DATE IN 11-14-05 | SUSPENSE 11/30/05 | ENGINEER JONES | LOGGED IN 11-15-05 | TYPE SWD | APP NO. pSEM0531928736

1020

ABOVE THIS LINE FOR DIVISION USE ONLY

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 _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

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

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

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

Print or Type Name _____ Signature _____ Title _____ Date _____

e-mail Address _____

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

RECEIVED
NOV 14 2005
OIL CONSERVATION DIVISION

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance __X__Disposal _____Storage
Application qualifies for administrative approval? __X__Yes _____No

II. OPERATOR: RAY WESTALL

ADDRESS: P.O. BOX 4, LOCO HILLS, NM 88255

CONTACT PARTY: RANDALL HARRIS PHONE: 505 677-2370

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____Yes __X__No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: RANDALL HARRIS TITLE: GEOLOGIST

SIGNATURE: DATE: 10/24/05

E-MAIL ADDRESS: rharrisnm@netscape.net

* 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

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

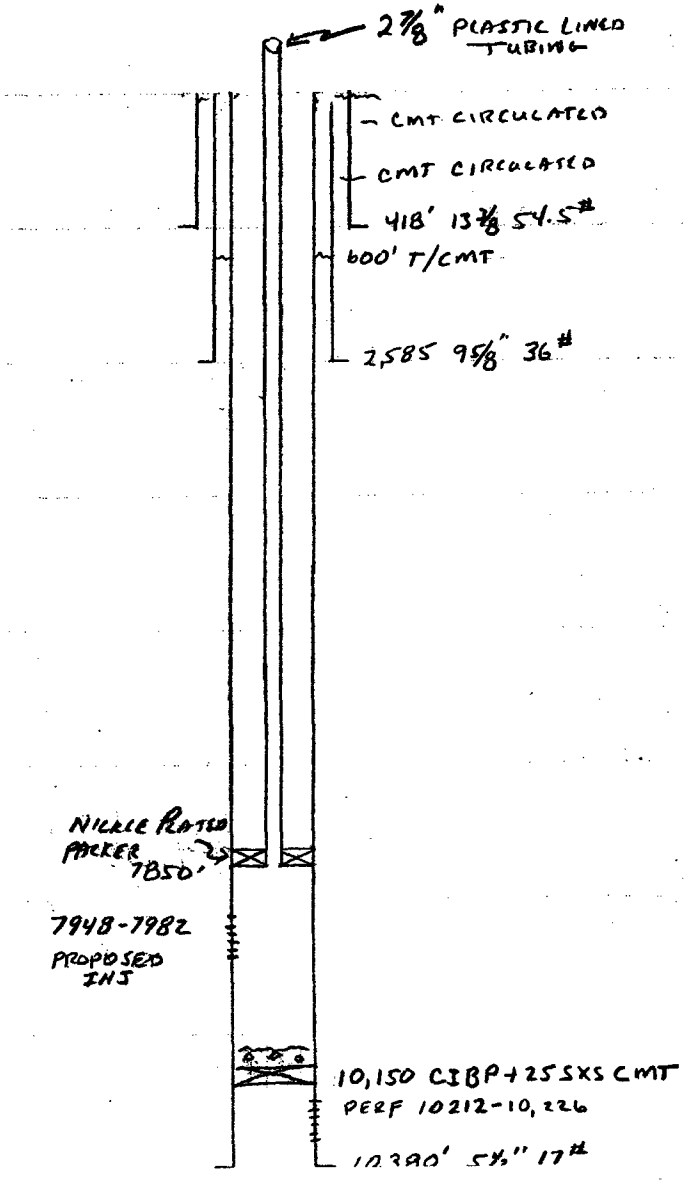
INJECTION WELL DATA SHEET

OPERATOR: Ray Westall

WELL NAME & NUMBER: State CG #1 API 30-015-25361

WELL LOCATION:	1980' FSL & 2310' FEL	J	7	18S	28E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

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

Cemented with: 500 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12 1/4 Casing Size: 9 5/8

Cemented with: 1250 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 7 7/8 Casing Size: 5 1/2

