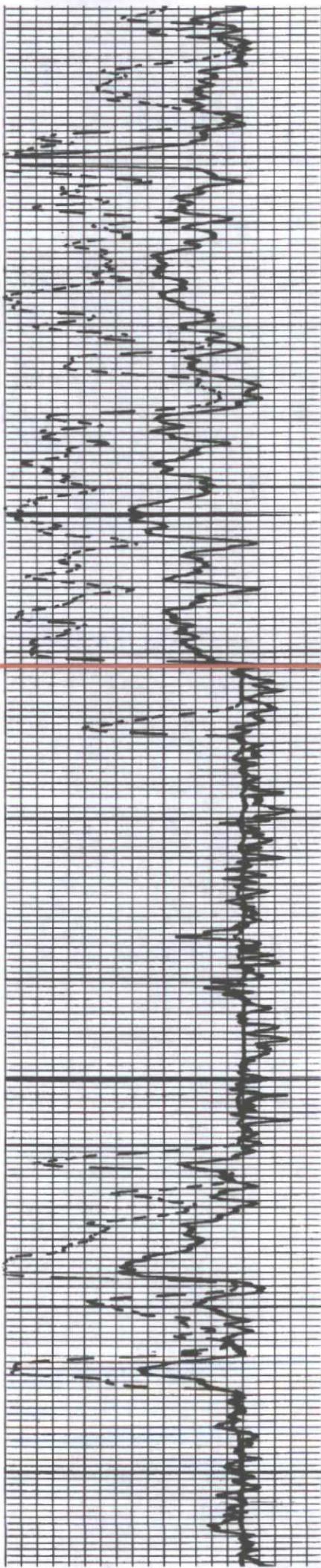
C-108 ITEM X – LOGS and AVAILABLE TEST DATA

A log strip from the subject well is attached and the entire subject interval is represented.

LOG STRIP FOLLOWS

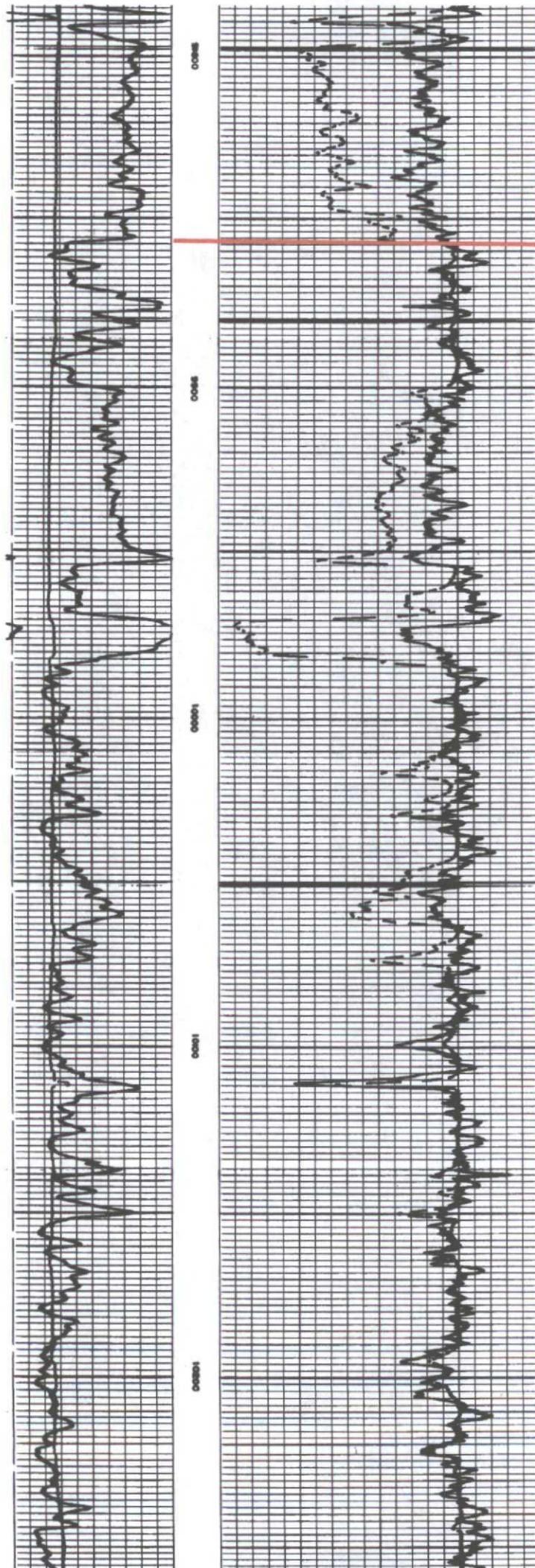


0.01s 0.01s 0.01s 0.01s



TOP OF PROPOSED
INTERVAL
(T/ CISCO) 9505'

