NO. OF COPIES RECEIV	EO								Form C Hevtse	
DISTRIBUTION SANTA FE					4	-		[e Type of Lease
FILE		NEW VELL COMPL	MEXICO OIL	CON	ISERVA TIC VČETE NY		DMMUSSION FRODT A	ND LOG	State [yee XX
U.S.G.S.		YELL COMPL	E HON OR I	KEC	SIME CACALIC	************************************	Crown A	ND LOG	5. State Oi	l & Gas Lease No.
LAND OFFICE				f	100	* V	E. F. 1	į	~~~	
OPERATOR				1		r P	6			
la, type of well					6.5.3	42	· · · · · · · · · · · · · · · · · · ·		7. Unit Aar	reement Name
TOUT THE OF WELL	• OIL	GAS		ſ Υ	J. Jel	Q'				
b. TYPE OF COMPLE	WEL TION	ut_} wen	DR.	, [X]	C CHILH		· Service ·		8. i arm or	Lease Name
NEW WO		N PLUG			OTHER		P&A		Kin K	Clizhin
2. Name of Operator									9. Well No.	
Santa Fe Ene	rgy Company	7							10 Piold a	1 md Pool, or Wildoot
		,, , , , , , , , , , , , , , , , , , ,	. m	70	106					·
7200 I-40 We	st, Bldg 'C	', Amarill	o, Texas	/9	106				Wilde	
								ļ		
UNIT LETTERG	LOCATED	2310 FEET	FROM THE	Nort	th LINE AND		2310 F	SET FROM		
					11111	111	MILLE		12. County	
	5 t			VMPM		777			McKinle	
•		i			1			KB, RT, G	į.	Elev. Cashinghead
12-18-81 20. Total Depth	12-28-8	g Back T.D.	P & A		2-82 e Compl., Ha		3' GL 23. Interval	s . Botan		N/A . Cable Tools
4723'		face	Man	ıy	N/A		Drilled	By A1		None
24. Producing Interval			m, Noine		N/A		L	, A1.		25. Was Directional Surve
									į	Made
Mone										No
26. Type Electric and a	Other Logs Hun								27. \	Was Well Cored
Dual Inducti	on/SFL, CNI									<u>No</u>
23.			SING RECORD			s set				
CASING SIZE 8 5/8"	WEIGHT LB.		18'		2 1/4"	1	50 sacks	TING RECO),{U	None None
5 1/2"	15.5		00'		7 7/8''		90 sacks			None
					::/					
29.	L	INER RECORD	T				30.	T	UBING REC	ORD
SIZE	TOP	воттом	SACKS CEM	ENT	SCREEN		SIZE	DE	TH SET	PACKER SET
None								_		
31. Perioration Record	Unterval size and	Lnumberi		!	T ₃₂ ,	λCI) SHOT ER	AC TURE	CEMENT SC	UEEZE, ETC.
51, 1 diordion neddia	, meere are, and a mine	. ,,,,			DEPTH					ND MATERIAL USED
See Attachme	ents				See At					
	•									
				D.C.C.	I I C T I C Y					
33. Date First Production	Produ	ction Method (Fla			UCTION ing = Size a	nd tvi	oe pump)		Well Stati	is (Prod. or Shat-in)
None	1.1500			,	., 5500 01	/ 1	a erreny			G A
Date of Test	Hours Tested	Choke Size	Prod'n. Fo		Oil — Bbl.		Gus - MCF	Wate	r - Bbl.	Gas - Cil Ratio
			Test Perio	:a — ;>						
Flow Tubing Press.	Casing Pressur	e Calculated 2 Hour Hate	4- Oil — Bbl.		Gas —	MCF	Wat	er - Bbl.	Oil	I Gravity = API (Corr.)
24 (5)(2)(-2)(1)	(Sold want for f		<u> </u>					Trans.	Witnessed :	Rv
34. Disposition of Gas	foota, usea for fut	zi, ventea, etc.)						lest	wintessed :	- ,
35. List of Attachments	Dog:140	of Water A	nalvece							
Detailed acc	Results	of Water A		and	subsecu	ent	nluggir	o oner	ations	
36. I hereby certify the										ſ.
			•							
SIGNED Sam	- 91 mm		TITLE	.]	Drilling	En	gineer		DATE N	May 4, 1982

