BW - 30

GENERAL CORRESPONDENCE

YEAR(S):

2005 -> 2001



NEW DEXICO ENERGY, MIDERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

March 16, 2005

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

Governor

Joanna Prukop

Cabinet Secretary

Mr. Gary Schubert H.R.C. Inc. P.O. Box 5102 Hobbs, New Mexico 88241

Re:

Discharge Plan Approval Conditions

H.R.C. Inc. State #10 Brine Station BW-030

Lea County, New Mexico

Subject:

Notice of deficiency

Dear Mr. Schubert:

The groundwater discharge plan for the State #10 Brine Well and Station BW-030 operated by H.R.C. Inc. located in SE/4 NW/4 of Section 29, Township 18 South, Range 38 East, and NW/4 NE/4 Section 29, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico was approved on May 29, 2002 with conditions. OCD is hereby notifying HRC of the following discharge plan deficiencies:

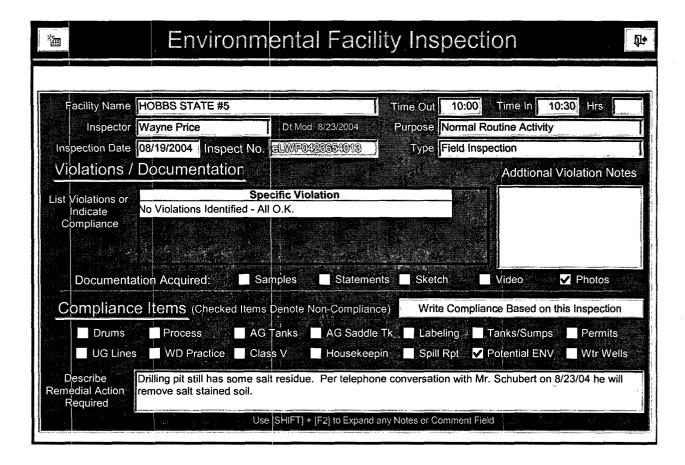
- 1. HRC has not submitted the 2004 annual report. Please ensure that all information required to be submitted is included. See conditions #'s 6,7,13, 14,23, 24, and 25.
- 2. HRC conducted the brine well mechanical integrity tests without it being witnessed by OCD. See condition # 5.
- 3. HRC has not fulfilled condition #26. Properly plugging and abandoning the Hobbs State #5 well located 300-400 feet northwest of the permitted brine well.

HRC is hereby ordered to correct these deficiencies within 60 days. If you have any questions please do not hesitate to contact me at 505-476-3487 or e-mail <a href="https://www.wprice.gov.new.gov.n

Sincerely;

Wayne Price- Environmental Engr.

cc: OCD Hobbs Office





From:

Price, Wayne

Sent:

Thursday, July 29, 2004 3:18 PM

To:

'garymschubert@aol.com'

Subject:

Brine well BW-30

Contacts:

Gary Schubert

Dear Gary:

Attention Brine Well Operators:

Last year several operators complained about the scheduling of the brine well testing. As a result of those complaints OCD is allowing each Brine well operator to schedule their own test. Test must be conducted before December 31, 2004 and witnessed by OCD. Please return this E-mail by August 13, 2004 notifying OCD the date of your test. OCD will make arrangements to have an inspector witness the test.

631-0962

In addition, please note Item 26. of your permit conditions have not been complied with. Please provide this office a date of compliance.

Sincerely:

Wayne Price New Mexico Oil Conservation Division 1220 S. Saint Francis Drive Santa Fe, NM 87505 505-476-3487

fax:

505-476-3462

From:

Beckham, Denise (DKBE) [DKBE@chevrontexaco.com]

Sent:

Friday, May 24, 2002 11:09 AM

To:

'Price, Wayne'

Subject:

RE: HRC Inc Brine well -BW-030

Mr. Price, ChevronTexaco does not intend to request a hearing. Please advise if you need additional information. Denise Beckham

----Original Message----

From: Price, Wayne [mailto:WPrice@state.nm.us]

Sent: Tuesday, May 21, 2002 4:11 PM

To: 'dkbe@chevron.com'

Cc: Eddie Seay (E-mail); Williams, Chris

Subject: HRC Inc Brine well -BW-030

Dear Ms Beckham:

Please find attached the DRAFT PERMIT for the above subject site: If Chevron USA wishes to request a hearing on this matter please file within 15 days.

<<BWAPPdraft.DOC>>

Sincerely:

<<...OLE_Obj...>>
Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505

505-476-3487

fax: 505-476-3462

From:

Price, Wayne

Sent:

Thursday, May 23, 2002 3:18 PM

To:

Price, Wayne; 'dkbe@chevron.com' 'Eddie Seay (E-mail)', Williams, Chris

Cc: Subject:

RE: HRC Inc Brine well -BW-030

Dear Ms Beckham:

I just received your telephone message indicating that Chevron is not going to request a hearing on this matter. Thank you for your comments.

-----Original Message-

From:

Price, Wayne

Sent:

Tuesday, May 21, 2002 3:11 PM

To: Cc: 'dkbe@chevron.com'

Eddie Seay (E-mail); Williams, Chris

Subject:

HRC Inc Brine well -BW-030

Dear Ms Beckham:

Please find attached the DRAFT PERMIT for the above subject site: If Chevron USA wishes to request a hearing on this matter please file within 15 days.

<< File: BWAPPdraft.DOC >>

Sincerely:

<< OLE Object: Picture (Metafile) >>

Wayne Price

New Mexico Oil Conservation Division

1220 S. Saint Francis Drive

Santa Fe, NM 87505

505-476-3487

fax:

505-476-3462

From:

Rick_Foppiano@oxy.com

Sent:

Wednesday, May 22, 2002 2:28 PM

To:

WPrice@state.nm.us seay04@leaco.net

Cc: Subject:

RE: HRC Inc. Brine Well-BW-030

OXY does not object to the granting of this permit. Thanks for keeping us in the loop on this proposal.....

Rick

Richard E. Foppiano P.E.

Senior Advisor - Regulatory Affairs

OXY Permian, Houston, Texas

Phone: 281-552-1303 Fax: 281-552-1383

E-mail: Rick_Foppiano@oxy.com

----Original Message----

From: Price, Wayne [mailto:WPrice@state.nm.us]

Sent: Tuesday, May 21, 2002 4:06 PM

To: 'rick_foppiano@oxy.com'
Cc: Eddie Seay (E-mail)

Subject: HRC Inc. Brine Well-BW-030

Dear Mr. Foppiano:

Please find attached the DRAFT PERMIT for the above subject site: If Oxy wishes to request a hearing on this matter please file within 15 days.

<<BWAPPdraft.DOC>>

Sincerely:

<<...OLE_Obj...>>

Wayne Price

New Mexico Oil Conservation Division

1220 S. Saint Francis Drive

Santa Fe, NM 87505

505-476-3487

fax: 505-476-3462

From:

Eddie Seay

Sent:

Friday, May 10, 2002 7:47 AM

To:

Wayne Price

Subject: HRC Brine well

Mr. Price:

As per our conversation and your e-mail, HRC does not have any problem in increasing the pressure to 375 #. This will still keep us far below the frac pressure. If you have any other questions, please call.

Sincerely,

Eddie W. Seay

From:

Price, Wayne

Sent:

Thursday, May 09, 2002 3:05 PM

To:

'seay04@leaco.net' HRC Brine well

Subject:

THE DIME W

Contacts:

Eddie Seay

Eddie, received your frac calculations. You indicated that the test pressure would not exceed 300 psig. Normally we require that the test pressure be 1.5 times the normal operating pressure unless it exceeds the frac pressure. $250 \times 1.5 = 375 \text{ psig.}$ If 375 is well under the frac pressure then we would like to see you propose that test pressure. If you (HRC) have a problem with this test pressure then please demonstrate that why it would be a problem. Sincerely:

Wayne Price

New Mexico Oil Conservation Division 1220 S. Saint Francis Drive Santa Fe, NM 87505

505-476-3487

fax: 505-476-3462

Mapa Pini

Wayne Price NMOCD Environmental Bureau P.O. Box 6429 1220 S. Saint Francis Drive Santa Fe, NM 87504 RECEIVED

MAY N 9 2NN2

Environmental Bureau
Oil Conservation Division

RE: H.R.C. Brine Application BW-030

Revised information

Mr. Price:

Find within a copy of the new C-103 for the plugging of Hobbs State #5, Item #1.

Also find within, information and a new calculation for the frac pressure. I received information from Monty Newton with the Texas RRC, Brine Mining Section. The Salado formation in West Texas is the same as we have in SE New Mexico.

The symbol (') in question, is for feet. This was a typing error in part 3.

If you have any questions, please call.

Sincerely,

Eddie W. Seay, Agent

601 W. Illinois

Hobbs, NM 88242

(505)392-2236

BW-030

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MAY N 9 2002

Environmental Bureau
Oil Conservation Division

Item #1 State #5 well, within is new C-103 with modifications.

Item #2 As you suggested, I contacted the State of Texas RRC for information on calculating Frac Pressures, a copy of the fax received is attached.

1700' - Depth of injection interval.

0.95 - Fracture pressure gradient - 0.95 psi/ft.

1615# - Predicted formation breakdown pressure, at injection zone or casing shoe, depth X fracture pressure.

736# - Formation breakdown pressure - hydrostatic pressure.

879# - Proposed maximum allowable surface injection pressure.

The maximum injection pressure will be 250#.

The maximum test pressure will be 300# on a recorder for 8 hrs.

Fresh water is 8.33# per gal. and .433# per ft. of depth.

The production casing is to be set at 1700 ft.

Hydrostatic pressure = .433 X depth 1700 feet = 736#

Pressure gradient = maximum surface pressure + hydrostatic pressure divided by the depth.

Pressure Gradient = 300# + 736# = .609 psi/ft. 1700 feet

With the fracture pressure of the salt formation being 1615 lbs. and our operating pressure plus hydrostatic pressure not exceeding 1036 lbs. this will be below what it takes to fracture the formation. We will install Murphy shut down switches to control the pressure, and also test the cavity as the OCD requires.

Submit 3 Copies To Appropriate District Office	State of New Mexico Energy, Minerals and Natural Resources			Form C-103 Revised March 25, 1999			
District I	Energy, Minerals	and Natu	rai Resources	WELL API NO.	Revised March 25,	1999	
1625 N. French Dr., Hobbs, NM 88240 District II	OIL CONGEDI	Z A TTONI	DUACION	30-025-2	3662		
811 South First, Artesia, NM 88210 District III	OIL CONSERVATION DIVISION 1220 South St. Francis Dr.			5. Indicate Type	5. Indicate Type of Lease		
1000 Rio Brazos Rd., Aztec, NM 87410					STATE 🖾 FEE 🗆		
<u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM	Saina Fo	e, NM 87	7303	6. State Oil & 0	Gas Lease No.		
87505				992279			
SUNDRY NOT	ICES AND REPORTS OF			7. Lease Name o	r Unit Agreement Nar	ne:	
DIFFERENT RESERVOIR. USE "APPLIC	-						
PROPOSALS.)				Hobbs	State		
1. Type of Well: Oil Well Gas Well	Other P & A	well		!			
2. Name of Operator				8. Well No. 5			
H.R.C. Inc.							
3. Address of Operator Box 5102 Hobbs,	NM 88241			9. Pool name or	Wildcat		
4. Well Location							
	0000						
Unit Letter F:	2280 feet from the	norti	line and 19	980 feet fro	m the <u>west</u> l	ine	
Section 29	Township 18	3 S. Ra	nge 38 E.	NMPM	County Lea		
	10. Elevation (Show w			.)			
11 Check A	appropriate Box to Inc	dicata No	ture of Notice I	Penort or Other	Data		
NOTICE OF IN		uicate 14a		SEQUENT RE			
PERFORM REMEDIAL WORK		菡	. REMEDIAL WORK		ALTERING CASING		
				_			
TEMPORARILY ABANDON	CHANGE PLANS	色	COMMENCE DRII	LLING OPNS.	PLUG AND ABANDONMENT		
PULL OR ALTER CASING	MULTIPLE		CASING TEST AN	ID 🗀	ADAINDONNEIN		
	COMPLETION		CEMENT JOB				
OTHER:			OTHER:				
12. Describe proposed or complet							
of starting any proposed work) or recompilation.	. SEE RULE 1103. For I	Multiple C	completions: Attach	wellbore diagram	of proposed completic	on	
To drill out and r	'e=nlug•				•		
1) Rig up, drill	out surface pl	ug.					
2) Run in hole wi	th tubing to b	ase of	salt + 260	0' spot 25	sx plug.		
2) Run in hole wi 3) Cut and pull 7 4) Spot 100' plug 5) Spot 100' plug 6) 10 sx surface	" casing + 160	O' tor	of salt.		-		
5) Spot 100' plug	50 ft. in and	out c	I 7" stub,	and tag.			
6) 10 sx surface	plug.	. Out c	I Sullace 8		+		
				F	RECEIVED		
* Hole will be	loaded with sa	lt gel	•				
* OCD will be n	orrred brrot.	to beg	inning work	,	N 9 2002		
				Environ	Ma		
				On Conse	Inental Bureau Prvation Division		
I hereby certify that the information	above is true and comple	ete to the b	est of my knowledg	e and belief.			
SIGNATURE	م مولا و	TITLE A	gent		DATE5/2/02		
		****		······································	DL <u>5/2/02</u> _		
Type or print name Eddie W.	seay \			Telep	hone No. 392-223	36	
(This space for State use)			•				
APPPROVED BY		TITLE			DATE		
Conditions of approval, if any:		. ·					

WELL PLUGGED: 5/11/73

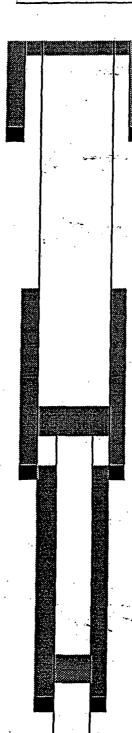
Size: 9 5/8" Depth: 364' Hole size: 12.25" Cmt: 200 sxs TOC: Circ. - Calc. With 50% effic.

Size: 7* Depth: 3826' Hole size: 8.75" Cmt: 200 sxs TOC: 2250'

Size: 41/2" Depth: 5986' Hole size: 6.25" Cmt: 120 sxs TOC: 3800'- Calc. With 50% effic.

PBTD: 5959'

TD: 5986'



Spotted 10' cmt plug at surf.

Present Condition

Shot and pulled csg at 3744'. Pumped 255 sx cmt plug From 3744' to 3644'.

RECEIVED

MAY N 9 2002

Environmental Bureau Oil Conservation Division

Set 4 ½" CIBP at 5757' and Capped with 35' cmt. Est. TOC is 5722'.

WELL PLUGGED: 5/11/73

Size: 9 5/8"
Depth: 364'
Hole size: 12.25"
Cmt: 200 sxs
TOC: Circ. – Calc.
With 50% effic.

Spotted 10' cmt plug at surf.

After

Plug of show and replaying

Plug of top Salt 2 1600' and csg stab

Tag

Plug of bose of Salt 22600'

Size: 7"
Depth: 3826'
Hole size: 8.75"
Cmt: 200 sxs
TOC: 2250'

Size: 41/2"
Depth: 5986'
Hole size: 6.25"
Cmt: 120 sxs
TOC: 3800'- Calc.
With 50% effic.

PBTD: 5959'

TD: 5986'

Shot and pulled csg at 3744'. Pumped 255 sx cmt plug From 3744' to 3644'.

Set 4 1/2" CIBP at 5757' and Capped with 35' cmt. Est. TOC is 5722'.

MAY N 9 2NN2
Oil Conservation Division

Eddie Seay

Calculation of Allowable Surface injection pressure

1800	Depth of Injection Interval
0.95	Fracture pressure gradient - 0.95 psi/ft
1710	Predicted formation Breakdown Pressure (at injection zone), depth x fracture gradient
779	Hydrostatic Pressure (Depth of injection interval x 0.433)
931	Formation Breakdown Pressure (at surface), formation breakdown pressure - hydrostatic pressur
93	Safety Factor (10% of Fm breakdown pressure)
838	Proposed Maximum Altowable surface injection pressure



Calculation of operating pressure (from RDH letter in 1987)

1800	depth of inj. interval
2.31	hydrostatic colume
779	divide depth by 2.31
0.20	
15 6	adding pressure drop would raise this operating pressure to 120-140# depending on the injection

Calculation of maximum allowable injection pressure from a TWC hearing

1800	depth	
0.95	psi/ft pressure gradient	
1710		
2.31	hydrostatic colume	
779	depth divided by 2.31	
931	times .90 safety factor	
232		

RECEIVED

MAY N 9 2002

Environmental Bureau
Oil Conservation Division

Monty Newton RRC Newton 512-475.4655

Page 1

From:

Price, Wayne

Sent:

Tuesday, April 30, 2002 3:34 PM

To:

'seay04@leaco.net'

Subject:

HRC Inc Brine Well April 24, 2002 submittal

Contacts:

Eddie Seay

Dear Eddie:

<u>Item #1. State #5 well:</u> After discussing the State #5 well with Chris Williams, it appears that another plug at the bottom of the salt will be required also. Please modify your C-103.

<u>Item # 3. Frac Pressure calculations:</u> Please provide documentation showing how you derived the fracture pressure of the salt section being from 1500' to 1800'. What units are the symbol (')?? feet, lbs, psi ??

CC:

Gary Schubert-HRC Inc.

NMOCD Environmental Bureau ATTN: Wayne Price P.O. Box 6429 1220 S. Saint Francis Drive Santa Fe, NM 87504

RE: H.R.C. Brine Application BW-030 Supplemental Information

Mr. Price:

Within is the additional information as requested in your letter dated 4/20/2002. Mr. Schubert is sending a bond covering the new Hobbs State #10. The bond which is in place, will cover the re-plugging of Hobbs St. #5. After visiting with OCD, Hobbs, a plugging procedure is being submitted to re-enter and plug #5 after drilling the Hobbs St. #10, so we can utilize the same workover rig. After the Hobbs State #5 is plugged, we will request release of bond. Within is C-103 submitted to Hobbs OCD and additional information.

If you have any questions, please call.

Sincerely,

Eddie W. Seay, Agent

601 W. Illinois

Hobbs, NM 88242

(505)392-2236

OIL CONSERVATION UNIV.

BW-030

1) Re-enter and re-plug Hobbs State #5.

I visited with the Hobbs district Geologist and a plugging procedure was recommended:

- a) Rig up, drill out top plug.
- b) Run in with tubing and spot a 25 sx plug at top of salt approximately 1600'.
- c) Pull tubing to 415', spot 100' plug fifty feet in and out of a surface casing show, and tag.
- d) Spot 10 sx surface plug.
- e) Hole will be loaded with salt gel.
- f) Erect marker.

(Find copy of C-103.)

- 2) Mr. Schubert is sending new bond on Hobbs State #10. After plugging #5, we will request release of old bond.
- 3) The maximum injection pressure will be 250#.

The maximum test pressure will be 500# on a recorder for 8 hrs.

Fresh water is 8.33# per gal. and .433# per ft. of depth.

The production casing is to be set at 1700'.

Hydrostatic pressure = .433 X depth 1700' = 736 lbs.

Pressure gradient = surface pressure + hydrostatic pressure divided by the depth.

Pressure gradient:

$$500# + 736#$$

1700 = .727 psi/ft.

With the fracture pressure of the salt section being from 1500' to 1800' and our operating pressure plus hydrostatic pressure not exceeding 1250#, this will be below what it takes to frac the formation. We will install murphy switches to control the pressure, and also testing cavity as OCD requires.

4) Air-break.

H.R.C. has several precautions to keep from backflowing to the City water supply. First of all, the city has installed check valves at H.R.C. 's connection. The fresh water line will run to the fresh water tank at the facility first and go into the top of the tank. From the fresh water tank at the facility, the water line will go to the brine well storage tank. This tank will store fresh water to be injected into the brine well. The fresh water will go into the top of the tank, below the top of the tank will be an overflow or break in case of malfunction and salt water backflows, it will go out overflow, not into the fresh water line, plus all lines will have check valves. (See drawing)

Submit 3 Copies To Appropriate District Office District I	State of New M. Energy, Minerals and Nat		Form C-103 Revised March 25, 1999		
1625 N. French Dr., Hobbs, NM 88240			WELL API NO. 30–025–21	3660	
<u>District II</u> 811 South First, Artesia, NM 88210	OIL CONSERVATION		5. Indicate Type		
District III 1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Fra		STATE 🖾 FEE		
District IV	Santa Fe, NM 8	37505		Gas Lease No.	
1220 S. St. Francis Dr., Santa Fe, NM 87505			992279		
	ICES AND REPORTS ON WELL		7. Lease Name of	r Unit Agreement Name:	
,	DSALS TO DRILL OR TO DEEPEN OR PI ICATION FOR PERMIT" (FORM C-101) F	_			
PROPOSALS.)	,		Hobbs	s State	
1. Type of Well: Oil Well ☐ Gas Well	Other P & A well				
2. Name of Operator	One 1 × 11 HOLL		8. Well No.	_	
H.R.C. Inc.				5	
3. Address of Operator Box 5102 Hobbs,	NM 88241		9. Pool name or	Wildcat	
4. Well Location					
Unit Letter F:	2280 feet from the nor	th line and 19	80 feet fro	m the <u>west</u> line	
Section 29	Township 18S R	ange 38E	NMPM	County Lea	
	10. Elevation (Show whether D				
11 Check A	Appropriate Box to Indicate N	ature of Notice I	Penort or Other	Note	
NOTICE OF IN			SEQUENT RE		
PERFORM REMEDIAL WORK		REMEDIAL WORK		ALTERING CASING	
TEMPORARILY ABANDON	CHANGE PLANS	COMMENCE DRIL	LLING OPNS. 🗌	PLUG AND ABANDONMENT	
PULL OR ALTER CASING	MULTIPLE COMPLETION	CASING TEST AN CEMENT JOB	D 🗆		
OTHER:		OTHER:			
12. Describe proposed or complet					
	. SEE RULE 1103. For Multiple (Completions: Attach	wellbore diagram	of proposed completion	
or recompilation. To drill out and :	re-nlug			37	
1) Rig up, drill	out top of plug.				
2) Run tubing to	top of salt approx.	1600', spot	25 sx ceme	nt plug.	
5) Full tubing to shoe and	surface shoe 364, p	out 100' plug	g 50/50 in	and out of	
4) 10 sx surface	oag. olug.	•			
5) clean location.	erect marker.				
*Hole will be load	ded with salt gel.				
OCD WILL be notili	ied prior to beginni	ng work.			
				,	
	1		11.1:-6		
I hereby certify that the information	1		e and belier.		
SIGNATURE SIGNATURE	TITLE_	Agent		_DATE_4/24/2002	
Type or print name Eddie W.	Seay [\]		Telepl	none No.392-2236	
(This space for State use)					
APPPROVED BY	TITLE		***************************************	_DATE	
Conditions of approval, if any:					

GENERAL FRACTURING TREATMENT FORMULAS

P_F = Bottom-hole fracturing pressure, psi (kPa) Nomenclature:

P_{FG} = Bottom-hole fracturing pressure gradient, psi/ft (kRa/m)

P_W = Total surface pressure, psi (kPa)

P_b = Total hydrostatic pressure, psi (kPa)

P_{of} = Perforation friction pressure, psi (kPa)

P_{rf} = Total tubular friction pressure, psi (kPa)

= Injection rate, bbl/min (m³/min)

HHP = Hydraulic horsepower *

kw = Kilowatts

= Instantaneous shutdown pressure, psi (kPa)

= Depth of producing interval, feet (m)

Basic Equations

(1) Bottom-hole Fracturing **Pressure Gradient:**

$$P_{FG} = \frac{P_W + P_h - P_{tf} - P_{pf}}{D}$$

(2) Bottom-hole Fracturing

$$P_F = P_W + P_h - P_{tf} - P_{pf}$$

(3) Instantaneous Shutdown Pressure:

$$P_i = P_F - P_h = P_{FG} O - P_h$$

(4) Total Surface Pressure:

$$P_W = P_F + P_{tf} + P_{pf} - P_h$$

(5) Hydraulic Horsepower:

$$HHP = 0.0245 P_{W} Q$$

130

HYDROSTATIC PRESSURE AND FLUID WEIGHT CONVERSION TABLES

To find the Hydrostatic pressure of a column of fluid, multiply the appropriate value in Lbs./Sq. In. per foot of depth times the depth in feet.

Example: Find the Hydrostatic Pressure at a depth of 13.760 feet in a hole filled with mud weighing 12.3 Lbs./Gal. (92.01 Lbs./Cu. Ft.) The value 0.6390 is found opposite 12.3 Lbs./Gal. in the table. Then 0.6390 × 13760 = 8793 Lbs. per Sq. In. hydrostatic pressure.

hs./Cal.	Lbs./Cu. Ft.	Sp. Gr.	Lbs./Sq. In. Per Ft. of Depth
7.0	52.36	0.84	0.3636
7.1 7.2	53.11 53.86	0.85	0.3688
7.3	54.61	0.86 0.87	0.3740 0.3792
7.1	55.36	0.89	0.3844
7.5 7.6	56.10	0.90	0.3896
7.7	56.85 57.60	0.91 0.92	0.3948
7.8	58.35	0.92 0.93	0.4000 0.4052
7.9	59.10	0.95	0.4104
8.0	59.84	0.96	0.4156
8.1 8.2	60.59 61.34	0.97	0.4208
8.3	62.09	: 0.98 0.99	0.4260 0.4312
8.33* 8.4	62.31	1.00	0.433
0.4	62.84	1.01	0.4364
8.5 8.6	63.58	1.02	0.4416
8.7	64.33 65.08	1.03 1.04	0.4468
8.8	65.83	1.05	0.4519 0.4571
8.9	66.58	1.07	0.4623
9.0 9.1	67.32	1.08	0.4675
9.2	68.07 68.82	1.09 1.10	0.4727
9.3	69.57	1.10	0.4779 0.4831
9.4	70.32	1.13	0.4883
9.5 9.6	71.06	1.14	0.4935
9.6 9.7	71.81 72.56	1.15 1.16	. 0.4987
9.8	73.31	1.16	0.5039 0.5091
9.9	74.06	1.19	0.5143
0.0	74.80	1.20	0.5195
0.1 0.2	75.55 76.30	1.21	0.5247
).3	77.05	1.22	0.5299 0.5351
).4	77.80	1.25	0.5403

	Sec	ion 2	۹ ،	it of Hobbs water	line
16 N		Brins Stevens	ing the	ech water	
		Os-	e Fresh water ton		
		m	initer wall		



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor **Betty Rivera Cabinet Secretary**

April 26, 2002

Lori Wrotenbery Director Oil Conservation Division

To:

Chris Williams

OCD Hobbs District Supervisor

From: Wayne Price

OCD Environmental Bureau

Re:

H.R.C. Inc. Brine Well Application-State #10 well

Dear Chris:

Please find enclosed the OCD brine well permitting procedure, HRC's C-101 application with attachments and copy of approved bond. Please process this application and add your normal APD requirements required by the district. The OCD Environmental Bureau will require at a minimum, that each cemented to surface casing string shall have a cement bond log ran to verify bonding to pipe and formation. Also each string shall have a hydrostatic mechanical integrity test performed. The test pressure shall be a minimum of 300 psig for 30 minutes with a variance of no more than \pm 1% for acceptance. The test pressure instrument shall be calibrated within the last 6 months and have a calibrated range of 0-500 lbs with a maximum of 2 hour clock. All test shall be witnessed by OCD during our normal business hours.

After the district has processed and approved the C-101 please return it to this office and we will issue H.R.C. Inc. the approved discharge plan including approval to construct and operate. H.R.C. Inc. will be submitting a C-103 to properly plug the State #5 well that is in the area of review. As soon as we receive it I will forward it to your office for processing and approval.

In order to expedite this project would you have your office call Ed Martin 476-3492 and provide him with the API # for the new State #10 well so we can enter the bond information.

Cc:

Eddie Seay-Agent for H.R.C. Inc.

GARY SEAbort - HE INC.

H.R.C. Inc. Brine Well Permitting Procedure:

- 1. Send the HRC Inc submitted C-101 including attachments, copy of approved bond and OCD Environmental Bureau's well construction requirements i.e. (cement bond log, MIT's, etc.) to the district office. Have District process C-101 and approve with District's additional requirements (if any) and send back to OCD Environmental Bureau.
- 2. While C-101 is being processed by District, write draft discharge plan with proposed approval conditions and send to HRC. Inc., OXY and Chevron-Texaco and give them 15 days to supply comments or request a hearing.
- 3. If no hearing request, then evaluate comments.
- 4. Send out discharge plan with approval conditions. Approval conditions will include approval to <u>construct</u> and <u>operate</u> well.

If operator wants to proceed with construction of well without an approved discharge plan, then he may do so at his own risk, being that the discharge plan may not be approved as submitted, and the fact that the operator <u>will not</u> be allowed to operate the well unless he conforms to the discharge plan approval conditions. This procedure of allowing the construction of a well "prior to the approval of a discharge plan" is currently allowed pursuant to WQCC 20.6.2.5210 B., if certain information and commitments for corrective action in the area of review has already been supplied.



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

April 20, 2002

Lori Wrotenbery
Director
Oil Conservation Division

<u>CERTIFIED MAIL</u> RETURN RECEIPT NO. 7923 4221

Mr. Gary M. Schubert H.R.C. Inc. P.O. Box 5102 Hobbs, New Mexico 88241

Re:

Application For Brine Extraction Well and Discharge Plan For Brine Facility. Hobbs State #10- UL F (2565 FNL, 2330 FWL)-Sec 29-T18s-R38e; and surface facility BW-030 will be located in UL B- Sec 29- Ts 18s-R38e. Lea Co., NM.

Dear Mr. Schubert:

The New Mexico Oil Conservation Division (OCD) is in receipt of the following H.R.C. Inc. submittals; document dated February 08, 2002 voiding H.R.C. Inc.'s application to use the Hobbs State #5 well as a brine extraction well; March 04, 2002 E-mail providing OCD with the location of a new well and surface facility as shown in the above caption; February 20, 2002 "APPLICATION FOR BRINE EXTRACTION WELL AND DISCHARGE PLAN FOR BRINE FACILITY"; March 12, 2002 document of well logs; and April 05, 2002 document "Evaluation of Wells in the Area of Review". After reviewing the submittal OCD determined the application met the criteria required to issue the discharge plan public notice. This notice was issued on March 04, 2002.

OCD is in receipt of comments submitted pursuant to the public notices. Please find attached a copy of letter dated March 14, 2002 submitted to the OCD from Chevron-Texaco. OCD is in the process of evaluating their comments.

Upon reviewing the submittals, OCD noted the following deficiencies and requires the following information or actions to be performed in order to continue the review process.

1. The H.R.C. Inc. area of review "Well Evaluation" submitted on April 05, 2002, item #18 indicated that the Hobbs State #5 well located approximately 400 feet to the northwest of H.R.C. Inc. current proposed location has the salt section being exposed and may become a pathway to the surface. OCD's engineering staff and district office has recommended corrective action on this well. Submit a one well plugging bond along with a C-103 for OCD approval

To re-enter and properly plug this well pursuant to the OCD Hobbs district plugging procedures.

Please note the OCD is currently holding a bond for the State #5 well. H.R.C. Inc. may use this bond for the re-entry and plugging of this well. Please notify us of your intentions.

- 2. OCD has not received a bond for the new proposed State #10 well. Please provide.
- 3. Provide the maximum injection and/or <u>test pressure</u> at the well head, system estimated fracture pressure calculated at the bottom casing shoe, fracture pressure gradient (psi/ft) for the system. Demonstrate that the maximum surface injection and/or <u>test pressure</u> will not cause new fractures or propagate existing fractures.
- 4. Submit a plan to provide an "Air-Break" i.e. air gap between the city of Hobbs fresh water line and the brine station fresh water tank. The city line shall be above the fresh water tank overflow. This is required to prevent brine water from back flowing into the city of Hobbs Public Water Supply; or provide a statement from the city of Hobbs indicating the present design is sufficient.

If you have any questions please do not hesitate to contact me at 505-476-3487 or E-mail WPRICE@state.nm.us.

Sincerely,

Wayne Price- Environmental Engineer

cc: David Catanach-UIC Director

Chris Williams-Hobbs District I Supervisor

Dorothy Phillips-OCD Bond Specialist

State Land Office-Santa Fe

Eddie W. Seay-Agent for H.R.C. Inc.-E-mail

Denise K. Beckham-Chevron-Texaco

Richard E. Foppiano-Oxy

From:

Price, Wayne

Sent:

Wednesday, April 17, 2002 2:30 PM

To: Subject: Price, Wayne; 'Rick_Foppiano@oxy.com' RE: HRC Inc. Brine Well- New Location

Sorry forgot the PN!

From:

----Original Message-----Price, Wayne

Sent:

Wednesday, April 17, 2002 2:27 PM

To:

'Rick_Foppiano@oxy.com'

Subject:

HRC Inc. Brine Well- New Location

Dear Mr. Foppiano:

On February 18, 2002 OCD received correspondence from Oxy requesting to be an intervener in the above subject case. Please note HRC Inc. withdrew their application and has resubmitted for a new location. Please find attached a copy of the public notice. Please let this office know within 10 days if Oxy wishes to continue to be an intervener and or request a hearing on this re-submitted application.

[Price, Wayne]



PUBNOT#2.DOC

Tracking:

Recipient

Read

Price, Wayne

Read: 4/17/2002 2:30 PM

'Rick_Foppiano@oxy.com'

RECEIVED

APR 1 6 2002

Conservation Division

NMOCD Environmental ATTN: Wayne Price Box 6429 1220 S. Saint Francis Drive Santa Fe, NM 87504

RE: H.R.C. Inc. - Supplemental Information

Mr. Price:

Find within the supplemental information on the evaluation of the wells in the area of review. The new proposed brine well will be over 300' from the closest well. It is my understanding and from research, that it takes approximately twenty (20) years before a cavity reaches 300' in diameter. This is why H.R.C. proposes to run caliper logs and will test to keep up with the size and any problems which may occur pertaining to the brine operation.

If you have any questions, please call.

Sincerely,

Eddie W. Seay, Agent

601 W. Illinois

Hobbs, NM 88242

(505)392-2236

H.R.C. WELL EVALUATION

The evaluation is to examine concerns about any possibility of contamination to groundwater. The groundwater in the area is located at depths of, top of water at 50' to 70' and base of the groundwater at approximately 150'. The application lists all wells within the area of review. The proposed brine well will be producing brine from the salt section at levels of approximately 1700' to 2600' below the surface.

- 1) Bowers A Federal #28 This well located approximately 2600' southwest has surface casing set at 374' with cement circulated to surface, and production casing set through the salt section and cemented. This well has sufficient pipe and cement to protect fresh water.
- 2) Bowers A Federal #29 Located approximately 1300' southwest has surface casing set at 370' and cemented to surface, and production casing set through the salt section and cemented. The well has sufficient pipe and cement to protect fresh water.
- 3) W.D. Grimes #6 Located approximately 1500' southeast, has surface casing set at 377' and circulated to surface. Production casings are set through the salt section and cemented. This well has sufficient pipe and cement to protect fresh water.
- 4) Hobbs State #1 This well is located approximately 1000' NW, surface casing is set at 400' and cement circulated to surface, production casings are set through the salt section and cemented. This well has sufficient pipe and cement to protect fresh water.
- 5) Hobbs State #2 This well is located approximately 1300' east, surface casing is set at 400' and cement circulated to surface, production casings are set through the salt section and cemented. This well has sufficient pipe and cement to protect fresh water.
- 6) Hobbs SWD F #29 This well, located approximately 1200' NW, has surface casing set at 400' and cement circulated to surface. The production casing is set through the salt section and cemented. This well has sufficient pipe and cement to protect fresh water.
- 7) Hobbs State #3 This well, located approximately 2000' NE, has surface casing set at 350' and cemented to surface, production casings are set through the salt section and cemented. The well has sufficient pipe and cement to protect fresh water.
- 8) St. A #4 This well, located approximately 1300' SE, has cement circulated on all pipe strings. This well has sufficient pipe and cement to protect fresh water and is properly plugged.
- 9) State A #5 Located approximately 1000' south, has cement circulated on all strings of pipe. This well has sufficient pipe and cement to protect fresh water and is properly plugged.

- 10) State A #6 Located approximately 2500' south, has cement circulated on all strings of casing. This well has sufficient pipe and cement to protect fresh water and is properly plugged.
- 11) Bowers A #12 Located approximately 2000' SW, has surface casing set at 236' and cemented to surface. The production casing is set through the salt section and cemented. The well has sufficient pipe and cement to protect fresh water and is properly plugged.
- 12) Bowers A #14 Located approximately 2400' SE, has cement circulated on all strings of casing. This well has sufficient casing and cement to protect fresh water and is properly plugged.
- 13) Bowers A-B #1 Located approximately 2000' NW, has cement circulated on all strings of casing. This well has sufficient casing and cement to protect fresh water and is properly plugged.
- 14) Bowers A Federal #9 Located approximately 1800' west, has surface casing set at 2750' and cement circulated to surface. The production casings are set through the salt section and cemented. This well has sufficient pipe and cement to protect fresh water and is properly plugged.
- 15) Bowers A Federal #31 Located approximately 1800' west, has been properly plugged and has sufficient pipe and cement to protect fresh water.
- 16) Bowers A Federal #33 Located approximately 2000' NW. This well has been properly plugged and has sufficient pipe and cement to protect fresh water.
- 17) W.D. Grimes #2 Located approximately 2400' NE, has been properly plugged and has sufficient pipe and cement to protect fresh water.
- 18) Hobbs State #5 Located approximately 400' NW, this well has been plugged. Surface casing was set at 364' and cement circulated to surface. The salt section is exposed in this well, and may become a pathway to surface. Since our fresh water is protected by adequate surface casing, it is proposed to install monitor valves on this well so as to check for pressures in case it were to occur. If pressure were to develop on the casing annulus, the well would be re-entered and properly cemented as OCD requires.
- 19) St #1 Located approximately 2400' SE, this well has been properly plugged and has sufficient pipe and cement to protect fresh water.
- 20) St #2 Located approximately 2000' S, this well has been properly plugged and has sufficient casing and cement to protect fresh water.

- 21) W.D. Grimes #1 Located approximately 1800' SE, this well has been plugged and has sufficient casing and cement to protect fresh water.
- 22) Grimes #2 Located approximately 2000' E, this well has been properly plugged and has sufficient casing and cement to protect fresh water.
- 23) Grimes #5 Located approximately 1800' E, this well has been properly plugged and has sufficient casing and cement to protect fresh water.
- 24) Oxy 131 Located approximately 1500' SW, the well has surface casing set at 225' with cement circulated to surface. The production casings are set through the salt section and cemented. The well has sufficient pipe and cement to protect fresh water.
- 25) Oxy 132 Located approximately 1600' SW, this well has all casing strings set and cemented to surface. The well has sufficient pipe and cement to protect fresh water.
- 26) Oxy 141 Located approximately 2400' SW, this well has surface casing set at 203' and cement circulated to surface. All production casing strings are set through the salt section and cemented. There is sufficient pipe and cement to protect fresh water.
- 27) Oxy 211 Located approximately 1600' north, this well has surface casing set at 243' with cement circulated to surface. The production casings have been set through the salt section and cemented. There is sufficient pipe and cement to protect fresh water.
- 28) Oxy 221 Located approximately 600' west, this well has 210' of surface casing with cement circulated to surface. Production casings have been set through the salt section and cemented. This well has sufficient pipe and cement to protect fresh water.
- 29) Oxy 222 Located approximately 800' west, the well has all casing string set and cemented to surface. This well has sufficient pipe and cement to protect fresh water.
- 30) Oxy 231 Located approximately 700' south, this well has 252' of surface casing with cement circulated to surface. Production casing strings are set through the salt section and cemented. The well has sufficient pipe and cement to protect fresh water.
- 31) Oxy 241 Located approximately 2000' south, this well has surface casing set at 217' with cement circulated to surface. The production casing strings are set through the salt section and cemented. There is sufficient pipe and cement to protect fresh water.
- 32) Oxy 242 Located approximately 2200' south, this well has conductor pipe circulated to surface, and surface pipe set at 1511' with cement circulated to surface. The production casing was set through the salt section and cemented. There is sufficient pipe and cement to protect fresh water.

- 33) Oxy 311 Located approximately 1800' NE, this well has surface casing set at 241' with top of cement at 113'. The well has multiple casing strings through the salt section and cemented. There is sufficient pipe and cement to protect the fresh water.
- 34) Oxy 321 Located approximately 800' east, this well has surface casing set at 211' and circulated to surface. The production casing strings have been set through the salt section and cemented. There is sufficient pipe and cement to protect fresh water.
- 35) Oxy 322 Located approximately 900' NE, this well has all casing string set and cement circulated to surface. There is sufficient pipe and cement to protect fresh water.
- 36) Oxy 323 Located approximately 1000' NE, this well has conductor and surface pipe set and cemented to surface. The production casing was set through the salt section and cemented. There is sufficient pipe and cement to protect fresh water.
- 37) Oxy 331 Located approximately 1000' SE, this well has all casing string set through the salt section and cemented. There is sufficient pipe and cement to protect fresh water.
- 38) Oxy 341 Located approximately 2000' SE, this well has all surface casing set at 210' and cement circulated to surface. Production casing strings set through the salt section and cemented. There is sufficient pipe and cement to protect fresh water.
- 39) Oxy 342 Located approximately 2200' SE, this well has surface casing set at 1520' with cement circulated to surface. The production string was set through the salt section and cemented. There is sufficient pipe and cement to protect fresh water.
- 40) Oxy 411 Located approximately 2300' NE, this well has surface casing set at 245' with cement circulated to surface. The production casing strings have been set through the salt section and properly cemented. There is sufficient pipe and cement to protect fresh water.
- 41) Oxy 431 Located approximately 1500' ESE, this well has surface casing set at 228' with cement circulated to surface. The production casing strings are set through the salt section and properly cemented. There is sufficient pipe and cement to protect fresh water.
- 42) Oxy 441 Located approximately 2500' SE, the surface casing in this well is set at 232' with cement circulated to surface. The production casings are set through the salt section and properly cemented. There is sufficient pipe and cement to protect fresh water.
- 43) Oxy 442 Located approximately 2600' SE, the surface casing was set at 1536' with cement circulated to surface. The production casing was set through the salt section and properly cemented. There is sufficient pipe and cement to protect fresh water.

- 44) Oxy 544 Located approximately 2400' SE, the surface casing and production casing were set and cement circulated to surface. There is sufficient pipe and cement to protect fresh water.
- 45) Oxy 111 Located approximately 2300' SE, the surface casing was set at 310' with cement circulated to surface. The production casing was set through the salt section and cemented. There is sufficient pipe and cement to protect fresh water.
- 46) Oxy 121 Located approximately 2500' SE, the surface casing was set at 231' and cement was circulated to surface. The production casing strings were set through the salt section and properly cemented. There is sufficient pipe and cement to protect fresh water.
- 47) Oxy 421 Located approximately 2300' east, this well was plugged. The plugging procedure and cementing is sufficient to protect fresh water.
- 48) State B #5 Located approximately 1300' east, this well has surface casing set at 220' with cement circulated to surface. The production casings are set through the salt section and properly cemented. There is sufficient cement to protect fresh water.
- 49) State B #6 Located approximately 1000' north, this well has surface casing set at 414' with top of cement at 390'. Production casing was set at 3137' and cement circulated to surface. There is sufficient casing and cement to protect fresh water.
- 50) St I #5 Located approximately 2400' SE, this well has surface casing set through the salt section and cemented. The production casing is set at 3575' and cement circulated to surface. There is sufficient casing and cement to protect fresh water.
- 51) State A #7 Located approximately 1900' south, this well has surface casing set at 360' with cement circulated to surface. The production casing strings were set through the salt section and cemented. There is sufficient pipe and cement to protect fresh water.
- 52) State A #8 Located approximately 900' south, this well has surface casing set at 360' with cement circulated to surface. Production casing strings were set through the salt section and cemented. There is sufficient pipe and cement to protect fresh water.



Chevron U.S.A. Inc. P. O. Box 1150, Midland, TX 79702 15 Smith Road, Midland, TX 79705

Phone 915 687-7235 Fax 915 687-7448

Denise K. Beckham, CPL/ESA

Senior Landman Permian Basin Land Division Internet dkbe@chevron.com

March 14, 2002

Oil Conservation Division P. O. Box 6429 Santa Fe, NM 87505

Brine Extraction Well Hobbs State #10 Unit F, Section 29, T-18-S, R-38-E, Lea County, New Mexico

Gentlemen:

ChevronTexaco has been informed of Gary Schubert's plan to use the captioned well as part of a brine extraction system. ChevronTexaco has reviewed the information provided by Mr. Schubert.

While ChevronTexaco does not plan to request a hearing regarding the facility, please be advised of the following concern.

ChevronTexaco requests the OCD consider a limit on the size of the salt cavern (cavity) that will be created as a result of this facility. In ChevronTexaco's opinion, if no limit is put on the size of the cavern, it could pose a risk to future drilling in the vicinity or could have the potential to result in surface collapse.

ChevronTexaco is in agreement that wells monitoring water quality be kept in place around the facility and that the equipment meet strict integrity tests.

Should you have questions or desire additional information, please contact me at (915) 687-7235 or Greg Minnery at (915) 687-7385.

Yours truly,

Denise K. Beckham, CPL/ESA

Senior Landman

Cc: Gary Schubert



March 12, 2002



NMOCD Environmental Bureau ATTN: Wayne Price Box 6429 1220 S. Saint Francis Drive Santa Fe, NM 87504

RE: HRC Brine

Mr. Price:

Within are copies of two well logs from wells in close proximity to the proposed brine well. Log #1 indicates top of salt at approximately 1645'. Log #2 indicates top of salt at approximately 1620'. These tops were picked by OCD Geologist Paul Kautz. HRC will set casing at least 100' into the salt section.

If you have any questions or need anything else, please call.

