STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

Case 12846

FORM C-108
Revised 4-1-98

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: X Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes X No

II. OPERATOR: ENERQUEST RESOURCES, LLC

ADDRESS: P.O. Box 11190, Midland, TX 79702

CONTACT PARTY: Chris Bezner, Sr. Petr. Engineer PHONE: 915-685-3116

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: Robert W. Floyd TITLE: President

SIGNATURE: Robt W. Floyd DATE: 2/21/02

* 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

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.

)ATA - APPLICATION FOR AUTHORIZATION TO INJECT

		Production Casing						Injection String and Packer			
Cmt. Top	Method	OD, in.	Depth, ft.	Cement	Hole, in.	Cmt. Top	Method	OD, in.	Depth, ft.	Packer	Depth
Surface	Reported	5.5"	4675'	485 sx	7.875"	1900'	Logged	2.375"	4350'	AD-1**	4350'
Surface	Reported	5.5"	4675'	485 sx	7.875"	1900'	Logged	2.375"	4350'	AD-1**	4350'
Surface	Reported	5.5"	4675'	485 sx	7.875"	1900'	Logged	2.375"	4350'	AD-1**	4350'
Surface	Reported	5.5"	4675'	485 sx	7.875"	1900'	Logged	2.375"	4350'	AD-1**	4350'

een staked yet. Locations will be approximately as shown on the attached map.

Original Purpose	Other Intervals	Isolation Method
Injection	None	N/A
Injection	None	N/A
Injection	None	N/A
Injection	None	N/A

ıe east side of the proposed unit. The Blinebry occurs at approximately 6400'.
of about 3800'.

Side 1

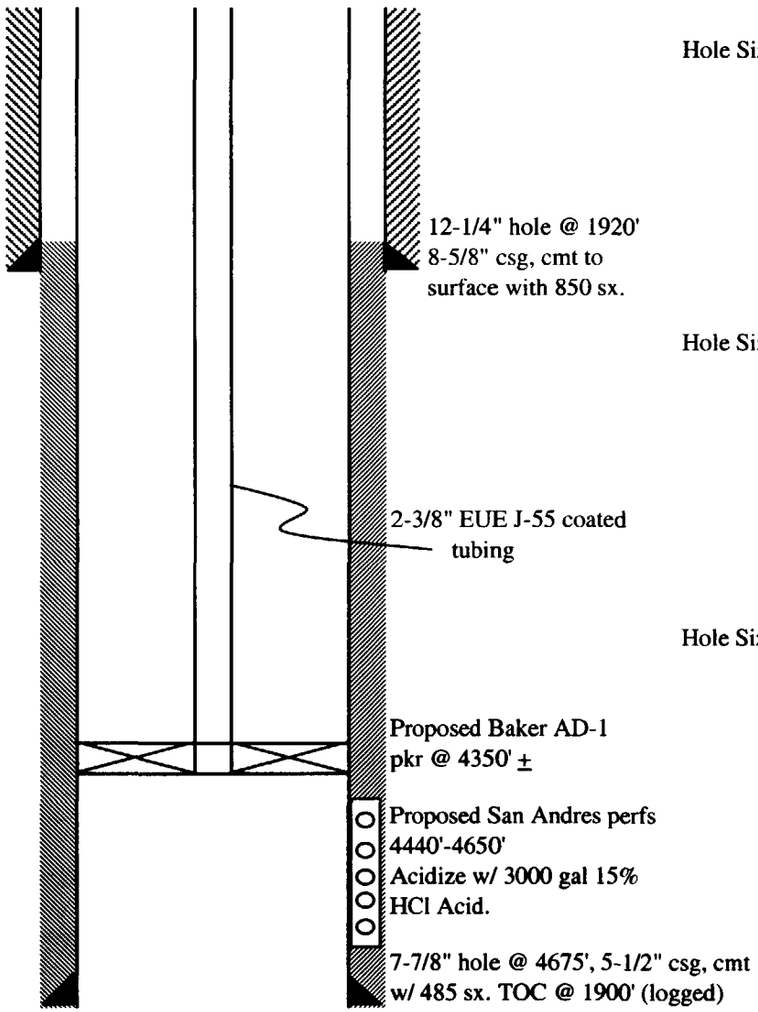
INJECTION WELL DATA SHEET

OPERATOR: **ENERQUEST RESOURCES, LLC**

WELL NAME & NUMBER: **TYPICAL INJECTION WELL - EAST HOBBS (SAN ANDRES) UNIT**

WELL LOCATION:	(SEE ATTACHED TABLE)	(SEE ATTACHED TABLE)	30	18S	38E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: **12-1/4"** Casing Size: **8-5/8"**

Cemented with: **850** sx. or _____ ft^3

Top of Cement: **Surface** Method Determined: **Reported**

Total Depth: **1920'**

Intermediate Casing

Hole Size: **NOT APPLICABLE** Casing Size: _____

Cemented with: _____ sx. or _____ ft^3

Top of Cement: _____ Method Determined: _____

Total Depth: _____

Production Casing

Hole Size: **7-7/8"** Casing Size: **5-1/2"**

Cemented with: **485** sx. or _____ ft^3

Top of Cement: **1900'** Method Determined: **Logged**

Total Depth: **4675'**

Injection Interval

Perforated **4440'** feet to **Perforated** **4650'**

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: **2-3/8" EUE J-55** Lining Material: **plastic coated or fiberglass lined**

Type of Packer: **Baker Model AD-1 (or equivalent)**

Packer Setting Depth: **4350'+**

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

Additional Data:

