Oil Cons. UNITED STATES DEPARTMENT OF THE INTERION.M. DIV-Dist. 2 BUREAU OF LAND MANAGEN 301 W. Grand Avenue

OMB No. 1004-0135 Expires November 30, 2000

FORM APPROVED

SUNDRY NOTICES AND REPORTS ONTESIAS NM 88210

Do not use this form for proposals to drill or to re-enter an

5. Lease Serial No.

NM-	1	48	4	0
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	nis form for proposals t ell. Use Form 3160-3 (Al			6. If Indian	, Allottee or Tribe Name
1. Type of Well	PIPLICATE - Other inst	1、4、1、1、1、1、1、1、1、1、1、1、1、1、1、1、1、1、1、1	side 11121314 15763	28088	r CA/Agreement, Name and/or No.
2. Name of Operator Southwestern Energy 3a. Address 2350 N. Sam	Production Compa		Mar 2003 (819)	9. API We	Deep "29" Federal #1
Suite 300, Houston, 4. Location of Well (Footage, Sec Section 29, T175, R	, TX 77032 , T., R., M., or Survey Description	281-618-4739	- ARTESIA N	Empire;	d Pool, or Exploratory Area Greyburg Morrow or Parish, State
	PROPRIATE BOX(ES) T		·		OTHER DATA
TYPE OF SUBMISSION		TYI	PE OF ACTION		
Notice of Intent Subsequent Report Final Abandonment Notice	Acidize Alter Casing Casing Repair Change Plans Convert to Injection	Deepen Fracture Treat New Construction Plug and Abandon Plug Back	Production (Start/ Reclamation Recomplete Temporarily Aba Water Disposal		Water Shut-Off Well Integrity Other Primary and Secondary SWD
 Describe Proposed or Complete If the proposal is to deepen dire 	d Operation (clearly state all per ctionally or recomplete horizont	tinent details, including estinally, give subsurface location	nated starting date of any s and measured and true	y proposed wo vertical depth	rk and approximate duration thereof is of all pertinent markers and zones

Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Primary Salt Water Disposal Site - Loco Hills SWD Secondary Salt Water Disposal Site - Soat SWD

SUNDRY IS BEING RETURNED FOR ADDITIONAL INFORMATION PLEASE SEE ATTACHED 14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Vonnie J. **Cerhin** Title Production / Drilling Analyst Signature Date March 07, 2003 THIS SPACE FOR FEDERAL OR STATE OFFICE USE Approved by Date Conditions of approval, if any, are attached. Approval of his notice does not warrant or certify that the applicant holds legal or equitable title those rights in the subject lease Office which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Pro-Kem, Inc. WATER ANALYSIS REPORT

SAMPLE

Oil Co.:

Southwestern Energy Empire Deep 29 Fed.

Lease: Well No .:

Location: Attention: Date Sampled:

04-March-2003 05-March-2003

Date Analyzed:

Lab ID Number: Mar0503.003-1

EQ. WT.

/ 20,1 =

/ 12.2 =

/ 23.0 =

/ 17.0 =

/ 30.0 =

/ 61.1 =

/ 48.8 =

/ 35.5 =

/ 18.2 =

*MEO/L

29.90

24.92

0.00

0.00

7.18

6.15

506.93

26.24

465.83

Salesperson:

File Name: F:\ANALYSES\Mar0503.003

ANALYSIS

1. Ph

2. Specific Gravity 60/60 F.

CACO3 Saturation Index 3.

@ 80F

1.023 -0.337

0.633

Not Determined

Not Determined

MG/I

0

180

601

304

0

0

439

300

478

0.251 /cm.

2,752

17,996

30,354

10.714

6.900

@140F

Hydrogen Sulfide 4. Carbon Dioxide

Dissolved Oxygen

Dissolved Gasses

5.

Cations

7.	Calcium	(Ca++)	
8.	Magnesium	(Mg++)	
9.	Sodium	(Na+)	(Calculated)
10.	Barium	(Ba++)	•

LOGARITHMIC WATER PATTERN

Anions

11.	Hydroxyl	(OH+)
12.	Carbonate	(CO3=)
13.	Bicarbonate	(HCO3-)
14.	Sulfate	(SO4=)
15.	Chloride	(CI-)
16.	Total Dissolved S	Solids

- 17. Total Iron (Fe)
- 18. Total Hardness as CaCO3
- 19. Resistivity @ 75 F. (Calculated)

*meq / L. HC03

PROBABLE	MINERAL	COMPOSITION
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COMPOUND	EQ. WT.	X	*meq/L	=	mg/L.
Ca(HCO3)2	81.04		7.18		582
CaSO4	68.07		6.15		418
CaCl2	55.50		16.57		920
Mg(HCO3)2	73.17		0.00	P	0
MgSO4	60.19		0.00		0
MgC12	47.62		24.92		1,187
NaHCO3	84.00		0.00		0
NaSO4	71.03		0.00		0
NaCl	58.46		465.44	:	27,210

	<u>Calciu</u>	m Sul	fate So	<u>lubili</u>	v Pro	<u> File</u>	
3540 -				S			_
3500							_
3480 -						-	_
3460 -				<u> </u>	├	 	_
3440 -					 	$\overline{}$	
3420	$\neg \neg$					 \	-
3380							
3360							7
3340					L		
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