DATE IN 3/8/04	SUSPENSE 3/28/04	ENGINEER WVJ	LOGGED IN LR	TYPE SWD	APP NO. pLR0406851388

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

RECEIVED
MAR 8 2004
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

"OLD" wellbore
1 PSA in AOR
0 ACTIVE
30-025-21569

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

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

[B] ☒ Offset Operators, Leaseholders or Surface Owner

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

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

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

[F] ☐ Waivers are Attached

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

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

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

Sam Brandon	Sam Brandon	Operations Engineer	3/6/04
Print or Type Name	Signature	Title	Date

e-mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

FORM C-108
Revised 4-1-98

Lea County, New Mexico 30-025-29269

APPLICATION FOR AUTHORIZATION TO INJECT

Hoover ADR State #1

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

II. OPERATOR:
ADDRESS: 105 South 4th Street, Artesia, New Mexico 88210
CONTACT PARTY: Sam Brandon PHONE: (505) 748-4281

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

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

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

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

VII. Attach data on the proposed operation, including:

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

*VIII. Attach appropriate geologic data on the injection zone including appropriate litho logic 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: Sam Brandon TITLE: Operations Engineer
SIGNATURE: Sam Brandon DATE: 2-26-04

* 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

DC - orig

YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (505) 748-1471

March 4, 2004

Oil Conservation Division
Mr. David Catanach
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: Hoover ADR State #1
1650' FSL/990 FEL, Unit M Sec. 1, T17S-R33E
Lea County, New Mexico

Dear Mr. Catanach;

Please find enclosed Yates Petroleum Corporation C-108 Application for Authorization to Inject. If you should have any questions please do not hesitate to call (505) 748-4281.

Sincerely,

Sam Brandon

Sam Brandon
Operations Engineer

SB/cm
Enclosure

C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Hoover ADR State #1
Unit M Sec. 1, T17S, R33E
Lea County, New Mexico

I. The purpose of completing this well is to make a disposal well for produced Queen Sand water into the Wolfcamp Lime formation. If unsuccessful we are asking for authorization to abandon the Wolfcamp Lime formation and inject into the Grayburg San Andres.

Yates Petroleum Corporation plans to convert this well to a water disposal well into the Wolfcamp Lime and if this formation is unsuccessful then move up to the Grayburg San Andres

II. Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
Sam Brandon (505) 748-4281

III. Well Data: See Attachment A

IV. This is not an expansion of an existing project.

V. See attached map, Attachment B.

VI. 1 well within the area of review penetrates the proposed injection zone. (See Attachment C)

VII. 1. Proposed average daily injection volume into the Wolfcamp Lime at approximately 1100 BWPD. Maximum daily injection volume approximately 1500 BWPD. If this zone proves to be unsuccessful then Proposed average daily injection volume into the Grayburg San Andres at approximately 1100 BWPD. Maximum daily injection volume approximately 1500 BWPD

2. This will be a closed system.

3. Wolfcamp Lime Proposed average injection pressure unknown.
Wolfcamp Lime Proposed maximum injection pressure –2000 psi.

4. Grayburg San Andres Propose average injection pressure-unknown.
   Grayburg San Andres Proposed maximum injection pressure-930 psi.

5. Sources of injected water would be produced water from the Queen Sand. (Attachment D)

VIII. 1. The proposed injection interval is the portion of the Wolfcamp Lime formation consisting of porous Limestone from estimated depths of 10189-10234.

2. The proposed injection interval is the portion of the Grayburg San Andres consisting of porous Dolomite from estimated depths of 4654-6200.

3. Possible Fresh water zones overlie the proposed injection formations at depths to approximately 180'. There are no fresh water zones underlying the formation.