Cemented with: 2300 sx. *or* _____ ft³

Top of Cement: 600 Method Determined: Temp

Total Depth: 10,380

Injection Interval

7948 feet to 7982 Perforated

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8 Lining Material: PLASTIC

Type of Packer: BAKER NICKLE PLATED MOD R

Packer Setting Depth: 7850

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

Additional Data

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

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

2. Name of the Injection Formation: CANYON CISCO BOUGH "C"

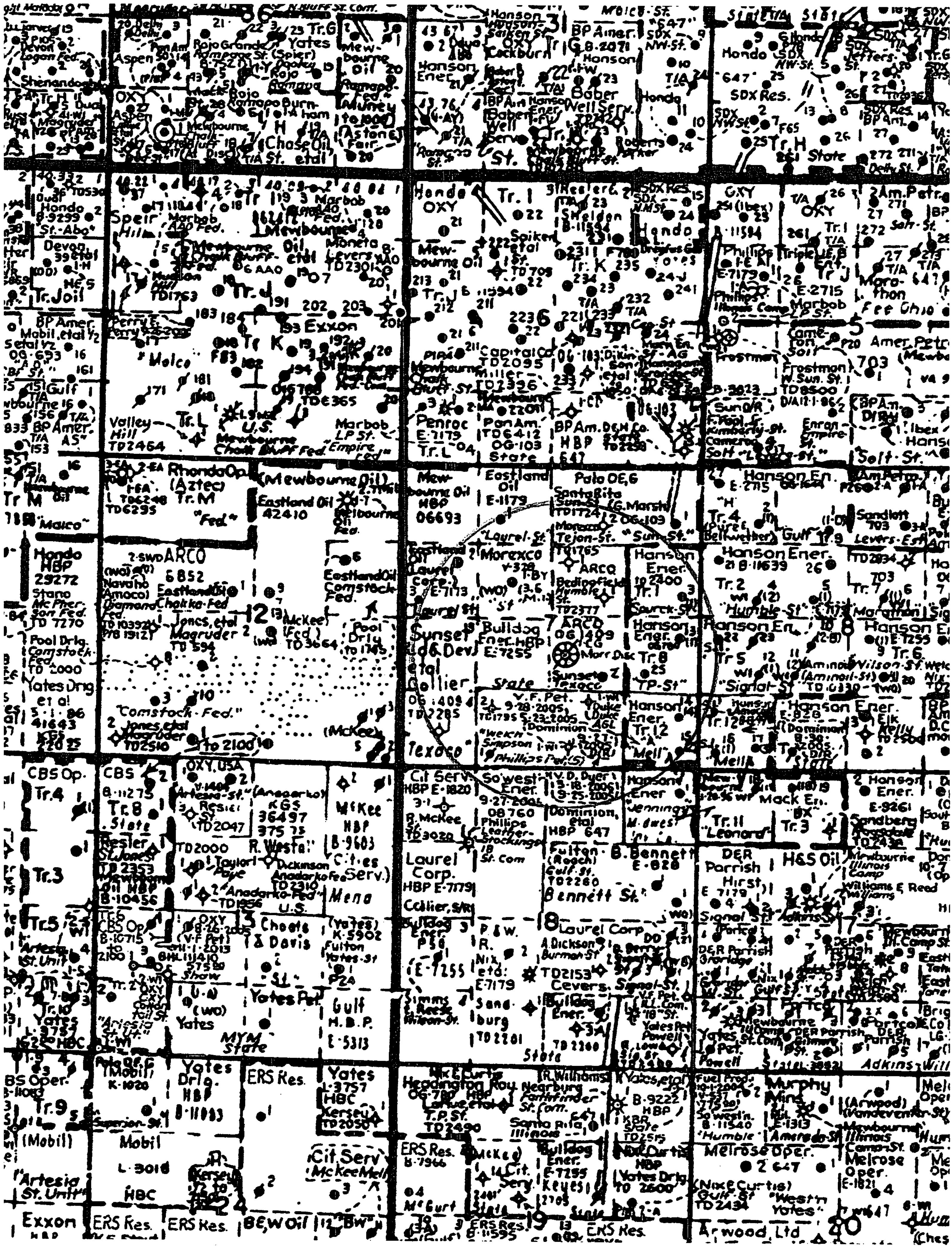
3. Name of Field or Pool (if applicable): _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. 10,212-10,226 60 .50" HOLES
   CIBP 10,150 + 25 SXS, 25 SXS 7050, 25 SXS 6200, 25 SXS 3900, 25 SXS 2885
   25 SXS 2650, 25 SXS 1000 25 SXS 600, 25 SXS 400, 10 SXS SURFACE

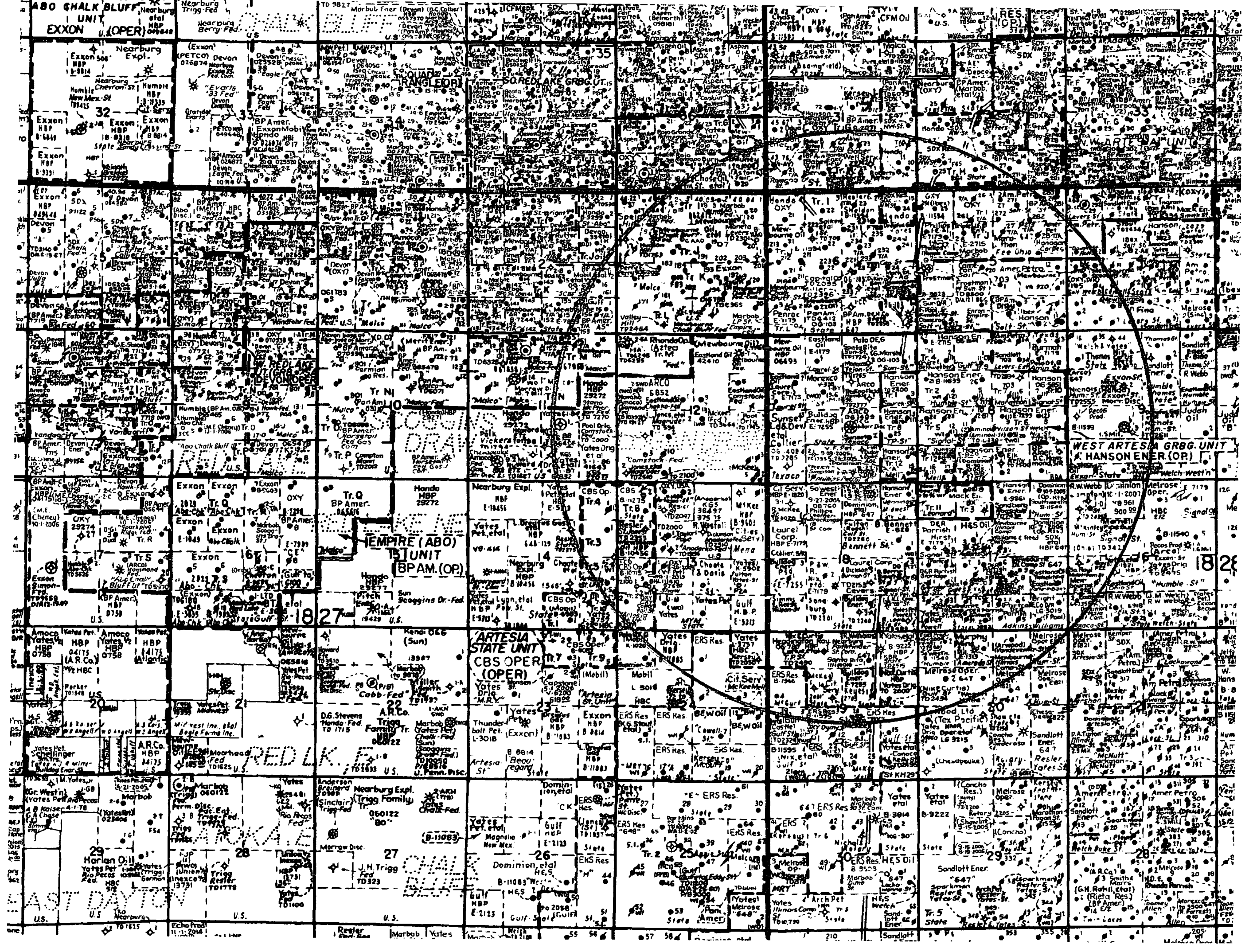
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: GRAYBURG - SAN ANDRES 1600 - 4000,
   MORROW 10,200 - 10,300