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

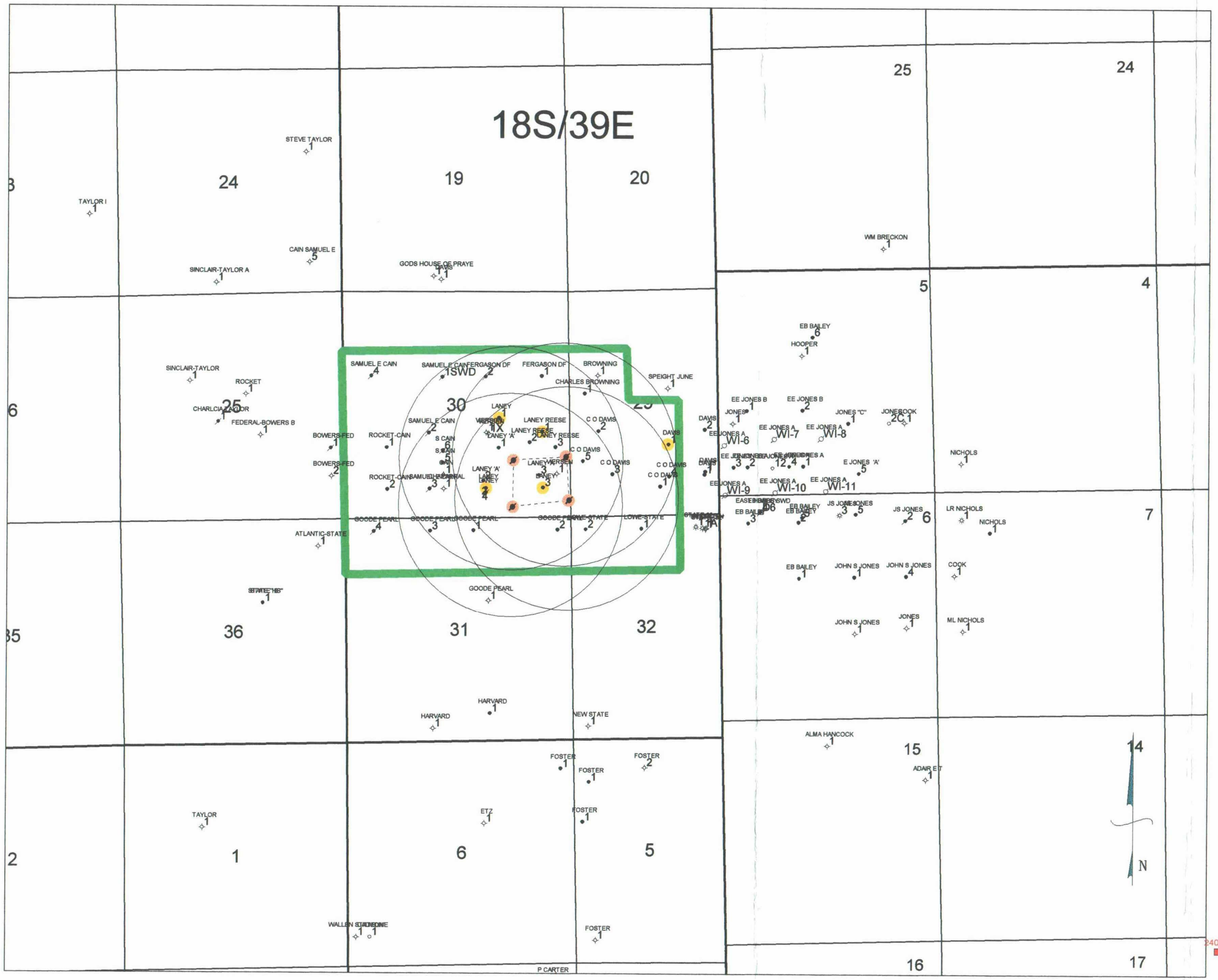
   If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: **San Andres**

3. Name of Field or Pool (if applicable): **East Hobbs (San Andres)**

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, ie sacks of cement or plug(s) used. **NO**

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed *injection zone in this area:* **The Blinebry formation is productive and underlies the proposed injection zone on the east side of the proposed unit. The Blinebry occurs at approximately 6400'. The Seven Rivers formation is productive above the San Andres in areas at a depth of about 3800'.**



ENERQUEST RESOURCES, LLC

PHASE I WATERFLOOD – PATTERN MAP

PROPOSED EAST HOBBS UNIT
920 ACRES
T18S – R39E

Engineer: C. Bezner GeoTech: C. Rose	C.I.: Scale: see scale bar	Date: 13 February, 2002