BOTTOM OF
PROPOSED INTERVAL
(B/CANYON) 9857'



DISTRICT I
P.O. Box 1800, Hobbs, NM 88241-1800

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Artesia, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

JUL 14 2003

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-015-32998	Pool Code 97439	Pool Name FADEAWAY RIDGE; UPPER PENN
Property Code 32868	Property Name HINT 15 STATE	Well Number 1
OGRID No. 14049	Operator Name MARBOB ENERGY CORPORATION	Elevation 3503'

Surface Location

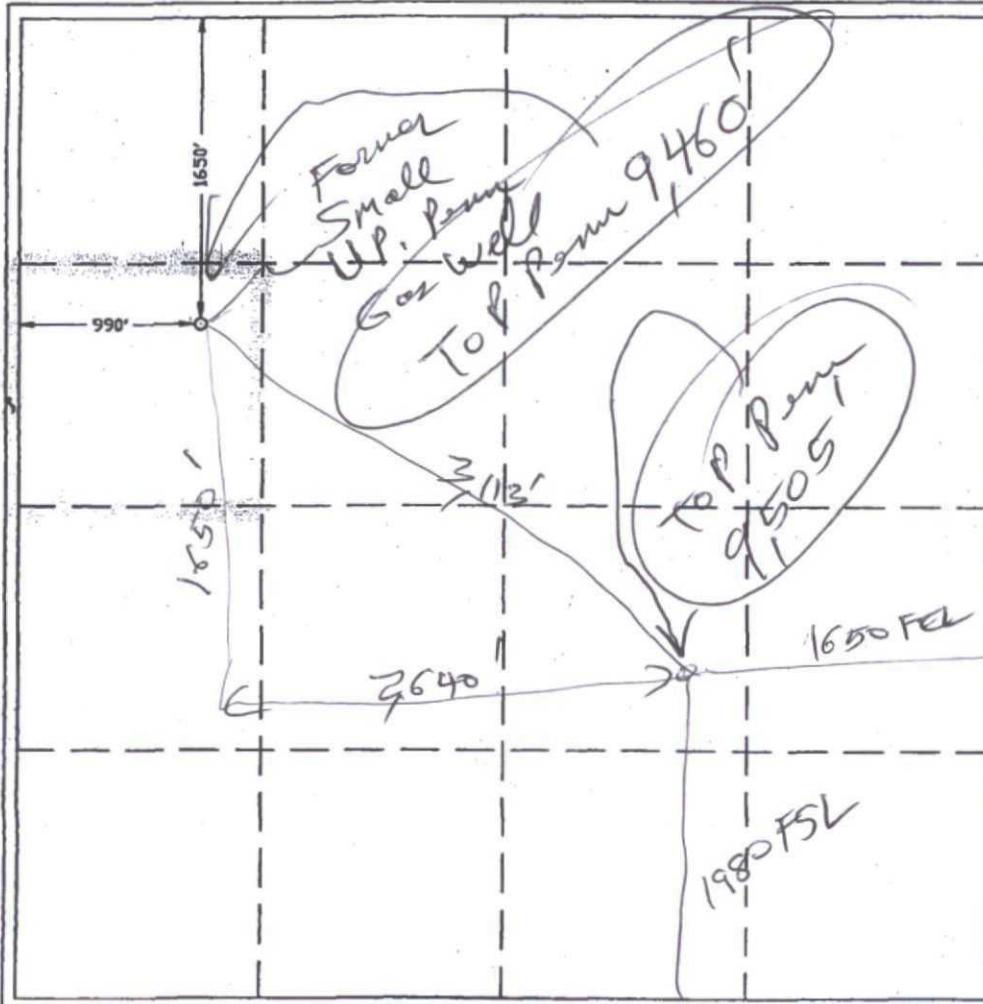
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	15	19-S	28-E		1650'	NORTH	990'	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Diana J. Briggs
Signature
DIANA J. BRIGGS
Printed Name
PRODUCTION ANALYST
Title
MARCH 28, 2005
Date

