

Audit Exception No. 6

Drilling Mud

The tour reports indicate that 14 sacks of "Drispac" were used. The vendor invoice includes billings for 36 sacks of "Drispac". At a rate of \$201.30 per sack, the joint account was over billed \$4,428.60.

Credit due the Joint Account \$4,428.60.

Santa Fe Energy Resources, Inc.'s response dated June 10, 1993

Auditors Claim: Overcharged for drilling mud.

Credit Requested \$4,428.60

Response: Denied

A copy of the mud reports from Nova Mud, Inc. is attached. That report shows that all 36 sacks in question were used.

SANTA FE ENERGY RESOURCES	
OIL CONCENTRATION DIVISION	
HANLEY	EXHIBIT NO. 9
CASE NO.	10513

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Hanley Petroleum Inc.
Audit of Santa Fe Kachina 8 Federal #2 Well
Response to Santa Fe's Response Dated Thursday 6/10/93
and Received Monday, 6/14/93

The audit exception centered around an overcharge for Drispac (drilling mud) totaling \$4,428.60. The audit exception maintains that the amount charged the joint account exceeds the Drispac used per the daily tower reports (aka "Daily Drilling Report") by 22 sacks, or \$4,428.60. An analysis sheet is attached which calculates the cost per sack of \$201.30. $\$201.30 \times 22 \text{ sacks} = \$4,428.60$.

On Monday, June 14, 1993, we received our second audit response from Santa Fe Energy Resources, Inc. (SFER) in which they denied the exception citing Mud Reports (attached) from the vendor, Nova Mud, Inc. (NOVA). We found no evidence of approval of the NOVA Mud reports by SFER personnel, also the Mud Reports conflict with the SFER tower reports as shown below:

Date	Drispac per SFER tower report	Staflor per NOVA report	Difference
10/07/91	14	0	14
10/09/91		15	(15)
10/09/91		2	(2)
10/10/91		8	(8)
10/11/91		2	(2)
10/12/91		6	(6)
10/13/91		1	(1)
10/14/91		2	(2)
Total	14	36	(22)

SFER's audit response dated 6/10/93 indicates that they believe the vendor's Mud Reports are more credible than the tower report. The Mud Reports are signed by one person, an employee of the mud company. The tower reports are signed by five people independent of NOVA. The five people include SFER's own representative, the drilling contractor's tool pusher, and three drillers. We maintain that more reliance is due the tower reports signed by 5 people independent of NOVA, than the Mud Reports signed by one person not independent of NOVA.

Also, the NOVA Mud Reports indicate the use of Staflor, not Drispac. Drispac and Staflor are separate and distinct products with different pricing.

Drispac is the audit item under consideration, and its use was not addressed by the Mud Reports included with the June 10, 1993, SFER audit response. We request \$4,428.60 reimbursement to the joint account for the \$4,428.60 unused Drispac.

Hanley Petroleum Inc.
Analysis of Exception # 6

Breakdown of Nova Mud, Inc. Invoice #91043, dated 10/18/91:

Description	Fresh									
	water	Gel	Paper	Lime	Caustic	soda	Cedar	paper	Multiseal	Plastic

Quantity										
Unit cost										
226	25	27	57	5	5	1	126	36		
\$6.30	\$7.70	\$5.95	\$28.92	\$15.00	\$26.68	\$30.00	\$12.00	\$212.42		

Invoice										
Extended amount	\$1,423.80	\$192.50	\$160.65	\$1,648.44	\$75.00	\$133.40	\$30.00	\$1,512.00	\$7,647.12	\$12,822.91
Less 20% discount	(284.76)	(38.50)	(32.13)	(329.69)	(15.00)	(26.68)	(6.00)	(302.40)	(1,529.42)	(2,564.58)

Invoice net of discount										
Delivery charge *	1,139.04	154.00	128.52	1,318.75	60.00	106.72	24.00	1,209.60	6,117.70	10,258.33
Tax	136.86	18.50	15.44	158.45	7.21	12.82	2.89	145.35	735.07	1,232.59
	73.36	9.92	8.28	84.94	3.86	6.87	1.55	77.92	394.03	660.73

Invoice total	\$1,349.26	\$182.42	\$152.24	\$1,562.14	\$71.07	\$126.41	\$28.44	\$1,432.87	\$7,246.80	\$12,151.65
=====										

* - Allocated based upon pro-rata share of "Invoice Extended Amount"

Drispac Analysis:

Drispac used per tower report	14
=====	
Cost per sack of Drispac	\$201.30
Sacks of Drispac not used	22

Excess Drispac billed to joint account - 22 sacks	\$4,428.60
=====	

SFE/ HIPI Audit Mud Reconciliation

Prepared by
Approved by

MADE IN U.S.

Tower
Report
Date

Driscac used
per Tower
Report

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14

Driscac per invoice
Diff.

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212.42 / sack = \$ 7147.11
20% Disc. < 1529.42
\$ 6117.70
Delivery 735.07
Tax 394.03
\$ 7246.80
% 36

x 22 SX
201.30

\$ 4428.60 Exception

NOVA Mud Inc.