Proposed Water Injection Wells

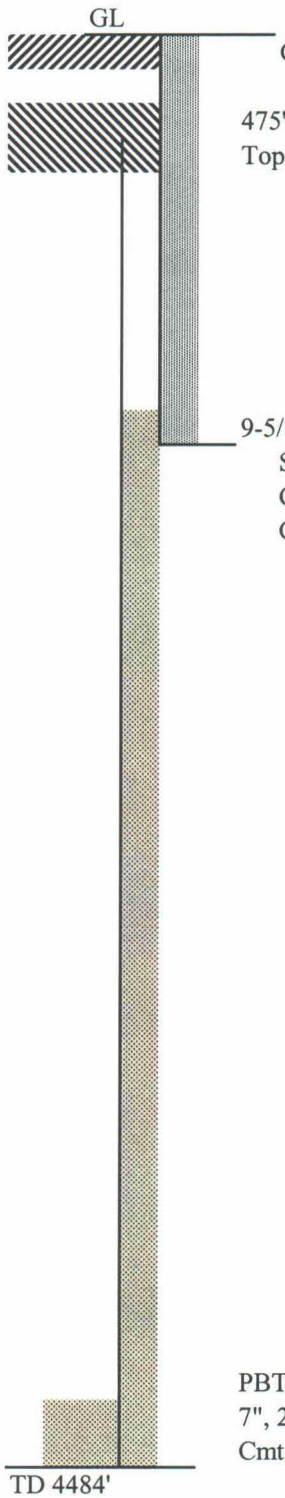
2400 0 2400 4800 ft

ENERQUEST RESOURCES LLC - TABULATION OF DATA ON WELLS IN REVIEW AREA - APPLICATION FOR AUTHORIZATION TO INJECT

											Surface Casing			Intermediate Casing			Production Casing					
OPERATOR NAME	LEASE NAME	Well	Status	Unit	Sec	Twp	Rng	SPUD DATE	Driller TD	PBTD	Size in.	Depth	Cement sx Cl C	Size in.	Depth	Cement sx Cl C	Size in.	Depth	Cement sx Cl C	Upper Perf	Lower Perf	Reservoir
Phillips Pet Et Al	Browning	1	D&A	E	29	18	39	6/26/1953	4,484		9.625	1,909	1,250				7.000	4,460	625			
Aurora Gasoline Co	Charles Browning	1	OIL	E	29	18	39	11/5/1953	4,462		9.625	1,735	800				5.500	4,442	200	4,442	4,462	San Andres
Texland Petroleum Inc.	Davis	1	OIL	K	29	18	39	2/18/1953	4,458		13.375	275	200	8.625	1,866	300	5.500	4,444	175	4,444	4,458	San Andres
EnerQuest Res L L C	Davis CO	2	OIL	L	29	18	39	6/5/1953	4,698		8.625	496	550				5.500	4,419	1,850	4,419	4,698	San Andres
EnerQuest Res L L C	Davis Carrie O	3	TA	M	29	18	39	7/4/1953	4,471	4,419	8.625	502	500				5.500	4,421	1,150	4,421	4,471	San Andres
EnerQuest Res L L C	Davis Carrie O	5	OIL	M	29	18	39	6/17/1997	4,710	4,666	8.625	1,920	775				5.500	4,710	615	4,488	4,645	San Andres
Arrington David H Oil & Gas Inc.	Davis Carrie O	4	OIL	N	29	18	39	7/2/1987	6,500	6,488	8.625	1,860	1,200				5.500	6,500	1,600	6,370	6,425	Blinebry
EnerQuest Res L L C	Davis CO	1	OIL	N	29	18	39	11/14/1951	4,697		8.625	508	485				5.500	4,424	750	4,424	4,697	San Andres
Rice Engineering Corp.	Samuel E Cain	1	SWD	F	30	18	39	5/6/1953	4,475		8.625	1,895	900				5.500	4,474	1,200	4,462	4,474	San Andres
Martindale Corportns	Fergason DF	2	P&A	G	30	18	39	5/18/1953	4,470	4,468	9.625	1,907	1,400				7.000	4,470	450	4,452	4,462	San Andres
EnerQuest Res L L C	Fergason DF	1	OIL	H	30	18	39	4/12/1953	4,470	4,439	9.625	1,910	1,400				7.625	4,470	400	4,396	4,433	San Andres
Lynx Energy Co Inc.	Laney Reese	1	OIL	I	30	18	39	7/19/1953	4,463		7.625	1,726	800				5.500	4,410	200	4,410	4,463	San Andres
Lynx Energy Co Inc.	Reese Laney	2	OIL	I	30	18	39	6/6/1999	4,615	4,610	8.625	1,920	775				5.500	4,615	585	4,571	4,601	San Andres
Lynx Energy Co Inc.	Reese Laney	3	OIL	I	30	18	39	12/26/1999	4,627	4,623	8.625	1,911	825				5.500	4,627	585			
EnerQuest Res L L C	Laney	1	OIL	J	30	18	39	7/1/1953	4,445		8.625	1,818	720				5.500	4,390	500	4,390	4,445	San Andres
EnerQuest Res L L C	Laney 'A'	1	OIL	J	30	18	39	10/13/1998	4,623	4,618	8.625	1,830	930				5.500	4,615	485	4,568	4,610	San Andres
Hanson Oil Corp	Viersen	1	D&A	J	30	18	39	1/14/1970	7,512													
Stevens Donald G	Viersen	1X	D&A	J	30	18	39	12/30/1972	10,240		13.375	344	375	9.625	3,150	150						
EnerQuest Res L L C	Cain Samuel	6	OIL	K	30	18	39	5/28/1999	4,625	4,622	8.625	1,918	825				5.500	4,625	585	4,531	4,614	San Andres
Exxon Corporation	Samuel E Cain	2	P&A	K	30	18	39	8/3/1953	4,479	4,466	8.625	1,898	900				5.500	4,478	1,200	4,450	4,462	San Andres
Hanson Oil Corp	Cain	1	D&A	N	30	18	39	1/15/1970	320													
EnerQuest Res L L C	Cain Samuel	5	OIL	N	30	18	39	6/28/1997	4,722	4,583	8.625	1,860	725				5.500	4,716	615	4,480	4,578	San Andres
Western Reserves Oil	Chaparral	1	D&A	N	30	18	39	2/9/1975	3,850		8.625	364	275				4.500	3,850	250			
Exxon Corporation	Samuel E Cain	3	P&A	N	30	18	39	8/27/1953	4,465		8.625	1,903	900				5.500	4,465	1,100	4,441	4,463	San Andres
EnerQuest Res L L C	Laney	2	OIL	O	30	18	39	8/12/1953	4,455		7.625	1,800	800				5.500	4,405	500	4,405	4,455	San Andres
Enerquest Res L L C	Laney	4	OIL	O	30	18	39	8/14/1974	3,831	3,825	8.625	361	250				4.500	3,827	200	3,784	3,798	7 Rivers
EnerQuest Res L L C	Laney 'A'	2	OIL	O	30	18	39	5/20/1999	4,615	4,610	8.625	1,925	825				5.500	4,615	485	4,499	4,603	San Andres
EnerQuest Res L L C	Laney	3	OIL	P	30	18	39	9/2/1953	4,459		8.625	1,820	800				5.500	4,405	500	4,405	4,459	San Andres
EnerQuest Res L L C	Laney 'A'	3	OIL	P	30	18	39	4/26/2000	4,626	4,612	8.625	1,910	845				5.500	4,623	485	4,576	4,607	San Andres
Antweil Morris R	Viersen	1	D&A	P	30	18	39	12/10/1984	8,000		9.625	1,876	800				7.000	7,961	875			
EnerQuest Res L L C	Goode Pearl	2	OIL	A	31	18	39	8/24/1953	4,459		7.625	1,830	700				5.500	4,430	200	4,430	4,459	San Andres
EnerQuest Res L L C	Goode Pearl	1	OIL	B	31	18	39	6/26/1953	4,452		10.750	333	200				7.000	4,435	400	4,435	4,452	San Andres
EnerQuest Res L L C	Goode Pearl	3	OIL	C	31	18	39	9/19/1953	4,502		9.625	325	200				5.500	4,502	400	4,459	4,465	San Andres
Stanolnd Oil Co	Pearl-Goode	1	J&A	G	31	18	39	1/3/1952	6,525		9.625	494	350									
EnerQuest Res L L C	Lowe-State	1	OIL	C	32	18	39	7/23/1953	4,470		7.875	1,902	400				5.500	4,424	250	4,424	4,470	San Andres
EnerQuest Res L L C	Lowe-State	2	OIL	D	32	18	39	9/29/1953	4,468		8.625	1,854	700				5.500	4,421	200	4,421	4,468	San Andres

WELLBORE SCHEMATIC ☐ Proposed ☒ Actual

Well Name & No.: BROWNING #1 Operator: PHILLIPS PETROLEUM CO.
Location: 1980' FNL, 660' FWL, SEC. 29, T-18-S, R-39-E
County: LEA State: NM API #: 30-025-07946
GR Elev: 3605' + KB of _____ ft = 0 ft KB Elevation