SURVEYOR CERTIFICATION

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

July 10, 2003
Date Surveyed
Signature & Seal of Professional Surveyor
RONALD J. EIDSON
3239
03.11.00725
Certificate No. RONALD EIDSON 3239
GAS EIDSON 12641

C-108 - Item VII.5

Water Analysis - Disposal Zone



Water Analysis

Date: 2/24/2005

2401 Sivley, Artesia NM 88210

Phone (505) 746-3140 Fax (505) 746-2293

Analyzed For

Company	Well Name	County	State
Westall	State G#1	Eddy	New Mexico

Sample Source	Sample #
Formation	1
Canyon	
Specific Gravity	1.050
pH	6.30
Temperature (°F)	65
SG @ 60 °F	1.051
Sulfides	Not Tested
Reducing Agents	Not Tested

Cations

Sodium (Calc)	in Mg/L	9,518	in PPM	9,056
Calcium	in Mg/L	5,600	in PPM	5,328
Magnesium	in Mg/L	240	in PPM	228
Soluble Iron (FE2)	in Mg/L	300.0	in PPM	285

Anions

Chlorides	in Mg/L	24,000	in PPM	22,835
Sulfates	in Mg/L	2,000	in PPM	1,803
Bicarbonates	in Mg/L	185	in PPM	178
Total Hardness (as CaCO3)	in Mg/L	15,000	in PPM	14,272
Total Dissolved Solids (Calc)	in Mg/L	41,844	in PPM	39,813 ✓
Equivalent NaCl Concentration	in Mg/L	38,410	in PPM	36,548

Scaling Tendencies

*Calcium Carbonate Index	1,839,464
Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable	
*Calcium Sulfate (Gyp) Index	11,200,000
Below 500,000 Remote / 500,000 - 10,000,000 Possible / Above 10,000,000 Probable	

*This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.

Remarks FAX 677-2361

C-108 - Item VII.4

Water Analysis - Source Water - SAN ANDRES

B J Services Water Analysis

Artesia District Laboratory
(505)-746-3140

Date: 6-Nov-00 Test #:
 Company: SDX Resources Well #:
 Locat: Chalk Federal #2 County: Eddy
 State: N.M. Formation San Andres
 Depth: 2900 Source:

pH:	8.51	Temp (F):	58.3
Specific Gravity	1.12		

CATIONS	mg/l	meq/l	ppm
Sodium (calc.)	64802	2370.7	48962
Calcium	3208	160.1	2864
Magnesium	1458	120.0	1302
Barium	< 25	—	—
Potassium	< 10	—	—
Iron	3	0.1	2

ANIONS	mg/l	meq/l	ppm
Chloride	83000	2623.4	83036
Sulfate	1071	22.3	957
Carbonate	< 1	—	—
Bicarbonate	878	14.4	784
Total Dissolved Solids(calc.)	154120		137607 ✓
Total Hardness as CaCO3	14014	280.0	12513

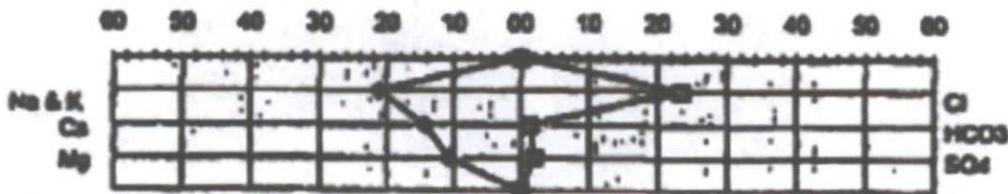
COMMENTS:

Rw= 0.0847 @ 51.1 deg.