ATTACHMENT V

Maps that identifies all wells of public record within two miles of each proposed injection well, and the area of review one-half mile radius around each proposed injection well.



Yates
Mewbourne Oil
Chase Oil
Hanson
BP Amer.
OXY
Hondo
SDX Res.
State
Marbob
Speir
Devon
Exxon
Melco
Capital Co.
Frostman
Amer. Petr.
Gulf
Valley Hill
U.S.
Penroc
Pan Am.
BP Am.
Sun
Rhonda Op. (Aztec)
Eastland Oil
Mew-bourne Oil
Hanson En.
Hondo HBP 29272
ARCO
Morexco
Laurel St.
Sunset Oil & Dev.
Bulldog Ener. HBP E-7255
Pool Drlg.
Yates Drlg
Comstock Fed.
Texaco
Hanson Ener.
CBS Op.
OXY, USA
KGS
McKee HBP
Cit Serv.
So'west Ener.
Laurel Corp.
Fulton B. Bennett
DER Parrish
H&S Oil
Choate & Davis
Yates Pet.
Gulf H.B.P.
Signal St.
Bennett St.
ERS Res.
Mobil
Artesia St. Unit
Melrose Oper.
Exxon
BE,W Oil
Arwood, Ltd



ABO CHALK BLUFF UNIT EXXON (OPER)
SO. RED LAKE GRBG. UT.
QUADRANGLE(OR)
W. ARTESIA UNIT
W. RED LAKE DEVON(OPER)
WEST ARTESIA GRBG. UNIT HANSON ENER. (OP.)
EMPIRE (ABO) UNIT BP AM. (OP.)
ARTESIA STATE UNIT CBS OPER (OPER)

ATTACHMENT VI

Data on all wells of public record within the area of review. Included are schematics of the plugged wells that penetrated the proposed injection zone within the area of review.

One well the Duke AGI #1 has penetrated the proposed injection zone within one mile, completion attached.

Submit To Appropriate District Office
State Lease - 6 copies
Fee Lease - 5 copies
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-105
Revised March 25, 1999

JUL 2003 RECEIVED OCD - ARTESIA

WELL API NO. 30-015-32324

5. Indicate Type of Lease STATE ☐ FEE ☒

State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well: OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER Class II Injection

b. Type of Completion: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

7. Lease Name or Unit Agreement Name: DUKE AGI

2. Name of Operator: DUKE ENERGY FIELD SERVICES, LP

8. Well No.: #1

3. Address of Operator: 3300 NORTH A ST., LDG. 7, MIDLAND, TX 79705

9. Pool name or Wildcat: DEVONIAN

4. Well Location

Unit Letter O : 1232 Feet From The SOUTH Line and 1927 Feet From The EAST Line

Section 7 Township 18S Range 28E NMPM EDDY County

10. Date Spudded	11. Date T.D. Reached	12. Date Compl. (Ready to Prod.)	13. Elevations (DF& RKB, RT, GR, etc.)	14. Elev. Casinghead
8/14/02	9/22/02	7/10/03	RKB 3628.5/GL 3611	3ft BGL

15. Total Depth	16. Plug Back T.D.	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By	Rotary Tools	Cable Tools
11,520	11,472	–		11,520	–

19. Producing Interval(s), of this completion - Top, Bottom, Name: Injection 11,207 - 11,412 DEVONIAN

20. Was Directional Survey Made: No

21. Type Electric and Other Logs Run: DLL-LDT-GR (TD), DLL-LSS (Int), CBL

22. Was Well Cored: NO

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20"	94	45 ft	24"	Full Returns	
13 5/8"	48	530	17 1/2"	Full Returns	
9 5/8"	40	4200	12 1/4"	Full Returns	
7"	26	11,520	8 3/4"	2 STAGE	