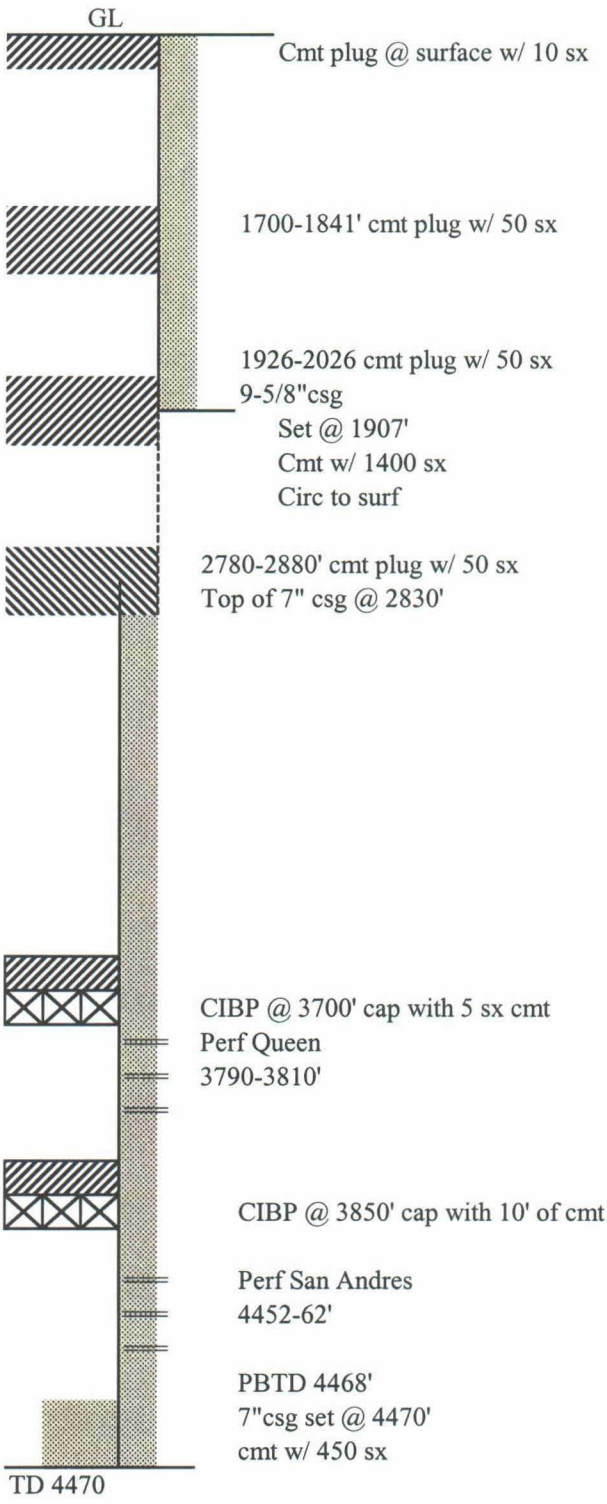
WELL HISTORY:

Spud 6/26/53
Rig Rlse. P&A'd well 9/13/53

Plugging Information is from State Reports.

WELLBORE SCHEMATIC ☐ Proposed ☒ Actual

Well Name & No.: D. F. FERGASON #2 Operator: MARTINDALE CORP.
Location: UNIT G, SEC. 30, T-18-S, R-39-E
County: LEA State: NM API #: 30-025-07955
GR Elev: 3613' + KB of _____ ft = 0 ft KB Elevation



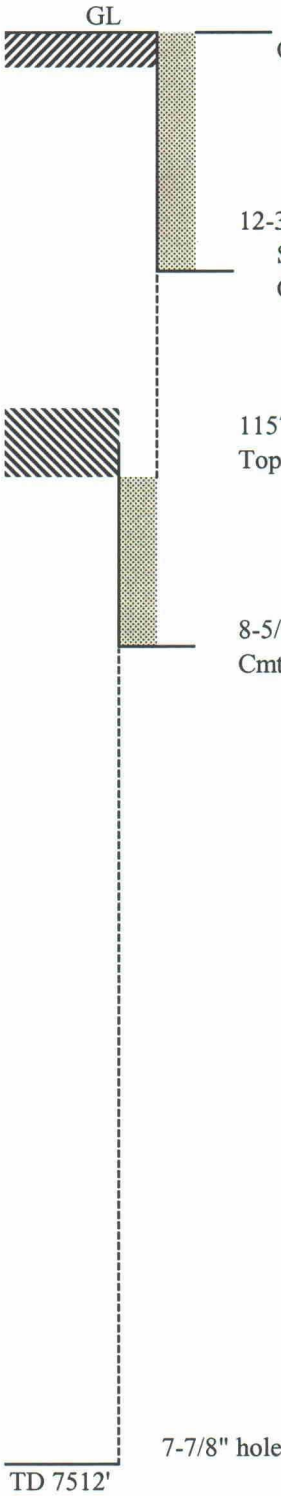
WELL HISTORY:

Spud 5/18/1953
Rig Rlse. P&A'd well 6/22/74

Plugging Information is from State Reports.

WELLBORE SCHEMATIC ☐ Proposed ☒ Actual

Well Name & No.: VIERSEN #1 Operator: HANSON OIL CORP.
Location: 1980' FNL & 1980 FEL, UNIT "J", SEC. 30, T-18-S, R-39-E
County: Lea State: NM API #: 30-025-23420
GR Elev: 3,606 + KB of _____ ft = 3,606 ft KB Elevation



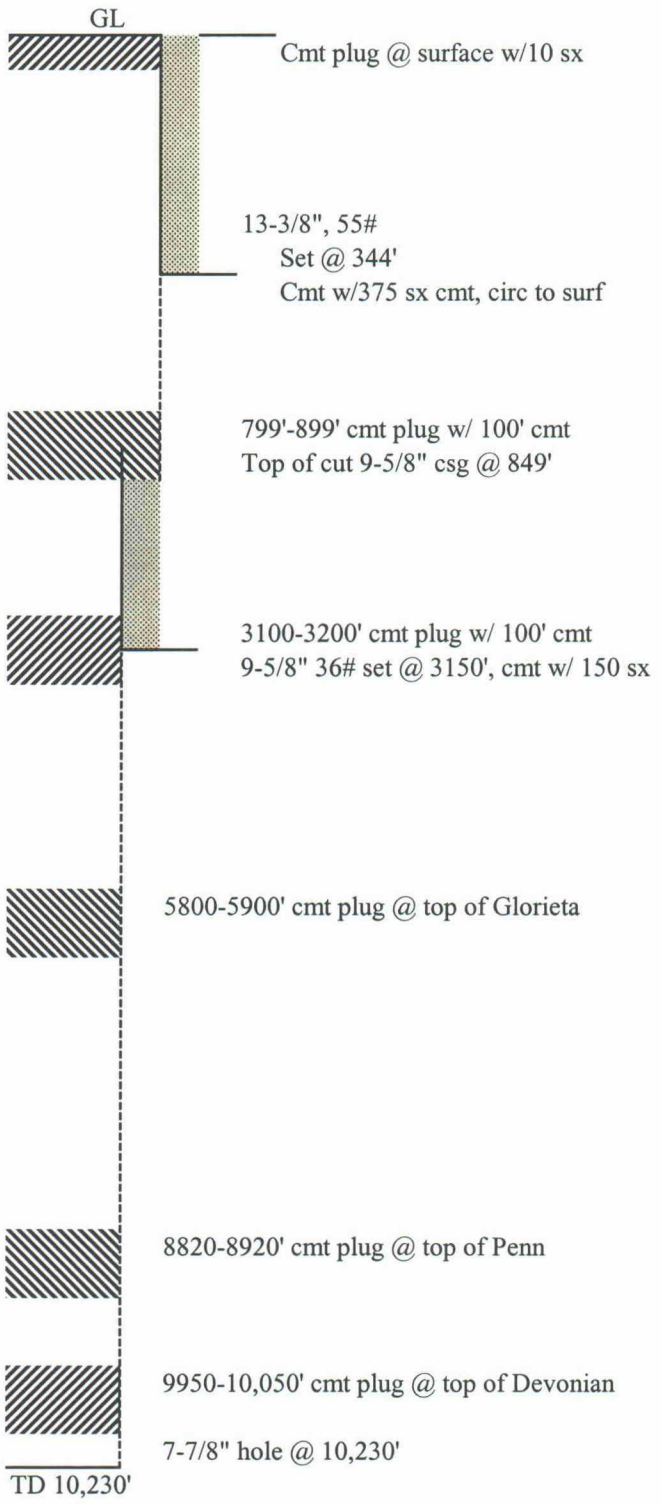
WELL HISTORY:

Spud 1/14/70
Rig Rlse. P&A'd well - 4/30/73

Plugging Information is from State Reports.