SCALE ANALYSIS:

CaCO3 Factor 2817907 Calcium Carbonate Scale Probability → Probabl
 CaSO4 Factor 3848600 Calcium Sulfate Scale Probability → Remoin

Stiff Plot



C-108 - Item VII.4

Water Analysis - Source Water - DELAWARE



Water Analysis

Date: 11-Jan-05

2708 West County Road, Hobbs NM 88240
 Phone (505) 392-5556 Fax (505) 392-7307

Analyzed For

Devon	Spud 16 State #1	Lee	New Mexico
-------	------------------	-----	------------

Sample Source	Sample	Sample #	1
Formation	<i>2</i>	Depth	
Specific Gravity	1.185	SG @ 60 °F	1.185
pH	5.96	Sulfides	Absent
Temperature (°F)	65	Reducing Agents	

Cations

Sodium (Calc)	in Mg/L	73,985	in PPM	61,860
Calcium	in Mg/L	34,800	in PPM	28,428
Magnesium	in Mg/L	5,040	in PPM	4,214
Soluble Iron (FE2)	in Mg/L	50.0	in PPM	42

Anions

Chlorides	in Mg/L	188,000	in PPM	157,191
Sulfates	in Mg/L	650	in PPM	460
Bicarbonates	in Mg/L	78	in PPM	65
Total Hardness (as CaCO3)	in Mg/L	186,000	in PPM	68,629
Total Dissolved Solids (Calc)	in Mg/L	301,703	in PPM	252,200
Equivalent NaCl Concentration	in Mg/L	254,733	in PPM	212,988

Scaling Tendencies

*Calcium Carbonate Index 2,654,720

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

*Calcium Sulfate (Gyp) Index 18,700,000

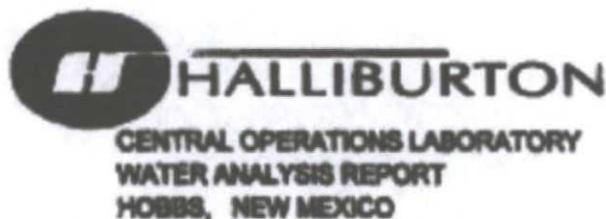
Below 500,000 Remote / 500,000 - 10,000,000 Possible / Above 10,000,000 Probable

**This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.*

Remarks *rw=,040@63f*

C-108 - Item VII.4

Water Analysis - Source Water - MORROW



COMPANY Marbob

REPORT DATE WC2-128
June 18, 2002
 DISTRICT Hobbs

SUBMITTED BY Jim Trele

WELL Ruger St. #1 DEPTH _____ FORMATION _____
 COUNTY _____ FIELD _____ SOURCE _____

SAMPLE Morrow Prod. Water

Sample Temp.	<u>64</u> °F	_____	_____	_____
RESISTIVITY	<u>0.13</u>	_____	_____	_____
SPECIFIC GR.	<u>1.040</u>	_____	_____	_____
pH	<u>6.63</u>	_____	_____	_____
CALCIUM	<u>4.500</u> mg/l	_____ mg/l	_____ mg/l	_____ mg/l
MAGNESIUM	<u>6.300</u> mg/l	_____ mg/l	_____ mg/l	_____ mg/l
CHLORIDE	<u>34.663</u> mg/l	_____ mg/l	_____ mg/l	_____ mg/l
SULFATES	<u>8.911</u> mg/l	_____ mg/l	_____ mg/l	_____ mg/l
BICARBONATES	<u>18</u> mg/l	_____ mg/l	_____ mg/l	_____ mg/l
SOLUBLE IRON	<u>0</u> mg/l	_____ mg/l	_____ mg/l	_____ mg/l
Sodium	_____ mg/l	<u>0</u> mg/l	<u>0</u> mg/l	<u>0</u> mg/l
TDS	_____ mg/l	<u>0</u> mg/l	<u>0</u> mg/l	<u>0</u> mg/l
OIL GRAVITY	_____ °F	_____ °F	_____ °F	_____ °F