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2 7/8"	11,158	11,122

26. Perforation record (interval, size, and number)

11,207 - 11,260, 1/2", 265 shots (53' @ 5 spf)
11,326 - 11,412, 1/2", 695 shots (139' @ 5 spf)

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
11,207-11,412	40,000 gal 15% SXE (ACID FRAC)

28 PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)	Well Status (Prod. or Shut-in)

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Test Witnessed By

30. List Attachments

E-logs (1) DLL-LSS (2) DLL-LDT-GR (3) CBL (4) Well Schematic (5) DST1 (6) DST2

31. I hereby certify that the information shown on both sides of this form as true and complete to the best of my knowledge and belief

Signature [signature] Printed Name KARIN KIMURA Title SR. ENV. SPECIALIST Date 07/22/03

ATTACHMENT VII

1. Proposed average of 500 bbls per day and maximum of1000 bbls per day of injected fluids. At a rate of one bbl per minuet.

2. System will be closed.

3. Average anticipated pressure of 500 psi and a maximum of 1500 psi.

4. Source of produced water is water from nearby fields, San Andres, Morrow, Queen, BoneSprings. Analysis attached.

5. Canyon water analysis is attached.

BJ SERVICES

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 #** 1

Formation Canyon **Depth**

Specific Gravity	1.050	SG @ 60 °F	1.051
pH	6.30	Sulfides	Not Tested
Temperature (°F)	65	Reducing Agents	Not Tested

Cations

Sodium (Calc)	in Mg/L	9,515	in PPM	9,056
Calcium	in Mg/L	5,600	in PPM	5,328
Magnesium	in Mg/L	240	in PPM	228
Soluable 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	1,903
Bicarbonates	in Mg/L	185	in PPM	176
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	36,546

Scaling Tendencies

*Calcium Carbonate Index **1,038,464**

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 - 10,000,00 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

Report # 1732

INJ DISPOSAL ZONE
UNIT 5

HALLIBURTON

CENTRAL OPERATIONS LABORATORY
WATER ANALYSIS REPORT
HOBBS, NEW MEXICO

COMPANY	Marbob	REPORT	W02-128
		DATE	June 18, 2002
		DISTRICT	Hobbs

SUBMITTED BY Jim Trela

WELL	Ruger St. #1	DEPTH		FORMATION			
COUNTY		FIELD		SOURCE			

SAMPLE	Morrow Prod. Water						
Sample Temp.	84 °F		°F		°F		°F
RESISTIVITY	0.13						
SPECIFIC GR.	1.040						
pH	6.93						
CALCIUM	4,500 mpl		mpl		mpl		mpl
MAGNESIUM	6,300 mpl		mpl		mpl		mpl
CHLORIDE	34,983 mpl		mpl		mpl		mpl
SULFATES	light mpl		mpl		mpl		mpl
BICARBONATES	18 mpl		mpl		mpl		mpl
SOLUBLE IRON	0 mpl		mpl		mpl		mpl
Sodium	mpl	0	mpl	0	mpl	0	mpl
TDS	mpl	0	mpl	0	mpl	0	mpl
OIL GRAVITY	@ °F	@	°F	@	°F	@	°F

REMARKS

MPL = Milligrams per litter
Resitivity measured in: Ohm/m2/m

ANALYST: Mike Armstrong

Produced Water to be Injected

VII. 4.

B J Services Water Analysis

Artesia District Laboratory
(505)-746-3140

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

pH:	6.51	Temp (F):	58.3
Specific Gravity	1.12		

CATIONS	mg/l	me/l	ppm
Sodium (calc.)	54502	2370.7	48662
Calcium	3208	160.1	2864
Magnesium	1458	120.0	1302
Barium	< 25	----	----
Potassium	< 10	----	----
Iron	3	0.1	2
ANIONS			
Chloride	93000	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

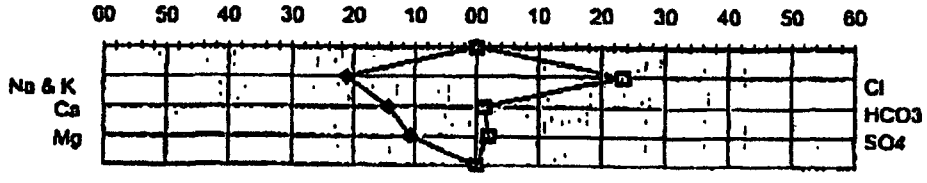
COMMENTS:

Rw= 0.0847@61.1 deg.

SCALE ANALYSIS:

CaCO3 Factor	2817907	Calcium Carbonate Scale Probability->	Probable
CaSO4 Factor	3849600	Calcium Sulfate Scale Probability -->	Remote

Stiff Plot



VII. 4

BJ SERVICES

Water Analysis

Date: 11-Jan-05

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

Analyzed For

Company	Well Name	County	State
Devon	Spud 16 State #1	Lea	New Mexico

Sample Source	**Sample**	***Sample #***	**1**
Formation		***Depth***	

Specific Gravity	**1.195**	*SG @ 60 °F*	**1.196**
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*	**34,000**	*in PPM*	**28,428**
Magnesium	*in Mg/L*	**5,040**	*in PPM*	**4,214**
Soluable 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*	**550**	*in PPM*	**460**
Bicarbonates	*in Mg/L*	**78**	*in PPM*	**65**
Total Hardness (as CaCO3)	*in Mg/L*	**106,000**	*in PPM*	**88,629**
Total Dissolved Solids (Calc)	*in Mg/L*	**301,703**	*in PPM*	**252,260**
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 - 10,000,00 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

Report # 1774

VII. 4

PRO-Kem, INC.