WELLBORE SCHEMATIC ☐ Proposed ☒ Actual

Well Name & No.: VIERSEN #1-X Operator: DONALD G. STEVENS
Location: 1955' FSL & 1930' FEL, UNIT "J", SEC. 30, T-18-S, R-39-E
County: Lea State: NM API #: 30-025-23420
GR Elev: 3,606 + KB of _____ ft = 3,606 ft KB Elevation



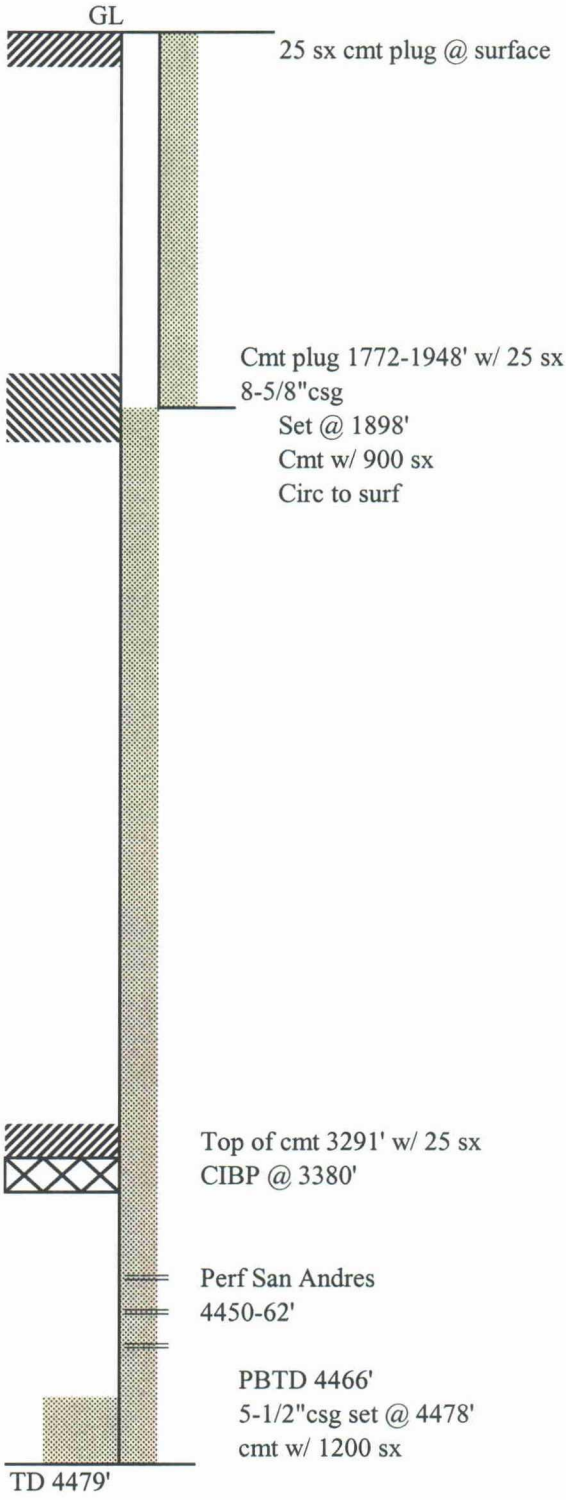
WELL HISTORY:

Spud 1/14/70
Rig Rlse. P&A'd well - 4/30/73

Plugging Information is from State Reports.

WELLBORE SCHEMATIC ☐ Proposed ☒ Actual

Well Name & No.: SAMUEL E. CAIN #2 Operator: EXXON CORPORATION
Location: UNIT K, SEC. 30, T-18-S, R-39-E
County: LEA State: NM API #: 30-025-07951
GR Elev: 3616' + KB of _____ ft = 0 ft KB Elevation



WELL HISTORY:

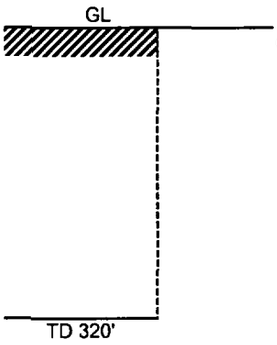
Spud 8/3/1953
Rig Rlse. P&A'd well 11/3/85

Plugging Information is from State Reports.

WELLBORE SCHEMATIC

☐ Proposed ☒ Actual

Well Name & No.: CAIN #1 Operator: HANSON OIL COMPANY
Location: 990' FSL & 2310 FWL, UNIT "N", SEC. 30, T-18-S, R-39-E
County: Lea State: NM API #: 30-025-23421
GR Elev: 3,601 + KB of _____ ft = 3,601 ft KB Elevation



Cmt plug @ surface w/10 sx

WELL HISTORY:

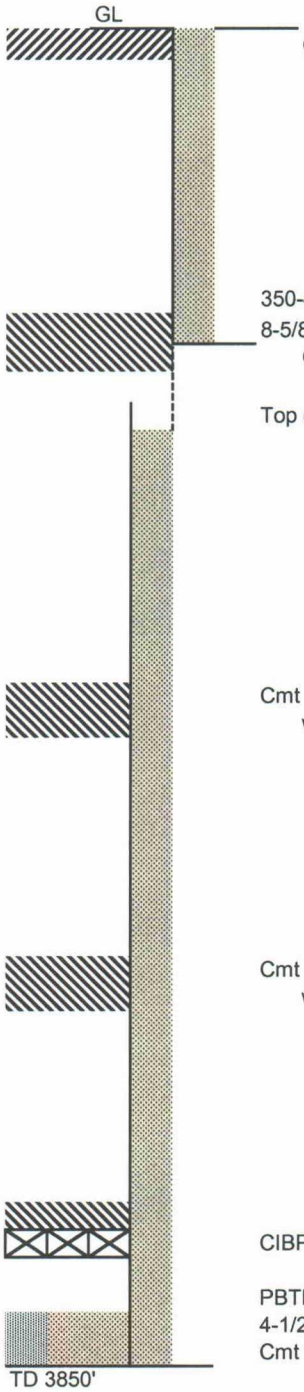
Spud 1/15/70
Rig Rlse. P&A'd well - 2/20/70

Plugging Information is from State Reports.