REMARKS

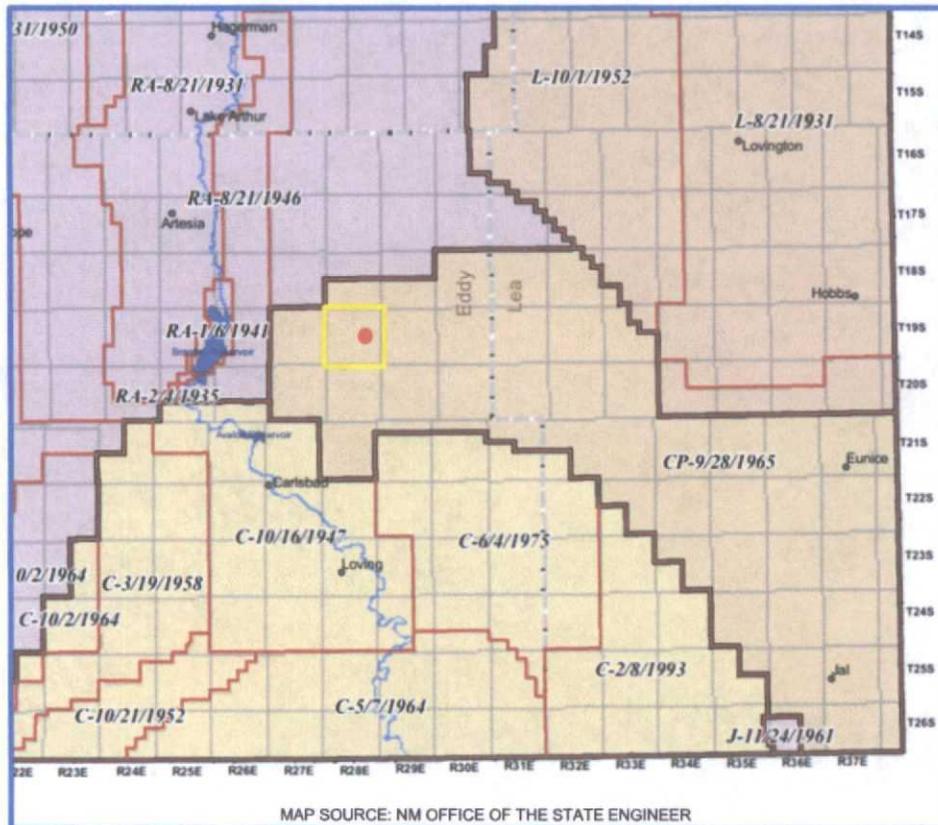
MPL = Milligrams per liter
 Resistivity measured in: Ohm-cm

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or persons and employees thereof receiving such report from Halliburton Co.

ANALYST: Mike Armstrong

C-108 - Item XI

Groundwater Basins - Water Column / Depth to Groundwater



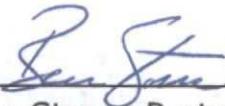
The subject well is located within the Capitan Basin, 1-1/2 townships south of the Roswell Artesian Basin.

Fresh water in the area is generally available from the Santa Rosa formation. State Engineer's records show there is only one water well in 9-19S-28E with a depth of 365 feet and depth to water at 265 feet.

There are no water wells located within one mile of the proposed SWD.