INSTRUCTIONS

This form is to be filed with the impropriate District Office of the Commission not later than 20 days after the completion of any new 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 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Bule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Sout	theastern New Mexico	Northweste	Northwestern New Mexico				
T. Anhy	T. Canyon	T Ojo Alamo T. Kirtland-Fruitland					
		T. Pictured Cliffs					
		T. Cliff House					
T 7 Rivers	T. Devonian	T. Menefee	T. Madison				
T. Queen	T. Silurian	T. Point Lookout 1336	_ T. Elbert				
T. Grayburg	T. Montoya	T. Mancos 1455	T. McCracken				
	T. Simpson	T. Gallup 2484	T. Ignacio Qtzte				
	Т. МсКее	Base Greenhorn 3144	T. Granite				
	T. Ellenburger	T. Dakota 3340	T				
T. Blinebry	T. Gr. Wash	T. Morrison 3738	T				
T. Tubb	T. Granite	T. Todilto 4633	_ T				
T. Drinkard	T. Delaware Sand	T. Entrada 4641	T				
T. Abo	T. Bone Springs	T. Wingate	T				
T. Wolfcamp	T	T. Chinle	T				
T. Penn	T	T. Permian	T				
T Cisco (Bough C)	T	T. Penn. "A"	T				
	OIL OR	GAS SANDS OR ZONES					
No. 1, from	to	No. 4, from	to				
No. 2, from	to	No. 5, from	to				
No. 3, from	to	No. 6, from	to				
	IMPO	RTANT WATER SANDS					
Include data on rate of water	r inflow and elevation to which water	er rose in hole.					
No. 1, from	to	feet					
No. 2, from	to	feet					
No. 3, from	to	feet					
No. 4, from	toto	fcet	······································				
	FORMATION RECOFD (A	Attach additional sheets if necessary)					
From To Thickness	Formation	From To Thickness	Formation				

From	То	Thickness in Feet	Formation	From	То	in Feet	Formation
1336	1455	119	Point Lookout				
2482	2646	162	Gallup				
3340	3738	398	Dakota				•
3738	4543	805	Morrison				
4633	4641	8	Todilto		i		

KIN KLIZHIN NO. 1 (Attachment to Form C-105)

- A. Test Zone #1 Entrada (4642'-4650')*
 Run in hole with 2 3/8" tubing and set retrievable bridge plug (RBP) at 4665'*. Pull up and set Halliburton's RTTS at 4476'*. Perforated thru tubing with 1 SPF 4642'-4650' (9 holes). Well flowed clear water** at 12 BPH.
- B. Test Zone #2 Morrison (3920'-3926' & 4070'-4074')*
 Moved RBP up to 4130'* and RTTS up to 3717'*. Pressure tested both to 1000 psi, OK. Perforated through tubing with 1 SPF 4070'-4074' & 3920'-3926'* (12 holes). Well flowed cloudy water** at 30 BPH.
- C. Test Zone #3 Dakota "E" (3682'-3686' & 3727'-3733')*

