Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.: COM SW-587

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: Santa Fe Energy Operating Partners, L.P.

8. FARM OR LEASE NAME: Federal 22

3. ADDRESS OF OPERATOR: 500 W. Illinois, Suite 500, Midland, TX 79701

9. WELL NO.: 1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 660' FNL & 1980' FWL

10. FIELD AND POOL, OR WILDCAT: West Sawyer (San Andres)

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 22, T-9S, R-37E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3981' KB

12. COUNTY OR PARISH: Lea

13. STATE: NM

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other) Disposal Method of Produced Water				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

1. This well produces San Andres formation water with its oil production.
2. Water production is about 3 BWPD.
3. Attached is a water analysis.
4. Water is stored in a 210 bbl tank on the lease.
5. Water is trucked by Gandy Corp. of Tatum, NM or Hardin Houston of Tatum, NM, and is disposed at the Santa Fe Energy Operating Partners, L.P. SFPRR No. 15 SWD well located at B, Sec. 34, T-9S, R-37E. This is a NMOCD approved facility. SFPRR No. 15 SWD replaced SFPRR No. 6 SWD in December 1985. SFPRR No. 6 SWD was a BLM approved disposal facility.

18. I hereby certify that the foregoing is true and correct

SIGNED Patrick Joy Glaum TITLE Sr. Production Engineer DATE 6-21-88

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

[illegible] Avenue / Saint Louis, Missouri [illegible]
([illegible]) [illegible] / TWX [illegible] / Telex 44-2417

WATER ANALYSIS REPORT

Company: SANTA FE ENERGY CO.

Sampling Date: 821115
Analysis Date: 821220
Sample ID: F02398

Sample Source
Lease: FEDERAL 22 WELL #1
Well: WELLHEAD
Sample Pt:

Submitted by: BLACKWELL, G.M.
Sampled by:
Chem. Treatment:
Sample Condition:

ANALYTICAL RESULTS

pH at the time of sampling:	4.80	
pH at the time of analysis:	5.90	
Density:	1.213	
Hydrogen Sulfide (H2S):	60 PPM	
TDS: Calculated	342865.5	mg/L

CONSTITUENT		mg/L	meq/L	method	comments
ANIONS					
*Bicarbonate	HCO3-	226.9	3.72	FIA	
Boron	B(OH)4-	723.5	9.18	ICP	
*Carbonate	CO3--	.0	.00	FIA	
*Chloride	Cl-	204000.0	5754.10	FIA	
Phosphate	PO4---	10.5	.33	ICP	
*Sulfate	SO4--	736.0	15.32	FIA	
	SUM OF ANIONS=		5782.65		
CATIONS					
Aluminum	Al+++	7.5	.84	ICP	
*Barium	Ba++	9.5	.14	ICP	
*Calcium	Ca++	21720.0	1083.83	ICP	
Chromium	Cr+++	0.0	0.00	ICP	DL= 0.10
Copper	Cu++	0.0	0.00	ICP	DL= 0.10
*Iron	Fe++	.4	.02	ICP	
Lead	Pb++	0.0	0.00	ICP	DL= 0.10
Lithium	Li+	62.9	9.06	ICP	
*Magnesium	Mg++	13105.0	1078.38	ICP	
Manganese	Mn++	.7	.03	ICP	
Nickel	Ni++	7.5	.26	ICP	
Potassium	K+	4707.0	120.39	ICP	
Silicon	Si++++	6.2	.88	ICP	
*Sodium	Na+	96819.0	4211.35	ICP	
*Strontium	Sr++	723.0	16.50	ICP	
Vanadium	V++	0.0	0.00	ICP	DL= 0.10
	SUM OF CATIONS=		6521.67		

Ratio of ANIONS:CATIONS .89

NALCO
2901 Marshall Avenue / Saint Louis, Missouri 63119
(314) 991-3500 / TWX 910-760-1660 / Telex 44-2417

SATURATION INDEX TABLE

Sample ID: F02398

Temperature		Scale Component				
deg F	deg C	CaCO3 (Calcite)	CaSO4 (Anhydrite)	CaSO4*2H2O (Gypsum)	SrSO4 (Celestite)	BaSO4 (Barite)
32.00	.00	-.540	-.936	-.289	-1.410	.431
68.00	20.00	-.266	-.713	-.455	-1.505	.052
104.00	40.00	-.090	-.502	-.521	-1.592	-.283
140.00	60.00	.001	-.291	-.524	-1.671	-.581
176.00	80.00	.020	-.073	-.488	-1.745	-.848
212.00	100.00	-.004	.159	-.432	-1.814	-1.090

/ TWX [illegible] / Telex 44-2417

******NOTES ON WATER ANALYSIS REPORT******

****KEY****

DL=DETECTION LIMIT (mg/L)
FIA=FLOW INJECTION ANALYSIS
ICP=INDUCTIVELY COUPLED PLASMA EMISSION
meq/L=MILLIEQUIVALENTS PER LITER
mg/L=MILLIGRAMS PER LITER
S.I.=SATURATION INDEX=log(Activity Product/Ksp)
TDS=TOTAL DISSOLVED SOLIDS
#=INDICATES THE CONCENTRATION OF THE CONSTITUENT HAS SIGNIFICANTLY CHANGED SINCE THE LAST ANALYSIS
*=USED IN SPECIES DISTRIBUTION CALCULATIONS (SEE SECTION ON COMPUTER CALCULATIONS)

The following guidelines are useful when interpreting the results in the WATER ANALYSIS REPORT.

1) The pH is an indication of relative acidity or basicity of the water sample.
2) The Ratio of ANIONS:CATIONS determines if the balance between anions and cations is in agreement and consequently whether the results are reliable. If the ratio is significantly greater than or less than 1.0 the results should be interpreted with caution.
3) The COMMENTS column is reserved to indicate if a constituent has significantly changed since the last analysis (#), and to denote the analytical detection limits (DL) when the constituent can not be detected.
4) The SATURATION INDEX (S.I.) predicts scaling conditions in the analyzed water. The S.I. is an indicator and may not accurately represent some site water conditions. In some instances a S.I. near 0 could indicate that scaling has already occurred. However, in most cases the following guidelines are useful when evaluating possible scaling situations.

S.I. less than 0	The water is undersaturated and indicates a non-scaling situation.
S.I. near or equal to 0	The water is saturated and scale formation is likely.
S.I. greater than 0	The water is supersaturated and favors scale formation.

*******NOTES ON COMPUTER CALCULATIONS******

A computer assisted model, WASEQ, has been utilized to calculate the equilibrium distribution of chemical species (single ions and ion pairs) in an aqueous system. The model is based on thermodynamic principles and calculations that incorporate activity coefficients, temperature corrected equilibrium constants and conservation of mass equations.

All of the ions listed in the constituent data are utilized for determining ionic strength, however, only the ions identified with a "*" are used in the ion pair distribution computations. The Saturation Index (S.I.) is a measure of the state of saturation and is determined from the free ions remaining after ion pairing.