WELLBORE SCHEMATIC

[ ] Proposed [X] Actual

Well Name & No.: CHAPPARRAL #1 Operator: WESTERN RESERVES OIL COMPANY
Location: 2310' FWL & 660 FSL, UNIT "N", SEC. 30, T-18-S, R-39-E
County: Lea State: NM API #: 30-025-24966
GR Elev: 3,610 + KB of 10 ft = 3,620 ft KB Elevation



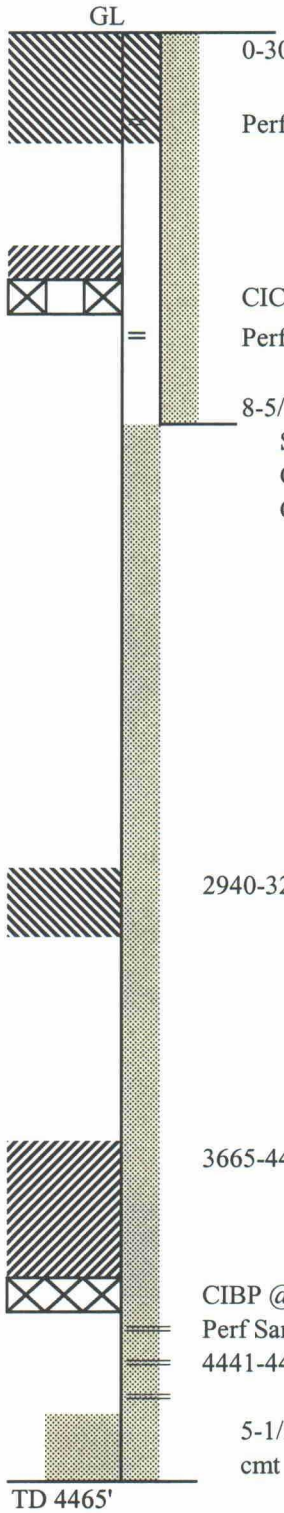
WELL HISTORY:

Spud 2/6/75
Rig Rlse. P&A'd well - 3/1/75

Plugging Information is from State Reports.

WELLBORE SCHEMATIC ☐ Proposed ☒ Actual

Well Name & No.: SAMUEL E. CAIN #3 Operator: EXXON CORPORATION
Location: UNIT N, SEC. 30, T-18-S, R-39-E
County: LEA State: NM API #: 30-025-07952
GR Elev: 3600' + KB of _____ ft = 0 ft KB Elevation



WELL HISTORY:

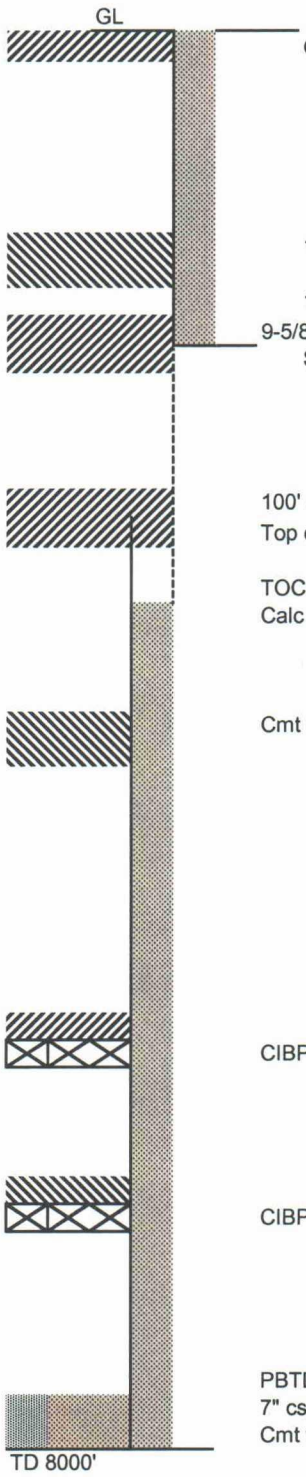
Spud 8/27/1953
Rig Rlse. P&A'd well 5/23/87

Plugging Information is from State Reports.

WELLBORE SCHEMATIC

[ ] Proposed [X] Actual

Well Name & No.: VIERSEN #1 Operator: MORRIS R ANTWEIL
Location: 990' FSL & 330' FEL, UNIT "P", SEC. 30, T-18-S, R-39-E
County: Lea State: NM API #: 30-025-23420
GR Elev: 3,609 + KB of _____ ft = 3,609 ft KB Elevation



Cmt plug @ surface w/10 sx

100' cmt plug 1375-1475' @ top of the salt

100' cmt plug 1826-1926' @ csg shoe
9-5/8", J-55
Set @ 1876', cmt w/800 sx, circ to surf

100' cmt plug 3321-3421'
Top of 7" csg @ 3371'

TOC @ 3500'
Calc by temp. survey

Cmt Plug @ 4500-4600' w/25 sx

CIBP @ 7080' w/ 35' cmt on top

CIBP @ 7500' w/20' cmt

PBTD 7935'
7" csg, set @ 7961'
Cmt w/875 sx - TOC @ 3500' by temp survey

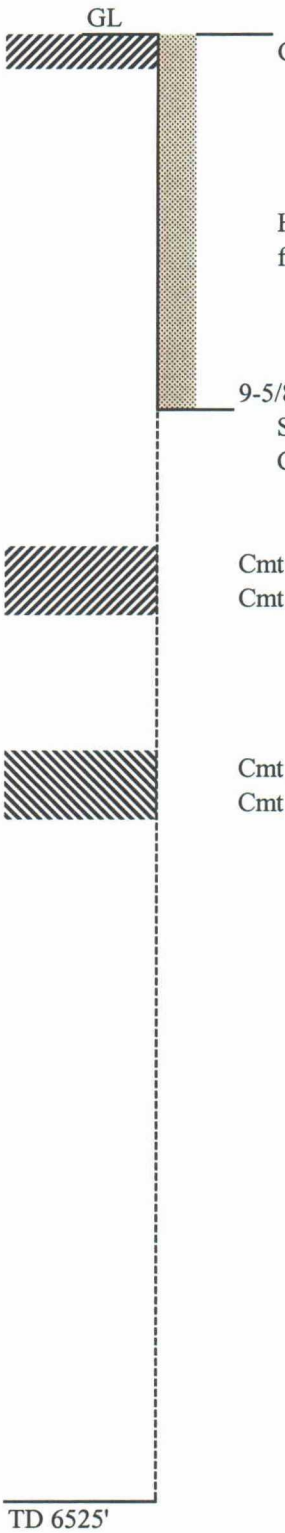
WELL HISTORY:

Spud 12/10/84
Rig Rlse. P&A'd well - 6/28/1993

Plugging Information is from State Reports.