WATER ANALYSIS REPORT

SAMPLE

Oil Co. : EOX Resources
Lease : Chalk Fed.
Well No.: # 1
Salesman:

Sample Loc. :
Date Analyzed: 02-September-1997
Date Sampled :

ANALYSIS

1.	pH		6.110	
2.	Specific Gravity 60/60 F.		1.128	
3.	$CaCO_3$ Saturation Index @ 80 F.		+0.057	- Calcium Carb.
	@ 140 F.		+1.157	

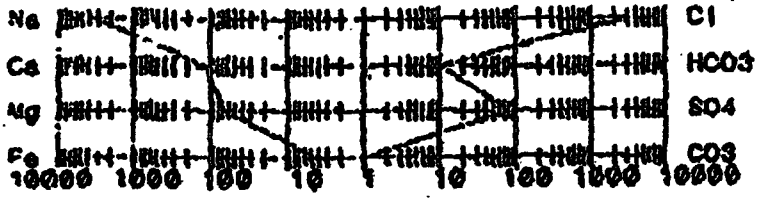
	Dissolved Gasses	MG/L	EQ. WT.	*MEQ/L
4.	Hydrogen Sulfide	400	—	
5.	Carbon Dioxide	125		
6.	Dissolved Oxygen	Not Determined		

	Cations					
7.	Calcium	(Ca^{++})		2,160	/ 20.1 =	108.46
8.	Magnesium	(Mg^{++})		794	/ 12.2 =	65.08
9.	Sodium	(Na^{+})	(Calculated)	74,586	/ 23.0 =	3,242.87
10.	Barium	(Ba^{++})		Not Determined		

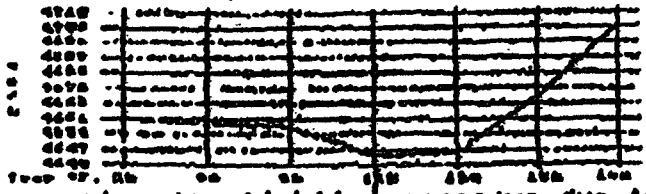
	Anions				
11.	Hydroxyl	(OH^{-})	0	/ 17.0 =	0.00
12.	Carbonate	(CO_3^{--})	0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO_3^{-})	686	/ 61.1 =	0.59
14.	Sulfate	(SO_4^{--})	3,900	/ 48.8 =	79.92
15.	Chloride	(Cl^{-})	117,873	/ 35.5 =	3,323.18

16.	Total Dissolved Solids	200,010		
17.	Total Iron (Fe)	69	/ 18.2 =	3.76 Iron
18.	Total Hardness as $CaCO_3$	8,712		
19.	Resistivity @ 75 F. (Calculated)	0.001 /cm.		

LOGARITHMIC WATER PATTERN
*meq/L.



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X *meq/L	= mg/L.
$Ca(HCO_3)_2$	81.04	9.69	777
$CaSO_4$	68.07	79.92	5,440 Ca
$CaCl_2$	55.50	18.95	1,052
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	65.08	3,099
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	3,239.16	189,361

*Milli Equivalents per Liter

This water is slightly corrosive due to the pH observed on analysis. The corrosivity is increased by the content of mineral salts, and the presence of H_2S, CO_2 in solution.

Queen-GBG-SA

ATTACHMENT C

VII. 4.

ATTACHMENT VIII

The proposed injection zone is carbonates of the Canyon formation. This carbonate is composed of dolomite. There is possible drinking water overlying the injection in the surface sands at a depth of 0-250'. There is no known source underlying the injection interval.

ATTACHMENT IX

Proposed stimulation:

Acidize perforations with 2500-5000 gal 15% HCl.

ATTACHMENT XI

There is no active fresh water wells within one mile.

ATTACHMENT XII

All available geologic and engineering data have been examined and there is no evidence of open faults or any other hydrologic connection between the disposal zone and any source of drinking water.

ATTACHMENT XIV

PROOF OF NOTICE

Leasehold operators within one-half mile of the well location are: Eastland Oil, Mewbourne, Hanson Energy, V.F Petroleum, Duke Energy, Mack Energy and Morexco. Each of the operators were provided a copy of our application by certified mail. Proof of notice is enclosed. The surface owner is the State of New Mexico.

PROOF OF PUBLICATION

Proof of publication is from the Artesia Daily Press and is attached.

	CERTIFIED MAIL
Eastland Oil P.O. Drawer 3488 Midland, TX 79702	7004 0750 0002 5384 5215
Mewborne Oil Co. Box 7698 Tyler, TX 75701	7004 0750 0002 5384 5222
Hanson Operating Co Box 1515 Roswell, NM 88202	7004 0750 0002 5384 5239
V.F. Petroleum Box 1889 Midland, TX 79702	7004 0750 0002 5384 5246
Duke Energy 3300 North A ST BLDG 7 Midland, TX 79705	7004 0750 0002 5384 5253
Mack Energy P.O. Box 276 Artesia, NM 88210	7004 0750 0002 5384 5260
Morexco P.O. Box 481 Artesia, NM 88210	7004 0750 0002 5384 5277
New Mexico State Land Office P.O. 1148 Santa Fe, NM 87504-1148	7004 0750 0002 5384 5297