C-108 ITEM XII – GEOLOGIC AFFIRMATION

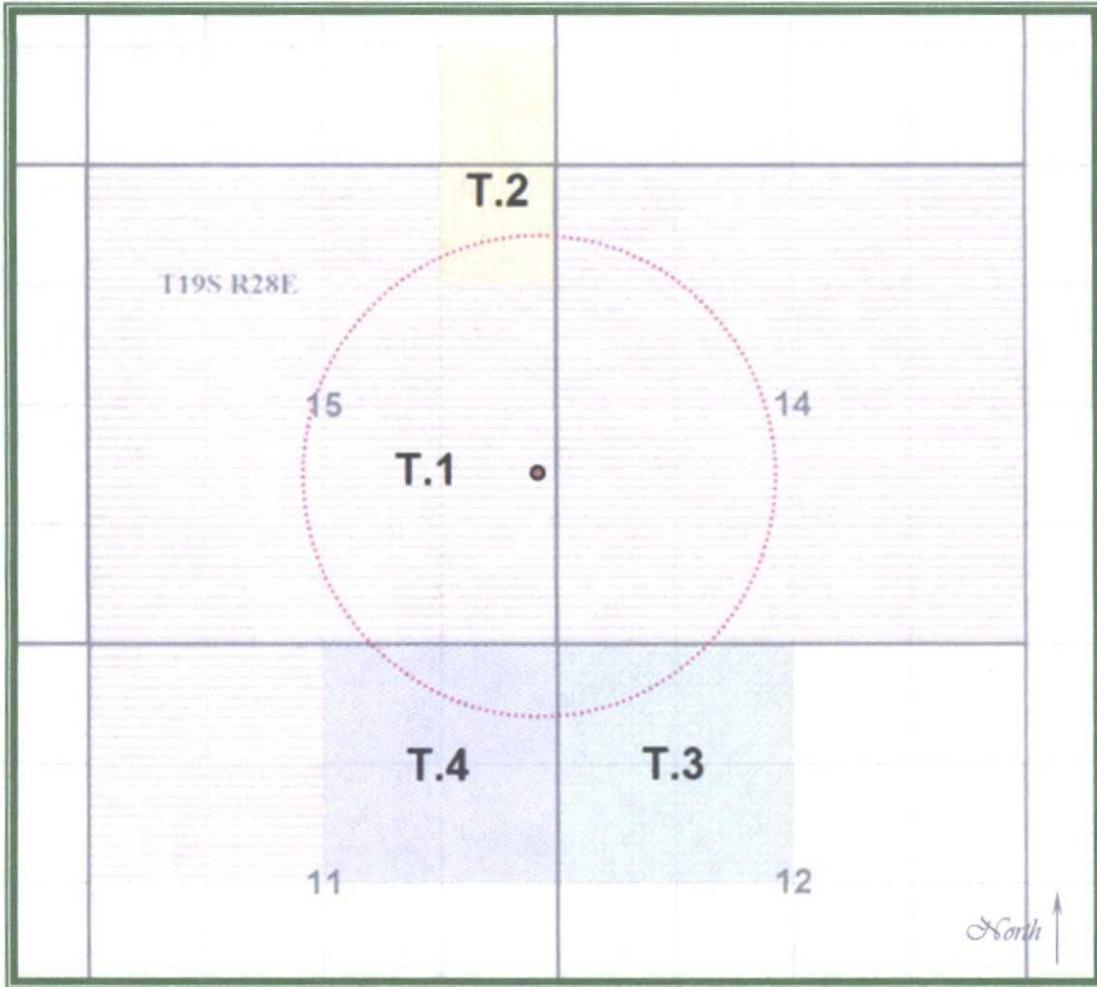
We have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and any underground sources of drinking water.



Ben Stone, Partner
SOS Consulting, LLC

Project: Ray Westall Operating, Inc.
East Millman Unit Well No.219
Reviewed 4/09/2015

East Millman Unit Well No.219 - Leasehold Plat
(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



RAY WESTALL OPERATING, INC.

LEGEND

- T.1 – X0-0648-0131 – Marathon Oil Company
X0-0648-0151 - Khody Land and Minerals Company
- T.2 – E0-5003-0004 – Khody Land and Minerals Company
- T.3 – E0-4397-0005 – Perry R. Bass Trustee
E0-4397-0007 – BMT O&G NM, LLC
- T.4 – OG -0272-0004 – COG Operating, LLC

**C-108 ITEM XIII – PROOF OF NOTIFICATION
INTERESTED PARTIES LIST**

SURFACE OWNER

STATE OF NEW MEXICO (FedEx'ed copy)
Oil, Gas and Minerals Division
310 Old Santa Fe Trail
Santa Fe, NM 87504

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

State Lease X0-0648-0131

Lessee/Operator

- 1 MARATHON OIL COMPANY
P.O. Box 22164
Tulsa, OK 74121-2164

State Leases X0-0648-0151; E0-5003-0004

Lessee

- 2 KHODY LAND AND MINERALS COMPANY
210 Park Avenue, Ste., 900
Oklahoma City, OK 73102

Operator

- 3 STEPHENS & JOHNSON OPERATING CO.
P.O. Box 2249
Wichita Falls, TX 76307

State Lease E0-4397-0005

Lessee

- 4 PERRY R. BASS TRUSTEE
201 Main Street, Ste.2700
Fort Worth, TX 76102-3131

Operator

STEPHENS & JOHNSON OPERATING CO.
P.O. Box 2249
Wichita Falls, TX 76307

State Lease E0-4397-0007

Lessee

- 5 BMT O&G NM, LLC
201 Main Street, Ste.2700
Fort Worth, TX 76102-3131

**C-108 ITEM XIII – PROOF OF NOTIFICATION
INTERESTED PARTIES LIST (cont.)**

State Lease OG-0272-0004

6 ***Lessee/Operator***
COG OPERATING, LLC
Attn: Jim Bob Burnett
2208 W. Main St.
Artesia, NM 88210

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

NEW MEXICO STATE LAND OFFICE (FedEx'ed copy)
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, NM

April 10, 2015

NOTIFICATION TO INTERESTED PARTIES
via U.S. Certified Mail

To Whom It May Concern:

Ray Westall Operating, Inc., Loco Hills, New Mexico, has made application to the New Mexico Oil Conservation Division to convert for salt water disposal the East Millman Unit Well No.219. The proposed commercial operation will be for produced water disposal from area operators. As indicated in the notice below, the well is located in Section 15, Township 19 South, Range 28 East in Eddy County, New Mexico.