WELLBORE SCHEMATIC ☐ Proposed ☒ Actual

Well Name & No.: PEARL GOODE #1 Operator: STANOLIND OIL & GAS CO.
Location: 1980' FNL & 1980 FEL, SEC. 31, T-18-S, R-39-E
County: Lea State: NM API #: 30-025-07959
GR Elev: 3,602 + KB of _____ ft = 3,602 ft KB Elevation



WELL HISTORY:

Spud 1/3/52
Rig Rlse. P&A'd well - 4/7/1952

Plugging Information is from State Reports.

EnerQuest Resources, LLC
East Hobbs (San Andres) Field
Application for Authorization to Inject
NMOCD Form C-108

VII. Proposed Injection Operations

1)	Injection Rate Per Well:	Average Maximum	500 BWPD 750 BWPD
2)	Injection System:	Closed	
3)	Injection Pressure (wellhead):	Average Maximum	600 psig 890 psig
		This is the standard 0.2 psig/ft of depth to the uppermost perf.	
4)	Injection Fluid:	Water from the San Andres formation within the proposed East Hobbs (San Andres) Unit. Water analyses are attached for 2 producing wells, CO Davis #2 and Ralph Lowe State #2.	

VIII. Geologic Data

A. Injection Zone

1)	Name:	San Andres Formation
2)	Description:	Injection will be into the San Andres formation within the field. The San Andres is a fine to coarsely crystalline dolostones, dolomitized grainstones, and dolomitic sandstones. The formation ranges in depth from 4440' to 4650'. The total net pay in the productive wells ranges from 119 to 164 feet. Average porosity is 16.2% and average permeability is 11.8 md.

B. Fresh Water Sources

The State Engineer's Office reports fresh water production potential from the Ogallala formation. The bottom depth of ground water is reported to be 200 feet in Sect. 29, 95 feet in Sect. 30, 110 feet in Sec. 31, and 70 feet in Sect. 32 of T18S, R39E. There are 50 permitted water wells in the area of review and are listed on the attached table. There are no fresh water sources below the proposed injection interval.

EnerQuest Resources, LLC
East Hobbs (San Andres) Field
Application for Authorization to Inject
NMOCD Form C-108

IX. Proposed Stimulation Program

Phase I of the proposed waterflood comprises drilling and completing 4 new injection wells. The wells will be perforated in the San Andres and stimulated with a small acid job. The acid job will consist of about 3,000 gallons of 15% HCl acid with appropriate diversion to effectively stimulate all zones.

X. Logging and Test Data

The proposed injection wells have yet to be drilled. Once drilling is completed, any well logs or tests performed will be submitted to the NMOCD in a timely manner when they are obtained.

XI. Fresh Water Analysis

Attached are the fresh water analyses from two of the active water wells in the area. The well labeled P Goode was permitted for irrigation by Coyotye Farms (L04053) in Section 31. The well labeled CO Davis was permitted for domestic use by Lee Roberson (L11116) in Section 29.

XII. Disposal Well Statement

This section does not apply to this application since no disposal wells are being proposed.

XIII. Proof of Notice

A copy of this application has been furnished to all surface owners and leasehold operators within the area of review.

Unichem International

707 North Leech P.O.Box 1499

Hobbs, New Mexico 88240

Company : HILLIN-SIMON
Date : 12-13-1988
Location: C. O. DAVIS #2 (on 12-06-1988)

	Sample 1
Specific Gravity:	1.013
Total Dissolved Solids:	17970
pH:	6.65
IONIC STRENGTH:	0.348

CATIONS:		me/liter	mg/liter
Calcium	(Ca^{+2})	52.0	1040
Magnesium	(Mg^{+2})	22.0	267
Sodium	(Na^{+1})	212	4870
Iron (total)	(Fe^{+2})	3.69	103
Barium	(Ba^{+2})	0.003	0.200
ANIONS:			
Bicarbonate	(HCO_3^{-1})	41.2	2510
Carbonate	(CO_3^{-2})	0	0
Hydroxide	(OH^{-1})	0	0
Sulfate	(SO_4^{-2})	47.4	2280
Chloride	(Cl^{-1})	197	7000

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86°F	30°C	0.68	-4.6

Unichem International

707 North Leech P.O.Box 1499

Hobbs, New Mexico 88240

Company : HILLIN-SIMON
Date : 12-13-1988
Location: RALPH LOWE #2 (on 12-06-1988)

	Sample 1
Specific Gravity:	1.013
Total Dissolved Solids:	17814
pH:	7.28
IONIC STRENGTH:	0.337

CATIONS:		me/liter	mg/liter
Calcium	(Ca^{+2})	36.0	720
Magnesium	(Mg^{+2})	22.0	267
Sodium	(Na^{+1})	230	5290
Iron (total)	(Fe^{+2})	0.315	8.80
Barium	(Ba^{+2})	0.003	0.200
ANIONS:			
Bicarbonate	(HCO_3^{-1})	33.4	2040
Carbonate	(CO_3^{-2})	0	0
Hydroxide	(OH^{-1})	0	0
Sulfate	(SO_4^{-2})	37.5	1800
Chloride	(Cl^{-1})	217	7700

SCALING INDEX (positive value indicates scale)