 Moved RBP up to 3861'* and RTTS up to 3646'*. Pressure tested both to 1000 psi, OK. Perforated through tubing with 1 PSF 3727'-3733' & 3682'-3686'* (12 holes). Swabbed well down in 3 runs. Fluid was entering at the rate fo 1000' per hour. Zone made 100% water**.
- D. Test Zone #4 Dakota 'D'' (3550'-3558', 3596'-3602' & 3606'-3614')*
 Moved RBP up to 3646' and RTTS up to 3386'*. Pressure tested both
 to 1000 psi, OK. Perforated through tubing with 1 SPF 3606'-3614', 3596'3603' & 3550'-3558'* (25 holes). Swabbed well down in 3 runs. Swabbed
 well once every 30 minutes for 4 hours then collected water sample**.
- E. Test Zone #5 Dakota "C" (3473'-3499' & 3514'-3531')*
 Moved RBP up to 3646'* and RTTS up to 3386'*. Pressure tested both to
 1000 psi, OK. Perforated through tubing with 2 SPF 3514'-3531'* and
 3473'-3499'* (90 holes). Swabbed and flowed well for three and one half
 days. Estimate zone capable of producing 460-540 bbls per day, 96% water**.
- F. Test Zone #6 Dakota "B" (3392'-3397', 3399'-3403' & 3405'-3412')*
 Mvoed RBP up to 3428'* and RTTS up to 3161'. Pressure tested both to 1000
 psi, OK. Perforated through tubing with 1 PSF 3405'-3412', 3399'-3403' and
 3392'-3397'* (19 holes). Swabbed well down in 3 runs. Waited one hour and
 found no fluid entry. Acidized zone with 500 gals 15% MCA (acid). Recovered load then 100% water**.
- G. Test Zone #7 Dakota ''A'' (3340'-3346' & 3352'-3356')*
 Mvoed RBP up to 3375'* and RTTS up to 3141'*. Perforated through tubing 3352'-3356' & 3340'-3346'* 1 SPF. Swabbed well down and found no fluid entry. Broke down and acidized zone with 1300 gals 15% MCA (acid). Recovered 100% formation water**.
- H. Test Zone #8 Gallup "B" (2545'-2557' & 2580'-2599')* Moved RBP up to 2880'* and RTTS up to 2506'*. Pressure tested both to 1000 psi, OK. Perforated through tubing 2545'-2557' & 2580'-2599'* 1 SPF (32 holes). Zone swab tested 100% water**.
- I. Test Zone #9 Gallup "A" (2384'-2390', 2395'-2400', 2482'-2490' & 2495'-2500')* Moved RBP up to 2502'* and RTTS up to 2315'*. Pressure tested both to 1300 psi, OK. Perforated through tubing with 1 SPF 2384'-2390'* and 2395'-2400'* (total 13 holes). Swabbed well down and found no fluid entry. Broke down formation with rig pump at 2000 psig. Swabbed well and still no fluid entry. Lowered RBP to 2533'* and RTTS to 2406'*. Pressure tested both to 1200 psi. Perforated through tubing with 1 SPF 2484'-2490'* and 2495'-2500'* (13 holes). Swabbed well down and found no fluid entry. Prepare to P & A.

- J. Plugging Operations began 2-10-82 and were completed 2-11-82. Plugged hole as follows:
 - Plug #1 EZ drill retainer at 4590' with 20 sacks of Class "B" Neat below.
 - Plug #2 EZ drill retainer at 3870' with 20 sacks of Class "B" Neat below.
 - Plug #3 EZ drill retainer at 3300' with 50 sacks Class "B" Neat below.
 - Plug #4 EZ drill retainer at 2320' with 35 sacks Class "B" Neat below.
 - Plug #5 2200' to 2300' with 15 sacks Class "B" Neat.
 - Plug #6 1250' to 1350' with 15 sacks Class "B" Neat.
 - Plug #7 Perforated 5 1/2" casing with four 0.5" holes at 270', set EZ drill retainer at 260' and pump 10 sacks Class "B" Neat below same.
 - Plug #8 Stung out of EZ retainer at 260' and circulate cement to the surface.

The casing was cut off three feet below ground level and a $4" \times 4"$ dry hole marker was installed.

- * All depths were correlated flat to the CNL/FDC log dated 12-28-81.
- ** See "Result of Water Analysis" for chemical breakdown.