IX. The proposed disposal intervals may be acidized with 15% HCL acid.

X. Logs were filed at your office when the well was drilled.

XI. 1 windmill exists within a one-mile radius of the subject location. (Attachment E)

XII. Yates Petroleum Corporation has examined geologic and engineering data and has found that there is no evidence of faulting in the proposed intervals. (Attachment F)

XIII. Proof of notice.

A. Certified letters sent to the surface owner and offset operators attached (Attachment G)

B. Copy of legal advertisement attached. (Attachment H)

XIV. Certification is signed.

Yates Petroleum Corporation
Hoover ADR State #1
1650 FSL & 990' FEL
Section 1-17S-33E
Lea County, New Mexico

Attachment A

OLD NAME
Sand Queen UNIT #5
30-025-29569

III. Well Data

A. 1. Lease Name/Location
Hoover ADR State #1
1650 FSL & 990' FEL
Section 1-17S-33E
Lea County, New Mexico

2. Casing Strings:

a. Present well condition
13 3/8", 61 & 54.5#, J55 @ 448' w/425 sx (circ)
8 5/8", 32 & 24# J55 @ 4530' w/1725 sx.(circ)

b. Present Status:
Non-commercial completion in Queen at 3767'-3774'.

3. Proposed well condition:
Casing as above +
5 ½" 15.5# & 17# J55 n80 @ 11100' W/1200 +/- sx (toc @3750' +/-)
3 ½" 9.3 J55 or 2-7/8" 6.5 J55 plastic-coated injection tubing @ 5150'

4. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 10100'.

B. 1. Injection Formation: Wolfcamp Lime
If Wolfcamp Lime unsuccessful
Injection Formation: Grayburg/San Andres

2. Wolfcamp Lime Injection Interval will be through perforations from approximately 10189-10234' gross interval.

3. Grayburg/San Andres Injection Interval will be through perforations from approximately 4654-6200' gross interval.

4. Well was originally drilled as a Seaman Lime oil well but was last completed as a Queen Sand WIW. Well will be Wolfcamp Lime water disposal well (10189-10234') when work is completed. Upon Authorization from the Oil Conservation Division, if Wolfcamp Lime Interval is unsuccessful then well will be Grayburg/San Andres water disposal well (4654-6200') when work is completed.

5. Perforations: High porosity Lime to be selected between 10180 & 10525.
Perforations: Carbonate to be selected between 4645-6215'

6. Next higher (shallower) oil or gas zone for Wolfcamp within 2 miles-Abo
Next lower (deeper) oil or gas zone for Wolfcamp within 2 miles-Lower Wolfcamp

7. Next higher (shallower) oil or gas zone for Grayburg San Andres-Queen

Well Name: Hoover ADR State No. 1 Field: Sanmal

Location: 1650' FSL & 990' FEL Sec. 1-17S-33E Lea Co, NM

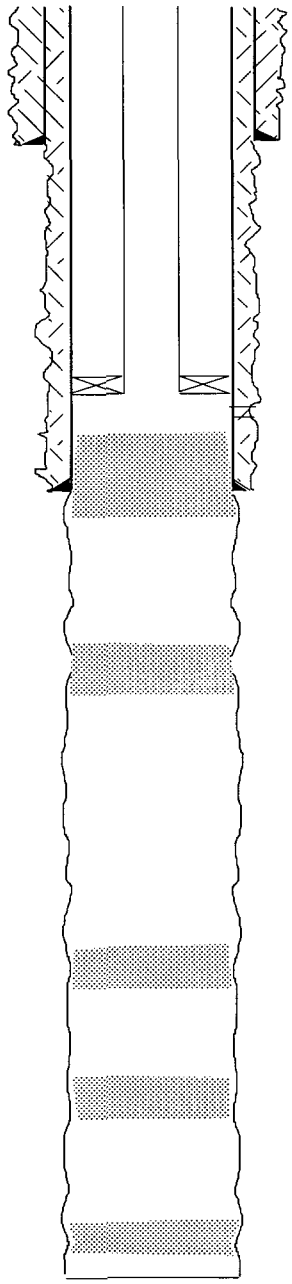
GL: 4139' Zero: _____ AGL: _____ KB: 4156.6'

Spud Date: early 70's Completion Date: _____

Comments: Well originally drilled as Hoover ADR State No. 1. Plugged back and re-named Sanmal Queen Unit No. 5

Casing Program	
Size/Wt/Grade/Conn	Depth Set
13 3/8" 61 & 54.5# J55	448'
8 5/8" 32 & 24# J55	4530'

CURRENT CONFIGURATION



13 3/8" Csg @ 448'. Cmtd w/ 425 sx. Cmt circ.

Packer @ 3717'

Queen perfs 3767-74'

PBTD 4352'

8 5/8" csg @ 4530'. Cmtd w/ 1725 sx. Cmt circ.

40 sx cement plug @ 4579'

40 sx cement plug 6062'

40 sx cement plug 8159'

40 sx cement plug @ 9824'

120 sx cement plug @ 11103'

TD 11825'

SKETCH NOT TO SCALE

DATE: 2/23/04

Well Name: Hoover ADR State No. 1 Field: Sanmal

Location: 1650' FSL & 990' FEL Sec. 1-17S-33E Lea Co, NM

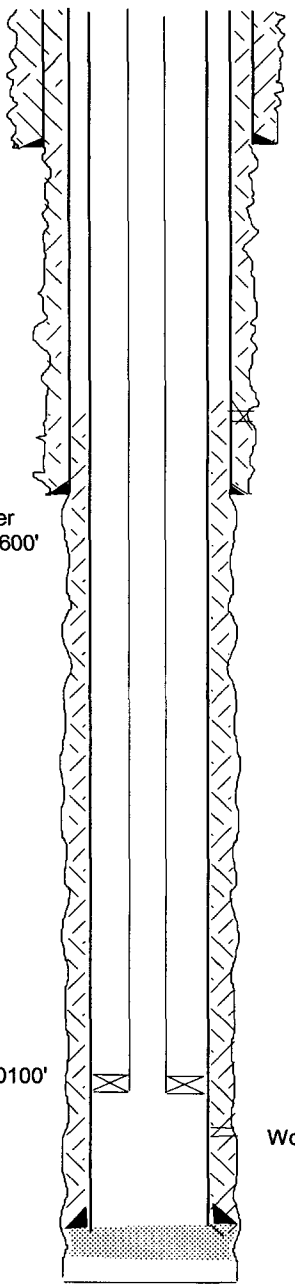
GL: 4139' Zero: _____ AGL: _____ KB: 4156.6'

Spud Date: _____ Completion Date: _____

Comments: Well originally drilled as Hoover ADR State No. 1. Plugged back and re-named Sanmal Queen Unit No. 5

Casing Program	
Size/Wt/Grade/Conn	Depth Set
13 3/8" 61 & 54.5# J55	448'
8 5/8" 32 & 24# J55	4530'
5 1/2" 15.5, 17 & 20# J55 & N80	11105'

PROPOSED CONFIGURATION



13 3/8" Csg @ 448'. Cmtd w/ 425 sx. Cmt circ.

Queen perfs 3767-74' SQUEEZED

8 5/8" csg @ 4530'. Cmtd w/ 1725 sx. Cmt circ.

Alternate packer setting depth 4600'

ALTERNATE SWD ZONE: GRAYBURG / SAN ANDRES 4654' - 6200'

Packer @ 10100'

Wolfcamp perfs 10189-94' & 10200-34'

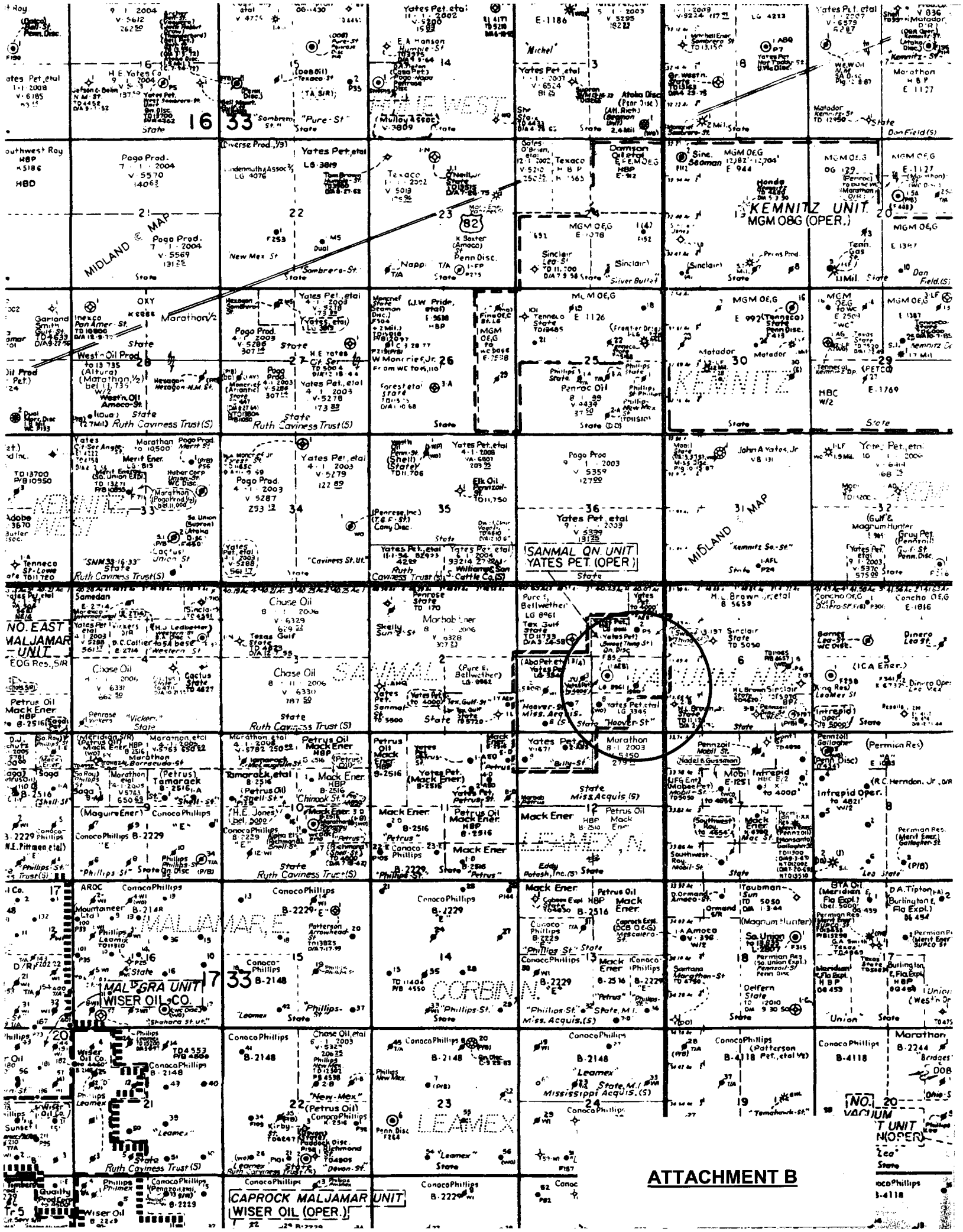
5 1/2" csg @ 11105'

120 sx cement plug @ 11103'

TD 11825'

SKETCH NOT TO SCALE

DATE: 2/23/04


MIDLAND MAP
SANMAL ON. UNIT
YATES PET. (OPER.)
KEMNITZ UNIT
MGM O&G (OPER.)
MALJAMAR UNIT
WISER OIL CO.
CAPROCK MALJAMAR UNIT
WISER OIL (OPER.)
CORBIN
LEAMEX
VACUUM
ATTACHMENT B

Hoover ADR State #1
Form C-108

Tabulation of wells within area of review

Well Name	Operator Name	Type	Spud	P&A	Total Depth	Producing Zone	Perforations	Completion Information	
State B #2 Sec. 6 17S-34E 990 FSL/330 FWL	Brown HL Jr.	O&G	9/20/73	2/4/74	11120'	Plugged & Abandon	No Record of Perforations	11 3/4" @ 387' w/400 sx cmt 5/8"" @ 4700' w/250sx cmt Open Hole to TD-See Well Bore Schematic	8

ATTACHMENT "C"

OPERATOR: H.L. Brown Jr.

WELL NAME: State B #2 **FIELD:** NW Vacuum Wolfcamp

LOCATION: Unit M, Sec 6, T17S-R34E, 330' FWL/990' FSL Lea County

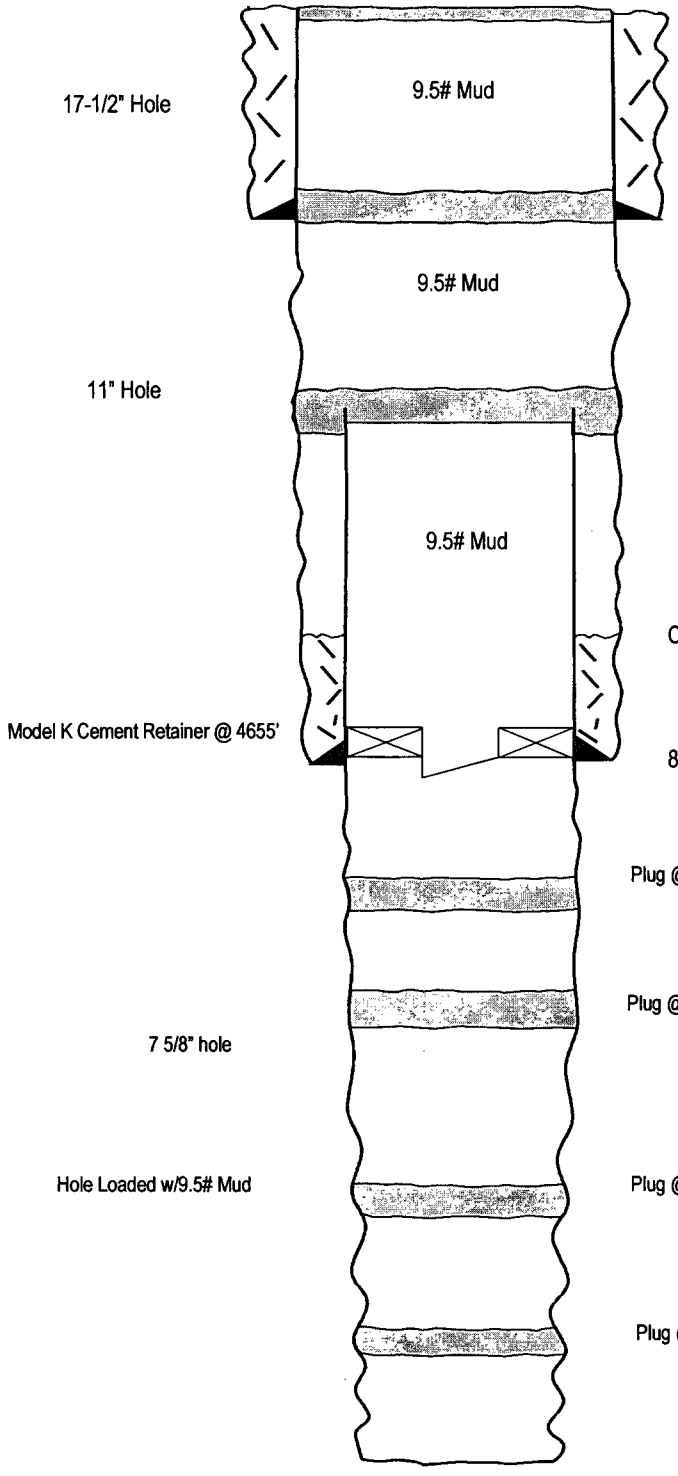
GL: 4136' **ZERO:** **KB:**

SPUD DATE: 9-20-73 **COMPLETION DATE:** 9-27-73

COMMENTS: P&A 2-4-74 API# 30-025-24491

CASING PROGRAM

11-3/4" 42# H40 ST&C	387'
8-5/8" 24& 32# K-55	4700'



Not to Scale
3/3/04
Cam

ATTACHMENT C

PI/Dwights PLUS on CD Well Summary Report

Date: 3/3/2004
Time: 4:31 PM

General Information

State	:	NEW MEXICO	Final Status	:	TA-OG
County	:	LEA	Drill Total Depth	:	11120
Field	:	VACUUM NORTHWEST	Log Total Depth	:	
Operator Name	:	BROWN H L JR	True Vertical Depth	:	
Lease Name	:	STATE /B/			
Well Number	:	2	Spud Date	:	SEP 20, 1973
API Number	:	30025244910000	Comp Date	:	DEC 27, 1973
Regulatory API	:				
Init Lahee Class	:	D	Hole Direction	:	VERTICAL
Final Lahee Class	:	D	Reference Elevation	:	4148 KB
Permit Number	:		Ground Elevation	:	4136
Geologic Province	:	PERMIAN BASIN	KB Elevation	:	4148
Formation at TD	:	451WFMP WOLFCAMP			
Oldest Age Pen	:	451 PERMIAN WOLFCAMPIAN			
Township	:	17 S	Section	:	6 SEC
Range	:	34 E	Spot	:	
Base Meridian	:	NEW MEXICO			

Additional Location Information

Footage Location	:	990 FSL 330 FWL CONGRESS SECTION			
Latitude	:	32.8592300	Latitude (Bot)	:	
Longitude	:	-103.6064800	Longitude (Bot)	:	
Lat./Long. Source	:	TS			

Formations

Form Code	Form Name	Top Depth	Top TVD	Base Depth	Base TVD	Source	Lithology
453SADRD	SAN ANDRES D	4573				LOG	
451WFMP	WOLFCAMP	10828				LOG	

Formation Tests

Test	Type	Top Depth	Base Depth	Top Form	Top Choke	Bottom Choke	Show
001	DST	10890	10915				S
002	DST	10920	10935				S
003	DST	10940	11000				S
004	DST	10190	10255				

Pressure and Time

Test	Hydro Init	Hydro Final	Init Flow Init	Init Flow Final	Final Flow Init	Final Flow Final	Shut-in Init	Shut-in Final	Open Time Init	Open Time Final	Shut-in Time Init	Shut-in Time Final
001	5265	5240			341	430	2943	2841		60	60	240
002	5253	5253			430	443	722	747		60	60	120
003	5367	5367			503	477	3322	3449		60	60	240
004	4944	4895			326	324	3908	3904			60	120

Cushion

Test	Length	Type
001	942	WTR
002	975	WTR

Pipe Recovery

Test	Amount	Unit	Desc	Rec Type	Rec Method
001			B		UNKNWN
001	30	FT	O		PIPE
001	950	FT	O&GCB		PIPE
001	120	FT	W&GCM		PIPE
002	825	FT	B		PIPE
002	150	FT	GCWB		PIPE

PI/Dwights PLUS on CD Well Summary Report

Date: 3/3/2004
Time: 4:31 PM

002	10	FT	GCM	PIPE
003	30	FT	O	PIPE
003	1037	FT	O&GCWB	PIPE
004	905	FT	M	PIPE

Test	Amount	Unit	Material to Surface Fluid Type	Time
001	11	MCFD	GAS	13
003			GAS	55

Log Data

Run No	Log Type	Top	Base	Log MD	Max Temp
01	IL				
01	EL				
01	NE				

Casing Data

Size	Base Depth	Cement	Unit
11 3/4 IN	387	400	SACK
8 5/8 IN	4700	250	SACK

MILLER CHEMICALS, INC.
Post Office Box 298
Artesia, N.M. 88211-0298
(505) 746-1919 Artesia Office
(505) 392-2893 Hobbs Office
(505) 746-1918 Fax

MCI
CHEMICALS and CONSULTING

WATER ANALYSIS REPORT

Company	: YATES PETROLEUM	Date	: 1-19-04
Address	:	Date Sampled	: 1-19-04
Lease	: SAN MAL QUEEN UNIT	Analysis No.	:
Well	: #4		
Sample Pt.	: WELLHEAD		

	ANALYSIS		mg/L		* meq/L
1.	pH	6.5			
2.	H2S	0			
3.	Specific Gravity	1.160			
4.	Total Dissolved Solids		266780.9		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	122.0	HCO3	2.0
12.	Chloride	Cl	159750.0	Cl	4506.3
13.	Sulfate	SO4	3750.0	SO4	78.1
14.	Calcium	Ca	11800.0	Ca	588.8
15.	Magnesium	Mg	615.1	Mg	50.6
16.	Sodium (calculated)	Na	90741.9	Na	3947.0
17.	Iron	Fe	2.0		
18.	Barium	Ba	NR		
19.	Strontium	Sr	NR		
20.	Total Hardness (CaCO3)		32000.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

589	*Ca <----- *HCO3	2
	/------->	
51	*Mg -----> *SO4	78
	<---------/	
3947	*Na -----> *Cl	4506

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	2.0	162
CaSO4	68.1	78.1	5315
CaCl2	55.5	508.7	28229
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	50.6	2409
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	3947.0	230664

REMARKS:

ATTACHMENT D

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 1-19-04
Address	:	Date Sampled	: 1-19-04
Lease	: SAN MAL QUEEN UNIT	Analysis No.	:
Well	: #4	Analyst	: JR. GARCIA
Sample Pt.	: WELLHEAD		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	0.6	at	70 deg. F or	21 deg. C
S.I. =	0.6	at	90 deg. F or	32 deg. C
S.I. =	0.6	at	110 deg. F or	43 deg. C
S.I. =	0.6	at	130 deg. F or	54 deg. C
S.I. =	0.7	at	150 deg. F or	66 deg. C

****

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	1395	at	70 deg. F or	21 deg C
S =	1499	at	90 deg. F or	32 deg C
S =	1570	at	110 deg. F or	43 deg C
S =	1596	at	130 deg. F or	54 deg C
S =	1596	at	150 deg. F or	66 deg C

Respectfully submitted,
JR. GARCIA

MILLER CHEMICALS, INC.
Post Office Box 298
Artesia, N.M. 88211-0298
(505) 746-1919 Artesia Office
(505) 392-2893 Hobbs Office
(505) 746-1918 Fax

M C I
CHEMICALS and CONSULTING

WATER ANALYSIS REPORT

Company	: YATES PETROLEUM	Date	: 1-19-04
Address	:	Date Sampled	: 1-19-04
Lease	: SAN MAL QUEEN UNIT	Analysis No.	:
Well	: #6		
Sample Pt.	: WELLHEAD		

	ANALYSIS		mg/L		* meq/L
1.	pH	5.7			
2.	H2S	0			
3.	Specific Gravity	1.170			
4.	Total Dissolved Solids		280422.5		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	122.0	HCO3	2.0
12.	Chloride	Cl	168270.0	Cl	4746.7
13.	Sulfate	SO4	3750.0	SO4	78.1
14.	Calcium	Ca	13800.0	Ca	688.6
15.	Magnesium	Mg	737.8	Mg	60.7
16.	Sodium (calculated)	Na	93740.6	Na	4077.5
17.	Iron	Fe	2.0		
18.	Barium	Ba	NR		
19.	Strontium	Sr	NR		
20.	Total Hardness (CaCO3)		37500.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

689	*Ca <----- *HCO3	2
	/------->	
61	*Mg -----> *SO4	78
	<---------/	
4077	*Na -----> *Cl	4747

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	2.0	162
CaSO4	68.1	78.1	5315
CaCl2	55.5	608.5	33767
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	60.7	2890
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	4077.5	238286

REMARKS:

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 1-19-04
Address	:	Date Sampled	: 1-19-04
Lease	: SAN MAL QUEEN UNIT	Analysis No.	:
Well	: #6	Analyst	: JR. GARCIA
Sample Pt.	: WELLHEAD		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. = -0.1 at 70 deg. F or 21 deg. C
S.I. = -0.1 at 90 deg. F or 32 deg. C
S.I. = -0.1 at 110 deg. F or 43 deg. C
S.I. = -0.1 at 130 deg. F or 54 deg. C
S.I. = -0.1 at 150 deg. F or 66 deg. C

****

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S = 1145 at 70 deg. F or 21 deg C
S = 1232 at 90 deg. F or 32 deg C
S = 1290 at 110 deg. F or 43 deg C
S = 1311 at 130 deg. F or 54 deg C
S = 1311 at 150 deg. F or 66 deg C

Respectfully submitted,
JR. GARCIA

MCI
CHEMICALS and CONSULTING

MILLER CHEMICALS, INC.
Post Office Box 298
Artesia, N.M. 88211-0298
(505) 746-1919 Artesia Office
(505) 392-2893 Hobbs Office
(505) 746-1918 Fax

WATER ANALYSIS REPORT

Company	: YATES PETROLEUM	Date	: 2-25-04
Address	:	Date Sampled	: 2-25-04
Lease	: WINDMILL 1mi.So.	Analysis No.	:
Well	: OF SANMAL #5		
Sample Pt.	:		

	ANALYSIS		mg/L		* meq/L
1.	pH	7.1			
2.	H2S	0			
3.	Specific Gravity	1.005			
4.	Total Dissolved Solids		139.0		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	122.0	HCO3	2.0
12.	Chloride	Cl	85.0	Cl	2.4
13.	Sulfate	SO4	50.0	SO4	1.0
14.	Calcium	Ca	40.0	Ca	2.0
15.	Magnesium	Mg	267.2	Mg	22.0
16.	Sodium (calculated)	Na	-426.2	Na	-18.5
17.	Iron	Fe	1.0		
18.	Barium	Ba	NR		
19.	Strontium	Sr	NR		
20.	Total Hardness (CaCO3)		1200.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

2	*Ca <----- *HCO3	2
	/------->	
22	*Mg -----> *SO4	1
	<---------/	
-19	*Na -----> *Cl	2

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	2.0	162
CaSO4	68.1		
CaCl2	55.5		
Mg(HCO3)2	73.2	0.0	0
MgSO4	60.2	1.0	63
MgCl2	47.6	2.4	114
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4		

REMARKS:

ATTACHMENT E

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 2-25-04
Address	:	Date Sampled	: 2-25-04
Lease	: WINDMILL 1mi.So.	Analysis No.	:
Well	: OF SANMAL #5	Analyst	: MONTY GRUBBS
Sample Pt.	:		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. = -0.8 at 70 deg. F or 21 deg. C
S.I. = -0.7 at 90 deg. F or 32 deg. C
S.I. = -0.6 at 110 deg. F or 43 deg. C
S.I. = -0.6 at 130 deg. F or 54 deg. C
S.I. = -0.5 at 150 deg. F or 66 deg. C

****

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S = 1112 at 70 deg. F or 21 deg C
S = 1104 at 90 deg. F or 32 deg C
S = 1089 at 110 deg. F or 43 deg C
S = 1083 at 130 deg. F or 54 deg C
S = 1050 at 150 deg. F or 66 deg C

Respectfully submitted,
MONTY GRUBBS

ATTACHMENT F

C-108 Application for Authorization to Inject
Hoover ADR State #1
1650 FSL & 990' FEL
Section 1-17S-33E
Lea County, New Mexico

Available engineering and geological data have been examined and no evidence of open faults of hydrologic connection between the disposal zone and any underground sources of drinking water has been found.

John Amiet
Geologist
Yates Petroleum Corporation

2/24/03
Date

7002 2030 0001 8270 3630

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City, State, ZIP+4: Midland, Tx 79702

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Mr. Pete Martinez
State of New Mexico
Commissioner of Public Lands
P.O. Box 1148
Santa Fe, New Mexico 87504-1148

PS Form 3800, June 2002 — See Reverse for Instructions

ATTACHMENT G

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 1

weeks.

Beginning with the issue dated

February 29 2004

and ending with the issue dated

February 29 2004

Kathi Bearden

Publisher

Sworn and subscribed to before me this 29th day of February 2004

Joyce M. Stevens

Notary Public.

My Commission expires
November 27, 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 29, 2004

Yates Petroleum Corporation 105 S. 4th Street, Artesia, New Mexico 88210, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking Administrative Approval for an Injection Well. The proposed well the Hoover "ADR" State #1, located in Unit I, Section 1, T17S-R33E, Lea County, New Mexico, will be used for Salt Water Disposal, Disposal Waters from the Queen Sand into the Wolfcamp Lime at a depth of 10189'-10234' with a maximum pressure of 2000 psi and a maximum rate of 1500 BWPD. If this proves to be unsuccessful we are asking the same said Oil Conservation Division for Authorization to inject Disposal Waters from the Queen Sand into the Grayburg San Andres at a depth of 4654'-6200' with a maximum pressure of 930 psi and a maximum rate of 1500 BWPD.

All interested parties opposing the fore mentioned must file objections or request for a hearing with the Oil Conservation Division. 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505-5472. Within 15 days Additional information can be obtained by contacting Sam Brandon at (505)748-4281. Published in the Hobbs New Sun, Hobbs, New Mexico 88240, February 29, 2004.
#20464

01101029000 67520038

Yates Petroleum Corporation
105 S. 4th Street
Artesia, NM 88210

ATTACHMENT H

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

RECEIVED

MAR 1 8 2004

OIL CONSERVATION DIVISION

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

RE: Proposed:
MC_____
DHC_____
NSL_____
NSP_____
SWD_____
WFX_____
PMX X

Gentlemen:

I have examined the application for the:

Yates Petroleum Corp Hoover ADR State #1- I-1-17S-33E
Operator Lease & Well No. Unit S-T-R API # 30-025-29569

and my recommendations are as follows:

OK kz

Yours very truly,

Chris Williams

Chris Williams
Supervisor, District 1