Sincerely,

Eddie W. Seay, Agent

601 W. Illinois

Hobbs, NM 88242

(505)392-2236



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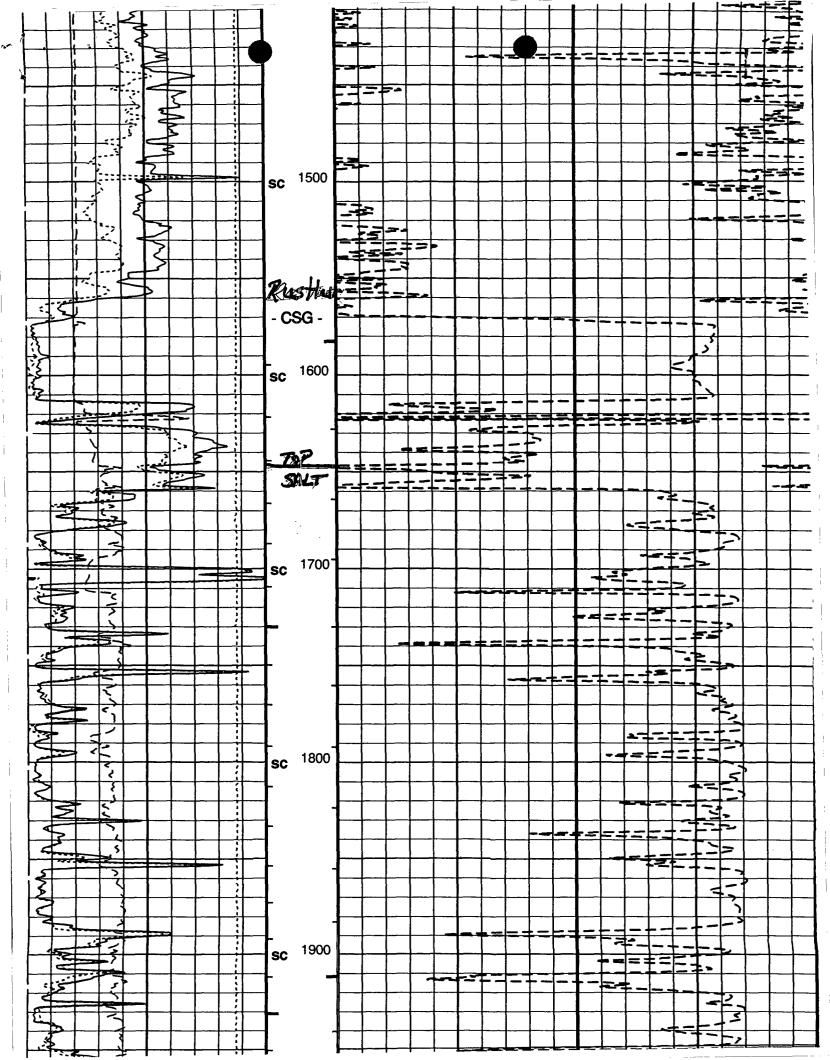
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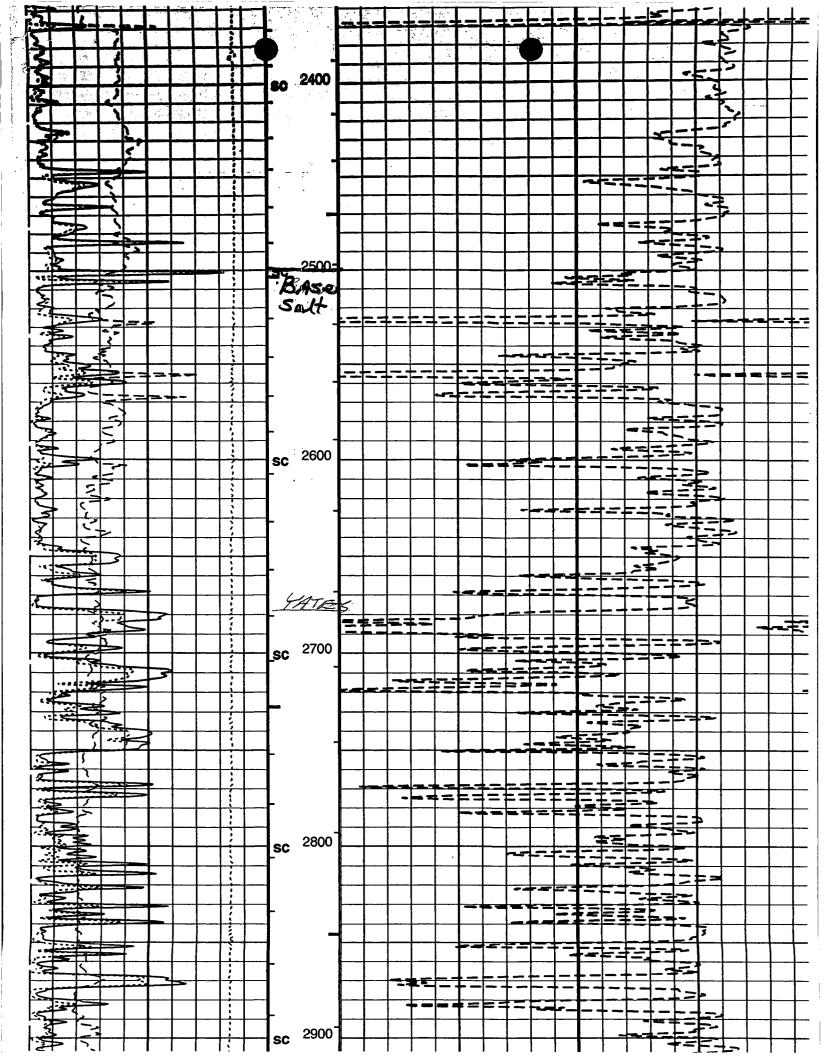
J-29-18s-38e OCCIDENTAL PERMIAN LTD NORTH HOBBS G/SA UNIT 29 # 533 30-025-35541 . 2



FIELD: Hobbs (Grayburg- San Andres)

Lea **New Mexico COUNTY:** STATE: (Grayburg- San Andres) PLATFORM EXPRESS Schlumberger Jorth Hobbs Unit #29-533 **Three Detector Litho-Density Compensated Neutron-NGS** Permian (Surface) 2326' FSL & 1902' FEL Elev.: K.B. 3658 ft G.L 3646 ft Occidental D.F. 3657 ft Permanent Datum: **Ground Level** Elev.: 3646 ft 12.0 ft above Perm. Datum Log Measured From: Kelly Bushing Kelly Bushing Drilling Measured From: SECTION API Serial No. TOWNSHIP RANGE 30-025-35541 **18S** 38E 29 Logging Date 20-MAY-2001 Run Number One Depth Driller 4420 ft Schlumberger Depth 4395 ft **Bottom Log Interval** 4377 ft Top Log Interval 200 ft Casing Driller Size @ Depth 1575 ft 8.625 in Casing Schlumberger 1572 ft Bit Size 7.875 in Type Fluid In Hole Brine/Starch Viscosity Density 10 lbm/gal Fluid Loss PH 8.8 cm3 9.5 Source Of Sample Circulation Pit RM @ Measured Temperature 0.053 ohm.m @ 95 degF @ RMF @ Measured Temperature 0.053 ohm.m 95 degF @ RMC @ Measured Temperature @ Source RMF **RMC** Calculated 0.049 @ 102 0.049 RM @ MRT RMF @ MRT @ 102 @ Maximum Recorded Temperatures 102 degF Circulation Stopped Time 20-MAY-2001 16:30 Logger On Bottom Time 20-MAY-2001 22:30 **Unit Number** Location 3125 Hobbs, NM Recorded By **Charles Bartlett** Witnessed By George Lambert

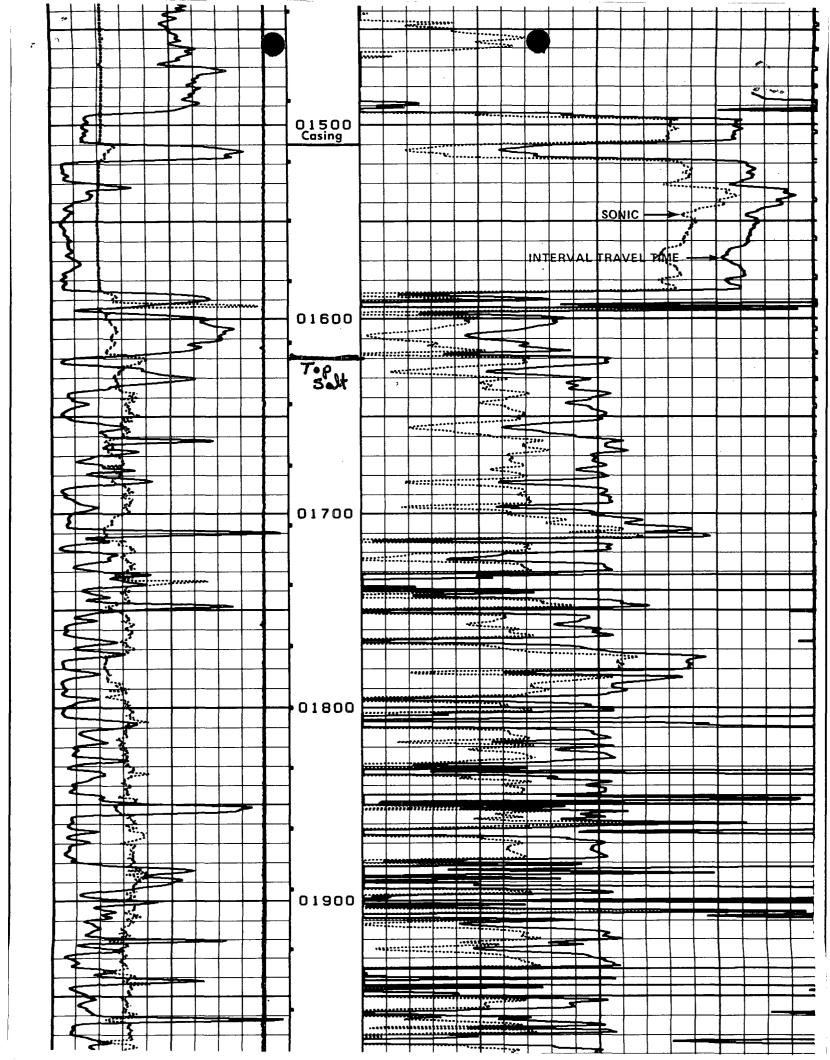


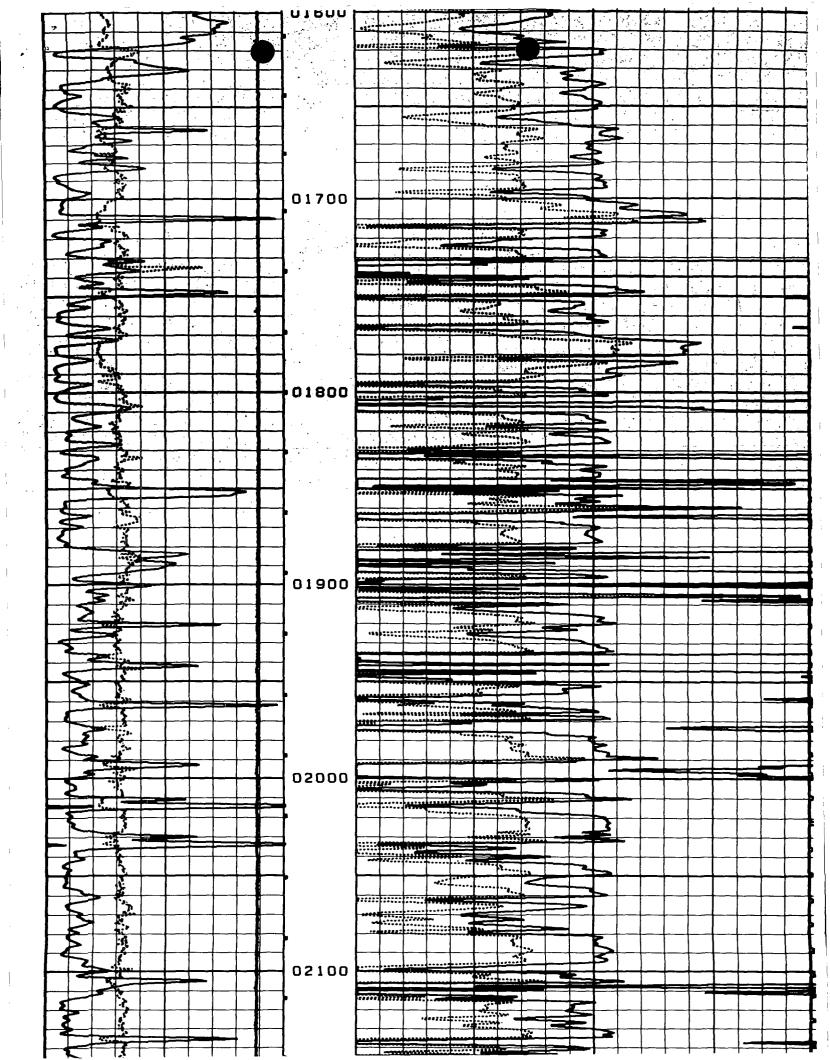


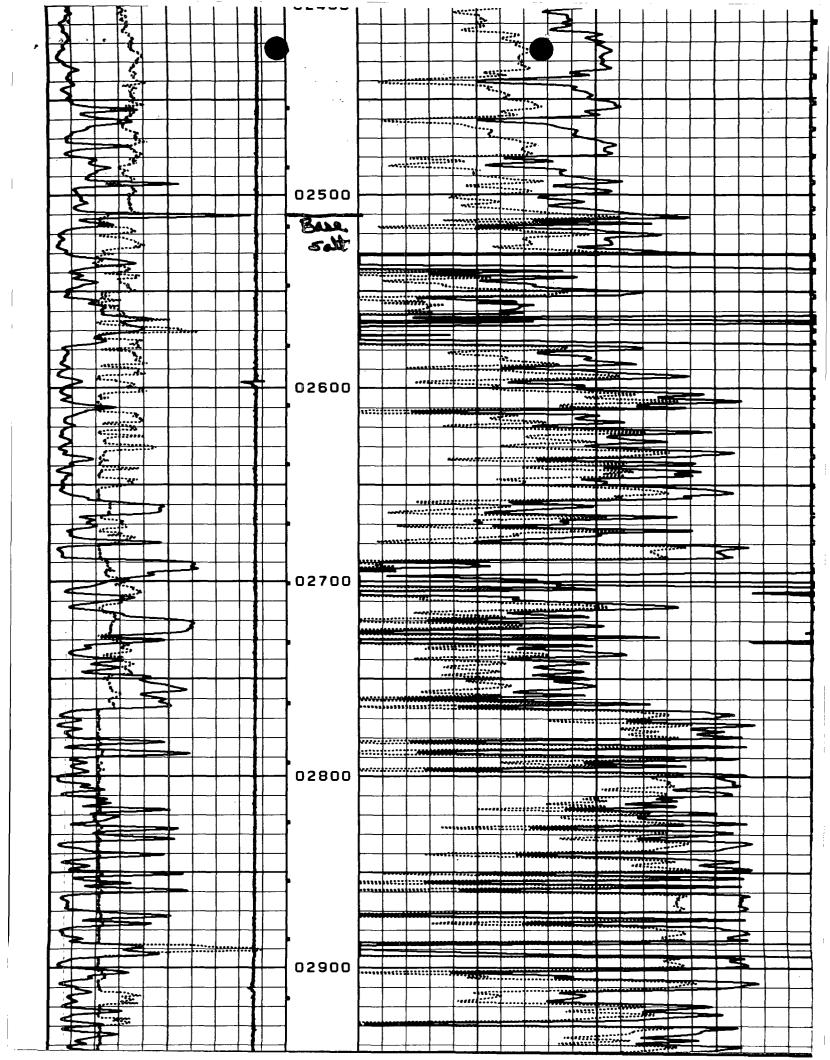
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Shell Western E&P, Inc.
NHUnit #29-122

B.H.C. SONIC LOG

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NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Carol Leach
Asting Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

MEMO	()			
DATE:	2/18/02	3/5	02	- 11 *
TO:	Wayne	Price		476 - 3462
FROM:	Danna	Mull &	- Pa	الع
	For Your Files		Ргерате в Вер	ly for My Signature
	For Your Review and Return		For Your Info	rmation
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	As Per Your Request		For Your Sign	ature
	Please Advise		For Your Atte	ntion
	Holding	705	YOUR	approval

H.R.C. INC.

HOBBS STATE #10 SECT. 29, T. 18 S., R 38 E.

APPLICATION FOR BRINE EXTRACTION WELL

AND

DISCHARGE PLAN FOR BRINE FACILITY

February 20, 2002



<u>District 1</u> 1625 N. French Dr., Hobbs, NM 88240 District !! 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aziec, 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-101 Revised March 17, 1999

Submit to appropriate District Office

State Lease - 6 Copies Fee Lease - 5 Copies

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P.O. Box 5102 Hobbs, NM 88241							³ API Number 30 -						
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	ent		γ				val Date			Expire	ion Date:		
Date: 2/1	4/200 	2	Phone: (5	05)39	32-22	- 70	ions of A	pproval:					



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
GOVETBOT

Carol Leach Acting Cabinet Secretary Lori Wrotenbery
Director
Oil Conservation Division

MEMO	, ,	
DATE:	2.48/02	3/5/02
TO:	Wayne	Price #476 - 3462
FROM	Donna	Mull & Parel
 .	For Your Files	Prepare a Reply for My Signature
_	For Your Review and Return	For Your Information
	For Your Handling	For Your Approval
	As Per Your Request	For Your Signature
_	Please Advise	For Your Attention
	Holding	for your approval

H.R.C. INC.

HOBBS STATE #10 SECT. 29, T. 18 S., R 38 E. APPLICATION FOR BRINE EXTRACTION WELL

AND

DISCHARGE PLAN FOR BRINE FACILITY

February 20, 2002



District!
1625 N. French Dr., Hobbs, NM 88240
District.II
1301 W. Grand Avenue, Artesis, NM 88210
District.III
1000 Rio Brazos Road, Aziec, 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-101 Revised March 17, 1999

Submit to appropriate District Office State Lease - 6 Copies Fee Lease - 5 Copies

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AFFIDAVIT OF PUBLICATION

State of New Mexico, County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of
weeks.
Beginning with the issue dated
March 6 2002
and ending with the issue dated
March 6 2002
Lachi Prearder
Publisher
Sworn and subscribed to before
me this 6th day of
March 2002

My Commission expires October 18, 2004 (Seal)

Notary Public.

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.



LEGAL NOTICE March 6, 2002 NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan applications has been submitted to the Director of the Oil Conservation Division, 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(BW-030) - H.R.C. Inc., Mr. Gary Schubert, (505) 393-3194, P.O. Box 5102, Hobbs, New Mexico, 88241 has submitted a discharge plan application for a new in-situ brine extraction well and surface storage facilities. The new brine well and facility will be located in unit letter F and B respectfully of Section 29, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico. Fresh water obtained from the city of Hobbs will be injected in the Salado formation at a approximate depth of 1600 feet and brine water will be extracted out of the formation from a depth of approximately 2000 feet with an average total dissolved solids concentration of 300,000 mg/l. H.R.C. INC. proposes to drill a new well to be located 2565 FNL and 2330 . FWL of Section 29, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico. Ground water most likely to be affected by any accidental release or discharge is the Ogallala water bearing formation at a depth of approximately 50 feet and has a total dissolved solids content of approximately 800 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or, disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 4th day of March, 2002.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
(seal)
LORI WROTENBERY, Director
#18799

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State of New Mexico Oil & 1220 S. St. Francis Santa Fe, NM 87505 Founded 1849

NM OIL CONSERVATION DIVISION 1220 S. ST. FRANCIS DR. SANTA FE, NM 87505

> AD NUMBER: 250307 LEGAL NO: 70866

ACCOUNT: 56689

P.O.#: 02199000249

198 LINES

1 time(s) at \$ 87.29

AFFIDAVITS:

5.25

TAX: TOTAL:

5.78 98.32

NOTICE OF PUBLICA-TION STATE OF NEW MEXICO ENERGY. MINERALS AND DEPARTMENT OIL CONSERVATION

DIVISION

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plan addresses how

spills, leaks, and other accidental discharges to _____ the surface will be managed.

ATTN WAYNE PRICE

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vation Commission at Santa Fe, New Mexico, on this 4th day of March, 2002. STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

S E A L LORI WROTENBERY, Director Legal #70866 Pub. March 8, 2002

AFFIDAVIT OF PUBLICATION

mation from the Oil Con- COUNTY OF SANTA FE servation Division and I, L. D. Being first duly sworn declare and may submit written com- I, ments to the Director of say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #70866 a copy of which is hereto attached was published in said newspaper 1 day(s) between 03/08/2002 and 03/08/2002 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 8 day of March, 2002 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 8 day of March A.D., 2002

Notary

NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 4th day of March, 2002.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY, Director

SEAL

NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 4th day of March, 2002.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY, Director

Price, Wayne

From:

Eddie Seay [seay04@leaco.net]

Sent:

Monday, March 04, 2002 10:22

To:

Wayne Price

Subject: HRC Application

March 4, 2002

NMOCD Environmental Bureau ATTN: Wayne Price 1220 South St. Francis Drive Santa Fe, NM 87505

RE: HRC Application for Brine well and facility

Mr. Price:

The new location of the brine well which HRC proposes to drill is located in Unit F 2565/FNL 2330/FWL, Section 29, Township 18 S., Range 38 E., Lea Co., NM. HRC amended the location of the well because of the risk of reentering an old plugged well and the new location is better located from the existing wells.

The brine extraction facility will be located in Unit B 990/FNL 1650/FEL, Section 29, Township 18 S., Range 38 E. approximately. The amended facility located was moved to get it away from West County Road, and will be located within the same area as Schubert SWD, making it convenient for operations.

If you have any questions, please call.

Sincerely,

Eddie W. Seay, Agent 601 W. Illinois Hobbs, NM 88242 (505)392-2236



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Carot Leach
Acting Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

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DATE:_	2/18/02		and whether the state of the st	
TO:	Wayne F	rice		
FROM:	Donna	Mall		_
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	For Your Review and Return		For Your Infor	mation
	For Your Handling		For Your Appr	royal
	As Per Your Request		For Your Sign	ature
	Please Advise		For Your Atter	ntion
	Holding	->or	your	approval

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, 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 Fc, NM 87505

Form C-101 Revised March 17, 1999

Submit to appropriate District Office State Lease - 6 Copies Fee Lease - 5 Copies

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District I
1625 N. Icrench 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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102 Revised August 15, 2000 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

☐ AMENDED REPORT

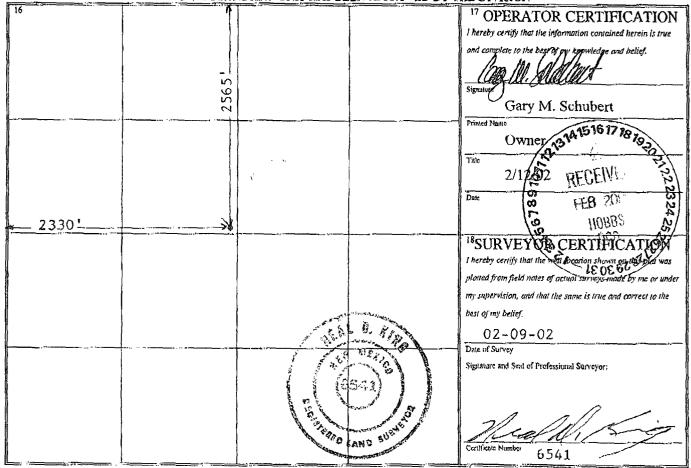
WELL LOCATION AND ACREAGE DEDICATION PLAT

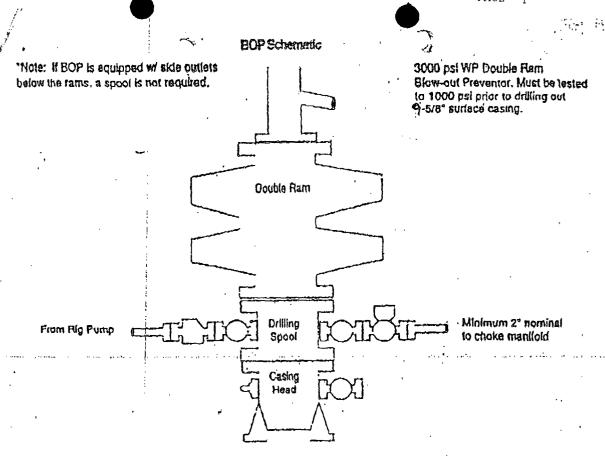
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A

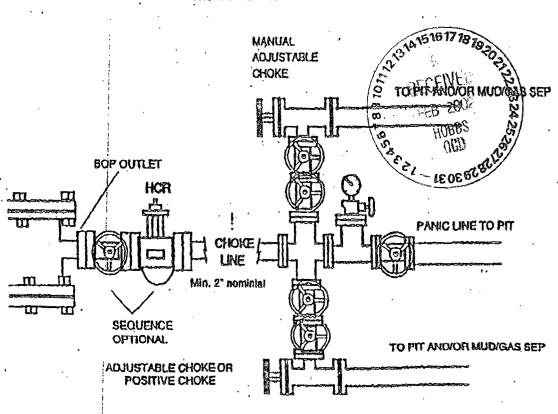
NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

17 OPERATOR CERTIFICATION





Cholo Manifold Schematic





580 WestLake Park Blvd. Houston, TX 77079 PO Box 4294 Houston, TX 77210-4294 281-552-1000

February 11, 2002

RECEIVED

FER S 2002

W Concernation Principle

W Concernation Princip

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

Attention: Lori Wrotenbery, Director

Off Conservation Division Discharge Plan Application of H.R.C. Inc. for a Brine Mining Facility Re:

Unit F, Section 29, Township 18 South, Range 38 East, NMPM

Lea County, NM

Dear Ms. Wrotenbery:

Occidental Permian Limited Partnership ("OPL") has received notice of the referenced application, and wishes to intervene and become a party of record in this proceeding so we may participate in any hearing that is called regarding this application. OPL operates the North Hobbs Unit which has oil and gas wells in close proximity to the applicant's proposed brine mining well. Additionally, we are installing a major EOR project in the North Hobbs Unit that will utilize wells in this immediate vicinity to inject carbon dioxide into the Hobbs-Grayburg San Andres pool. We have not yet had an opportunity to review the applicant's complete discharge plan and supporting documentation, and we plan to do so. Until that time and when a hearing is called, if at all, we reserve the right to protest the referenced application and will present evidence and testimony to support our position. As a party of record, we request that the NMOCD, applicant and any other parties of record direct all correspondence related to this matter to the undersigned at the letterhead address.

Thank you for consideration of our request.

Ruhard E. Loppeans

Sincerely,

Richard E. Foppiano, P.E.

Senior Advisor – Regulatory Affairs

REF:ref

Cc: Mr. Gary Schubert, H.R.C. Inc., P.O. Box 5102, Hobbs, NM 88241

281-552-1383

T-512 P.001/002

FACSIMILE TRANSMISSION

No. of Pages

Cover +

OXY USA INC. Occidental Permian Ltd. P. O. Box 4294 Houston, Texas 77210-4294 Telephone (281) 552-1303 Fax: (281) 552-1383

Richard E. Foppiano, P.E.

Senior Advisor - Regulatory Affairs OXY USA WTP LP

Date: February 11, 2002

To:

Wayne Price

Company:

New Mexico Oil Conservation Deivision, Environmental Dept.

Fax No.:

(505) 476-3462

CC:

CC: CC:

From:

Company:

OXY USA Inc.

Subject:

Attached Letter

Wayne, thanks for returning my call. Attached is a fax copy of a letter that I am sending by snail mail today.

-- PLEASE DELIVER IMMEDIATELY-----



580 WestLake Park Blvd. Houston, TX 77079 PO Box 4294 Houston, TX 77210-4294

February 11, 2002

281-552-1000

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

Attention: Lori Wrotenbery, Director

Re: Discharge Plan Application of H.R.C. Inc. for a Brine Mining Facility

Unit F. Section 29, Township 18 South, Range 38 East, NMPM

Lea County, NM

Dear Ms. Wrotenbery:

Occidental Permian Limited Partnership ("OPL") has received notice of the referenced application, and wishes to intervene and become a party of record in this proceeding so we may participate in any hearing that is called regarding this application. OPL operates the North Hobbs Unit which has oil and gas wells in close proximity to the applicant's proposed brine mining well. Additionally, we are installing a major EOR project in the North Hobbs Unit that will utilize wells in this immediate vicinity to inject carbon dioxide into the Hobbs-Grayburg San Andres pool. We have not yet had an opportunity to review the applicant's complete discharge plan and supporting documentation, and we plan to do so. Until that time and when a hearing is called, if at all, we reserve the right to protest the referenced application and will present evidence and testimony to support our position. As a party of record, we request that the NMOCD, applicant and any other parties of record direct all correspondence related to this matter to the undersigned at the letterhead address.

Thank you for consideration of our request.

ulaid E. Formario

Sincerely.

Richard E. Foppiano, P.E.

Senior Advisor - Regulatory Affairs

REF:ref

Cc: Mr. Gary Schubert, H.R.C. Inc., P.O. Box 5102, Hobbs, NM 88241

February 8, 2002



NMOCD Environmental Bureau

ATTN: Wayne Price

Box 6429

1220 S. Saint Francis Drive

Santa Fe, NM 87504

RE: HRC Brine well

Hobbs State #5

Mr. Price:

Please accept this letter as notice to void their application to use the Hobbs State #5 well as a brine extraction well,

As we discussed, HRC's plan is to drill a new well SE of the #5, a new C-108 and application to drill will be sent after the location has been surveyed. The new well will be the Hobbs State #10.

If you have any questions, please call.

Thank you,

Eddie W. Seay, Agent

Pedi ws

601 W. Illinois

Hobbs, NM 88242

(505)392-2236

AFFIDAVIT OF PUBLICATION

State of New Mexico, County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of
weeks.
Beginning with the issue dated
February 5 2002
and ending with the issue dated
February 5 2002
Kathi Bearden
Publisher Sworn and subscribed to before

February

me this

2002

day of

Notary Public.

My Commission expires

My Commission expires October 18, 2004 (Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE FEBRUARY 5, 2002 NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan applications has been submitted to the Director of the Oil Conservation Division, 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(BW-030) – H.R.C. Inc., Mr. Gary Schubert, (505) 393-3194, P.O. Box 5102, Hobbs, New Mexico, 88241 has submitted a discharge plan application for a new insitu brine extraction well and surface storage facilities. The new brine facility will be located in unit letter F of Section 29, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico. Fresh water obtained from the city of Hobbs will be injected in the Salado formation at a approximate depth of 1600 feet and brine water will be extracted out of the formation from a depth of approximately 2000 feet with an average total dissolved solids concentration of 300,000 mg/i. H.R.C. INC. proposes to re-enter the Hobbs State well #5 API # 30-025-23662 which is currently plugged and abandoned.

Ground water most likely to be affected by any accidental release or discharge is the Ogaliala water bearing formation at a depth of approximately 50 feet and has a total dissolved solids content of approximately 800 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 18th day of January 2002.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY, Director #18729

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State of New Mexico Oil & 1220 S. St. Francis Santa Fe, NM 87505

THE SANTA FE EW\$MEXIC

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NM OIL CONSERVATION DIVISION 1220 ST. FRANCIS DR. SANTA FE, NM 87505 ATTN WAYNE PRICE

AD NUMBER: 244228

ACCOUNT: 56689

LEGAL NO: 70778

P.O.#: 02199000249

198 LINES

1 time(s) at \$ 87.29

AFFIDAVITS:

5.25

TAX: TOTAL: 5.78 98.32

AFFIDAVIT OF PUBLICATION

NOTICE OF PUBLICATION STATE OF NEW MEXICO ENERGY, MINERALS ENERGY, MINERALS AND NATURAL RE-SOURCES DEPARTMENT OIL CONSERVATION DI-

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ary 2002. STATE OF NEW MEXICO OIL CON-SERVATION DIVISION S E A L LORI WROTENBERY, Director

on this 18th day of Janu-

Legal #70778 Pub. January 25, 2002

STATE OF NEW MEXICO COUNTY OF

SANTA EES being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #70778 a copy of which is hereto attached was published in said newspaper 1 day(s) between 01/25/2002 and 01/25/2002 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 25 day of January, 2002 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 25 day of January A.D., 2002

Commission Expires

MARONEN 130/02



NEW PEXICO ENERGY, MERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Carol Leach
Acting Cabinet Secretary

January 25, 2002

Lori Wrotenbery
Director
Oil Conservation Division

<u>CERTIFIED MAIL</u> RETURN RECEIPT NO. 5357 7256

Mr. Gary M. Schubert H.R.C. Inc. P.O. Box 5102 Hobbs, New Mexico 88241

Re: Application For Brine Extraction Well and Discharge Plan For Brine Facility.

Dear Mr. Schubert:

The New Mexico Oil Conservation Division (OCD) is in receipt of the additional information dated December 10, 2001. After reviewing the submittal OCD determined the application met the criteria required to issue the discharge plan public notice. This notice was issued with a publish date by January 25, 2002. OCD is in receipt of the \$5000.00 cash collateral bond and Change of Ownership form C-104 and is in the process of approving and recording these documents. OCD will forward your copies upon completion.

Upon reviewing the submittal OCD noted the following deficiencies and requires the following information in order to continue the review process.

- 1. Provide copies of lithologic logs along with a written determination verifying the location of the top and base of the salt section beneath the site. OCD will require the 7" inch casing (new shoe or retainer) to be set at a minimum 100 feet below the top of the salt section. The lower 7" inch casing string left in place shall have at a minimum 100 feet remaining above the base of the salt section and shall have a continuous plug from the lower existing plug to the top where the casing will be cut.
- 2. Submit a casing/cement inspection plan to determine the location top and verify external mechanical integrity (EMI) for the lower 7" (inch) cemented casing that will remain in the hole before plugging back. The plan shall also include a cement bond and pipe inspection log for the 7" casing above the new (casing shoe/retainer) to surface. The plan shall commit to including an evaluation section with conclusions and recommendations for any corrective action required.

- 3. The submitted C-101 proposed casing and cement program does not agree with the submittal write-up. Submit a C-101 that reflects the correct program including the construction requirements of items (1.and 2.) above. The C-101 shall have attached a detailed drilling and completion program, blow-out prevention plan and a detailed proposed well bore schematic to include details for above and below the salt section.
- 4. Items V. and VI of the C-108 were not submitted in a manner that OCD could readily evaluate. There was a comprehensive list of wells titled "Offset Wells Within One-half Mile of Proposed Injectors". Thirty Six (36) of the wells were highlighted and Ten (10) well schematics were included. There were no written descriptions included for any of the wells listed. It appears this information was copied from another project and injected into this report. OCD will accept public information but it must be configured to this application.

OCD's Engineering Bureau noted that twenty four (24) of the wells listed as "Offset Wells Within One-half Mile of Proposed Injectors" had intervals open in the proposed injection zone. There was no evaluation included for these wells. In addition, the well schematics supplied did not have a ledger distinguishing between cemented or mud laden sections. The map included was too small for OCD to properly evaluate the area of review.

OCD requests a larger scaled map showing all wells, including fresh water wells, comprising the area of review. Each well that penetrates the proposed injection zone shall be evaluated. A written description shall be provided and cross-referenced to the map and schematic supplied. The descriptions shall contain conclusions, recommendations and any corrective actions required.

- 5. Items VII of the C-108 did not address the following issues:
 - VII.2. Whether the system is open or closed system. Please provide.
 - VII3. Did not provide the maximum injection pressure. Please provide the maximum operating injection and/or test pressure at the well head, system fracture pressure calculated at the bottom casing shoe, fracture pressure gradient (psi/ft) for the system.

 Demonstrate that the maximum surface injection and/or test pressure will not cause new fractures or propagate existing fractures.

- 6. Submit a plan to provide an "Air-Break" between the city of Hobbs fresh water line and the brine station. This is required to prevent brine water from back flowing into the city of Hobbs Public Water Supply.
- 7. The plan submitted proposed a plastic liner under the tanks, loading pad etc. Please provide manufacture, type, thickness and compatibility with fluids or elements of exposure, and estimated life.
- 8. OCD will require totalizing meters to measure the volume of fresh and brine water injected. Please include in plan.
- 9. The plan aerial photo shows that the loading area is not adjacent to the brine well and tanks. Please provide a scaled plot plan of the proposed site including legal description and all associated equipment, brine lines, etc. Also it appears the original design information submitted was copied from another project and injected into this report. OCD will accept public information but it must be configured to this application.
- 10. The plan did not provide a proposed wellhead diagram depicting valves, sampling points, pressure gauges, etc. Please provide.
- 11. Please provide location of proposed monitor well on plot plan.

If you have any questions please do not hesitate to contact me at 505-476-3487 or E-mail WPRICE@state.nm.us.

Sincerely,

Wayne Price- Environmental Engineer

cc: OCD Hobbs Office

David Catanach-UIC Director

Eddie W. Seay-Agent for H.R.C. Inc.

NOTICE OF PUBLICATION

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 18th day of January 2002.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY, Director

SEAL

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 18th day of January 2002.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY, Director

SEAL

January 16, 2002

To: David Catanach-UIC Director

From: Wayne Price

Re: HRC Brine Well Permit

Dear David:

As discussed in your office today the Environmental Bureau is soliciting your assistance in this permitting process. I understand this well is going to be located in a new C0₂ fluid in the Hobbs area. Please find enclosed the permit application and C-108 submittal. I have made a preliminary review of this project and have the following concerns:

- 1. The well bore is approximately 29 years old and condition of pipe is unknown.
- 2. The area of review maps are not detailed.
- 3. I conducted an on-site survey and there are three wells within 300-400 feet of the proposed brine well. OCD has documented cases of communication on wells in close proximity of brine wells.
- 4. They did not provide detailed lithology maps or logs showing the top and bottom of the salt formation.
- 5. There appears to be a large open hole area below the bottom plug. OCD environmental bureau is concerned about salt creep which can cause large pressure gradients and causing the plugged to fail.
- 6. The proposed hand draw sketch of the well bore shows the casing shoe to be above the salt section. ??? The salt institute recommends the salt to be a minimum distance into the salt section. The drawing does not provide any completion information below the salt section.
- 7. They did not demonstrate that the existing water protection string is actually embedded in the Red Bed.

December 10, 2001

PROTEINED

LAN 1 5 2002

ON Conscionation Bureau

Division

NMOCD Environmental Bureau ATTN: Wayne Price P.O. Box 6429 1220 South Saint Francis Drive Santa Fe, NM 87504

RE: H.R.C. Brine

Mr. Price:

Find within additional information as requested. If you have any questions or need any additional information, please call.

Sincerely,

Eddie W. Seay, Agent

Eldie W Sean

601 W. Illinois

Hobbs, NM 88242

(505)392-2236

TABLE OF CONTENTS

- I. Completed C-108
- II. Groundwater Monitoring
- III. C-104
- IV. Bond

OIL CONSERVATION DIVISION 2040 SOUTH PACHECO SANTA FE, NEW MEXICO 87505

FORM C-108 Revised 4-1-98

APPLICATION FOR AUTHORIZATION TO INJECT

,	
I.	PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage Application qualifies for administrative approval? Yes No X Brine
II.	OPERATOR: H.R.C. Inc.
	ADDRESS: P.O. Box 5102 Hobbs, NM 88241
	CONTACT PARTY: Gary M. Schubert PHONE: (505)393-319
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:
*VIII.	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, 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.). Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name,
V 111.	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: Eddie W. Seay TITLE: Agent
	SIGNATURE: DATE: 12/10/2001
*	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, 2040 South Pacheco, 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.

- VI. List of wells within.
- VII. Fresh water will be used to produce brine by injecting fresh water down the back side of the tubing at 200# to 250# and producing brine out the tubing. Based on activity at the facility, productions could be 10 to 15 thousand bls. per month.

VIII. HYDROLOGY

Underground aquifers in this area are the Ogallala and Quaternary Alluvium formations. The groundwater in these formation is unconfined where the underlying red beds are relatively impermeable. This underlying layer prevents further downward or upward movement. From information reviewed, the groundwater flow from the Ogallala formation flows to the south southeast, the water level for this area ranges from 50' to 70' below ground level and the average depth of the wells are 150'. Find within State Engineers list of water wells in the general area and analytical from two of the wells.

GEOLOGY

The proposed site is located on the Central basin Platform of the Permian Basin. The sub-surface formations are in transitional area between Delaware Basins back reef or shelf area and the platform. The brine product is from the Salado Formation of the Ochoa series. The series is of upper Permian Age, and extends across the Delaware Basin, Central Basin Platforms, thins and pinches out on the eastern shelf. This series layers are predominately evaporates which contain strings of dolomite, shale, siltstone, and sandstone. The thickness of this salt section averages about 1000 ft. The Triassic rock overlying the Permian formation is the Dockem group, and is divisible into the Santa Rosa sandstone and the Chinle formation. The Tertiary rocks are represented by the Ogallala formation. This formation ranges in thickness from 0' to 300'. It is chiefly calcareous, unconsolidated sand, clay, silt and gravel. This is the formation most of Lea Co. obtains its drinking water from.

- IX. No stimulation needed.
- X. Logs on file with OCD.
- XI. Attached.
- XII. I, Eddie W. Seay, as agent, have examined all available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the salt section and any underground source of drinking water near this site.
- XIII. Proofs of Notice attached.

District I PO Bax 1980, Hobbs, NM 88241-1980 Dustrial II

Q Drawor DD, Artonia, NM \$\$211-0719 **a** III

1000 Rio Brazos Rd., Azzec, NM 87410

State of New Mexico

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-101 Revised February 10, 1994 Instructions on back Submit to Appropriate District Office State Lease - 6 Copies Fee Lease - 5 Copies

District (V PO Box 2088, Sai	ma Fe, NM	E7504-20EE						e	C	AMEN	DED REPORT
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F	29	185			2280	North		1980	W	est	Lea
£	23			Pana						:SC	I rea
UL or lot so.	Sertion	Towarkin	Reage	Lot Ida	Hole Local	North/South		For from the		Vest ilea	County
ULA EX E.	Section	100 ments	ICARO .	LOX 163			_				()
		, L.obo	ed Peel 1					" (Tope	and Pool	2	-
BS	SW - S	alado									•
							, 	· · · · · · · · · · · · · · · · · · ·			
" Werk T	ype Cede	j	" Well Type	Cede	1	Rotary	İ	" Less Type C			ed Lovel Elevation
					Works	ver					3655
14 Ma.	kipis		* Proposed	Depth	" Ferr	medes		" Contractor			Sped Date
		1			Salt		,		-		
		······································	21	Propose	d Casing a	nd Cement	Pro	ogram			
Hole St	-	Cari	og Star		ng weight/foot	Setting D			/ Commit		Estimated TOC
12 1/4		9 5	/8	3	36#	36	4		200		
8 3/4		7		1 2	23# .	382	6		140		
6 1/4		4 1	/2]	1.6 #	598	6		120		
			• •								
Describe the p	repried pr	gram. Kü	le applicatio	e is to DEE!	TEN OF PLUG BA	CK give the date	04 U	e present product	TT 2006 A	ad propose	d new productive
mes. Describe I	the blowest	provencies	g ,maripose	asy. Use ad	didensi sheets li s	ecentrary.					
•											
I beroby ceruly		onnation (Ivo	a showe u tr	us and comp	ione to the best	OII	C	ANCEDVA'	TION	DIVIC	1401
of my knowledge Signature:	and belief.	anh	4		_			ONSERVA'	TION	DI A 121	IOIA
(Cla		SUM	<u> </u>			pproval by:		 			
oted exert:	Der /	M. S	HUBE	PT		Ue:		····			
TALE PRE	ち,				٨.	oproval Data:			Expiracos	Desc:	
Date: 1/0/0	,		Phone.	202		andreas of Appro	×4 :				
11910	/		1505-	393 -	3174 1	encod 0					

NO. OF COPIES RECEIVED		Form C-103
DISTRIBUTION		Supersedes Old
SANTA FE	NEW MEXICO OIL CONSERVATION COMMISSION	C-102 and C-103
FILE	WEW MEXICO OIL CONSERVATION COMMISSION	Effective I-1-65
6.G.S.	† - 	5a. Indicate Type of Lease
AND OFFICE		State X Fee
OPERATOR	 - 	5. State Oil & Gas Lease No.
	- 	A-1469-Z
(DO NOT USE THIS FORM AFT USE "AF	INDRY NOTICES AND REPORTS ON WELLS OR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. PLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)	
I. OIL WELL WELL WELL THE THE THE THE THE THE THE THE THE THE	OTHER-	7. Unit Agreement Name
2. Name of Operator		8. Farm or Lease Name
E S H Co	rporation	Hobbs State
3. Address of Operator		9. Well No.
P. O. Bo	x 774 , Midland, Texas 79701	5
4. Location of Well		10. Field and Pool, or Wildcat
	. 2280 FEET FROM THE North LINE AND 1980 FEET FROM	į
Wort	20 10 0 20 0	
THE West LINE,	SECTION 29 TOWNSHIP 18 S RANGE 38 E NMPM.	
mmmmm	15. Elevation (Show whether DF, RT, GR, etc.)	annih Hilli
		12. County
İIIIIIIIIIII	3655 GL	Lea
Ch	eck Appropriate Box To Indicate Nature of Notice, Report or Otl	ier Data
		REPORT OF:
PERFORM REMEDIAL WORK	PLUG AND ABANDON REMEDIAL WORK	ALTERING CASING
TEMPORARILY ABANDON	COMMENCE DRILLING OPHS.	PLUG AND ABANDONMENT X
PULL OR ALTER CASING	CHANGE PLANS CASING TEST AND CEMENT JOB	(12
	OTHER	
OTHER		
01/10/1		·
17. Describe Proposed or Comple	oted Operations (Clearly state all pertinent details, and give pertinent dates, including	estimated date of starting any proposed
work) SEE RULE 1103.		
	et 4 1/2" Bridge Plug at 5757' with 35' of	cement.
E	stimated top of cement at 5722'	
s	hot and pulled Casing at 3744'	•
P	'umped 25 sack plug at 3744' to 3644'	
S	potted 10' plug at surface	
Į	installed dry hole marker	•
C	Cleaned and leveled location	
I	ocation is clear and ready for inspection.	
	011	- 601-7461
	E.S. HITCHCOCK 9/5	
	2809	XETER 79705
18. Hereby certify that the info	profition above is true and complete to the best of my knowledge and belief.	
	/7·//.	
SIGHED	HULLICK THE President	pars 22 October 1973
E 77 #14	cheoek	
() //		3 1 T 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
APPROVED BY WALL 4	1. Curyon TITLE	DATE
CONDITIONS OF APPROVAL.	IF ANY:	

WELL PLUGGED: 5/11/73

Size: 9 5/8"
Depth: 364'
Hole size: 12.25"
Cmt: 200 sxs
TOC: Circ. – Calc.
With 50% effic.

Spotted 10' cmt plug at surf.

Existing condition of wall # 5

Size: 7" Depth: 3826' Hole size: 8.75" Cmt: 200 sxs TOC: 2250'

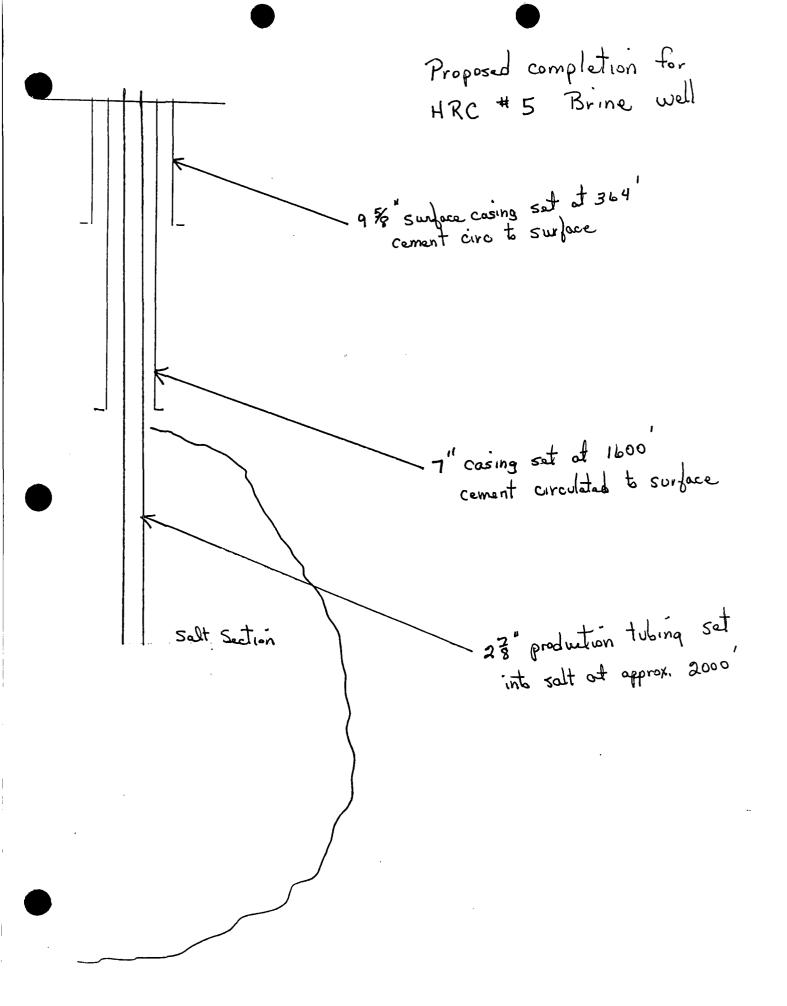
Size: 41/2"
Depth: 5986'
Hole size: 6.25"
Cmt: 120 sxs
TOC: 3800'- Calc.
With 50% effic.

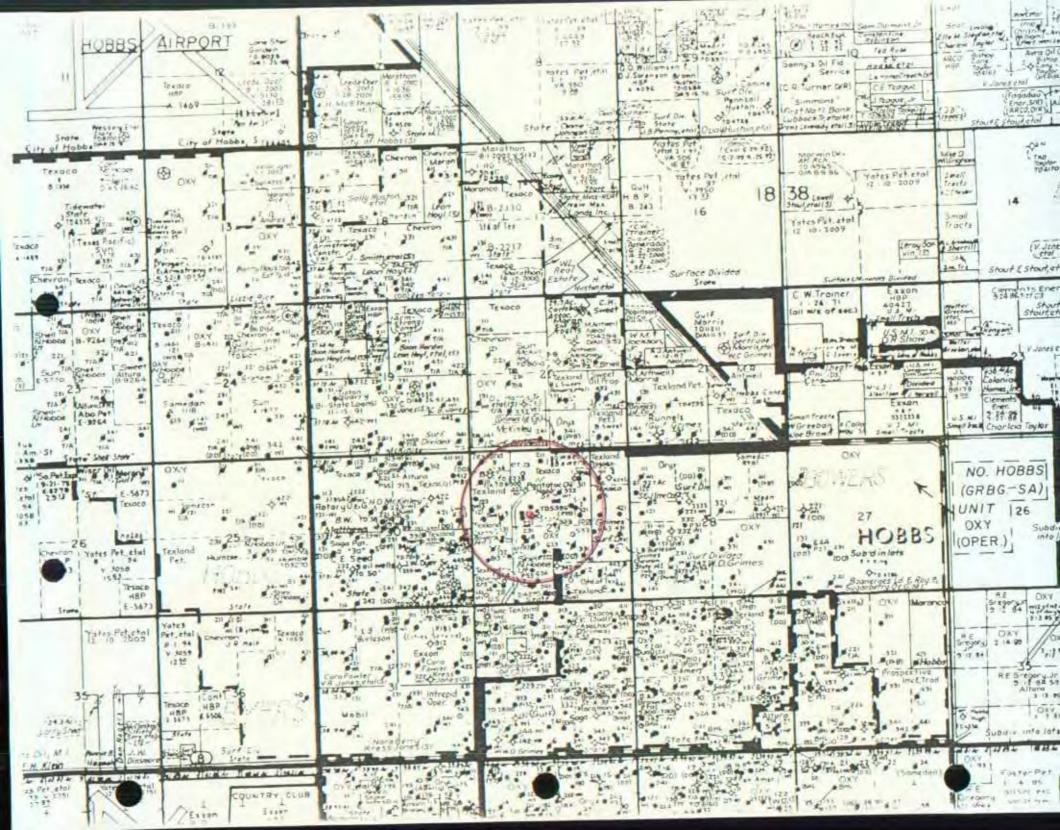
PBTD: 5959'

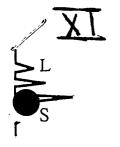
TD: 5986'

Shot and pulled csg at 3744'. Pumped 255 sx cmt plug From 3744' to 3644'.

Set 4 ½" CIBP at 5757' and Capped with 35' cmt. Est. TOC is 5722'.