Well File

P. O. BOX 1468 MONAHANS, TEXAS 79786 PHONE 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA MIDLAND, TEXAS 79701 PHONE 683-4521

RESULT OF WATER ANALYSES

	f	LABORATORY NO	282380	
то: Mr. Sammy N. Morgan			2 25 02	
One Security Park - 7200 I-40 West	-	RESULTS REPORTED	3-2-82	
, 2 /5100				
COMPANY Santa Fe Energy Co.	LEASE	Kin Klizhir	ı #1	
FIELD OR POOL	Wildcat			
SECTION BLOCK SURVEY	COUNTY_M	cKinley st	ATE_NM	
SOURCE OF SAMPLE AND DATE TAKEN:		y		
NO. 1 Test zone #1 - Entrada				
NO. 2 Test zone #2 - Morrison				
NO. 3 <u>Test zone #3 - Dakota "E"</u>			· · · · · · · · · · · · · · · · · · ·	-
NO. 4 Test zone #4 - Dakota "D"				
REMARKS:				
CHEMICAL A	ND PHYSICAL	DD005554		
	NO. 1			r
Specific Gravity at 60° F.	1.0066	1.0031	NO. 3	NO. 4
pH When Sampled	1.0000	1.0031	1,0028	1.0028
pH When Received	7.7	7.4	7 7	
Bicarbonate as HCO ₃	112	454	7.7	8.3
Supersaturation as CaCO3		4,74	752	737
Undersaturation as CaCO3			·	
Total Hardness as CaCO ₃	340	50	30	1.0
Calcium as Ca	132	20	10	16 5
Magnesium as Mg	2	0	1	1
Sodium and/or Potassium	1.782	390	434	462
Sulfate as SO4	3.558	407	44	24
Chloride as CI	298	72	220	266
Iron as Fe	0.39	1.4	. 376	62.4
Barium as Ba	0	0	0	. 0
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated Temperature °F.	5,884	1,343	1.461	1.505
Carbon Dioxide, Calculated	<u></u>			
Dissolved Oxygen, Winkler				
Hydrogen Sulfide		<u> </u>		
Resistivity, ohms/m at 77° F.	0.0	0.0	0.0	0.0
Suspended Oil	0.940	6.00	4.90	5.30
Filtrable Solids as mg/1		 		
Volume Filtered, ml		 		
Carbonate, as CO.	0			
Strontium, as Sr ³	5.5	0 0 0	0	10
		 	0.0	
Results Re	ported As Milligram	ns Per Liter	 L	
Additional Determinations And Remarks			······································	
				
				
		·		

Form No. 3

Ву _____

Form No. 3

Martin Water Laboratories, Inc

709 W. INDIANA MIDLAND, TEXAS 79701 PHONE 683-4521

RESULT OF WATER ANALYSES

V 0 3 1	L	ABORATORY NO.	202380 (pg.	2)	
ro: Mr. Sammy N. Morgan	2 25 92				
One Security Park - 7200 I-	40 West R	ESULTS REPORT	_{ED_} 3-2-82		
Amarillo, TX 79106					
COMPANY Santa Fe Energy Co.	LEASE	<u>Kin Klizhi</u>	n #1		
FIELD OR POOL					
SECTION BLOCK SURVEY	COUNTYM	cKinley	STATE NM		
SOURCE OF SAMPLE AND DATE TAKEN:					
NO. 1 Test zone #5 - Dakota	"C"				
NO. 2 Test zone #5 - Dakota	"C" (after 4 day	/s)			
NO. 3 Test zone #6 - Dakota			·		
NO. 4 Test zone #7 - Dakota					
					