Oil Conservation Division
1301 W. Grand
Artesia, NM 88210

Oil Conservation Division
1220 S. St. Francis
Santa Fe, NM. 87505

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OCT 24 2005
USPS

7004 0750 0002 5384 5215

Sent To: U. F. PETROLEUM
Street, Apt. No.; or PO Box No.: BOX 1889
City, State, ZIP+4: MIDLAND, TX 79702

PS Form 3800, June 2002 — See Reverse for Instructions

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7004 0750 0002 5384 5215

Sent To: EASTLAND O/C
Street, Apt. No.; or PO Box No.: P.O. DRAWER 3488
City, State, ZIP+4: MIDLAND, TX 79702

PS Form 3800, June 2002 — See Reverse for Instructions

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7004 0750 0002 5384 5239

Sent To: HANSON OPERATING
Street, Apt. No.; or PO Box No.: BOX 1515
City, State, ZIP+4: ROSWELL, NM 88202

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7002 0460 0000 3842 5597

Sent To: NEW MEXICO STATE LAND
Street, Apt. No.; or PO Box No.: P.O. BOX 1148
City, State, ZIP+4: SANTA FE, NM 87504-1148

PS Form 3800, January 2001 — See Reverse for Instructions

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7004 0750 0002 5384 5239

Sent To: NEWBOKNE O/C CO
Street, Apt. No.; or PO Box No.: BOX 7698
City, State, ZIP+4: TYLER, TX 75701

PS Form 3800, June 2002 — See Reverse for Instructions

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7004 0750 0002 5384 5277

Sent To: MOREXCO
Street, Apt. No.; or PO Box No.: P.O. BOX 481
City, State, ZIP+4: ARTESIA, NM 88210

PS Form 3800, June 2002 — See Reverse for Instructions

7004 0750 0002 5384 5253

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LOCO HILLS NM 88255
OCT 24 2005
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USPS

Sent To: DUKE ENERGY
Street, Apt. No.; or PO Box No.: 3300 NORTH A ST BLDG 7
City, State, ZIP+4: MIDLAND, TX 79705

PS Form 3800, June 2002 — See Reverse for Instructions

7004 0750 0002 5384 5246

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Certified Fee	2.30
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 3.59

LOCO HILLS NM 88255
OCT 24 2005
Postmark Here
USPS

Sent To: MACK ENERGY
Street, Apt. No.; or PO Box No.: P.O. BOX 276
City, State, ZIP+4: ARTESIA, NM 88210

PS Form 3800, June 2002 — See Reverse for Instructions

Affidavit of Publication

NO. 19052

STATE OF NEW MEXICO

County of Eddy:

Gary D. 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 county and state, and that the here to attached

Legal Notice

was published in a regular and entire issue of the said

Artesia Daily Press,a daily newspaper duly qualified

for that purpose within the meaning of Chapter 167 of

the 1937 Session Laws of the state of New Mexico for

1 Consecutiv week/days on the same

day as follows:

First Publication October 21 2005

Second Publication

Third Publication

Fourth Publication

Gary D. Scott

Subscribed and sworn to before me this

21st Day October 2005

Barbara Ann Boone

Notary Public, Eddy County, New Mexico

My Commission expires September 23, 2007

Copy of Publication:

LEGAL NOTICE

Ray Westall-Operator, P.O. Box 4, Loco Hills, New Mexico 88255 Phone (505)677-2370. Contact party for Ray Westall-Operator is Randall Harris, is seeking administrative approval from the New Mexico Oil Conservation Division to utilize a well located 1980' FSL & 2310' FEL Section 7, Township 18 South, Range 28 East, Eddy County, New Mexico known as the State CG Com #1 for water injection. Proposed injection is in the ~~Canyon~~ formation through perforations 7948-7982 feet. Expected maximum injection rate of 1000 bbls per day at 800 psi. Interested parties must file objection or requests for hearing with the Oil Conservation Division, 1220 So. St. Francis Drive, Santa Fe, NM 87505 within 15 days of the notice.

Published in the Artesia Daily Press, Artesia, N.M. October 21, 2005.

Legal 19052

CISCO "//" ? BOUGH C '

1020 **Injection Permit Checklist**

SWD Order Number [redacted] Updated in RBDMS _____ UIC Form ✓

Dates: Division Approved [redacted] District Approved ? Well Spudded 8/14/02 " 9/6/85

Well Name/Num: State CG #1

API Num: (30-) 015-25361 County: Eddy

Footages 1980 FSL 2310 FEL Sec 7 Tsp 18S Rge 28E

Operator Contact Randall Harris

Operator Name: RAY WESTALL

Operator Address: P.O. Box 4 Loco Hills NM 88255

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	17 1/2 13 3/8	418	500	CIRC
Intermediate	12 1/4 9 5/8	2585	1250	~~CIRC~~ ?
Production	7 7/8 5 1/2	10380	2300	600' T.S.
Last DV Tool		6,199		CIRC Below
Open Hole/Liner	—	—	—	—
Plug Back Depth		10,150'		

DST1 = 6694-6774

Currently P&A 12/13/95

Diagrams Included (Y/N): Before Conversion ✓ After Conversion ✓

Checks (Y/N): ELogs in Imaging ✓ Well File Reviewed _____

Current Prod. Zones GSA ABOVE MORROW Below

PUKE AGI is WITHIN ~~1~~ 1/2 MILE

Intervals:	Depths	Formation	Producing (Yes/No)
Salt/Potash			
Capitan Reef			
In Reef, Cliff House, Etc:			
? Formation Above			
Top Inj Interval	7948	CANYON	
Bottom Inj Interval	7982		
? Formation Below			