Temperature		Calcium Carbonate	Calcium Sulfate
86°F	30°C	1.1	-17

WATER WELL DATA REPORT AS OF FEBRUARY 12, 2002

	Use	Owner	Well Number	Twp	Rng	Sec	Qtr	Qtr Qtr	Qtr Qtr Qtr	Start Date	Finish Date	Depth (ft.) Well	Depth (ft.) Water
1	DOM	MARTIN HUGHES	L 04096 APPRO EXP	18S	39E	29	NE						
2	DOM	WILLIAM TUCKER	L 04771 APPRO	18S	39E	29	NW	NE	NW	12/15/1961	12/16/1961	120	65
3	DOM	LEE ROBERSON	L 11116	18S	39E	29	NW	NE	NW	8/21/2000	8/21/2000	240	200
4	PRO	ANADARKO PROD CO.	L 08365	18S	39E	29	NW	SE		3/11/1981	3/12/1981	150	84
5	IRR	LEE ROBERSON	L 03430 S	18S	39E	29	NW	SW	NE				
6	PRO	KEATING DRILLING CO.	L 01217 APPRO	18S	39E	29	SE	SE	NE	9/9/1951	9/11/1951	120	
7	DOM	D. D. JONES	L 06512	18S	39E	30	NE	NE		9/12/1969	9/14/1969	170	70
8	DOM	TERRY CAWLEY	L 09289	18S	39E	30	NE	NE	NW	8/5/1983	8/5/1983	150	60
9	DOM	LEROY N. BOX	L 09912	18S	39E	30	NE	NE		4/27/1987	4/27/1987	155	95
10	DOM	ADAN RODRIQUEZ	L 09948	18S	39E	30	NE	NE		9/3/1987	9/3/1987	150	88
11	DOM	TURNER J C JR	L 10389	18S	39E	30	NE	NE	NW	5/13/1994	5/14/1994	180	87
12	DOM	ROB L. HOLDRIDGE	L 05183 EXP	18S	39E	30	NE	NW	NE				
13	DOM	CARLTON C. WADE	L 05187 EXP	18S	39E	30	NE	NW					
14	DOM	CARLTON C. MR. WADE	L 05448 EXP	18S	39E	30	NE	NW					
15	DOM	ROB L. HOLDRIDGE	L 10538	18S	39E	30	NE	NW	NW	2/5/1996	2/16/1996	200	
16	PRO	THE TEXAS COMPANY	L 02173 APPRO	18S	39E	30	NE	SE					
17	DOM	JIMMY D. ROBERTS	L 08039	18S	39E	30	NE	SE		3/21/1979	3/28/1979	150	50
18	DOM	JERRY D. SMITH	L 08040	18S	39E	30	NE	SE		5/14/1979	5/18/1979	150	85
19	DOM	ROB L. HOLDRIDGE	L 07231 CLW	18S	39E	30	NE	SW	NE	8/25/2001	8/25/2001	195	
20	DOM	THOMAS G. PIERCE	L 08294	18S	39E	30	NE	SW	NE	7/1/1980	7/3/1980	150	90
21	DOM	MICHAEL W. HOLDRIDGE	L 08550	18S	39E	30	NE	SW		10/29/1981	10/31/1981	150	82
22	DOM	GARNICE LAND	L 05197	18S	39E	30	NE			8/26/1963	8/28/1963	100	70
23	DOM	JACK ROBERTS	L 05924	18S	39E	30	NE			11/26/1989	11/26/1989	150	85
24	DOM	ADAN B. RODRIQUEZ	L 07492	18S	39E	30	NE			1/23/1980	1/24/1980	150	82
25	PRO	HUMBLE OIL & REFINING CO.	L 02204 APPRO	18S	39E	30	NW	SE	NW	5/3/1953	5/4/1953	123	65
26	EXP	RICE ENGINEERING COMPANY	L 07671 EXPL 1 & 2	18S	39E	30	NW	SE	NE	3/30/1977	3/31/1977	150	
27	PRO	CACTUS DRILLING COMPANY	L 06633 (E)	18S	39E	30	SE	NW	SW				
28	DOM	DARRELL G. BINGHAM	L 04054 REPAR	18S	39E	31	NE	NW	NW	9/9/1980	9/12/1980	148	105
29	PRO	DAVIDSON DRILLING CO.	L 01333	18S	39E	31	NE	SW		1/1/1952	1/2/1952	123	55
30	DOM	OLLIE T. FORE	L 02439 APPRO	18S	39E	31	NW	NE	SW	1/1/1953	1/3/1953	135	60
31	DOM	L. W. GASSAWAY	L 06605 EXP	18S	39E	31	NW	NW	NW				
32	DOM	TERRY L. OWEN	L 10006	18S	39E	31	NW			7/6/1988	7/18/1988	120	79
33	IRR	COYOTYE FARMS, LLC	L 04053	18S	39E	31	SE	SW	NE			160	
34	DOM	JOHN KING	L 08982	18S	39E	31	SW	NE	SE				
35	DOM	GUILLERMO VILLALOBOS	L 09160	18S	39E	31	SW	NE	NE	4/17/1983	4/18/1983	151	73
36	DOM	ROBERT CUNNINGHAM	L 08698	18S	39E	31	SW	SE		3/12/1982	3/18/1982	150	100
37	PRO	INC. PRIMARY FUELS	L 09999	18S	39E	31	SW	SE		5/6/1988	5/10/1988	164	110
38	DOM	GEORGE A. MANN	L 06891 EXP	18S	39E	31	SW	SW	SE				
39	DOM	RAUL C. GONZALEZ	L 08565	18S	39E	31	SW	SW	NE	10/27/1981	10/30/1981	140	95
40	DOM	MARGARITA ROBLES	L 10973	18S	39E	31	SW	SW	NW	8/13/1999	8/13/1999	158	103
41	DOM	EARL MANNING	L 06713 EXP	18S	39E	31	SW						
42	DOM	BETTY FOLLIS	L 06714 EXP	18S	39E	31	SW						
43	DOM	JACK SICKLER	L 08862 EXP 1 & 2	18S	39E	31	SW						
44	DOM	PAULINO G. QUIROZ	L 09453 EXP	18S	39E	31	SW						
45	DOM	RAMIREZ ARTURO	L 10331	18S	39E	31	SW						
46	DOM	PAULINO G. QUIROZ	L 10692	18S	39E	31	SW						
47	PRO	SHARPE DRILLING CO.	L 01325 APPRO	18S	39E	32	NE	NE	NE	12/18/1952	12/19/1952	115	40
48	PRO	STONE DRILLING CO.	L 02302 APPRO	18S	39E	32	NW	NW	NE			86	30
49	STK	GARY M. SCHUBERT	L 10144	18S	39E	32	SW	NE		9/5/1990	9/5/1990	150	70
50	DOM	SCHUBERT GARY	L 10298	18S	39E	32	SW	SW	SW	11/20/1992	11/20/1992	180	68

Above Information Obtained from: NM State Engineer's Office - Water Administration Technical Engineering Resource System

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENERQUEST RESOURCES L.L.C.
ATTN: CHRIS RENAUD
P.O. BOX 11150
MIDLAND, TX 79702
FAX TO: (915) 687-4804

Receiving Date: 02/21/02
Reporting Date: 02/22/02
Project Number: NOT GIVEN
Project Name: FRESH WATER SAMPLES
Project Location: PEARL GOODE & C.O. DAVIS

Sampling Date: 02/21/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		02/22/02	02/21/02	02/21/02	02/21/02	02/21/02	02/21/02
H6533-1	P. GOODE	50	83	22	2.82	1022	155
H6533-2	C.O. DAVIS	111	194	62	6.29	2395	200
Quality Control		NR	55	49	5.27	1489	NR
True Value QC		NR	50	50	5.00	1413	NR
% Accuracy		NR	110	97.2	105	105	NR
Relative Percent Difference		NR	0	6.0	0	0.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		02/21/02	02/21/02	02/21/02	02/21/02	02/21/02	02/22/02
H6533-1	P. GOODE	124	77	0	190	7.24	465
H6533-2	C.O. DAVIS	384	239	0	244	7.35	1472
Quality Control		1020	52.66	NR	948	7.11	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Accuracy		102	105	NR	94.8	102	NR
Relative Percent Difference		5.0	0.6	NR	0.4	1.6	5.1
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Amy Hill
Chemist

2-22-02
Date

H6533