The published notice states that the interval will be from 9505 feet to 9857 feet.

Following is the notice published in the Artesia Daily Press, Artesia, New Mexico on or about April 8, 2015

LEGAL NOTICE

Ray Westall, Inc., P.O. Box 4, Loco Hills, NM 88255 is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division for administrative approval to permit for salt water disposal in its East Millman Unit Well No.219. The well, API No.30-015-21711 is located 1980 FSL & 1650 FEL in Section 15, Township 19 South, Range 28 East in Eddy County, New Mexico. Produced water from area production will be commercially disposed into the Cisco and Canyon formations through selected perforated intervals between a maximum applied for top of 9505 feet to maximum depth of 9857 feet and based on further log analysis. Maximum injection pressure will be 1901 psi with a maximum 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 on a mini-CD will be arriving within a few days of this notice. If you do not receive it, please call or email SOS Consulting, LLC at 903-488-9850, info@sosconsulting.us, and a copy will be expedited to you and may also be sent via email if preferred.

Thank you for your attention in this matter.

Best regards,

A handwritten signature in black ink, appearing to read "Ben Stone". The signature is fluid and cursive, with the first name "Ben" and last name "Stone" clearly distinguishable.

Ben Stone, SOS Consulting, LLC
Agent for Ray Westall Operating, Inc.

Cc: Application File

C-108 - Item XIV

Proof of Notice (Certified Mail Receipts)

7014 0510 0001 2766 3397
7014 2120 0003 7437 95
7014 2120 0003 7437 95
7014 2120 0003 7437 95

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Total Postage & Fees	\$ 649



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City, St

MARATHON OIL COMPANY
P.O. Box 2069
Houston, TX 77252-2069

PS Form 3800, June 2009

For delivery information, visit our website at www.usps.com

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Total Postage & Fees	\$ 649



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City, St

STEPHENS & JOHNSON OP. CO.
P.O. Box 2249
Wichita Falls, TX 76307

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Total Postage & Fees	\$ 649



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City, State

BMT O&G NM, LLC
201 Main Street, Ste.2700
Fort Worth, TX 76102-3131

PS Form 3800, June 2009

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7014 2120 0003 7437 95
7014 2120 0003 7437 95
7014 2120 0003 7437 95

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City, St

KHODY LAND & MINERALS CO.
210 Park Avenue, Ste.900
OKC, OK 73102

PS Form 3800, June 2009

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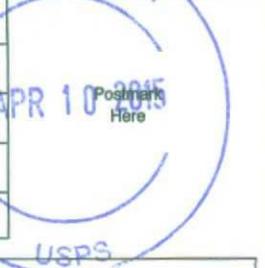
PERRY R. BASS TRUSTEE
201 Main Street, Ste.2700
Fort Worth, TX 76102-3131

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Total Postage & Fees	\$ 649



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Street & PO B
City, Sta

COG OPERATING, LLC
Attn: Jim Bob Burnett
2208 W. Main St.
Artesia NM 88210

PS Form 3800, June 2009

C-108 ITEM XIII – PROOF OF NOTIFICATION

Regulatory Filings

Ray Westall Operating, LLC

East Millman Unit No.219 (to be renamed DHY 'A' State No.1 SWD)

C-108 sent 4/15/2015

FedEx Tracking Nos.

OCD SF – 7733 7287 4896

OCD Art – 7733 7290 1746

SLO – 7733 7291 6418

I hereby certify that a full copy of the subject C-108 application was sent to the applicable regulatory agencies as indicated above.



Ben Stone, Partner
SOS Consulting, LLC
Agent for Ray Westall Operating, Inc.



C-108 Review Checklist: Received 4/16/15 Add. Request: _____ Reply Date: _____ Suspended: _____ [Ver 14]

PERMIT TYPE: WFX / PMX SWD Number: 1556 Permit Date: 4/14/15 Legacy Permits/Orders: _____

Well No. _____ Well Name(s): DHY A State well No. 1 (East MILLMAN UNIT No 219)

API: 30-0 15-21711 Spud Date: 1/26/76 New or Old: (UIC Class II Primacy 03/07/1982)

Footages 1980 FSL / 1650 FEL Lot _____ or Unit J Sec 15 Tsp 19S Rge 28E County EDDY

General Location: 18 mi SW of Loco Hills Pool: _____ Pool No.: _____

BLM 100K Map: _____ Operator: Raymond Ortega, INC. OGRID: 119305 Contact: Ben Stone

COMPLIANCE RULE 5.9: Total Wells: 94 Inactive: 0 Fincl Assur: OK Compl. Order? _____ IS 5.9 OK? OK Date: 6-14-15

WELL FILE REVIEWED Current Status: P&A 2/22/15

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

Planned Rehab Work to Well: RE-ENTER TO 9857, set 7" @ 9505', inj O.H.

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned ___ or Existing <input checked="" type="checkbox"/> Surface	<u>17.5-12 3/4</u>	<u>420</u>	Stage Tool	<u>400</u> <u>CIRC</u>
Planned ___ or Existing <input checked="" type="checkbox"/> Interm/Prod	<u>11-8 5/8</u>	<u>2800</u>	<u>1640</u>	<u>1500+100</u> <u>CIRCW/3/4" TB6</u>
Planned ___ or Existing ___ Interm/Prod	<u>7 7/8</u>	<u>9505</u>	<u>5000</u>	<u>800</u> <u>Plan to CIRC</u>
Planned ___ or Existing ___ Prod/Liner	<u>7 7/8</u>	<u>7</u>		
Planned ___ or Existing ___ Liner				
Planned ___ or Existing <input checked="" type="checkbox"/> OH / PERF		<u>9505-9857</u>	Inj Length <u>350</u>	

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops	Completion/Operation Details:
Adjacent Unit: Litho. Struc. Por.				Drilled TD <u>11510</u> PBDT <u>P&A</u>
Confining Unit: Litho. Struc. Por.	<u>9505</u>	<u>CISCO</u>	<input checked="" type="checkbox"/>	NEW TD <u>9857</u> NEW PBDT <u>9857</u>
Proposed Inj Interval TOP:	<u>9505</u>	<u>CISCO (perm)</u>		NEW Open Hole <input checked="" type="checkbox"/> or NEW Perfs <input type="checkbox"/>
Proposed Inj Interval BOTTOM:	<u>9857</u>	<u>CANYON (9720)</u>		Tubing Size <u>4 1/2</u> in. Inter Coated? <input checked="" type="checkbox"/>
Confining Unit: Litho. Struc. Por.	<u>9980</u>	<u>STRAWN</u>	<input checked="" type="checkbox"/>	Proposed Packer Depth <u>9410</u> ft
Adjacent Unit: Litho. Struc. Por.				Min. Packer Depth _____ (100-ft limit)
				Proposed Max. Surface Press. <u>1901</u> psi
				Admin. Inj. Press. <u>1900</u> (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P Noticed? _____ BLM Sec Ord WIPP Noticed? _____ SALT/SALADO T: _____ B: _____ CLIFF HOUSE

FRESH WATER: Aquifer CAPITAN Max Depth 265' HYDRO AFFIRM STATEMENT By Qualified Person

NMOSE Basin: _____ CAPITAN REEF: thru adj NAO No. Wells within 1-Mile Radius? 0 FW Analysis

Disposal Fluid: Formation Source(s) SA/DEL/Mon Analysis? On Lease Operator Only or Commercial

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

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

AOR Wells: 1/2-M Radius Map? Well List? Total No. Wells Penetrating Interval: 1 Horizontals? _____

Penetrating Wells: No. Active Wells 1 Num Repairs? 0 on which well(s)? _____ Diagrams? _____

Penetrating Wells: No. P&A Wells 0 Num Repairs? 0 on which well(s)? _____ Diagrams? _____

NOTICE: Newspaper Date 4/8/15 Mineral Owner SLO Surface Owner SLO N. Date 4/10/15

RULE 26.7(A): Identified Tracts? Affected Persons: See AP. N. Date 4/10/15

Permit Conditions: Issues: Run Survey To Make Sure PLUS is Holding
SWAB Tests Show Results