1590 PSI Max. WHIP

___ Open Hole (Y/N)

___ Deviated Hole (Y/N)

Water Analysis Included (Y/N): Fresh Water ✓ Injection Zone ✓ Disposal Waters —

Affirmative Statement Included (Y/N): ✓

Surface Owner S.L.O. Mineral Owner(s) —

Checks (Y/N): Newspaper Notice ✓ Well Table OK Adequate Well Table OK

Adequate Certified Notice: Surface Owner ✓ AOR Owners ✓ CID/Potash/Others _____

AOR Num Active Wells 1 Repairs? — Producing in Injection Interval NO

AOR Number of P&A Wells 0 Diagrams Included? — Repairs Required? —

Data to Generate New AOR Table _____ New Table Generated? (Y/N)

	STR	Section Footages
Wellsite	7/18S/28E	5280X
Northeast		
North		
Northwest		
West		
Southwest		
South	18	5280X
Southeast		
East	8	5280X

ACTIONS:
1) SET CIBP CLOSE TO BOT Perf.

Today is 12/28/05

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Wednesday, December 28, 2005 5:06 PM
To: Arrant, Bryan, EMNRD; 'rharrisnm@netscape.net'
Subject: SWD Application State CG #1 30-015-25361

Hello Randall:
I am having the following problems with this application:

1) No before-conversion Well bore diagram. It appears the well is currently plugged?
2) The proposed "Canyon" injection formation looks like it may be the Cisco Bough "C" according to Bryan Arrant's picks in the well file.

Since the Canyon and the Bough C are both upper Penn, we can probably get by without re-advertising in the newspaper - but the order should be correct.

Please mail (or fax to 505-476-3462) the wellbore diagram and
.... resolve the formation name with Bryan and let me know which name is correct.

Regards,

William V. Jones Engineering Bureau Oil Conservation Division Santa Fe

Westall Oil & Gas, Inc.

Independent Oil Producer
Post Office Box 4
Loco Hills, New Mexico 88255
PH. 505-677-2370 • FAX 505-677-2361

FAX COVER SHEET

FAX NO. : _____ **DATE** : 12/29/05

TO : OCD

ATTENTION : WILLIAM V. JONES

SUBJECT : SWD APPLICATION CG #1 30-015-25361

SENDER : RANDALL HARRIS

Number of Pages: **Cover Sheet +** _____ = _____ **Pages**

Please call (505) 677-2370 if you have problems receiving this document.

