DATE IN 9-8-05	SUSPENSE	ENGINEER	LOGGED IN 9-8-05	TYPE SWD	APP NO. pSEM0525153674

JOWEI 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]

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SEP - 8 2005
OIL CONSERVATION DIVISION

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

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

Check One Only for [B] or [C]

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

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

[D] Other: Specify _____

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

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

[B] ☒ Offset Operators, Leaseholders or Surface Owner

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

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

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

[F] ☐ Waivers are Attached

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

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

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

Jerry W. Sherrell	Jerry W. Sherrell	Production Clerk	9/6/2005
Print or Type Name	Signature	Title	Date

jerrys@mackenergycorp.com
e-mail Address

III. WELL DATA

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

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

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

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

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

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

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

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

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

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

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

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

XIV. PROOF OF NOTICE

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

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

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

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

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

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

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

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

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C- 108
Revised 4-1-98

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SEP - 8 2005
OIL CONSERVATION DIVISION

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. OPERATOR: **Mack Energy Corporation**

ADDRESS: **P.O. Box 960, Artesia, NM 88211-0960**

CONTACTPARTY: **Jerry W. Sherrell** PHONE: **(505)748-1288**

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

IV. Is this an expansion of an existing project'? _____ Yes **X** No
If yes, give the Division order number authorizing the project: _____

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

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

VII. Attach data on the proposed operation, including:

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

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/I 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 freshwater from two or more freshwater 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: **Mack C. Chase** TITLE: **President**

SIGNATURE: Mack C. Chase DATE: **9/6/2005**

* **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

INJECTION WELL DATA SHEET

Tubing Size: **2 7/8"** Lining Material: **Plastic Coated**

Type of Packer: **Halliburton Trump Packer**

Packer Setting Depth: **5525**

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

Additional Data

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

   If no, for what purpose was the well originally drilled? **Bone Springs**

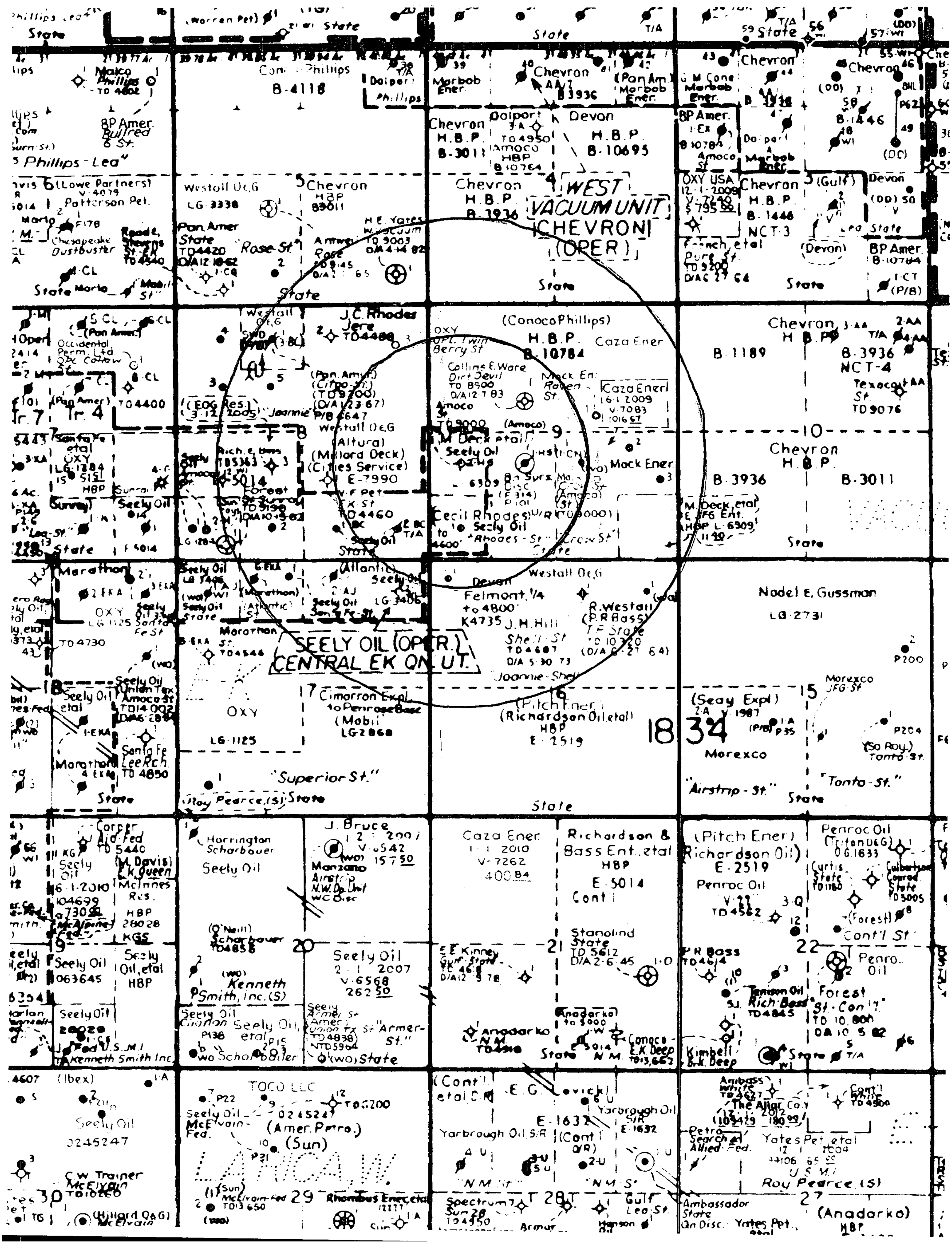
2. Name of the Injection Formation: **Delaware** & BONE SPRING

3. Name of Field or Pool (if applicable): **SWD Delaware**

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. **Queen Formation**

   4380-4385'. We will squeeze these perfs off with appr. 200 sx cement.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: **Overlying San Andres Underlying Bone Spring**



WEST VACUUM UNIT
CHEVRON
(OPER)
SEELY OIL (OPER.)
CENTRAL EK QN UT.
Chevron H.B.P. B-3011
Devon H.B.P. B-10695
Chevron H.B.P. B-3936
ConocoPhillips B-4118
Westall O&G LG-3338
(ConocoPhillips) H.B.P. B-10784
Caza Ener
Chevron B-1189
Chevron H.B.P. B-3936 NCT-4
Chevron H.B.P. B-3936 B-3011
Nodel & Gussman LG-2731
Mack Ener
Cecil Rhodes Seely Oil
Westall O&G
Felmont 1/4 to 4800 K4735
R. Westall
OXY LG-1125
Cimarron Expl.
(Richardson Oil etal) HBP E-2519
Morexco
"Superior St."
"Airstrip-St."
"Tonto-St."
Caza Ener 1-1-2010 V-7262
Richardson & Bass Ent., etal HBP E-5014
(Pitch Ener) Richardson Oil) E-2519
Penroc Oil
Seely Oil 2-1-2007 V-6568
Kenneth Smith, Inc. (S)
TOCO LLC
(Amer. Petro.)
(Sun)
Yarbrough Oil S/R
E-1632
Yates Pet. etal
Roy Pearce (S)
(Anadarko)
State
18
34

Side I

INJECTION WELL DATA SHEET

OPERATOR: **Mack Energy Corporation**

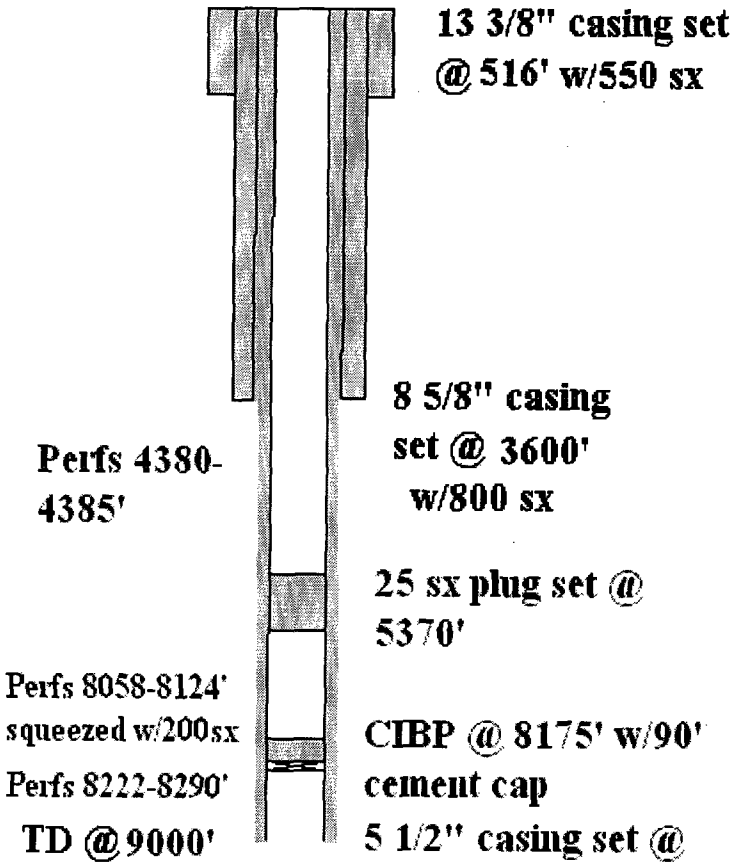
WELL NAME & NUMBER: **Jack Rabbit SWD #1**

WELL LOCATION: **1980 FSL & 660 FWL** | **L** | **9** | **18S** | **34E**

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

30-025-28466

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: **17 1/2** Casing Size: **13 3/8 set @ 516'**

Cemented with: **550** sx. or _____ ft

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

Intermediate Casing

Hole Size: **11** Casing Size: **8 5/8 set @ 3600'**

Cemented with: **1650** sx. or _____ ft

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

Production Casing

Proposed Casing

Hole Size: **7 7/8** Casing Size: **5 1/2 set @ 9000**

Cemented with: **1500** sx. or _____ ft

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

Total Depth: **9000**

Injection Interval

5625 feet to **6325**

(Perforated or Open Hole; indicate which)

AREA OF REVIEW WELL DATA

LEASE	WELL#	LOCATION	TD (PBTD)	TYPE & DATE DRILLED	HOLE SIZE	CASING SIZE & WEIGHT	SETTING DEPTH	SX CMT	TOC	PERFS
		1980' FNL			17 1/2	13 3/8, 61#	405'	425		
Bird SWD		1980' FWL	8900'	Oil	12 1/4	8 5/8, 32#	3650'	800	circ	
30-025-31657	1	9-18S-34E	(0')	11/17/1993	7 7/8	Pulled 498'/8 5/8	No 5 1/2	0	1091'	plugged
		1980' FSL	9000'		17 1/2	13 3/8, 48#	518'	550	circ	
Crow State		1980' FEL	(CIBP @	Oil	12 1/4	8 5/8, 24#	3586'	1650	circ	6304.5-6592'
30-025-28865	1	9-18S-34E	6170')	10/28/1984	7 7/8	5 1/2, 17#	7236'	1470	circ	5031.5-5305.5
Jack Rabbit		1980' FSL			17 1/2	13 3/8, 54.5#	516'	550	circ	8222-8290'
SWD		660' FWL	9000'	Oil	11	8 5/8, 24&32#	3600'	1650	circ	8058-8124'
30-025-28866	1	9-18S-34E	(5370')	9/3/1984	7 7/8	5 1/2, 15.5&17#	9000'	1500	circ	4380-4385'
		1980' FSL			17 1/2	13 3/8, 48#	400'	370	circ	
State HS		1980 FWL	13745'	Gas	12 1/4	9 5/8, 40#	5884'	5600	25'	8045-13641'
30-025-27387	1	9-18S-34E	(0')	5/11/1981	8 3/4	5 1/2, 23#	13717'	3750	3575'	Plugged
Central EK		660' FSL								
Queen Unit		660' FEL	4500'	Oil	11	8 5/8, 22.7#	373'	275	circ	
30-025-02312	2	8-18S-34E	(4434')	3/27/1957	7 7/8	5 1/2, 14#	4452'	300	2300'	4405-4432'
Central EK		660' FSL								
Queen Unit		660' FWL	4482'	Oil	11	8 5/8, 24#	393'	275	circ	
30-025-27432	1	9-18S-34E	(4405')	5/27/1981	7 7/8	4 1/2, 10.5#	4482'	1000	circ	4387-4415'
		330' FNL								
Joannie Shell		330' FWL	4682'	Oil	11	8 5/8, 24#	325'	275	circ	
30-025-24549	1	16-18S-34E	(4598')	10/27/1973	7 7/8	4 1/2, 10.5#	4625'	400	2300'	4418-4552'

OK

OK

SHALLOW

VII. DATA SHEET: PROPOSED OPERATIONS

1. Proposed average and maximum daily rate and volume of fluids to be injected;
Respectively, 2000 BWPD and 3000 BWPD
2. The system is closed or open;
Closed
3. Proposed average and maximum injection pressure;
100-360#
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water;
We will be re-injecting produced water
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;
N/A

VIII. GEOLOGICAL DATA

1. Lithologic Detail; **Sand**
2. Geological Name; **Delaware**
3. Thickness; **760'**
4. Depth; **5525-6325'**

IX. PROPOSED STIMULATION PROGRAM

1. To be treated with 1000 gallons 15% acid

X. LOGS AND TEST DATA

1. Well data has been filed with the OCD

XI. ANALYSIS OF FRESHWATER WELLS

1. Attached

Additional Information
Waters Injected Grayburg, San Andres

XII. AFFIRMATIVE STATEMENT

RE: Jack Rabbit SWD #1

We have examined the available geologic and engineering data and find no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.

Mack Energy Corporation

Date: 9-6-2005

Mack C. Chase

Mack C Chase, President

North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	MACK ENERGY INCORPORATED	Sales RDT:	33512
Region:	PERMIAN BASIN	Account Manager:	WAYNE PETERSON (505) 910-9389
Area:	ARTESIA, NM	Sample #:	218758
Lease/Platform:	MA 'B' FEDERAL UNIT	Analysis ID #:	44295
Entity (or well #):	6	Analysis Cost:	$40.00
Formation:	UNKNOWN Delaware		
Sample Point:	WELLHEAD		

Summary	
Sampling Date:	7/2/04
Analysis Date:	7/14/04
Analyst:	JAMES AHRLETT
TDS (mg/l or g/m3):	201042.6
Density (g/cm3, tonne/m3):	1.139
Anion/Cation Ratio:	1
Carbon Dioxide:	160 PPM
Oxygen:	0 PPM
Comments:	
RESISTIVITY: 9.50OHM.CM@77°F	

Analysis of Sample 218758 @ 75 °F

Anions	mg/l	meq/l	Cations	mg/l	meq/l
Chloride:	**123075.0**	**3471.5**	**Sodium:**	**61886.2**	**2691.9**
Bicarbonate:	**83.0**	**1.36**	**Magnesium:**	**3193.0**	**262.67**
Carbonate:	**0.0**	**0.**	**Calcium:**	**10313.0**	**514.62**
Sulfate:	**1284.0**	**26.73**	**Strontium:**	**252.0**	**5.75**
Phosphate:			**Barium:**	**0.4**	**0.01**
Borate:			**Iron:**	**19.0**	**0.69**
Silicate:			Potassium:	937.0	23.96
			Aluminum:		
Hydrogen Sulfide:		1 PPM	Chromium:		
pH at time of sampling:		6.7	Copper:		
pH at time of analysis:			Lead:		
pH used in Calculation:		**6.7**	Manganese:		
			Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4 * 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	0.34	2.60	0.01	15.88	0.03	41.28	0.06	16.45	0.36	0.00	0.11
100	0	0.40	3.46	-0.06	0.00	0.03	36.66	0.03	9.81	0.16	0.00	0.13
120	0	0.46	4.33	-0.12	0.00	0.05	61.77	0.02	6.93	-0.01	0.00	0.17
140	0	0.52	5.20	-0.16	0.00	0.10	108.24	0.02	7.22	-0.16	0.00	0.2

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

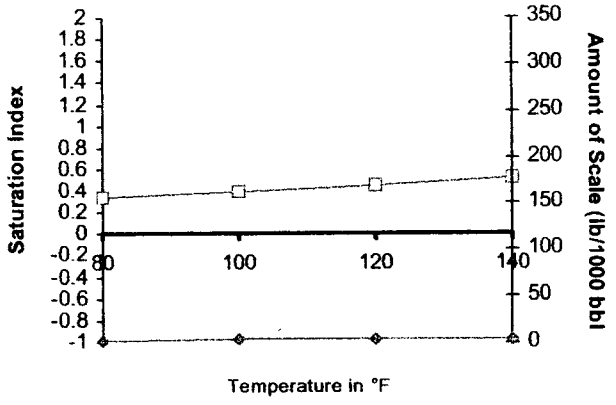
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

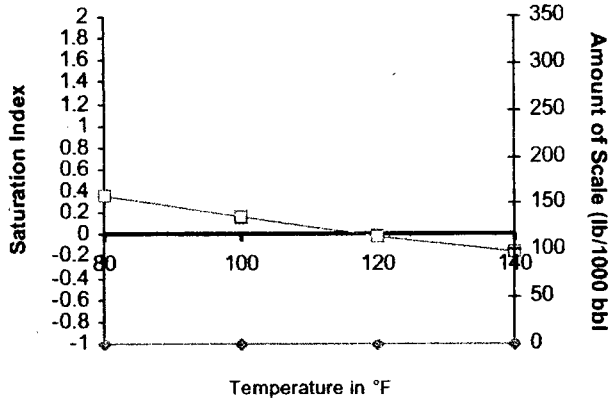
Scale Predictions from Baker Petrolite

Analysis of Sample 218758 @ 75 °F for MACK ENERGY INCORPORATED, 7/14/04

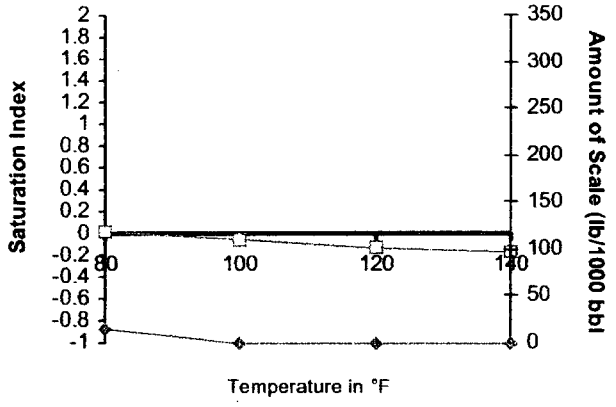
Calcite - CaCO3



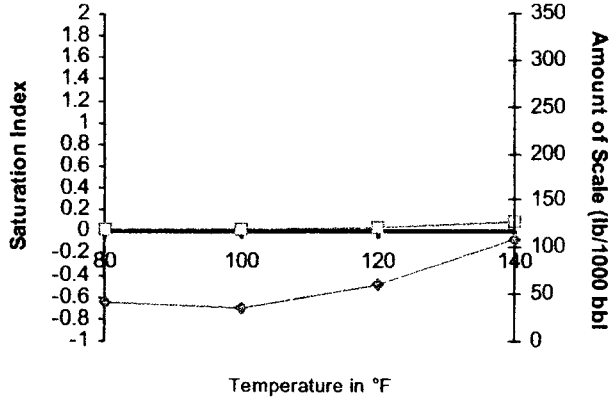
Barite - BaSO4



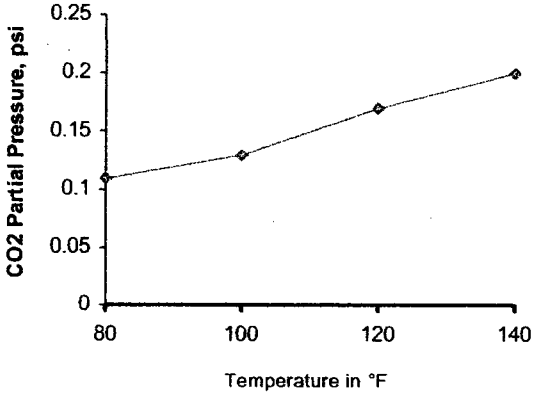
Gypsum - CaSO4*2H20



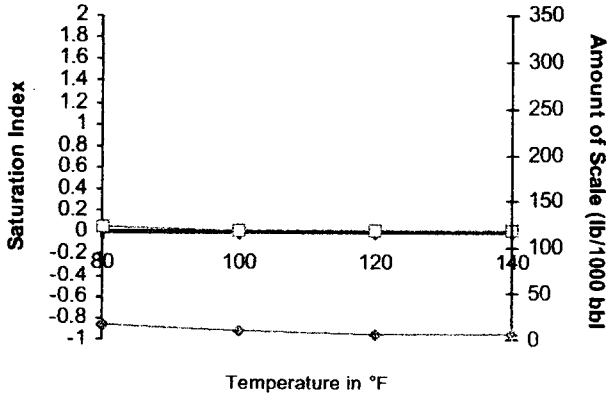
Anhydrite - CaSO4



Carbon Dioxide Partial Pressure



Celestite - SrSO4



North Permian Basin Region
P.O. Box 740
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Lab Team Leader - Sheila Hernandez
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Water Analysis Report by Baker Petrolite

Company:	MACK ENERGY INCORPORATED	Sales RDT:	33512
Region:	PERMIAN BASIN	Account Manager:	WAYNE PETERSON (505) 910-9389
Area:	ARTESIA, NM	Sample #:	326980
Lease/Platform:	CROW STATE LEASE	Analysis ID #:	47300
Entity (or well #):	1	Analysis Cost:	$40.00
Formation:	UNKNOWN Vacuum Glorieta-San Andres		
Sample Point:	WELLHEAD		

Summary	
Sampling Date:	12/13/04
Analysis Date:	12/22/04
Analyst:	SALLY MOORE
TDS (mg/l or g/m3):	166023.4
Density (g/cm3, tonne/m3):	1.12
Anion/Cation Ratio:	1
Carbon Dioxide:	20 PPM
Oxygen:	0 PPM
Comments:	
RESISTIVITY - 22.12 OHM-CM @ 77°F	

Analysis of Sample 326980 @ 75 °F

Anions	mg/l	meq/l	Cations	mg/l	meq/l
Chloride:	**101262.0**	**2856.23**	**Sodium:**	**49077.2**	**2134.74**
Bicarbonate:	**103.7**	**1.7**	**Magnesium:**	**3109.0**	**255.76**
Carbonate:	**0.0**	**0.**	**Calcium:**	**9425.0**	**470.31**
Sulfate:	**1730.0**	**36.02**	**Strontium:**	**218.0**	**4.98**
Phosphate:			**Barium:**	**0.5**	**0.01**
Borate:			**Iron:**	**8.0**	**0.29**
Silicate:			Potassium:	1090.0	27.88
			Aluminum:		
Hydrogen Sulfide:		2 PPM	Chromium:		
pH at time of sampling:		6.9	Copper:		
pH at time of analysis:			Lead:		
pH used in Calculation:		**6.9**	Manganese:		
			Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4 * 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	0.53	5.08	0.11	205.40	0.11	170.47	0.18	45.08	0.64	0.30	0.09
100	0	0.59	5.97	0.05	98.52	0.12	178.83	0.16	41.20	0.46	0.30	0.11
120	0	0.64	6.87	0.00	2.69	0.15	219.73	0.16	40.01	0.29	0.00	0.15
140	0	0.69	8.06	-0.04	0.00	0.21	282.13	0.16	40.90	0.15	0.00	0.19

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

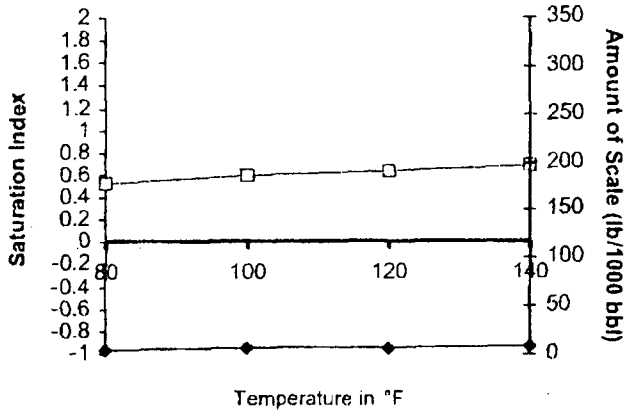
Note 2. Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

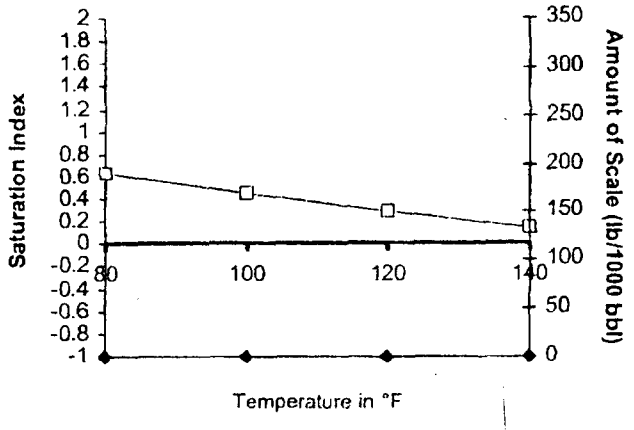
Scale Predictions from Baker Petrolite

Analysis of Sample 326980 @ 75 °F for MACK ENERGY INCORPORATED, 12/22/04

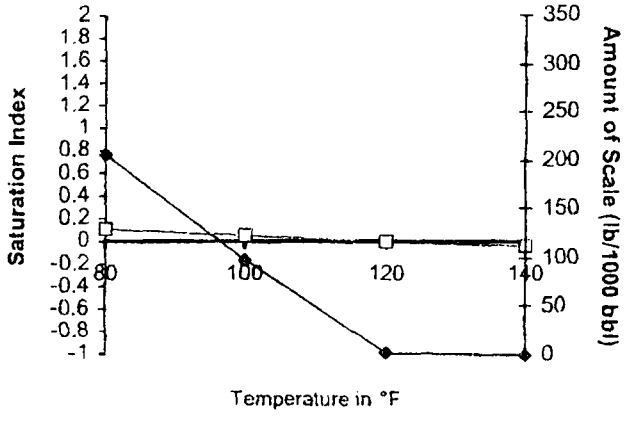
Calcite - CaCO3



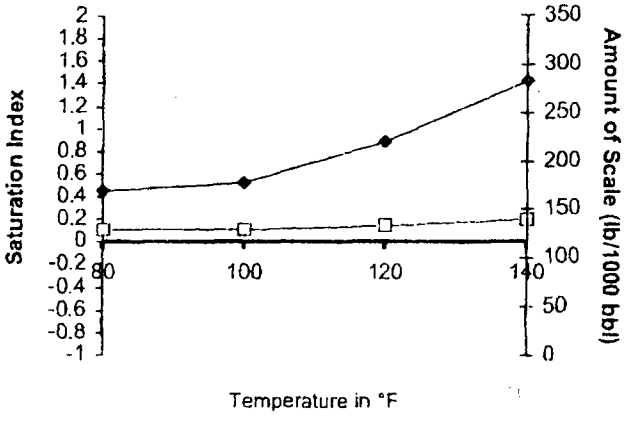
Barite - BaSO4



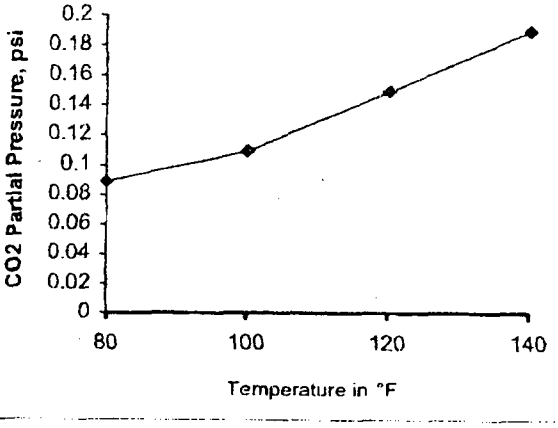
Gypsum - CaSO4*2H20



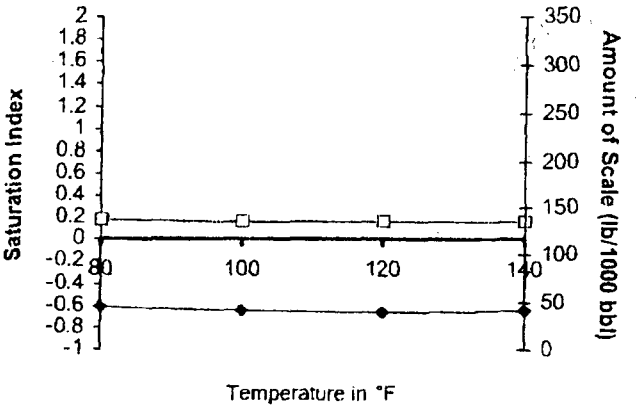
Anhydrite - CaSO4



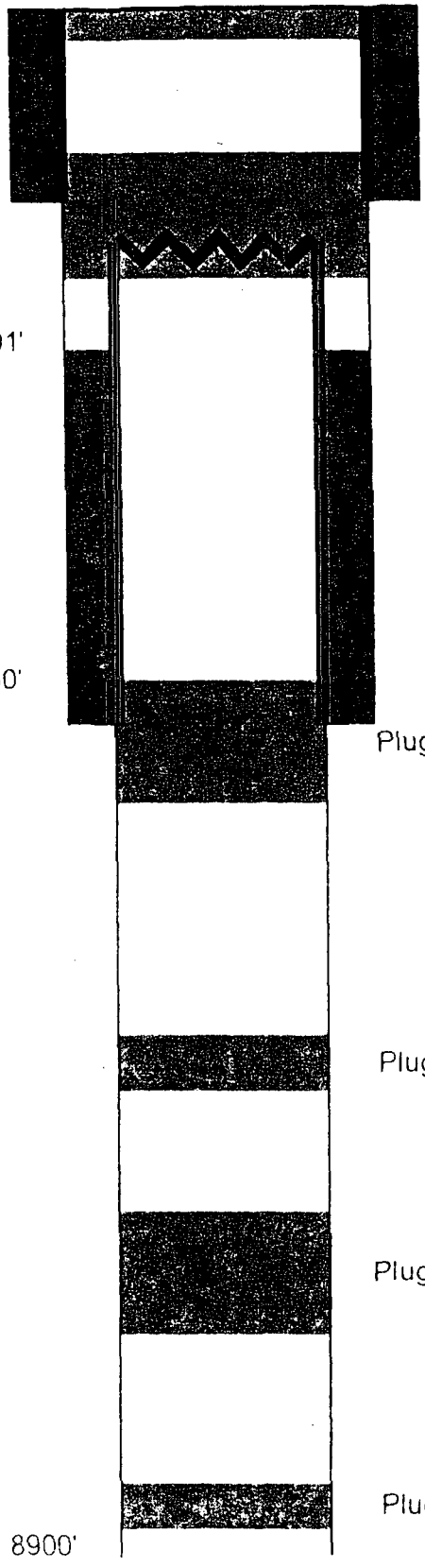
Carbon Dioxide Partial Pressure



Celestite - SrSO4



Bird SWD #1
Sec.9 T18S R34E
1980 FNL & 1980 FWL



Cement plug from 60' to surface

13 3/8" csg. set @ 405' w/425sx cmt. (Circ)

175sx plug from 515-355'

Cut 8 5/8" csg. @ 498' - Pull

8 5/8" csg. TOC @ 1091'

8 5/8" csg. set @ 3650' w/800sx cmt.

Plug @ 3821-3551' - 70sx cmt.

Plug @ 5472-5342' - 40sx cmt.

Plug @ 6320-5900' - 110sx cmt.

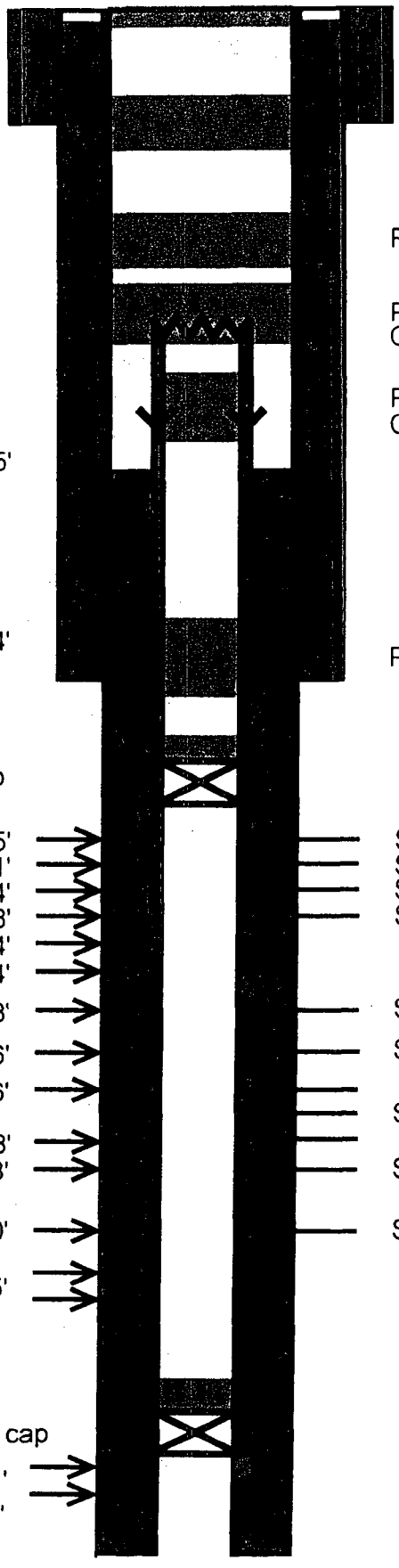
Plug @ 8470-8370' - 30sx cmt.

TD @ 8900'

State HS #1

SH: 1980' FSL & 1980' FWL BH: 1980' FSL & 1980' FWL

Sec. 9-T18S-R34E



TOC @ 25'

13 3/8" csg. set @ 400'
w/370sx cmt. (Circ)

TOC @ 3575'

9 5/8" csg. set @ 5884'
w/5600sx cmt.

CIBP @ 7945' w/25' cmt. cap

Perf @ 8045'
Perf @ 8051'
Perfs @ 8050-8054'
Perfs @ 8050-8058'
Perfs @ 8082-8084'
Perf @ 8144'
Perfs @ 8410-8428'
Perfs @ 9274-9286'
Perfs @ 9940-9966'
Perfs @ 10054-10058'
Perfs @ 10548-10578'
Perfs @ 11110-11120'
Perfs @ 11487-11565'

CIBP @ 13470' w/35' cmt. cap

Perfs @ 13512-13641'
5 1/2" csg. set @ 13717'
w/3750sx cmt.

Surface Plug @ 30' - 10sx cmt.

Plug @ 488-366' - 35sx cmt.

Plug @ 1890-1786' - 35sx cmt.

Plug @ 2170-2028' - 35sx cmt.
Cut csg. @ 2120' - Pull

Plug @ 3162-2910' - 25sx cmt.
Cut csg. @ 3112' - Stuck

Plug @ 5927-5633' - 25sx cmt.

Squeeze 8045'
Squeeze 8051'
Squeeze 8050-8054 & 8054-8058'
Squeeze 8050-8058' w/200sx cmt.

Squeeze 8410-8428'
Squeeze 9274-9286'
Squeeze 9940-10058'
Squeeze 10548-10578' w/200sx cmt.
Squeeze 11110-11120'

BAKER HUGHES
Baker Petrolite

North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	MACK ENERGY INCORPORATED	Sales RDT:	33512
Region:	PERMIAN BASIN	Account Manager:	WAYNE PETERSON (505) 910-9389
Area:	ARTESIA, NM	Sample #:	37165
Lease/Platform:	FRESH WATER WELL	Analysis ID #:	50355
Entity (or well #):	LO-5372 X2	Analysis Cost:	$7.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary	
Sampling Date:	4/6/05
Analysis Date:	4/7/05
Analyst:	MIKE JORREN
TDS (mg/l or g/m3):	2007.9
Density (g/cm3, tonne/m3):	1
Anion/Cation Ratio:	0.9999998
Carbon Dioxide:	0 PPM
Oxygen:	
Comments:	

Analysis of Sample 37165 @ 75 °F

Anions	mg/l	meq/l	Cations	mg/l	meq/l
Chloride:	**873.3**	**24.63**	**Sodium:**	**394.4**	**17.16**
Bicarbonate:	**103.7**	**1.7**	**Magnesium:**	**68.0**	**5.59**
Carbonate:			**Calcium:**	**216.0**	**10.78**
Sulfate:	**350.0**	**7.29**	**Strontium:**	**0.0**	**0.**
Phosphate:			**Barium:**	**0.0**	**0.**
Borate:			**Iron:**	**2.5**	**0.09**
Silicate:			Potassium:		
			Aluminum:		
Hydrogen Sulfide:		0 PPM	Chromium:		
pH at time of sampling:		7	Copper:		
pH at time of analysis:			Lead:		
pH used in Calculation:		7	Manganese:		
			Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4*2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-0.36	0.00	-0.92	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.14
100	0	-0.23	0.00	-0.93	0.00	-0.93	0.00	0.00	0.00	0.00	0.00	0.18
120	0	-0.09	0.00	-0.92	0.00	-0.84	0.00	0.00	0.00	0.00	0.00	0.22
140	0	0.06	1.05	-0.90	0.00	-0.73	0.00	0.00	0.00	0.00	0.00	0.27

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

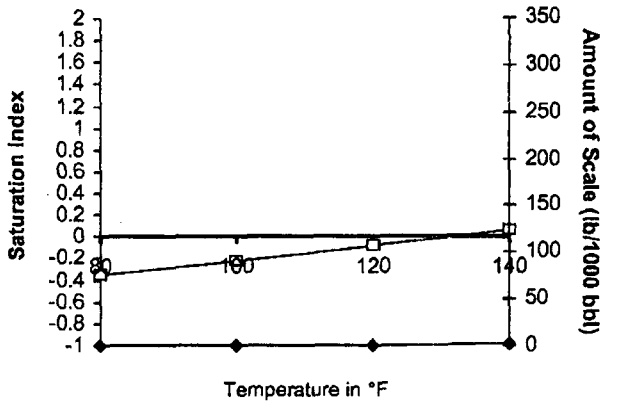
Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

BAKER HUGHES
Baker Petrolite

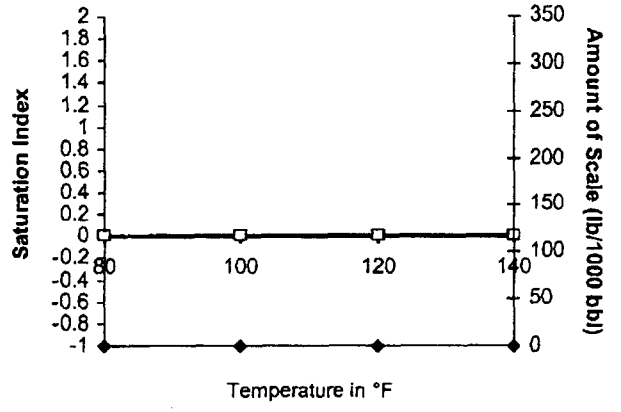
Scale Predictions from Baker Petrolite

Analysis of Sample 37165 @ 75 °F for MACK ENERGY INCORPORATED, 4/7/05

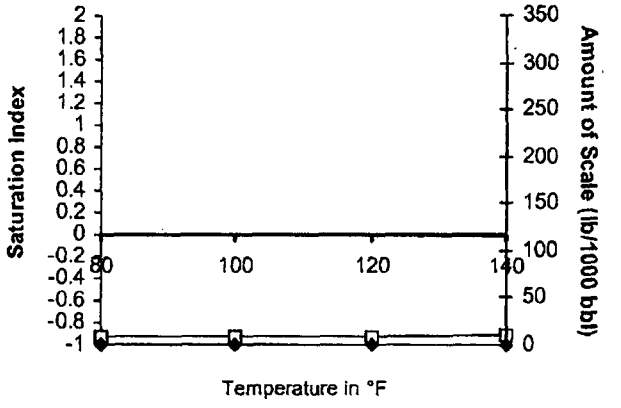
Calcite - CaCO3



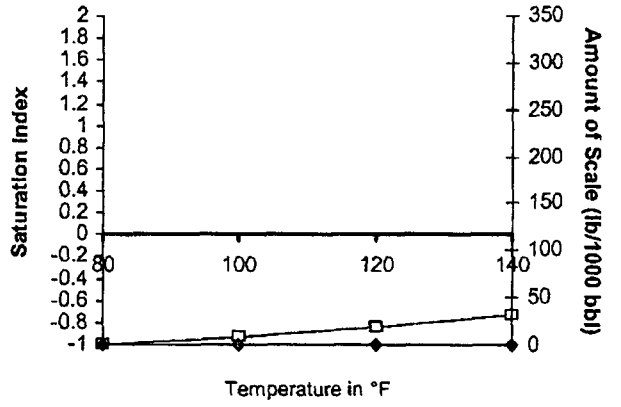
Barite - BaSO4



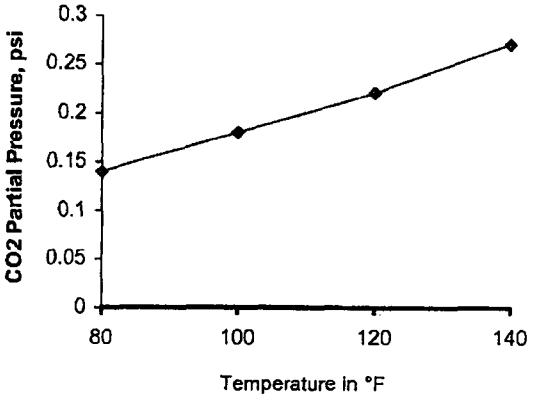
Gypsum - CaSO4*2H20



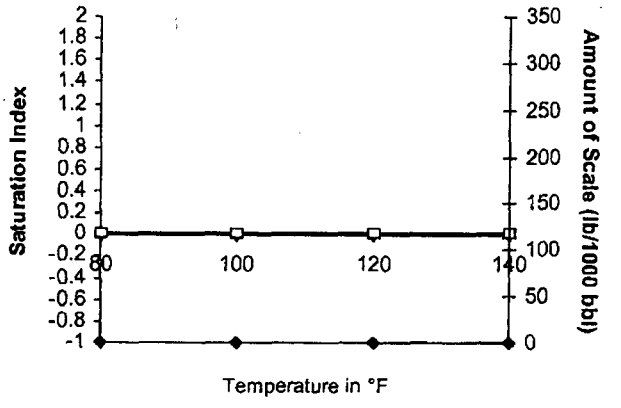
Anhydrite - CaSO4



Carbon Dioxide Partial Pressure



Celestite - SrSO4



INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn. "B"
T. Salt	T. Strawn	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	T. Atoka	T. Pictured Cliffs	T. Penn. "D"
T. Yates	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers 3626	T. Devonian	T. Menefee	T. Madison
T. Queen 4336	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg 4848	T. Montoya	T. Mancos	T. McCracken
T. San Andres 5100	T. Simpson	T. Gallup	T. Ignacio Otzte
T. Glorieta	T. McKee	Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blinebry	T. Gr. Wash	T. Morrison	T.
T. Tubb	T. Delaware Sand 5584	T. Todilto	T.
T. Drinkard	T. Bone Springs 6033	T. Entrada	T.
T. Abo	T.	T. Wingate	T.
T. Wolfcamp	T.	T. Chinle	T.
T. Penn	T.	T. Permain	T.
T. Cisco (Bough C)	T.	T. Penn "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from ..... to ..... No. 3, from ..... to .....

No. 2, from ..... to ..... No. 4, from ..... to .....

IMPORTANT WATER SANDS

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

No. 1, from ..... to ..... feet .....

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

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

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology

Subtitit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
May 27, 2004

WELL API NO. 30-025-28865
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. B-10784

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

7. Lease Name or Unit Agreement Name: Crow State
1. Type of Well: Oil Well ☒ Gas Well ☐ Other
8. Well Number 1
2. Name of Operator: Mack Energy Corporation
9. OGRID Number 013837
3. Address of Operator: P. O. Box 960 Artesia, NM 88211-0960
10. Pool name or Wildcat: Vacuum;Grayburg-San Andres

4. Well Location
Unit Letter J 1980 feet from the South line and 1980 feet from the East line
Section 9 Township 18S Range 34E NMPM County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.) 4043' GR

Pit or Below-grade Tank Application ☐ or Closure ☐
Pit type Depth Groundwater Distance from nearest fresh water well Distance from nearest surface water
Pit Liner Thickness: mil Below-Grade Tank: Volume bbls; Construction Material

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
OTHER: ☐		OTHER: Recompletion ☒	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

08/25/2004 Set CIBP @ 6205' w/ 35' cement cap. Perforated from 5215-5305.5' 52 holes.
08/26/2004 Acidized w/2500 gals 15% NEFE.
08/30/2004 Frac w/8000# Lite prop, 36,625 gals 9.5# brine water.
09/01/2004 Perforated from 5031.5-5140' 50 holes. Acidized w/1900 gals 15% NEFE.
09/04/2004 Frac w/36,625 gals 9.5# brine, 8000# Lite Prop, 60,555 gals 40# gel & 76,120# 16/30 sand.
09/07/2004 RIH w/166 joints 2 7/8" tubing SN @ 5339', RIH w/2 1/2x2x20' pump.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐

SIGNATURE Jerry W. Sherrell TITLE Production Clerk DATE 10/20/2004

Type or print name Jerry W. Sherrell E-mail address: jerrys@mackenergycorp.com Telephone No. (505)748-1288

For State Use Onl

APPROVED BY: TITLE PETROLEUM ENGINEER DATE NOV 09 2004
Conditions of Approval (if any):

ZA Vacuum; Bone Spring, West

Legal Notice

Mack Energy Corporation, has filed an Application with the New Mexico Oil Conservation Division seeking authorization to inject produced salt water in the Jack Rabbit SWD #1, Section 9, Township 18 South, Range 34 East, NMPM, Lea County, New Mexico. The water will be injected into the Delaware formation at a disposal depth of 5625-6325'. Water will be injected at a maximum surface pressure of 300 pounds and a maximum injection rate of 3000 BWPD. Any interested party with questions or comments may contact Jerry W. Sherrell at Mack Energy Corporation, Post Office Box 960, Artesia, New Mexico 88211-0960 or call (505) 748-1288. Objections to this application or requests for hearing must be filed with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within fifteen days of the date of the publication of this notice. Published in the Hobbs News Sun, Hobbs, New Mexico.

P. 01

TRANSACTION REPORT

SEP-06-2005 TUE 01:10 PM

FOR: mack energy

15057469539

SEND DATE START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
SEP-06 01:09 PM	15053970610	23"	2	FAX TX	OK	085	

TOTAL : 23S PAGES: 2

MACK ENERGY CORPORATION
PO BOX 960
ARTESIA, NM 88211-0960

FACSIMILE TRANSMITTAL SHEET

TO: Bridgette	FROM: Jerry W. Sherrell
COMPANY: Hobbs News Sun	DATE: 9-6-2005
FAX NUMBER: 505-397-0610	TOTAL NO. OF PAGES INCLUDING COVER: 2
PHONE NUMBER	PHONE NUMBER: (505)748-1288
RE: Jack Rabbit SWD #1	FAX NUMBER: (505)746-9539

☐ URGENT ☑ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

Bridgette,

When you have a price figured for this, would you

MACK Energy Corporation

P.O. Box 960
Artesia, NM 88211-0960
Office (505) 748-1288
Fax (505) 746-9539

September 6, 2005

VIA CERTIFIED MAIL 7004 2510 0004 3033 1812
RETURN RECEIPT REQUESTED

Patrick H. Lyons
State of New Mexico
Commissioner of Public Lands
P.O. Box 1148
Santa Fe, NM 87504-1148

Gentlemen:

Enclosed for your review is a copy of Mack Energy Corporation's application for approval to deepen and complete the Jack Rabbit SWD #1(Formerly Central EK Queen Unit #1), Sec. 9 T18S R34E well into a produced water disposal well in the SWD Delaware formation.

This letter will serve as a notice that Mack Energy Corporation has requested administrative approval from the NMOCD to convert this well into a water disposal well. If you have any objections, you must notify the Oil Conservation Division in Santa Fe in writing within fifteen (15) days of receiving this letter.

Sincerely,

MACK ENERGY CORPORATION

Jerry W. Sherrell

Jerry W. Sherrell
Production Clerk

JWS

MACK Energy Corporation

P.O. Box 960
Artesia, NM 88211-0960
Office (505) 748-1288
Fax (505) 746-9539

September 6, 2005

VIA CERTIFIED MAIL 7004 2510 0004 3033 1829
RETURN RECEIPT REQUESTED

Seely Oil Company
815 W. Tenth St.
Fort Worth, TX 79702

Gentlemen:

Enclosed for your review is a copy of Mack Energy Corporation's application for approval to deepen and complete the Jack Rabbit SWD #1(Formerly Central EK Queen Unit #1), Sec. 9 T18S R34E well into a produced water disposal well in the SWD Delaware formation.

This letter will serve as a notice that Mack Energy Corporation has requested administrative approval from the NMOCD to convert this well into a water disposal well. If you have any objections, you must notify the Oil Conservation Division in Santa Fe in writing within fifteen (15) days of receiving this letter.

Sincerely,

MACK ENERGY CORPORATION

Jerry W. Sherrell

Jerry W. Sherrell
Production Clerk

JWS

MACK Energy Corporation

P.O. Box 960
Artesia, NM 88211-0960
Office (505) 748-1288
Fax (505) 746-9539

September 6, 2005

VIA CERTIFIED MAIL 7004 2510 0004 3033 1805
RETURN RECEIPT REQUESTED

Ray Westall
PO Box 4
Loco Hills, NM 88255

Gentlemen:

Enclosed for your review is a copy of Mack Energy Corporation's application for approval to deepen and complete the Jack Rabbit SWD #1(Formerly Central EK Queen Unit #1), Sec. 9 T18S R34E well into a produced water disposal well in the SWD Delaware formation.

This letter will serve as a notice that Mack Energy Corporation has requested administrative approval from the NMOCD to convert this well into a water disposal well. If you have any objections, you must notify the Oil Conservation Division in Santa Fe in writing within fifteen (15) days of receiving this letter.

Sincerely,

MACK ENERGY CORPORATION

Jerry W. Sherrell

Jerry W. Sherrell
Production Clerk

JWS

MACK Energy Corporation

P.O. Box 960
Artesia, NM 88211-0960
Office (505) 748-1288
Fax (505) 746-9539

September 6, 2005

VIA CERTIFIED MAIL 7004 2510 0004 3033 1836
RETURN RECEIPT REQUESTED

Oxy USA Inc.
P.O. Box 50250
Midland, TX 79710
Attn: David Evans

Gentlemen:

Enclosed for your review is a copy of Mack Energy Corporation's application for approval to deepen and complete the Jack Rabbit SWD #1(Formerly Central EK Queen Unit #1), Sec. 9 T18S R34E well into a produced water disposal well in the SWD Delaware formation.

This letter will serve as a notice that Mack Energy Corporation has requested administrative approval from the NMOCD to convert this well into a water disposal well. If you have any objections, you must notify the Oil Conservation Division in Santa Fe in writing within fifteen (15) days of receiving this letter.

Sincerely,

MACK ENERGY CORPORATION

Jerry W. Sherrell

Jerry W. Sherrell
Production Clerk

JWS

Enclosures

MACK Energy Corporation

P.O. Box 960
Artesia, NM 88211-0960
Office (505) 748-1288
Fax (505) 746-9539

September 6, 2005

VIA CERTIFIED MAIL 7004 2510 0004 3033 1843
RETURN RECEIPT REQUESTED

BP America Production Company
PO Box 3092
Houston, TX 77253-3092

Gentlemen:

Enclosed for your review is a copy of Mack Energy Corporation's application for approval to deepen and complete the Jack Rabbit SWD #1(Formerly Central EK Queen Unit #1), Sec. 9 T18S R34E well into a produced water disposal well in the SWD Delaware formation.

This letter will serve as a notice that Mack Energy Corporation has requested administrative approval from the NMOCD to convert this well into a water disposal well. If you have any objections, you must notify the Oil Conservation Division in Santa Fe in writing within fifteen (15) days of receiving this letter.

Sincerely,

MACK ENERGY CORPORATION

Jerry W. Sherrell

Jerry W. Sherrell
Production Clerk

JWS