REMARKS:					
CHEMIC	AL AND PHYSICAL		1	····	
Specific Gravity at 60° F.	NO. 1	NO. 2	NO. 3	NO. 4	
pH When Sampled	1.0049	1.0033	1.0322	1.0061	
pH When Received	8 . 4				
Bicarbonate as HCO ₃		8.3	5.8	5.9	
Supersaturation as CaCO3	1,159	1,208	476	205	
Undersaturation as CaCO3	···				
Total Hardness as CaCO3	26	12	27 700	0.000	
Calcium as Ca	10	12	24,400	2,250	
Magnesium as Mg	0	0	6.400	760	
Sodium and/or Potassium	1,241	574	2,041	85	
Sulfate as SO4	87	0	4,370	735 71	
Chloride as Cl	1,094	149	23,436	2.557	
Iron as Fe	27.3	11.7	1,034	300	
Barium as Ba	0	0	0	0	
Turbidity, Electric			 	······································	
Color as Pt					
Total Solids, Calculated	3,675	1.972	37.169	4.713	
Temperature °F.					
Carbon Dioxide, Calculated					
Dissolved Oxygen, Winkler					
Hydrogen Sulfide	0.0	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	2.00	4.80	0.214	1.40	
Suspended Oil					
Filtrable Solids as mg/					
Volume Filtered, ml					
Carbonate, as CO Strontium, as Sr ³	84	36	0	0	
Scrontidii, as si	0.0	0.0	21.0	9.0	
D	ulte Reported As Milli	<u> </u>			
Additional Determinations And Remarks	ults Reported As Milligram	s rer Liter	· · · · · · · · · · · · · · · · · · ·		
Trade College	···········				
	·····				
		 			
					
		····			
		·			

Martin Water Laboratories. Inc

709 W. INDIANA MIDLAND, TEXAS 79701

RESULT OF WAT	ER ANALYSES PHONE 683-4521
To: Mr. Sammy N. Morgan One Security Park - 7200 I-40 West Amarillo, TX 79106	LABORATORY NO. 282380 (pg. 3) SAMPLE RECEIVED 2-25-82 RESULTS REPORTED 3-2-82
COMPANY Santa Fe Energy Co. LE. FIELD OR POOL Wildcat	
SECTION BLOCK SURVEY COUNTY. SOURCE OF SAMPLE AND DATE TAKEN: NO. 1 Test zone #8 - Gallup "B"	
NO. 2 NO. 3	
REMARKS:	

CHEMICAL AND PHYSICAL PROPERTIES								
	NO. 1	NO. 2	NO. 3	NO. 4				
Specific Gravity at 60° F.	1.0041							
pH When Sampled		<u> </u>						
pH When Received	9.6							
Bicarbonate as HCO3	110							
Supersaturation as CaCO3								
Undersaturation as CaCO3								
Total Hardness as CaCO3	16	· · · · · · · · · · · · · · · · · · ·						
Calcium as Ca	6							
Magnesium as Mg	0							
Sodium and/or Potassium	734							
Sulfate as SO ₄	861							
Chloride as CI	202							
Iron as Fe	52.7							
Barium as Ba	22.7	· · · · · · · · · · · · · · · · · · ·	· ·					
Turbidity, Electric								
Color as Pt								
Total Solids, Calculated	2,117							
Temperature °F.								
Carbon Dioxide, Calculated								
Dissolved Oxygen, Winkler								
Hydrogen Sulfide	0.0							
Resistivity, ohms/m at 77° F.	3, 25							
Suspended Oil	3-/3							
Filtrable Solids as mg/1								
Volume Filtered, ml								
Carbonate, as CO	204							
Strontium, as Sr ³	0.0							

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks We are not familiar with the circumstances herein, but we do not see any evidence that would be considered significant in indicating natural connate water unless there is a possibility of fresh water. We qualify this in that it would appear that zone #6 (Dakota "B") is quite different, but it has an unusually high calcium and magnesium as compared to the other salts, thereby strong ly implying spent acid influence is at least the principal source of the difference

Form No. 3

Waylar C. Martin, M. A.