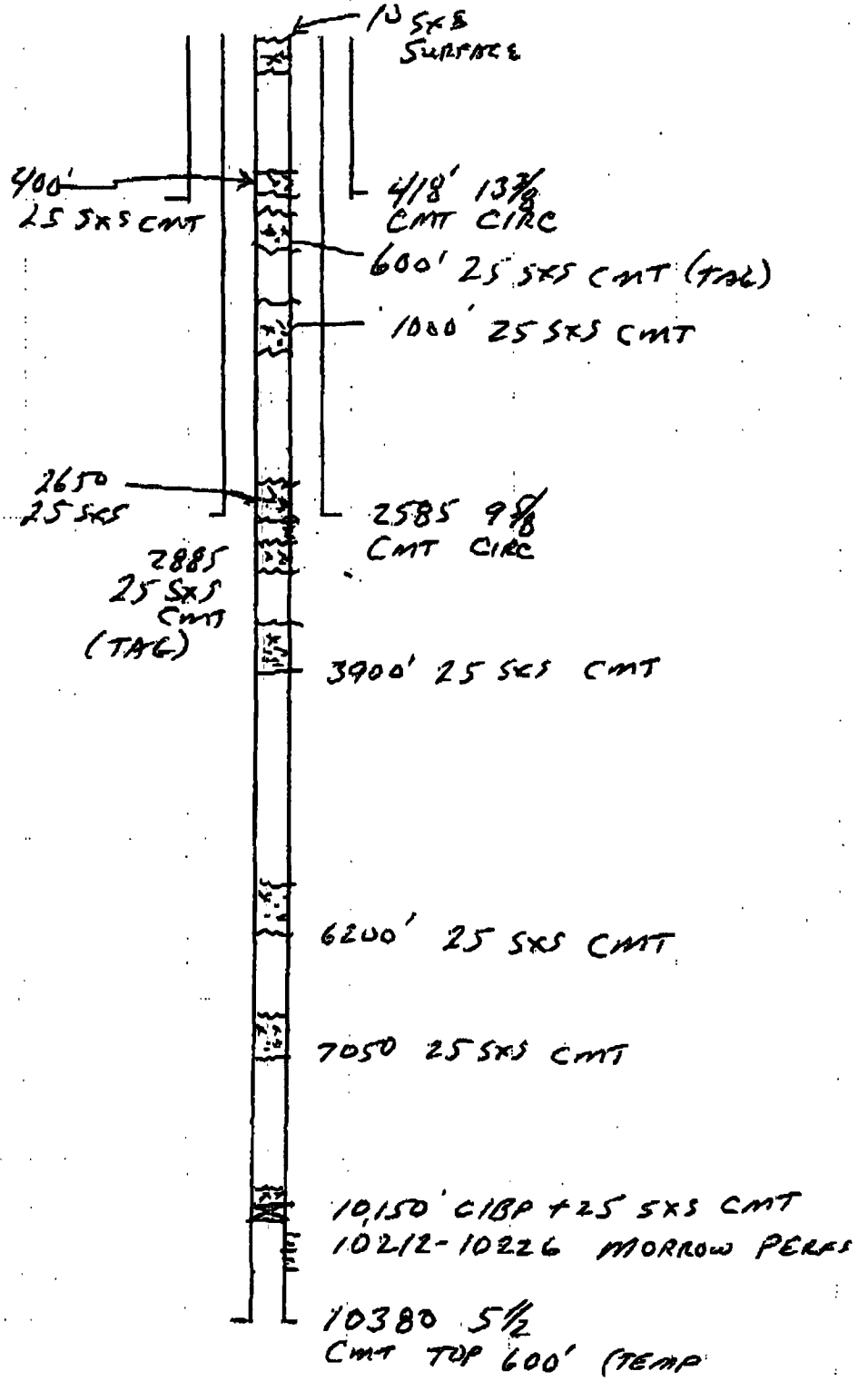
MESSAGE: CURRENT CONDITIONS DIAGRAM

SPOKE WITH BRYAN ARANT THIS MORNING "BOUGHT C" NOT HIS TOP FROM OPERATOR'S PICK AGREES WITH "CANYON" NEAR BY WELLS NMOCD PICKS CALLED CANYON

Randall Harris

CURRENT CONDITIONS 12/29/05

STATE "CC" #1
30-015-25361



Geol. Tops per IBGA

TX - 660
BX - 1000

7 Rivers	1145
Queen	1650
San Andres	2230
Abo	6046
Wolfcamp	7069
Canyon	8450
Strawn	8957
Atoka	9675
Datum	9776
Morrow LS	9920
Morrow Cl	9982

X not correct

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy		T. Canyon	8464	T. Ojo Alamo		T. Penn. "B"	
T. Salt		T. Strawn	9002	T. Kirtland-Fruitland		T. Penn. "C"	
B. Salt		T. Atoka	9652	T. Pictured Cliffs		T. Penn. "D"	
T. Yates	377	T. Miss		T. Cliff House		T. Leadville	
T. 7 Rivers		T. Devonian		T. Menefee		T. Madison	
T. Queen	1350	T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg	1888	T. Montoya		T. Mancos		T. McCracken	
T. San Andres	2210	T. Simpson		T. Gallup		T. Ignacio Qtzte	
T. Glorieta	3806	T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry		T. Gr. Wash		T. Morrison		T.	
T. Tubb		T. Granite		T. Todilto		T.	
T. Drinkard		T. Delaware Sand		T. Entrada		T.	
T. Abo	6022	T. Bone Springs		T. Wingate		T.	
T. Wolfcamp	7069	T. Morrow Cycle 4	9932	T. Chinle		T.	
T. Penn.		T. Morrow Cycle 3	9992	T. Permian		T.	
T Cisco (Bough C)	7852	T. Morrow Cycle 2	10134	T. Penn. "A"		T.	

OIL OR GAS SANDS OR ZONES

No. 1, from 10,212 to 10,226' No. 4, from ..... to .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, 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. None encountered

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	418	418	Surface				
418	2015	1597	Anhy				
2015	5823	3808	Lime				
5823	6774	951	Lime, Shale				
6774	6941	167	Lime, Sand				
6941	7064	123	Lime, Shale				
7064	7240	176	Dolo, Shale				
7240	10155	2915	Lime, Shale				
10155	10380	225	Shale				

Submit 3 Copies to Appropriate District Office

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-103
Revised 1-1-89

WELL API NO. 30-015-25361

5. Indicate Type of Lease STATE ■ FEE ☐

6. State Oil & Gas Lease No. 06-1409

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: State "CG"

1. Type of Well: OIL WELL ☐ GAS WELL ■ OTHER

2. Name of Operator: Mewbourne Oil Company

8. Well No. 1

3. Address of Operator: P O Box 5270 Hobbs, New Mexico 88240 (505) 393-5905

9. Pool name or Wildcat: N. Illinois Camp Morrow

4. Well Location
Unit Letter J : 2310 Feet From The East Line and 1980 Feet From The South Line

Section 7 Township 18S Range 28E NMPM Eddy County

10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3597' GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	PLUG AND ABANDONMENT	■
PULL OR ALTER CASING	☐			CASING TEST AND CEMENT JOB	☐		
OTHER:	☐			OTHER:			☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

12/09/95 MIRU pluggers.
12/08/95 Set CIBP @ 10,150'.
12/09/95 Circulate hole with mud. Spot 25 sks. cement on CIBP @ 10,150'. Spot 25 sks. cement plug @ 7050'. Spot 25 sks. cement plug @ 6200'. Spot 25 sks. cement plug @ 3900'. Spot 25 sks. cement plug @ 2885'.
12/12/95 Tag plug @ 2650'. Pump additional 25 sks. cement plug @ 2650' at States request. Spot 25 sks. cement plug @ 1000'. Spot 25 sks. cement plug @ 600'.
12/13/95 Tag plug @ 510'. Spot 25 sks. cement plug @ 400'. Spot 10 sks. cement surface plug. Set State marker. Cut anchors and clean location.

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

SIGNATURE Robert Jones TITLE Engineer DATE 1/02/96

TYPE OR PRINT NAME Robert Jones TELEPHONE NO.

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY: