DATE IN 3,1,12	SUSPENSE	ENGINEER WVJ	LOGGED IN 3,1,12	TYPE SWD	APP NO. pTGW 1206144563

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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

LRE operating 281994

ASPEN 32 STATE COM #1 Aspen 32 State Com #1

ADMINISTRATIVE APPLICATION CHECKLIST 30-015-34148

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

Application Acronyms:

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

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

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

J-32-17S-28E

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

Amend SWD-1247

[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

7050-8790'

3166 PSI

[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.

Mike Pippin	Mike Pippin	Petroleum Engineer	February 27, 2112
Print or Type Name	Signature	Title	Date

mike@pippinllc.com
e-mail Address

LRE OPERATORS, LLC
Mike Pippin PE
3104 N. Sullivan Avenue
Farmington, NM 87401
505-327-4573 (phone) mike@pippinllc.com

February 27, 2012

Will Jones
NMOCD
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: C-108, SWD APPLICATION
ASPEN 32 STATE COM #1– API#: 30-015-34148
Unit Letter "J" Section 32 T17S R28E
Eddy County, New Mexico

Dear Mr. Jones:

The referenced SWD well currently disposes of produced water into the Cisco (SWD Canyon 96184) as per SWD-1247A and IPI-397. LRE Operators is requesting to add the Wolfcamp formation (7050'-8197') to the existing Cisco disposal interval.

Attached is the necessary C-108 information, data, maps, and proof of notices for the application.

Should you have any questions, please contact me at 505-327-4573.

Very truly yours,

Mike Pippin

Petroleum Engineer

LRE OPERATING, LLC
c/o Mike Pippin LLC
505-327-4573 (phone) 505-564-8656 (fax)
Email: mike@ pippinllc.com

ASPEN 32 STATE COM #1 -- SWD Application – Form C-108

1370' FSL 1609' FEL, (J) T17S R28E, Eddy County, NM
This well is currently a disposal well into the Cisco (SWD Canyon 96184) as per SWD-1247A & IPI-397.

I. LRE plans to add the Wolfcamp in this existing Cisco (SWD CANYON 96184) disposal well.

II. Operator: LRE OPERATING, LLC (281994)
1111 Bagby St, Suite 4600
Houston, TX 77002
c/o Mike Pippin LLC, 3104 N. Sullivan, Farmington, NM 87401

III. Well Data: Please see "Well Data Sheet" attached.

IV. ~~This is an expansion of an existing project: DHC-1247A & IPI-397~~

V. See attached maps showing ½ mile radius of review & 2 mile radius.

VI. There is one well within the ½ mile area of review that penetrates the proposed injection zone: NW State #33. See the attached pertinent data for this well. There are no P&Aed wells in the area of review that penetrated the injection zone.

VII. 1. This Cisco disposal well is currently injecting 1975 BWPD @ 3166 psi. The proposed average daily injection volume after the addition of the Wolfcamp is 5000 BWPD.
2. This will be a closed system.
3. Proposed average injection pressure is estimated @ 3166 psi with the maximum injection pressure to 4137 psi. (After a step rate test).
4. Sources of water will be produced water from shallow reservoirs in the Red Lake area: Abo, Glorieta, San Andres, Premier, Grayburg, Queen & Yeso formations. An analysis of the water is enclosed.
5. SWD formation water analysis from the Canyon formation is attached from State CG #1 API# 30-015-25361.

VIII. The current disposal zone is the Pennsylvanian aged Cisco formation, also known as the Canyon, at a depth of 8198'. This is a predominately limestone interval, with some dolomite streaks, that has peak porosity of 20% over a 592 foot gross interval. The base of the porous interval of interest is 8790 feet. Within the area of review, drilling operations in this zone typically encounter lost circulation, and formation tests have been non-productive of oil or gas. In the area of review, limited fresh water occurs down to a depth of approximately 150'. No known fresh water sources are underlying the disposal interval.

Proposed Addition to Injection Interval

The proposed injection interval is the Permian aged Wolfcamp formation that will be combined with the already approved and existing Cisco injection immediately beneath (8198-8790'). The top of the Wolfcamp and corresponding top of the requested injection is 7050'. The base of the requested approval is 8197'. Within the area of review the Wolfcamp is predominantly a tight limestone with some intermittent dolomites and shales. Roughly 25% of the overall interval is made up of porous streaks ranging from 4 to 16% porosity. Drilling operations in this zone encounter lost circulation from time to time and formation investigation within the Wolfcamp have been non productive of oil and gas within this area of review.

IX. The proposed Wolfcamp disposal interval may be acidized and fracture stimulated.

LRE OPERATING, LLC
c/o Mike Pippin LLC
505-327-4573 (phone) 505-564-8656 (fax)
Email: mike@ pippinllc.com

X. The following logs are on file with the OCD: Density/Neutron, 10/15/05 & 12/7/10; Induction, 12/7/10; Microlog, 10/15/05; & CBL, 12/14/10. A step rate test will be conducted immediately following the completion of Wolfcamp.

XI. There are no fresh water wells within a 1-mile radius.

XII. Geologic & Engineering data have been examined & no evidence of open faults or any other hydrological connection between the injection zone & any fresh water aquifers has been found.

XIII. Copies of the NMOCD form C-108, the well data sheet and map along with a cover letter (see attached) have been sent to the offset operators, surface owner, and NM Commissioner of Public Lands. See the attached list of interest owners.

A copy of the Legal Notice as published in the Artesia Daily News is attached to this filing.

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: Mike Pippin TITLE: Petroleum Engineer

SIGNATURE: Mike Pippin DATE: February 27, 2012

E-MAIL ADDRESS: mike@pippinllc.com

* 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

LRE OPERATING, LLC
c/o Mike Pippin LLC
505-327-4573 (phone) 505-564-8656 (fax)
Email: mike@ pippinllc.com

III. WELL DATA SHEET
ASPEN 32 STATE COM #1 -- SWD Application – Form C-108

A. 1. Section 32, T17S, R28E
1370' FSL & 1609' FEL
Eddy County, NM

2. After running & cementing 13-3/8" csg & 9-5/8" csg to surface, an 8-3/4" hole was drilled to 10,400' on 10/14/05. After running open hole logs, on 10/18/05, the decision was made to P&A. On 10/18/05, the well was P&Aed. The well was re-entered and 7" csg set @ 9457' on 12/8/10. The well was then perfed 8383'-8708', fraced w/212,091# of sand in X-linked gel. Additional perfs @ 8204'-8356' were added & treated w/8000 gal 15% acid. Additional perfs 8388'-8708 were added, and completed as a SWD well in the Cisco (SWD Canyon 96184). The first disposal date was 4/4/11.

Casing 13-3/8" 48# H-40 @ 428'. Cmt w/400 sx cmt. Circ Cmt.
9-5/8" 40# N-80 @ 2660'. Cmt w/1100 sx cmt. Circ Cmt.
7" 29# L-80 @ 9457'. Cmt w/1130 sx Cmt. Circ 66 sx Cmt
7" nickel plated & plastic lined pkr on
3-1/2" 9.3# J-55 Plastic Lined tbg @ 8157'

Injection Interval will be existing perfs @ 8204'-8708' & new Wolfcamp perfs @ ~7050'-8197'. LRE is currently disposing of 1975 BWPD @ 3166 psi into the Cisco perfs.

INJECTION WELL DATA

3. The tbg & pkr now in use will be re-used with a setting depth of about 7100': 3-1/2" 9.3# J-55 IPC injection tbg.

4. The 7" nickel plated retrievable injection pkr now in use will be re-used with a setting depth of about 7100'.

B. 1. This well was initially drilled to 10,400' to test the Morrow, but was P&Aed. The well was re-entered and 7" csg set @ 9457' on 12/8/10 for the purpose of SWD.

2. We plan to inject into the Cisco Wolfcamp.

3. The pool names are SWD Canyon (Cisco) and Undesignated Wolfcamp.

4. The well has never been perfed in any other interval.

5. The name & depth of any oil or gas zones underlying or overlying the proposed injection zone.
Next Higher: Abo (oil) 6000'-6300'
Next Lower: Atoka (gas) 9,283'

Set plug to cover this

ASPEN 32 STATE COM #1

Current
SWD Canyon, (96148)
(J) Section 32, T-17-S, R-28-E, Eddy County, NM

Today's Date: 2/27/12 – M. Pippin
Spud Re-entry: 11/30/10
Completed: 3/1/11
Elevation: 3669' GL

17-1/2" hole

13-3/8" 48# Csg @ 428'
Cmt w/400 sxs (Circ. 75 sx cmt)

Grayburg @ 1900'

San Andres @ 2200'

12-1/4" hole

9-5/8" 40# N-80 Csg @ 2660'
Cmt w/1100 sxs (Circ. 85 sx cmt)

Glorieta @ 3400'

Abo @ 6000'

Wolfcamp @ 7050'

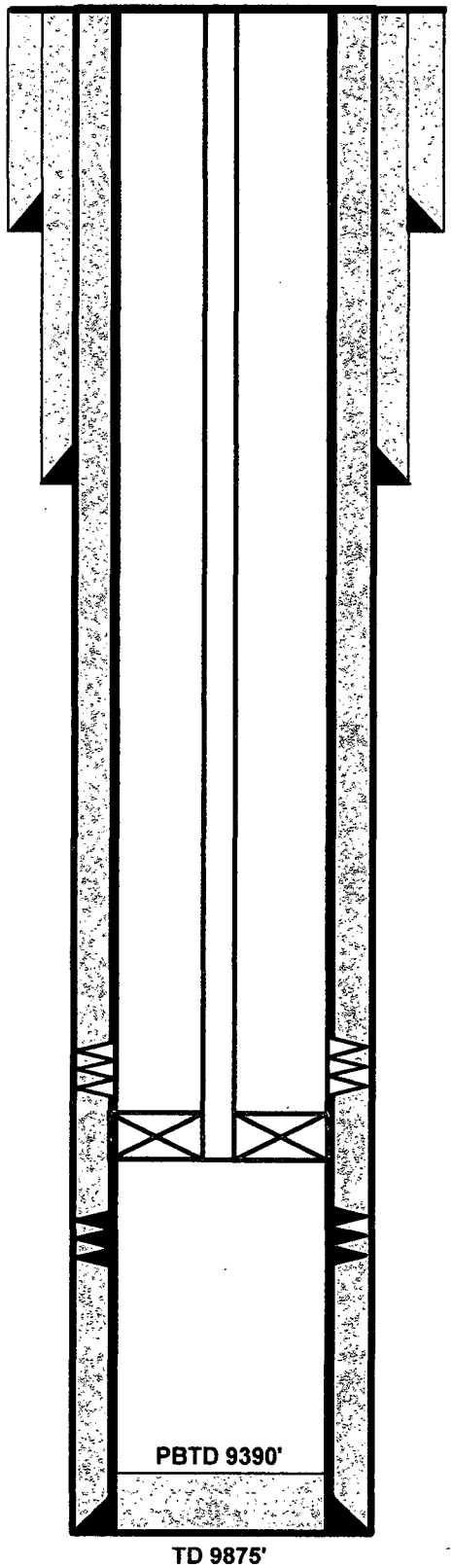
Proposed Wolfcamp perfs:~7050'-8140'

3-1/2" tbg on pkr @ 8157'

Cisco @ 8142'

SWD CANYON Perfs:8204'-8708'

Atoka @ 9293'



8-3/4" hole

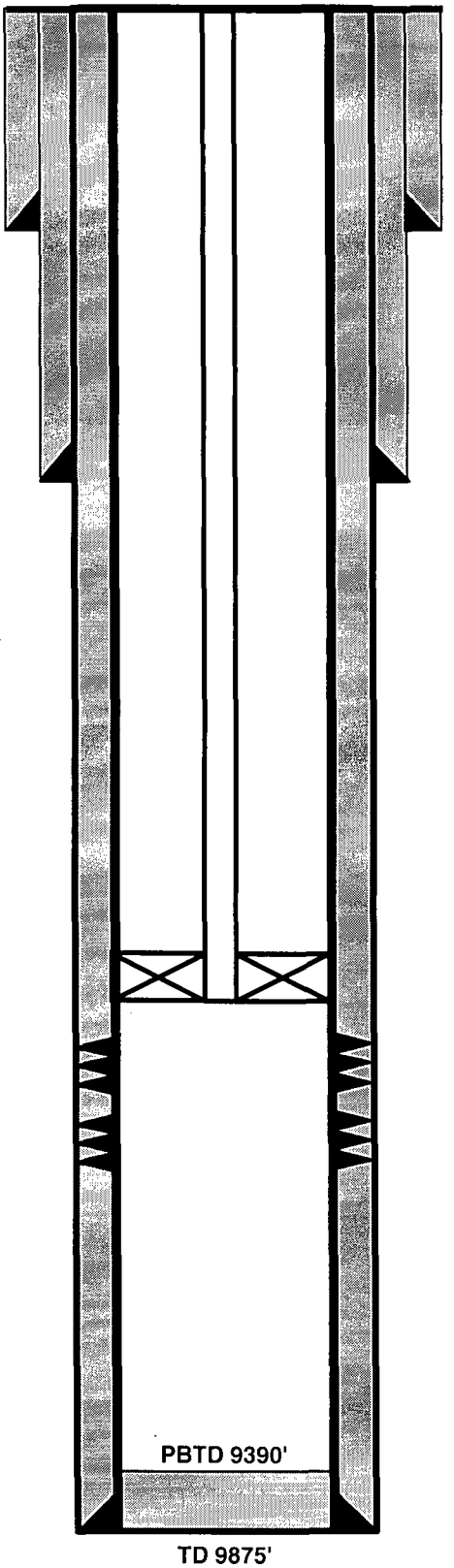
7" 29# L-80 Csg @ 9457'
Cmt with 1130 sx, Circ 66 sx Cmt

TD 9875'

ASPEN 32 STATE COM #1

Proposed
SWD Canyon, (96148)
(J) Section 32, T-17-S, R-28-E, Eddy County, NM

Today's Date: 2/27/12 – M. Pippin
Spud Re-entry: 11/30/10
Completed: 3/1/11
Elevation: 3669' GL



17-1/2" hole

13-3/8" 48# Csg @ 428'
Cmt w/400 sxs (Circ. 75 sx cmt)

Grayburg @ 1900'

San Andres @ 2200'

12-1/4" hole

9-5/8" 40# N-80 Csg @ 2660'
Cmt w/1100 sxs (Circ. 85 sx cmt)

Glorieta @ 3400'

Abo @ 6000'

3-1/2" tbg on pkr @ ~7000'

Wolfcamp @ 7050'

Wolfcamp perfs:~7050'-8197'

Cisco @ 8197'

SWD CANYON Perfs:8204'-8708'

Atoka @ 9293'

PBTD 9390'

8-3/4" hole

7" 29# L-80 Csg @ 9457'
Cmt with 1130 sx, Circ 66 sx Cmt

TD 9875'

30-015-34148-00-00 **ASPEN 32 STATE COM No. 001**

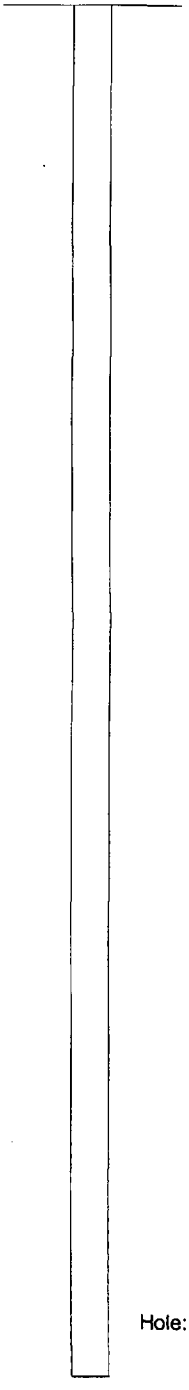
Company Name: MEWBOURNE OIL CO

Location: Sec: 32 T: 17S R: 28E Spot:

Lat: 32.7874332411955 Long: -104.194596962258

Property Name: ASPEN 32 STATE COM

County Name: Eddy



TD: **TVD:** 0 **PBTD:**

String Information

Cement Information

Perforation Information

Top (ft sub)	Bottom (ft sub)	Shts/Ft	No Shts	Dt Sqz
0	0			

Formation Information

St Code	Formation	Depth
Psr	Seven Rivers	632
Psrbs	Bowers Sand	990
Pqu	Queen	1208
Psa	San Andres	1981
Pgl	Glorieta	3412
Pytu	Tubb	4767
Pabo	Abo	5383
Pwc	Wolfcamp	6892
Ppupp	Upper Pennsylvanian Undesigna	7735
PPst	Strawn	9096
Ppat	Atoka	9696

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 9242	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	T. Atoka 9696	T. Pictured Cliffs	T. Penn. "D"
T. Yates	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee	T. Madison
T. Queen 1219	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya	T. Mancos	T. McCracken
T. San Andres 1981	T. Simpson	T. Gallup	T. Ignacio Otzte
T. Glorieta 3411	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	T.Todilto	T
T. Drinkard	T. Bone Springs	T. Entrada	T.
T. Abo 5533	T. Morrow 10038	T. Wingate	T.
T. Wolfcamp 7050	T. Barnett 10268	T. Chinle	T.
T. Penn	T.	T. Permian	T.
T. Cisco (Bough C) 8142	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

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-34184	96184	SWD Canyon (Cisco)

[4] Property Code	[5] Property Name	[6] Well Number
309624	**ASPEN 32 STATE COM**	**1**

[7] OGRID No.	[8] Operator Name	[9] Elevation
281994	**LRE OPERATING, LLC**	3669' GL

[10] Surface Location

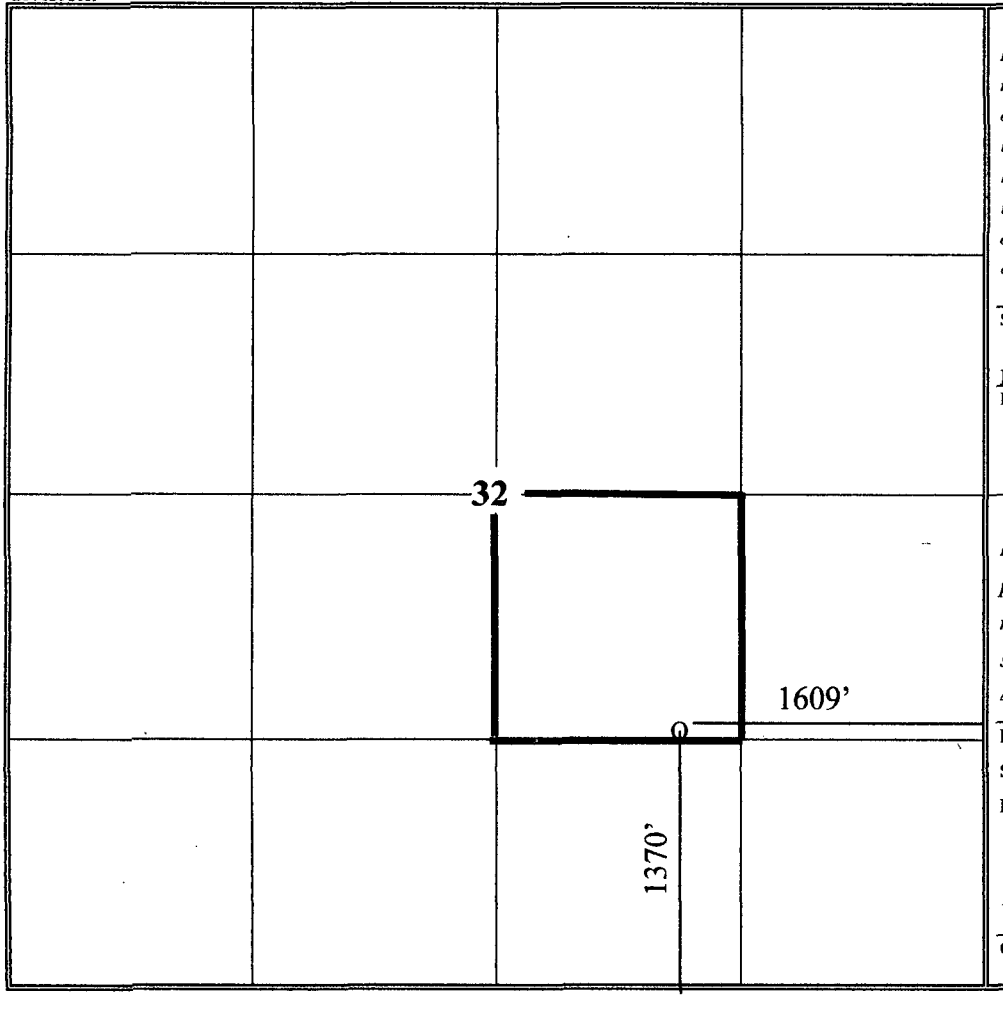
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	32	17-S	28-E		1370'	SOUTH	1609	EAST	EDDY

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
			SWD-1247A & IPI-397

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

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Mike Pippin — 2/27/12
Signature — Date

Mike Pippin
Printed Name

[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 best of my belief.

4/5/05
Date of Survey

Signature and Seal of Professional Surveyor:
Micheal L. Stanford

10324
Certificate Number

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-34184		Undesignated Wolfcamp

[4] Property Code	[5] Property Name	[6] Well Number
309624	**ASPEN 32 STATE COM**	**1**

[7] OGRID No.	[8] Operator Name	[9] Elevation
281994	**LRE OPERATING, LLC**	3669' GL

[10] Surface Location

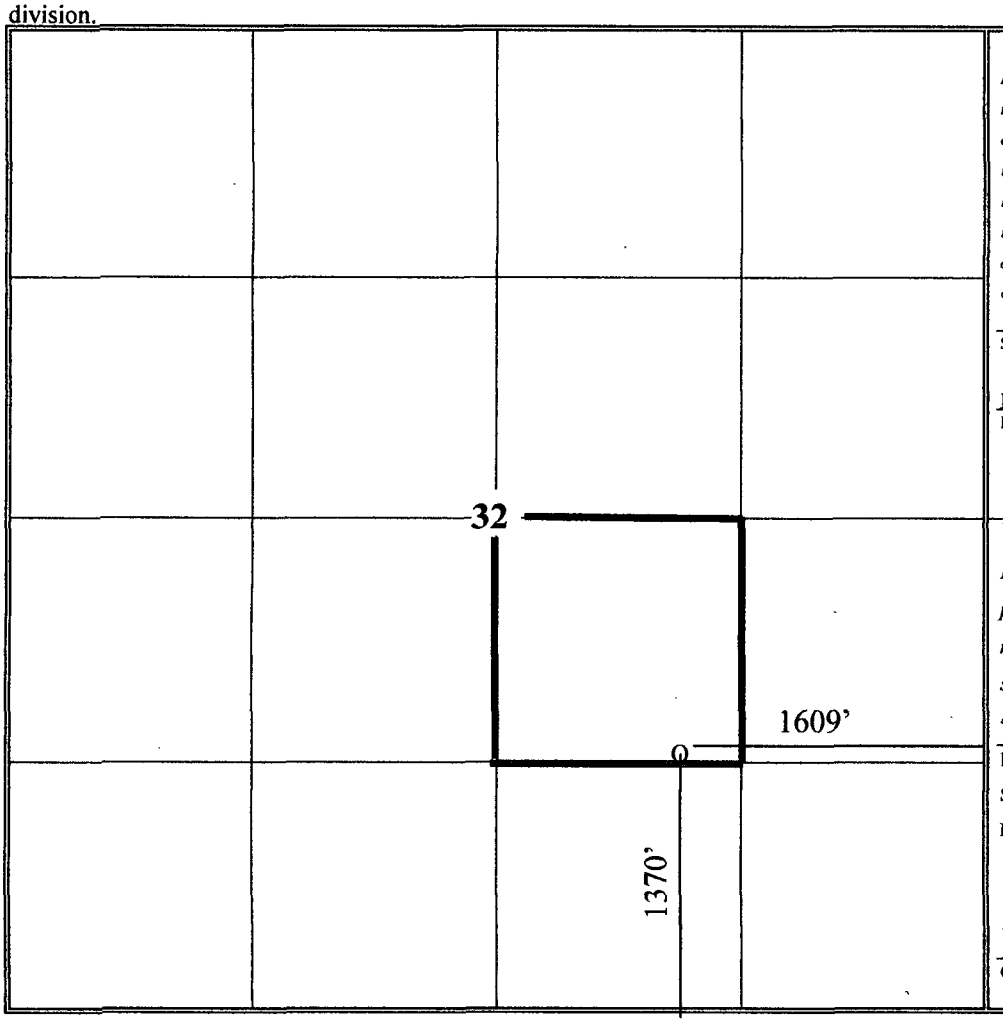
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	32	17-S	28-E		1370'	SOUTH	1609	EAST	EDDY

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
			SWD-1247A & IPI-397

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

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Mike Pippin — 2/27/12
Signature — Date

Mike Pippin
Printed Name

[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 best of my belief.

4/5/05
Date of Survey

Signature and Seal of Professional Surveyor:
Micheal L. Stanford

10324
Certificate Number

BJ SERVICES

Water Analysis

Date: 2/24/2005

2401 Sivley, Artesia NM 88210
Phone (505) 746-3140 Fax (505) 746-2293

Analyzed For 30-15-25361

Company	Well Name	County	State
Westall	StateCG#1	Eddy	New Mexico

Sample Source ***Sample #*** 1

Formation **Canyon** ***Depth***

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

Cations

Sodium (Calc)	*in Mg/L*	9,518	*in PPM*	9,056
Calcium	*in Mg/L*	5,600	*in PPM*	5,328
Magnesium	*in Mg/L*	240	*in PPM*	228
Soluable Iron (FE2)	*in Mg/L*	300.0	*in PPM*	285

Anions

Chlorides	*in Mg/L*	24,000	*in PPM*	22,835
Sulfates	*in Mg/L*	2,000	*in PPM*	1,903
Bicarbonates	*in Mg/L*	185	*in PPM*	176
Total Hardness (as CaCO3)	*in Mg/L*	15,000	*in PPM*	14,272
Total Dissolved Solids (Calc)	*in Mg/L*	41,844	*in PPM*	39,813
Equivalent NaCl Concentration	*in Mg/L*	38,410	*in PPM*	36,546

Scaling Tendencies

Calcium Carbonate Index* **1,038,464

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

Calcium Sulfate (Gyp) Index* **11,200,000

Below 500,000 Remote / 500,000 - 10,000,00 Possible / Above 10,000,000 Probable

****This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.***

Remarks FAX 677-2361

Report # 1732

INJ DISPOSAL ZONE
UNIT S

Pro-Kem
WATER ANALYSIS REPORT

SAMPLE

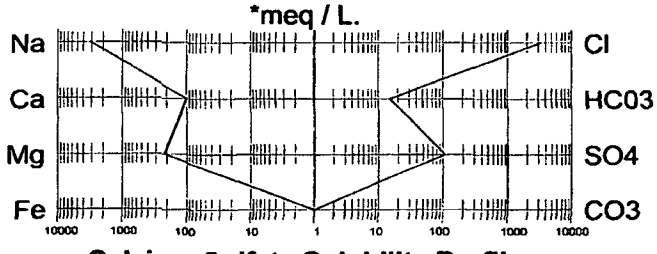
Oil Co. : **Lime Rock Resources**
Lease : **Enron Fed**
Well No.:
Location:
Attention:

Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.003- 1**
Salesperson :
File Name : **Jul2810.003**

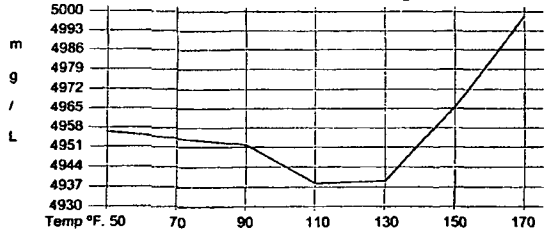
ANALYSIS

1.	Ph			5.600		
2.	Specific Gravity 60/60 F.			1.138		
3.	CACO3 Saturation Index		@ 80F	-0.346	Negligible	
			@140F	0.754	Moderate	
	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			40		
5.	Carbon Dioxide			100		
6.	Dissolved Oxygen			Not Determined		
	Cations					
7.	Calcium	(Ca++)		1,884	/ 20.1 =	93.73
8.	Magnesium	(Mg++)		2,571	/ 12.2 =	210.74
9.	Sodium	(Na+)	(Calculated)	70,252	/ 23.0 =	3,054.44
10.	Barium	(Ba++)		Not Determined		
	Anions					
11.	Hydroxyl	(OH-)		0	/ 17.0 =	0.00
12.	Carbonate	(CO3=)		0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO3-)		868	/ 61.1 =	14.21
14.	Sulfate	(SO4=)		5,000	/ 48.8 =	102.46
15.	Chloride	(Cl-)		114,974	/ 35.5 =	3,238.70
16.	Total Dissolved Solids			195,549		
17.	Total Iron	(Fe)		10.00	/ 18.2 =	0.55
18.	Manganese	(Mn++)		Not Determined		
19.	Total Hardness as CaCO3			15,289		
20.	Resistivity @ 75 F. (Calculated)			0.003 Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	14.21		81.04		1,151
CaSO4	79.53		68.07		5,413
CaCl2	0.00		55.50		0
Mg(HCO3)2	0.00		73.17		0
MgSO4	22.93		60.19		1,380
MgCl2	187.80		47.62		8,943
NaHCO3	0.00		84.00		0
NaSO4	0.00		71.03		0
NaCl	3,050.90		58.46		178,356

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem, Inc.
WATER ANALYSIS REPORT

SAMPLE

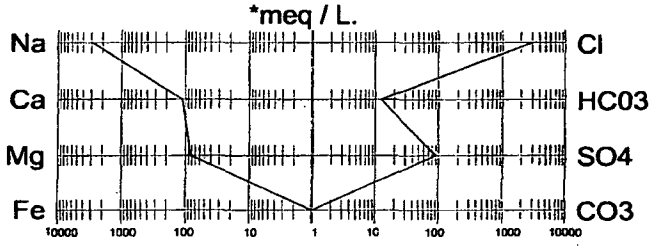
Oil Co. : **LimeRock Resources**
Lease : **Enron**
Well No.: **ST**
Location:
Attention:

Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.001- 9**
Salesperson :
File Name : **Jul2810.001**

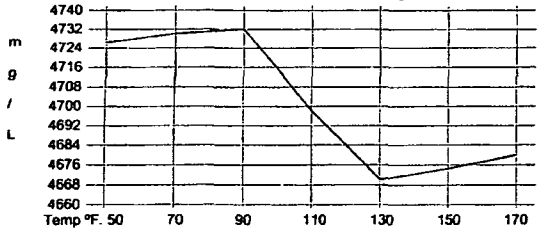
ANALYSIS

1.	Ph			**5.600**		
2.	Specific Gravity 60/60 F.			**1.138**		
3.	CACO3 Saturation Index		@ 80F	**-0.530**	**Negligible**	
			@140F	**0.410**	**Mild**	
	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			**100**		
5.	Carbon Dioxide			**80**		
6.	Dissolved Oxygen			**Not Determined**		
	Cations					
7.	Calcium	(Ca++)		**2,166**	/ 20.1 =	**107.76**
8.	Magnesium	(Mg++)		**971**	/ 12.2 =	**79.59**
9.	Sodium	(Na+)	(Calculated)	**65,383**	/ 23.0 =	**2,842.74**
10.	Barium	(Ba++)		**Not Determined**		
	Anions					
11.	Hydroxyl	(OH-)		**0**	/ 17.0 =	**0.00**
12.	Carbonate	(CO3=)		**0**	/ 30.0 =	**0.00**
13.	Bicarbonate	(HCO3-)		**714**	/ 61.1 =	**11.69**
14.	Sulfate	(SO4=)		**4,200**	/ 48.8 =	**86.07**
15.	Chloride	(Cl-)		**103,977**	/ 35.5 =	**2,928.93**
16.	Total Dissolved Solids			**177,411**		
17.	Total Iron	(Fe)		**1.50**	/ 18.2 =	**0.08**
18.	Manganese	(Mn++)		**Not Determined**		
19.	Total Hardness as CaCO3			**9,408**		
20.	Resistivity @ 75 F. (Calculated)			**0.017** Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	**11.69**		81.04		**947**
CaSO4	**86.07**		68.07		**5,858**
CaCl2	**10.01**		55.50		**556**
Mg(HCO3)2	**0.00**		73.17		**0**
MgSO4	**0.00**		60.19		**0**
MgCl2	**79.59**		47.62		**3,790**
NaHCO3	**0.00**		84.00		**0**
NaSO4	**0.00**		71.03		**0**
NaCl	**2,839.33**		58.46		**165,987**

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem, Inc.
WATER ANALYSIS REPORT

SAMPLE

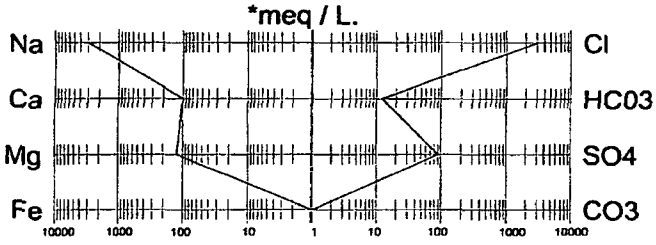
Oil Co. : **LimeRock Resources**
Lease : **Jeffery 01**
Well No.: **ST**
Location:
Attention:

Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.001- 8**
Salesperson :
File Name : **Jul2810.001**

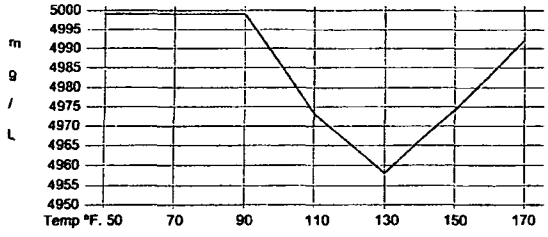
ANALYSIS

1.	Ph			**5.600**		
2.	Specific Gravity 60/60 F.			**1.133**		
3.	CACO3 Saturation Index	@ 80F		**-0.527**	**Negligible**	
		@140F		**0.463**	**Mild**	
	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			**0**		
5.	Carbon Dioxide			**90**		
6.	Dissolved Oxygen			**Not Determined**		
	Cations					
7.	Calcium	(Ca++)		**1,884**	/ 20.1 =	**93.73**
8.	Magnesium	(Mg++)		**1,428**	/ 12.2 =	**117.05**
9.	Sodium	(Na+)	(Calculated)	**67,431**	/ 23.0 =	**2,931.78**
10.	Barium	(Ba++)		**Not Determined**		
	Anions					
11.	Hydroxyl	(OH-)		**0**	/ 17.0 =	**0.00**
12.	Carbonate	(CO3=)		**0**	/ 30.0 =	**0.00**
13.	Bicarbonate	(HCO3-)		**703**	/ 61.1 =	**11.51**
14.	Sulfate	(SO4=)		**4,200**	/ 48.8 =	**86.07**
15.	Chloride	(Cl-)		**107,976**	/ 35.5 =	**3,041.58**
16.	Total Dissolved Solids			**183,622**		
17.	Total Iron	(Fe)		**1.50**	/ 18.2 =	**0.08**
18.	Manganese	(Mn++)		**Not Determined**		
19.	Total Hardness as CaCO3			**10,584**		
20.	Resistivity @ 75 F. (Calculated)			**0.012** Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	**11.51**		81.04		**932**
CaSO4	**82.23**		68.07		**5,597**
CaCl2	**0.00**		55.50		**0**
Mg(HCO3)2	**0.00**		73.17		**0**
MgSO4	**3.84**		60.19		**231**
MgCl2	**113.21**		47.62		**5,391**
NaHCO3	**0.00**		84.00		**0**
NaSO4	**0.00**		71.03		**0**
NaCl	**2,928.37**		58.46		**171,192**

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem, Inc.
WATER ANALYSIS REPORT

SAMPLE

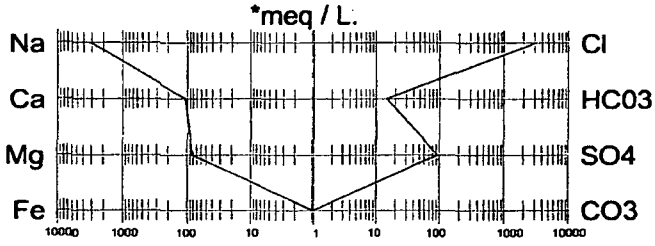
Oil Co. : **LimeRock Resources**
Lease : **Jeffery 36**
Well No.: **ST**
Location:
Attention:

Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.001- 7**
Salesperson :
File Name : **Jul2810.001**

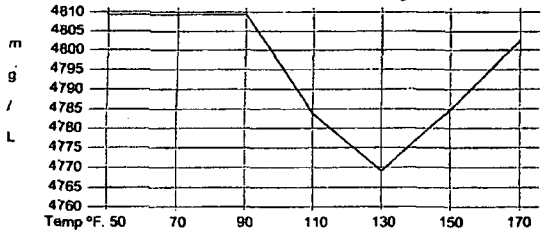
ANALYSIS

1.	Ph			5.600		
2.	Specific Gravity 60/60 F.			1.143		
3.	CACO3 Saturation Index	@ 80F		-0.400	Negligible	
		@140F		0.590	Mild	
	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			30		
5.	Carbon Dioxide			100		
6.	Dissolved Oxygen			Not Determined		
	Cations					
7.	Calcium	(Ca++)		2,072	/ 20.1 =	103.08
8.	Magnesium	(Mg++)		971	/ 12.2 =	79.59
9.	Sodium	(Na+)	(Calculated)	69,530	/ 23.0 =	3,023.04
10.	Barium	(Ba++)		Not Determined		
	Anions					
11.	Hydroxyl	(OH-)		0	/ 17.0 =	0.00
12.	Carbonate	(CO3=)		0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO3-)		857	/ 61.1 =	14.03
14.	Sulfate	(SO4=)		4,400	/ 48.8 =	90.16
15.	Chloride	(Cl-)		109,975	/ 35.5 =	3,097.89
16.	Total Dissolved Solids			187,805		
17.	Total Iron	(Fe)		1.00	/ 18.2 =	0.05
18.	Manganese	(Mn++)		Not Determined		
19.	Total Hardness as CaCO3			9,173		
20.	Resistivity @ 75 F. (Calculated)			0.009 Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	14.03		81.04		1,137
CaSO4	89.06		68.07		6,062
CaCl2	0.00		55.50		0
Mg(HCO3)2	0.00		73.17		0
MgSO4	1.11		60.19		67
MgCl2	78.48		47.62		3,737
NaHCO3	0.00		84.00		0
NaSO4	0.00		71.03		0
NaCl	3,019.40		58.46		176,514

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem, Inc.
WATER ANALYSIS REPORT

SAMPLE

Oil Co. : **LimeRock Resources**
Lease : **Kersey**
Well No.: **ST**
Location:
Attention:

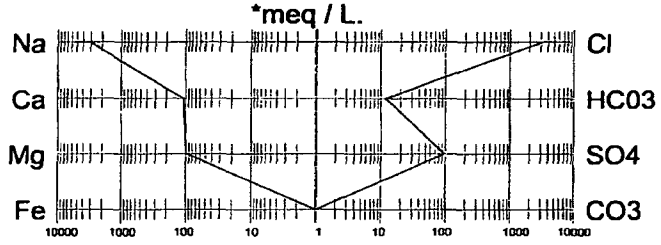
Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.001- 6**
Salesperson :
File Name : **Jul2810.001**

ANALYSIS

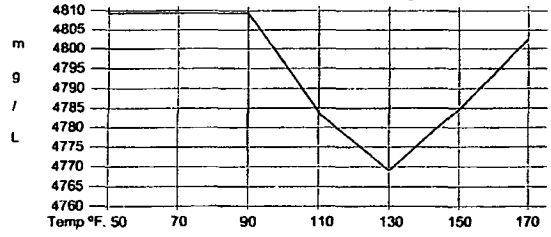
1.	Ph		**5.600**		
2.	Specific Gravity 60/60 F.		**1.143**		
3.	CACO3 Saturation Index	@ 80F	**-0.496**	**Negligible**	
		@140F	**0.494**	**Mild**	

	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			**30**		
5.	Carbon Dioxide			**50**		
6.	Dissolved Oxygen			**Not Determined**		
	Cations					
7.	Calcium	(Ca++)		**2,072**	/ 20.1 =	**103.08**
8.	Magnesium	(Mg++)		**1,143**	/ 12.2 =	**93.69**
9.	Sodium	(Na+)	(Calculated)	**69,836**	/ 23.0 =	**3,036.35**
10.	Barium	(Ba++)		**Not Determined**		
	Anions					
11.	Hydroxyl	(OH-)		**0**	/ 17.0 =	**0.00**
12.	Carbonate	(CO3=)		**0**	/ 30.0 =	**0.00**
13.	Bicarbonate	(HCO3-)		**686**	/ 61.1 =	**11.23**
14.	Sulfate	(SO4=)		**4,500**	/ 48.8 =	**92.21**
15.	Chloride	(Cl-)		**110,975**	/ 35.5 =	**3,126.06**
16.	Total Dissolved Solids			**189,212**		
17.	Total Iron	(Fe)		**14.50**	/ 18.2 =	**0.80**
18.	Manganese	(Mn++)		**Not Determined**		
19.	Total Hardness as CaCO3			**9,879**		
20.	Resistivity @ 75 F.	(Calculated)		**0.008** Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	**11.23**		81.04		**910**
CaSO4	**91.86**		68.07		**6,253**
CaCl2	**0.00**		55.50		**0**
Mg(HCO3)2	**0.00**		73.17		**0**
MgSO4	**0.36**		60.19		**21**
MgCl2	**93.33**		47.62		**4,444**
NaHCO3	**0.00**		84.00		**0**
NaSO4	**0.00**		71.03		**0**
NaCl	**3,032.72**		58.46		**177,293**

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem
WATER ANALYSIS REPORT

SAMPLE

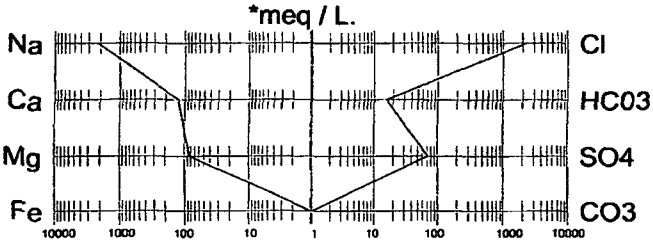
Oil Co. : **Lime Rock Resources**
Lease : **No Bluff Glorieta**
Well No.:
Location:
Attention:

Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.003- 3**
Salesperson :
File Name : **Jul2810.003**

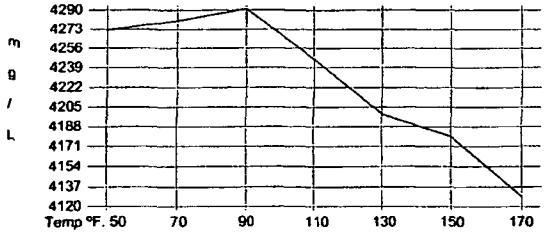
ANALYSIS

1.	*Ph*			***5.400***		
2.	Specific Gravity 60/60 F.			**1.108**		
3.	CACO3 Saturation Index	@ 80F		**-0.820**	**Negligible**	
		@140F		**0.070**	**Mild**	
	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			**120**		
5.	Carbon Dioxide			**90**		
6.	Dissolved Oxygen			**Not Determined**		
	Cations					
7.	Calcium	(Ca++)		**2,449**	/ 20.1 =	**121.84**
8.	Magnesium	(Mg++)		**971**	/ 12.2 =	**79.59**
9.	Sodium	(Na+)	(Calculated)	**49,142**	/ 23.0 =	**2,136.61**
10.	Barium	(Ba++)		**Not Determined**		
	Anions					
11.	Hydroxyl	(OH-)		**0**	/ 17.0 =	**0.00**
12.	Carbonate	(CO3=)		**0**	/ 30.0 =	**0.00**
13.	Bicarbonate	(HCO3-)		**912**	/ 61.1 =	**14.93**
14.	Sulfate	(SO4=)		**3,300**	/ 48.8 =	**67.62**
15.	Chloride	(Cl-)		**79,982**	/ 35.5 =	**2,253.01**
16.	Total Dissolved Solids			**136,756**		
17.	Total Iron	(Fe)		**8.50**	/ 18.2 =	**0.47**
18.	Manganese	(Mn++)		**Not Determined**		
19.	Total Hardness as CaCO3			**10,114**		
20.	Resistivity @ 75 F. (Calculated)			**0.052** Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	**14.93**		81.04		**1,210**
CaSO4	**67.62**		68.07		**4,603**
CaCl2	**39.29**		55.50		**2,181**
Mg(HCO3)2	**0.00**		73.17		**0**
MgSO4	**0.00**		60.19		**0**
MgCl2	**79.59**		47.62		**3,790**
NaHCO3	**0.00**		84.00		**0**
NaSO4	**0.00**		71.03		**0**
NaCl	**2,134.13**		58.46		**124,761**

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem
WATER ANALYSIS REPORT

SAMPLE

Oil Co. : **Lime Rock Resources**
Lease : **No Bluff 36 St.**
Well No.: **1**
Location:
Attention:

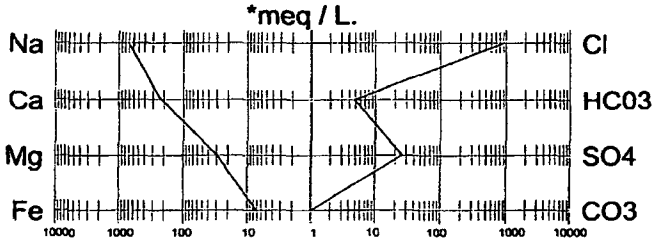
Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.003- 2**
Salesperson :
File Name : **Jul2810.003**

ANALYSIS

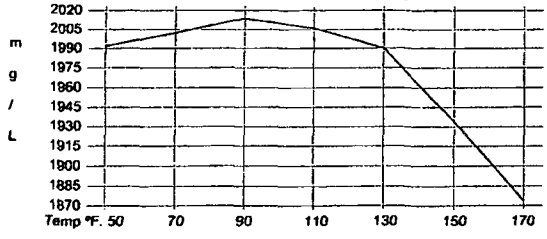
1.	Ph			6.200		
2.	Specific Gravity 60/60 F.			1.043		
3.	CACO3 Saturation Index		@ 80F	-0.487	Negligible	
			@140F	0.438	Mild	

	Dissolved Gasses			MG/L.	EQ. WT.	*MEQ/L
4.	Hydrogen Sulfide			0		
5.	Carbon Dioxide			125		
6.	Dissolved Oxygen			Not Determined		
	Cations					
7.	Calcium	(Ca++)		4,333	/ 20.1 =	215.57
8.	Magnesium	(Mg++)		343	/ 12.2 =	28.11
9.	Sodium	(Na+)	(Calculated)	15,805	/ 23.0 =	687.17
10.	Barium	(Ba++)		Not Determined		
	Anions					
11.	Hydroxyl	(OH-)		0	/ 17.0 =	0.00
12.	Carbonate	(CO3=)		0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO3-)		275	/ 61.1 =	4.50
14.	Sulfate	(SO4=)		1,200	/ 48.8 =	24.59
15.	Chloride	(Cl-)		31,993	/ 35.5 =	901.21
16.	Total Dissolved Solids			53,949		
17.	Total Iron	(Fe)		125.00	/ 18.2 =	6.87
18.	Manganese	(Mn++)		Not Determined		
19.	Total Hardness as CaCO3			12,231		
20.	Resistivity @ 75 F. (Calculated)			0.175 Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	4.50		81.04		365
CaSO4	24.59		68.07		1,674
CaCl2	186.48		55.50		10,350
Mg(HCO3)2	0.00		73.17		0
MgSO4	0.00		60.19		0
MgCl2	28.11		47.62		1,339
NaHCO3	0.00		84.00		0
NaSO4	0.00		71.03		0
NaCl	686.62		58.46		40,140

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem, Inc.
WATER ANALYSIS REPORT

SAMPLE

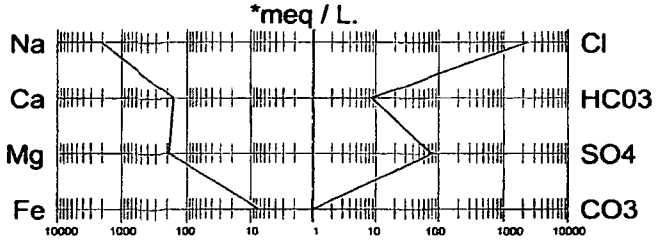
Oil Co. : **LimeRock Resources**
Lease : **NW**
Well No.: **AU**
Location:
Attention:

Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.001-3**
Salesperson :
File Name : **Jul2810.001**

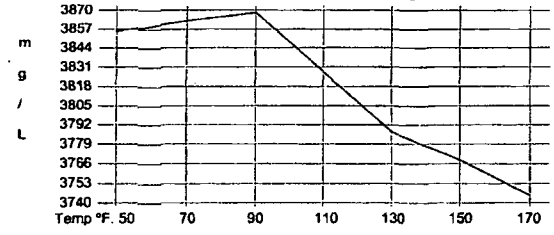
ANALYSIS

1.	Ph			**5.700**		
2.	Specific Gravity 60/60 F.			**1.123**		
3.	CACO3 Saturation Index	@ 80F		**-0.643**	**Negligible**	
		@140F		**0.247**	**Mild**	
	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			**0**		
5.	Carbon Dioxide			**100**		
6.	Dissolved Oxygen			**Not Determined**		
	Cations					
7.	Calcium	(Ca++)		**3,108**	/ 20.1 =	**154.63**
8.	Magnesium	(Mg++)		**2,228**	/ 12.2 =	**182.62**
9.	Sodium	(Na+)	(Calculated)	**45,999**	/ 23.0 =	**1,999.96**
10.	Barium	(Ba++)		**Not Determined**		
	Anions					
11.	Hydroxyl	(OH-)		**0**	/ 17.0 =	**0.00**
12.	Carbonate	(CO3=)		**0**	/ 30.0 =	**0.00**
13.	Bicarbonate	(HCO3-)		**505**	/ 61.1 =	**8.27**
14.	Sulfate	(SO4=)		**3,600**	/ 48.8 =	**73.77**
15.	Chloride	(Cl-)		**79,982**	/ 35.5 =	**2,253.01**
16.	Total Dissolved Solids			**135,422**		
17.	Total Iron	(Fe)		**130.50**	/ 18.2 =	**7.17**
18.	Manganese	(Mn++)		**Not Determined**		
19.	Total Hardness as CaCO3			**16,935**		
20.	Resistivity @ 75 F. (Calculated)			**0.052** Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	**8.27**		81.04		**670**
CaSO4	**73.77**		68.07		**5,022**
CaCl2	**72.59**		55.50		**4,029**
Mg(HCO3)2	**0.00**		73.17		**0**
MgSO4	**0.00**		60.19		**0**
MgCl2	**182.62**		47.62		**8,697**
NaHCO3	**0.00**		84.00		**0**
NaSO4	**0.00**		71.03		**0**
NaCl	**1,997.80**		58.46		**116,791**

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem, Inc.
WATER ANALYSIS REPORT

SAMPLE

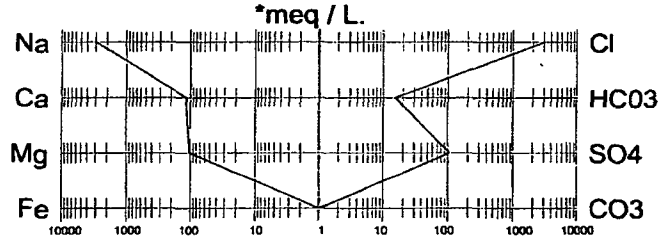
Oil Co. : **LimeRock Resources**
Lease : **NW**
Well No.: **ST**
Location:
Attention:

Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.001- 2**
Salesperson :
File Name : **Jul2810.001**

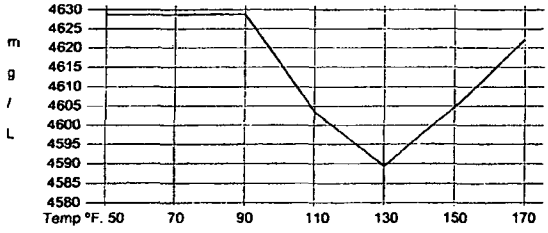
ANALYSIS

1.	Ph			***5.500***		
2.	Specific Gravity 60/60 F.			**1.143**		
3.	CACO3 Saturation Index	@ 80F		**-0.473**	**Negligible**	
		@140F		**0.487**	**Mild**	
	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			**0**		
5.	Carbon Dioxide			**100**		
6.	Dissolved Oxygen			**Not Determined**		
	Cations					
7.	Calcium	(Ca++)		**2,261**	/ 20.1 =	**112.49**
8.	Magnesium	(Mg++)		**1,200**	/ 12.2 =	**98.36**
9.	Sodium	(Na+)	(Calculated)	**66,588**	/ 23.0 =	**2,895.13**
10.	Barium	(Ba++)		**Not Determined**		
	Anions					
11.	Hydroxyl	(OH-)		**0**	/ 17.0 =	**0.00**
12.	Carbonate	(CO3=)		**0**	/ 30.0 =	**0.00**
13.	Bicarbonate	(HCO3-)		**895**	/ 61.1 =	**14.65**
14.	Sulfate	(SO4=)		**5,000**	/ 48.8 =	**102.46**
15.	Chloride	(Cl-)		**105,976**	/ 35.5 =	**2,985.24**
16.	Total Dissolved Solids			**181,920**		
17.	Total Iron	(Fe)		**3.50**	/ 18.2 =	**0.19**
18.	Manganese	(Mn++)		**Not Determined**		
19.	Total Hardness as CaCO3			**10,584**		
20.	Resistivity @ 75 F. (Calculated)			**0.014** Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	**14.65**		81.04		**1,187**
CaSO4	**97.84**		68.07		**6,660**
CaCl2	**0.00**		55.50		**0**
Mg(HCO3)2	**0.00**		73.17		**0**
MgSO4	**4.62**		60.19		**278**
MgCl2	**93.74**		47.62		**4,464**
NaHCO3	**0.00**		84.00		**0**
NaSO4	**0.00**		71.03		**0**
NaCl	**2,891.50**		58.46		**169,037**

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem
WATER ANALYSIS REPORT

SAMPLE

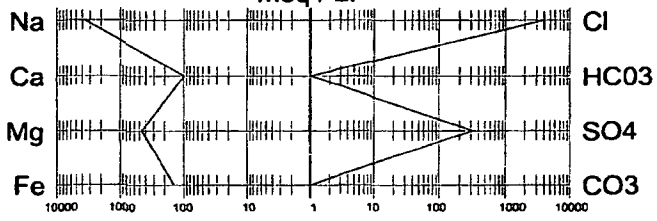
Oil Co. : **Lime Rock Resources**
Lease : **Staley ST**
Well No.:
Location:
Attention:

Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.003- 4**
Salesperson :
File Name : **Jul2810.003**

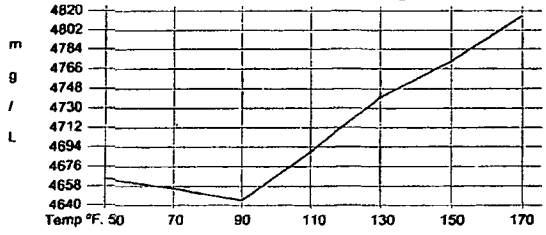
ANALYSIS

1.	Ph			5.500		
2.	Specific Gravity 60/60 F.			1.178		
3.	CACO3 Saturation Index	@ 80F		-2.905	Negligible	
		@140F		-1.145	Negligible	
	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			0		
5.	Carbon Dioxide			0		
6.	Dissolved Oxygen			Not Determined		
	Cations					
7.	Calcium	(Ca++)		1,884	/ 20.1 =	93.73
8.	Magnesium	(Mg++)		5,371	/ 12.2 =	440.25
9.	Sodium	(Na+)	(Calculated)	80,438	/ 23.0 =	3,497.30
10.	Barium	(Ba++)		Not Determined		
	Anions					
11.	Hydroxyl	(OH-)		0	/ 17.0 =	0.00
12.	Carbonate	(CO3=)		0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO3-)		0	/ 61.1 =	0.00
14.	Sulfate	(SO4=)		15,000	/ 48.8 =	307.38
15.	Chloride	(Cl-)		131,970	/ 35.5 =	3,717.46
16.	Total Dissolved Solids			234,663		
17.	Total Iron	(Fe)		2,500.00	/ 18.2 =	137.36
18.	Manganese	(Mn++)		Not Determined		
19.	Total Hardness as CaCO3			26,814		
20.	Resistivity @ 75 F. (Calculated)			0.001 Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	0.00		81.04		0
CaSO4	93.73		68.07		6,380
CaCl2	0.00		55.50		0
Mg(HCO3)2	0.00		73.17		0
MgSO4	213.65		60.19		12,859
MgCl2	226.60		47.62		10,791
NaHCO3	0.00		84.00		0
NaSO4	0.00		71.03		0
NaCl	3,490.86		58.46		204,076

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem
WATER ANALYSIS REPORT

SAMPLE

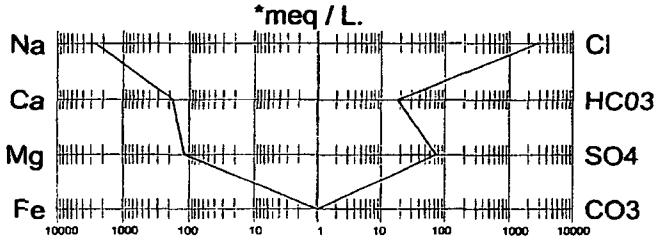
Oil Co. : **Lime Rock Resources**
Lease : **Staley ST A**
Well No.:
Location:
Attention:

Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.003- 5**
Salesperson :
File Name : **Jul2810.003**

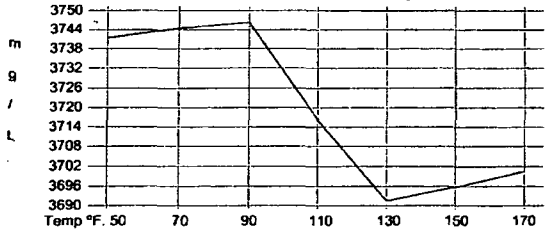
ANALYSIS

1.	Ph			5.600		
2.	Specific Gravity 60/60 F.			1.118		
3.	CACO3 Saturation Index		@ 80F	-0.204	Negligible	
			@140F	0.716	Moderate	
	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			80		
5.	Carbon Dioxide			160		
6.	Dissolved Oxygen			Not Determined		
	Cations					
7.	Calcium	(Ca++)		3,391	/ 20.1 =	168.71
8.	Magnesium	(Mg++)		1,371	/ 12.2 =	112.38
9.	Sodium	(Na+)	(Calculated)	58,430	/ 23.0 =	2,540.44
10.	Barium	(Ba++)		Not Determined		
	Anions					
11.	Hydroxyl	(OH-)		0	/ 17.0 =	0.00
12.	Carbonate	(CO3=)		0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO3-)		1,060	/ 61.1 =	17.35
14.	Sulfate	(SO4=)		3,400	/ 48.8 =	69.67
15.	Chloride	(Cl-)		96,978	/ 35.5 =	2,731.77
16.	Total Dissolved Solids			164,630		
17.	Total Iron	(Fe)		18.00	/ 18.2 =	0.99
18.	Manganese	(Mn++)		Not Determined		
19.	Total Hardness as CaCO3			14,113		
20.	Resistivity @ 75 F. (Calculated)			0.027 Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	17.35		81.04		1,406
CaSO4	69.67		68.07		4,743
CaCl2	81.69		55.50		4,534
Mg(HCO3)2	0.00		73.17		0
MgSO4	0.00		60.19		0
MgCl2	112.38		47.62		5,351
NaHCO3	0.00		84.00		0
NaSO4	0.00		71.03		0
NaCl	2,537.71		58.46		148,355

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem, Inc.
WATER ANALYSIS REPORT

SAMPLE

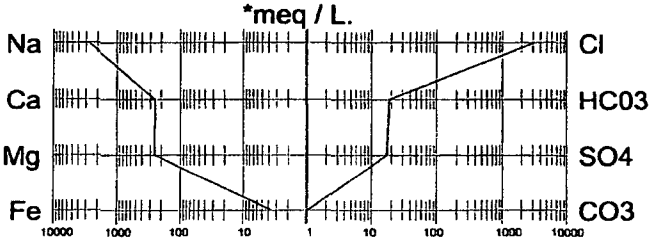
Oil Co. : **LimeRock Resources**
Lease : **Trige**
Well No.: **Fed**
Location:
Attention:

Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.001- 4**
Salesperson :
File Name : **Jul2810.001**

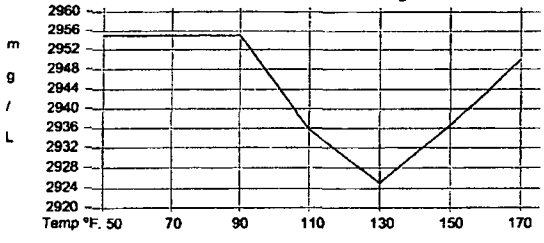
ANALYSIS

1.	Ph			5.400		
2.	Specific Gravity 60/60 F.			1.138		
3.	CACO3 Saturation Index		@ 80F	-0.125	Negligible	
			@140F	0.865	Moderate	
	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			120		
5.	Carbon Dioxide			40		
6.	Dissolved Oxygen			Not Determined		
	Cations					
7.	Calcium	(Ca++)		4,804	/ 20.1 =	239.00
8.	Magnesium	(Mg++)		2,971	/ 12.2 =	243.52
9.	Sodium	(Na+)	(Calculated)	60,983	/ 23.0 =	2,651.44
10.	Barium	(Ba++)		Not Determined		
	Anions					
11.	Hydroxyl	(OH-)		0	/ 17.0 =	0.00
12.	Carbonate	(CO3=)		0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO3-)		1,104	/ 61.1 =	18.07
14.	Sulfate	(SO4=)		800	/ 48.8 =	16.39
15.	Chloride	(Cl-)		109,975	/ 35.5 =	3,097.89
16.	Total Dissolved Solids			180,637		
17.	Total Iron	(Fe)		61.50	/ 18.2 =	3.38
18.	Manganese	(Mn++)		Not Determined		
19.	Total Hardness as CaCO3			24,227		
20.	Resistivity @ 75 F. (Calculated)			0.012 Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	18.07		81.04		1,464
CaSO4	16.39		68.07		1,116
CaCl2	204.54		55.50		11,352
Mg(HCO3)2	0.00		73.17		0
MgSO4	0.00		60.19		0
MgCl2	243.52		47.62		11,597
NaHCO3	0.00		84.00		0
NaSO4	0.00		71.03		0
NaCl	2,649.82		58.46		154,908

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem, Inc.
WATER ANALYSIS REPORT

SAMPLE

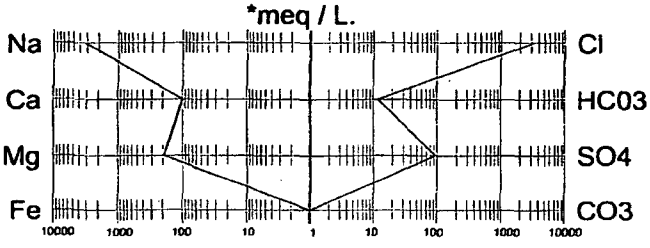
Oil Co. : **LimeRock Resources**
Lease : **Tigner**
Well No.: **ST**
Location:
Attention:

Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.001- 1**
Salesperson :
File Name : **Jul2810.001**

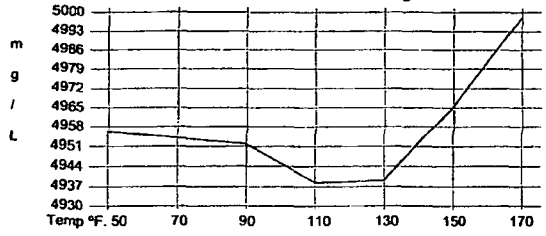
ANALYSIS

1.	Ph			**5.600**		
2.	Specific Gravity 60/60 F.			**1.143**		
3.	CACO3 Saturation Index	@ 80F		**-0.444**	**Negligible**	
		@140F		**0.656**	**Moderate**	
	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			**80**		
5.	Carbon Dioxide			**70**		
6.	Dissolved Oxygen			**Not Determined**		
	Cations					
7.	Calcium	(Ca++)		**1,884**	/ 20.1 =	**93.73**
8.	Magnesium	(Mg++)		**2,285**	/ 12.2 =	**187.30**
9.	Sodium	(Na+)	(Calculated)	**70,440**	/ 23.0 =	**3,062.61**
10.	Barium	(Ba++)		**Not Determined**		
	Anions					
11.	Hydroxyl	(OH-)		**0**	/ 17.0 =	**0.00**
12.	Carbonate	(CO3=)		**0**	/ 30.0 =	**0.00**
13.	Bicarbonate	(HCO3-)		**692**	/ 61.1 =	**11.33**
14.	Sulfate	(SO4=)		**4,400**	/ 48.8 =	**90.16**
15.	Chloride	(Cl-)		**114,974**	/ 35.5 =	**3,238.70**
16.	Total Dissolved Solids			**194,675**		
17.	Total Iron	(Fe)		**1.50**	/ 18.2 =	**0.08**
18.	Manganese	(Mn++)		**Not Determined**		
19.	Total Hardness as CaCO3			**14,113**		
20.	Resistivity @ 75 F. (Calculated)			**0.004** Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	**11.33**		81.04		**918**
CaSO4	**82.41**		68.07		**5,609**
CaCl2	**0.00**		55.50		**0**
Mg(HCO3)2	**0.00**		73.17		**0**
MgSO4	**7.76**		60.19		**467**
MgCl2	**179.54**		47.62		**8,550**
NaHCO3	**0.00**		84.00		**0**
NaSO4	**0.00**		71.03		**0**
NaCl	**3,059.17**		58.46		**178,839**

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem, Inc.
WATER ANALYSIS REPORT

SAMPLE

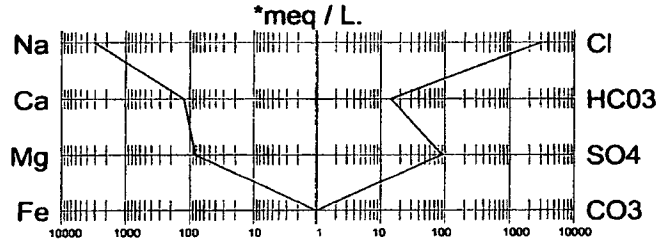
Oil Co. : **LimeRock Resources**
Lease : **Welch RL**
Well No.: **ST**
Location:
Attention:

Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.001- 5**
Salesperson :
File Name : **Jul2810.001**

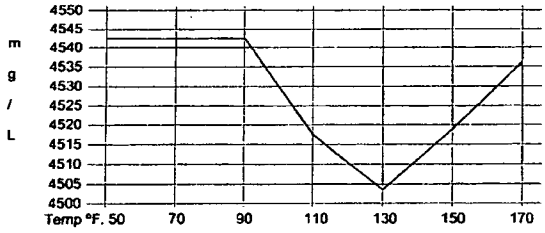
ANALYSIS

1.	Ph			**5.400**		
2.	Specific Gravity 60/60 F.			**1.135**		
3.	CACO3 Saturation Index	@ 80F		**-0.586**	**Negligible**	
		@140F		**0.374**	**Mild**	
	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			**80**		
5.	Carbon Dioxide			**100**		
6.	Dissolved Oxygen			**Not Determined**		
	Cations					
7.	Calcium	(Ca++)		**2,355**	/ 20.1 =	**117.16**
8.	Magnesium	(Mg++)		**971**	/ 12.2 =	**79.59**
9.	Sodium	(Na+)	(Calculated)	**67,805**	/ 23.0 =	**2,948.04**
10.	Barium	(Ba++)		**Not Determined**		
	Anions					
11.	Hydroxyl	(OH-)		**0**	/ 17.0 =	**0.00**
12.	Carbonate	(CO3=)		**0**	/ 30.0 =	**0.00**
13.	Bicarbonate	(HCO3-)		**835**	/ 61.1 =	**13.67**
14.	Sulfate	(SO4=)		**4,200**	/ 48.8 =	**86.07**
15.	Chloride	(Cl-)		**107,976**	/ 35.5 =	**3,041.58**
16.	Total Dissolved Solids			**184,142**		
17.	Total Iron	(Fe)		**7.50**	/ 18.2 =	**0.41**
18.	Manganese	(Mn++)		**Not Determined**		
19.	Total Hardness as CaCO3			**9,879**		
20.	Resistivity @ 75 F. (Calculated)			**0.012** Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	**13.67**		81.04		**1,108**
CaSO4	**86.07**		68.07		**5,858**
CaCl2	**17.43**		55.50		**968**
Mg(HCO3)2	**0.00**		73.17		**0**
MgSO4	**0.00**		60.19		**0**
MgCl2	**79.59**		47.62		**3,790**
NaHCO3	**0.00**		84.00		**0**
NaSO4	**0.00**		71.03		**0**
NaCl	**2,944.55**		58.46		**172,139**

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem
WATER ANALYSIS REPORT

SAMPLE

Oil Co. : **Lime Rock Resources**
Lease : **Williams A Fed**
Well No.: **1**
Location:
Attention:

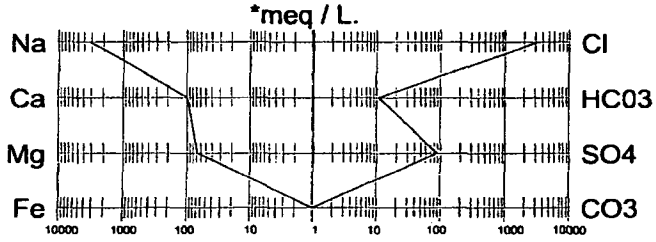
Date Sampled : **15-Julv-2010**
Date Analyzed: **28-Julv-2010**
Lab ID Number: **Jul2810.003- 8**
Salesperson :
File Name : **Jul2810.003**

ANALYSIS

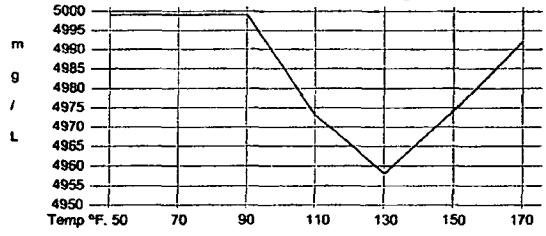
1.	Ph		**5.600**		
2.	Specific Gravity 60/60 F.		**1.138**		
3.	CACO3 Saturation Index	@ 80F	**-0.516**	**Negligible**	
		@140F	**0.504**	**Mild**	

	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			**20**		
5.	Carbon Dioxide			**60**		
6.	Dissolved Oxygen			**Not Determined**		
	Cations					
7.	Calcium	(Ca++)		**1,884**	/ 20.1 =	**93.73**
8.	Magnesium	(Mg++)		**800**	/ 12.2 =	**65.57**
9.	Sodium	(Na+)	(Calculated)	**72,438**	/ 23.0 =	**3,149.48**
10.	Barium	(Ba++)		**Not Determined**		
	Anions					
11.	Hydroxyl	(OH-)		**0**	/ 17.0 =	**0.00**
12.	Carbonate	(CO3=)		**0**	/ 30.0 =	**0.00**
13.	Bicarbonate	(HCO3-)		**643**	/ 61.1 =	**10.52**
14.	Sulfate	(SO4=)		**4,100**	/ 48.8 =	**84.02**
15.	Chloride	(Cl-)		**113,974**	/ 35.5 =	**3,210.54**
16.	Total Dissolved Solids			**193,839**		
17.	Total Iron	(Fe)		**4.50**	/ 18.2 =	**0.25**
18.	Manganese	(Mn++)		**Not Determined**		
19.	Total Hardness as CaCO3			**7,997**		
20.	Resistivity @ 75 F. (Calculated)			**0.005** Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	**10.52**		81.04		**853**
CaSO4	**83.21**		68.07		**5,664**
CaCl2	**0.00**		55.50		**0**
Mg(HCO3)2	**0.00**		73.17		**0**
MgSO4	**0.81**		60.19		**49**
MgCl2	**64.76**		47.62		**3,084**
NaHCO3	**0.00**		84.00		**0**
NaSO4	**0.00**		71.03		**0**
NaCl	**3,145.77**		58.46		**183,902**

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem
WATER ANALYSIS REPORT

SAMPLE

Oil Co. : **Lime Rock Resources**
Lease : **Williams A Fed**
Well No.:
Location:
Attention:

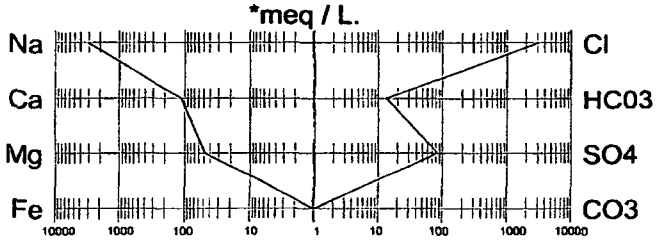
Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.003- 7**
Salesperson :
File Name : **Jul2810.003**

ANALYSIS

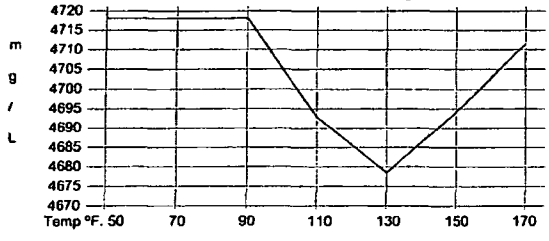
1.	Ph		**5.600**		
2.	Specific Gravity 60/60 F.		**1.138**		
3.	CACO3 Saturation Index	@ 80F	**-0.449**	**Negligible**	
		@140F	**0.511**	**Mild**	

	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			**120**		
5.	Carbon Dioxide			**70**		
6.	Dissolved Oxygen			**Not Determined**		
	Cations					
7.	Calcium	(Ca++)		**2,166**	/ 20.1 =	**107.76**
8.	Magnesium	(Mg++)		**571**	/ 12.2 =	**46.80**
9.	Sodium	(Na+)	(Calculated)	**69,264**	/ 23.0 =	**3,011.48**
10.	Barium	(Ba++)		**Not Determined**		
	Anions					
11.	Hydroxyl	(OH-)		**0**	/ 17.0 =	**0.00**
12.	Carbonate	(CO3=)		**0**	/ 30.0 =	**0.00**
13.	Bicarbonate	(HCO3-)		**785**	/ 61.1 =	**12.85**
14.	Sulfate	(SO4=)		**3,900**	/ 48.8 =	**79.92**
15.	Chloride	(Cl-)		**108,975**	/ 35.5 =	**3,069.72**
16.	Total Dissolved Solids			**185,661**		
17.	Total Iron	(Fe)		**4.00**	/ 18.2 =	**0.22**
18.	Manganese	(Mn++)		**Not Determined**		
19.	Total Hardness as CaCO3			**7,762**		
20.	Resistivity @ 75 F. (Calculated)			**0.011** Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	**12.85**		81.04		**1,041**
CaSO4	**79.92**		68.07		**5,440**
CaCl2	**15.00**		55.50		**832**
Mg(HCO3)2	**0.00**		73.17		**0**
MgSO4	**0.00**		60.19		**0**
MgCl2	**46.80**		47.62		**2,229**
NaHCO3	**0.00**		84.00		**0**
NaSO4	**0.00**		71.03		**0**
NaCl	**3,007.92**		58.46		**175,843**

* milliequivalents per Liter

Tony Abernathy, Analyst

Pro-Kem
WATER ANALYSIS REPORT

SAMPLE

Oil Co. : **Lime Rock Resources**
Lease : **Williams B Fed**
Well No.:
Location:
Attention:

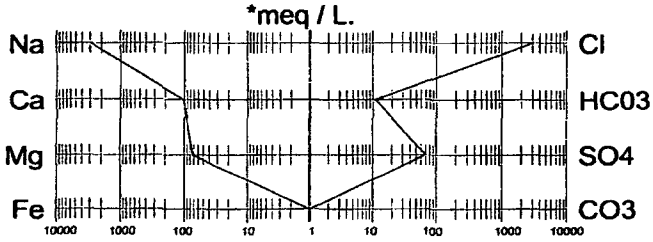
Date Sampled : **15-July-2010**
Date Analyzed: **28-July-2010**
Lab ID Number: **Jul2810.003- 6**
Salesperson :
File Name : **Jul2810.003**

ANALYSIS

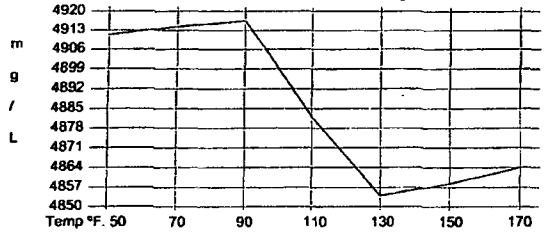
1.	Ph		**5.600**		
2.	Specific Gravity 60/60 F.		**1.138**		
3.	CACO3 Saturation Index	@ 80F	**-0.575**	**Negligible**	
		@140F	**0.385**	**Mild**	

	Dissolved Gasses			**MG/L.**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			**100**		
5.	Carbon Dioxide			**70**		
6.	Dissolved Oxygen			**Not Determined**		
	Cations					
7.	Calcium	(Ca++)		**1,978**	/ 20.1 =	**98.41**
8.	Magnesium	(Mg++)		**857**	/ 12.2 =	**70.25**
9.	Sodium	(Na+)	(Calculated)	**67,253**	/ 23.0 =	**2,924.04**
10.	Barium	(Ba++)		**Not Determined**		
	Anions					
11.	Hydroxyl	(OH-)		**0**	/ 17.0 =	**0.00**
12.	Carbonate	(CO3=)		**0**	/ 30.0 =	**0.00**
13.	Bicarbonate	(HCO3-)		**643**	/ 61.1 =	**10.52**
14.	Sulfate	(SO4=)		**3,200**	/ 48.8 =	**65.57**
15.	Chloride	(Cl-)		**106,976**	/ 35.5 =	**3,013.41**
16.	Total Dissolved Solids			**180,907**		
17.	Total Iron	(Fe)		**2.50**	/ 18.2 =	**0.14**
18.	Manganese	(Mn++)		**Not Determined**		
19.	Total Hardness as CaCO3			**8,468**		
20.	Resistivity @ 75 F. (Calculated)			**0.014** Ohm · meters		

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile

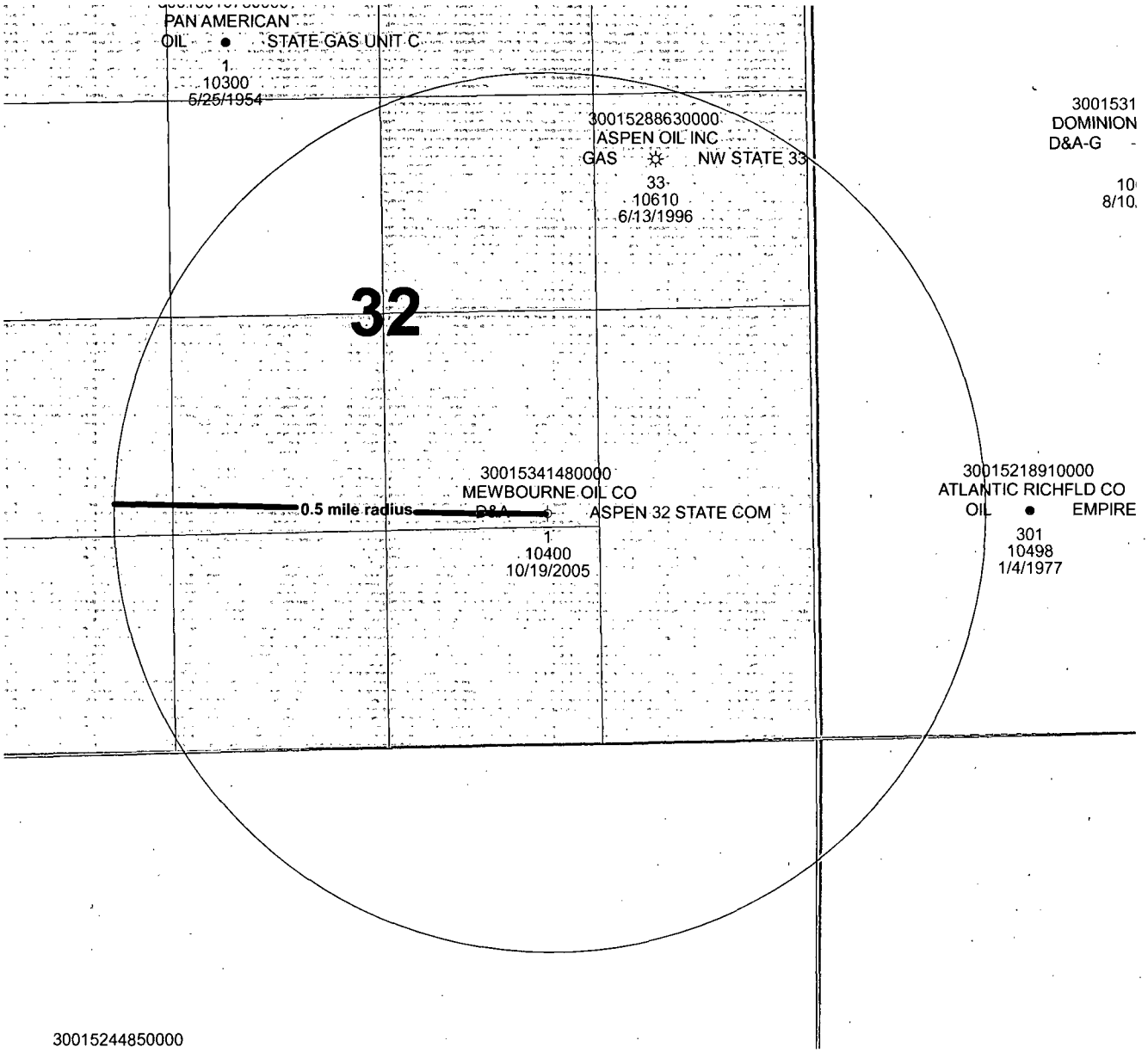


PROBABLE MINERAL COMPOSITION

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	**10.52**		81.04		**853**
CaSO4	**65.57**		68.07		**4,464**
CaCl2	**22.31**		55.50		**1,238**
Mg(HCO3)2	**0.00**		73.17		**0**
MgSO4	**0.00**		60.19		**0**
MgCl2	**70.25**		47.62		**3,345**
NaHCO3	**0.00**		84.00		**0**
NaSO4	**0.00**		71.03		**0**
NaCl	**2,920.85**		58.46		**170,753**

* milliequivalents per Liter

Tony Abernathy, Analyst



inch = 1000 fee

1000 0 1000 ft

LIME ROCK RESOURCES

SDX RESOURCES AREA
ASPEN 32 STATE COM 1
INJECTION WELL PERMIT APPLICATION
ONE-HALF MILE RADIUS SHOWN
ONLY WELLS POSTED WITH DEPTHS
CORRELATIVE TO REQUESTED DISPOSAL ZONE

Author:		Date: 21 February, 2012
	Scale:	

LRE OPERATING, LLC
c/o Mike Pippin LLC
505-327-4573 (phone) 505-564-8656 (fax)
Email: mike@ pippinllc.com

ASPEN 32 STATE COM #1 -- SWD Application – Form C-108

PERTINENT DATA SHEET
NW STATE #33 (formerly the Dancer 32 State Com #1)

API#:	30-015-28863
Operator:	LRE OPERATING, LLC
Location:	1728' FNL & 916' FEL Section 32, T17S, R28E, Eddy Co., NM
Status:	Active – Producing from San Andres 2465'-2952'
Spud Date:	3/17/96
Depth:	10,610'

Surface Casing: 13-3/8" 48# J-55 @ 560', cmted w/600 sx "C" w/2% S1 & 0.25# D29. Circ. cmt to surface. Hole size 17-1/2"

Intermediate Casing: 9-5/8" 36# J-55 @ 2640', cmted w/400 sx 35:65 Poz "C" w/10% D20, 5% BWOW D44, 0.25# D29 & tailed w/525 sx "C". Circ cmt to surface. Hole size 12-1/4".

Production Casing: 5-1/2" 15.5 & 17# P-110 @ 10,610', cmted w/1300 sx "H" w/1 gps D600, 0.1 gps D604, 0.05 gps M45, 2% B28, 0.1% D153, 0.2% D800. Did not circ cmt. TOC @ 5953'-CBL. Hole size 8-3/4" ✓

Completion: Perfed Morrow 10,200'-10,206'. Fraced w/16,500# 20/40 interprop plus sand in 60Q foam in Sept 1996.

Developed hole in csg @ 3594'. Attempted to squeeze & return to production. Exited wellbore w/mill while drilling out squeeze plug.

Set CIBP @ 3390'. Perfed SQ holes @ 2750'-55' & squeeze 5-1/2" csg in order to raise TOC. Old TOC = 2780' & new TOC = 2160' from CBL. (Aug 2010)

Perfed San Andres 2674'-2952' & fraced w/169,500# 16/30 sand in X-linked gel. Set CBP & perfed 2465'-2631' & fraced w/165,000# 16/30 sand in X-linked gel. Drilled out CBP & initiated production on 8/26/10. Well is currently producing from the San Andres.

See attached wellbore diagram.

NW STATE #33

RED LAKE MORROW

H Sec. 32, T-17-S, R-28-E, Eddy County, NM

Today's Date: 2/27/12

Spud: 03/17/96
Comp: 5/11/96
Elevation: 3690' GL

Seven Rivers @ 653'

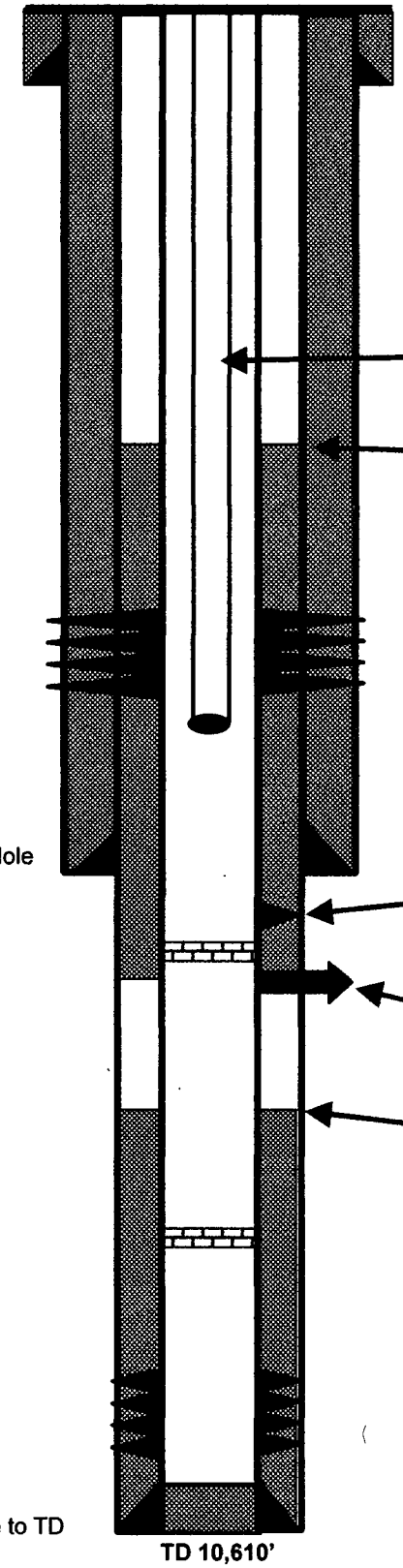
Queen @ 1224'

San Andres @ 1962'

Glorieta @ 3421'

Tubb @ 5040'
Abo @ 5612'

Wolfcamp @ 6901'
Cisco @ 7726'
Strawn @ 9503'
Atoka @ 9704'
Miss @ 10,280'



17-1/2" Hole

13-3/8" 48# Csg @ 560'
600 sx (792 cf) cmt (Circ.to Surf.)

2-7/8" tbg at 3061'

TOC (5-1/2") @ 2142' (CBL.)

San Andres perfs @ 2465'-2676'

9-5/8" 36# Csg @ 2640'
Cemented with 925 sx (1733 cf)
(Circ cmt to Surface).

12-1/4" Hole

Perfed SQ holes @ 2750'-55' & SQ w/500 sx cmt. TOC @ 2142'-CBL.

CIBP @ 3390'

Csg Leak @ 3594'. Sq w/ cmt. TOC @ 2780'. Milled out of csg during drill out. Set CIBP @ 3390'.

TOC (5-1/2") @ 5953' (CBL.) ✓

CIBP @ 7000'

Morrow Perfs:
10,200'-10,206'

8-3/4" Hole to TD

TD 10,610'

5-1/2" 15.5& 17# Csg @ 10,610'
Cemented with 1300 sx (1560 cf)

LRE OPERATING, LLC
Mike Pippin
3104 N. Sullivan Avenue
Farmington, NM 87401
505-327-4573 (phone) mike@pippinllc.com

February 27, 2012

RE: C-108 Application for SWD Well Formation Expansion
ASPEN 32 STATE COM #1 SWD– API#s: 30-015-34148
1370' FSL 1609' FEL, "J" Section 32 T17S R28E
Eddy County, New Mexico

VIA CERTIFIED MAIL
To all Interest Owners:

In accordance with the New Mexico Oil Conservation Division Rule 19.15.26.8.B2 governing injection wells, you are hereby notified that LRE OPERATING, LLC, as operator of the above-referenced well, has submitted an application to include the Wolfcamp formation to the existing Cisco formation (State pool is SWD Canyon 96184) in the referenced salt water disposal well.

This well is currently disposing into the Cisco as per State orders: SWD-1247A & IPI-397. LRE is proposing to add the Wolfcamp formation to the Cisco in an effort to dispose of more produced water. The estimated proposed injection interval in the Wolfcamp formation is 7050'-8197' although the exact location of the perfs has not been decided. The estimated total injection volume into both the Wolfcamp and Cisco is 5000 bbls per day with a maximum injection pressure of 4137 psi (after a step rate test).

Interested parties must file objections or a request for hearing with the NMOCD, 1220 South St. Frances Drive, Santa Fe, NM 87505 within 15 days.

Should you have any questions or concerns, please contact me at 505-327-4573 and/or the NMOCD at 505-476-3467.

Sincerely,
LRE OPERATING, LLC
Mike Pippin

Mike Pippin PE
Petroleum Engineer

Enclosures

WORKING INTEREST SUMMARY for WOLFCAMP & CISCO FORMATIONS
For Aspen SWD, Eddy County, NM
February 27, 2012

Concho Oil & Gas LLC – **Surface Owner**
550 West Texas Avenue, Suite 100
Midland, Texas 79701

Apache Corp
303 Veterans Airpark Lane
Midland, TX 79705

Mary L. Boling and Michael Boling, Trustees
of the Robert E. Boling Family Trust
305 S. 5th Street
Artesia, NM 88210

Cibola Energy Corp
c/o Jalapeno Corp
1429 Central Avenue NW
Albuquerque, NM 87104

COG Oil & Gas, LP
550 W. Texas Ave., Ste 1300
Midland, TX 79701

COG Operating LLC
550 West Texas Avenue, Suite 100
Midland, Texas 79701

Doral Energy Corporation
Attn: Marty Bloodworth
415 W. Wall Street, Suite 500
Midland, Texas 79701

Enchanted Valley Oil Partners
P. O. Box 1248
Fredericksburg, Texas 78624

Jalapeno Corporation
1429 Central Avenue NW
Albuquerque, NM 87104

Kinder Morgan Energy Partners, LP
1301 McKinney, Suite 3450
Houston, TX 77010
(successor of Marathon)

Lobos Energy Partners, LLC
3817 NW Expressway, Ste 950
Oklahoma City, OK 73112
(successor to Dominion)

Marico Exploration, Inc., a/k/a Marico Petroleum, Inc.
105 S. 4th Street
Artesia, NM 88210-2177

Mewbourne Oil Company
701 S. Cecil Street
Hobbs, NM 88240
(successor to Aspen successor to BP)

Occidental Petroleum Corporation
5 Greenway Plazas, Suite 110
Houston, TX 77096-0521

RSE Partners – I, LP
3141 Hood Street, Suite 350
Dallas, TX 75219

Sacramento Partners, LP
105 S. 4th Street
Artesia, NM 88210

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

Sharbro Oil, Ltd
105 S. 4th Street
Artesia, NM 88210

Three Rivers Acquisition, LLC
3821 Juniper Trace, Ste 107
Austin, TX 78738

Total E&P, USA, Inc.
1201 Louisiana Street, Ste 1800
Houston, TX 77002

G. L. Wilbanks Revocable Trust
created by Trust Agreement 1-9-1995
2200 Scurry
Big Spring, TX 79720

Harvey E. Yates Co.
P. O. Box 1933
Roswell, NM 88201-1933

Harvey E. Yates Company
105 S. 4th Street
Artesia, New Mexico 88210

Richard Martin Yates
105 S. 4th Street
Artesia, NM 88210

St. Clair Peyton Yates
105 S. 4th Street
Artesia, NM 88210

Yates Energy Corporation, a/k/a Yates Petroleum Co.
105 S. 4th Street
Artesia, New Mexico 88210

Affidavit of Publication

NO. 22039

STATE OF NEW MEXICO

County of Eddy:

Danny Scott

being duly sworn, says that he is the **Publisher**

of the Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and state, and that the hereto attached

Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for

1 Consecutive weeks/days on the same day as follows:

First Publication February 26, 2012

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Subscribed and sworn to before me this

27th day of Feburary 2012

OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 5/12/2015

Latisha Romine
Notary Public, Eddy County, New Mexico

Copy of Publication:

LEGAL NOTICE

ASPEN 32 STATE COM #1 – SWD Application – Form C-108

LRE OPERATING, LLC. 1111 Bagby St, Suite 4600, Houston, TX 77002, contact: Mike Pippin 505-327-4573 is seeking administrative approval from the NMOCD to complete the following well for produced water disposal: ASPEN 32 STATE COM #1 is located in Sec 32, T17S, R28E, 1370' FSL & 1609' FEL, Eddy County, NM. Proposed injection interval is the Wolfcamp and Cisco formations with perforations from 7050'-8790' with an estimated daily injection volume of produced formation water at 5000 bbls per day with a maximum injection pressure of 4137 psi after a step rate test. The application proposes the addition of the Wolfcamp formation 7050'-8197' to the existing Cisco disposal interval 8204'-8708' which is currently disposing of 1975 BWPD at 3166 psi. Interested parties must file objections or request for hearing with the NMOCD, 1220 South St. Frances Drive, Santa Fe, NM 87505 within 15 days. Published in the Artesia Daily Press, Artesia, N.M., Feb. 26, 2012. Legal No 22039.

7011 1570 0001 0600 5127

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

MIDLAND TX 79701 OFFICIAL USE

Postage	$ $0.45	0401
Certified Fee	$2.95	02
Return Receipt Fee (Endorsement Required)	$0.00	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	FEB 24 2012
Total Postage & Fees	$ $3.40	02/24/2012

FARMINGTON NM 87401 USPS

Sent To: Dorral Energy Corp - Marty Bloodworth
Street, Apt. No.; or PO Box No.: 415 W. Wall St. Ste 500
City, State, ZIP+4: Midland TX 79701

PS Form 3800, August 2006 — See Reverse for Instructions

7011 1570 0001 0600 5110

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

MIDLAND TX 79701 OFFICIAL USE

Postage	$ $0.45	0401
Certified Fee	$2.95	02
Return Receipt Fee (Endorsement Required)	$0.00	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	FEB 24 2012
Total Postage & Fees	$ $3.40	02/24/2012

FARMINGTON NM 87401 USPS

Sent To: COG Operating LLC
Street, Apt. No.; or PO Box No.: 550 W. Texas Ave Ste 100
City, State, ZIP+4: Midland TX 79701

PS Form 3800, August 2006 — See Reverse for Instructions

7011 1570 0001 0600 5103

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

MIDLAND TX 79701 OFFICIAL USE

Postage	$ $0.45	0401
Certified Fee	$2.95	02
Return Receipt Fee (Endorsement Required)	$0.00	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	FEB 24 2012
Total Postage & Fees	$ $3.40	02/24/2012

FARMINGTON NM 87401 USPS

Sent To: COG Oil & Gas LP
Street, Apt. No.; or PO Box No.: 550 W. Texas Ave Ste 1300
City, State, ZIP+4: Midland TX 79701

PS Form 3800, August 2006 — See Reverse for Instructions

7011 1570 0001 0401 0152

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

ARTESIA NM 88210 OFFICIAL USE

Postage	$ $0.45	0401
Certified Fee	$2.95	02
Return Receipt Fee (Endorsement Required)	$0.00	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	FEB 24 2012
Total Postage & Fees	$ $3.40	02/24/2012

FARMINGTON NM 87401 USPS

Sent To: St. Clair Peyton Yates
Street, Apt. No.; or PO Box No.: 105 S. 4th St
City, State, ZIP+4: Artesia NM 88210

PS Form 3800, August 2006 — See Reverse for Instructions

7011 1570 0001 0600 5097

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

ALBUQUERQUE NM 87104 OFFICIAL USE

Postage	$ $0.45	0401
Certified Fee	$2.95	02
Return Receipt Fee (Endorsement Required)	$0.00	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	FEB 24 2012
Total Postage & Fees	$ $3.40	02/24/2012

FARMINGTON NM 87401 USPS

Sent To: Cibola Energy Corp % Gabaldon Corp
Street, Apt. No.; or PO Box No.: 1429 Central Ave NW
City, State, ZIP+4: Albuquerque NM 87104

PS Form 3800, August 2006 — See Reverse for Instructions

7007 2560 0002 3427 4119

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

ARTESIA NM 88210 OFFICIAL USE

Postage	$ $0.45	0401
Certified Fee	$2.95	02
Return Receipt Fee (Endorsement Required)	$0.00	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	FEB 24 2012
Total Postage & Fees	$ $3.40	02/24/2012

FARMINGTON NM 87401 USPS

Sent To: Mary & Michael Boling TTS - Robert Boling Trust
Street, Apt. No.; or PO Box No.: 305 S. 5th St
City, State, ZIP+4: Artesia NM 88210

PS Form 3800, August 2006 — See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

ARTESIA NM 88210 OFFICIAL USE

Postage	$	$0.45
Certified Fee		$2.95
Return Receipt Fee (Endorsement Required)		$0.00
Restricted Delivery Fee (Endorsement Required)		$0.00
Total Postage & Fees	$	$3.40

0401

Postmark Here
USPS FARMINGTON NM 87401 FEB 24 2012

02/24/2012

7011 1570 0001 0600 5172

Sent To: Marico Exploration aka Marico Petr.
Street, Apt. No.; or PO Box No.: 105 S. 4th St.
City, State, ZIP+4: Artesia NM 88210-2177

PS Form 3800, August 2006 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

MIDLAND TX 79705 OFFICIAL USE

Postage	$	$0.45
Certified Fee		$2.95
Return Receipt Fee (Endorsement Required)		$0.00
Restricted Delivery Fee (Endorsement Required)		$0.00
Total Postage & Fees	$	$3.40

0401

Postmark Here
USPS FARMINGTON NM 87401 FEB 24 2012

02/24/2012

7007 2560 0002 3427 4102

Sent To: Apache Corp.
Street, Apt. No.; or PO Box No.: 303 Veterans Airpark Lane
City, State, ZIP+4: Midland TX 79705

PS Form 3800, August 2006 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

AUSTIN TX 78738 OFFICIAL USE

Postage	$	$0.45
Certified Fee		$2.95
Return Receipt Fee (Endorsement Required)		$0.00
Restricted Delivery Fee (Endorsement Required)		$0.00
Total Postage & Fees	$	$3.40

0401

Postmark Here
USPS FARMINGTON NM 87401 FEB 24 2012

02/24/2012

7011 1570 0001 0601 0091

Sent To: Three Rivers Acquisition LLC
Street, Apt. No.; or PO Box No.: 3821 Juniper Trace Ste 107
City, State, ZIP+4: Austin TX 78738

PS Form 3800, August 2006 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

ARTESIA NM 88210 OFFICIAL USE

Postage	$	$0.45
Certified Fee		$2.95
Return Receipt Fee (Endorsement Required)		$0.00
Restricted Delivery Fee (Endorsement Required)		$0.00
Total Postage & Fees	$	$3.40

0401

Postmark Here
USPS FARMINGTON NM 87401 FEB 24 2012

02/24/2012

7011 1570 0001 0601 0084

Sent To: Sharbro Oil Ltd
Street, Apt. No.; or PO Box No.: 105 S. 4th St
City, State, ZIP+4: Artesia NM 88210

PS Form 3800, August 2006 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

MIDLAND TX 79701 OFFICIAL USE

Postage	$	$0.45
Certified Fee		$2.95
Return Receipt Fee (Endorsement Required)		$0.00
Restricted Delivery Fee (Endorsement Required)		$0.00
Total Postage & Fees	$	$3.40

0401

Postmark Here
USPS FARMINGTON NM 87401 FEB 24 2012

02/24/2012

7007 2560 0002 3427 3921

Sent To: Concho Oil & Gas LLC
Street, Apt. No.; or PO Box No.: 550 W. Texas Ave. Ste 100
City, State, ZIP+4: Midland TX 79701

PS Form 3800, August 2006 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

ALBUQUERQUE NM 87104 OFFICIAL USE

Postage	$	$0.45
Certified Fee		$2.95
Return Receipt Fee (Endorsement Required)		$0.00
Restricted Delivery Fee (Endorsement Required)		$0.00
Total Postage & Fees	$	$3.40

0401

Postmark Here
USPS FARMINGTON NM 87401 FEB 24 2012

02/24/2012

7011 1570 0001 0600 5141

Sent To: Jalapeno Corp
Street, Apt. No.; or PO Box No.: 1429 Central Ave NW
City, State, ZIP+4: Albuquerque NM 87104

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0601 0107

CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

HOUSTON TX 77002 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

0401 02/24/2012

FARMINGTON NM 87401 FEB 24 2012 USPS Postmark Here

Sent To: Total E&P, USA, Inc.
Street, Apt. No.; or PO Box No.: 1201 Louisiana Ste Ste 1800
City, State, ZIP+4: Houston TX 77002

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0601 0046

CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

DALLAS TX 75219 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

0401 02/24/2012

FARMINGTON NM 87401 FEB 24 2012 USPS Postmark Here

Sent To: RSE Partners - I, LP
Street, Apt. No.; or PO Box No.: 3141 Hood St. Ste 350
City, State, ZIP+4: Dallas TX 75219

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0601 0077

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

SANTA FE NM 87504 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

0401 02/24/2012

FARMINGTON NM 87401 FEB 24 2012 USPS Postmark Here

Sent To: St. of NM, Comm of Public Lands Nick Salazar
Street, Apt. No.; or PO Box No.: PO Box 1148
City, State, ZIP+4: Santa Fe NM 87504

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0601 0039

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

HOUSTON TX 77096 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

0401 02/24/2012

FARMINGTON NM 87401 FEB 24 2012 USPS Postmark Here

Sent To: Occidental Petroleum Corp.
Street, Apt. No.; or PO Box No.: 5 Greenway Plaza Ste 110
City, State, ZIP+4: Houston TX 77096-0521

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0601 0053

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

ARTESIA NM 88210 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

0401 02/24/2012

FARMINGTON NM 87401 FEB 24 2012 USPS Postmark Here

Sent To: Sacramento Partners LP
Street, Apt. No.; or PO Box No.: 105 S 4th St
City, State, ZIP+4: Artesia NM 88210

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0601 0022

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

HOBBS NM 88240 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

0401 02/24/2012

FARMINGTON NM 87401 FEB 24 2012 USPS Postmark Here

Sent To: Mewbourne Oil Co.
Street, Apt. No.; or PO Box No.: 701 S. Cecil St.
City, State, ZIP+4: Hobbs NM 88240

PS Form 3800, August 2006 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

ARTESIA NM 88210 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

0401 02/24/2012

Postmark Here: ARTESIA NM 88210 FEB 24 2012 USPS

Sent To: Harvey E. Yates Co
Street, Apt. No.; or PO Box No.: 105 S. 4th St.
City, State, ZIP+4: Artesia NM 88210

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0601 0138

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

ROSWELL NM 88201 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

0401 02/24/2012

Postmark Here: ROSWELL NM 88201 FEB 24 2012 USPS FARMINGTON NM

Sent To: Harvey E. Yates Co
Street, Apt. No.; or PO Box No.: PO Box 1933
City, State, ZIP+4: Roswell NM 88201-1933

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0601 0121

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

BIG SPRING TX 79720 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

0401 02/24/2012

Postmark Here: BIG SPRING TX 79720 FEB 24 2012 USPS FARMINGTON NM

Sent To: M.L. Wilbanks Revocable Trust
Street, Apt. No.; or PO Box No.: 2200 Scurry
City, State, ZIP+4: Big Spring TX 79720

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0601 0114

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

HOUSTON TX 77010 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

0401 02/24/2012

Postmark Here: HOUSTON TX 77010 FEB 24 2012 USPS FARMINGTON NM

Sent To: Kinder Morgan Energy Ptns LP
Street, Apt. No.; or PO Box No.: 1301 McKinney Ste 3450
City, State, ZIP+4: Houston TX 77010

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0600 5158

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

ARTESIA NM 88210 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

0401 02/24/2012

Postmark Here: ARTESIA NM 88210 FEB 24 2012 USPS FARMINGTON NM

Sent To: Yates Energy Corp aka Yates Petr.
Street, Apt. No.; or PO Box No.: 105 S 4th St
City, State, ZIP+4: Artesia NM 88210

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0601 0169

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OKLAHOMA CITY OK 73112 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

0401 02/24/2012

Postmark Here: OKLAHOMA CITY OK 73112 FEB 24 2012 USPS FARMINGTON NM

Sent To: Lobo Energy Partners LLC
Street, Apt. No.; or PO Box No.: 3817 NW Expressway Ste 950
City, State, ZIP+4: Oklahoma City OK 73112

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0600 5165

7011 1570 0001 0601 0145

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

ARTESIA NM 88210 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

FARMINGTON NM 87401 USPS 02 FEB 24 2012 Postmark Here

02/24/2012

Sent To: Richard Martin Yates
Street, Apt. No.; or PO Box No.: 105 S 4th St
City, State, ZIP+4: Artesia NM 88210

PS Form 3800, August 2006 See Reverse for Instructions

7011 1570 0001 0600 5134

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

FREDERICKSBURG TX 78624 OFFICIAL USE

Postage	$ $0.45
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$0.00
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $3.40

FARMINGTON NM 87401 USPS 02 FEB 24 2012 Postmark Here

02/24/2012

Sent To: Enchanted Valley Oil Partners
Street, Apt. No.; or PO Box No.: PO Box 1248
City, State, ZIP+4: Fredericksburg TX 78624

PS Form 3800, August 2006 See Reverse for Instructions

INFO FROM Drilling - APD 2005

10. Surface Ownership:

The surface is owned by: Bogle Company
PO Box 460
Dexter, NM 88231
(505) 885-5597

See Email correspondence To MIKE PIPPIN...

11. Other Information

A. Topography: Refer to the archaeological report for a detailed description of flora, fauna, soil characteristics, dwellings, and historical or cultural sites.

B. The primary use of the surface at the location is for grazing of livestock.

12. Operator's Representative:

A. Through APD approval and drilling operations:
N.M. Young, District Manager
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
505-393-5905

B. Through completion and production operations:
N.M. Young, District Manager
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
505-393-5905

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Mewbourne Oil Company, its contractors and subcontractors, in accordance with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 04/27/05 Signature: N.M. Young

NM Young
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
(505) 393-5905

Jones, William V., EMNRD

From: Mike Pippin [mike@pippinllc.com]
Sent: Friday, March 16, 2012 6:31 PM
To: Jones, William V., EMNRD
Subject: RE: [Spam] Disposal application from LRE Operators, LLC: Aspen 32 State #1 30-015-34148 (Proposed amendment of SWD-1247-A to add the Wolfcamp)
Attachments: WBD PROPOSED AFTER WOLF #1.ppt

Attached is the "proposed" wellbore diagram you requested.

The Lime Rock land dept, Chuck Reagan, gave me what they called the new surface owner, Concho along with the address.

This is what the Lime Rock Geo, Stan Bishop, wrote back to me as an answer to your question about geology: "....has been my observation as well. From papers I have read the Canyon (older) and the Cisco both should exist as distinct units here, however the only information named that I see from operators that have drilled wells in this area is they make a call for the Top Cisco.....and the next is the Strawn. I'm sure the reason for this is there is essentially no production for either Canyon or Cisco formations in this area and therefore the need for differentiation has not been compelling.....sorry I can't be more helpful...."
As you know, Geos often do not agree with each other. This is going to be one of those cases. Sorry.
If there is anything else I can do, please let me know.

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]
Sent: Friday, March 16, 2012 12:24 PM
To: Mike Pippin
Cc: Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD
Subject: [Spam] Disposal application from LRE Operators, LLC: Aspen 32 State #1 30-015-34148 (Proposed amendment of SWD-1247-A to add the Wolfcamp)
Importance: Low

Hello Mike,
Would you send a wellbore diagram of this well as it will exist after the new interval is added and the tubing shortened?

This well was drilled in 2005. At that time, the surface owner was listed as Bogle instead of Concho. Are you sure it is now Concho?

The upper Penn in this area apparently is rather undifferentiated and hard to tell the Cisco from the Canyon – what I am seeing is reference to the Cisco(Bough C) interval and not seeing any marker picked between the Cisco and the Canyon. If you find out something different let me know, so we can write the permit more precisely (keep the geologists happy).

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Friday, March 16, 2012 12:24 PM
To: 'Mike Pippin'
Cc: Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD
Subject: Disposal application from LRE Operators, LLC: Aspen 32 State #1 30-015-34148 (Proposed amendment of SWD-1247-A to add the Wolfcamp)

Hello Mike,
Would you send a wellbore diagram of this well as it will exist after the new interval is added and the tubing shortened?

This well was drilled in 2005. At that time, the surface owner was listed as Bogle instead of Concho. Are you sure it is now Concho?

The upper Penn in this area apparently is rather undifferentiated and hard to tell the Cisco from the Canyon – what I am seeing is reference to the Cisco(Bough C) interval and not seeing any marker picked between the Cisco and the Canyon. If you find out something different let me know, so we can write the permit more precisely (keep the geologists happy).

Otherwise all looks OK.

Take Care,

William V Jones, P.E.
Engineering, Oil Conservation Division
1220 South St. Francis Drive, Santa Fe, NM 87505
Tel 505.476.3448 ~ Fax 505.476.3462

Injection Permit Checklist (11/15/2010)

WFX______ PMX______ SWD 1247-B Permit Date 3/8/12 UIC Qtr (J/F/M)

Wells 1 Well Name(s): ASPEN 32 State Com #1

API Num: 30-015-34148 Spud Date: 10/14/05 New/Old: N (UIC primacy March 7, 1982)

Footages 1370 FSL/1609 FEL Unit J Sec 32 Tsp 17S Rge 28E County EDDY

General Location:

Operator: LRE OPERATING, LLC Contact MIKE PIPPIN, P.E.

OGRID: 281994 RULE 5.9 Compliance (Wells) 3/654 (Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed ✓ Current Status: SWD (in Cisco), They want more DISPOSAL Capacity

Planned Work to Well:

Diagrams: Before Conversion ✓ After Conversion ✓ Elogs in Imaging File: ✓

Well Details:	Sizes Hole.......Pipe	Setting Depths	Stage Tool	Cement Sx or Cf	Determination Method
New __Existing __Surface	13 3/8	428'	—	400 SX	CIRC
New__Existing __Interm	9 5/8	2660'		1100 SX	CIRC
New__Existing __ LongSt	8 3/4 7"	9457 (PB/10) ~~10400~~		1130 SX	CIRC
New__Existing __ Liner					
New__Existing __ OpenHole					

Depths/Formations:	Depths, Ft.	Formation	Tops?	
Formation(s) Above	7050	W.C.	✓	
Injection TOP:	7050-8197	WC	Max. PSI 1410 OpenHole____ Perfs ✓	
Injection BOTTOM:	8198-8790	CISCO	Tubing Size 3 1/2 Packer Depth 7100	
Formation(s) Below	8142	CISCO	✓	upper Penn
		Canyon	✓	
	9242	Strawn	✓	

?
?
?
1402
1410

~~Capitan Reef?____(Potash?____Noticed?____) [WIPP?____Noticed?____]~~ Salado Top/Bot ______ ~~Cliff House?~~

Fresh Water: Depths: <150' Formation ______ Wells? NONE Analysis? ____ Affirmative Statement ✓

Disposal Fluid Analysis? ✓ Sources: ABO/GLORIETA/SA/Premier/GBG/QW/Yeso

Disposal Interval: Analysis? ____ Production Potential/Testing: LOST CIRC Zone/NOT Productive of Oil/Gas

Notice: Newspaper Date 2/26/12 Surface Owner CONCHO Mineral Owner(s) State

RULE 26.7(A) Affected Persons: See Long LIST (2/24/12) ...of BOGLE?

AOR: Maps? ✓ Well List? ✓ Producing in Interval? NO Wellbore Diagrams? —

.......Active Wells 1 Repairs? 0 WhichWells? —

.........P&A Wells 0 Repairs? — Which Wells? —

Issues: Request Sent ______ Reply: ______