Laboratory Services, Inc. 4016 Fiesta Drive

Hobbs, New Mexico 88240 Telephone: (505) 397-3713

Water Analysis

COMPANY	Altura Energy Ltd,			
SAMPLE BY	Fresh Water Well fo	r Wells 29321,	29231,	32312
DATE TAKEN REMARKS	8/8/00 T18S-R38E-Sec29; Qt	r Sec 4,1,2		
Barium as Ba	The state of the s	0		
Carbonate alkalir	nity PPM	68		
Bicarbonate alka		260	····	
pH at Lab		7.21		
Specific Gravity	9 60°F	1		
Magnesium as M		32		
Total Hardness a	s CaCO3	56		
rides as Cl		325		
atate as SO4		130		,
Iron as Fe		0		
Potassium		0.1		
Hydrogen Sulfide	9	0		
Rw		12		<u>@ 23°C</u>
Total Dissolved	Solids	841		
Calcium as Ca	4 '	24		
Nitrate		2.2		
Results reported as I	Parts per Million unless stated			•
Langelier Satura	tion Index	-54		
		Analysis by: Date:	Vickie	Walker 8/11/00





Laboratory Services, Inc. 4016 Fiesta Drive Hobbs, New Mexico 88240 Telephone: (505) 397-3713

Water Analysis

COMPANY	Altura Energy Ltd	<i>L</i>	
SAMPLED BY	Fresh Water Well	For Wells 33111	& 28131 ¥ 29231
DATE TAKEN	5/9/00		
REMARKS	T18S-R38E-Sec 29,	Otr Sec. 4 2 1	
	1105-KJ6E-Sec 25,	QCL BEC. 4,2,1	,
Barium as Ba		0	
Carbonate alkalir	nity PPM	40	
Bicarbonate alka	linity PPM	216	
pH at Lab		7.63	
Specific Gravity		1	
Magnesium as M		174	
Total Hardness a	s CaCO3	300	
brides as Cl		155	
Sulfate as SO4		115	
Iron as Fe		0.1	
Potassium		0.09	
Hydrogen Sulfide	9	. 0	•
Rw		9.4	@ 25° C
Total Dissolved S	Solids	850	
Calcium as Ca		126	
Nitrate		7.5	
Results reported as i	Parts per Million unless stated	1	
Langelier Satura	tion Index	0.05	·
		Analysis by: Date:	Vickie Walker 6/6/00

45 36 43	T COL			+	- 0	Lin	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole		No. of	
Well Name	API	Vo.	Sec.	T	R	Un	Date	Type	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
Operator						FIL	Trata	1 93745	PBTD	ron	1 401	1 4019	7	8.75	4000	500	976**
Оху								-	LDID							-	
			-					_									
00004	30-025-	07440	20	-18S	-38E	J	5//35	P	4280	4015	4268	4081-4093	10.75	13.5	245	150	CIRC
28331	30-025-	0/412	20	-100	-30£	9	GIIGO	-	4200	4610	1000		7.625	9.625	1635	300	186
Oxy													5.5	6.25	4015	300	2662-CBL
	-												4.5	6.5	3987-4280	100	3987
	-																
28411	30-025-	07419	28	-18S	-38F	A	4//36	P	4223	4133	4225	15	12.5	16	227	160	CIRC**
The second secon	30-025-	0/4/3	20	-100	-001	- 67	4100	-	PBTD			17	7	8.75	4133	750	2550-CBL
Oxy	-								1.012			475					
																	2007.2
28421	30-025-	07418	28	-18S	-38E	н	5//35	TA	4262	4020	4262	NONE	12.5	16	235	150	CIRC
	30-025-	U1410	20	-100	-301	-	Uniou	375	72.02			-	7	8.75	4020	200	2677-CBL
Oxy																	
00400	30-025-	27243	28	-18S	-38E	н	5//48	1	4470	4239	4268	4222-4228	16	20	40	40	CIRC
28422	30-025-	21240	20	-100	-30E	111	GI) 40	-	1112			4242-4244	8.625	12.25	1600	850	CIRC
Оху		-					1					4252-4258	5.5	7.875	4503	1050	CIRC
	-				-			_				4269-4271					
	-			-		-	-										
00404	30-025-	07413	20	-185	-38E	1	8//35	P	4225	3993	4218	2660	10.75	13.5	225	150	CIRC**
28431	30-025-	0/413	20	-100	-OOF		Groo	-	1860	0000			7.625	9.625	1640	400	CIRC**
Oxy					+		-						5.5	7.875	3993	400	2698-CBL
					-			_					-				-
	30-025-	07411	20	-185	-38E	P	1//35	1.	4272	4102	4257	NONE	10.75	13.5	243	150	CIRC
28441	30-025	0/411	20	-100	- OOE	1	11100	-	PBTD	1102			7,625	9.625	1634	300	185
Oxy	-	-	-		-				10.0				5.5	6.25	4015	300	CIRC
	+	-			-	+											
20111	30-025-	22010	20	-185	-38E	D	12//71	p	4287	4183	4287	3905-4250	8.625	11	310	150	CIRC
29111	30-020-	23918	6.0	100	-our	-	TRAFF	-	PBTD	.17=0			5.5	7.875	3905	300	2427**
Oxy					-		-		10.00								
00101	30-025-	07440	- 20	-185	-38E	E	3//47	p	4275	3924	4275	4070-85	9.625	12.25	2739	650	890
29121	30-025	01449	- 4	1100	-0012	-	2047	-	-			4110-20	7	8.75	3104	100	2640 CBI
Оку	-		-		-							4130-50	4.5 Lnr	6.25	2900-4201	100	2900
	-			1		+						-					
MANTO	30-025	28057	200	-185	-38E	E	2//85	1	4215	4154	4211	NONE	13.375	17.5	40	NA	CIRC
29122	30-025	20300	6.3	-100	-000	14	- Line	-	(CIBP				8.625	11	1510	785	CIRC
Oxy		-	-	-	_	-	_	-	1	-			5.5	7.875	4370	435	CIRC

Well Name	API	No	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole		No. of	4-
Operator	- Cit	140.	O'O'B	-		Ltr	Date		PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
														-			-
29131	30-025-	07447	29	-18S	-38E	L	10//30	P	4168	4050	4210	NONE	12.5	18	225	250	CIRC
Оху									PBTD				9.625	12	2750	650	660**
													7	8.75	3976	300	1504-CBL
													5	6.125	3870-4220	50	3930-CBL
29132	30-025-	26917	29	-18S	-38E	L	12//80	1	4470	4025	4245	NONE	16	20	40	40	CIRC
Oxy	00 020	200.11	-	100	-		-		PBTD				8.625	12.25	1595	785	CIRC
Ony.													5.5	7,875	4510	900	CIRC**
00111	20 005	07448	20	-18S	-38E	М	8//30		4238	3690	4228	3960-4108	12.5	18	203	200	CIRC
29141	30-025-	07440	23	-100	-30C	IVI	0//30	-	PBTD	.0000	1220	4033-4053	9,625	12	2736	650	1000**
Оху	-	-							FDID			1000 1000	7	8.75	3960	300	1850**
	-	-	-	-					-				5.5	7.875	3941	250	3460-CBL
													4.5	6.25	3417-4238	50	3774-CBL
		HT 100	-	400	oor	-	4 A LIMB	TA	4003	4217	4270	4053-4150	12.5	18	243	250	CIRC
29211	30-025-	07433	29	-18S	-38E	U	11//30	164	CIBP	4217	4270	4180-4200	9.625	12	2796	400	CIRC
Оху					-				CIBE			4211-4215	7	8.75	4007	500	3014**
												421114210	5,5	6.25	3957-4238	50	3957
			-	400	005	-	o/ma	P	4210	4118	4176	4154-4162	12.5	18	210	200	CIRC
29221	30-025-	07430	59	-18S	-38E	F	9//30	P	PBTD	4110	4170	4175-4185	9.625	12	2704	400	1236
Oxy									PBID			4195-4200	7	8.75	3979	500	2753
												4213-4267	4,5	6.125	3910-4213	50	3910
			-	100	000	-	411004		4465	4175	4265	NONE	16	20	40	40	CIRC
29222	30-025-	26934	29	-18S	-38E	F	4//81	-	4403	4110	4200	HONE	8.625	12.25	1605	950	CIRC
Оху													5.5	7.875	4510	1050	CIRC
		*****	-	400	005	10	10000	р	4255	4106	4255	NONE	15.5	18	252	1000	CIRC**
29231	30-025-	07438	29	-185	-38E	- PS	10//30	P	4200	4100	4200	NONE	9.625	12.25	2729	600	CIRC
Oxy													7	8.75	3953	300	2718
													5	6.25	3906-4220	50	3906
			-	100	005	61	30/00		Aner	4070	4990	NONE	12.5	18	217	160	CIRC
29241	30-025-	07437	29	-185	-38E	N	10//30	ı	4255	4076	4239	HONE	9.625	12	2730	500	895
Oxy													7	8.75	3929	350	1850
			1										1	0.10	0000	000	1000

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	61m	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole		No. of	
the state of the s	API	IVO.	2001	4	- 0	Ltr	Date		PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
Operator						Left	Date	туре	FDID	T OIL	1.011	T ditte	5.5	7.875	3822-4299	60	3822
								200	1070	1005	1057	4040	16	20	30	NA	CIRC
29242	30-025-	28413	29	+18S	-38E	N	3//84	P	4370	4005	4257	4019		12.25	1511	750	CIRC
Oxy												4037	8.625		4368	750	2330
												4040	5.5	7.875	4308	750	2330
29311	30-025-	07432	29	-185	-38E	В	10//30	P	4269	4044	4269	4090-4110	12.5	16	241	250	113
Оху	00.000		-	-	-							4171	9.625	11.75	2776	400	2750
													7	8.75	4008	500	2949
													5.5	6.25	3921-4234	350	3786
							91100						105	40	044	250	CIRC
29321	30-025-	07431	29	-18S	-38E	G	9//30	P	4301	4137	4271	3895	12.5	16	211		
Оху									PBTD			4100	9,625	11,75	2756	250	921
													7	8.75	3995	300	2930-CBL
													5	6.25	3812-4308	100	3894-CBL
29322	30-025-	28883	/20	-18S	-38E	G	11//84	1	4342	4160	4256	NONE	13.375	17.5	40	NA	CIRC
Company and the company of the compa	30-025-	20003	2.0	-100	-30E	u	11/104	-	PBTD	4100	1600	110111	8.625	12.25	1520	620	CIRC
Оху									LOTO				5.5	7.875	4384	850	CIRC
								40.	1100	****	1070	NONE	10.075	17,5	40	NA	CIRC
29323	30-025-	28941	29	-18S	-38E	G	1//85	P	4180	3089	4272	NONE	13.375	12.25	1542	375	CIRC
Оху	-		_		-				PBTD				8.625 5.5	7.875	4370	450	575-CBL
	+												-				
29331	30-025-	07436	29	-185	-38E	J	9//30	- 1	4261	4100	4258	4044-4065	9.625	11,75	2742	500	907
Oxy	-	-					C. starte						7	8.75	3929	300	2115
200													4.5	6.25	4270	750	3788 CBL
				100	000		****		4000	1000	4146	4010-4035	13.375	15	210	150	CIRC**
29341	30-025-	07445	-29	-18S	-38E	U	10//30	P	4090	4050	4140	4010-4030	9.625	12	2750	700	CIRC**
Oxy									PBTD				7	8.75	3934	300	3430-CBL
	-												5	6.25	4162	350	CIRC
_	-																
29342	30-025-	28884	29	-18S	-38E	0	11//84	-	4375	4083	4250	NONE	13.375	17.5	40	NA	NA
Oxy								1					8.625	12.25	1520	620	CIRC
and the same													5.5	7,875	4375	875	CIRC
00414	20 005	07454	00	-188	-38E	٨	10//30	-	4335	4200	4335	4102-4137	12.5	16	245	250	CIRC
29411	30-025	07454	23	-100	1-20C	A	FULLAC	+ 1	4000	4200	4000	7106-4107	1810	10	-		7.11.13

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole		No. of	
Operator						Ltr	Date	Type	PBTD		Perf	Perts	Size	Size	Depth	Sxs.	TOC
Oxy												4057-4091	9.625	11.75	2750	650	365**
										1		4154-4158	7	8.75	4045	300	2231"
													5.5	6.25	3941-4223	30	3941**
29431	30-025-	07458	20	+18S	-38E	1	10//30	P	4227	4155	4225	4010	15.5	18	228	200	CIRC**
Oxy	00-023	01400	6.3	+100	-30C	1	10030		PBTD	4100	4223	4075	9.625	12.25	2720	600	978**
U.J									1010			4070	7	8.75	3900	400	2086**
													5.5	6.25	3209-4229	120	3209**
29441	20 005	07444	00	100	nar	-	Anima	-	1011	1050	1000	1000 1000	40.035	40	232	150	CIRC**
	30-025-	0/444	29	-185	-38E	P	10//30	P	4211	4058	4266	4020-4028	13.375	18	2743	1400	CIRC**
Oxy	-		-		-				PBTD				9.625	8.75	3950	300	3240-CBL
											-		5	6.5	4172	22	4020
	2-100				-						-						
29442	30-025-	28885	29	-18S	-38E	P	2//85	- 1	4237	4065	4210	4031	13.375	17.5	40	NA	CIRC
Oxy	-								CIBP			4036	9.625	12.25 7.875	1536 4370	575 1100	CIRC
													-	1,015	4070	1100	0010
29544	30-025-	34644	29	-185	-38E	P	7//99	P	4359	4124	4256	NONE	14	18	40	50	CIRC
Oxy									PBTD				8.625	12.25	1565	725	CIRC
													5.5	7.875	4400	775	CIRC
													_				9
30112	30-025-	29063	30	-18S	-38E	D	3//85	TA	4000	4034	4264	NONE	13,375	17.5	40	(NA)	NA/s
Oxy									CIBP				9.625	12.25	1520	250	CIRC .
			1										7	8.75	4369	675	CIRC .
30113	30-025-	29064	30	-18S	-38E	D	1//85	Р	4310	4042	4285	NONE	13.375	17.5	55	NA	CIRC
Oxy	-	-		100			in au		CIBP	10.70	1800		8,625	-	1495	620	CIRC
													5.5	7.875	4370	990	CIRC
30121	30-025-	07464	30	-18S	-38E	E	9//30	Y	4115	4160	4271	4042-4096	12.5	16	212	200	CIRC**
Oxy	OR OF O.	3, 404	50	100	00%	20.	arraw	-	PBTD	4100	46.11	1012-1030	9.625	11.75	2749	400	1281**
-									- 510				7	8.75	3994	425	2738-CBL
													5	6.125	3841-4312	40	CIRC-CBL
30131	30-025-	07491	20	-18S	-38E	1	10//30	P	4256	4082	4270	4006-70	9.625	11.75	2751	550	799
Oxy	30-023-	01401	30	-103	-30E	L	100/30	-	CIBP	4002	9270	4116-40	7	8.75	3900	350	733 1783
JAY									OID!			4110-40	-	0.73	3300	330	1703

^{**} Denotes calculated TOC with 50% efficiency

FOR WELLS 28332,292	1,2000	1	1														
Well Name	API	No.	Sec	T	R	Un	Driff	Well	TD or	Top	Bot.	Sqz	Csg	Hole		No. of	
Operator	1					Ltr	Date	Туре	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs	TOC
											-	***	14.75	15	380	350	CIRC
St A #4	30-025-	23076	32	-185	-38E	В	4//69	TA	5325	5375	5966	NA.	11.75	11	3810	590	2400
Amerada									CIBP				8.625	7,875	5998	325	5281**
													0.0	1,010	0000	950	
St A #5	30-025-	22116	30	-18S	-38E	A	6//69	p	6954	6674	6936	NA	11.75	15	385	400	CIRC**
	30-022-	23110	24	-100	-30E	-	0000	-	0004	0014	0000	145	8.625	11	3798	590	1099**
Amerada	-	-											5.5	7.875	7000	501	4772**
State B #5	30-025-	07434	29	-18S	-38E	G	12//48	P	3224	3136	3224	1680-1682	10.75	13.75	220	200	CIRC**
Collins & Ware	100.000		-	-									7,625	9.875	1665	300	CIRC**
DULLENS & HOLE													5.5	6.75	3136	300	CIRC**
-							-			m d mile	2010	NONE	7.625	9.875	414	200	390
State B #6	30-025-	07435	29	-185	-38E	F	1//47	P	3219	3137	3219	NONE	5.5	6.75	3137	394	CIRC**
Collins & Ware													0.0	9,74	2101	001	O.H.C
St 1#5	30-025-	22472	20	-18S	-38E	0	7//69	P	6970	6648	6930	NONE	8.625	12.25	3808	300	3418**
Texland Pet.	30-025-	20110	2.0	-100	-900	0	71100	-	0010	00.10	0000	110.110	6.625	8.75	3575	530	CIRC**
rexiand ret.													5.5	7.875	7022	NA:	NA.
State A #7	30-025+	22934	29	-185	-38E	N	2//69	P	6050	5823	5941	NONE	11.75	15	360	250	CIRC**
Conoco											-		8.625	11	3800	240	2515-TS
													5.5	7,875	6050	405	3300-TS
State A #8	30-025-	23048	29	-18S	-38E	- 60	4//69	TA	3567	3552	5787	5824-5924	11.75	15	360	250	CIRC**
Conoco	JOHNE U	EJUTO	2.0	-100	-Ann		- All Sept.		CIBP	-			8.625	11	3800	240	3064**
Conce													5.5	7.875	5960	405	4309**
-									2508		00.40	NAME OF THE PARTY	45 576	17.5	422	375	CIRC
State A-33 # 12	30-025-	23195	33	-165	-38E	-	8//69	P	6985	6686	6946	NONE	13.375 9.625	12.5	3750	325	2850
Conoco/Brothers Prod				-					PBTD				7	8.75	7018	525	3700
													E	0.70	1010	200	21.00

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole		No. of	
Operator						Ltr	Date	Type	PBTD	Perf	Perf	Perts	Size	Size	Depth	Sxs.	TOC
Bowers A Fed #28	30-025-	23022	29	-18S	-38E	M	4//69	P	5345	5856	5928	NONE	11.75	15	374	300	CIRC**
Exxon									CIBP				8.625	11	3850	500	1879**
													5.5	7.875	5989	450	3838**
Bowers A Fed #29	30-025-	23131	29	-18S	-38E	L	5//69	P	6000	5808	5889	NONE	11.75	15	370	300	CIRC**
Exxon	90.920	20101	- 20	-100	POOL	h-	01100		0000	5000	0000	HOTHE	8.625	11	3849	500	1877**
Samuel													4.5	7.875	6000	450	5087**
Daylor & Ford Has	22 225	22522	- 20	405	205		4004	-	7000	0704	0000	NONE	42 275	17.5	1476	1220	CIRC
Bowers A Fed. #38	30-025-	28580	30	-185	-38E	1	4//84	P	7006	6764	6962	NONE	13.375	12.25	4491	1650	CIRC
Exxon													10.75				
													5.5	7.875	7000	660	4985
WD Grimes #6	30-025-	23400	29	-185	-38E	1	2//70	P	7018	6631	6984	NONE	13.375	17.5	377	400	CIRC**
Lewis B. Burleson									PBTD				9.625	12.25	3847	2300	CIRC**
													7	8.75	7049	540	3458**
HD McKinley #8	30-025-	23151	30	-18S	-38E	H	6//69	P	5615	3676	3754	NONE	13.375	17.5	360	340	CIRC
Getty								-					8.625	11	3842	1400	CIRC
													5.5	7.875	6057	650	3300
HD McKinley #9	30-025-	23221	30	-185	-38E	G	8//69	TA	6961	5761	6965	NONE	13,375	17.5	378	400	CIRC**
Getty				1.2			30,43	CC.	CIBP		-	1133111	9.625	12.25	3851	1748	CIRC**
									3.0.				7	8.75	6999	650	1933**
Grimes A #4	30-025-	07522	32	-18S	-38E	C	9//30	P	3884	3604	3700	270	15.5	20	220	200	CIRC**
Gulf	00-020-	91022	02	-100	-002	-	31100	-	PBTD	5004	0700	210	9.625	12.25	2742	600	318**
Sun									1010				6.625	7.875	3931	400	CIRC**
Grimes NCT-A #17	30-025-	22792	32	-185	-38E	C	11//68	P	6051	5780	5996	NONE	13.375	17.5	366	370	CIRC
Guit/Chevron	30-023-	22132	32	-100	-30E	0	11//08		PBTD	3/00	2990	NONE	9.625	12.25	3399	1450	CIRC**
Guil/Chevion									FAIU				7	8.75	6149	545	2510
														0.10	0110	UTU	2010
Gnmes NCT-A #18	30-025-	22915	32	-185	-38E	F	2//69	P	6000	5772	5928	NONE	13.375	17.5	351	335	CIRC

Weii Name	API	No.	Sec	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz	Csg	Hole		No. of		1
Operator						Ltr	Date	Type	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC	ı
Marathon													5.5	7	3116	1000	CIRC	
State #8	20.035	07540	22	405	zor		7//40	p	2402	2424	3192	NONE	8.625	11	300	125	CIRC	
Marathon	30-025-	07542	32	-185	-38E	-	7//48	1	3192	0124	3192	NONE	5.5	7	3124	1000	CIRC	ı
THE DITION													0.0	-	9127	1000	Onto	
St #8	30-025-	07486	30	-185	-38E	L	4//48	P	3180	3223	3271	NA	8.625	11	295	125	CIRC	ı
Marathon										ОН			5.5	7	3173	900	CIRC	
Hopbs State #1	30-025-	22505	29	-185	205	F	10//70	р	7032	6680	cono	NONE	12.75	17.5	356	400	CIRC	
Marcum Drilling	30-025-	23385	28	-100	-305	1	10///0	Par.	PBTD	0000	6992	NONE	8.625	11	3795	300	2600	
-taredm prilling									PBID				5.5	7,875	7050	150	3839-CBL	b
Conoco-State #2	30-025-	23856	33	-18S	-38E	K	11//71	P	7075	5830	6533	NONE	13.375	17	402	410	CIRC	
Pencos	20.020	20000	0.0	100	200	1.4	1 Her t	_	1010	0000	2200	1,5116	9.625	12.25	3797	350	998	1
													7	8.75	7075	600	3503	
Hobbs State #2	30-025-	23620	29	-185	-38E	G	1//71	P	6397	6705	7031	6318-6350	9.625	12.75	358	200	CIRC	
Marcum Drilling									PBTD				7	8.75	3850	250	2481**	
													4.5	6.125	7075	425	1672**	
Hobbs SWD F #WD29	30-025-	12802	20	-185	-38E	F	2//60		5050	4469	5050	NA NA	9.625	12.25	400	300	CIRC**	
Rice	-30-020-	12002	20	-100	-30E	-	2/00		ouou	4408	OH	TNA.	7	8.75	4700	700	CIRC	
State Land 532 #9	30-025-	23309	32	-18S	-38E	ı	1//70	Р	6710	5954	6560	NONE	13.375	17.5	364	160	90**	
Saga									CIBP				9,625	12.25	3799	1140	CIRC**	
		-											7	8.75	573-6998	490	CIRC**	
Seed St 30 #1	30-025-	22994	30	-185	-38E	K	2//69	Р	45	10	45	NONE	7	8.5	10	2	CIRC**	
C E Seed					100	-												

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	No.	Sec.	T	R	Un	Drill		TD or	Top.	Bot.	Sqz	Csg.	Hole	Photib	No. of Sxs	TOC
Operator	-					Ltr	Date	Type	PBTD	Perf	Perf	Perfs	Size	Size	Depth	0.13.	100
o provident														1.0	450	400	CIRC**
Bowers A #14	30-025-	07451	29	-18S	-38E	0	8//47	PA	3207	3162	3207	NONE	8.625	11	496	1350	CIRC**
Existan	00.000	-											5.5	7.625	3120	1300	CINC
23001																	
														7.4	200	150	CIRC**
Bowers A-B #1	30-025-	07453	29	-18S	-38E	D	9//48	PA	3238	3179	3238	NA	8 625	11	260 3179	1050	CIRC**
Exxon	-									OH			5.5	7.625	31/8	1000	Oilto
														400	2750	650	CIRC**
Bowers A Fed. #9	30-025-	07446	29	-188	-38E	E	8//30	PA	4259	NA.	NA	NA	9.625	12		300	2011**
Exxon	-												7	8.75	3976		NA .
Carre													5	6.25	4259	NA:	104
						3									200	200	CIRC**
Bowers A Fed #13	30-025-	07476	30	-18S	-38E	J	71147	PA	3189	3148	3189	NA	8.625	11	225	1350	CIRC**
Exxon	10000	-								OH			5.5	7.825	3150	1300	CIRC
Local									-							-	
															10	- 10	CIRC**
Bowers A Fed #17	30-025-	21900	30	-185	-38E	J	10//66	PA	50	10	50	NONE	7	8	12	- 6	CIRC
Exxon	-00 000		-							100						-	
Printe														-0.			
															0000	ron	1858**
Bowers A Fed. #31	30-025-	23176	29	-185	-38E	E	5//69	PA	7050	6075	6991	NONE	8.625	11	3836	500	3125**
Exxon	an one	-											5.5	7,875	7038	650	NA.
EXMON													2	7.875	7005	NA	NA
															440	400	CIRC**
Bowers A Fed. #33	30-025-	23222	29	-183	-38E	D	7//69	PA	3970	4144	5953	4256-66	13.375	17	418	400	
Exocon	00.000	-							CIBP			5939	9.625	12.25	3836	350	2555-TS
Liston													7	8.75	5988	550	2900-TS
															2000	200	0000th
Bowers A Fed. #34	30-025	23260	30	-18S	-38E	J	8//69	PA	7010	5822	6979	5848-98	9.625	12.25	3850	550	2296**
Exxon	20.050	10000										6932-75	3.5 B	7.875	6088	895	2600**
CAMO											1		3.5 D	7.875	6098	895	2615**
														-	2.77		A I A
Bowers A Fed. #CT24	30-025	21963	29	-185	-38E	E	1//67	PA	35	NA	NA.	NA.	NA	NA	NA	NA	NA
Humble	00 020	1	1										-				
Humble	1															-	
																212	212
Bowers A Fed. #CT25	20 225	21964	20	-185	Tape	E	1//67	PA	35	NA -	NA	NA.	NA.	NA.	NA.	NA.	NA.

Well Name	API	No.	Sec	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz	Csg.	Hole		No. of	
Operator						Ltr	Date	Type	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
Exxon																	
Bowers A Fed. #CT26	30-025-	21969	30	-185	-38E	1	1//67	PA	35	NA	NA	NA	NA.	NA	NA	NA	NA
Exocon																	
Bowers A Fed. #CT27	30-025-	24070	20	-18S	-38E	н	1//67	PA	35	NA	NA	NA	NA	NA.	NA	NA	NA.
Exoxon	30-025-	21970	30	-100	-30E	п	1//0.1	FA	30	IAN	1905	TKPS.	190	190	1965	1905	140
WD Grimes #2	30-025-	07455	29	-18S	-38E	A	2//48	PA	4045	NA	NA	NA.	8.625	11	242	150	CIRC**
Humble													5.5	7.375	3205	450	CIRC**
										No.		47.5		40.00	0755	800	20744
G O Mckinley #3	30-025-	07461	30	-185	-38E	H	7//30	PA	3199	NA	NA.	NA	9.625	12.25	2755	600	337**
Marathon/Getty													- 1	8.25	3166	100	2995**
3 O Mckinley #6	30-025-	07488	30	-185	-38E	G	6//47	PA	3200	1453	NA.	NA	8.625	11	1474	400	CIRC**
Marathon/Getty	30.020	07400	26	100	1000	0	00747	1.0	0200	1400	1.4/4	163	5.5	5.875	3178	200	CIRC**
G O. Mckinley #7	30-025-	07489	30	-18S	-38E	В	7//47	PA	3224	NA	NA	NA	8.625	11	1504	400	CIRC**
Marathon/Getty							- 1						5.5	6.5	3192	200	CIRC**
Hobbs State #5	30-025-	23662	29	-18S	-38E	F	1//71	PA	5959	5813	5879	NA	9.625	12.25	364	200	CIRC
Ve-O-Tex			-										7	8.75	3826	200	2250
													4.5	6.25	5986	120	3800 (C
state-Northrup #1	30-025-	07535	32	-185	-38E	J	6//30	PA	3227	3140	3203	NONE	12.5	16	1482	175	1046**
Thio Oil									PBTD				10.75	12.25	2776	200	2050**
													7	8.75	3850	275	CIRC
													5	7	3244	500	CIRC
VD Grimes #6	30-025-	07428	28	-18S	-38E	F	11//47	PA	3325	NONE	NONE	NONE	9.625	13	441	300	CIRC**
Repollo/Sinclair													7	9	3185	800	CIRC**

Well Name	API.	No	Sec	T	R	Un	Dnll	Well	TD or	Top	Bot	Sgz	Csg	Hole		No. of	
Operator						Ltr	Date	Type	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
WD Grimes #5	30-025-	07424	28	-185	-38E	L	7//47	PA	3150	3191	3197	NONE	8.625	11	409	195	CIRC**
Shell									CMT				4.5	7.875	1958	600	CIRC**
WD Grimes #6	30-025-	12500	78	-188	-38E	M	7//47	PA	3090	3155	3161	NONE	8.625	11	411	200	CIRC**
Shell	30-023-	12000	6.0	-100	-000	141	LHST	4.93	CMT	5100	0.101	110110	5.5	7.875	2778	1400	CIRC**
CFF SEE									-								
Control do	20.026	07400	26	400	-38E	- 1	9//47	PA	3120	3215	3221	NONE	8.625	11	402	200	CIRC**
Grimes #8	30-025-	0/423	26	-185	-30E	la.	3//4/	PA	CMT	3210	3221	HONE	4.5	7.875	2108	850	CIRC**
Shell									CMI				4.0	7.073	2100	550	0110
and the same	NO. 000	America	4.5	400	ann		2011	TVA	2047	2005	3247	NA.	8.625	11	407	200	CIRC**
McKinley A #9	30-025-	12492	19	-18S	-38E	N	8//47	PA	3247	3205	3241	NA.	4.5	7.875	3168	850	CIRC**
Shell													4.0	7.072	3100	030	UNIO
AID DOWN AF	30-025-	07400	20	100	-38E	E	10//47	PA	3222	3212	3222	NONE	9.625	13	441	300	CIRC**
WD Grimes #5	30-025-	U/420	20	-185	-20E	E	10//4/	FA	2222	0212	2666	INOINE	7	9	3185	600	CIRC**
Sinclair													. 7		0100	000	, will the
St #1	30-025-	07442	29	-185	-38E	Р	8//30	PA	4191	3150	4191	NA	13.375	17.5	217	200	CIRC**
Std of Tx	00.000	07.112	-	-	000			7.3.0			ОН		9	12.25	2735	500	1473**
													6.625	7.875	3907	174	2374**
St #2	30-025-	07443	29	-188	-38E	0	9//30	PA	4171	3155	4156	NA.	13	17.5	225	150	CIRC**
Std of Tx	30 040	91.410	20	-	-		2000	1.5.2					9.625	12.25	2810	725	CIRC**
010 01 12													7	8.75	3951	300	1973**
WD Grimes #1	30-025-	07456	29	-185	-38E		8//30	PA	4160	3168	3189	3259-81	12.5	17.5	236	200	CIRC**
Tidewater	55-525	01400	8.4	-100	-000		an a a	2.43	100		-	3049-50	9.625	12.25	2712	600	273**
INDENESS													6.625	8.75	3826	300	2404**
Grimes #2	30-025-	07457	29	-188	-38E	Н	10//30	PA	4176	3148	3255	3086-3088	15.5	18	230	200	CIRC**
Tidewater	DO GEO	31.401	-					- Add				3270-3272	9.625	12.25	2718	600	282**
(Individual)													7	8.75	3880	300	1867**
													5.5	7,875	3350	100	3088**
Grimes #5	30-025-	07460	20	.100	-205	ы	12//30	PA	4196	N/A	NA.	NA NA	12.5	16	214	250	CIRC

WELL PLUGGED: 12/3/97

12.5" 220' 200 SX TOC: CIRC

10 sx cmt from 62' to surf.

Stung out and left 60' cmt on Top of ret.

Perf at 500'. Set CICR at 308'

Squeeze 100 sx cmt below Ret. to surf in 7" csg. x 9.625" Csg.

Pumped 20 sx cmt from 1868 To 1748'.

Pumped 20 sx cmt from 2862

3880' 300 SX TOC: 2914 CBL

9.625" 2720' 600 SX TOC: 518'

5.5" 3796'-4236' 50 SX TOC: 3866'

Pumped 20 sx cmt from 3873 To 3722'.

To 2742'.

Set CIBP at 4100'. Cap w/40' Cmt.

WELL PLUGGED: 12/3/70

12.5" 213' 650 SX

TOC: SURF (C)

9 5/8" 2736' 650 SX

TOC: SURF (C)

Spotted 10 sx cmt plug from 0' to 25 '.

Hole was loaded with mud Laden fluids.

Spotted 20 sx cmt plug from 1400' to 1550'.

Spotted 40 sx cmt plug from 2300' to 2400'.

7" 3970' 300 SX TOC: 2000(C)

TD: 4259'

Perf's at 3220'-3227'.

Spotted 50 sx cmt plug from 3000' to 3250'.

Squeezed perf's at 3726' To 3741'.

WELL SCHEMATIC: DEWATER WD GRIMES #1

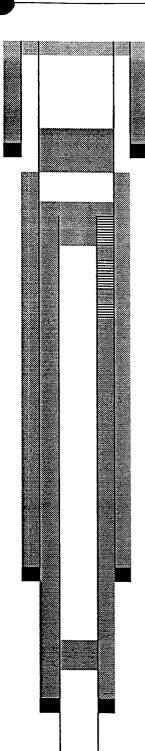
WELL PLUGGED: 7/25/68

Size: 12 1/2" Depth: 236' Hole size: 17.5" Cmt: 200 sxs TOC: Circ. - Calc. With 50% effic.

Size: 9 5/8" Depth: 2712' Hole size: 12.25" Cmt: 600 sxs TOC: 273'- Calc. With 50% effic.

Size: 7" Depth: 3826' Hole size: 8.75" Cmt: 300 sxs TOC: 800' FP

TD:4160'



Laid 10 sx plug at surface.

Laid 25 sx cmt at bottom of 12 1/2" csg.

Laid 25 sx over 7" stub. Shot at 787' and pulled. Shot at 899'.

Shot at 1044'. Shot at 1193'.

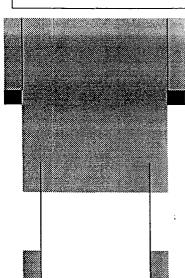
Shot at 1404'.

Spotted 25 sx cmt plug from 3599' to 3467'.

W.D. Grimes #2 Tidewater Oil Co. init H, 990 FEL & 2310 FNL Sec 29, T-18S, R-38E

WELL PLUGGED: 2/18/82

Size: 15.5" Depth: 230' Hole size: 17.5" Cmt: 200 sxs TOC: Circ. – Calc. 50% efficiency



Circ. 15335 sxs from 1361 to surface

Cut off 9.625" at 1200'

Size: 9.625" Depth: 2718' Hole size: 12.25" Cmt: 600 sxs

TOC:

Size: 5.5" Depth: 3350 Hole size: 7" Cmt: 100

TOC: 3088' – Calc with 50% effc.

Size: 7"
Depth: 3880'
Hole size: 8.75"
Cmt: 300 sxs
TOC:

TD: 4176

25 sxs cmt. Plug

Cut off 7 and 5.5" at 2030'

15 sxs plug

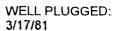
Perfs 3086-88, sqz'd w/ 100 sxs

Perfs 3148-3255

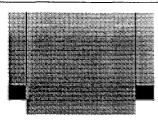
Perfs 3270-72, sqz'd w/ 50 sxs

Cmt Ret. 3350'

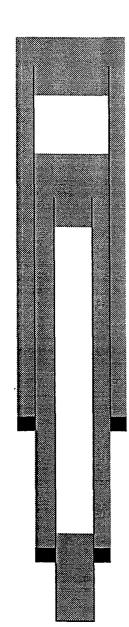
Grimes #5 Tidewater Oil Co. Unit H, 1650 FNL & 990 FEL Sec. 29, T-18S, R-38E



Size: 12.5" Depth: 214' Hole Size: 17.5" Cmt: 325 sxs TOC: Circ.



Spotted 500 sxs at 400' to surface



9.625" top at 1198

Spotted 100 sxs at 1249'

7" top at 1750'

Spotted 100 sxs at 1800'

Size: 9.625" Depth: 2715' Hole Size: 12.25" Cmt: 600 sxs

TOC:

Size: 7"
Depth: 3911'
Hole size: 8.75"
Cmt: 400 sxs
TOC:

TD: 4200'

Spotted 100 sxs at 4107

WELL PLUGGED: 11/25/89

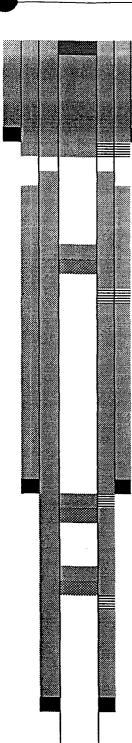
Size: 13 3/8" Depth: 217' 200 SX

TOC: SURF (C) TOC: Circ. – Calc. With 50% effic.

Size: 9"
Depth: 2735'
Hole size: 12.25"
Cmt: 500 sxs
TOC: 1200'- Calc.
With 50% effic.

Size: 6 5/8"
Depth: 3907'
Hole size: 7.875"
Cmt: 357 sxs
TOC: Circ. – Calc.
With 50% effic.

TD: 4191'



Weld 1/2" plate on top.

Perf 6 5/8" and 9" at 267'. Pumped 170 sx cmt down Prod csg, circ cmt out Intermediate and surf csg Annuli. Cut off 6 5/8" csg 3' Below GL. Cap w/ ½" plate And valve wellbore.

Set cicr at 1404'.

Perf 6 5/8" and 9" at 1500'. Sqzd perfs w/200 sx cmt.

Perfd 6 5/8" csg at 2785'. Sqzd perfs w/55 sx cmt. Set cast iron cmt ret at 2681'. Cap cmt ret w/35' cmt.

Capped CICR w/35' cmt to 3000'.
Set cast iron cmt ret at 3060' Sqzd perfs w/106 sx to 3000' Perfs at 3138' to 3241'

WELL SCHEMATIC: OF TX STATE #2

WELL PLUGGED: 12/5/89

Size: 13"
Depth: 225'
Hole size: 17.5"
Cmt: 150 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 9 5/8"
Depth: 2810'
Hole size: 12.25"
Cmt: 725 sxs
TOC: Circ. – Calc.
With 50% effic.

Sqzd perfs at 292' with 220 sx. Circ to surface

Set cicr at 1404' and capped With cmt.
Perf'd at 1500'.
Sqzd perfs at 1500' with 300 sx

Size: 7"
Depth: 3951'
Hole size: 8.75"
Cmt: 300 sxs
TOC: 1240'- Calc.
With 50% effic.

PBTD: 3072'

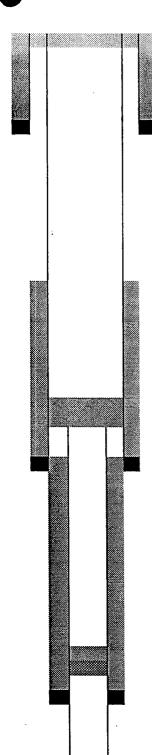
Set cicr at 2744'.

Perfs sqzd at 2852', sqzd With 55 sx. Dumped 35' cmt onto CIBP. CIBP at 3072'

WELL SCHEMATIC: O-TEX HOBBS STATE #5

WELL PLUGGED: 5/11/73

Size: 9 5/8"
Depth: 364'
Hole size: 12.25"
Cmt: 200 sxs
TOC: Circ. – Calc.
With 50% effic.



Spotted 10' cmt plug at surf.

Size: 7" Depth: 3826' Hole size: 8.75" Cmt: 200 sxs TOC: 2250'

Size: 41/2"
Depth: 5986'
Hole size: 6.25"
Cmt: 120 sxs
TOC: 3800'- Calc.
With 50% effic.

PBTD: 5959'

TD: 5986'

Shot and pulled csg at 3744'. Pumped 25\$ sx cmt plug From 3744' to 3644'.

Set 4 ½" CIBP at 5757' and Capped with 35' cmt. Est. TOC is 5722'.

W. D. Grimes #2 Humble Oil & Refining Co. Unit A, NE/4 of NE/4 Sec 29, T-18S, R-38E

WELL PLUGGED: 3/23/48

Size: 8.625" Depth: 242' Hole size: 11" Cmt: 150 sxs TOC: Circ.- Calc. 50% efficiency

Size: 5.5"
Depth: 3140'
Hole size: 7.375"
Cmt.: 450 sxs
TOC: Circ.- Calc.
50% efficiency

TD: 4045'

Welles

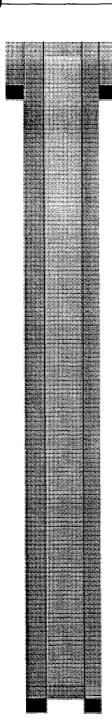
WELL SCHEMATIC: NOCO STATE A #4

WELL PLUGGED: 1/12/71

Size: 10 ¾"
Depth: 200'
Hole size: 15"
Cmt: 250 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 5 ½"
Depth: 3215'
Hole size: 7.875"
Cmt: 600 sxs
TOC: Circ. – Calc.
With 50% effic.

TD: 3215'



Spotted a 10 sx cmt plug at Surface.

Filled well bore with 10# mud.

Set a 40 sx cmt plug over Perfs from 3164' to 3197'.

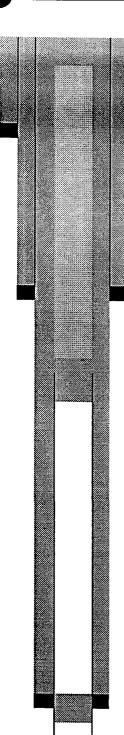
WELL PLUGGED: 1/12/71

Size: 10 %"
Depth: 272'
Hole size: 15"
Cmt: 200 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 7 5/8"
Depth: 999'
Hole size: 9.875"
Cmt: 425 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 5 ½"
Depth: 3206'
Hole size: 7.875"
Cmt: 450 sxs
TOC: Circ. – Calc.
With 50% effic.

PBTD:3168'



Spotted a 10 sx cmt plug At surface.

Filled well bore with 10# mud

Cut 5 ½" csg at 1570' and Pulled out of hole. Set a 55 Sx cmt plug in and out of 5 ½" stub.

Spotted 40 sx cmt plug over Perfs from 3188' to 3168'.

H.R.C. INC. P.O. Box 5102 Hobbs, NM 88241 (505)393-3194

RE: Brine Extraction Well

Hobbs State #5

Unit F, Sect. 29, Tws. 18S, Rng. 38E., Lea Co., NM

Dear Sir:

As per the Rules and Regulations of the Oil Conservation Division of New Mexico, you are being provided a copy of the Application for the construction of a brine extraction facility at the above location.

If you have any questions, please call Gary Schubert at (505)393-3194. Any objections or request for hearing must be filed with the Oil Conservation Division within fifteen (15) days. Objections and request for hearing should be addressed to Oil Conservation Division, P.O. Box 6429, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505 or call (505)476-3440.

Thank you,

Gary M. Schubert

U.S. Postal Service U.S. Postal Service
CERTIFIED MAIL RECEIPT CERTIFIED MAIL RECEIPT (Domestic Mail Only; No Insurance Coverage Provided) (Domestic Mail Only; No Insurance Coverage Provided) Article Sent To: Article Sent To: П NM 947 Postage 947 ì Certified Fee Certified Fee 12 J, M 1 Postmark Return Receipt Fee (Findorsement Required) Return Receipt Fee (Endorsement Required) 2001 П 2001 Restricted Delivery Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required) USP USPS Total Postage & Fees Total Postage & Fees Name (Please Print Clearly) (To be completed by maller) П Name (Please Print Clearly) (To be completed by mailer) П Marcum Drilling Co. Conoco Inc. Street, Apt. Mo.: or PO Sox No. West Street PARONOBSE POSES NO. city, swiidland, TX 79705 City, silvaidand, TX 79705 PS Form 3800, July 1999 PS Form 3800, July 1999 See Reverse for Instructions U.S. Postal Service U.S. Postal Service CERTIFIED MAIL RECEIPT **CERTIFIED MAIL RECEIPT** (Domestic Mail Only; No Insurance Coverage Provided) (Domestic Mail Only; No Insurance Coverage Provided) Article Sent To: Article Sent To: Ŋ HOUSTON, TX 77210 OR N.M 1.72 UNIT ID: 0640 Postage 3947 Postage 2.10 Certified Fee Certified Fee m 1.50 Return Receipt Fee (Endorsement Required) Return Receipt Fee (Endorsement Required) Clerk: KJVVY1 Restricted Delivery Fee (Endorsement Required) 2001 Restricted Delivery Fee (Endorsement Required) 5.32 12/12/01 Total Postage & Fees USPS Total Postage & Fees 밉 ſШ Name (Please Print Clearly) (To be completed by maller) Name (Pleace Citle Hally Perfe Cappieted by mailer) ΉE **Grimes Land Company** Street, Apr. No.; Proved 494 Street Ant. No.: or PO Box No. • Houston, TX 77210-4294 ┏ city Hobbe NM 88241 City, State, ZIP+ 4 PS Form 3800, July 1999

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U.S. Postal Service
CERTIFIED MAIL RECEIPT **U.S. Postal Service CERTIFIED MAIL RECEIPT** (Domestic Mail Only; No Insurance Coverage Provided) (Domestic Mail Only; No Insurance Coverage Provided) Article Sent To: Article Sent To: 40 'n Postage 88280 BBS A'A 3947 N'M Postage 947 Certified Fee Certified Fee $\mu^{\it r\ell}$ Return Receipt Fee Return Receipt Fee Restricted Delivery Fee (Endorsement Required) 5001 Restricted Delivery Fee (Endorsement Required) USPS Total Postage & Fees Total Postage & Fees 밉 Name (Please Print Clearly) (To be completed by mailer) Name (Please Print Clearly) (To be completed by mailer) n Lewis B. Burleson, Inc. ш HRC Inc Street, App NO: oB8x 2479 Street, Ppt No. Box 5102 • • city, State Windland, TX 79705 • city, stylobos NM 88241 PS Form 3800, July 1999 See Reverse for Instructions See Reverse for Instructions S Form 3800, July 1999 U.S. Postal Service
CERTIFIED MAIL RECEIPT U.S. Postal Service CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided) (Domestic Mail Only; No Insurance Coverage Provided) Article Sent To: Article Sent To: 02D: 40 882 4 Postage Min Postage 4 88 Certified Fee Certified Fee m m Return Receipt Fee (Endorsement Required) sturn Receipt Fee prement Required) 2000 ш He 5001 Restricted Delivery Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required) USPS Total Postage & Fees Total Postage & Fees 디 Name (Please Print Clearly) (To be completed by m Name (Please Print Clearly) (To be completed by mailer) 괾 Collins & Ware, Inc. Rice Operating Co. Street, Apt No. or PO Bex No. 122 West Taylor "508 W. Wall, Suite 1200 П 100 709 city, stal Lorbos, NM 88240 city, styliciand, TX 79701 PS Form 3800, July 1999

LIST OF OFFSET OPERATORS & SURFACE OWNERS

North Hobbs (Grayburg/San Andres) Unit Well No. 321 Letter G, Section 29, T-18-S, R-38-E Lea County, New Mexico

Offset Operators

Occidental Permian Limited Partnership P.O. Box 4294 Houston, TX 77210-4294

Lewis B. Burleson, Inc. P.O. Box 2479 Midland, TX 79705

Collins & Ware, Inc. 508 W. Wall, Suite 1200 Midland, TX 79701

Marcum Drilling Co. P.O. Box 3699 Midland, TX 79705

Rice Operating Co. 122 West Taylor Hobbs, NM 88240

Surface Owners

Grimes Land Company P.O. Box 5102 Hobbs, NM 88240 Conoco Inc. 10 Desta Dr. West Midland, TX 79705

HRC, Inc. P.O. Box 5102 Hobbs, NM 88241

LEGAL NOTICE

Pursuant to the rules and regulations of the State of New Mexico Oil Conservation Commission, Santa Fe, NM, H.R.C. Inc. of Hobbs, NM, is filing application for a brine extraction well and facility. The well is the Hobbs State #5 located 2280 FNL and 1980 FWL, Unit F, Section 29, Township 18 South, Range 38 East, Lea Co. NM. The well and facility will be producing brine water from the Salado formation at approximately 2000 ft. with productions pressures of from 200# to 250#. The application can be reviewed at the OCD office, Hobbs, NM. Any questions concerning the application can be directed to Mr. Gary Schubert, P.O. Box 5102, Hobbs, NM 88241, (505)393-3194, or any request for hearing or objections should be directed to the Oil Conservation Commission, P.O. Box 6429, 1220 South Saint Francis Drive, Santa Fe, NM 87505, or call (505)476-3440, within fifteen (15) days.

Affidavit of Publication

	STATE OF NEW MEXICO)
	•) ss.
	COUNTY OF LEA)
	Joyce Clemens being first duly sworn of says that she is Advertisting Director of DAILY LEADER, a daily newspaper of gitton published in the English language County, New Mexico; that said newspaphlished in such county continuously and period in excess of Twenty-six (26) consprior to the first publication of the notice hereinafter shown; and that said newspaphlished to publish legal notices we Chapter 167 of the 1937 Session Laws Mexico.	f THE LOVINGTON general paid circula- e at Lovington, Lea er has been so pub- uninterruptedly for a secutive weeks next hereto attached as paper is in all things ithin the meaning of
	That the notice which is hereto attached	d, entitled
	Legal Notice	•
	was published in a regular and entire	
	INGTON DAILY LEADER and not in an	
	of, for <u>one (1) day</u> , beginn	ing with the issue o
	December 12 , 2001 and e	nding with the issue
	of December 12	2001.
(And that the cost of publishing said not \$\frac{19.61}{}\$ which sum he court Costs.	
	Subscribed and sworn to before me thi	s 20th day of
	December 2001.	5
	Do aso Shelling	
	Debbie Schilling	
	Notary Public, Lea County, New Mexico	
	My Commission Expires June 22, 2002	ı

LEGAL NOTICE Pursuant to the rules and regulations of the State of Mexico New Conservation Commission, Santa Fe, NM, H.R.C. Inc. of Hobbs, NM, is filing application for a brine extraction well and facility. The well is the Hobbs State #5 located 2280 FNL and 1980 FWL, Unit F, Section 29, Township 18 South, Range 38 East, Lea Co. NM. The well and facility will be producing brine water from the Salado formation at approximately 2000 ft. with productions pressures of from 200# to 250#. The application can be reviewed at the OCD office, Hobbs, NM. Any questions concerning the application can be directed to Mr. Gary Schubert, P.O. Box 5102, Hobbs, NM 88241, (505) 393-3194, or any request for hearing or objections should be directed to the Oil Conservation Commission, P.O. Box 6429, 1220 South Saint Francis Drive, Santa Fe, NM 87505, or call (505) 476-3440, within fifteen (15) days. Published in Lovington Daily Leader December 12, 2001.

GROUNDWATER MONITORING

H.R.C. Inc. proposed to monitor the groundwater at the site by installing a two inch monitor well completed through the Ogallala formation. The well location will be down gradient on the edge of the brine well location, south southeast or along water gradient.

The installation will consist of drilling with am air rotary to the top of the redbed or base of the Ogallala. Running 2 inch schedule 40 pvc well casing to TD with .10 slot well screen across the entire saturated zone. Sand pack well to five feet above upper most perforations. Cap sand with 10 ft. of bentonite, and grout from top of bentonite to surface, installing a locking cover at surface. This will enable us to monitor the entire water area.

It is our proposal to take samples from this well prior to any brine activity, for background purposes. We plan to sample for BTEX, TPH, Cations, Anions, and Metals initially. After starting operations, we plan to sample the well on bi-annual schedule, testing for Cations and Anions. All results will be reported to the OCD as they are obtained.

ORIGINAL C-109 SENT FO HOBBS

Original Bond

FILED IN OCP ENVIRONMENTAL BOND FILES

ASSIGNMENT OF CASH COLLATERAL DEPOSIT

H.R.C. Inc. (OPERATOR) of P.O. Box 5102 (address)	has
deposited with the First National Bank (name of state or national bank or savings a	
which must be a federally-insured bank or savings institution in the State of New Mexico) of	•
6 <u>00 West Bender, Hobbs, NM</u> (address) (FINANCIAL INSTITUTION), the sum	of
\$5,000.00 dollars in Certificate of Deposit or Savings Account No. 2802198-30	
(FUND).	11
To comply with NMSA 1978, Section 70-2-14, OPERATOR hereby assigns and con	veys all
right, title and interest in the FUND to the FINANCIAL INSTITUTION in trust for the Oil Conservation Division of the Energy, Minerals and Natural Resources Department or success	cor agency
of the State of New Mexico (DIVISION).	sor agency
OPERATOR and the FINANCIAL INSTITUTION agree that as to the FUND:	
- · · · · · · · · · · · · · · · · · · ·	
a. The DIVISION acquires by this assignment the entire beneficial interest in the F the right to order the FINANCIAL INSTITUTION in writing to distribute the	
persons determined by the DIVISION to be entitled thereto, including the DIVIS	
in amounts determined by the DIVISION, or to the OPERATOR upon sale	
plugging, in compliance with the rules and orders of the DIVISION, of the well	(s) covered
by this assignment.	
b. OPERATOR retains no legal or beneficial interest in the FUND and has only	tha right to
interest, if any, thereon, and to return of the FUND upon written order of the DIN	
microsi, it may, microsis, and to retain of the report without of the D1	1010111
c. The FINANCIAL INSTITUTION agrees that the FUND may not be assigned,	transferred,
pledged or distributed except upon written order of the DIVISION or a court of	
jurisdiction made in a proceeding to which the DIVISION is a party. The FI	
INSTITUTION waives all statutory or common law liens or rights of set-off	against the
FUND.	
OPERATOR agrees that the FINANCIAL INSTITUTION may deduct from interest due O	PER ATOR
any attorney fees incurred by the FINANCIAL INSTITUTION if claim or demand via wri	
or other process arising from OPERATOR'S business is made upon the FINANCIAL INST	
Con 111 Calmont a La	
Cas III Stillie	_
Signature of OPERATOR Signature of Authorized Officer	
Personally or by Authorized Officer of FINANCIAL INSTITUTION	
Gary Schubert, President Zane S, Bergman, President Title Title	
1110	
State of New Mexico	
County of Lea ss.	
On this 3rd day of December, 20 01, before me personal	v anneared
Cory Sobubort and Zone C. Roman to me k	nown to be
Gary Schubert and Zane S. Bergman to me ke the person (persons) described in and who executed the foregoing instr	ument and
acknowledged that they executed the same as their free act and deed.	
DANAMINAGA VARIADRADA VA	- ,
IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day	and year in
this certificate first above written.)
Notary Public	,
My Commission Expires:	
10-7-04	

ONE-WELL CASH BOND

	•			
KNOW ALL MEN BY THESE individual) (a partnership) (a corporation of office at P.O. Box 5102 in New Mexico and firmly bound to the Oil Conservation Department of the State of New Mexico 5,000.00	organized in the St the City of Ho rized to do busines Division of the En	ate of New Mexobs s in the State onergy, Minerals	ico with its pr , St f New Mexico) and Natural Res	tate of is held sources
The conditions of this obligation are such th	at:			
The PRINCIPAL desires to drill a which does not exceed 5000 dioxide gas, helium gas or brine minerals identification and footage location of said w (well name and footage) Hobbs State Section 29 Township 185 Range 38E	feet, to prospose on property in the vell being as follows: #5	ect for and proceed State of New 3: 2280/FNL	duce oil or gas, Mexico, the par	carbon rticular
The PRINCIPAL has deposited on indicated on the Assignment, attached to the PRINCIPAL pledges this sum as a guarantee plug the well described above if dry, or with the DIVISION in such way as to confine the and to prevent same from escaping to other abandon said well upon order of the DIVIDIVISION, and such amount as is necessal sum of this bond is less than the actual of PRINCIPAL, its successors, assigns, heirs NMSA 1978, Section 70-2-38 of the Oil at any amounts expended over and above the property of	this bond, being the ee that it, its execute hen abandoned, in the oil, gas and wat er strata. If the PRI ISION, the total sury may be used to cost incurred by the s or administrators and Gas Act, and the	e principal sum ors, assigns, heir accordance with er in the strata in NCIPAL does num of the bond properly plug sa the DIVISION in shall be liable the DIVISION ma	intended to be so so or administrato the rules and or n which they are tot so properly playshall be forfeited id well. If the propulation of the plugging said wunder the provis	ecured. rs shall ders of found, lug and to the rincipal rell, the
NOW THEREFORE, if the PRICIP of them shall plug the above-described we orders of the DIVISION, in such a manner they naturally occur, and to prevent them surface location of said well, then therefore shall be paid to the PRINCIPAL or its sucful force and effect.	Il when dry or aban r as to confine the from escaping into c, this obligation sha	doned, in accordations, and wat other strata, and wall be null and vo	dance with the ru er in the strata in I further to clean id and the princi	les and which up the pal sum
H.R.C. Inc.				<u>.</u>
PRINCIPAL P.O. Box 5102	Makk m	N N	000/1	
Address City By Will William	Hobbs State By	N.M.	88241 Zip	
Signature				
Gary Schubert, President	_			
Title				

If PRINCIPAL is a corporation, affix corporate seal here.

ACKNOWLEDGMENT FORM FOR INDIVIDUALS OR PARTNERSHIPS

STATE OF	
COUNTY OF	•
On this day of	. 20 hefore me personally
appeared	, 20, before me personally, to me known to be the person (persons)
described in and who executed the foregoing instrumer his (their) free act and deed.	nt and acknowledged that he (they) executed the same as
IN WITNESS WHEREOF, I have hereunto set first above written.	t my hand and seal on the day and year in this certificate
	Notary Public
My Commission Expires	
ACKNOWLEDGMENT FO	ORM FOR CORPORATION
STATE OF New Mexico	
SS	i .
COUNTY OF Lea	
On this <u>3rd</u> day of <u>December</u>	, 20_01, before me personally appeared
Gary Schubert to me p	personally known who, being by me duly sworn, did say
the foregoing instrument was signed and sealed on	.C. Inc. and that behalf of said corporation by authority of its board of
directors, and acknowledged said instrument to be the	free act and deed of said corporation.
IN WITNESS WHEDEOE I have becounts as	et my hand and seal of the day and year in this certificate
first above written.	it in y hand and sear out the day and year in this certificate
•	Manaella
\mathcal{L}	Notary Public
10-7-04	
My Commission Expires	
	APPROVED BY:
	Oil Conservation Division of New Mexico
	Ву
	Date
Chaves, Eddy, Lea, McKinley, Rio Arriba Mexico:	a, Roosevelt, Sandoval, and San Juan Counties, New
Projected Depth of Proposed Well or Actual Depth of Existing Well	Amount of Bond
Less than 5,000 feet	\$ 5,000
5,000 feet to 10,000 feet	\$ 7,500
More than 10,000 feet	\$10,000
All Other Counties in the State:	
Projected Depth of Proposed Well	
or Actual Depth of Existing Well	Amount of Bond
Less than 5,000 feet	\$ 7,500
5,000 feet to 10,000 feet	\$10,000
More than 10,000 feet	\$12,500



NEW NEXICO ENERGY, MIDERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

November 13, 2001

Lori Wrotenbery
Director
Oil Conservation Division

<u>CERTIFIED MAIL</u> RETURN RECEIPT NO. 5357 7409

Mr. Gary M. Schubert H.R.C. Inc. P.O. Box 5102 Hobbs, New Mexico 88241

Re:

Application For Brine Extraction Well and Discharge Plan For Brine Facility.

Dear Mr. Schubert:

The New Mexico Oil Conservation Division (OCD) is in receipt of the Application For Brine Extraction Well and Discharge Plan For Brine Facility dated August 03, 2001. The OCD is hereby requesting additional information necessary for the evaluation of the application in order to deem it administratively complete. Please provide to OCD the following information:

- 1. A C-104 showing the proof of ownership of the well.
- 2. A plugging bond pursuant to OCD rules.
- 3. A completed form C-108 with attachments.
- 4. A groundwater monitoring plan.

In order to expedite the review process the OCD recommends that all future submittals have an index with associated page numbers or appendices that are cross-reference in the document write-up. OCD had a difficult time in determining which documents submitted pertained to what aspect of the application. OCD also recommends that any maps, schematics, geographic cross sections, and any other pertinent information be site specific, detailed in the write-up and scaled appropriately.

In order to assist H.R.C. Inc. in this permitting process OCD is willing to meet with HRC Inc. to address issues pertaining to the application. If you have any questions please do not hesitate to contact me at 505-476-3487 or E-Mail WPRICE@state.nm.us.

Sincerely.

Wayne Price- Engineer

cc: OCI

OCD Hobbs Office

Mr. Eddie Seay-Consultant

Attachments- C-108 form

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

									RECIEVA
	I here	by ackno	owledge :	receipt	of chec	k No			AUS 19
	or cas	h recei	ved on _			in the	amount o	£ \$	10000
	from _	HRC,	INC.						
	for_/	forms 57	NTE #5	BRINE	NGU			BW-0	
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	F	iling Fe		New Fac	ility	Re	enewal _		
	M	odificat	ion	Other				· 	
1			ed in the ment					nd.	
		HRC, INC.		· · · · · · · · · · · · · · · · · · ·	600 W. BENDE P.O.	ATIONAL BANK ER (505) 392-9 . BOX 460	200		
	·He	P.O. BOX 1606 DBBS, NM 8824 (505) 393-3194	1 元 1 年 1 元 1 年集			6, NM 88241 43/1122			n diserje e
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RECEIVED

AIIG 1 4 2001

Environmental Bureau
Oil Conservation Division

H.R.C. INC.

HOBBS STATE #5 SECT. 29, T. 18 S., R. 38 E.

APPLICATION FOR BRINE EXTRACTION WELL

AND

DISCHARGE PLAN FOR BRINE FACILITY

August 3, 2001

District I PO Box 1980, Hobbs, NM \$8241-1980 Dustrict [[

PO Drawer DD, Artesia, NM \$8211-0719

State of New Mexico Earny, Mastrals & Natural Resources Dep

Form C-101 Revised February 10, 1994 Instructions on back

OIL CONSERVATION DIVISION 1 4 200 muit to Appropriate District Office

عنعاك	Lease	•	6	Copies
Fee	Lease	•	5	Copies

District III 000 Rio Brisios Rd., Azies, NM 87410 District IV				Sant	Santa Fe, NM 87504-20 Environmental Bureau Oil Conservation Division					Fee Lease - 5 Copie		
70 Box 2088, See	MA Fe, NM	87504-20 8 8						,		AMEN	DED REPO	RT
APPLICA	TION	FOR PER	TIMS	TO DRI	LL, RE-EN	TER, DE	EPE	N, PLUGB	ACK,	OR A	DD A ZO	NE
				Operator Na	me and Address.					, 00	GRID Number	
H	. R.	C. Inc								13	31652	
		Box 51 NM 8			•						AFI Nomber 25-23662	
		MM O	0241					<u></u>		30 - 02		
	279	Н	obbs	State	-	reporty Name			-		* Well No.	
	-				⁷ Surface	Location					,	
UL or let me.	Section	Township	Range	Let Ida	Fest from the	North/Seath	ior	Fest from the	East/V	Yest Mare	County	
F	29	18S	38E		2280	North		1980	We	st	Lea	
	:	* Pro	posed	Bottom	Hole Locat	ion If Diff	erer	t From Sur	face			
UL or lot so.	Section	Township	Range	Lot Ida	Feet from the	North/South	F	Fest from the	East/V	est Lac	County	
		' Propose	d Pool I					" Proper	ed Pool 2	}		
BS	W - S	alado						· · · · · · · · · · · · · · · · · · ·				
" Work T	ype Cede	12	Well Type	Code	Works	•		14 Lense Type Co	-		ed Level Elevels 1655	14

1	" Work Type Code	12 Well Type Cede	Cable/Retary	14 Louse Type Code	" Ground Level Elevation
			Workover		3655
7	16 Multiple	17 Proposed Depth	" Formation	" Contractor	²⁶ Sped Date
			Salt		
•		31 -			

²¹ Proposed Casing and Cement Program

Hole Size	Caring Star	Casing weight/foot	Setting Depth	Secks of Comment	Estimated TOC
12 1/4	9 5/8	36#	364	200	,
8 3/4	7	23#	3826	140	
6 1/4	4 1/2	11.6 #	5986	120	

Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive mos and propr mos. Describe the biswoot prevention program, if any. Use additional about if necessary.

D I hereby ceruly that the information of my knowledge and belief.	rvon above is true and complete to the best	OIL CONSERVATION DIVISION				
Signam: Call State	out	Approvad by:				
Printed same: GARY M. S	CHUBERT	Trade:				
Title: PRES,		Approval Date:	Expiration Date:			
7/9/01	Phone: 505-393-3194	Conditions of Approval : Attached				

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 South First, Artesia, NM 88210

District III

State of New Mexico
Energy, Minerals & Natural Resources Department

RECEIVED

Form C-102 Revised August 15, 2000

OIL CONSERVATION DIVISION

Alif: 1 4 2001

Submit to Appropriate District Office
2040 South Pacheco

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1000 Rio Brazos F District IV	Rd., Aztec, i	VM 87410			Santa Fe, N	VM 87505	Oil Conservati	ion Division Fee	Lease - 3 Copies
2040 South Pache	co, Santa Fe		77.70	CATIO)	I AND AC		· ,		NDED REPORT
<u> </u>	API Numbe		LL LO	Pool Code		REAGE DEDIC	A HON PL		
30-025	-2366		96	173		SSW Salado			
992279		Hobbs	Stat	e	* Property	Name		•	Weil Number 5
'OGRID	No.				' Operator	· Name			' Elevation
13165	2	H. R.	C. I	nc.	10 -		· · · · · · · · · · · · · · · · · · ·	365	5 GL
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12 Dedicated Acres	s Joint o	r Infill 14 Co	nsolidation (Code 13 Or	der No.				
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NO ALLOWA	ARI E WI	II. BE ASS	IGNED T	O THIS C	COMPLETION	UNTIL ALL INT	ERESTS HAVI	E BEEN CONSOI	JDATED OR A
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16		个					¹⁷ OPE	RATOR CERT	TFICATION
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Submass Copies To Appropriate District	State of New M	exico		Form C-103
Office District I Ener	gy, Minerals and Nat	ural Resources		Revised March 25, 1999
1625 N. French Dr., Hobbs, NM 88240		ļ	WELL API NO.	2662
District II 811 South First, Artesia, NM 88210 OII	CONSERVATION	NDIVISION	30-025-2	
District III	2040 South Pac	heco	5. Indicate Type	
1000 Rio Brazos Rd., Aztec, NM 87410	Santa Fe, NM 8		STATE \$	
District IV 2040 South Pacheco, Santa Fe, NM 87505	Duite 1 0, 14141 0	,,,,,,	6. State Oil & C	
	DED OD TO CALL THE TO			lining Lease
SUNDRY NOTICES AND (DO NOT USE THIS FORM FOR PROPOSALS TO DR		The state of the s	7. Lease Name of	r Unit Agreement Name:
DIFFERENT RESERVOIR. USE "APPLICATION FOR				
PROPOSALS.)	Ç		Hobbs St	ate
1. Type of Well:		- 1 1		
	her Brine We	5 T T		
2. Name of Operator			8. Well No.	5
H. R. C. Inc	•		0 Paul V	7 17:144
3. Address of Operator P. O. Box 51	N 2	ŧ	9. Pool name or \ BSW Sal	
4. Well Location	02		DON Sai	
4. Well Location			•	
Unit Letter F: 2280	feet from the North	n line and 1	980 feet from	n the West line
Jan. 2500	1000 HOLL 410 1101 C1	<u></u>	7001001 1101	m dio <u>Nesc</u> mic.
Section 29	Township 185 R	ange 38E	NMPM Lea.	County
	vation (Show whether D.			
	3655 GL			
11. Check Appropriat		ature of Notice, R	eport or Other	Data
NOTICE OF INTENTIO			ÉQUENT REI	
PERFORM REMEDIAL WORK ME PLUG AN		REMEDIAL WORK		ALTERING CASING
			_	·
TEMPORARILY ABANDON CHANGE	PLANS	COMMENCE DRIL	LING OPNS.	PLUG AND
ULL OR ALTER CASING MULTIPL	E	CASING TEST AN	, –	ABANDONMENT -
COMPLE		CASING TEST AND		
	· · · · - · ·			•
OTHER:		OTHER:		
12. Describe proposed or completed operation				
of starting any proposed work). SEE RUI	E 1103. For Multiple (Completions: Attach		
or recompilation.			R	ECEIVED
1) Remove dry hole mark				
22% Rig up completion un			ANY.	F 1 4 2001
3) Drill out surface pl				Pureau
4) Run in hole and cut	/" at salt bo	ottom (2500')	Envir	onmenual Division
5) Pull 7" to salt top	= E0 =1:			N 1261 Acres
6) Run in hole and spot 7) Pull up to 1600 and				~
7) Pull up to 1600 and 8) Test csg to 1500#	CITC. 100 SK.	cure brad pe	enina /" Cs	y •
9) Run in hole w/2 7/8'	tha to 24001			
10) Install wellhead and	circ freeh w	ater down co	ed to prod	uce brine
through the	CITC. LIEBII M	acer down ca	sa. co brod	MOG DITIE
				•
	•			
I hereby certify that the information above is tr	ue and complete to the l	hest of my knowledge	and belief	
The said will be	ao and combiene m me i	And A my amounted	· ·	1/
SIGNATURE (M) / (M)	TITLE	President		DATE 7/9/0/
- Contraction				
Type or print name Gary M. Schuber	t		Telepi	hone No.393-3194
is space for State use)				
-				
APPPROVED BY	TITLE			_DATE
Conditions of approval, if any:				

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DISTRIBUTION				•		Supersedes Old	
SANTA FE	1-1-1	NEV	אובאוכט,טוו כט	; NSERVATION COMMISS	ION	C-102 and C-103	
FILE	+	1761	MEXICO OIL CO	RECEIVED	ION	Effective 1-1-65	
	+	,		MECEIVED		5a. Indicate Type of Lease	
U.S.G.S.	+						
LAND OFFICE	4-4-4	ı		AIIG 1 4 2009			·
OPERATOR						5. State Oil & Gas Lease No.	
				Environmental Burea	-	A-1469-Z	
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1.						7. Unit Agreement Name	~~~
OIL X GAS		OTHER-					
2. Name of Operator				 		8. Form or Lease Name	
тец	Cornor	cation	•			Hobbs State	
E S H	Corpor	acron			·		
•			. _			9. Well No.	
	Box 7	4, Midl	and, Texas	79701		5	
4. Location of Well			,			10. Field and Pool, or Wildoo	rt
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UNIT LETTER	•		FROM THE	LINE AND	FEET FROM	mmmmm	m
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		(1111)	<b>3</b> 655	GL	4	Lea	/////
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OTHER				COMMENCE DRILLING OF CASING TEST AND CEME	NT JQE	PLUG AND ABANDONS	
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DISTRIBUTION		Supersedes Old
SANTA FE	NEW MEXICO OIL CONSERVATION COMMISSION	C-102 and C-103 Effective 1-1-65
FILE	RECEIVED	·
.s.g.s.		5a. Indicate Type of Lease
AND OFFICE	AUG 14 2001	State Fee
OPERATOR		5. State Oil & Gas Lease No.
	Environmental Bureau	A-1469- Z
SUN	DRY NOTICES AND REPORTS ON WELLS	
(DO NOT USE THIS FORM FOR	PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.  CATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)	
1.		7. Unit Agreement Name
WELL E WELL	OTHER-	
2. Name of Operator		8. Farm or Lease Name
EGU Comp	omation	Hobbs State
3. Address of Operator	OTALION	9. Well No.
В О Во	v 774 Midland Mayas 79701	
4. Location of Well	x 774, Midland, Texas 79701	10. Field and Pool, or Wildcat
	2000	
UNIT LETTER	2280 FEET FROM THE North LINE AND 1980 FEET FRO	M Hobbs (Blinebry)
THE West LINE, SE	CTION 29 TOWNSHIP 18 S RANGE 38E HMPN	
·····		
	15. Elevation (Show whether DF, RT, GR, etc.)	12. County
	3655 GL	Lea
Chec	k Appropriate Box To Indicate Nature of Notice, Report or O	ther Data
		T REPORT OF:
	SUBSEQUEN	TI REPORT OF:
PERFORM REMEDIAL WORK	PLUG AND ABANDON A REMEDIAL WORK	
=		ALTERING CASING
TEMPORARILY ABANDON	COMMENCE ORILLING OPHS.	PLUG AND ABANDONMENT
PULL OR ALTER CASING	CHANGE PLANS CASING TEST AND CEMENT JOB	
	OTHER	
OTHER		
17. Describe Proposed or Completed	Operations (Clearly state all persinent details, and give persinent dates, including	g estimated date of starting any proposed
work) SEE RULE 1103.	, , , , , , , , , , , , , , , , , , , ,	,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,
·		
2	: Iron Bridge Plug w/ 35' of cement at 51	
Cast	: Iron Briage Plug W/ 35. Of Cement at 31	
100	Cement Plug at 4 1/2" stub at 3750'	
10'	Cement Plug at surface w/ proper sign.	
• 4	A to be rec	overed - Just
0	if some 7" is not to be rec	
0.9		•
	•	
		•
	•	
10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	tion above is true and complete to the best of my knowledge and belief.	<u> </u>
10. I hereby destrip that the miormal	tion above is true and complete to the best of my knowledge and belief.	4.0
	"1 P/1/H	
SIGNED a SUMEN !!   arcum	1 Jou C. A. Joshbacken Attorney	DATE January 29, 19
Gordon G. Marc	eum, 14	
	GEOLOGIET	JAN 31 1973
APPROVED BY Mhim W	Mingan HITLE	DATEU!J/\( )
CONDITIONS OF APPROVAL, IF A		
CONDITIONS/OF AFFRUYALIF A	·····	

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SANTA FE	NEW	WEXICO OF REPER	BENATION COMMISS	SION	Form C-101 Revised 1-1-6	530-025-23/1
LE	+					Type of Lease
U.S.G.S.		Alig 14	2001			PEE
LAND OFFICE		- , -				& Gas Lease No.
OPERATOR		Environment		:	A-14	
	<del></del>	Oil Conservat	ion Division	-	mm	mmmi
APPLICATIO	N FOR PERMIT TO	DRILL DEEPEN	OR PLUG BACK			
1a. Type of Work	ACCOUNT TO	DRIEL, DELI ER	, OK I LOO BACK	<del></del>	7. Unit Agre	ement Name
	1	-			•	
DRILL DRILL Type of Well		DEEPEN	PL	UG BACK	8, Farm or L	ease Name
OIL GAS	]		SINGLE ZONE	MULTIPLE		State
2. Name of Operator	OTHER		ZONE AL	ZONE L	9. Well No.	
	4.1 d 11-n 3.0	Co-laboran			5	
Ne-O-Tex Corpor	ation & wood &	COCKDUFT			10 Field on	d Pool, or Wildcat
			mom on	,		s (Blinebry)
4. Location of Well	oster bldg., Mi	dland, Texas	79701	· · · · · · · · · · · · · · · · · · ·	777777	CONTRACTOR N
UNIT LETT	ER LOC	ATED 2280	PEET FROM THE NOTT	LINE		
AND LOS FEET FROM	THE WOOTH	E OF SEC.20	TWP. 7 RGE.	38 E NMPM	12. County	
	44444444		HHHHH	HHHH	Lea	HHHHHm
	4444444	HHHHH	19. Proposed Depth	19A. Formation	<u>'111111</u>	20, Rotary or C.T.
			rs. Proposed Depth			- <u>-</u>
21. Elevations (Show whether DF	RT etc.) 21A Kind	f Status Diva Band	21B. Drilling Contract	Blinebry	·	Rotary
and another braining	21A. Kind				1	. Date Work will start
3655 G.L.	Blan	<del>cet</del>	Rod Ric Co	:p•	Dec	22, 1970
	F	ROPOSED CASING A	ND CEMENT PROGRAM	A ·		
SIZE OF HOLE	SIZE OF CASING					
SIZE OF HOLE	<del> </del>		T SETTING DEP	<del></del>	CEMENT	EST. TOP
<del></del>	9 5/8"	36#	3501	200	<del></del>	Circulate
6 3/4"	9 5/8" 7" 4 1/2"	23#	38501	200		26001
6 3/4"	4 1/2"	9.5#	61001	225		3700!
85/8" hole to 7" with 6 3/4 zone approxim	/8" hole to 350 3850', cement " to 6100' and ately 5750' - 6	with 200 sxs. a set 4 1/2 ", 050' acidize a	after running coment back to	7" casing. o 3700'; p	prill o erforate	ut irom under
ABOVE SPACE DESCRIBE PROFESSIONE. GIVE BLOWOUT PREVENT BETTER THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE PROFESSION OF THE	on above is true and com	plete to the best of my	knowledge and beilef.		 Date <u>12</u>	/18/70
PROVED BY NDITIONS OF APPROVAL, IF	Many ANY:	SUPERV	ISOR DISTRICT	i	DATEDEC	2 1 1970

WELL SCHEMATIC: NE-O-TEX HOBBS STATE #5

# WELL PLUGGED: 5/11/73

Size: 9 5/8"
Depth: 364'
Hole size: 12.25"
Cmt: 200 sxs
TOC: Circ. – Calc.
With 50% effic.

Spotted 10' cmt plug at surf.

Existing condition of wall #5

# RECEIVED

# AUG 1 4 2001

Environmental Bureau Oil Conservation Division

Shot and pulled csg at 3744'. Pumped 255 sx cmt plug From 3744' to 3644'.

Set 4 ½" CIBP at 5757' and Capped with 35' cmt. Est. TOC is 5722'.

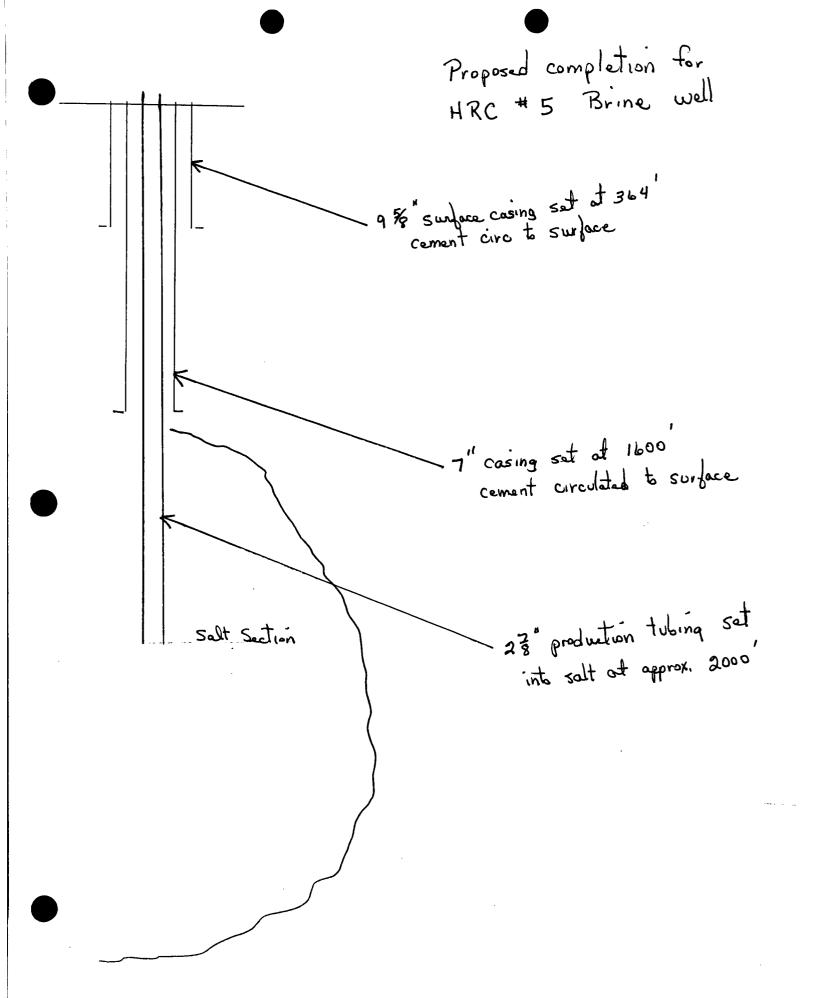
Depth: 3826' Hole size: 8.75" Cmt: 200 sxs TOC: 2250'

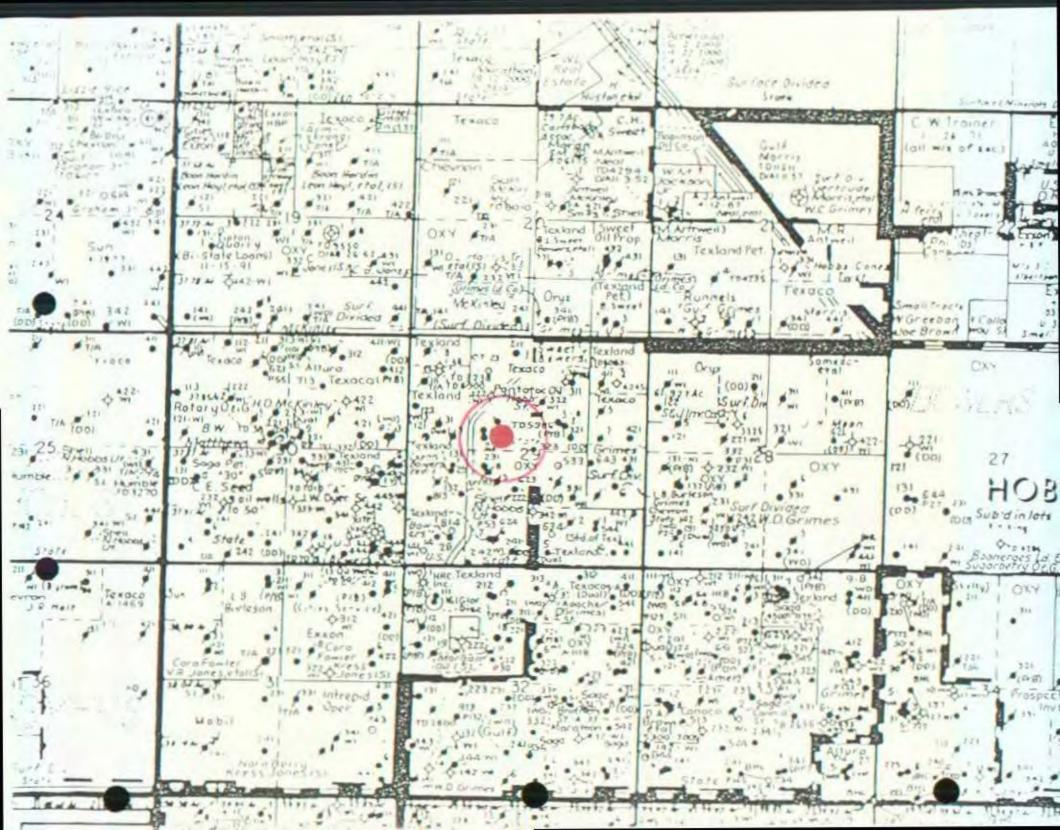
Size: 7"

Size: 41/2"
Depth: 5986'
Hole size: 6.25"
Cmt: 120 sxs
TOC: 3800'- Calc.
With 50% effic,

PBTD: 5959'

TD: 5986'





# LIST OF WELLS WITHIN AREA OF REVIEW

All wells are cased and/or cemented through the salt section.

Occidental Permian well 29-231
Occidental Permian well 29-323
Occidental Permian well 29-323
Cocidental Permian well 29-222
Texland Petroleum well 8
Apache Corporation well 5
Rice Engineering Inc. well F-29

	16.43			
7881, H M		)EC	ORMATION RECORD	many horizontal and the second
Tues o NO	nerina z		ORMATION RECORD	-1
FROM	Jan 1000	THICKNESS	FORM	ATION
35 7 <mark>6" 97 28</mark>		185	Caliche and Surface Sand	
185'	ילמנ י230	_451	Red Bed and Shells	
2301	1167	9371	Red Bed	<u> </u>
11671	13401		Hed Bed & Shells	
1340'	15201	180	Red Bed and Anhydrite	
1520'	15251	5!	Red Bed	
1525'	1617'	921	Anhydrite and Shale	The second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second secon
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3071!	31421	30 only 71! on 1621	Anhydrite of the contract	mil to New More Marie March 18
31421	3204	621	Lime	
32041	3211'		Bowers Sand - POLLE- 107	
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Selt			T. Penn. "D"
	T. Miss	T. Cliff House	T. Leadville
7 Rivers 2903 1	T. Devonian	T. Menefee	T. Madison
Queen3427'	T. Silurian	T. Point Lookout	T. Elbert
Grayburg 3764	T. Montoya	T. Mancos	T. McCracken
San Andres 4095'	T. Simpson	T. Gallup	T. Ignacio Qtzte
Glorieta	T. McKee	Base Greenhorn	T. Granite
Paddock	T. Ellenburger	T. Dakota	Т.
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at form in to be filled with the approprial intrict Office of the Division not later than 20 per after the completion of any newly-diffed or separed well. It shall be accompanied by one copy of all electrical and value-activity logs run of the well and a summary of all special tests consucted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be rejected. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filled in quintuplicate except on state land, where six copies are required. See Rule 1105.

## INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

		. Sout	heastern	New Mexico			•	Northwo	estem No	w Mexico			
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T. Salt _		1619'		Strawn									
B. Salt _								T. Pictured Cliffs T. Penn. "D"					
T. Yates		2640'		Miss									
T. 7 Rive	ers	2885'	т.	Devonian							<u> </u>		
T. Queen	٠	3402'		Silurian	т.	Point	Lookout		т.	Elbert			
T. Grayb	urg	<u> 3738'</u>	т.	Montoya	т.	Manco	s		т.	McCracken	· · · · · · · · · · · · · · · · · · ·		
T. San A	ndres	4023'	т.	Simpson	<u> </u>	Gallu	· ——		т.	Ignacio Qtzte			
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If drill-stem or other special tests or dezdation surveys were made, submit report on separate sheet and attach hereto

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<u>District I</u>
1625 N. French Dr., Hobbs, NM 88240
<u>District II</u>
1301 W. Grand Avenue, Artesia, NM 88210
<u>District III</u>
1000 Rio Brazos Road, Aztec, NM 87410

1220 S. St. Francis Dr., Santa Fe, NM 87505

District IV

# State of New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

Revised July 12, 2001

# DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITES

(Refer to the OCD Guidelines for assistance in completing the application)

	■ New □ Renewal
1.	Facility Name: H.R.C. Brine Facility
2.	Operator: H.R.C. Inc.
	Address: P.O. Box 5102 Hobbs, NM 88241
	Contact Person: Gary M. Schubert Phone: (505)393-3194
3.	Location: SE /4 NW /4 Section 29 Township 18 S. Range 38 E. Submit large scale topographic map showing exact location.
4.	Attach the name and address of the landowner of the facility site.
5.	Attach a description of the types and quantities of fluids at the facility.
6.	Attach a description of all fluid transfer and storage and fluid and solid disposal facilities.
7.	Attach a description of underground facilities (i.e. brine extraction well).
8.	Attach a contingency plan for reporting and clean-up of spills or releases.
9.	Attach geological/hydrological evidence demonstrating that brine extraction operations will not adversely impact fresh water.
10	. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.
11	. CERTIFICATION:
	I hereby certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.
	Name: Gary M. Schubert Title: Owner
	Signature:

# H.R.C. BRINE FACILITY DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITY

- 1) H.R.C. Brine Facility well #5
- 2) H.R.C. Inc.P.O. Box 5102 Hobbs, NM 88241Gary M. Schubert (505)393-3194
- Unit F SE 1/4 of NW 1/4 Section 29 T. 18 S. Rng. 38 E. Map attached.
- 4) Grimes Land Co. Schubert
   P.O. Box 5102
   Hobbs, NM 88241
   Lea County tax and ownership records attached.
- 5) This facility will store brine water produced from the underground salt formation at the site. No other fluids will be stored at the facility. Salt brine will be recovered up the tubing from well #5 and stored in 2, 500 bl. above ground tanks. These tanks will be located inside and on a polyethylene lined dike area. The dike area will be sized to hold more than 133% of the brine tanks combined capacity. The volume of brine production will be determined by the amount of oil and gas drilling activities, and will vary from month to month. Based on activity at other brine facilities, this volume could be 12,000 to 15,000 bls. per month.
- 6) Fluid Transfer and Storage

Fresh water will be received at the brine well for inspection from the City of Hobbs water supply system via polyethylene pipe, the connection to the city system is approximately 1/2 mile north of the proposed brine well #5. The fresh water line will be connected to the suction side of a pump which will pump fresh water down the annulus of the well casing at a rate of approximately 100 barrels per hour and a normal operating pressure of from 200 to 250 psi. Brine water will be produced up the well through the tubing and delivered to the two 500 bl. tanks by polyethylene piping. Except for the short section of steel pipe between the pump and well, all other piping is low pressure with tank head pressure less that 50 psi. All piping will be above ground and visible for quick on site leak detection.

Brine water will be transported from the site by tanker truck for sale and use in oil and gas drilling and production operations. Tanker trucks will be positioned inside a polyethylene-lined dike loading area to retain fluids in the event an accidental discharge or spill were to occur. Brine water will flow from the storage tanks to a header system by piping positioned above the poly liner. Tank trucks will connect to the header valve by hose and the pumps on the truck will pull the fluids from the header valve and discharge the brine to the tanker. When the loading is complete, the driver or operator will close the

header valve and continue to suck the line empty, this will prevent any spills, leaks or drips. As a precaution, an above ground drip tank will be located at the header valve to catch any drips that might occur during the loading process. The operator or driver will be present during the loading process and will fill out a run ticket for volume and destination. These tickets will be used for billing and also for monitoring the volumes of fresh water and brine production which will help in keeping up with the integrity of the system.

A meter will be located at the fresh water connection provided by the City of Hobbs. This meter will be used by the City of Hobbs for billing purposes and by H.R.C. in calculating volumes. The brine well injection pump will be a positive displacement pump. The pump generally pumps at the same flow rate as the well. A pressure chart will be installed on the pumps discharge which will record operating pressure and run time. Run time multiplied by pump flow rate gives an indication of water volume pumped into the formation and brine water recovered. Tank gauges, fresh water meter readings, pump run time and product sales tickets will be compared to give an idea as to the integrity of the operation. The volume of fresh water injected and the volume of brine produced will be recorded monthly and submitted to the OCD office in Santa Fe on a quarterly schedule.

Tanks and piping will be above ground for rapid visual leak inspection and detection. The loading area will be a poly lined dike area to contain any spillage that may occur. Dike areas will prevent run-off of storm water. Any water that does accumulate will be vacuumed up and hauled to an OCD approved facility for disposal. H.R.C. will be at the facility on a daily basis checking for leaks and/or spills. The inspection will be recorded and kept on file, any corrections or repairs will be noted on inspection file.

Prior to starting injection and after approval, the casing will be pressure tested for integrity. A bridge plug will be run into bottom of the casing and pressure will be applied to casing to check for any leakage. This process will be conducted on at least a five year schedule. The tubing-casing formation test will be conducted annually to insure integrity.

No fluids or solids will be disposed of at this site. All brine fluids will be sold for use or stored in tanks. In the event it becomes necessary to dispose of brine fluids, it will be taken to an OCD approved facility. Any solids, such as soil containing chloride contamination, will be taken to an approved OCD facility.

#### **CLOSURE PLAN**

In the event it becomes necessary to abandon this facility, the well will be plugged and abandoned according to the specifications recommended by the OCD at time of closure, which will meet the requirements for protection of groundwater. All fluids and solids will be removed from the site and transported to an OCD approved facility. After removal of all surface equipment, the area will be remediated and graded in a manner to reflect its original condition.

7) Description of Underground Facility
The only underground facilities will be the brine well and its piping construction.
Enclosed is schematic of proposed completion and a schematic of existing
P & A status.

The proposed construction will be:

9 5/8" surface casing at 364' cement circulated to surface.

7" production casing pulled and set at approx. 1600' with cement circulated to surface.

2 7/8" production tubing drilled into salt cavity and set at approx. 2000'.

General operation is to pump fresh water down annulus between 2 7/8" tubing and 7" casing and produce brine water up the 2 7/8" tubing. Once a month, the flow is reversed for 24 hours to dissolve any buildup in tubing.

Mechanical integrity tests will be conducted on the well and salt dome foundation as OCD designates. The well and formation will be pressured up to one and one half times the normal operating pressure and shut in for four hours with pressure recorded on a pressure chart. The OCD will notify H.R.C. of the date and time for testing so it can be witnessed.

Cavity configuration tests will be conducted as required by OCD to determine size and configuration of the mined cavity.

The OCD office will be notified for approval prior to any drilling, deepening or plug back operations using the appropriate forms and notification. The OCD will also be notified before any remedial work, plugging or altering of well has started and after approval.

8) Reporting and Clean up of Spills (Contingency Plan)
All above ground piping and tanks will be visually inspected for leaks by company personnel during each site visit. Any problems such as leaks, spills or well abnormality will be taken to the attention of H.R.C. supervisor immediately. Supervisor will assess the problem and proceed with proper notification and repairs as OCD rule 116 requires.

#### 9) Site Characteristics

The proposed site is located west of Hobbs, NM adjacent to West County Road. The area is relatively flat with very little elevation differences. There is no surface water in close proximity to the proposed site. The average rainfall for this area is 12 to 15 in. annually. The last recorded 100 year flood was in 1990, where 10 in. of rain was recorded in a 24 hour period. In normal conditions, rain soaks in and is absorbed into the soil as fast as it comes down. With the present facility design, it is highly unlikely any run off or run on of the property would occur. If, in the future, some problems were to occur, revisions to the discharge plan for this facility would be incorporated.

#### **HYDROLOGY**

Underground aquifers in this area are the Ogallala and Quaternary Alluvium formations. The groundwater in these formations is unconfined where the underlying red beds are relatively impermeable. This underlying layer prevents further downward or upward movement. From information reviewed, the groundwater flow from the Ogallala formation flows to the south southeast, the water level for this area ranges from 50' to 70' below ground level and the average depth of the wells are 150'. Find within State Engineers list of water wells in the general area and analytical from two of the wells.

#### **GEOLOGY**

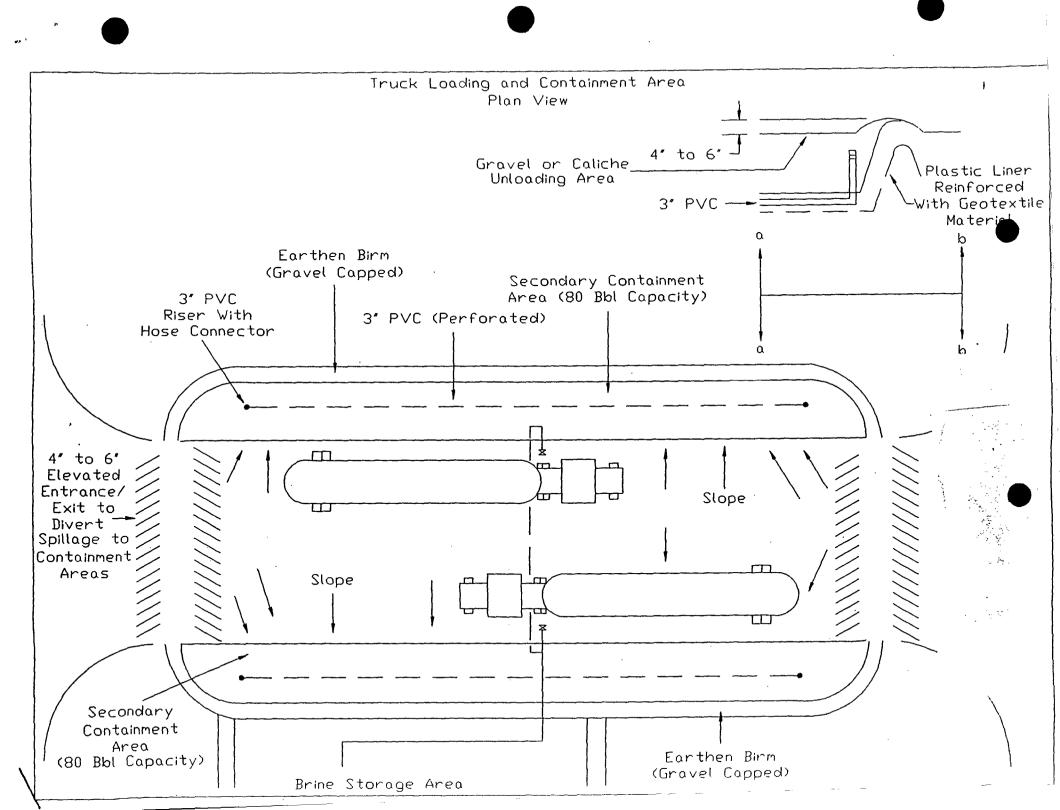
The proposed site is located on the Central Basin Platform of the Permian Basin. The sub-surface formations are in transitional area between Delaware Basins back reef or shelf area and the platform. The brine product is from the Salado formation of the Ochoa series. The series is of upper Permian Age, and extends across the Delaware Basin, Central Basin Platforms, thins and pinches out on the eastern shelf. This series layers are predominately evaporates which contain strings of dolomite, shale, siltstone, and sandstone. The thickness of this salt section averages about 1000 ft. The Triassic rock overlying the Permian formation is the Dockem group, and is divisible into the Santa Rosa sandstone and the Chinle formation. The Tertiary rocks are represented by the Ogallala formation. This formation ranges in thickness from 0' to 300'. It is chiefly calcareous, unconsolidated sand, clay, silt and gravel. This is the formation most of Lea Co. obtains its drinking water from.

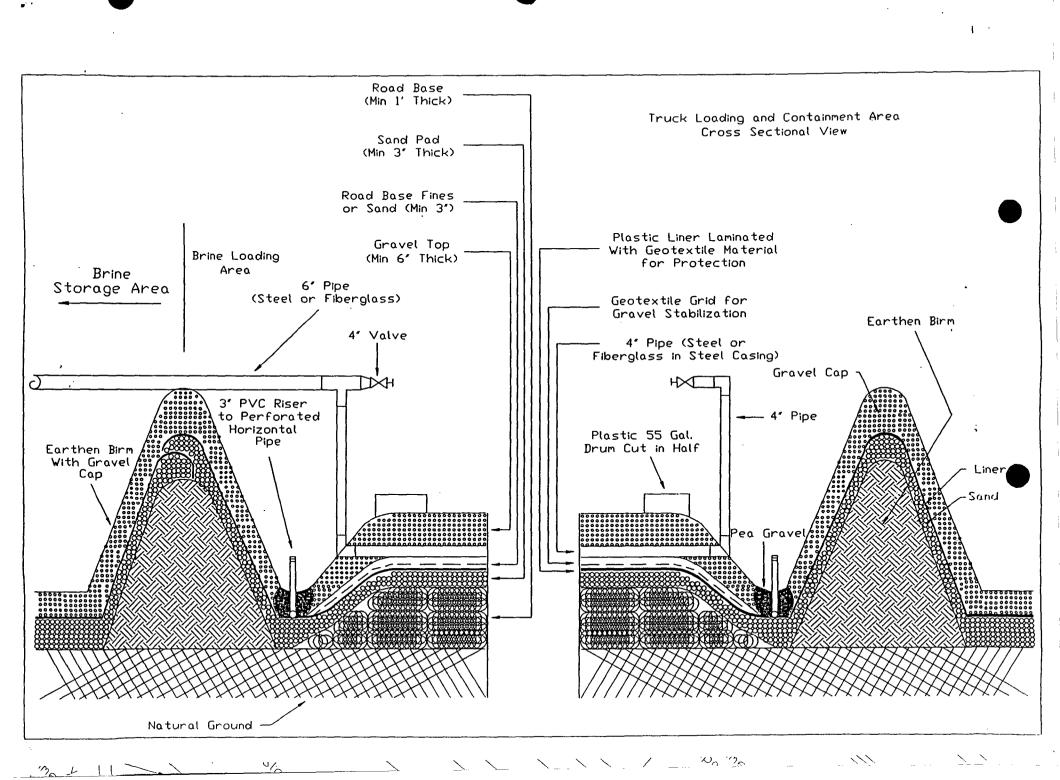
10) H.R.C. Inc. will comply with any rule, regulation or order which the OCD currently has or any new rule and regulation that pertains to this type of facility that the OCD may initiate in the future.

FLOW Brine Water Storage two (2) **500** Bbl Tanks Containment Burn Containment Burn Brine To Holds water supply -> /&X\ Salt Formation PROCESS FLOW DIAGRAM

Brine Storage Containment Area Specification Drawing (Containment Area Sized For 133% Of Tank Storage Capacity) 500 Bbl 500 Bbl Welded Cone Roof Welded Cone Roof Tank - Internally Tank - Internally Coated Coated Truck Load Out Area 4" to 6" Compacted Earthen Fill 4" to 6" 6" to 8" of Gravel of Fines or Sand Natural Ground -4" to 6" of Sand -Plastic Liner Laminated With Geotextile Material

Fax Dontertin





New Mexico Office of the State Engineer
Well Reports and Downloads

	Township: 18S	Range: 38E	Sections: 29			
	NAD27 X:	Y:	Zone:	Search Radius:		
County		Basin:	Number:	Suffix:	<del></del>	
Owner N	lame: (First)	(Last)		C Non-Domestic C Domestic	€ VII	
<u> </u>	Veil Data Report	Avg Depth		Water Column Report		
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#### WELL DATA REPORT 07/25/2001

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	(acr	e ft per ani	num)	(quarters ar	e bigg	est to st	nallest	X Y are in P		UTM are i			Start	Finish	Depth	Depth
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L 04547	DOM	3	B. A. MALECHECK	L 04547		38E 29				13	6707B7		11/04/1960		110	70
				L 04547 APPRO	_ 189	38E 29				13	670787	3621633	11/04/1960	11/04/1960	110	70
L 05577	DOM		DAVE E. WOOD	L 05577 EXP	_ 10\$					13	672090	3621956				
L 06203	DOM		DOW COTTRELL	L 06203 EXP	_ 185					13	671895	3621749				
L 06453 (E)	PRO		CONTINENTAL OIL COMPANY	L 06453 (E) EXP	_ 189					13	671205	3620834				
L 06453 (E) 2	PRO		CONTINENTAL OIL COMPANY	L 06453 (E) 2 EXP						13	671205	3620834				
	PRO	0	MORAN OIL PROD & DRILLING CON	R L 06570 (E)	18s					13	670802	3620628	08/05/1969	08/05/1969	110	54
L 06603	DOM		RICHARD JOHNSON	L 06603 EXP	_ 18S					13	671786	3622050				
L 06717	DOM	3	E. C. FOWLER	L 06717	_ 18s					13	672098	3621555	10/06/1970		130	55
L 07005	SAN	3	TWO-STATE TANK RENTAL CO.	L 07005	_ 185					13	670802	3620828	10/14/1972		150	50
L 07017	DOM	3	APEX FREIGHT LINES	L 07017	_ 18s					13	670903	3620729	12/09/1972		150	60
L 07163	DOM	3	JOE LISENBEE	L 07163	_ 18s					13	671284	3621944	02/01/1974		110	67
L 07427	DOM	3	DON COTTRELL	L 07427	_ 188					13	672098	3621555	09/16/1975		130	60
L 07432	DOM:	3	NORMAN L. WILLIAMS	L 07432	_ 18s					13	672098	3621555	09/24/1975		125	55
L 07434	DOM	3	N.E. WILLIAMS	L 07434	_ 188					13	672197	3621454	09/28/1975	09/30/1975	125	5
L 07528	OBS		PHILLIPS PETROLEUM COMPANY	L 07528 EXP 2	_ 185					13	671801	3621044				
=				L 07828 EXP	_ 185					13	671801	3621044				
L 07530	OBS		PHILLIPS PETROLEUM COMPANY	L 07530 EXP	_ 185					13	671383	3621843				
=				L 07530 EXP 2	_ 189					13	671383	3621843				
L 07531	OBS		PHILLIPS PETROLEUM COMPANY	L 07531 EXP	_ 18S					13	670767	3621633				
=				L 07531 EXP 2	_ 18S					13	670787	3621633				
L 07570	DOM	3	SOUTHWESTERN DRILLING MUD	L 07570	_ 18S					13	670802	3620628	06/21/1976		122	48
L 07673	DOM	3	LARRY FELKINS	L 07673	_ 18s					13	672169	3622057	02/05/1970		125	50
L 07754	OBS	3	CROWN CHEMICAL COMPANY	L 07754	18S					13	672098	3621555	09/08/1977	09/14/1977	207	50
L 07825	DOM	3	DONNY CAMPBELL	L 07825	185					13	671989	3622057	01/18/1978		105	45
L 07826	DOM	3	JERRY BERRY	L 07826	_ 18S					13	671989	3621857	01/16/1976		110	45
L 08131	DOM	3	A. T. JOHNSON	L 08131	_ 18S					13	670895	3621131	08/16/1979		110	60
L 08135	DOM	3	J. D. WHESENHUNT	L 08135	_ 18S					13	672098	3621555	08/15/1979		130	62
L 08191	SAN	3	TOMMY MCDANIEL	L 08191	_ 185					13	672189	3622057	01/05/1980		120	120
L 08228	SAN	3	DOW COTTRELL	L 08228	_ 188					13	671786	3621850	03/10/1980		115	68
L 08229	DOM	3	MAX WHITE	L 08229	_ 185					13	671997	3621654	03/08/1980		115	68
L 08370	SAN	3	NORMAN L. WILLIAMS	L 08370	_ 188					13	672189	3621857	10/20/1980		120	60
L 08429	DOM	3	DOW COTTRELL	L 08429	_ 18S					13	671801	3621244	08/10/1981	00/11/1901	120	62
L 08446	DOM	3	JERRY L. BROTHERS	L 08446	_ 188	38E 29	2			13	671895	3621749	05/03/1981	65/67/1981	120	4.2
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L 08448 SAN	3	JACK STRINGER	L	08448	188	38E 29	2 4 1	13	671997	3621654	11/15/1581	11/20/1901	130	38
L 08737 DOM	3	DANIEL SAGE	L	08737	185	38E 29	2 4	13	672098	3621555	04/07/1982	04/07/1982	132	60
L 08860 SAN	3	TOMMY MCDANIEL	L	08860	188	38E 29	2	13	671895	3621749	12/12/1983	12/12/1983	130	39
- Vivine and the second			L	08860 EXP	188	38E 29	2	13	671895	3621749				
L 08867 SAN	3	BIG HORN TANK RENTAL	L	08867	185	38E 29	2 2	13	672090	3621950	67/09/1982	07/10/1982	120	52
L 09586 DOM	3	KELDON COTTRELL	L	09586	188	38E 29	2 4 .	13	672098	3621555	11/26/1984	11/28/1984	120	76
L 09682 SAN	3	JERRY BROTHERS	L	09682	188	38E 29	2 2 3	13	671989	3621857	09/29/1985	09/30/1985	120	45
L 09705 SAN	3	TJ & C	L	09705	188	38E 29	3 3 4	13	671002	3620628	07/19/1985	07/19/1985	135	65
L 09777 SAN	3	PAUL MUSSLEWHITE TRUCKING CO.	L	09777	188	38E 29	1	13	671089	3621735	01/10/1986	01/13/1906	150	€4
L 10860 DOM	3	KELLY WILLIAMS	L	10860	185	38E 29	1 1 1	13	670780	3622036	07/20/1998	07/21/1998	160	39
L 10913 DOM	0	RAYMOND STONE	L	10913	188	38E 29	1 3 3	13	670787	3621433			160	
L 11171 SAN	3	CONOCO	L	11171	185	38E 29	3 4 1	13	671205	3620834	04/19/2001	04/19/2001	206	
L 11176 nul	ō	TEXLAND PETROLEUM-HOBBS, LLC	L	11176	165	38E 29	4 1 4	13	671801	3621044			210	

Record Count: 47

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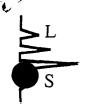
#### New Mexico Office of the State Engineer Well Reports and Downloads

Well Reports and Downloads
Township: 18S Range: 38E Sections: 29
NAD27 X: Y: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (First) (Last) C Non-Domestic C Domestic All
Well Data Report Avg. Depth to Water Report Water Column Report
Clear Forma WATIERS: Menu Help

#### AVERAGE DEPTH OF WATER REPORT 07/25/2001

							(Depth	Water	in Feet)
Bsn	Tws	Rng Se	c Zone	x	Y	Wells	Min	Max	Avg
1.	188	38E 29	ı			32	38	120	59

Record Count: 32



Laboratory Services, Inc. 4016 Fiesta Drive Hobbs, New Mexico 88240 Telephone: (505) 397-3713

## Water Analysis

COMPANY	Altura Energy Ltd,		
CAMPLE			
SAMPLE	Fresh Water Well fo	or Wells 29321,	29231, 32312
SAMPLED BY		<del>, , , , , , , , , , , , , , , , , , , </del>	
DATE TAKEN	8/8/00		•
REMARKS	T18S-R38E-Sec29; Qt	r Sec 4.1.2	
	1100 1001 00019, 0	02 000 1/1/2	
Barium as Ba		0	
Carbonate alkalir		68	
Bicarbonate alkal	linity PPM	260	
pH at Lab		7.21	
Specific Gravity @		1	
Magnesium as M	g	32	
Total Hardness a	s CaCO3	56	
orides as Cl		325	
Ifate as SO4		130	,
Iron as Fe		0	
Potassium		0.1	
Hydrogen Sulfide		0	
Rw		12	@ 23° C
Total Dissolved S	Solids	841	
Calcium as Ca		24	
Nitrate		2.2	
·			
Results reported as F	Parts per Million unless stated		
Langelier Saturat	tion Index	-54	
		•	
•		Analysis by:	Vickie Walker
		Date:	8/11/00



## Laboratory Services, Inc. 4016 Fiesta Drive

Hobbs, New Mexico 88240 Telephone: (505) 397-3713

## Water Analysis

SAMPLE Fresh Water Well For Wells 33111 & 28131 \( \) 29237  SAMPLED BY  DATE TAKEN 5/9/00  REMARKS T18S-R38E-Sec 29, Qtr Sec. 4,2,1  Barium as Ba 0 Carbonate alkalinity PPM 40 Bicarbonate alkalinity PPM 216 PH at Lab 7.63 Specific Gravity © 60°F 1 Magnesium as Mg 174  Total Hardness as CaCO3 300 Orides as Cl 155 Sulfate as SO4 115 Iron as Fe 0.1 Potassium 0.09 Hydrogen Sulfide 0 RW 9.4 © 25° C  Total Dissolved Solids 850 Calcium as Ca 126 Nitrate 7.5  Analysis by: Vickie Walker Date: 646/00	COMPANY Altura En	ergy Ltd,	
DATE TAKEN   5/9/00	SAMPLE Fresh Wat	er Well For Wells 33111	د 18131 کی 19 کار د 18131 کی 19 کار
DATE TAKEN   5/9/00   REMARKS   T18S-R38E-Sec   29,   Qtr   Sec.   4,2,1	TICSH WAC	CI WELL TOL WELLS JOLLI	. 4 20131 1 4 7 4 3 1
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	:	Analysis hy	Wickie Walker
		Date:	6/6/00

### LIST OF OFFSET OPERATORS & SURFACE OWNERS

## Offset Operators

Occidental Permian Limited Partnership P.O. Box 4294 Houston, TX 77210-4294

Exxon Company, U.S.A. Attn: Joint Interest Operations P.O. Box 4707 Houston, TX 77210-4707

Collins & Ware, Inc. 508 W. Wall, Suite 1200 Midland, TX 79701

Marcum Drilling Co. P.O. Box 3699 Midland, TX 79705

Rice Operating Co. 122 West Taylor Hobbs, NM 88240

Texland Petroleum – Hobbs, LLC 500 Throckmorton, Suite 3100 Ft. Worth, TX 76102-3818

Surface Owners

Grimes Land Company P.O. Box 5102 Hobbs, NM 88240

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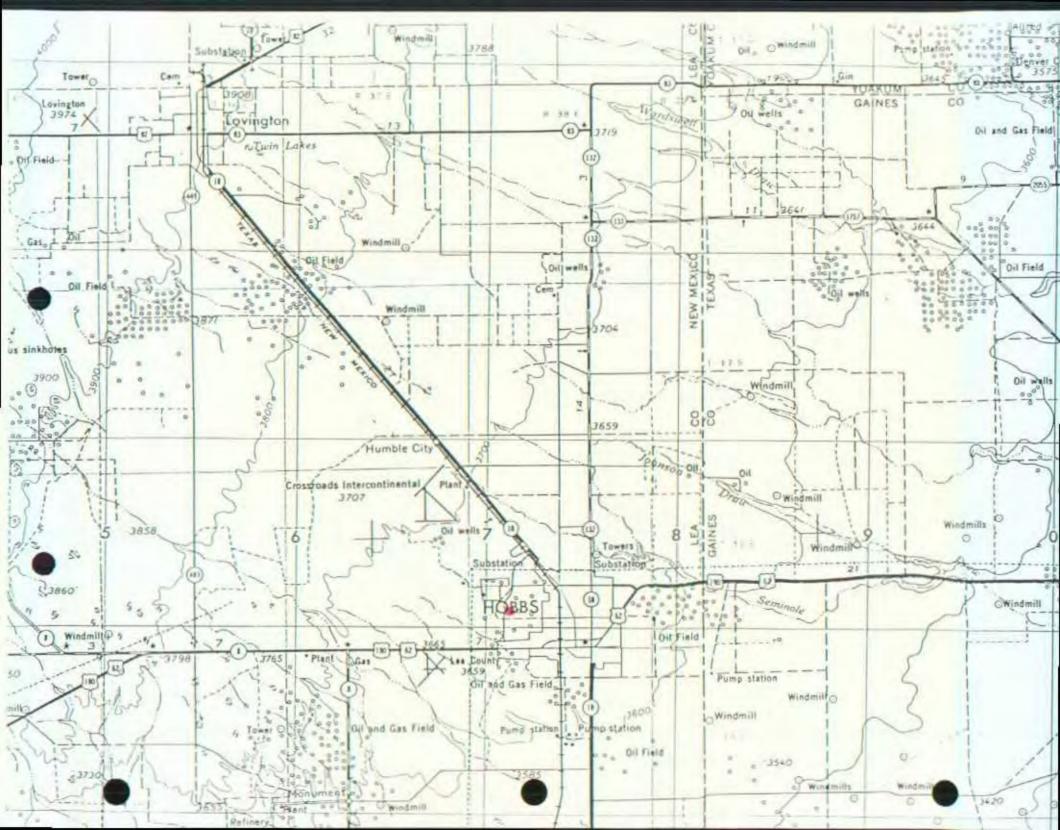
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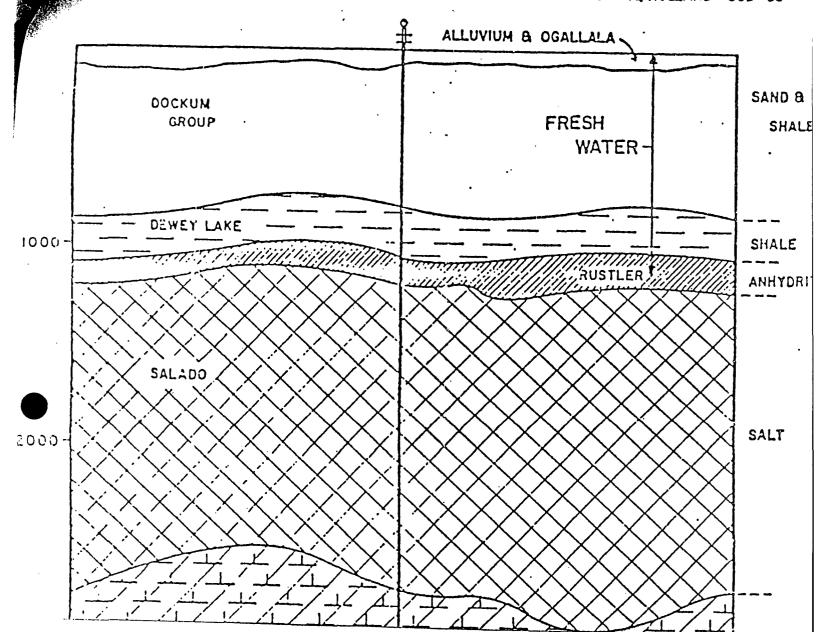
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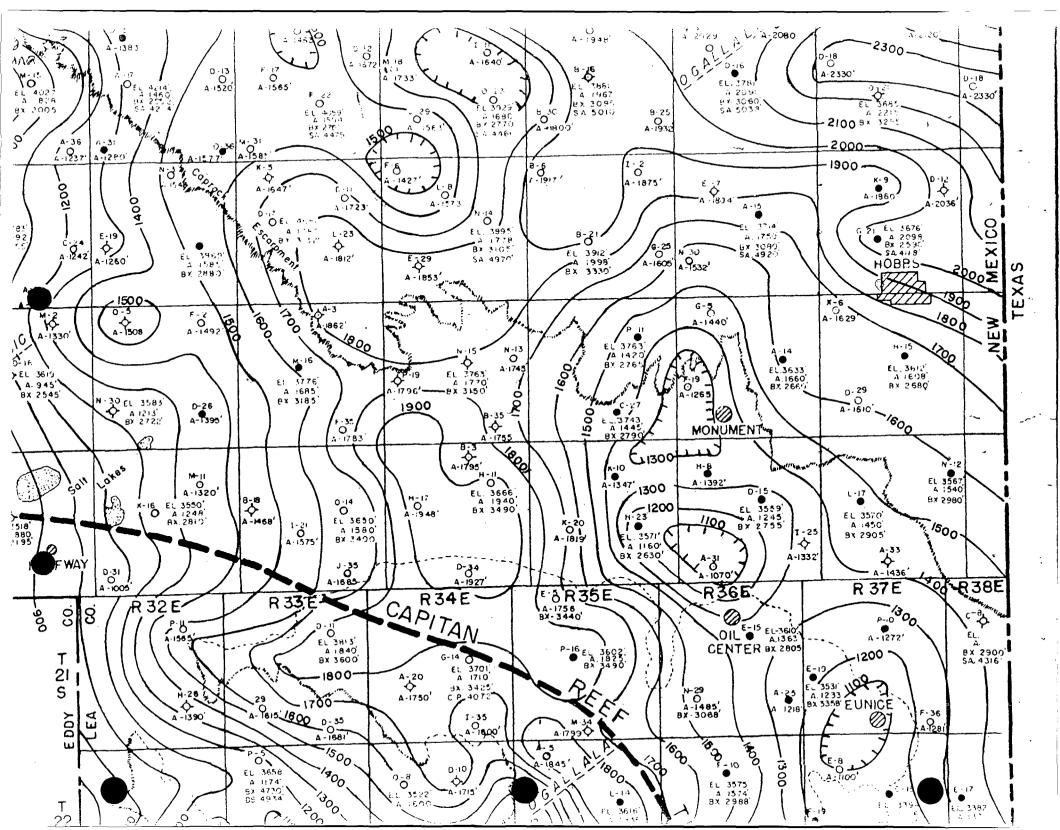
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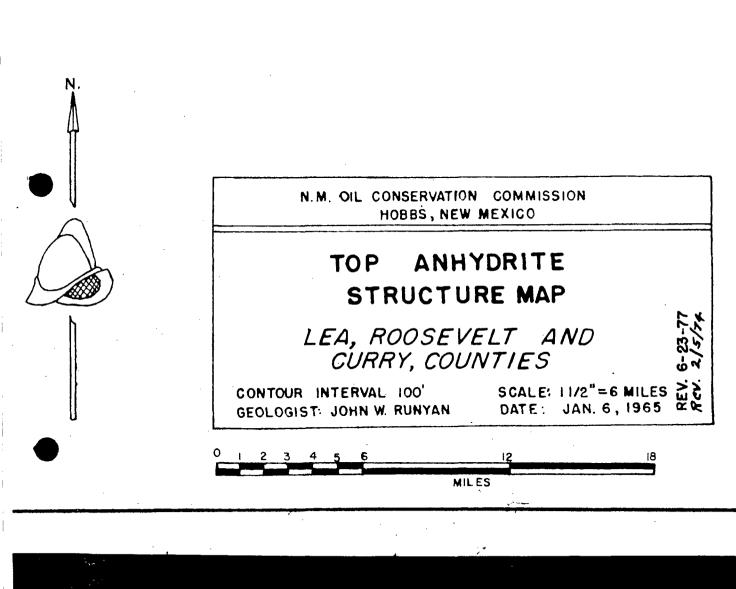
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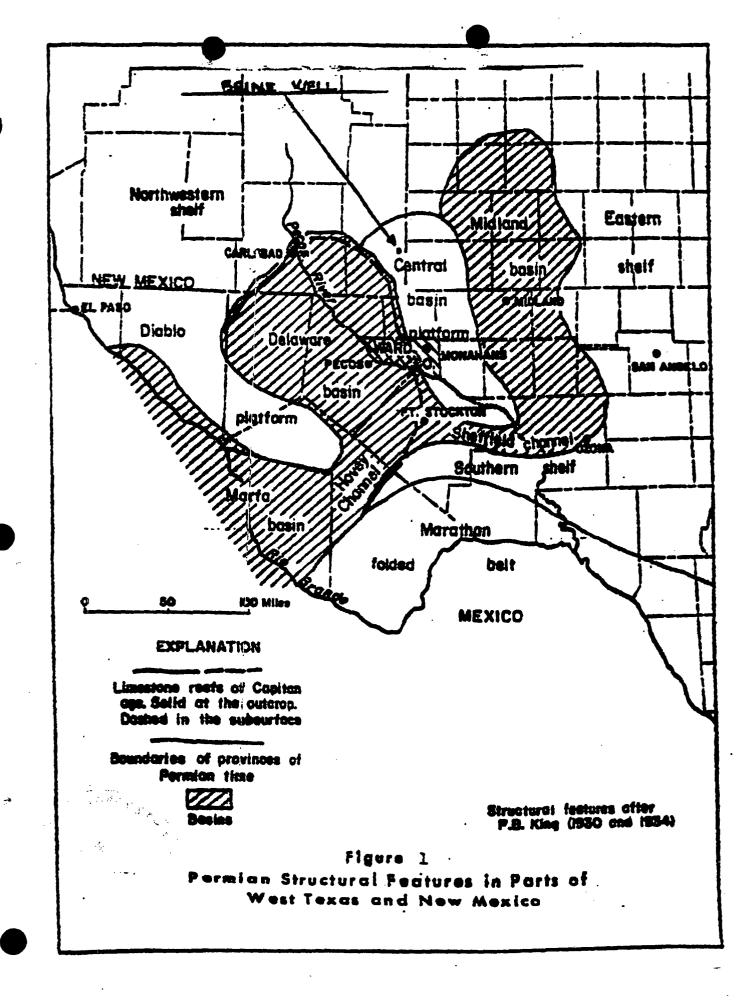
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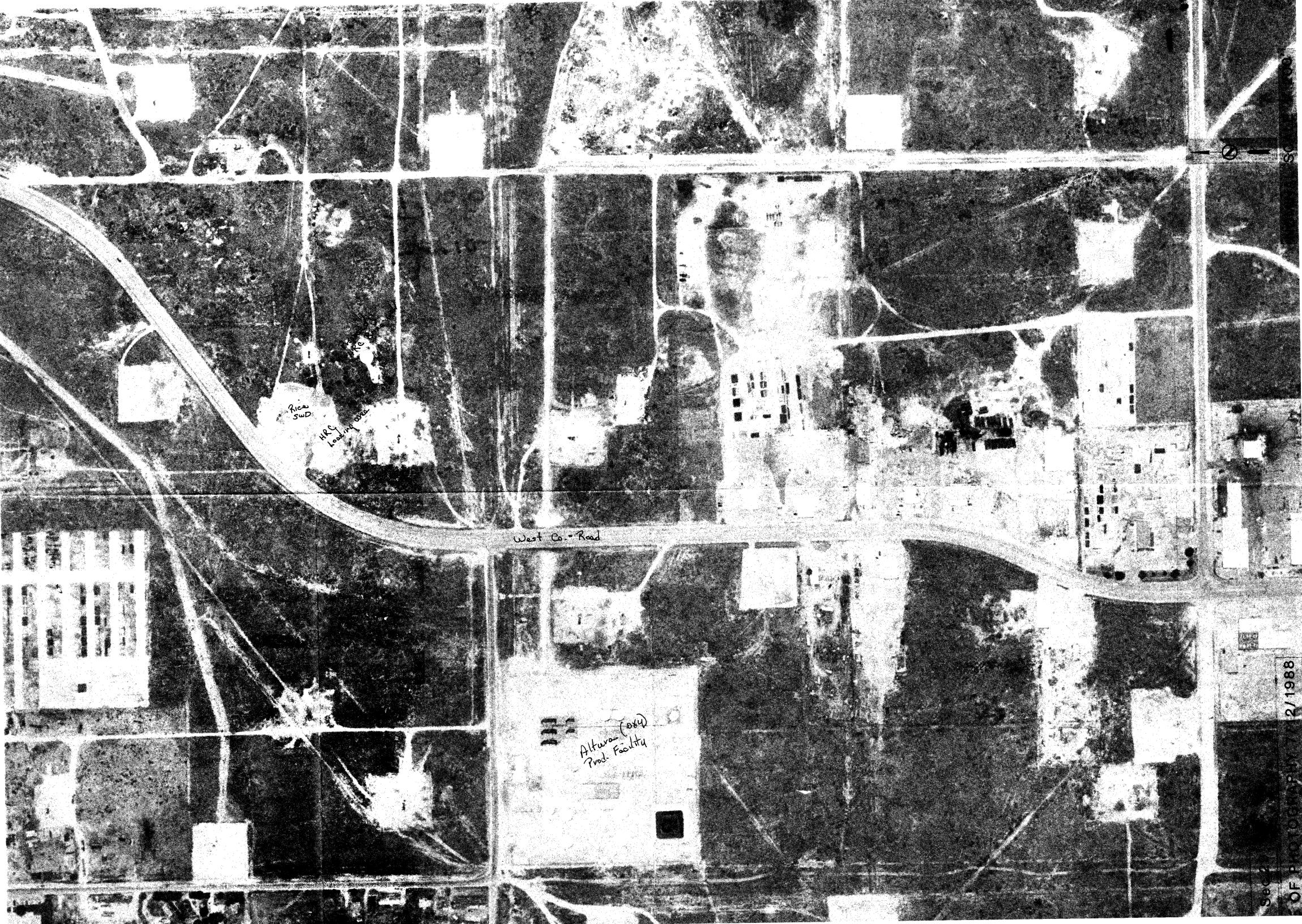


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PRE-CAMBRIAN

N.D. - Not Defined.

John W. Runyan N.M.O.C.C. — Habbs





# NEW MEXICO ENERGY, MONERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

July 13, 2001

Lori Wrotenbery
Director
Oil Conservation Division

Mr. Gary Schubert HRC Inc. P.O. 5011 Hobbs, NM 88241

Re:

Brine Well Application

Dear Mr. Schubert:

Per your request please find enclosed an application and guidelines for brine extraction facilities. If you decide to apply please fill out the application in detail and submit with a \$100.00 filing fee. All checks shall be made out to: "Water Quality Management Fund".

If you have any questions please do not hesitate to contact me at 505-476-3487 or e-mail WPRICE@state.nm.us.

Sincerely;

Wayne Price-Pet. Engr. Spec.

cc: OCD Hobbs Office

attachments-2



## H.R.C. INC.

## HOBBS STATE #10 SECT. 29, T. 18 S., R 38 E.

## APPLICATION FOR BRINE EXTRACTION WELL

## **AND**

## **DISCHARGE PLAN FOR BRINE FACILITY**

February 20, 2002

## **CONTENTS**

- I. Complete C-108
- II. Drilling Application C-101 and C-102
- III. Aditional information as requested.
- IV. Bond

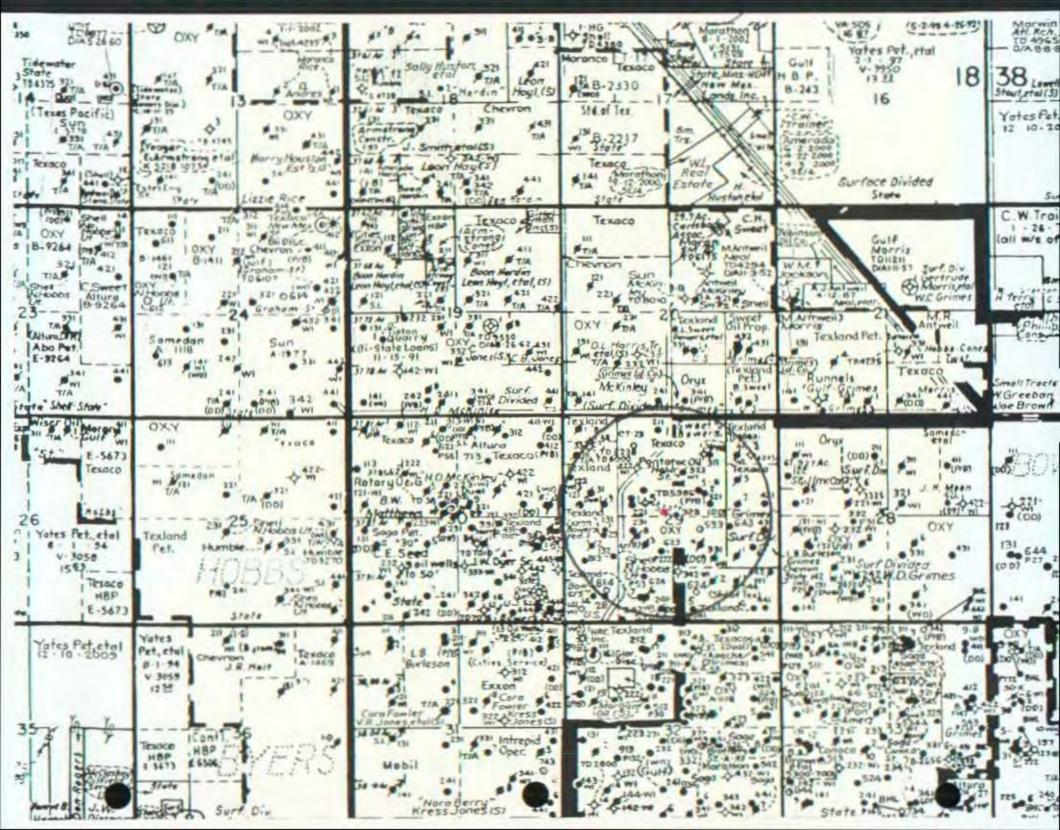
#### OIL CONSERVATION DIVISION 2040 SOUTH PACHECO SANTA FE, NEW MEXICO 87505

FORM C-108 Revised 4-1-98

#### APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage Application qualifies for administrative approval? Yes No X Brine
II.	OPERATOR: H.R.C. Inc.
	ADDRESS: P.O. Box 5102 Hobbs, NM 88241
	CONTACT PARTY: Gary M. Schubert PHONE: (505)393-319
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:
	<ol> <li>Proposed average and maximum daily rate and volume of fluids to be injected;</li> <li>Whether the system is open or closed;</li> <li>Proposed average and maximum injection pressure;</li> <li>Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,</li> <li>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.).</li> </ol>
*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: Eddie W. Seay TITLE: Agent
-	SIGNATURE: <u>2/18/2002</u> DATE: <u>2/18/2002</u>
*	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



· west county road oil and gas wells

Brine well, proposed

Fresh water wells

- VI. A list of wells within the area of review is attached. All of the producing wells in the area penetrate the salt section and are cased through the same. Some of the wells do not have cement circulated through the salt section. This is why HRC moved its original location to the new location we will be drilling. HRC will run pressure tests on the salt formation to determine if it will hold pressure and caliper logs to determine size of cavity, after we begin operations. Our new location is a minimum of 300 ft. from the nearest well. If after testing formation and running logs a problem is found, tests on the surrounding wells will be done and work performed as needed or as OCD requires.
- VII. Fresh water will be used to produce brine. The fresh water will be injected down the casing and brine will be produced out the tubing.

The average injection pressure will be 200# and the maximum operating pressure 250#. Based on the activity at the facility, the average daily production will be 500 bls. and the maximum daily will be 1000 bls. The operation will be a closed system. Fresh water analysis enclosed.

#### VIII. HYDROLOGY

Underground aquifers in this area are the Ogallala and Quaternary Alluvium formations. The groundwater in these formations is unconfined where the underlying red beds are relatively impermeable. This underlying layer prevents further downward or upward movement. From information reviewed, the groundwater flow from the Ogallala formation flows to the south southeast, the water level for this area ranges from 50' to 70' below ground level and the average depth of the wells are 150'. Find within State Engineers list of water wells in the general area and analytical from two of the wells.

#### **GEOLOGY**

The proposed site is located on the Central Basin Platform of the Permian Basin. The sub-surface formations are in transitional area between Delaware Basins back reef or shelf area and the platform. The brine product is from the Salado Formation of the Ochoa series. The series is of upper Permian Age, and extends across the Delaware Basin, Central Basin Platforms, thins and pinches out on the eastern shelf. This series layers are predominately evaporates which contain strings of dolomite, shale, siltstone, and sandstone. The thickness of this salt section averages about 1000 ft. The Triassic rock overlaying the Permian formation is the Dockum group, and is divisible into the Santa Rosa sandstone and the Chinle formation. The Tertiary rocks are represented by the Ogallala formation. This formation ranges in thickness from 0' to 300'. It is chiefly calcareous, unconsolidated sand, clay, silt and gravel. This is the formation most of Lea Co. obtains its drinking water from.

- IX. No stimulation needed.
- X. Logs as the OCD requires.
- XI. Attached.

XII. I, Eddie W. Seay, as agent, have examined all available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the salt section and any underground source of drinking water near this site.

XIII. Proofs of Notice attached.

COUNTY OF LEA STATE OF NEW MEXICO		RESIDENTIAL	NON-RESIDENTIAL	TOTAL VA	LUATION
NOTICE OF VALUATION FOR 20 01	VALUE RECAP	TAXABLE VALUE	TAXABLE VALUE	FULL VALUE	TAXABLE VALUE
NET TAXABLE VALUES WILL BE ALLOCATED TO THE GOVERNMENTAL UNITS IN SCHOOL DISTRICT 160	LAND PERSONAL				
OWNER # 0040900 GRIMES LAND CO LTD	MOBILE HOME LIVESTOCK IMPROVEMENTS				
PO BOX 5102 HOBBS, NM 88241	TOTAL VALUE VETERAN EXEMPTION FAMILY EXEMPTION OTHER EXEMPTION NET TAXABLE VALUE				
PROPERTY DESCRIPTION AND/OR CODE	CODE VALUE DESCRIP	TION TYPE	QUANTITY	RATE	TAXABLE VALUE
PROP CD# 4-000-409-000-001 BOOK 513	150 MISCELLANOUS	S LAND N/R	171.27	1 1	9348

(2.07 AC MORE OR LESS)
*LESS TR BEG N89D57'55"W 580.94'
& SOD02'05"W 1532.39' FROM

COUNTY OF LEA	STATE OF NEW MEXICO	VALUE RECAP	RESIDENTIAL	NON-RESIDENTIAL	TOTAL VAI	LUATION
NOTICE OF VALUATI	ION FOR 20	VALUE RECAP	TAXABLE VALUE	TAXABLE VALUE	FULL VALUE	TAXABLE VALUE
NET TAXABLE VALUES WILL BE ALL TO THE GOVERNMENTAL UNITS IN	OCATED	- LAND PERSONAL - MOBILE HOME LIVESTOCK IMPROVEMENTS TOTAL VALUE				
		VETERAN EXEMPTION FAMILY EXEMPTION				
		AND AND AND AND AND AND AND AND AND AND				

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					PAGE I
COUNTY OF LEA STATE OF NEW MEXICO	VALUE RECAP	RESIDENTIAL TAXABLE VALUE	NON-RESIDENTIAL TAXABLE VALUE	TOTAL VA	LUATION TAXABLE VALUE
NOTICE OF VALUATION FOR 20 01 NET TAXABLE VALUES WILL BE ALLOCATED	LAND		4180	12540	4180
TO THE GOVERNMENTAL UNITS IN SCHOOL DISTRICT	PERSONAL . MOBILE HOME				
OWNER # 0001950 SCHUBERT, ELOISE H GRIMES LAND CO %	LIVESTOCK IMPROVEMENTS TOTAL VALUE	2864 2864	4180	8592 21132	2864 7044
PO BOX 5102 HOBBS, NM 88241	VETERAN EXEMPTION FAMILY EXEMPTION OTHER EXEMPTION				
	NET TAXABLE VALUE	2864	4180		7044
PROPERTY DESCRIPTION AND/OR CODE	CODE VALUE DESCRIP	TION TYPE	QUANTITY	RATE	TAXABLE VALUE
PROP CD# 4-000-019-500-001	150 MISCELLANOUS				4180 2864
BOOK 805 PAGE 00593 SECTION-29, TOWNSHIP-185, RANGE-38E 4.18 AC LOC NW4 TR BEG N89D57'55"W 580.94' & SOD2'5"W 1532.39' FROM N4 COR SEC 29, TH SODO'17"E 685.73',	-				
N88D49'18"W 660', TO PT ON R'W, CURVE CA-11D27'4" R-960' FOR 191.86', S88D49'18"E 420.97', N85D59'24"W 125.87', N53D16'E 345.59' TO BEG *6/97-GRIMES LAND CO PRT 40900*					
·					
	ΤΟΤΑΙ	ACRES	4.18		

TOTAL ACRES

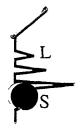
4.18



Laboratory Services, Inc. 4016 Fiesta Drive Hobbs, New Mexico 88240 Telephone: (505) 397-3713

## Water Analysis

COMPANY	Altura Energy Ltd	i,	
SAMPLED BY	Fresh Water Well	For Wells 33111	. & 28131 ¥ 29 2 3 i
DATE TAKEN REMARKS	5/9/00 T18S-R38E-Sec 29,		
Barium as Ba Carbonate alkalin	ity PPM	0 40	
Bicarbonate alkal pH at Lab Specific Gravity @	inity PPM	216 7.63	
Magnesium as M Total Hardness a horides as Cl	g	174 300 155	
Sulfate as SO4 Iron as Fe Potassium		115 0.1	
Hydrogen Sulfide Rw Total Dissolved S		0.09 0 9.4	@ 25° C
Calcium as Ca Nitrate	oulus	850 126 7.5	
Results reported as P	arts per Million unless state	d	
Langelier Saturat	ion Index	0.05	
		Analysis by: Date:	Vickie Walker 6/6/00



## Laboratory Services, Inc. 4016 Fiesta Drive

Hobbs, New Mexico 88240 Telephone: (505) 397-3713

## Water Analysis

COMPANY	Altura Energy Ltd,			
SAMPLE SAMPLED BY	Fresh Water Well f	or Wells 29321,	29231, 32312	
DATE TAKEN REMARKS	8/8/00 T18S-R38E-Sec29; Q	tr Sec 4,1,2		
Barium as Ba		0		
Carbonate alkalini	ty PPM	68	<del></del>	
Bicarbonate alkali		260		
pH at Lab		7.21		
Specific Gravity @	60°F	1		
Magnesium as Mg	]	32		
Total Hardness as	CaCO3	56		
Chorides as Cl		325		
ate as SO4		130		,
Iron as Fe		0		
Potassium		0.1		
Hydrogen Sulfide		0		
Rw		12	@ 23° C	
Total Dissolved S	olids	841		
Calcium as Ca		24		
Nitrate		2.2		<del></del>
Results reported as Pa	arts per Million unless stated			
Langelier Saturation	on Index	-54		
		Analysis by: Date:	Vickie Walker 8/11/00	

## New Mexico Office of the State Engineer Well Reports and Downloads

		wen kep	nts and Downings					
	Township: 18S	Range: 38E	Sections: 29					
	NAD27 X:	Y:	Zone:	Search Radius:				
County:		Basin:	Number:	Suffix:		<del></del>		
Owner Na	me: (First)	(Last)		C Non-Domestic	C Domestic	€ Ali		
<b>₹</b> ₩	ell Data Report		aWater Report.	BON SERVICE CONTRACTOR SERVICES	mn Report			
		Eclean com	WATERS Menu	Manage 191			<u> </u>	

#### WELL DATA REPORT 07/25/2001

				(quarters are	1=NW	2-NE 3-8	W 4=5E)										
	(ac	re ft per ani	num)	(quarters are	bigge	st to s	allest	X Y are	in Peet		UTM are	n Meters)		Start	Finish	Depth	Depth
DB File N	br Use	Diversion	Owner	Well Number	Twa	Rng Sec	PPP	Zone	x	Y	UTH_Zone		Northing	Date	Date	Well	
L 04547	DOM	3	B. A. MALECHECK	L 04547	185	38E 29	131				13	670787		11/04/1960		110	70
				L 04547 APPRO	185	38E 29	1 3 1				13	670787	3621633	11/04/1960	11/04/1960	110	70
L 05577	DOM		DAVE E. WOOD	L 05577 EXP	185	38E 29	22				13	672090	3621958				
L 06203	DOM		DOW COTTRELL	L 06203 EXP	185						13	671895	3621749				
L 06453	(E) PRO		CONTINENTAL OIL COMPANY	L 06453 (E) EXP	188						13	671205	3620834				
L 06453	(E) 2 PRO		CONTINENTAL OIL COMPANY	L 06453 (E) 2 EXP	1 e s	38E 29					13	671205	3620834				
L 06570	(B) PRO	0	MORAN OIL PROD & DRILLING COR			38E 29					13	670802	3620628	08/05/1969	08/05/1 <b>9</b> 69	110	54
L 06603	DOM		RICHARD JOHNSON	L 06603 EXP	185						13	671786	3622050				
L 06717	DOM	3	E. C. FOWLER	L 06717	185	38E 29					13	672098		10/06/1970		130	55
L 07005	san	3	TWO-STATE TANK RENTAL CO.	L 07005	185	38E 29					13	670802	3620828	10/14/1972		150	50
L 07017	DOM	3	APEX FREIGHT LINES	L 07017	185	38E 29					13	670903		12/09/1972		150	60
L 07163	DOM	3	JOE LISENBEE	L 07163	185	38E 29					13	671284	3621944	02/01/1974		110	67
L 07427	DOM	3	DON COTTRELL	L 07427	185	38E 29					13	672098	3621555	09/16/1975		130	60
L 07432	DOM DOM	3	NORMAN L. WILLIAMS	L 07432	185	38E 29					13	672098	3621555	09/24/1975		125	55
L 07434	DOM	3	N.E. WILLIAMS	L 07434	188	38E 29					13	672197	3621454	09/28/1975	09/30/1975	125	55
L 07528	OBS		PHILLIPS PETROLEUM COMPANY	L 07528 EXP 2	185						13	671801	3621044				
				L 07028 EXP	185	38E 29	4 1 4				13	671801	3621044				
L 07530	OBS		PHILLIPS PETROLEUM COMPANY	L 07530 EXP	185	38E 29	124				13	671383	3621843				
				L 07530 EXP 2	189	38E 29	1 2 4				13	671383	3621843				
L 07531	OBS		PHILLIPS PETROLEUM COMPANY	L 07531 EXP	185	30E 29	1 3 1				13	670787	3621633				
				L 07531 EXP 2	185	38E 29	1 3 1				13	670787	3621633				
L 07570	DOM	3	SOUTHWESTERN DRILLING MUD	L 07570	185	30E 29	333				13	670802	3620628	06/21/1976	06/22/1976	122	48
L 07673	DOM	3	LARRY FELKINS	L 07673	185	36E 29	2 2 2				13	672189	3622057	02/05/1978	02/10/1978	125	50
L 07754	OBS	3	CROWN CHEMICAL COMPANY	L 07754	188	38E 29	2 4				13	672098	3621555	09/08/1 <b>97</b> 7	09/14/1977	207	50
L 07825	DOM	3	DONNY CAMPBELL	L 07825	185	38E 29	221				13	671989	3622057	01/18/1978	01/18/1978	105	45
L 07826	DOM	3	JERRY BERRY	L 07826	185	38E 29	223				13	671989	3621857	01/16/1978	01/16/1978	110	45
L 08131	DOM	3	A. T. JOHNSON	L 00131	185	38E 29	3 1				13	670895	3621131	08/16/1979	00/23/1979	110	60
L 08135	DOM	3	J. D. WHESENHUNT	L 08135	185	38E 29	.2 4				13	672096	3621555	08/15/1979	08/18/1979	130	62
L 08191	SAN	3	TOMMY MCDANIEL	L 08191	188	38E 29	2 2 2				13	672189	3622057	01/05/1980		120	120
L 08228	SAN	3	DOW COTTRELL	L 08228	185	36E 29	2 1 4				13	671786	3621850	03/10/1980		115	68
L 08229	DOM	3	MAX WHITE	L 08229	185	38E 29	2 4 1				13	671997	3621654	03/08/1980	03/09/1980	115	68
L 08370	SAN	3	NORMAN L. WILLIAMS	L 08370	185	30E 29	2 2 4				13	672189	3621857	10/20/1980	10/26/1980	120	60
L 08429	DOM	3	DOW COTTRELL	L 08429	188	38E 29	4 1 2				13	671801	3621244	08/10/1981	00/11/1981	120	62
L 08446	DOM	3	JERRY L. BROTHERS	L 08446	188	38E 29	2				13	671895	3621749	05/03/1981	05/07/1981	120	42

L 08448 SAN	3	JACK STRINGER	<u>L</u>	08448	185	38E 29	2 4 1	13	671997	3621654	11/18/1981	11/20/1981	130	36
L 08737 DOM	3	DANIEL SAGE	L	08737	188	38E 29	2 4	13	672098	3621555	04/07/1982	04/07/1982	132	60
L 08860 SAN	3	TOMMY MCDANIEL	L	08860	188	38E 29	2	13	671895	3621749	12/12/1983	12/12/1983	130	39
			L,	08860 EXP	185	38E 29	2	13	671895	3621749				
L 08867 SAN	3	BIG HORN TANK RENTAL	L	08867	185	38E 29	2 2	13	672090	3621958	67/09/1982	67/16/1982	120	52
L 09586 DOM	3	KELDON COTTRELL	L	09586	188	38E 29	2 4 .	13	672098	3621555	11/26/1984	11/28/1984	120	76
L 09682 SAN	3	JERRY BROTHERS	L	09682	188	38E 29	2 2 3	13	671989	3621857	09/29/1985	09/30/1985	120	45
L 09705 SAN	3	TJ & C		09705	185	38E 29	3 3 4	13	671002	3620620	07/19/1985	07/19/1985	135	65
L 09777 SAN	3	PAUL MUSSLEWHITE TRUCKING CO.	L	09777	185	38E 29	1	13	671089	3621735	01/10/1986	01/13/1986	150	84
L 10860 DOM	3	KELLY WILLIAMS	L	10860	185	38E 29	1 1 1	13	670780	3622036	07/20/1998	07/21/1998	160	39
L 10913 DOM	G	RAYMOND STONE	L	10913	185	38E 29	1 3 3	13	676787	3621433			160	
L 11171 SAN	3	CONOCO	L	11171	185	38E 29	3 4 1	13	671205	3620834	04/19/2001	04/19/2001	206	
I. 11175 pu?	6	TEVERND DETROITUM_HODGE ITC	7.	11176	185	36E 24	4 1 4	13	671801	3621044			210	

Record Count: 47

Well Name	API	No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole		No. of	
Operator		Ī				Ltr	Date	Type	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
Bowers A Fed. #28	30-025-	23022	29	-18S	-38E	М	4//69	P	5345	5856	5928	NONE	11.75	15	374	300	CIRC**
Exxon									CIBP				8.625	11	3850	500	1879**
													5.5	7.875	5989	450	3838**
Bowers A Fed. #29	30-025-	23131	29	-18S	-38E	L	5//69	Р	6000	5808	5889	NONE	11.75	15	370	300	CIRC**
Exxon													8.625	11	3849	500	1877**
												·	4.5	7.875	6000	450	5087**
WD Grimes #6	30-025-	23400	29	-18S	-38E	-	2//70	Р	7018	6631	6984	NONE	13.375	17.5	377	400	CIRC**
Lewis B. Burleson		<u> </u>							PBTD				9.625	12.25	3847	2300	CIRC**
													7	8.75	7049	540	3458**
Bowers A Fed. #CT22	30-025-	21961	29	-18S	-38E	NA	NA	NA	NA NA	NA	NA	NA	NA NA	NA NA	NA NA	NA	NA .
Humble																	
													·			·	·
Bowers A Fed. #CT23	30-025-	21962	29	-18S	-38E	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Humble								2							:		
																100	0170
Hobbs State #1	30-025-	23585	29	-18S	-38E	F	10//70	P	7032	6680	6992	NONE	12.75	17.5	356	400	CIRC
Marcum Drilling								ļ	PBTD				8.625	11	3795	300	2600
		_					-						5.5	7.875	7050	150	3839-CBL
					,											<u>-</u>	
Hobbs State #2	30-025-	23620	29	-18S	-38E	G	1//71	P	6397	6705	7031	6318-6350	9.625	12.75	358	200	CIRC
Marcum Drilling									PBTD				7	8.75	3850	250	2481**
													4.5	6.125	7075	425	1672**
											-						
Hobbs SWD F #WD29	30-025-	12802	29	-18S	-38E	F	2//60		5050	4469	5050	NA	9.625	12.25	400	300	CIRC**
Rice	30 020	1.2002	<del>  ~~</del>				2,00	<del>'</del>		1,100	ОН	- '''	7	8.75	4700	700	CIRC**
																	, , , ,
<u></u>		<u> </u>	<u> </u>					L						<u> </u>	<u>.                                    </u>		

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	No.	Sec.	T	R	Un	Drill	Well	TD or	Тор	Bot.	Sqz.	Csg.	Hole		No. of	
Operator						Ltr	Date	Туре	PBTD	Perf	Perf	Perfs	Size	Size	Depth.	Sxs.	TOC
Hobbs State #3	30-025-	23621	29	-18S	-38E	В	12//70	SWD	6060	5144	6029	NONE	9.625	12.25	350	200	CIRC
HRC, Inc.					[			[					7	8.75	3850	200	2300
													4.5	6.25	6083	200	3112
St I #6	30-025-	22252	20	-18S	-38E	Р	8//69	P	6986	6652	6929	NA NA	9.625	12.25	3800	600	1905**
Std of Tx	30-023-	23232	23	-103	-30E		8//09		0900	0032	0323	11/4	7	8.75	3549	700	CIRC**
	<del> </del>	<del> </del>		<del></del>				<del> </del>	<b> </b> -	<del></del>			5.5	7.875	7013	NA NA	NA
		<del> </del>											3.5	7.075	7013	IVA	INA
St A #4	30-025-	07439	29	-18S	-38E	7	2//47	PA	3215	3167	3194	NA	10.75	15	200	250	CIRC**
Conoco													5.5	7.875	3200	600	CIRC**
		<u> </u>	<u> </u>		Ĺ							·					
State A #5	30-025-	07440	29	-185	-38E	K	3//47	PA	3200	3168	3188	NONE	10.75	15	280	200	CIRC**
Conoco	00-020-	107440	23	-100	-0.02	-	311,41	1.7	0200	3100	3,00	INOINE	7.625	9.875	1573	425	CIRC**
00,1000	<del> </del>		<del> </del>		<b></b> -						<del>                                     </del>		5.5	7.875	3197	450	CIRC**
	<del> </del>	<del> </del>	<b></b>	<b></b> -									<del> </del>	1.010	0.0.	100	01110
State A #6	30-025-	07441	29	-18S	-38E	N	7//47	PA	3172	3158	3166	NONE	12.75	15	260	200	CIRC
Conoco													8.625	10.75	1562	475	CIRC**
													7	8.25	2721	350	CIRC**
													5	6.25	3172	500	CIRC**
Bowers A #12	30-025-	07450	29	-185	-38E	-	4//47	PA	3088	NΙΔ	N A	NA	8.625	11	236	. 100	CIRC**
Exxon	30-023-	01430	25	1-100	1-00L	<u> </u>	7//7/		PBTD	-	<del>                                     </del>	13/7	5.5	7.625	3144	675	880-TS
EXXON	<del> </del>	<del> </del>	<del> </del>	<del>                                     </del>	<u> </u>				1 5,15		1		0.0	7.020	3144	0/3	000-13
Bowers A #14	30-025-	07451	29	-18S	-38E	0	8//47	PA	3207	3162	3207	NONE	8.625	11	496	400	CIRC**
Exxon													5.5	7.625	3120	1350	CIRC**
	<u> </u>																
Bowers A-B #1	30-025-	07453	29	-185	-38E	Ь	9//48	PA	3238	3179	3238	NA	8.625	11	260	150	CIRC**
Exxon	1									ОН			5.5	7.625	3179	1050	CIRC**
Bowers A Fed, #9	30-025-	07446	29	-18S	-38E	Ε	8//30	PA	4259	NA	NA	NA	9.625	12	2750	650	CIRC**
Exxon	<b>_</b>												7	8.75	3976	300	2011**
	<del> </del>			ļ		]						<del></del> _	5	6.25	4259	NA	NA
	<u> </u>			نسنت		أنب						···					

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	No.	Sec.	T	R	Un	Drill	Well	TD or	Тор	Bot.	Sqz.	Csg.	Hole	· · · · · · · · · · · · · · · · · · ·	No. of	
Operator						Ltr	Date	Туре	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
Bowers A Fed. #31	30-025-	23176	29	-18S	-38E	E	6//69	PA	7050	6075	6991	NONE	8.625	11	3836	500	1858**
Exxon		<u> </u>											5.5	7.875	7038	650	3125**
<del></del>													2	7.875	7005	NA	NA
					-												
Bowers A Fed. #33	30-025-	23222	29	-18S	-38E	D	7//69	PA	3970	4144	5953	4256-66	13.375	17	416	400	CIRC**
Exxon									CIBP			593 <b>9</b>	9.625	12.25	3836	350	2555-TS
						-	-						7	8.75	5988	550	2900-TS
Bowers A Fed. #CT24	30-025-	21963	29	-18S	-38E	E	1//67	PA	35	NA	NA	NA	NA	NA	NA	NA	NA
Humble																	
Bowers A Fed. #CT25	30-025-	21064	30	-185	-38E	E	1//67	PA	35	NA	NA	NA NA	NA	NA	NA	NA NA	NA NA
	30-025-	21904	29	1-185	-36⊑	<u> </u>	1//07	PA	35	IVA	INA	I NA	IVA	JVA	IVA	INA	INA
Exxon		<del> </del>	<del>  -:</del>	<del> </del>								Land Million		-	<del></del>	<del>                                     </del>	
WD Grimes #2	30-025-	07455	20	-18S	-38E	Α	2//48	PA	4045	NA	NA	NA	8.625	11	242	150	CIRC**
Humble	30-025-	07455	29	-103	-30E		21140	FA	4045	INA	INA	IVA	5.5	7.375	3205	450	CIRC**
ridilible	<del> </del>			<del> </del> -									5.5	1.313	3205	430	CIRC
Hobbs State #5	30-025-	23662	29	-18S	-38E	F	1//71	PA	5959	5813	5879	NA	9.625	12.25	364	200	CIRC
Ne-O-Tex													7	8.75	3826	200	2250
													4.5	6.25	5986	120	3800 (C)
)							2//22		4464	0450	4404	<u> </u>	40.075	47.5	047	200	OIDC
St #1	30-025-	0/442	29	-18S	-38E	Р	8//30	PA	4191	3150	4191	NA NA	13.375	17.5 12.25	217 2735	200 500	CIRC**
Std of Tx		ļ		<u> </u>			<u> </u>				ОН		9 6.625	7.875	3907	174	2374**
		<b></b>	<u> </u>	ļ	<b>-</b>			<u> </u>			<del> </del>		0.025	7.075	3907	1/4	2374
0.40	20.005	07440		400	205	┝╤╌	0//20		4171	3155	4156	NA NA	13	17.5	225	150	CIRC**
St #2	30-025-	07443	29	-18S	-38E	0	9//30	PA	4171	3133	4136	INA	9.625	12.25	2810	725	CIRC**
Std of Tx											<b></b> -	<u> </u>	7	8.75	3951	300	1973**
		ļ.—	<del> </del>	<b></b> -	<del> </del>		<u> </u>				<del> </del>			0.73	. 3931	300	1973
WD Grimes #1	30-025-	07456	20	-18S	-38E	<del> </del>	8//30	PA	4160	3168	3189	3259-61	12.5	17.5	236	200	CIRC**
	30-025-	01430	29	-103	-302		0//30		7100	0.00	3,03	3049-50	9.625	12.25	2712	600	273**
Tidewater		<del> </del>	<del>                                     </del>				<u> </u>				<del> </del>	30-10-00	6.625	8.75	3826	300	2404**
		<del> </del>	<del> </del>		<del> </del>		<del> </del>				<b> </b>	<del>                                     </del>	0.520			1	2,04
Grimes #2	30-025-	07457	29	-18S	-38E	Н	10//30	PA	4176	3148	3255	3086-3088	15.5	18	230	200	CIŔC**
Tidewater	00-020-	31-131	1-3	1.55	<del>  30</del> 2	├ <del>`</del>	15,,00	<u> </u>				3270-3272	9.625	12.25	2718	600	282**
I lucifatel			<del> </del>		<b>-</b>	<del>                                     </del>				<del></del>			7	8.75	3880	300	1867**
			<del> </del>				<del> </del>						5.5	7.875	3350	100	3088**
<del> </del>	+	<del> </del>			1	<del>                                     </del>					<b> </b>						
Grimes #5	30-025-	07460	29	-185	-38E	Н	12//30	PA	4196	NA	NA	NA	12.5	16	214	250	CIRC

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API No	5.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole		No. of	
Operator						Ltr	Date	Type	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
Tidewater													9.625	12.25	2715	600	277**
													7	8.75	3911	400	595**

^{**} Denotes calculated TOC with 50% efficiency

Well Name	APII	Vo.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole		No. of	
Operator						Ltr	Date	Type	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
				,													
29131	30-025-	07447	29	-18S	-38E	L	10//30	Р	4168	4050	4210	NONE	12.5	18	225	250	CIRC
Оху									PBTD				9.625	12	2750	650	660**
													7	8.75	3976	300	1504-CBL
													5	6.125	3870-4220	50	3930-CBL
29132	30-025-	26917	20	-18S	-38E	1	12//80	<u>i</u>	4470	4025	4245	NONE	16	20	40	40	CIRC
Oxy	00 020	20017	20	100	-30L		12/00	'	PBTD	7023	7270	HONE	8.625	12.25	1595	785	CIRC
<u> </u>	<del>                                     </del>				<del> </del>				1010				5.5	7.875	4510	900	CIRC**
	-				<del> </del>								5.5	7.075	4510	900	CINC
29141	30-025-	07448	29	-18S	-38E	М	8//30	ı	4238	3690	4228	3960-4108	12.5	18	203	200	CIRC
Оху									PBTD			4033-4053	9.625	12	2736	650	1000**
					-								7	8.75	3960	300	1850**
							·						5.5	7.875	3941	250	3460-CBL
													4.5	6.25	3417-4238	50	3774-CBL
29211	30-025-	07433	29	-18S	-38E	С	11//30	TA	4003	4217	4270	4053-4150	12.5	18	243	250	CIRC
Оху									CIBP			4180-4200	9.625	12	2796	400	CIRC
				L		Ĺ						4211-4215	7	8.75	4007	500	3014**
													5.5	6.25	3957-4238	50	3957
29221	30-025-	07430	29	-18S	-38E	F	9//30	Р	4210	4118	4176	4154-4162	12.5	18	210	200	CIRC
Оху					ļ	<u> </u>			PBTD			4175-4185	9.625	12	2704	400	1236
												4195-4200	7	8.75	3979	500	2753
-					<b></b>							4213-4267	4.5	6.125	3910-4213	50	3910
29222	30-025-	26934	29	-18S	-38E	F	4//81		4465	4175	4265	NONE	16	20	40	40	CIRC
Оху									<u> </u>				8.625	12.25	1605	950	CIRC
													5.5	7.875	4510	1050	CIRC
29231	30-025-	07438	20	-18S	-38E	K	10//30	Р	4255	4106	4255	NONE	15.5	18	252	1000	CIRC**
	30-025-	07400	29	-100	-30L	- 1	10//30	I -	7233	7100	7233	HONL	9.625	12.25	2729	600	CIRC
Оху	+	<b></b>	<u> </u>		<del> </del>	<del> </del>	<u> </u>			<del> </del>			7	8.75	3953	300	2718
	<del></del>					-			<del></del>			<del> </del>	<u>/</u>	6.25	3906-4220	50	3906
			<del> </del>	<del> </del>	<del>                                     </del>			L·-		L	<u></u> <u>.</u>			9.25	0300-4220		3300
29241	30-025-	07437	29	-18S	-38E	N	10//30	1	4255	4076	4239	NONE	12.5	18	217	160	CIRC
Оху										L			9.625	12	2730	500	895
				<u> </u>					L			<u> </u>	7	8.75	3929	350	1850

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	Vo.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole		No. of	]
Operator				<u> </u>		Ltr	Date	Туре	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
					·			7,					5.5	7.875	3822-4299	60	3822
29242	30-025-	28413	29	-18S	-38E	N	3//84	P	4370	4005	4257	4019	16	20	30	NA	CIRC
Оху	100 020				- 552		<b>U.7.0</b> 1	<del>-</del>	1070			4037	8.625	12.25	1511	750	CIRC
												4040	5.5	7.875	4368	750	2330
29311	30-025-	07432	29	-18S	-38E	В	10//30	Р	4269	4044	4269	4090-4110	12.5	16	241	250	113
Оху	1											4171	9.625	11.75	2776	400	2750
								<del></del>					7	8.75	4008	500	2949
													5.5	6.25	3921-4234	350	3786
29321	30-025-	07431	29	-18S	-38E	G	9//30	P	4301	4137	4271	3895	12.5	16	211	250	CIRC
Оху	+ 00 020	0, 10.		100	002	<u> </u>	0,,00	<u> </u>	PBTD			4100	9.625	11.75	2756	250	921
<u> </u>	<del> </del>				<del> </del>				1 5.5				7	8.75	3995	300	2930-CBL
													5	6.25	3812-4308	100	3894-CBL
29322	30-025-	28883	29	-18S	-38E	G	11//84		4342	4160	4256	NONE	13.375	17.5	40	NA	CIRC
Оху				-:	1		******	<del></del>	PBTD				8.625	12.25	1520	620	CIRC
							i.						5.5	7.875	4384	850	CIRC
29323	30-025-	28941	29	-18S	-38E	G	1//85	P	4180	3089	4272	NONE	13.375	17.5	40	NA	CIRC
Оху			<b></b>						PBTD				8.625	12.25	1542	375	CIRC
													5.5	7.875	4370	450	575-CBL
29331	30-025-	07436	29	-18S	-38E	J	9//30	ı	4261	4100	4258	4044-4065	9.625	11.75	2742	500	907
Оху					T			1	1				7	8.75	3929	300	2115
													4.5	6.25	4270	750	3788 CBL
29341	30-025-	07445	29	-18S	-38E	0	10//30	P	4090	4050	4146	4010-4035	13.375	15	210	150	CIRC**
Оху	100.000					<del>                                     </del>			PBTD				9.625	12	2750	700	CIRC**
				<u> </u>		<del>                                     </del>		<u> </u>					7	8.75	3934	300	3430-CBL
													5	6.25	4162	350	CIRC
29342	30-025-	28884	29	-18S	-38E	0	11//84	1	4375	4083	4250	NONE	13.375	17.5	40	NA	ŇA
Оху					1								8.625	12.25	1520	620	CIRC
					ļ								5.5	7.875	4375	875	CIRC
29411	30-025-	07454	29	-18S	-38E	A	10//30		4335	4200	4335	4102-4137	12.5	16	245	250	CIRC

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	No.	Sec.	T	R	Un	Drill	Well	TD or	Тор	Bot.	Sqz.	Csg.	Hole		No. of	!
Operator					1	Ltr	Date		PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
Oxy							i —					4057-4091	9.625	11.75	2750	650	365**
									<u> </u>			4154-4158	7	8.75	4045	300	2231**
													5.5	6.25	3941-4223	30	3941**
29431	30-025-	07458	29	-18S	-38E		10//30	Р	4227	4155	4225	4010	15.5	18	228	200	CIRC**
Оху	<u> </u>								PBTD			4075	9.625	12.25	2720	600	978**
													7	8.75	3900	400	2086**
													5.5	6.25	3209-4229	120	3209**
29441	30-025-	07444	29	-18S	-38E	Р	10//30	Р	4211	4058	4266	4020-4028	13.375	18	232	150	CIRC**
Oxy			}						PBTD				9.625	12	2743	1400	CIRC**
													7	8.75	3950	300	3240-CBL
									<u> </u>				5	6.5	4172	22	4020
																	T
29442	30-025-	28885	29	-18S	-38E	P	2//85	1	4237	4065	4210	4031	13.375	17.5	40	NA	CIRC
Оху									CIBP			4036	9.625	12.25	1536	575	CIRC
					1								7	7.875	4370	1100	CIRC
													İ	i			1
29544	30-025-	34644	29	-18S	-38E	Р	7//99	Р	4359	4124	4256	NONE	14	18	40	50	CIRC
Oxy		<u></u>							PBTD				8.625	12.25	1565	725	CIRC
	ļ												5.5	7.875	4400	775	CIRC
		- :			ļ	<u> </u>	<u> -</u>			100							
	1		]		<u> </u>	<u></u>			1 11	1604	11, 17					^	7000
29111	30-025-	23919	29	-18S	-38E	D	12//71	Р	4287	4183	4287	3905-4250	8.625	11	310	150	CIRC
Оху	<u> </u>		L						PBTD				5,5	7.875	3905	300	2427**
29121	30-025-	07449	29	-18S	-38E	E	3//47	Р	4275	3924	4275	4070-85	9.625	12.25	2739	650	890
Oxy					<u> </u>							4110-20	7	8.75	3104	100	2640 CBL
												4130-50	4.5 Lnr	6.25	2900-4201	100	2900
00404		07455		400	00-		44/156	5:									
29421	30-025-	0/459	29	-18S	-38E	Н	11//30	PA	308	3880	4232	NONE	12.5	16	220	200	CIRC**
Оху		<del> </del>	<b> </b>	ļ	ļ			<u> </u>	CICR				9.625	11.75	2720	600	518**
<u> </u>		<del> </del>	ļ	ļ	ļ			<del></del>					7	8.75	3880	300	2914-CBL
	-	<u> </u>	<u> </u>	<del> </del>	<b></b>					i	<i>:</i>		5.5	6.25	3796-4236	50	3866
00100		00055		100						-			4-p-sk/s +1 - 12 - 3-2 +				
29122	30-025-	28953	29	-18S	-38E	Ε	2//85		4215	4154	4211	NONE	13.375	17.5	40	NA	CIRC
Оху	·				<del> </del>				(CIBP)	<u> </u>			8.625	11	1510	785	CIRC
		l	<u></u>	<u> </u>	<u> </u>	١		L	L	<u>_</u>			5.5	7.875	4370	435	CIRC

^{**} Denotes calculated TOC with 50% efficiency

FOR WELLS 28332,292	31,29321,3	30223,32	2312,3	32431	Τ			<u> </u>	Γ					<u> </u>			Ţ
									Ī .								
Well Name	API	No.	Sec.	T	R	Un	Drill	Well	TD or	Тор	Bot.	Sqz.	Csg.	Hole		No. of	
Operator						Ltr	Date	Туре	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
State B #5	30-025-	07434	29	-18S	-38E	G	12//48	Р	3224	3136	3224	1680-1682	10.75	13.75	220	200	CIRC**
Collins & Ware	<u> </u>												7.625	9.875	1665	300	CIRC**
													5.5	6.75	3136	300	CIRC**
State B #6	30-025-	07435	29	-18S	-38E	F	1//47	Р	3219	3137	3219	NONE	7.625	9.875	414	200	390
Collins & Ware													5.5	6.75	3137	394	CIRC**
					-								<del></del>				<u> </u>
St I #5	30-025-	23173	29	-18S	-38E	0	7//69	Р	6970	6648	6930	NONE	8.625	12.25	3808	300	3418**
Texland Pet.	1												6.625	8.75	3575	530	CIRC**
													5.5	7.875	7022	NA	NA
State A #7	30-025-	22934	29	-18S	-38E	N	2//69	Р	6050	5823	5941	NONE	11.75	15	360	250	CIRC**
Conoco		<u> </u>											8.625	11	3800	240	2515-TS
										· <del></del>			5.5	7.875	6050	405	3300-TS
State A #8	30-025-	23048	29	-18S	-38E	К	4//69	TA	3567	3652	5787	5824-5924	11.75	15	360	250	CIRC**
Conoco									CIBP				8.625	11	3800	240	3064**
					ļ								5.5	7.875	5960	405	4309**
<u> </u>		1		<u> </u>	<u>J.</u>		L.,	<u> </u>	l			l			i	İ	<u> </u>

^{**} Denotes calculated TOC with 50% efficiency

WELL PLUGGED: 11/25/89

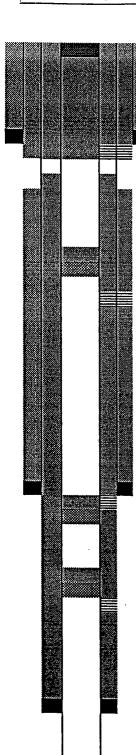
Depth: 217'
200 SX
TOC: SURF (C)
TOC: Circ. – Calc.
With 50% effic.

Size: 13 3/8"

Size: 9"
Depth: 2735'
Hole size: 12.25"
Cmt: 500 sxs
TOC: 1200'- Calc.
With 50% effic.

Size: 6 5/8"
Depth: 3907'
Hole size: 7.875"
Cmt: 357 sxs
TOC: Circ. – Calc.
With 50% effic.

TD: 4191'



Weld 1/2" plate on top.

Perf 6 5/8" and 9" at 267'. Pumped 170 sx cmt down Prod csg, circ cmt out Intermediate and surf csg Annuli. Cut off 6 5/8" csg 3' Below GL. Cap w/ ½" plate And valve wellbore.

Set cicr at 1404'.

Perf 6 5/8" and 9" at 1500'. Sqzd perfs w/200 sx cmt.

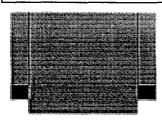
Perfd 6 5/8" csg at 2785'. Sqzd perfs w/55 sx cmt. Set cast iron cmt ret at 2681'. Cap cmt ret w/35' cmt.

Capped CICR w/35' cmt to 3000'.
Set cast iron cmt ret at 3060' Sqzd perfs w/106 sx to 3000' Perfs at 3138' to 3241'

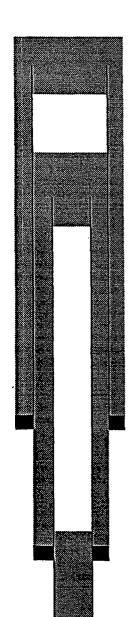
Unit H, 1650 FNL & 990 FEL Sec. 29, T-18S, R-38E

WELL PLUGGED: 3/17/81

Size: 12.5" Depth: 214' Hole Size: 17.5" Cmt: 325 sxs TOC: Circ.



Spotted 500 sxs at 400' to surface



9.625" top at 1198

Spotted 100 sxs at 1249'

7" top at 1750'

Spotted 100 sxs at 1800'

Size: 9.625" Depth: 2715' Hole Size: 12.25" Cmt: 600 sxs TOC:

Size: 7" Depth: 3911' Hole size: 8.75" Cmt: 400 sxs TOC:

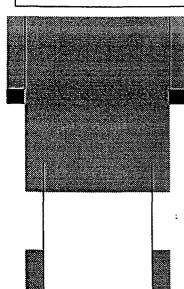
TD: 4200'

Spotted 100 sxs at 4107

W.D. Grimes #2 Tidewater Oil Co. Init H, 990 FEL & 2310 FNL Sec 29, T-18S, R-38E

WELL PLUGGED: 2/18/82

Size: 15.5" Depth: 230' Hole size: 17.5" Cmt: 200 sxs TOC: Circ. – Calc. 50% efficiency



Circ. 15335 sxs from 1361 to surface

Cut off 9.625" at 1200'

Size: 9.625" Depth: 2718' Hole size: 12.25" Cmt: 600 sxs

TOC:

Size: 5.5"
Depth: 3350
Hole size: 7"
Cmt: 100
TOC: 3088' - Calc
with 50% effc.

Size: 7"
Depth: 3880'
Hole size: 8.75"
Cmt: 300 sxs
TOC:

TD: 4176

25 sxs cmt. Plug

Cut off 7 and 5.5" at 2030'

15 sxs plug

Perfs 3086-88, sqz'd w/ 100 sxs

Perfs 3148-3255

Perfs 3270-72, sqz'd w/ 50 sxs

Cmt Ret. 3350'

# WELL SCHEMATIC: DEWATER WD GRIMES #1

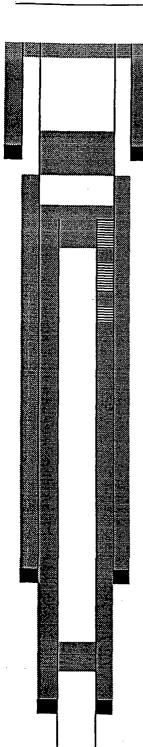
WELL PLUGGED: 7/25/68

Size: 12 ½"
Depth: 236'
Hole size: 17.5"
Cmt: 200 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 9 5/8"
Depth: 2712'
Hole size: 12.25"
Cmt: 600 sxs
TOC: 273'- Calc.
With 50% effic.

Size: 7"
Depth: 3826'
Hole size: 8.75"
Cmt: 300 sxs
TOC: 800' FP

TD:4160'



Laid 10 sx plug at surface.

Laid 25 sx cmt at bottom of 12 ½" csg.

Laid 25 sx over 7" stub. Shot at 787' and pulled. Shot at 899'.

Shot at 1044'. Shot at 1193'.

Shot at 1404'.

Spotted 25 sx cmt plug from 3599' to 3467'.

# WELL SCHEMATIC: **ALT**URA NHU 29-421

WELL PLUGGED: 12/3/97

12.5" 220' 200 SX TOC: CIRC

10 sx cmt from 62' to surf.

Stung out and left 60' cmt on Top of ret.

Perf at 500'. Set CICR at 308'

Squeeze 100 sx cmt below Ret. to surf in 7" csg. x 9.625" Csg.

Pumped 20 sx cmt from 1868 To 1748'.

9.625" 2720' 600 SX TOC: 518'

7" 3880' 300 SX TOC: 2914 CBL

5.5" 3796'-4236' 50 SX TOC: 3866' Pumped 20 sx cmt from 2862 To 2742'.

Pumped 20 sx cmt from 3873 To 3722'.

Set CIBP at 4100'. Cap w/40' Cmt.

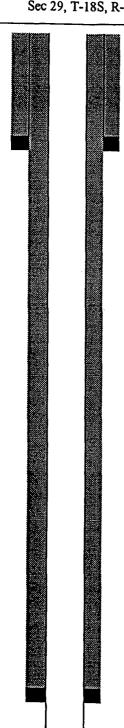
W. D. Grimes #2 Humble Oil & Refining Co. Unit A, NE/4 of NE/4 Sec 29, T-18S, R-38E

WELL PLUGGED: 3/23/48

Size: 8.625" Depth: 242' Hole size: 11" Cmt: 150 sxs TOC: Circ.- Calc. 50% efficiency

Size: 5.5"
Depth: 3140'
Hole size: 7.375"
Cmt.: 450 sxs
TOC: Circ.- Calc.
50% efficiency

TD: 4045'



#### WELL SCHEMATIC: D OF TX STATE #2

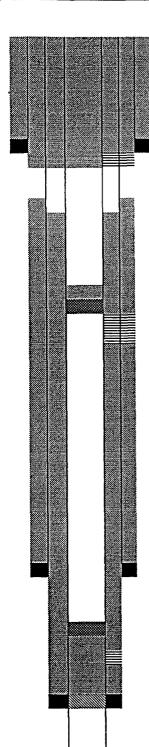
#### WELL PLUGGED: 12/5/89

Size: 13" Depth: 225' Hole size: 17.5" Cmt: 150 sxs TOC: Circ. - Calc. With 50% effic.

Size: 9 5/8" Depth: 2810' Hole size: 12.25" Cmt: 725 sxs TOC: Circ. - Calc. With 50% effic.

Size: 7" Depth: 3951' Hole size: 8.75" Cmt: 300 sxs TOC: 1240'- Calc. With 50% effic.

PBTD: 3072'



Sqzd perfs at 292' with 220 sx. Circ to surface

Set cicr at 1404' and capped With cmt. Perf'd at 1500'. Sqzd perfs at 1500' with 300

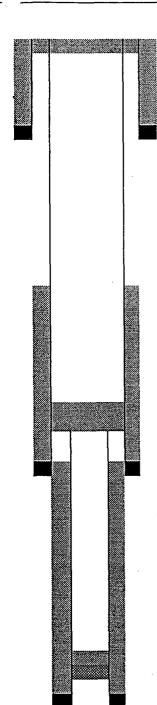
Set cicr at 2744'.

Perfs sqzd at 2852', sqzd With 55 sx. Dumped 35' cmt onto CIBP.

CIBP at 3072'

## WELL PLUGGED: 5/11/73

Size: 9 5/8"
Depth: 364'
Hole size: 12.25"
Cmt: 200 sxs
TOC: Circ. – Calc.
With 50% effic.



Spotted 10' cmt plug at surf.

Size: 7"
Depth: 3826'
Hole size: 8.75"
Cmt: 200 sxs
TOC: 2250'

Size: 41/2"
Depth: 5986'
Hole size: 6.25"
Cmt: 120 sxs
TOC: 3800'- Calc.
With 50% effic.

PBTD: 5959'

TD: 5986'

Shot and pulled csg at 3744'. Pumped 255 sx cmt plug From 3744' to 3644'.

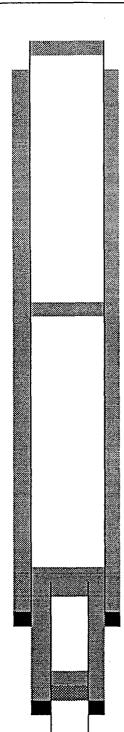
Set 4 ½" CIBP at 5757' and Capped with 35' cmt. Est. TOC is 5722'.

WELL PLUGGED: 8/26/75

Size: 9 5/8"
Depth: 2755'
Hole size: 12.25"
Cmt: 600 sxs
TOC: 337' – Calc.
With 50% effic.

Size: 7"
Depth: 3166'
Hole size: 8.25"
Cmt: 100 sxs
TOC: 2595'- Calc.
With 50% effic.

TD: 3199'



Laid 10 sx cmt plug in top.

Laid 37 sx cmt plug from 1575' to 1475'.

Ran 2 3/8" tbg to 3000'.
Circulated hole with 123 bbls.
Brine water w/23 sx salt gel.
Pulled tbg.
Shot csg at 2547'. Pulled and
Laid down 84 joints(2555') 7"
Csg. Ran tbg to 2616' and
Laid 28sx cmt plug from
2616' to 2516'.

Set Titan CIBP at 3095'. Dumped 7 sx cmt on top of CIBP.

# WELL SCHEMATIC: **EX**XON BOWERS A FED #33

WELL PLUGGED: 10/3/72

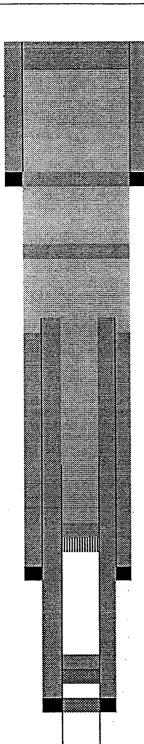
Size: 13 3/8"
Depth: 416'
Hole size: 17"
Cmt: 400 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 9 5/8" Depth: 3836' Hole size: 12.25" Cmt: 350 sxs TOC: 2555' T.S.

CIBP at 3970'

Size: 7" Depth: 5988' Hole size: 8.75" Cmt: 550 sxs TOC: 2900' – T.S.

TD: 6000'



Spot 20' cmt plug at surf

Spot 100' cmt plug at 416'

Run tbg to 1400' & spot 100' cmt plug

Cut & pull 9 5/8" csg from 1889'

Cut & pull 7" csg from 2560'

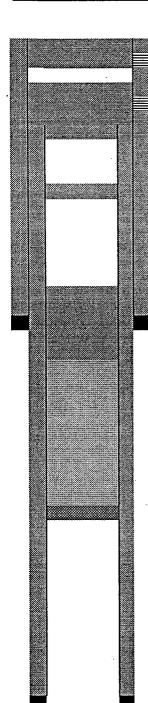
Spot 100' cmt on top of CIBP

Set CIBP at 5800' and Capped with cmt.

Set CIBP at 5900'.

## WELL PLUGGED: 8/30/90

Size: 8 5/8"
Depth: 3836'
Hole size: 11"
Cmt: 500 sxs
TOC: 1858' Calc.
With 50% effic.



Perfd @ 450'. Pump 211 sx Down 8 5/8" csg to surf. Spot 77 sx from 1490-1200' Perfd at 1485'. Cut off 5 ½" csg at 1500'.

Spotted 25 sx cmt plug at 2716'.

Spot 50 sx cmt from 4100' to 3600'.

Displaced hole with salt gel Mud.

Tagged CIBP w/35' cmt cap At 5710'.

Size: 5 ½"
Depth:7038'
Hole size: 7.875"
Cmt: 650 sxs
TOC: 3125' Calc.
With 50% effic.

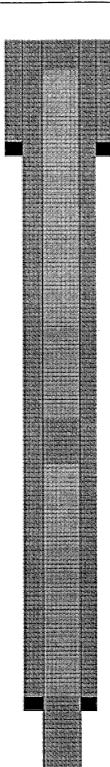
TD: 7050'

# WELL PLUGGED: 11/26/48

Size: 8 5/8"
Depth: 260'
Hole size: 11"
Cmt: 150 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 5 ½"
Depth: 3179'
Hole size: 7.625"
Cmt: 1050 sxs
TOC: Circ. – Calc.
With 50% effic.

TD: 3238'



Spotted 20 sx cmt plug from 160' to surface.

All intervals between plugs Was filled with mud laden Fluid.

Spotted 40 sx cmt plug from 1800' to 1480'.

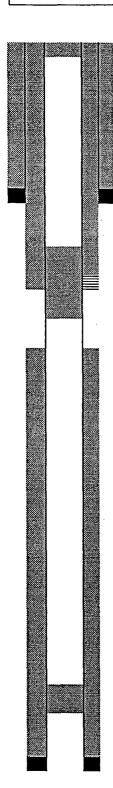
Spotted 15 sx cmt plug from 3238' to 3136'.

Spotted 10 sx cmt plug from 0' to 25 '. WELL PLUGGED: 12/3/70 12.5" Hole was loaded with mud 213' Laden fluids. 650 SX TOC: SURF (C) Spotted 20 sx cmt plug from 1400' to 1550'. 9 5/8" 2736' 650 SX TOC: SURF (C) Spotted 40 sx cmt plug from 2300' to 2400'. 3970' Perf's at 3220'-3227'. 300 SX Spotted 50 sx cmt plug from 3000' to 3250'. TOC: 2000(C) Squeezed perf's at 3726' To 3741'. TD: 4259'

#### WELL SCHEMATIC: EXXON BOWERS A #12

WELL PLUGGED 11/21/80

8 5/8" 222' 100 sxs. TOC:N.A.



8 5/8 and 5 51/2 csg cut off 7' below GL.. ½ " plate welded on top.
10' cmt plug at surface.

Cmt. Ret. set at 350'

Sqzd. Perfs at 390' with 100 sxs. cmt from 500' to 350'. Circ. to surface.

5 5/8" 3132' 575 sxs. TOC: 880' TS

PBTD: 3088'

10 sxs. Cmt plug 3088-2988

Exxon
Unit O, 660 FSL & 660 FWL
Sec. 29, T-18S, R-38E

# WELL PLUGGED: 12/21/70

Size: 8.625"
Depth: 496'
Hole size: 11"
Cmt: 400 sxs
TOC: CIRC- Calc.
with 50% effic.

Size: 5.5"
Depth: 3120'
Hole size: 7.625"
Cmt: 1350 sxs.
TOC: CIRC-Calc.
With 50% effic.

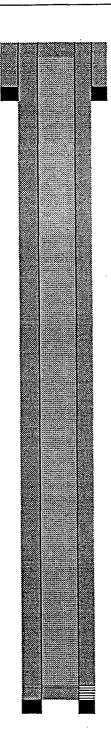
TD: 3207'

## WELL PLUGGED: 1/12/71

Size: 10 ¾"
Depth: 200'
Hole size: 15"
Cmt: 250 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 5 ½"
Depth: 3215'
Hole size: 7.875"
Cmt: 600 sxs
TOC: Circ. – Calc.
With 50% effic.

TD: 3215'



Spotted a 10 sx cmt plug at Surface.

Filled well bore with 10# mud.

Set a 40 sx cmt plug over Perfs from 3164' to 3197'.

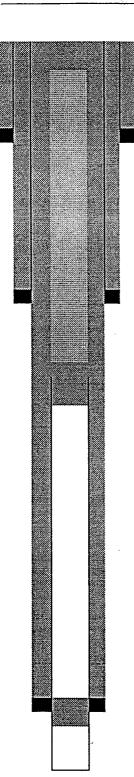
## WELL PLUGGED: 1/12/71

Size: 10 ¾"
Depth: 272'
Hole size: 15"
Cmt: 200 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 7 5/8"
Depth: 999'
Hole size: 9.875"
Cmt: 425 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 5 ½"
Depth: 3206'
Hole size: 7.875"
Cmt: 450 sxs
TOC: Circ. – Calc.
With 50% effic.

PBTD:3168'



Spotted a 10 sx cmt plug At surface.

Filled well bore with 10# mud

Cut 5 ½" csg at 1570' and Pulled out of hole. Set a 55 Sx cmt plug in and out of 5 ½" stub.

Spotted 40 sx cmt plug over Perfs from 3188' to 3168'.

WELL PLUGGED: 1/12/71

Size: 8 5/8"
Depth: 1562'
Hole size: 10.75"
Cmt: 475 sxs
TOC: Circ. – Calc.
With 50% effic.

Set a 10 sx cmt plug at surf.

Filled well bore with 10# mud.

Size: 7"
Depth: 2721'
Hole size: 8.25"
Cmt: 350 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 5"
Depth: 3168'
Hole size: 6.25"
Cmt: 500 sxs
TOC: Circ. – Calc.
With 50% effic.

TD: 3172'

Set a 40 sx cmt plug over Perfs from 3166' to 3158'.

#### LIST OF OFFSET OPERATORS & SURFACE OWNERS

#### Offset Operators

Occidental Permian Limited Partnership P.O. Box 4294 Houston, TX 77210-4294

Lewis B. Burleson, Inc. P.O. Box 2479 Midland, TX 79705

Marcum Drilling Co. P.O. Box 3699 Midland, TX 79705

Chevron USA, Inc. 15 Smith Rd., Caydesta Plaza Midland, TX 79705

Apache Corp. 2000 Port Oak Blvd., Ste. 100 Houston, TX 77056-4400

#### Surface Owner

Grimes Land Company P.O. Box 5102 Hobbs, NM 88240 Conoco Inc. 10 Desta Dr. West, Suite 100W Midland, TX 79705

HRC, Inc. P.O. Box 5102 Hobbs, NM 88241

Rice Operating Co. 122 West Taylor Hobbs, NM 88240

Exxon Corp. Box 4697 Houston, TX 77210

Texland Petroleum 500 Throckmorton St., Ste. 3100 Fort Worth, TX 76102 H.R.C. INC. P.O. Box 5102 Hobbs, NM 88241 (505)393-3194

RE: Brine Extraction Well
Hobbs State #10
Unit F, Sect. 29, Tws. 18S, Rng. 38E., Lea Co., NM

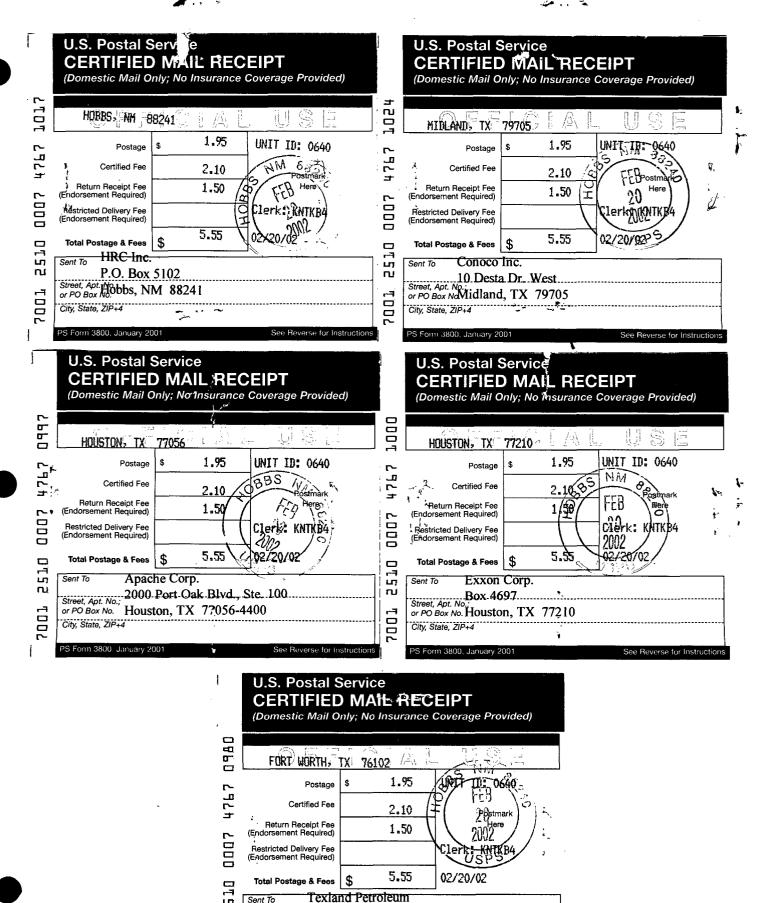
#### Dear Sir:

As per the Rules and Regulations of the Oil Conservation Division of New Mexico, you are being provided a copy of the Application for the construction of a brine extraction facility at the above location.

If you have any questions, please call Gary Schubert at (505)393-3194. Any objections or request for hearing must be filed with the Oil Conservation Division within fifteen (15) days. Objections and request for hearing should be addressed to Oil Conservation Division, P.O. Box 6429, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505 or call (505)476-3440.

Thank you,

Gary M. Schubert



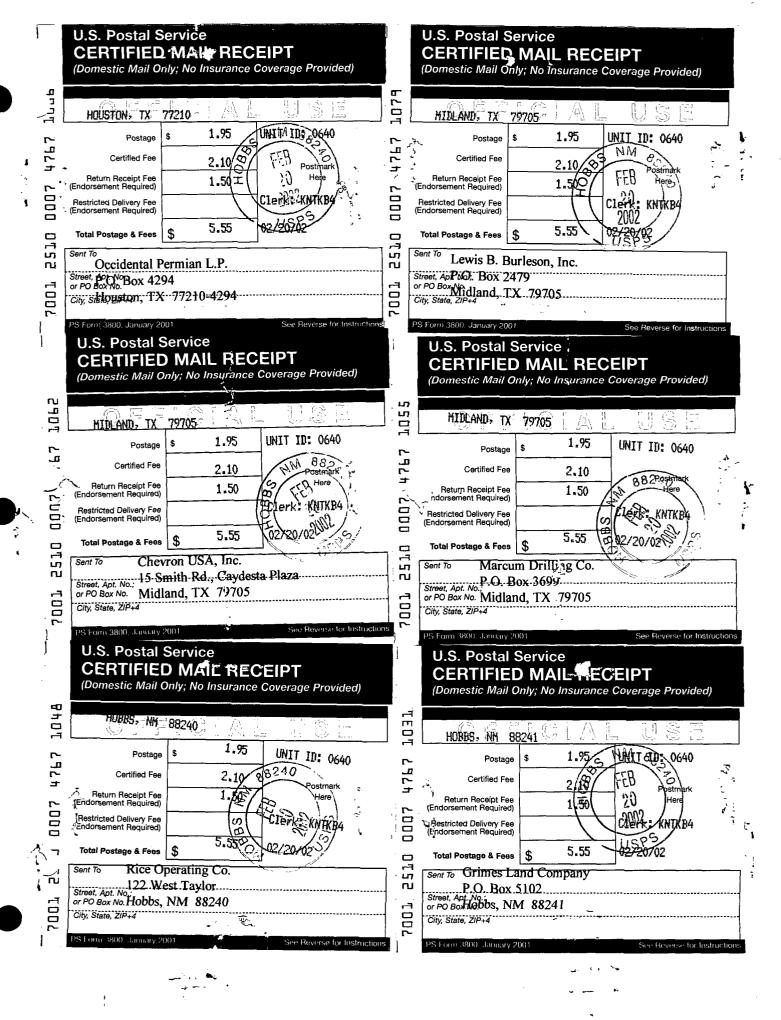
500 Throckmorton St., Ste. 3100

Street, Apt. No.; Ft. Worth, TX 76102

TU!

7001

City, State, ZIP+4



#### **LEGAL NOTICE**

Pursuant to the rules and regulations of the State of New Mexico Oil Conservation Commission, Santa Fe, NM, H.R.C. Inc. of Hobbs, NM, is filing application for brine extraction well and facility. The well is the Hobbs State #10, located 2565 FNL and 2330 FWL, Unit F, Section 29, Township 18 South, Range 38 East, Lea Co., NM. The well and facility will be producing brine water from the Salado formation at approximately 1700' to 2400'. Production will be 10 to 15 thousand bbls. per month with an operating pressure of 200# to 250#. The application can be reviewed at the OCD office, Hobbs, NM. Any questions concerning the application can be directed to Mr. Gary Schubert, P.O. Box 5102, Hobbs, NM 88241, (505)393-3194, or any request for hearing or objections should be directed to the Oil Conservation Commission, P.O. Box 6429, 1220 South Saint Francis Drive, Santa Fe, NM 87505, or call (505)476-3440, within fifteen (15) days.

## **Affidavit of Publication**

	STATE OF NEW MEXICO	)
		) ss. )
	Joyce Clemens being first duly sworn on says that she is Advertisting Director of <b>DAILY LEADER</b> , a daily newspaper of gitton published in the English language County, New Mexico; that said newspaper lished in such county continuously and uperiod in excess of Twenty-six (26) consprior to the first publication of the notice hereinafter shown; and that said newspaduly qualified to publish legal notices with Chapter 167 of the 1937 Session Laws Mexico.	THE LOVINGTON eneral paid circula- at Lovington, Leader has been so pub- uninterruptedly for a secutive weeks next hereto attached as aper is in all things thin the meaning of
	That the notice which is hereto attached	, entitled
	Legal Notice	
	was published in a regular and entire i	ssue of THE LOV-
	INGTON DAILY LEADER and not in any	supplement there-
	of, for one (1) day, beginning	ng with the issue of
	February 17 , 2002 and er	nding with the issue
	ofFebruary 17, 2	2002.
(	And that the cost of publishing said notices \$\frac{21.01}{\text{Court-Costs.}}\$ which sum has \$\text{Court-Costs.}\$	
	Subscribed and sworn to before me this February 2002	17th day of
	Debbie Schilling Notary Public, Lea County, New Mexico My Commission Expires June 22, 2002	<del></del>

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LEGAL NOTICE
Pursuant to the rules and regulations of the State of New Mexico Oil C o n s e r v a t i o n Commission, Santa Fe, NM, H.R.C. Inc. of H

Published in the Lovington Daily Leader February 17, 2002.

# State of New Mexico Energy Minerals and Natural Resources ORIGINAL SENT TO DISTRICT FORM C-101 Revised March 17, 1999

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

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

propriate District Office State Lease - 6 Copies Fee Lease - 5 Copies

	APP	LICAT	ION FOR PER	мтт то	DRILL, RE-	-ENTE	R. DEF	EPEN, J	PLUGBACK.	OR AD	_	mended report I <b>ne</b>	
H.R.C		DAC	¹ Operator Nam			****	1-7				UD Numbe		
	Box 5		<u>'</u> 41						30 -	³AP	I Number		
	erty Code		Hol	obs St	tate Property	Name		····			• Wel 10	li No.	
					⁷ Surface		tion	-		<del></del> ,	-		
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	Multiple		17 Proposed De	-nth	R 18 For	rmation	!	<u> </u>	S 19 Contractor		<u> 3655</u>	3 20 Spud Date	
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_	-		ation given above is	true and c	omplete to the	OIL CONSERVATION DIVISION					ION		
	best of my knowledge and belief.  Signature:						Approved by:						
inted name		lie W	. Seay			Title:							
Title: Ag	ent					Approval Date: Expiration Date:							
Date: 2 /1	Phone: (505) 392-2236							Conditions of Approval:					

Attached [

Dietrict

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

strict III

2000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

#### State of New Mexico

Energy, Minerals & Natural Resources Department

#### OIL CONSERVATION DIVISION

1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102

Revised August 15, 2000

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Numb	oer	² Pool Code 96173		³ Pool Name BSW Salado	
⁴ Property Code			5 Property Name		6 Well Number
	Hobbs	State			10
' ogrid №. 131652		C. Inc.	8 Operator Name		'Elevation 3655.3

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	29	18S	38E		2565	North	2330	West	Lea

¹¹ Bottom Hole Location If Different From Surface

			DU	mon mon	Location II	Different 110ff	1 Surface		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
			1				<u>.</u>		
12 Dedicated Acres	¹³ Joint o	r Infill 14 (	Consolidation	Code 15 Ord	ler 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

16				17 OPERATOR CERTIFICATION  I hereby certify that the information contained herein is true
				and complete to the best of my know fedge and belief.
	5 '			Castle Addas
	256.			Gary M. Schubert
				Printed Name Owner
		, or experience of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second		Title 2/12/02
				Date
2330				
				¹⁸ 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
			L. B. HING	best of my belief.
		September 1	18	02-09-02
		\$ <b>5 6</b>	7 1127	Date of Survey
			(6541)	Signature and Seal of Professional Surveyor:
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Side 1	

**OPERATOR**: H.R.C. WELL NAME & NUMBER: Hobbs State #10

18 S 29 F WELL LOCATION: 2565/N 2330/W SECTION UNIT LETTER FOOTAGE LOCATION

TOWNSHIP

RANGE

38 E

### WELLBORE SCHEMATIC

## WELL CONSTRUCTION DATA Surface Casing

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	*	3" Pro	duction Tubing into sult.
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Hole Size: 12	1/4"	Casing Size:	9 5/8"
Cemented with:		sx. <i>or</i>	
Top of Cement:		Method Deter	mined: circulate
-		Intermediate Casing	·
Hole Size:		Casing Size:_	

Cemented with: Method Determined: Top of Cement:

## Production Casing

Casing Size: Hole Size: 8 5/8" sx. *or* Cemented with: 300 Method Determined: circulate Top of Cement: class C

Total Depth: 1700'

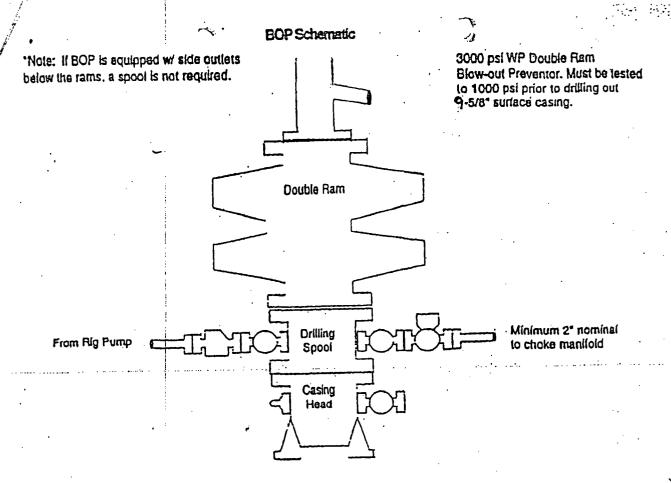
Injection Interval

24001 feet to 1700

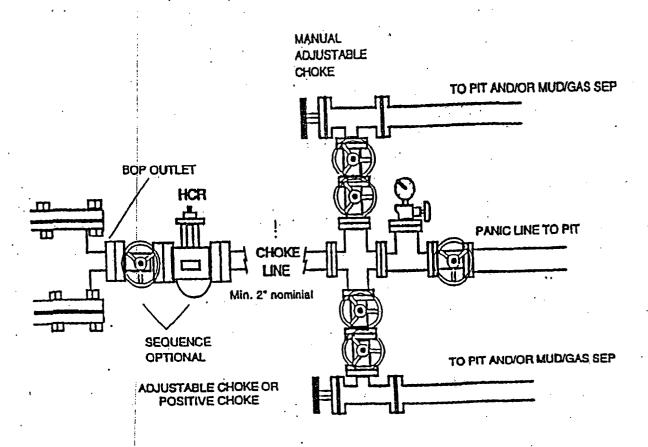
(Perforated of Open Hole) indicate which)

## **INJECTION WELL DATA SHEET**

Tubin	ng Size: 3 1/2" Lining Material: IPC				
Туре	of Packer: NA				
Packe	er Setting Depth: NA				
Other	Type of Tubing/Casing Seal (if applicable): tubing will be set into salt s	section			
	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: salt or Salado				
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. NA				
5.	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:				
	Yates is below				
	No oil or gas zone above the salt.				



#### Choke Manifold Schematic



Mr. Wayne Price NMOCD Environmental Bureau P.O. Box 6429 1220 S. Saint Francis Drive Santa Fe, NM 87504

RE: HRC

Brine and Discharge Plan Sect. 29, T. 18 S., R. 38 E.

Mr. Price:

Find attached additional information for discharge plan. Much of the well information is attached to the new C-108.

- 1) Find lithology logs of two wells in this section drilled by Shell Oil Co. The top of the salt is at approximately 1580' and the base of the salt and top of Yates is at approximately 2600'.
- 2) Wellhead diagram and associated information including metering.
- 3) Liner information.
- 4) Groundwater monitoring and plat.
- 5) The legal description for the brine storage and process area is 990/N 1650/E Sect. 29, T. 18 S., R. 38 E. The well is in 2565/N 2330/W Sect. 29, T. 18 S., R. 38 E. The loading facility will be at the process area. Note map.
- 6) Bond needs to be transferred to new well.

If you need any additional information, please call.

Sincerely,

Eddie W. Seay, Agent

601 W. Illinois

Hobbs, NM 88242

(505)392-2236

DATE NOVEMBER 16, 1984

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STATE OF NEW			i									sed 10-1-78
ERGY AND MINERAL		MENT	OIL (	CONS	ERVA	TION	ΝV	ISION		So. Indi	cate ?	Type of Lease
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U.S.O.S.			LL COMPLE	TION O	D DECC	NADI ETIC	M D	EDODT	AND LOG			
LAHO OFFICE		- WEI	LL CUMPLE	TION O	K KECC	MILLETTO	MN IX	LFORT	AND LOG	11111		
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. Name of Operator	<u>* L.</u> j	DEEPENL	BACK	<u></u>	ESVR.	OTHER			***	9. Well		<u> </u>
SHELL WESTERN	I E&P I	NC.								242		
Address of Operator												Pool, or Wildcat
P. O. BOX 991	, HOUS	TON, T	EXAS 77001	<u> </u>						НОВ	BS (	(G/SA)
Location of Well				,								
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12-16-83 Total Depth	2	I. Plug B	3 Back T.D.	22.	If Multipl Many	e Compl., Ho		23. Interv				Cable Tools
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.s. Type Electric and O					·					1 2	7. Was	s Well Cored
	=		RFT/BHCS/SN	וח/ ומו	ı /MSFI							10
L/ VOL/ COL/ C	IN, CLI	/ UK, K				ort all string	s set	in well)			<u>·</u>	
CASING SIZE	WEIGH	T LB./FT	T. DEPTH	SET	ног	E SIZE		CEME	NTING REC	ORD		AMOUNT PULLED
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5-1/2"		14#	436	<u> 8'</u>		7-7/8"			- C + 40	U SX L	111	
		LINI	ER RECORD	<del></del>	<u> </u>		T	100 SX		TUBING F	ECO	L
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13.		·········			PROD	UCTION						······································
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3-10-84		PUMPI	NG - SUBME	RSIBL	E,					PR	ODUC	CING
Jute of Test	Hours Tee		Choke Size	Prod'n. Test P	. For	OII - Bbl.		Gas - MO	F Wat	er – Bbl.		Gas - Oil Ratio
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'low Tubing Press.	Casing P	essure	Calculated 24-	- 011 - E	Зы.	Gas 1	MCF	١ ٧	ater - Bbl.	[	Oil G	Gravity - API (Corr.)
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LD COMP		, , <del> , .</del> ,							1.00		1	
is. at of Attachments	******		*						<del></del>	·		
C-104(5), C-1												
8. I hereby certify that	the informa	ition show	un on both sides	of this f	lorm is tru	e and comple	te to	the best o	f my knowled	ige and b	eli e f.	

TITLE SUPERVISOR REG. & PERMITS

A. J. FORE

#### INSTRUCTIONS

This form is to be filled with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or disepend 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 filled in quintuplicate except on land, where six copies are required. See Rule 1105.

#### INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Northwestern New Mexico

Southeastern New Mexico

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-							T. Penn_ "D"
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T. 7 R	ivers	2851'		T. Mene	fee		T. Madison
T. Que	een	3363'		T. Poin	t Lookoi	it	T. Elbert
T. Gra	yburg	3717'		T. Manc	os		T. McCracken
T. San	Andres _	3979'	T. Simpson	T. Galle	1P		T. Ignacio Qtzte
T. Glo	ricta		T. McKee	Base Gre	enhorn .		T. Granite
T. Pac	ddock		T. Ellenburger	T. Dako	ta		т
T. Bli	nebry		T. Gr. Wash	Т. Morri	son		т
T. Tul	bb		T. Granite	T. Todil	lto		т
			T. Delaware Sand				
			T. Bone Springs				·
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DATE APRIL 17, 1985

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CASING SIZE	WEIGHT LB./F			OLE SIZE	ļ	CEMEI	NTING REC	ORD		AMOUNT PUL	LED
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5-1/2"	14#	4.	369'	7-7/8"·	450	SX LI	TE + 250	SX H	E II		<u></u>
					<u>L</u> ,					<u>L</u>	
9.	LIN	ER RECORD	<del></del>			30.	·	TUBING	RECOR	RD ·	
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						2-7/8	3"	4108'			•
						• .					
1. Perforation Record (	Interval, size and n	umber)		32.	ACI	O, SHOT, F	RACTURE,	CEMENT	rsque	EEZE, ETC.	
				OEPT	HINT	ERVAL	АМО	UNT AND	KIND	MATERIAL USE	0
3989' - 409	5'(26 - ½"	holes)		3989'	- 3	3995'	SPOTTED	62 BI	BLS	15% NEA	
		1		40891		095'				GALS 15% NE	ΞĀ
4229' - 427	2' (8 - ½"	holes iso	lated by RB	P   4229'		272'	ACIDIZE			GALS 15% NE	
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13.		·	PR	ODUCTION			1				
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3-23-85	24		Test Period	15		2	1	793		133	
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C-104(5), C	-102(3), LOG	S INCLIN	ATION REPOR	T(2)							
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TITLE SUPERVISOR REG. & PERMITS

#### INSTRUCTIONS

This form in to be filled 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 be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filled in quintuplicate except on land, where six copies are required. See Rule 1105.

#### INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

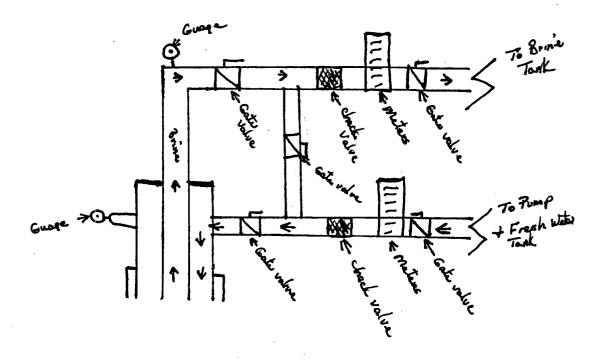
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### Wellhead and Operations

The operations of the well area will be to inject fresh water down 7" casing and produce brine through the 3 1/2" tubing. The fresh water and brine will be measured with totalizing meters at the well. All volumes will be recorded and logged for reporting and billing.

The fresh water will be pumped into a 500 bl. tank prior to pumping down brine well. This will prevent any brine from entering the fresh water system. If an accidental back flow were to occur, the brine would go into the tank and not into the city water system. All lines going to and from the well, the brine storage tank, fresh water tank, and pumps will have check valves.

The well will be equipped with valves so that the flow of fresh water and brine can be reversed, to keep the tubing from having a salt build up. (See diagram below)



### PERMALON®

Reef Industries, Inc. P.O. Box 750245 Houston, TX 77275-0245 Tel: (713) 484-6892 Toll Free: 1-800-231-2417 Fax: (713) 947-2053

I wanted to provide you with some weatherability information on our Permalon Ply X-210. This high density, cross-laminated poly is designed to be UV resistant by a state of the art stabilization system. When exposed to harsh weather conditions, including intense sun, X-210 should last in excess of five years. When buried, this material should last indefinitely. X-210 is chemically inert, non-leachable, and is resistant to root penetration, rodents and microbials (it is not a food source). Additionally, it meets ASTM D-3083 (Soil Burial). Ply X-210 is not prone to stress-cracking (ESC), thus, making a very good moisture and Radon barrier.

I hope this information will serve useful to you and please do not hesitate to call if you should have any questions.

Respectfully,

David Dewsnap Chemist Reef Industries, Inc.





Product Development Group 11/18/1993

### Physical Properties of Geomembrane / Geotextile Composite

Material/Property	XIGPET45	X2GPET45	
Basis Weight 02/yd² ASTM D-3776	9.83	15.1	
Thickness (mils/mm) ASTM D-2103	31/0.88	39/0.99	
Tensile Strength (lb ₇ ) ASTM D - 882 - 3 in. (MD/TD)	190/159	263/222	
Tensile Elongation (%) ASTM D - 882 - 3 in. (MD/TD)	63/83	46/54	
rab Tensile Strength (lb _r ) ASTM D - 4632 (MD/TD)	194/168	303/250	
Grab Elongation (%) ASTM D - 4632 (MD/TD)	70/110	•	
Trapezoid Tear Strength (lb.) ASTM D - 4533 (MD/TD)	91/80	132/135	
Puncture Resistance (lb,) ASTM D - 4833	85	100	
Puncture Elongation (in) ASTM D - 4833	0.66	0.63	
Mullen Burst (lb _t ) ASTM D - 3786	237	333	
Puncture Prop. & Test (lb.) ASTM D - 2582 (MD/TD)	•	55/57	
Dart Impact Strength (lb_) ASTM D-1709	6.5	9.9	

ASTM D - 882: Tensile strength of thin plastic sheeting (less than 40 mils)

TM D - 4632: Breaking Load and Elongation of Geotextiles.

N.B. These are typical values and not be interpreted as specifications. (Average Roll Values will be presented on availability of sufficient data)

P.O. Box 750250 • Houston, Texast 77275-0250

Tel: (7/3) 943-0070 • U.S.A. Toll Free: 1-800-231-6074 • Canada Toll Free: 1-800-847-5616

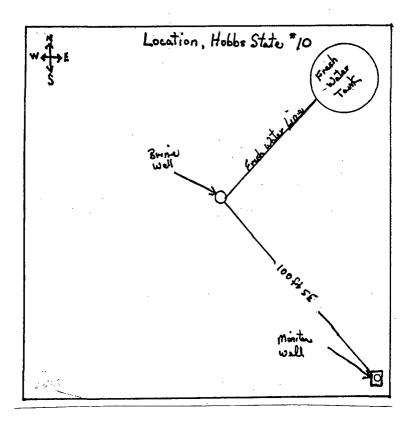
Fax: (7/3) 943-8085

#### **GROUNDWATER MONITORING**

H.R.C. Inc. proposed to monitor the groundwater at the site by installing a two inch monitor well completed through the Ogallala formation. The well location will be down gradient on the edge of the brine well location, south southeast or along water gradient.

The installation will consist of drilling with am air rotary to the top of the redbed or base of the Ogallala. Running 2 inch schedule 40 pvc well casing to TD with .10 slot well screen across the entire saturated zone. Sand pack well to five feet above upper most perforations. Cap sand with 10 ft. of bentonite, and grout from top of bentonite to surface, installing a locking cover at surface. This will enable us to monitor the entire water area.

It is our proposal to take samples from this well prior to any brine activity, for background purposes. We plan to sample for BTEX, TPH, Cations, Anions, and Metals initially. After starting operations, we plan to sample the well on bi-annual schedule, testing for Cations and Anions. All results will be reported to the OCD as they are obtained.



	Section 29	city of Hobbs water line
16 N	loading	Fresh water  Fresh water  water  water
	Brina de Fresh water Brina wall	ar tank
	Monitar wall	

Form O & G OCD Adopted 6-1-86 Revised 12-00

### ASSIGNMENT OF CASH COLLATERAL DEPOSIT

H.R.C. Inc. (OPERATOR) of P.O. Box 5102 (address) has
deposited with the First National Bank (name of state or national bank or savings association,
which must be a federally-insured bank or savings institution in the State of New Mexico) of
600 West Bender, Hobbs, NM (address) (FINANCIAL INSTITUTION), the sum of
\$5,000.00 dollars in Certificate of Deposit or Savings Account No. 2802198-30
(FUND).
To comply with NMSA 1978, Section 70-2-14, OPERATOR hereby assigns and conveys all
right, title and interest in the FUND to the FINANCIAL INSTITUTION in trust for the Oil
Conservation Division of the Energy, Minerals and Natural Resources Department or successor agency
of the State of New Mexico (DIVISION).  OPERATOR and the FINANCIAL INSTITUTION agree that as to the FUND:
of ERGIOR and the Invitation in office that as to the Ford.
a. The DIVISION acquires by this assignment the entire beneficial interest in the FUND, with the right to order the FINANCIAL INSTITUTION in writing to distribute the FUND to persons determined by the DIVISION to be entitled thereto, including the DIVISION itself, in amounts determined by the DIVISION, or to the OPERATOR upon sale or proper plugging, in compliance with the rules and orders of the DIVISION, of the well(s) covered by this assignment.
b. OPERATOR retains no legal or beneficial interest in the FUND and has only the right to interest, if any, thereon, and to return of the FUND upon written order of the DIVISION.
c. The FINANCIAL INSTITUTION agrees that the FUND may not be assigned, transferred, pledged or distributed except upon written order of the DIVISION or a court of competent jurisdiction made in a proceeding to which the DIVISION is a party. The FINANCIAL INSTITUTION waives all statutory or common law liens or rights of set-off against the FUND.
OPERATOR agrees that the FINANCIAL INSTITUTION may deduct from interest due OPERATOR any attorney fees incurred by the FINANCIAL INSTITUTION if claim or demand via writ, summons or other process arising from OPERATOR'S business is made upon the FINANCIAL INSTITUTION.
(Da) 111 Al May +
CI CONTRA TOR
Signature of OPERATOR Signature of Authorized Officer Personally or by Authorized Officer of FINANCIAL INSTITUTION
Personally or by Authorized Officer of FINANCIAL INSTITUTION
Gary Schubert, President Zane S. Bergman, President Title Title
State of New Mexico
County of Lea ss.
On this <u>3rd</u> day of December 20 01, before me personally appeared
Gary Schubert and Zane S. Bergman, to me known to be the person (persons) described in and who executed the foregoing instrument and
the person (persons) described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.
IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.
Notary Public
My Commission Expires:

Form O & G SCB Adopted 6-1-86 Revised 12-00

# 6

### ONE-WELL CASH BOND

KNOW ALL MEN BY THESE I	PRESENTS THA	T H.R.C. I	nc. (an
individual) (a partnership) (a corporation orga	anized in the State	of New Mexic	co with its principal
	e City of Hobb		, State of
			New Mexico) is held
and firmly bound to the Oil Conservation Di	vision of the Ener	gy, Minerals a	nd Natural Resources
Department of the State of New Mexico (or	r its successor ag	ency), as DIVI	SION in the sum of
\$_5,000.00			
The conditions of this obligation are such that:			
The PRINCIPAL desires to drill a well which does not exceed 5000 dioxide gas, helium gas or brine minerals or	feet, to prospect property in the	for and produ	ce oil or gas, carbon
identification and footage location of said well			
(well name and footage) Hobbs State #5		2280/FNL/	
Section 29 Township 185 Range 38E, N	NMPM, <u>Lea</u>	County,	New Mexico.
The PRINCIPAL has deposited on bel indicated on the Assignment, attached to this PRINCIPAL pledges this sum as a guarantee to plug the well described above if dry, or when the DIVISION in such way as to confine the and to prevent same from escaping to other stabandon said well upon order of the DIVISION, and such amount as is necessary a sum of this bond is less than the actual cost PRINCIPAL, its successors, assigns, heirs on NMSA 1978, Section 70-2-38 of the Oil and any amounts expended over and above the principal of them shall plug the above-described well worders of the DIVISION, in such a manner as they naturally occur, and to prevent them from surface location of said well, then therefore, the shall be paid to the PRINCIPAL or its successfull force and effect.	bond, being the phat it, its executors a abandoned, in accoil, gas and water trata. If the PRING ON, the total sum may be used to protincurred by the It administrators should be considered by the bound of the bound of the bound of the oil, and the oil, are scaping into other obligation shall its obligation shall.	orincipal sum in a sasigns, heirs cordance with the in the strata in CIPAL does not of the bond shoperly plug said DIVISION in puall be liable undivision.  assigns, heirs, owned, in accordate, gas, and water her strata, and the be null and voice to the sasigns of the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata, and the strata is strata, and the strata is strata.	atended to be secured. or administrators shall he rules and orders of which they are found, t so properly plug and hall be forfeited to the well. If the principal lugging said well, the hader the provisions of take action to recover r administrators or any nee with the rules and in the strata in which further to clean up the l and the principal sum
H.R.C. Inc.			
PRINCIPAL			
P.O. Box 5102	Hobbs.	N.M	88241
Address	State		Zip
B. (BOIL) XILIUMF	Dv		
Signature	Ву	· · · · · · · · · · · · · · · · · · ·	
O Signature			
Gary Schubert, President			
Title			

If PRINCIPAL is a corporation, affix corporate seal here.

# 6

### ACKNOWLEDGMENT FORM FOR INDIVIDUALS OR PARTNERSHIPS

STATE OF			-	
COUNTY OF			s.	
On that	nis	_day of	, to me	, 20, before me personally known to be the person (persons)
described in au his (their) free	nd who executed the fore	egoing instrum	ent and acknowled	ged that he (they) executed the same as
IN WI first above wri		ave hereunto s	et my hand and sea	al on the day and year in this certificate
			Notary	Public
Му Со	ommission Expires			
	ACKNOWI	LEDGMENT 1	FORM FOR COR	PORATION
STATE OF _	New Mexico	<u> </u>	)	
COUNTY OF	Lea		ss. )	,
Gary Schul	bert	, to me	personally known	before me personally appeared who, being by me duly sworn, did say and that proporation by authority of its board of
first above wr	itten.	nave hereunto s	set my hand and set	Notary Public
	<del></del>		APPROVED B	Y:
			Oil Conservati	on Division of New Mexico
	, .		Ву	
	٠.		Date	
Chave Mexico:	es, Eddy, Lea, McKinl	ley, Rio Arrib	oa, Roosevelt, San	doval, and San Juan Counties, New
	Projected Depth of P or Actual Depth of E			Amount of Bond
	Less than 5,000 feet 5,000 feet to 10,000 fee More than 10,000 fee		-	\$ 5,000 \$ 7,500 \$10,000
	All Other Counties in	the State:		
	Projected Depth of P or Actual Depth of E			Amount of Bond
	Less than 5,000 feet 5,000 feet to 10,000 fe More than 10,000 fee			\$ 7,500 \$10,000 \$12,500

OLD LOCATION STATE #5

December 10, 2001

NMOCD Environmental Bureau ATTN: Wayne Price P.O. Box 6429 1220 South Saint Francis Drive Santa Fe, NM 87504

RE: H.R.C. Brine

Mr. Price:

Find within additional information as requested. If you have any questions or need any additional information, please call.

Sincerely,

Eddie W. Seay, Agent

Eddi W.S.

601 W. Illinois

Hobbs, NM 88242

(505)392-2236

### TABLE OF CONTENTS

- I. Completed C-108
- II. Groundwater Monitoring
- III. C-104
- IV. Bond

#### OIL CONSERVATION DIVISION 2040 SOUTH PACHECO SANTA FE, NEW MEXICO 87505

FORM C-108 Revised 4-1-98

### **APPLICATION FOR AUTHORIZATION TO INJECT**

I.	PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage Application qualifies for administrative approval? Yes No X Brine
II.	OPERATOR: H.R.C. Inc.
•	ADDRESS: P.O. Box 5102 Hobbs, NM 88241
	CONTACT PARTY: Gary M. Schubert PHONE: (505)393-3194
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:
	<ol> <li>Proposed average and maximum daily rate and volume of fluids to be injected;</li> <li>Whether the system is open or closed;</li> <li>Proposed average and maximum injection pressure;</li> <li>Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,</li> <li>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.).</li> </ol>
*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: Eddie W. Seay TITLE: Agent
	SIGNATURE: DATE: 12/10/2001
*,	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

- VI. List of wells within.
- VII. Fresh water will be used to produce brine by injecting fresh water down the back side of the tubing at 200# to 250# and producing brine out the tubing. Based on activity at the facility, productions could be 10 to 15 thousand bls. per month.

#### VIII. HYDROLOGY

Underground aquifers in this area are the Ogallala and Quaternary Alluvium formations. The groundwater in these formation is unconfined where the underlying red beds are relatively impermeable. This underlying layer prevents further downward or upward movement. From information reviewed, the groundwater flow from the Ogallala formation flows to the south southeast, the water level for this area ranges from 50' to 70' below ground level and the average depth of the wells are 150'. Find within State Engineers list of water wells in the general area and analytical from two of the wells.

#### **GEOLOGY**

The proposed site is located on the Central basin Platform of the Permian Basin. The sub-surface formations are in transitional area between Delaware Basins back reef or shelf area and the platform. The brine product is from the Salado Formation of the Ochoa series. The series is of upper Permian Age, and extends across the Delaware Basin, Central Basin Platforms, thins and pinches out on the eastern shelf. This series layers are predominately evaporates which contain strings of dolomite, shale, siltstone, and sandstone. The thickness of this salt section averages about 1000 ft. The Triassic rock overlying the Permian formation is the Dockem group, and is divisible into the Santa Rosa sandstone and the Chinle formation. The Tertiary rocks are represented by the Ogallala formation. This formation ranges in thickness from 0' to 300'. It is chiefly calcareous, unconsolidated sand, clay, silt and gravel. This is the formation most of Lea Co. obtains its drinking water from.

- IX. No stimulation needed.
- X. Logs on file with OCD.
- XI. Attached.
- XII. I, Eddie W. Seay, as agent, have examined all available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the salt section and any underground source of drinking water near this site.
- XIII. Proofs of Notice attached.

District I PO Box 1960, Hobbs, NM 88241-1960

Dustract (I

Drewer DD. Artesia, NM \$8211-0719 ZΠ

Rio Bosson Rd. Arms. NM 87410

## State of New Mexico

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-101 Revised February 10, 1994 Instructions on back

Submit to Appropriate District Office State Lease - 6 Copies

Fee Lease - 5 Copies

District IV PO Box 2088, See	es Pe NOV	17504-2088		Janu	,	7.50 7.2000				AMEN	DED REPORT
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OPERATOR				5. State Oil & Go	
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).	"APPLICATION FOR PERMIT -	" (FORM C-101) FOR SUCH PROP	OSALS.)	7. Unit Agreemen	777777777
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	Corporation	•	_	Hobbs	
3. Address of Operator	OTPOLACION			9. Well No.	
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WELL PLUGGED: 5/11/73

Size: 9 5/8"
Depth: 364'
Hole size: 12.25"
Cmt: 200 sxs
TOC: Circ. – Calc.
With 50% effic.

Spotted 10' cmt plug at surf.

Existing condition of wall # 5

Size: 7"
Depth: 3826'
Hole size: 8.75"
Cmt: 200 sxs
TOC: 2250'

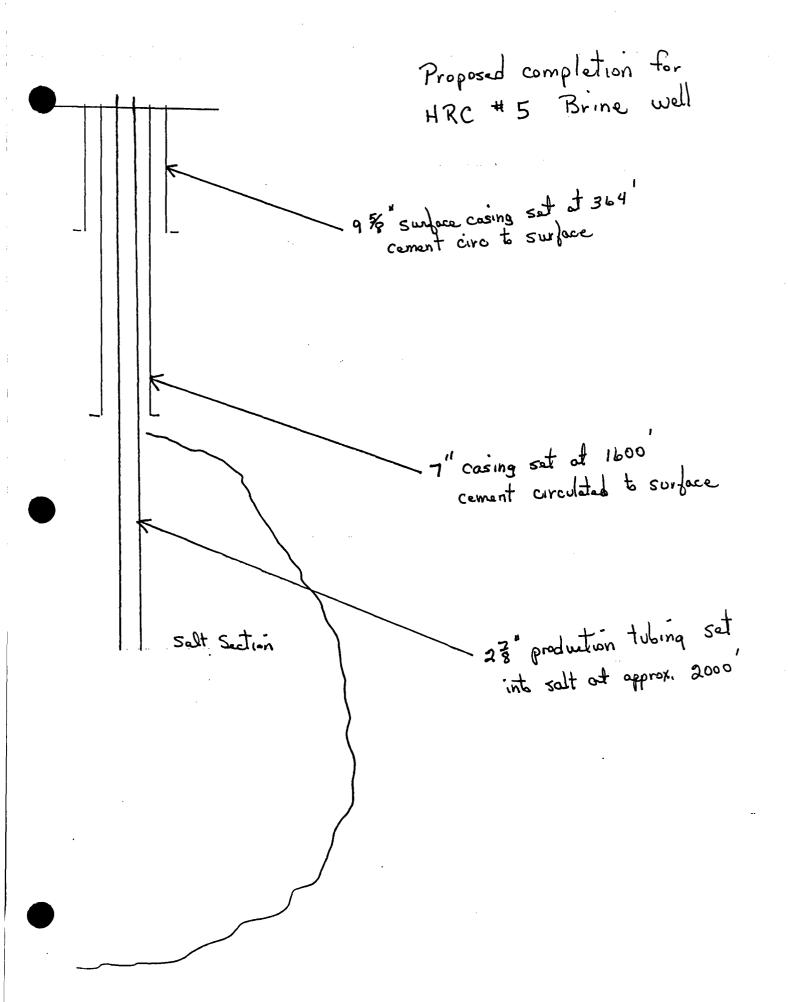
Size: 41/2"
Depth: 5986'
Hole size: 6.25"
Cmt: 120 sxs
TOC: 3800'- Calc.
With 50% effic.

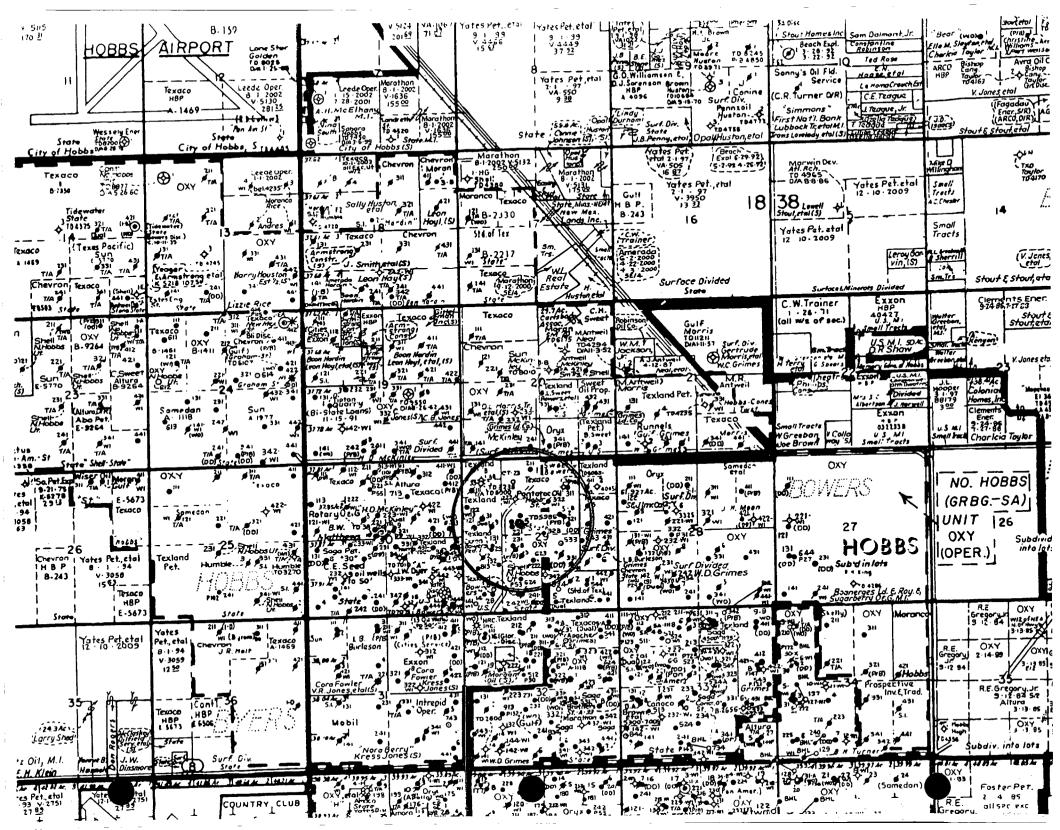
PBTD: 5959'

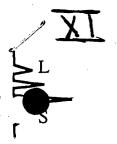
TD: 5986'

Shot and pulled csg at 3744'. Pumped 255 sx cmt plug From 3744' to 3644'.

Set 4 1/2" CIBP at 5757' and Capped with 35' cmt. Est. TOC is 5722'.







Laboratory Services, Inc. 4016 Fiesta Drive Hobbs, New Mexico 88240 Telephone: (505) 397-3713

### Water Analysis

COMPANY Altura Energ	gy Ltd,
SAMPLE Fresh Water	Well for Wells 29321, 29231, 32312
SAMPLED BY	
DATE TAKEN 8/8/00	
REMARKS T18S-R38E-S	ec29; Qtr Sec 4,1,2
Barium as Ba	0
Carbonate alkalinity PPM	68
Dicarbonate amaining 11 m	260
pH at Lab	7.21
Specific Gravity @ 60°F	1
Magnesium as Mg	32
Total Hardness as CaCO3	56
rides as CI	325
entate as SO4	130
Iron as Fe	
Potassium	0.1
Hydrogen Sulfide	0
Rw	12 @ 23° C
Total Dissolved Solids	841
Calcium as Ca	24
Nitrate	2.2
Results reported as Parts per Million unl	ess stated
Longollar Caturation Index	_,
Langelier Saturation Index	<u>-54</u>
	Analysis by:
	Analysis by: <u>Vickie Walker</u>
,	Date: 8/11/00





Laboratory Services, Inc. 4016 Fiesta Drive Hobbs, New Mexico 88240 Telephone: (505) 397-3713

### Water Analysis

COMPANY Altura Energy Ltd,		
SAMPLE Fresh Water Well Fo	or Wells 33111 &	28131 + 29 2 3 (
SAMPLED BY		
	•	
DATE TAKEN 5/9/00		
REMARKS T18S-R38E-Sec 29, (	Otr Sec. 4,2,1	
Barium as Ba	0	
Carbonate alkalinity PPM	40	and the second second
Bicarbonate alkalinity PPM	216	
pH at Lab	7.63	
Specific Gravity @ 60°F	_1	
Magnesium as Mg	174	
Total Hardness as CaCO3	300	
rides as Cl	155	
Sulfate as SO4	115	
Iron as Fe	0.1	
Potassium	0.09	
Hydrogen Sulfide	· · · 0	
Rw e	9.4	@ 25° C
Total Dissolved Solids	850	
Calcium as Ca	126	
Nitrate	7.5	
* .		
Results reported as Parts per Million unless stated		•
Langelier Saturation Index	0.05	•
	•	
		Vickie Walker
	Date:	6/6/00

Well Name	API	No	Sec.	T	R	Un	Drill	Well	TD or	Тор	Bot.	Sqz.	Csg.	Hole		No. of	
Operator	7	10.		<del>-</del> -	<u> </u>	Ltr	Date	Туре		Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
Оху									PBTD				7	8.75	4000	500	976**
																	0.00
28331	30-025-	07412	28	-18S	-38E	J	5//35	Р	4280	4015	4268	4081-4093	10.75	13.5	245	150	CIRC
Оху													7.625	9.625	1635	300	186
									L				5.5	6.25	4015	300	2662-CBL
													4.5	6.5	3987-4280	100	3987
28411	30-025-	07419	28	-18S	-38E	A	4//36	P	4223	4133	4225	15	12.5	16	227	160	CIRC**
Оху	-	*******							PBTD			17	7	8.75	4133	750	2550-CBL
<u> </u>												475					
28421	30-025-	07418	20	-18S	-38E	Н	5//35	TA	4262	4020	4262	NONE	12.5	16	235	150	CIRC
	30-025-	0/410		-103	-30L	<del>  '''</del>	3//00	1.7	7202	1020		<u> </u>	7	8.75	4020	200	2677-CBL
Оху	<u></u>				<del> </del>	<del> </del>											
28422	30-025-	27243	28	-18S	-38E	Н	5//48		4470	4239	4268	4222-4228	16	20	40	40	CIRC
	30-023-	2/240		100	002	╁┄		<u> </u>				4242-4244	8.625	12.25	1600	850	CIRC
Оху						┼─		<b></b>				4252-4256	5.5	7.875	4503	1050	CIRC -
						<u> </u>						4269-4271					
		07440		400	-38E	-	8//35	P	4225	3993	4218	2660	10.75	13.5	225	150	CIRC**
28431	30-025-	07413	28	-18S	-36E	<del>  '</del> -	0//35	F	4225	3993	4210	2000	7.625	9.625	1640	400	CIRC**
Оху				<u> </u>	-		<b></b>						5.5	7.875	3993	400	2698-CBL
									4070	1100	4057	NONE	10.75	13.5	243	150	CIRC
28441	30-025-	07411	28	-18S	-38E	P	1//35		4272	4102	4257	NONE	7.625	9.625	1634	300	185
Оху						-			PBTD				5.5	6.25	4015	300	CIRC
						-	<del> </del>						0.0	0.25			
29111	30-025-	23919	29	-18S	-38E	SD.	12//71	P	4287	4183	4287	3905-4250	8.625	1 544 x 2	310	150	CIRC
				2543	T.CH.				PBTD		Link Fred		5.5	7.875	3905	300	2427***
291 <b>21</b> %	30-025-	07449	29	-185	-38E	ε.	3//47	V°P∵	4275	3924	4275	4070-85	9.625	12.25	2739	650	≃≈ 890 ¥
The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s			<u> </u>	K. O.	*****	\$100 m	A. S	West freeze !			1 The Same Same 2	4110-20	7.14	8.75	3104	100	2640 CBL
Oxy 🦠												4130-50	4.5 Lnr	6.25	2900-4201	100	2900 7
100 mg 440 % Din 10-10	30-025-	20052	്	-18S	-38E	Æ.	2//85	wds:	4215	4154	4211	NONE	13.375	17.6	40-	Z NA S	E CIRC
29122	Marke 1924 Mee	H 1912 1915 1 181	49	3/100	*30L		2/00 s	38.4 4.5. 35.4 5.46	(CIBP)		1 1 1 2 2 1 4 6 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	<u> </u>	8.625	- 11	1510	785	CIRC
Oxy	F-97.00		25 az 17 Pir		PERMITS.	To took from	DEWNEST C. A	2 60° 208	The second second	7. J			5.5		4370		CIRC

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	No.	Sec.	T	R	Un	Drill	Well	TD or	Тор	Bot.	Sqz.	Csg.	Hole		No. of	
Operator				<del>- '-</del>	<del>                                     </del>	Ltr	Date	Туре		Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
<del>Operator</del>								1750									P 100307
29131	30-025-	07447	29	-185	-38E	ुष्ट	10//30	P	4168	4050	4210	NONE	12.5	∵ 18 _{∛√}	225	<b>250</b>	CIRC
Oxy \			===				.,		PBTD				9.625	12	2750	650 ₇₃	∵ 660 <b>**</b> }
- Carlotta				1					4 198 243.1				7	8.75	3976	300	1504-CBL
													<b>₹</b> 5,57	6.125	3870-4220	50	3930-CBL
29132g	30-025-	26917_	29	-185	-38E	_ <b>L</b> _3	12//80		4470	4025	4245	NONE	16	- 20	40	40	CIRC
Oxy	00-020.	2001,2	4	1.00	,,,,,	-			PBTD	1			8.625	12.25	1595	785	CIRC
<u> </u>									12000				5.5	7.875	4510	900	CIRC"
00444	00.005	07448	00	-18S	-38E	М	8//30	•	4238	3690	4228	3960-4108	12.5	18	203	200	CIRC
29141	30-025-	07446	29	-103	-30E	IVI	6//30	<u>'</u>	PBTD	0000		4033-4053	9.625	12	2736	650	1000**
Оху	ļ				ļ	-			POID			7000-1000	7	8.75	3960	300	1850**
		<del> </del>		<u> </u>	<u> </u>				<b> </b>				5.5	7.875	3941	250	3460-CBL
					-								4.5	6.25	3417-4238	50	3774-CBL
	and the same displaying the cap	PERSONAL PROPERTY.	· ) 30 %_ 2				44400		4000	4217	4270	4053-4150	12.5	18	243	<b>250</b> %	CIRC
29211	30-025-	07433	∴ 29	-18S	-38E	C	11//30	TA	4003	×4247	42/0-	4180-4200	9.625	12	2796	400	CIRC
©xy ₃	·			ļ. <u>.</u>					CIBP			4211-4215	7	8.75	4007	500	3014**,
					<b> </b>							42117210	5.5	6.25	3957-4238	50 🔻	3957
102 (0-1							v z wz i			73.76	4176	4154-4162	540 E	10	210	200	GIRC)
29221	30-025-	07430	29	-185	-38E	F	9//30	<u>.</u> P.	4210 PBTD	4118	4170	41/5-4185		12		400	1236
Gxy				ļ					PBID			419544200	7.7	8,75	3979	500	2753
												4213-4267	4.5	6.125	3910-4213	50	3910
			- Andrian II					SOUTH THE AND ADDRESS OF	8222	3.44 <del>5</del> .5	100° A	NONE	16	20	40	40	CIRC »
29222	<b>30-025-</b>	26934	29	-18S	-38E	F	4//81		4465	4175	4265	NONE'	8.625	12.25	1605	950	CIRC
Oxy											· · · · · · · · · · · · · · · · · · ·		√5.5	7.875	4510	1050	CIRC
												TONE S	15.5	18	252	1000 😸	CIRC*
292314	30-025-	07438	∴ ∕∵.29	-18S	-38E	K	10//30	P	4255	4106	4255	NONE	9.625	12.25	2729	600	CIRC
Oxy.									ļ			<del> </del>		8.75	3953	300	2718 *
"Andread State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of the State of													5	6.25	3906-4220	50	∕ 3906∌
										10-5	1000	NOVE	40 5	18	217	160	CIRC
29241	30-025-	07437	29	-18S	-38E	N	10//30		4255	4076	4239	NONE	12.5	12	2730	500	895
Оху												<b> </b>	9.625 7	8.75	3929	350	1850
				<u> </u>								<u> </u>		0./5	3323	330	1000

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	No.	Sec.	T	│ R	Un	Drill	Well	TD or	Тор	Bot.	Sqz.	Csg.	Hole		No. of	T
Operator		T	<u> </u>	1	†	Ltr		Туре			Perf	Perfs	Size	Size	Depth	Sxs.	TOC
													5.5	7.875	3822-4299	60	3822
29242	30-025-	28413	00	-185	-38E	<del>                                     </del>	0//04		4070	4005	1057	4040	10			100	0/00
Oxy	30-023-	20413	28	1-105	-30E	N	3//84	P	4370	4005	4257	4019	16	20	30	NA 750	CIRC
	-				<del> </del>	_	[			<del> </del>		4037 4040	8.625 5.5	12.25 7.875	1511 4368	750 750	CIRC 2330
											and the second section of the second	The right of a state of the same who	-				
29311	30-025-	07432	29	-185	-38E	В	10//30	P	4269	4044	4269	4090-4110	12.5	16	241	<b>250</b> ~	113
Oxy.					ļ					<u> </u>	<u> </u>	4171	9.625	11.75	2776	400	2750 🖹
	<u> </u>		<u> </u>	<u> </u>				l		<u> </u>			_ <b>\7</b>	8.75	4008	500	2949
	-	<del> </del>		<del> </del>		ļ							5.5	6.25	3921-4234	⇒350 ै	3786
29321	30-025-	07431	29	-185	-38E	G	9//30	Р	4301	4137	4271	3895	12.5	16	211	<b>250</b> /2	CIRC
Oxy	1	-		1	1	1	<del></del>		PBTD	1		4100	9.625	11.75	2756	250	921
WALL	1												7	8.75	3995	300	2930-CBL
													5	6,25	3812-4308	100	3894-CBL
29322	30-025-	28883	29	-185	-38E	G	11//84	See S. For	* 4342	4160	4256	NONE	13.375	17.5	40	NA	CIRC
Oxy	3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-	1-17-11	2 222	1	,,,,,,,,	<u> </u>	177	13 A Elabert	PBTD		· · · · · · · · · · · · · · · · · · ·	3.333	8.625	12.25	1520	* 620 ·	CIRC
									<u> </u>				7 5.5	7.875	4384	850	CIRC )
29323	30-025-	28941	29	-185	-38E	G	1//85	P	4180	3089	4272	NONE	13.375	17.5=	40	-NA	CIRC
	30,023		, w.v.		1.00	100	177	***	PBTD	- 9990	<u> </u>		8.625	12.25	1542	375	CIRC
<b>Оху</b>							· · · · · · · · · · · · · · · · · · ·		20 AL				₹75.5	7.875	4370 🐖	450	575-CBL)
293613	30-025-	07/267	29	100	-38E		9//30		4261	4100	4258	4044-4065	9.625	11.75		500	907 🚱
<del></del>	00-020-	07700	/	-103	-30L	•	3//30	7.20.2	7201	7100	7200	10111000	7.7	8.75	3929	300	2115
Эху <u></u>	<del></del>				ļ	$\vdash$							4.5	6.25	4270	750	3788 CBL
290011	30-025-	07445					10000	~ <b>P</b>	~4000-	4050		5940400E	13.375	15	210	150	CIRC*
	30-025-	07445		-18S	-38E	*:O.,	10//30	1 4 6	4090	4050	4146	4010-4035					
Эху	<del> </del>								PBTD	,,			9.625	12	2750	700 x	CIRC"
													5	8.75 6.25	3934; 4162 ~	300 350	3430-CBL*
											maken who make death account.		275.15.15	7-11-11			
29342	30-025-	28884	29	-18S	-38E	<b>"O</b> "	11//84	190	4375	4083	. 4250	NONE	13.375	17.5	40,		NA-LY
Dxy*													8.625 5.5	12.25 7.875	1520 4375	620 875	CIRC*
		Nonember of Commences	managan panganbanja ng pin	Salvandaga jandaga e tah	fort war one year											· · · · · · · · · · · · · · · · · · ·	
9411	30-025-	07454	29	-18S	-38E	A	10//30		4335	4200	4335	4102-4137	12.5	16	245	250	CIRC

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	Ma	Sec.	Т	R	Un	Drill	Well	TD or	Тор	Bot.	Sqz.	Csg.	Hole		No. of	! !
Operator	AFI	100.	360.	<del>- '-</del> -	<del> </del>	Ltr	Date		PBTD	Peri	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
					<del> </del>	-	Date	.,,,,	1 3 1 3	1		4057-4091	9,625	11:75	2750	∵:650 <b>∦</b>	365
		<u> </u>		<del> </del>	<del> </del>				<del> </del> -	<del> </del>		4154-4158	7.	8.75	4045	300	2231°
				<u> </u>	<del> </del>				<del> </del>				<b>5.5</b>	6.25	3941-4223	30 🔣	3941*
										1							
29431	30-025-	07458	29	-18S	-38E	T	10//30	P	4227	4155	4225	4010	15.5	18	228	200	CIRC**
Оху									PBTD			4075	9.625	12.25	2720	600	978**
													7	8.75	3900	400	2086**
													5.5	6.25	3209-4229	120	3209**
											1000	1000 1000	10.075	18	232	150	CIRC**
29441	30-025-	07444	29	-18S	-38E	Р	10//30	Р	4211	4058	4266	4020-4028	13.375	12	2743	1400	CIRC**
Оху									PBTD				9.625	8.75	3950	300	3240-CBL
				<u> </u>				ļ	<u> </u>				7 5	6.5	4172	22	4020
					ļ				<b>_</b>		<b></b>	<u> </u>		0.5	41/2	<u></u>	
		22225		400	-38E		2//85		4237	4065	4210	4031	13.375	17.5	40	NA	CIRC
29442	30-025-	28885	29	-18S	-30E	Р	2//05		CIBP	4000	72.10	4036	9.625	12.25	1536	575	CIRC
Оху		<u> </u>			<del> </del>	<u> </u>			CIBI		<del></del>	1000	7	7.875	4370	1100	CIRC
	<del> </del>			<del> </del>	<u> </u>					-	,						
29544	30-025-	34644	29	-18S	-38E	Р	7//99	Р	4359	4124	4256	NONE	14	18	40	50	CIRC
·	30-023	0.70.7				Ť			PBTD				8.625	12.25	1565	725	CIRC
Оху	<del></del>												5.5	7.875	4400	775	CIRC
					<b>T</b>							<u> </u>		<u> </u>			<u> </u>
											1004	NONE	13.375	17.5	40	NA NA	NA *
30112	30-025-	29063	30	-18S	-38E	D	3//85	TA	4000	4034	4264	NONE	9.625	12.25	1520	250	CIRC
Oxy			<u>.                                    </u>		ļ	_			CIBP				9.025	8.75	4369	675	CIRC
			<u></u>	<u> </u>	<b>├</b>								ļ				
<u> </u>	20.005	00004	20	-18S	-38E	D	1//85	Р	4310	4042	4285	NONE	13.375	17.5	55	NA	CIRC
30113	30-025-	29064	- 30	-100	-30L	<u> </u>	17/00	<del>                                     </del>	CIBP	10 12			8.625		1495	620	CIRC
Оху			·	-	<del> </del>			-	0.5.				5.5	7.875	4370	990	CIRC
·	<del></del>			<del> </del>	<del>                                     </del>	1										<u> </u>	01704
30121	30-025-	07464	30	-18S	-38E	Е	9//30	1	4115	4160	4271	4042-4096	12.5	16	212	200	CIRC**
Oxy	100 020								PBTD				9.625	11.75	2749	400	2738-CBL
<u> </u>												<u> </u>	7	8.75	3994 3841-4312	425 40	CIRC-CBL
	-									-		<del> </del>	5	6.125	3041-4312	40	OINO-OBL
				ļ <u>.</u>			10//02		4050	4082	4270	4006-70	9.625	11.75	2751	550	733
30131	30-025-	07481	30	-18S	-38E	L	10//30	Р	4256 CIBP	4082	42/0	4116-40	7	8.75	3900	350	1783
Оху				<u> </u>		L		<u> </u>	LIDP	<u></u>		4110-40		1	<u> </u>		

^{**} Denotes calculated TOC with 50% efficiency

FOR WELLS 28332,2923	1,29321,3	0223,32	2312,3	32431	<del> </del>					<u> </u>							
Well Name	API	No.	Sec.	T	R	Un	Drill	Well	TD or	Тор	Bot.	Sqz.	Csg.	Hole		No. of	
Operator	AFI	140.	Sec.		<del>  '`</del>	Ltr	Date	Туре		<u> </u>	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
operator	<del> </del>		<del></del>		<del> </del>	<u> </u>	Duto	1,750	1.2.2								
St A #4	30-025-	23076	32	-185	-38E	В	4//69	TA	5325	5375	5966	NA	11.75	15	380	350	CIRC
Amerada	30-023-	23070	- 52	-100	1002		1,,,00	- · · ·	CIBP	-			8.625	11	3810	590	2400
Ameraua	<del> </del>	<del>                                     </del>	-		ļ								5.5	7.875	5998	325	5281**
		<del> </del>			· · · ·			<del> </del>	ļ								
St A #5	30-025-	23116	32	-185	-38E	Α	6//69	P	6954	6674	6936	NA	11.75	15	385	400	CIRC**
Amerada	30-020-	20110	- 02	100	1000		000	<del>                                     </del>					8.625	11	3798	590	1099**
Amerada	<del> </del>	<del>                                     </del>						<del>                                     </del>					5.5	7.875	7000	501	4772**
	+	<del> </del>	<del> </del>		<del> </del>						,						
State 5 #50	30:0252	07434	200	-185	-38E	G*	12//48	P∵	3224	3136	3224	1680-1682	10.75	<b>∄13.7</b> 5≇	/220	<b>200</b> €	⊚CIRC**
Collins & Ware			7. 18 (TO) 1	S. T. Same				1 m1 7			-6.4		7.625	9.875	∵1665 <i>∓</i>	300	CIRC**
MOTATHS O MRTE.	<del> </del>	<del>                                     </del>	<del> </del>										<b>5.5</b>	· 6.75	*3136	300	CIRC
	<del> </del>	<u></u>	<del> </del>				<del>_</del>						A CONTRACTOR OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF TH		and the second of the local	" Made ( Sale)	
State B.#6%	30-025-	07435	220	MRS	-38F	F	1//47	P	3219	3137	3219	NONE	<b>7.625</b>	9.875		200	390
Collins & Ware	50:025	201700	20	100		Sand Carely	***************************************	t militarida (6	ALTERT TRACES				5.5	6.75	3137	394	≅CIRC**
Collins a Mare																	
	<del> </del>	<b> </b>															
St I #5	30-025-	23173	29	-185	-38E	0	7//69	Р	6970	6648	6930	NONE	8.625	12.25	3808	300	3418**
Texland Pet.	00-020	20110					1 -						6.625	8.75	3575	530	CIRC**
Textand rec.	<del>                                     </del>						÷			-			5.5	7.875	7022	NA	NA
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			ļ								Ŧ				l·		
State A #7	30-025-	22934	29	-185	-38E	N	2//69	Р	6050	5823	5941	NONE	11.75	15	360	250	CIRC**
	30-020-	22304	20	100		<del>``</del>		-					8.625	11	3800	240	2515-TS
Conoco	<del> </del>												5.5	7.875	6050	405	3300-TS
						-1		-						•			
iate A#8		23028		118S	-38E	y Kaa	4//69	MA	3567	3652	5787	5824-5924	11,75	AND THE RESERVE OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF	360	#2************************************	CIRC
Jonoco		29970	10 E US	Marie 1986	2 To 22 S	M. 5 M. 7	I PROFESSION STATES	S. V. V. V.	CIRL		-		8.625	<b>211</b> %	<b>3800</b> *	240	3064*\$
POHOCO									200	-			5.5	7.875	5960	405	4309**
	<del>   </del>					_											The second section of the second
State A-33 # 12	30-025-	23195	33	-18S	-38E	L	9//69	Р	6985	6686	6946	NONE	13.375	17.5	422	375	CIRC
	30-025-	20190	- 33	-100	302		3., 55	· -	PBTD				9.625	12.5	3750	325	2850
Conoco/Brothers Prod.	<del>                                     </del>												7	8.75	7018	525	3700
	-		-			一十		-							·		

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	No.	Sec.	T	R	Un	Drill	Well	TD or	Тор	Bot.	Sqz.	Csg.	Hole		No. of	
Operator						Ltr	Date	Туре	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
Bowers A Fed. #28	30-025-	23022	29	-185	-38E	М	4//69	P	5345	·5856	5928	NONE	11.75	15	374	300	CIRC**
Exxon				1	T			1	CIBP				8.625	11	3850	500	1879**
					1			1					5.5	7.875	5989	450	3838**
			$\Box$														
Bowers Alter W29	30-025-	23131	29	-185	-38E	L	5//69	P	6000	5808	5889	NONE	11,75	15	370	300	CIRC**
Exect				<del>                                     </del>							Cortein .	<del></del>	8.625	11	3849~	500 [‡]	1877***
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																1	The second of the second second
Bowers A Fed. #38	30-025-	28580	30	-185	-38E		4//84	P	7006	6764	6962	NONE	13.375	17.5	1476	1220	CIRC
Exxon	1				<u> </u>								10.75	12.25	4491	1650	CIRC
				<del>                                     </del>				-					5.5	7.875	7000	660	4985
					1	<u> </u>		<b></b>									
WD Grimes #6	30-025-	23400	29	-18S	-38E	T	2//70	Р	7018	6631	6984	NONE	13.375	17.5	377	400	CIRC**
Lewis B. Burleson			_						PBTD		<del></del>		9.625	12.25	3847	2300	CIRC**
								<u> </u>					7	8.75	7049	540	3458**
				<u> </u>													
HD McKinley #8	30-025-	23151	30	-18S	-38E	H	6//69	Р	5615	3676	3754	NONE	13.375	17.5	360	340	CIRC
Getty	· ·												8.625	11	3842	1400	CIRC
													5.5	7.875	6057	650	3300
HD McKinley #9	30-025-	23221	30	-18S	-38E	G	8//69	TA	6961	5761	6965	NONE	13.375	17.5	378	400	CIRC**
Getty									CIBP				9.625	12.25	3851	1748	CIRC**
						_		,					7	8.75	6999	650	1933**
Grimes A #4	30-025-	07522	32	-18S	-38E	c	9//30	Р	3884	3604	3700	270	15.5	20	220	200	CIRC**
Gulf									PBTD				9.625	12.25	2742	600	318**
· · · · · · · · · · · · · · · · · · ·													6.625	7.875	3931	400	CIRC**
Grimes NCT-A #17	30-025-	22792	32	-18S	-38E	C	11//68	Р	6051	5780	5996	NONE	13.375	17.5	366	370	CIRC
Gulf/Chevron									PBTD				9.625	12.25	3399	1450	CIRC**
													7	8.75	6149	545	2510
Grimes NCT-A #18	30-025-	22915	32	-18S	-38E	F	2//69	Р	6000	5772	5928	NONE	13.375	17.5	351	335	CIRC

^{**} Denotes calculated TOC with 50% efficiency

Commonstate #2   30-025- 23856   33 -18S   -38E   F   10/70   P   7075   5830   6533   NONE   13.375   17   402   410   CIRC   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440   P   440	Well Name	API	No.	Sec.	Т	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole		No. of	
Marathon  State #8 30-025- 07542 32 -185 -38E I 7/148 P 3192 3124 3192 NONE 8.625 11 300 125 CIRC Marathon  State #8 30-025- 07486 30 -185 -38E L 4/148 P 3190 3223 3271 NA 8.625 11 295 125 CIRC Marathon  State #8 30-025- 07486 30 -185 -38E L 4/148 P 3180 3223 3271 NA 8.625 11 295 125 CIRC Marathon  State #8 30-025- 07486 30 -185 -38E F 10/70 P 7032 6680 6992 NONE 12.75 7. 3173 900 CIRC Marathon  Hobbs-State #1 30-025- 23856 29 -185 -38E F 10/70 P 7032 6680 6992 NONE 12.75 7. 3173 900 CIRC Marathon  Conco-State #2 30-025- 23856 33 -185 -38E K 11/71 P 7075 5830 6533 NONE 13.375 7. 375 7050 150 3836-CBL  Hobbs-State #2 30-025- 23856 33 -185 -38E G 4/14 P 6397 6705 7031 6318-8350 9.625 12.25 3797 350 988 989 30-025- 23850 92 185 -38E G 4/14 P 70 6397 6705 7031 6318-8350 9.625 12.25 3797 350 988 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3803 70 600 3		741	1		<del></del>				Type	PBTD	Perf	Perf	Perfs	Size	Size			TOC
State #8 30-025- 07542 32 -18S -38E I 7//48 P 3192 3124 3192 NONE 8.625 11 300 125 CIRC Marathon 30-025- 07542 32 -18S -38E L 4//48 P 3160 3223 3271 NA 8.625 11 295 125 CIRC Marathon 30-025- 07486 30 -18S -38E L 4//48 P 3180 3223 3271 NA 8.625 11 295 125 CIRC Marathon 30-025- 23856 29 -18S -38E F 10//70 P 7032 6860 6992 NONE 12.75 77.5 356 400 CIRC Marathon 910 1111g			<del> </del>	-		<del> </del>								5.5	7	3116	1000	CIRC
State #8 30-025 07486 30 -185 -36E I 1/1/40 P 3192 5124 5100 CIRC State #8 30-025 07486 30 -185 -38E L 4/1/48 P 3180 3223 3271 NA 8.625 11 295 125 CIRC Marathon 30-025 23585 29 -185 -38E F 10/1/70 P 7032 6880 6992 NONE 12.75 17.5 356 400 CIRC Marathon P1111ing 30-025 23585 29 -185 -38E F 10/1/70 P 7032 6880 6992 NONE 12.75 17.5 356 400 CIRC Marathon P1111ing 30-025 23585 33 -185 -38E K 11/1/71 P 7075 5830 6533 NONE 13.375 17 402 410 CIRC Marathon P1111ing 30-025 23850 33 -185 -38E G 4/1/41 P 7075 5830 6533 NONE 13.375 17 402 410 CIRC Marathon P1111ing 30-025 23820 29 -185 -38E G 4/1/41 P 800 500 7031 6318-6360 8.625 12.25 3797 350 998 300 3503 NATURE 11 11 11 11 11 11 11 11 11 11 11 11 11						<del> </del>			<b></b>									
State #8 30-025 07486 30 -185 -38E L 4//48 P 3180 3223 3271 NA 8.625 11 295 125 CIRC Marathon 30-025 07486 30 -185 -38E L 4//48 P 3180 3223 3271 NA 8.625 11 295 125 CIRC Marathon 5.5 7 3173 900 CIRC Marathon 5.5 7 3173 900 CIRC Marathon 5.5 7 3173 900 CIRC Marathon 96121 Ing 30-025 23855 29 -185 -38E F 10//70 P 7032 6880 6992 NONE 12.75 17.5 356 400 CIRC Marathon 96121 Ing 3785 30 2800 8836-BL 8.625 11 3785 300 2800 8836-BL 8.625 11 3785 300 2800 8836-BL 8.625 11 3785 300 2800 8836-BL 8.625 11 3785 300 2800 8836-BL 8.625 11 3785 300 3836-BL 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 8.625 12.25 3787 350 998 988 988 988 988 988 988 988 988 98																		
Marathon	State #8	30-025-	07542	32	-18S	-38E	-	7//48	Р	3192	3124	3192	NONE					
State #1														5.5	7	3124	1000	CIRC
State #1																		
State #1															44	005	425	CIPC
Marathon	St #8	30-025-	07486	30	-18S	-38E	L	4//48	Р	3180		3271	NA NA					
Hobs State #1 30-025 23885 29 -18S -38E F 10//70 P 7032 6880 6982 NONE 12.75 17.5 358 400 CIRC #1 3795 300 2800 %	Marathon										ОН			5.5		31/3	900	CIRC
Hobbs State #1   30-025   23856   33 -185   38E   F   10/10   F   PBTB				1														
Hobbs State #1   30-025   23856   33 -185   38E   F   10/10   F   PBTB	Office and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s						VE.				00000	0000	THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE P	1075		356	400 ···	CIRCON
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^{**} Denotes calculated TOC with 50% efficiency

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20.005	07476	30	188	-30⊏	1	7//47	PA	3189	3148	3189	NA	8.625	11	225	200	CIRC**
30-025-	07476	30	-103	-30L	-	1//41	173	0.00		0.00		5.5	7.625	3150	1350	CIRC**
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		<u> </u>		<u> </u>			-		40	-50	NONE	7	8	12	6	CIRC**
30-025-	21900	30	-18S	-38E	J	10//66	PA	50	10	50	NONE		_ <del>-</del>			
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30-025-	23176	29	-185	1-38E	E	6//69	PA	7050	6075	6991	NONE					
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30-025-	23222	49	-100	-00L		,,,,,,			,4,4,3		5939	9.625	12.25	3836	<b>350</b>	2555-TS
	<u> </u>		<del> </del>	├	-		<del> </del>	UID: N				7.7	8.75	5988	550	2900-TS
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30-025-	23260	30	-18\$	-38E	J	8//69	PA	/010	5622	09/9						2600**
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30-025-	21963	29	-185	-38E	1E	1//67	PA	35	NA	NA	NA S	NA W	SA NASS	LA NASE	TO THE STATE OF	THE STAN
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	30-025- 30-025- 30-025- 30-025- 30-025- 30-025-	30-025- 07446 30-025- 07446 30-025- 07476 30-025- 21900 30-025- 23176 30-025- 23222 30-025- 23260	30-025- 07453 29 30-025- 07453 29 30-025- 07446 29 30-025- 07476 30 30-025- 21900 30 30-025- 23176 29 30-025- 23222 29 30-025- 23260 30	30-025- 07453 29 -18S 30-025- 07453 29 -18S 30-025- 07446 29 -18S 30-025- 07476 30 -18S 30-025- 21900 30 -18S 30-025- 23176 29 -18S 30-025- 23222 29 -18S	30-025- 07453 29 -18S -38E 30-025- 07448 29 -18S -38E 30-025- 07446 30 -18S -38E 30-025- 21900 30 -18S -38E 30-025- 23176 29 -18S -38E 30-025- 23222 29 -18S -38E	30-025- 07453 29 -18S -38E D  30-025- 07446 29 -18S -38E E  30-025- 07476 30 -18S -38E J  30-025- 21900 30 -18S -38E J  30-025- 23176 29 -18S -38E E  30-025- 23222 29 -18S -38E D	30-025- 07451 29 -18S -38E O 8//47  30-025- 07453 29 -18S -38E D 9//48  30-025- 07446 29 -18S -38E E 8//30  30-025- 07476 30 -18S -38E J 7//47  30-025- 21900 30 -18S -38E J 10//66  30-025- 23176 29 -18S -38E D 6//69  30-025- 23222 29 -18S -38E D 7//69  30-025- 23260 30 -18S -38E J 8//69	30-025- 07451 29 -18S -38E O 8//47 PA  30-025- 07453 29 -18S -38E D 9//48 PA  30-025- 07446 29 -18S -38E E 8//30 PA  30-025- 07476 30 -18S -38E J 7//47 PA  30-025- 21900 30 -18S -38E J 10//66 PA  30-025- 23176 29 -18S -38E E 8//69 PA  30-025- 23222 29 -18S -38E D 7//69 PA  30-025- 23260 30 -18S -38E J 8//69 PA	30-025- 07451 29 -18S -38E D 9//48 PA 3238  30-025- 07453 29 -18S -38E D 9//48 PA 3238  30-025- 07446 29 -18S -38E E 8//30 PA 4259  30-025- 07476 30 -18S -38E J 7//47 PA 3189  30-025- 21900 30 -18S -38E J 10//66 PA 50  30-025- 23176 29 -18S -38E E 8//69 PA 7050  30-025- 23222 29 -18S -38E D 7//69 PA 3970  CIBP  30-025- 23260 30 -18S -38E J 8//69 PA 7010	30-025- 07451 29 -18S -38E O 8//47 PA 3207 3162  30-025- 07453 29 -18S -38E D 9//48 PA 3238 3179  30-025- 07446 29 -18S -38E E 8//30 PA 4259 NA  30-025- 07476 30 -18S -38E J 7//47 PA 3189 3148  OH  30-025- 21900 30 -18S -38E J 10//66 PA 50 10  30-025- 23176 29 -18S -38E D 7//69 PA 7050 6075  30-025- 23260 30 -18S -38E D 7//69 PA 3970 4144  30-025- 23260 30 -18S -38E J 8//69 PA 7010 5822	Ltr   Date   Type   PBTD   Perf   Perf	30-025- 07451 29 -185 -38E D 9//48 PA 3238 3179 3238 NA OH   30-025- 07453 29 -185 -38E D 9//48 PA 3238 3179 3238 NA OH   30-025- 0746 29 -185 -38E E 8//30 PA 4259 NA NA NA NA   30-025- 07476 30 -185 -38E J 7//47 PA 3189 3148 3189 NA   30-025- 21900 30 -185 -38E J 10//66 PA 50 10 50 NONE   30-025- 23176 29 -185 38E E 5//69 PA 7050 8075 6991 NONE   30-025- 23222 29 -185 -38E D 7//69 PA 3970 4144 5953 4258-68   GIBP	Ltr   Date   Type   PBTD   Perf   Perf   Perf   Size	API No. Sec.   R. Citi   Date   Type   PBTD   Perf   Perf   Perf   Size   Size	API No.   Sec.	API No. Sec. J R Ut Date Type PBTD Perf Perf Perf Size Size Depth Sxs.  30-025- 07451 29 -18S -38E O 8//47 PA 3207 3162 3207 NONE 8.625 11 496 400 30-025- 07453 29 -18S -38E D 9//48 PA 3238 3179 3238 NA 8.625 11 260 150 30-025- 07466 29 -18S -38E E 8//30 PA 4259 NA NA NA 9.625 12 2750 650 30-025- 07466 30 -18S -38E J 7//47 PA 3189 3148 3189 NA 8.625 11 225 200 30-025- 07476 30 -18S -38E J 7//47 PA 3189 3148 3189 NA 8.625 11 225 200 30-025- 21900 30 -18S -38E J 10//66 PA 50 10 50 NONE 7 8 12 8 30-025- 23176 29 -18S -38E E 8//59 PA 7050 8075 6991 NONE 7 8 12 8 30-025- 23222 29 -18S -38E D 7//69 PA 3970 4144 5953 4256-86 13:375 17 415 400 30-025- 23222 29 -18S -38E J 8//69 PA 7010 5822 6979 5848-98 9.625 112-25 3856 350 30-025- 23260 30 -18S -38E J 8//69 PA 7010 5822 6979 5848-98 9.625 12-25 3856 550 30-025- 23260 30 -18S -38E J 8//69 PA 7010 5822 6979 5848-98 9.625 12-25 3856 550 30-025- 23260 30 -18S -38E J 8//69 PA 7010 5822 6979 5848-98 9.625 12-25 3850 550 30-025- 23260 30 -18S -38E J 8//69 PA 7010 5822 6979 5848-98 9.625 12-25 3850 550 30-025- 23260 30 -18S -38E J 8//69 PA 7010 5822 6979 5848-98 9.625 12-25 3850 550 30-025- 23260 30 -18S -38E E 1//67 PA 3355 NA NA NA NA NA NA NA NA NA NA NA NA NA

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	No.	Sec.	T	R	Un	Drill	Well	TD or	Тор	Bot.	Sqz.	Csg.	Hole		No. of	TOC
Operator						Ltr	Date	Type	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	100
Exxoli																	
WWW.534.														· .		ļ	
·	<u> </u>													3.14	N1A	NA NA	NA
Bowers A Fed. #CT26	30-025-	21969	30	-18S	-38E	J	1//67	PA	35	NA	NA	NA	NA	NA	NA	NA	IVA
Exxon																	ļ <u>.</u>
														114	NIA	NA NA	NA
Bowers A Fed. #CT27	30-025-	21970	30	-18S	-38E	Н	1//67	PA	35	NA	NA	NA	NA	NA	NA	INA	IVA
Exxon								ļ									
														44	040	150	CIRC**
WD Grimes #2	30-025-	07455	29	-18S	-38E	Α	2//48	PA	4045	NA	NA	NA	8.625	11	242	450	CIRC**
Humble											<u> </u>		5.5	7.375	3205	450	CIRC
													ļ			<del> </del>	
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G.O. Mckinley #3	30-025-	07461	30	-188	-38E	I	7//30	PA	3199	NA	NA ·	NA	9.625	12.25	2755	100	2995**
Marathon/Getty													.: <b>7</b>	8.25	3166	100	2330
																	l
													0.005	44	1474	400	CIRC**
G.O. Mckinley #6	30-025-	07488	30	-18S	-38E	G	6//47	PA	3200	1453	NA	NA	8.625	11 5.875	3178	200	CIRC**
Marathon/Getty												ļ	5.5	5.875	3176	200	CIRC
										<u> </u>		ļ					
													0.005	11	1504	400	CIRC**
G.O. Mckinley #7	30-025-	07489	30	-18S	-38E	В	7//47	PA	3224	NA	NA	NA	8.625 5.5	6.5	3192	200	CIRC**
Marathon/Getty										·			5.5	0.5	3132	200	CIIXO
														77740.0Em	364	200	∜ CIRC
Hobbs State #5	30-025-	23662	29	-188	-38E	्रहर	1//71	PA	5959	5813	5879	NA :	9.625	12.25 8.75	3826	200	2250
Ne-O-Text													7.	6.25	5986	120	3800 (C)
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									<u> </u>		2000	NG. 15	40.5	16	1482	175	1046**
State-Northrup #1	30-025-	07535	32	-18S	-38E	J	6//30	PA	3227	3140	3203	NONE	12.5	12.25	2776	200	2050**
Ohio Oil									PBTD				10.75	8.75	3850	275	CIRC
											:		7	8.75 7	3244	500	CIRC
									ļ				5		3244	300	CIRC
	1											NOVE	0.605	13	441	300	CIRC**
WD Grimes #6	30-025-	07428	28	-18S	-38E	F	11//47	PA	3325	NONE	NONE	NONE	9.625		3185	800	CIRC**
Repollo/Sinclair		T			I			l	I	ı	ı	I .	17	9	3 100	1 000	I CIRC

^{**} Denotes calculated TOC with 50% efficiency

Well Name	API	API No.			R	Un	Drill	Well	TD or	Тор	Bot.	Sqz.	Csg.	Hole		No. of	<del> </del>
Operator						Ltr	Date	Туре	PBTD	Perf	Perf	Perfs	Size	Size	Depth	Sxs.	TOC
WD Grimes #5	30-025-	07424	28	-18S	-38E	L	7//47	PA	3150	3191	3197	NONE	8.625	11	409	195	CIRC**
Shell									CMT				4.5	7.875	1958	600	CIRC**
:																	
WD Grimes #6	30-025-	12500	28	-18S	-38E	М	7//47	PA	3090	3155	3161	NONE	8.625	11	411	200	CIRC**
Shell		1						<u> </u>	CMT				5.5	7.875	2778	1400	CIRC**
		<del>                                     </del>	ļ					1									
<u> </u>			<u> </u>													l	
Grimes #8	30-025-	07423	28	-18S	-38E	1	9//47	PA	3120	3215	3221	NONE	8.625	11	402	200	CIRC**
Shell	00.020	07.120		100					CMT				4.5	7.875	2108	850	CIRC**
Sileii		<del> </del>							<u> </u>		<del>                                     </del>	<u> </u>					
		<del> </del>	_	ļ													
	100.005	40400	40	-18S	-38E	N	8//47	PA	3247	3205	3247	NA	8.625	11	407	200	CIRC**
McKinley A #9	30-025-	12492	19	-100	-30E	14	0//4/	FA	3241	0200	0241		4.5	7.875	3168	850	CIRC**
Shell		ļ <u> </u>		ļ							<del>                                     </del>		1.0	774			
		<u> </u>	ļ					<u> </u>						<del></del>			
		<u></u>					101115	54	0000	2040	2000	NONE	9.625	13	441	300	CIRC**
WD Grimes #5	30-025-	07426	28	-18S	-38E	ш	10//47	PA	3222	3212	3222	NONE	7	9	3185	600	CIRC**
Sinclair									·					;5	3103	- 000	0
										0.150	1404	NIA .	13.375	17.5	217	200	CIRC**
St #1	30-025-	07442	29	-18S	-38E	P	8//30	PA	4191	3150	4191	NA		12.25	2735	500	1473**
Std of Tx											ОН		9		3907	174	2374**
						L							6.625	7.875	3907	174	23/4
· · · · · · · · · · · · · · · · · · ·														12.5		450	CIRC**
St #2	30-025-	07443	29	-18S	-38E	0	9//30	PA	4171	3155	4156	NA	13	17.5	225	150	CIRC**
Std of Tx													9.625	12.25	2810	725	
											<u> </u>		7	8.75	3951	300	1973**
WD current	30-025-	07456	* 29	-18S	-38E		8//30	PA	4160	3168	3189		12.5	17.5	236	200	CIRC**
Fileway.				*****		-				latur mad des <u>in lieu</u> nde es	s	3049-50	9.625	12 25	2712	600	₹273 <b>**</b>
		<del> </del>	<u> </u>									T. Brown M. A. Co.	6.625	8.75	3826	300	2404**
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Grimes #5	<u>* 30-025-</u>	U/40U	78	7100	-30E	to the	· (2//50)		**************************************	S tops i		Warming Town Co. T. Co. of the Co.	E EST. 7-179.				

## WELL SCHEMATIC: TURA NHU 29-421

WELL PLUGGED: 12/3/97

12.5" 220' 200 SX TOC: CIRC

10 sx cmt from 62' to surf.

Stung out and left 60' cmt on Top of ret.

Perf at 500'. Set CICR at 308'

Squeeze 100 sx cmt below Ret. to surf in 7" csg. x 9.625" Csg.

Pumped 20 sx cmt from 1868 To 1748'.

2720' 600 SX TOC: 518'

9.625"

7" 3880' 300 SX TOC: 2914 CBL

5.5" 3796'-4236' 50 SX TOC: 3866' Pumped 20 sx cmt from 2862 To 2742'.

Pumped 20 sx cmt from 3873 To 3722'.

Set CIBP at 4100'. Cap w/40' Cmt.

### WELL SCHEMATIC: XON BOWERS A FED #9

WELL PLUGGED: 12/3/70

12.5" 213' 650 SX

TOC: SURF (C)

9 5/8" 2736' 650 SX

TOC: SURF (C)

Spotted 10 sx cmt plug from 0' to 25 '.

Hole was loaded with mud Laden fluids.

Spotted 20 sx cmt plug from 1400' to 1550'.

Spotted 40 sx cmt plug from 2300' to 2400'.

7" 3970' 300 SX TOC: 2000(C)

.

Perf's at 3220'-3227'.

Spotted 50 sx cmt plug from 3000' to 3250'.

Squeezed perf's at 3726' To 3741'.

TD: 4259'

# WELL SCHEMATIC: "DEWATER WD GRIMES #1

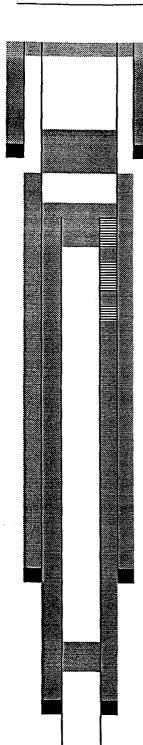
WELL PLUGGED: 7/25/68

Size: 12 ½"
Depth: 236'
Hole size: 17.5"
Cmt: 200 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 9 5/8"
Depth: 2712'
Hole size: 12.25"
Cmt: 600 sxs
TOC: 273'- Calc.
With 50% effic.

Size: 7"
Depth: 3826'
Hole size: 8.75"
Cmt: 300 sxs
TOC: 800' FP

TD:4160'



Laid 10 sx plug at surface.

Laid 25 sx cmt at bottom of 12 ½" csg.

Laid 25 sx over 7" stub. Shot at 787' and pulled. Shot at 899'.

Shot at 1044'. Shot at 1193'.

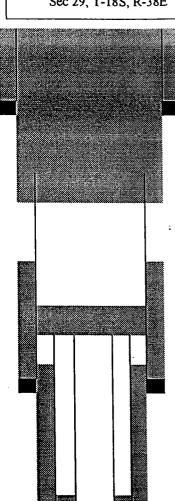
Shot at 1404'.

Spotted 25 sx cmt plug from 3599' to 3467'.

W.D. Grimes #2 Tidewater Oil Co. Init H, 990 FEL & 2310 FNL Sec 29, T-18S, R-38E

WELL PLUGGED: 2/18/82

Size: 15.5" Depth: 230' Hole size: 17.5" Cmt: 200 sxs TOC: Circ. – Calc. 50% efficiency



Circ. 15335 sxs from 1361 to surface

Cut off 9.625" at 1200'

Size: 9.625" Depth: 2718' Hole size: 12.25" Cmt: 600 sxs

TOC:

Size: 5.5" Depth: 3350 Hole size: 7" Cmt: 100

TOC: 3088' - Calc with 50% effc.

Size: 7"
Depth: 3880'
Hole size: 8.75"
Cmt: 300 sxs
TOC:

TD: 4176

25 sxs cmt. Plug

Cut off 7 and 5.5" at 2030'

15 sxs plug

Perfs 3086-88, sqz'd w/ 100 sxs

Perfs 3148-3255

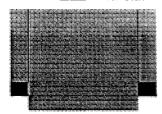
Perfs 3270-72, sqz'd w/ 50 sxs

Cmt Ret. 3350'

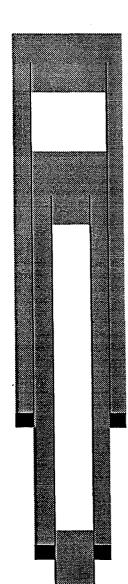
Grimes #5 Tidewater Oil Co. Unit H, 1650 FNL & 990 FEL Sec. 29, T-18S, R-38E

WELL PLUGGED: 3/17/81

Size: 12.5" Depth: 214' Hole Size: 17.5" Cmt: 325 sxs TOC: Circ.



Spotted 500 sxs at 400' to surface



9.625" top at 1198

Spotted 100 sxs at 1249'

7" top at 1750'

Spotted 100 sxs at 1800'

Size: 9.625" Depth: 2715' Hole Size: 12.25" Cmt: 600 sxs TOC:

Size: 7" Depth: 3911' Hole size: 8.75" Cmt: 400 sxs TOC:

TD: 4200'

Spotted 100 sxs at 4107

WELL PLUGGED: 11/25/89

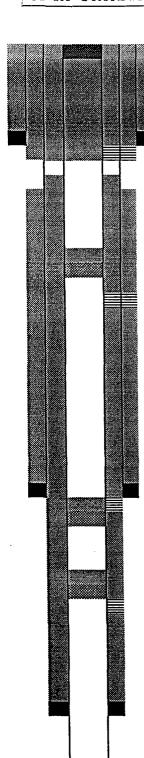
Size: 13 3/8" Depth: 217' 200 SX

TOC: SURF (C) TOC: Circ. – Calc. With 50% effic.

Size: 9"
Depth: 2735'
Hole size: 12.25"
Cmt: 500 sxs
TOC: 1200'- Calc.
With 50% effic.

Size: 6 5/8"
Depth: 3907'
Hole size: 7.875"
Cmt: 357 sxs
TOC: Circ. – Calc.
With 50% effic.

TD: 4191'



Weld ½" plate on top.

Perf 6 5/8" and 9" at 267'. Pumped 170 sx cmt down Prod csg, circ cmt out Intermediate and surf csg Annuli. Cut off 6 5/8" csg 3' Below GL. Cap w/ ½" plate And valve wellbore.

Set cicr at 1404'.

Perf 6 5/8" and 9" at 1500'. Sqzd perfs w/200 sx cmt.

Perfd 6 5/8" csg at 2785'. Sqzd perfs w/55 sx cmt. Set cast iron cmt ret at 2681'. Cap cmt ret w/35' cmt.

Capped CICR w/35' cmt to 3000'.
Set cast iron cmt ret at 3060' Sqzd perfs w/106 sx to 3000' Perfs at 3138' to 3241'

# WELL SCHEMATIC: O OF TX STATE #2

### WELL PLUGGED: 12/5/89

Size: 13"
Depth: 225'
Hole size: 17.5"
Cmt: 150 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 9 5/8"
Depth: 2810'
Hole size: 12.25"
Cmt: 725 sxs
TOC: Circ. – Calc.
With 50% effic.

Sqzd perfs at 292' with 220 sx. Circ to surface

Set cicr at 1404' and capped With cmt. Perf'd at 1500'. Sqzd perfs at 1500' with 300 sx

Size: 7"
Depth: 3951'
Hole size: 8.75"
Cmt: 300 sxs
TOC: 1240'- Calc.
With 50% effic.

PBTD: 3072'

Set cicr at 2744'.

Perfs sqzd at 2852', sqzd With 55 sx. Dumped 35' cmt onto CIBP. CIBP at 3072'

## WELL SCHEMATIC: -O-TEX HOBBS STATE #5

WELL PLUGGED: 5/11/73

Size: 9 5/8"
Depth: 364'
Hole size: 12.25"
Cmt: 200 sxs
TOC: Circ. – Calc.
With 50% effic.

Spotted 10' cmt plug at surf.

Size: 7"
Depth: 3826'
Hole size: 8.75"
Cmt: 200 sxs
TOC: 2250'

Size: 41/2"
Depth: 5986'
Hole size: 6.25"
Cmt: 120 sxs
TOC: 3800'- Calc.
With 50% effic.

PBTD: 5959'

TD: 5986'

Shot and pulled csg at 3744'. Pumped 255 sx cmt plug From 3744' to 3644'.

Set 4 1/2" CIBP at 5757' and Capped with 35' cmt. Est. TOC is 5722'.

W. D. Grimes #2 Humble Oil & Refining Co. Unit A, NE/4 of NE/4 Sec 29, T-18S, R-38E

# WELL PLUGGED: 3/23/48

Size: 8.625" Depth: 242' Hole size: 11" Cmt: 150 sxs TOC: Circ.- Calc. 50% efficiency

Size: 5.5"
Depth: 3140'
Hole size: 7.375"
Cmt.: 450 sxs
TOC: Circ.- Calc.
50% efficiency

TD: 4045'

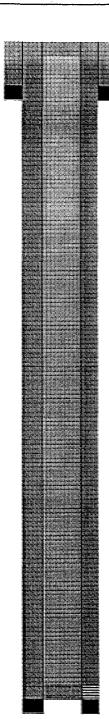
## WELL SCHEMATIC: NOCO STATE A #4

WELL PLUGGED: 1/12/71

Size: 10 ¾"
Depth: 200'
Hole size: 15"
Cmt: 250 sxs
TOC: Circ. -- Calc.
With 50% effic.

Size: 5 ½"
Depth: 3215'
Hole size: 7.875"
Cmt: 600 sxs
TOC: Circ. – Calc.
With 50% effic.

TD: 3215'



Spotted a 10 sx cmt plug at Surface.

Filled well bore with 10# mud.

Set a 40 sx cmt plug over Perfs from 3164' to 3197'.

### WELL SCHEMATIC: NOCO STATE A#5

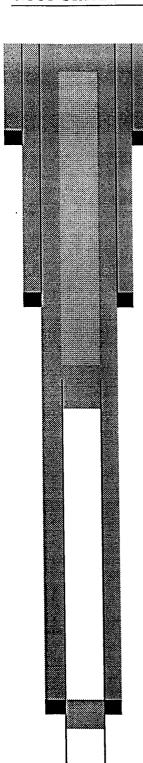
WELL PLUGGED: 1/12/71

Size: 10 ¾"
Depth: 272'
Hole size: 15"
Cmt: 200 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 7 5/8"
Depth: 999'
Hole size: 9.875"
Cmt: 425 sxs
TOC: Circ. – Calc.
With 50% effic.

Size: 5 ½"
Depth: 3206'
Hole size: 7.875"
Cmt: 450 sxs
TOC: Circ. – Calc.
With 50% effic.

PBTD:3168'



Spotted a 10 sx cmt plug At surface.

Filled well bore with 10# mud

Cut 5 ½" csg at 1570' and Pulled out of hole. Set a 55 Sx cmt plug in and out of 5 ½" stub.

Spotted 40 sx cmt plug over Perfs from 3188' to 3168'.

#### LIST OF OFFSET OPERATORS & SURFACE OWNERS

North Hobbs (Grayburg/San Andres) Unit Well No. 321 Letter G, Section 29, T-18-S, R-38-E Lea County, New Mexico

#### Offset Operators

Occidental Permian Limited Partnership P.O. Box 4294 Houston, TX 77210-4294

Lewis B. Burleson, Inc. P.O. Box 2479 Midland, TX 79705

Collins & Ware, Inc. 508 W. Wall, Suite 1200 Midland, TX 79701

Marcum Drilling Co. P.O. Box 3699 Midland, TX 79705

Rice Operating Co. 122 West Taylor Hobbs, NM 88240

Surface Owners

Grimes Land Company P.O. Box 5102 Hobbs, NM 88240 Conoco Inc. 10 Desta Dr. West Midland, TX 79705

HRC, Inc. P.O. Box 5102 Hobbs, NM 88241 H.R.C. INC. P.O. Box 5102 Hobbs, NM 88241 (505)393-3194

RE: Brine Extraction Well

Hobbs State #5

Unit F, Sect. 29, Tws. 18S, Rng. 38E., Lea Co., NM

Dear Sir:

As per the Rules and Regulations of the Oil Conservation Division of New Mexico, you are being provided a copy of the Application for the construction of a brine extraction facility at the above location.

If you have any questions, please call Gary Schubert at (505)393-3194. Any objections or request for hearing must be filed with the Oil Conservation Division within fifteen (15) days. Objections and request for hearing should be addressed to Oil Conservation Division, P.O. Box 6429, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505 or call (505)476-3440.

Thank you,

Gary M. Schubert

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City, Scriobos; NM 88241
PS Form 3800, July 1999

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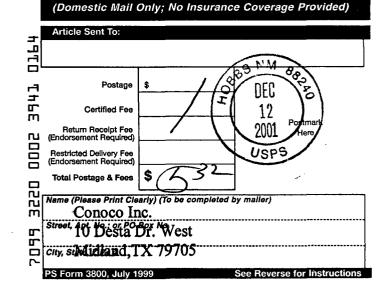
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s. Postal Service **CERTIFIED MAIL RECEIPT** (Domestic Mail Only; No Insurance Coverage Provided) Article Sent To: 밉 88240 3947 Postage  $M_{ij}$ Certified Fee Postn Return Receipt Fee (Endorsement Required) Her 000 Restricted Delivery Fee (Endorsement Required) \$ Total Postage & Fees Name (Please Print Clearly) (To be completed by mailer) ru Collins & Ware, Inc. 508 W. Wall, Suite 1200 0 cny, swidland, TX 79701

PS Form 3800, July 1999

CERTIFIED MAIL RECEIPT (Domestic Mail Only; No Insurance Coverage Provided) **Article Sent To:** B 40 Postage 3947 882 Certified Fee Return Receipt Fee (Endorsement Required) 000 Restricted Delivery Fee (Endorsement Required) Total Postage & Fees 밉 Name (Please Print Clearly) (To be completed by r Πü Rice Operating Co. Street, Apt No. of FQ Box No. 122 West Taylor 0 city, station bs, NM 88240 See Reverse for Instructions

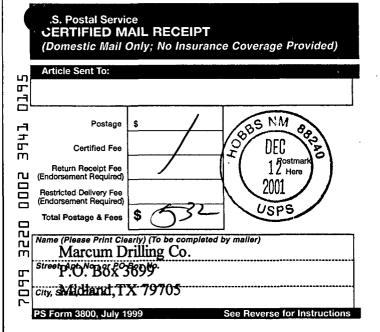


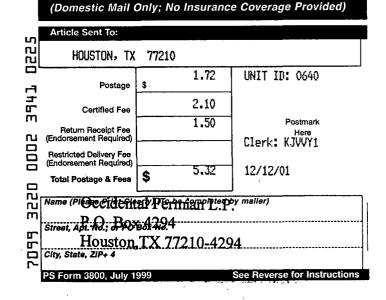


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#### **LEGAL NOTICE**

Pursuant to the rules and regulations of the State of New Mexico Oil Conservation Commission, Santa Fe, NM, H.R.C. Inc. of Hobbs, NM, is filing application for a brine extraction well and facility. The well is the Hobbs State #5 located 2280 FNL and 1980 FWL, Unit F, Section 29, Township 18 South, Range 38 East, Lea Co. NM. The well and facility will be producing brine water from the Salado formation at approximately 2000 ft. with productions pressures of from 200# to 250#. The application can be reviewed at the OCD office, Hobbs, NM. Any questions concerning the application can be directed to Mr. Gary Schubert, P.O. Box 5102, Hobbs, NM 88241, (505)393-3194, or any request for hearing or objections should be directed to the Oil Conservation Commission, P.O. Box 6429, 1220 South Saint Francis Drive, Santa Fe, NM 87505, or call (505)476-3440, within fifteen (15) days.

### **Affidavit of Publication**

	STATE OF NEW MEXICO	
	COUNTY OF LEA )	<b>5.</b>
	Joyce Clemens being first duly sworn on oar says that she is Advertisting Director of THE DAILY LEADER, a daily newspaper of genetion published in the English language at County, New Mexico; that said newspaper he lished in such county continuously and unin period in excess of Twenty-six (26) consecutivity of the first publication of the notice her hereinafter shown; and that said newspaper duly qualified to publish legal notices within Chapter 167 of the 1937 Session Laws of the Mexico.	eral paid circula- Lovington, Lea as been so pub- terruptedly for a ative weeks next reto attached as ar is in all things the meaning of
	That the notice which is hereto attached, er	ntitled
	Legal Notice	
_	was published in a regular and entire issu	e of THE LOV-
	INGTON DAILY LEADER and not in any su	pplement there-
	of, for <u>one (1) day</u> , beginning	with the issue of
	December 12, 2001 and ending	g with the issue
	of December 12 ,200	
(	And that the cost of publishing said notice is \$\frac{19.61}{\text{ which sum has}}\$  Court Costs.  Subscribed and sworn to before me this 2  December 2001.	been (Paid) as
	Debbie Schilling  Notary Public, Lea County, New Mexico	
	My Commission Expires June 22, 2002	
	, Expirod dullo LL, LOUL	

Pursuant to the rules and regulations of the State of New 192 Mexico Oil Comsterr valtion Commission, Santa Fe, NM, H.F.C. Inc. of Hobbs, NM, is filing application for a brine extraction well and facility, are well is the Hobbs! State: #5 located 2280 FNL and 1980 FWL, Unit F. Section 29, Township 18 South, Range 38 East, Lea Co. will be, producing I brine water from the Salado formation at approximately 2000 tt. With productions pressures of from 200# to 250#. The application can be reviewed at the OCD office, Hobbs, NM, Any questions concerning the application can be directed to Mr. Gary (Schubert, RO: Box; 5102, Hobbs, NM 88241, (505) 393-3194, or any request for hearing for objections should be directed to the Griding be directed to the Oil Self to Conservation Commission, P.O. Box 6429, 1220 South Saint Francis Drive, Santa Fe. NM 87505; for Call (505) 476-3440; Swithin Hifteen (15) days 211 an 1 in Published I in the Lovington Dally Leader December 12, 2001

#### **GROUNDWATER MONITORING**

H.R.C. Inc. proposed to monitor the groundwater at the site by installing a two inch monitor well completed through the Ogallala formation. The well location will be down gradient on the edge of the brine well location, south southeast or along water gradient.

The installation will consist of drilling with am air rotary to the top of the redbed or base of the Ogallala. Running 2 inch schedule 40 pvc well casing to TD with .10 slot well screen across the entire saturated zone. Sand pack well to five feet above upper most perforations. Cap sand with 10 ft. of bentonite, and grout from top of bentonite to surface, installing a locking cover at surface. This will enable us to monitor the entire water area.

It is our proposal to take samples from this well prior to any brine activity, for background purposes. We plan to sample for BTEX, TPH, Cations, Anions, and Metals initially. After starting operations, we plan to sample the well on bi-annual schedule, testing for Cations and Anions. All results will be reported to the OCD as they are obtained.

District I 1625 N. French Dr., Hobbs, NM 88240 District II

811 South First, Artesia, NM 88210

District III

State of New Mexico Energy, Minerals & Natural Resources

Form C-104 Revised June 1, 2000

OIL CONSERVATION DIVISION 2040 South Pacheco

Submit to Appropriate District Office 5 Copies

1000 Rio Brazos Rd., Aztec, NM 87410 Santa Fe, NM 87505  Ct IV AMENDED REPORT								ENDED REPORT					
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	H. R. C., Inc.					131652					Data		
P. O. Box 5102						Reason for Filing Code/ Effective Date  Change Operator							
⁴ API Number						Pool Code							
30-0 25-23662 BSW Salado										<del>-   .</del>	96173		
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12 Lse Code	13 Producin	g Method Code	I' Gas	Connection Date	15 C-	129 Permi	t Number		16 C-129 Effective	Date	17 C-	129 Expiration Date	
III. Oil and C	Gas Transpo	rters									-		
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										-			
VI. Well Tes													
35 Date New Oil 36		34 Gas Deliv	ivery Date 37 Test		est Date		34 Test Length		" Tbg. Pressu		re ** Csg. Pressure		
41 Choke Size		<b>4</b> 0	il	4 Water		44 Gas		4 AOF			* Test Method		
Thereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and begief.				OIL CONSERVATION DIVISION									
Signature: All Stiller				Approved by:									
GARY M. SCHUBERT					Title:								
PRES. Phone: car and and				2101	Approval Date:								
If this is a change of operator fill in the OGRID number and name of the previous operator													
Printed Name Title Date													
E. S. Hitchcock President 6/29/0							E. S.	Hit	chcock			nt 6/29/0	



#### ASSIGNMENT OF CASH COLLATERAL DEPOSIT

H.R.C. Inc. (OPERATOR) of P.O. Box 5102 (address) has					
deposited with the First National Bank (name of state or national bank or savings association,					
which must be a federally-insured bank or savings institution in the State of New Mexico) of					
600 West Bender, Hobbs, NM (address) (FINANCIAL INSTITUTION), the sum of					
\$5,000.00 dollars in Certificate of Deposit or Savings Account No. 2802198-30					
(FUND).  To comply with NMSA 1978, Section 70-2-14, OPERATOR hereby assigns and conveys all					
right, title and interest in the FUND to the FINANCIAL INSTITUTION in trust for the Oil					
Conservation Division of the Energy, Minerals and Natural Resources Department or successor agency					
of the State of New Mexico (DIVISION).					
OPERATOR and the FINANCIAL INSTITUTION agree that as to the FUND:					
a. The DIVISION acquires by this assignment the entire beneficial interest in the FUND, with					
a. The DIVISION acquires by this assignment the entire beneficial interest in the FUND, with the right to order the FINANCIAL INSTITUTION in writing to distribute the FUND to					
persons determined by the DIVISION to be entitled thereto, including the DIVISION itself,					
in amounts determined by the DIVISION, or to the OPERATOR upon sale or proper					
plugging, in compliance with the rules and orders of the DIVISION, of the well(s) covered					
by this assignment.					
b. OPERATOR retains no legal or beneficial interest in the FUND and has only the right to					
interest, if any, thereon, and to return of the FUND upon written order of the DIVISION.					
intotoli, it may, allotoli, mile to retain of allo 1 or to apoin written of allo 21 1201011.					
c. The FINANCIAL INSTITUTION agrees that the FUND may not be assigned, transferred,					
pledged or distributed except upon written order of the DIVISION or a court of competent					
jurisdiction made in a proceeding to which the DIVISION is a party. The FINANCIAL					
INSTITUTION waives all statutory or common law liens or rights of set-off against the FUND.					
rond.					
OPERATOR agrees that the FINANCIAL INSTITUTION may deduct from interest due OPERATOR					
any attorney fees incurred by the FINANCIAL INSTITUTION if claim or demand via writ, summons					
or other process arising from OPERATOR'S business is made upon the FINANCIAL INSTITUTION.					
(DD) 111. XI MM + Suito.					
Signature of OPERATOR Signature of Authorized Officer					
Personally or by Authorized Officer of FINANCIAL INSTITUTION					
Gary Schubert, President Zane S. Bergman, President					
Title Title					
State of New Mexico					
County of Lea ss.					
outing of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angl					
On this 3rd day of December, 20 01, before me personally appeared					
Gary Schubert and Zane S. Bergman to me known to be					
the person (persons) described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.					
acknowledged that they executed the same as their free act and deed.					
IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in					
this certificate first above written.					
/AMalk/					
My Commission Expires:					
10-7-04					
· · · · · · · · · · · · · · · · · · ·					

#### ONE-WELL CASH BOND

	•			
KNOW ALL MEN BY THESE P. individual) (a partnership) (a corporation organical structure)	RESENTS TH	AT H.R.C.	Inc.	(an
office at P.O. Box 5102 in the				
			New Mexico) is h	
and firmly bound to the Oil Conservation Div				
Department of the State of New Mexico (or				
\$ 5,000.00				
The conditions of this obligation are such that:				
The PRINCIPAL desires to drill a well	or purchase of	r operate an exis	ting well, the depth	n of
which does not exceed 5000				
dioxide gas, helium gas or brine minerals on				
identification and footage location of said well b			, •	
(well name and footage) Hobbs State #5		2280 FNL	/1980 FWL	in
Section 29 Township 185 Range 38E, N	MPM, <u>Lea</u>	County	y, New Mexico.	
The PRINCIPAL has deposited on beh	alf of the DIVI	ISIONI & a acc	aa in tha mau	
indicated on the Assignment, attached to this				
PRINCIPAL pledges this sum as a guarantee th				
plug the well described above if dry, or when				
the DIVISION in such way as to confine the o				
and to prevent same from escaping to other str				
abandon said well upon order of the DIVISIO				
DIVISION, and such amount as is necessary n				
sum of this bond is less than the actual cost				
PRINCIPAL, its successors, assigns, heirs or NMSA 1978, Section 70-2-38 of the Oil and O				
any amounts expended over and above the princ			y take action to lecc	JVCI
any amounts expenses a ver and according print	orpan barri or and			
NOW THEREFORE, if the PRICIPAL				
of them shall plug the above-described well w				
orders of the DIVISION, in such a manner as				
they naturally occur, and to prevent them from				
surface location of said well, then therefore, thi shall be paid to the PRINCIPAL or its success				
full force and effect.	ors, neirs, or ac	immisuator, our	i wise it shan femal	.11 11.
Tun Torce and cricet.				
H.R.C. Inc.				
PRINCIPAL				
P.O. Box 5102	Hobbs.	N.M.	88241	
Address	State		Zip	
By MOSELL XVUILDET	Ву			
Signature	<i>Dy</i>		<del></del>	
Gary Schubert, President				
Title				

If PRINCIPAL is a corporation, affix corporate seal here.

#### ACKNOWLEDGMENT FORM FOR INDIVIDUALS OR PARTNERSHIPS

STATE OF		
COUNTY OF	) ·ss.	
On this	day of	, 20, before me personally, to me known to be the person (persons)
appeared	<del> </del>	to me known to be the person (persons)
described in and who executed the foreg his (their) free act and deed.	oing instrument a	and acknowledged that he (they) executed the same as
IN WITNESS WHEREOF, I have first above written.	ve hereunto set m	y hand and seal on the day and year in this certificate
•	<del></del>	Notary Public
My Commission Expires		
ACKNOWLE	EDGMENT FOR	RM FOR CORPORATION
STATE OF New Mexico		
COUNTY OF Lea	)	
On this 3rd day of pe Gary Schubert that he is President	to me per	20_01, before me personally appeared sonally known who, being by me duly sworn, did say . Inc . and that half of said corporation by authority of its board of
directors, and acknowledged said instrum	nent to be the free	e act and deed of said corporation.
IN WITNESS WHEREOF, I ha first above written.	ve hereunto set n	ny hand and seal on the day and year in this certificate
	$\mathcal{U}$	Notary Public
10-7-04 My Commission Expires	···	
		APPROVED BY:
		Oil Conservation Division of New Mexico
		Ву
		Date
Chaves, Eddy, Lea, McKinle Mexico:	y, Rio Arriba, l	Roosevelt, Sandoval, and San Juan Counties, New
Projected Depth of Proof Actual Depth of Ex	•	Amount of Bond
Less than 5,000 feet		\$ 5,000
5,000 feet to 10,000 feet More than 10,000 feet		\$ 7,500 \$10,000
All Other Counties in	the State:	
Projected Depth of Projected Depth of Ex	•	Amount of Bond
Less than 5,000 feet 5,000 feet to 10,000 fee More than 10,000 feet		\$ 7,500 \$10,000 \$12,500