P.O. Box 979 Hobbs, NM 88240 Telephone 505-393-8786

INVOICE

RECEIVED

ACCOUNTS PAYABLE

OCT 30 1991

HOUSTON

PLEASE REMIT TO:

NOVA MUD INC.
P. O. Box 979
Hobbs, NM 88240

Please quote our invoice number

DATE	INVOICE NO.	PAGE
10/13/91	91043	1

CUSTOMER REFERENCE NUMBER	WELL CODE	CUST. NO.	TERMS
KACHINA "8" FED COM #2	91043	11070	NET 30 DAYS

PRODUCT	QUANTITY	UNIT SIZE	UNIT COST	AMOUNT
FRESHWATER GEL	226 ✓	100# BAG	6.30	\$ 1,423.80
PAPER	25 ✓	40# BAG	7.70	192.50
LIME	27 ✓	50# BAG	5.95	160.65
CAUSTIC SODA	57 ✓	50# BAG	28.91	1,648.44
CEDAR FIBER	5 ✓	40# BAG	15.00	75.00
MULTISEAL	5 ✓	40# BAG	26.68	133.40
PLASTIC	1 ✓	1 ROLL	30.00	30.00
SODA ASH	126 ✓	100# BAG	22.22	1,512.60
DRISPAC	36 ✓	50# BAG	212.42	7,647.12

TOTAL MATERIAL 12,822.91
- 20% DISCOUNT 2,564.58

SUB-TOTAL 10,258.33

DELIVERY CHARGE 1,232.59

TAX 660.73

TOTAL AMOUNT DUE \$ 12,151.65

APPROVED BY: [Signature]
DATE: 10/13/91
COMPANY: [Signature]

DAILY DRILLING REPORT

UNIT		WELL NO.		DATE	
OPERATOR	KACHINA NGS FEDERAL	#22	API WELL NUMBER		9/18/01
SANTA FE ENERGY OPERATING PARTNERS SIGNATURE OF OPERATOR'S REPRESENTATIVE	[Signature]		CONTRACTOR	Cactus Drilling Co.	RIG NO. 71
D.P. SPEC	WT./FT.	GALLON	TOOL AT G.D.	TYPE THREAD	STRING NO.
PUMP NO.		PUMP MANUFACTURER		TYPE	SIZES [LENGTH]

[illegible]

Job Description - Hours				MUD RECORD			
NO.	Operation	Location	Day	BIT	TIME	WEIGHT	TYPE
1	Operation	1/2					
2	Operation						
3	Operation						
4	Operation						
5	Operation						
6	Operation						
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TOTAL AND CHECK							

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DAILY DRILLING REPORT

DATE 9-16-71

WELL NO. 2

AP WELL NUMBER

CONTRACTOR

RIG NO. 71

SIGNATURE OF CONTRACTOR'S TOOL PUSHER

TYPE

WIRE LINE RECORD

NO. LINES

PRESENT LENGTH

OPERATOR'S REPRESENTATIVE

NAME

STATE

WELL NO.

AP WELL NUMBER

TOOL PUSHER

TYPE

WIRE LINE RECORD

NO. LINES

PRESENT LENGTH

TOOL PUSHER

TYPE

WIRE LINE RECORD

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TOOL PUSHER

TYPE

WIRE LINE RECORD

NO. LINES

PRESENT LENGTH

ISRAELI KILLING REPORT

LEAD	WELL NO.	DATE
Operator <i>Kichins & Fed</i>	2	7-17-71
SIGNATURE OF OPERATOR'S REPRESENTATIVE <i>Sam E. Emery</i>		
CONTRACTOR <i>Carter Perry, Inc</i>		
SIGNATURE OF CONTRACTOR'S TOOL PUSHER <i>Ellen Litigau</i>		
OF SIZE	GRADE	STONE LENGTH
W/PT	TOOL O.D.	TYPE
<i>4 1/2</i>	<i>4 1/2</i>	<i>H-903</i>
<i>20.00</i>	<i>F</i>	<i>16</i>
	STRING NO.	<i>12.605</i>
		<i>15</i>

[illegible]

SPILL DISTRIBUTION - HOURS				DRILLING ASSEMBLY				BIT RECORD				MUD RECORD			
CODE	OPERATION	MOON	DAY	SIZE	NO.	WT.	FT.	BIT NO.	SIZE			TIME	WEIGHT	CONCENTRATION	
1	NO. 1 UP AND				1	55	9.5		12 1/4			18.0			
2	LOAD DOWN				1	55	9.5		12 1/4						
3	RELOAD				1	55	9.5		12 1/4						
4	COMING				1	55	9.5		12 1/4						
5	CONCRETE AND				1	55	9.5		12 1/4						
6	CHUCKER				1	55	9.5		12 1/4						
7	TRIPS				1	55	9.5		12 1/4						
8	SHOCKING				1	55	9.5		12 1/4						
9	REPAIRING				1	55	9.5		12 1/4						
10	CUT OFF				1	55	9.5		12 1/4						
11	DEVIATION LINE				1	55	9.5		12 1/4						
12	DRILLING LINE				1	55	9.5		12 1/4						
13	WING LINE LOGS				1	55	9.5		12 1/4						
14	RUN CASING				1	55	9.5		12 1/4						
15	TRIP CASING				1	55	9.5		12 1/4						
16	WATER				1	55	9.5		12 1/4						
17	CASING				1	55	9.5		12 1/4						
18	WATER				1	55	9.5		12 1/4						
19	CASING				1	55	9.5		12 1/4						
20	WATER				1	55	9.5		12 1/4						
21	CASING				1	55	9.5		12 1/4						
22	WATER				1	55	9.5		12 1/4						
23	CASING				1	55	9.5		12 1/4						
24	WATER				1	55	9.5		12 1/4						
25	CASING				1	55	9.5		12 1/4						
26	WATER				1	55	9.5		12 1/4						
27	CASING				1	55	9.5		12 1/4						
28	WATER				1	55	9.5		12 1/4						
29	CASING				1	55	9.5		12 1/4						
30	WATER				1	55	9.5		12 1/4						
31	CASING				1	55	9.5		12 1/4						
32	WATER				1	55	9.5		12 1/4						
33	CASING				1	55	9.5		12 1/4						
34	WATER				1	55	9.5		12 1/4						
35	CASING				1	55	9.5		12 1/4						
36	WATER				1	55	9.5		12 1/						

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DAILY DRILLING REPORT

[illegible]

FIELD NO D87						COUNTY	STATE		WIRE LINE RECORD				FIELD NO	
LAST SOUNDING ON LINES	SIZE	MAKE	WT & ON	NO JOINTS	FEET	MAS TO CSD NO	SER AT	SIZE	NO LINES	PRESERT LENGTH	PT SHIPPED	PT CUT OFF	TON WT OR PWS SINCE LAST COT COMULATIVE TON IN ON	
	10 1/2"			76			50 ft	1 1/4"	2					

TIME DISTRIBUTION				HOURS			
DOGS	OPERATION	MOON	DAY	EVE			
1	NO UP AND DOWN						
2	TEAM DOWN						
3	ONAL ACTUAL	71	17	8			
5	REARING						
4	COMING						
6	CONDITION ROAD						
8	CIRCULATE						
HRS							
UNRECALC RMO							
9	REAR AND						
8	OUT OF PACE						
10	OUT OF PACE						
11	OPERATION BATTERY						
12	WING LINE LOADS						
13	WING CASING						
14	WING CASING						
15	WAIT ON						
16	WAIT ON						
TOTAL							
WIT OF STIRNING							

DRILLING ASSEMBLY				BIT RECORD			
NO.	BIT	FT	BIT NO	TIME	WEIGHT	WEIGHT	WEIGHT
1	3.15	5.41	11	17.2	3.4	11	11
2	3.15	13.11	11	17.2	3.4	11	11
3	3.15	13.11	11	17.2	3.4	11	11
4	3.15	13.11	11	17.2	3.4	11	11
5	3.15	13.11	11	17.2	3.4	11	11
6	3.15	13.11	11	17.2	3.4	11	11
7	3.15	13.11	11	17.2	3.4	11	11
8	3.15	13.11	11	17.2	3.4	11	11
9	3.15	13.11	11	17.2	3.4	11	11
10	3.15	13.11	11	17.2	3.4	11	11
11	3.15	13.11	11	17.2	3.4	11	11
12	3.15	13.11	11	17.2	3.4	11	11
13	3.15	13.11	11	17.2	3.4	11	11
14	3.15	13.11	11	17.2	3.4	11	11
15	3.15	13.11	11	17.2	3.4	11	11
16	3.15	13.11	11	17.2	3.4	11	11
17	3.15	13.11	11	17.2	3.4	11	11
18	3.15	13.11	11	17.2	3.4	11	11
19	3.15	13.11	11	17.2	3.4	11	11
20	3.15	13.11	11	17.2	3.4	11	11
21	3.15	13.11	11	17.2	3.4	11	11
22	3.15	13.11	11	17.2	3.4	11	11
23	3.15	13.11	11	17.2	3.4	11	11
24	3.15	13.11	11	17.2	3.4	11	11
25	3.15	13.11	11	17.2	3.4	11	11
26	3.15	13.11	11	17.2	3.4	11	11
27	3.15	13.11	11	17.2	3.4	11	11
28	3.15	13.11	11	17.2	3.4	11	11
29	3.15	13.11	11	17.2	3.4	11	11
30	3.15	13.11	11	17.2	3.4	11	11
31	3.15	13.11	11	17.2	3.4	11	11
32	3.15	13.11	11	17.2	3.4	11	11
33	3.15	13.11	11	17.2	3.4	11	11
34	3.15	13.11	11	17.2	3.4	11	11
35	3.15	13.11	11	17.2	3.4	11	11
36	3.15	13.11	11	17.2	3.4	11	11
37							

[illegible][illegible][illegible][illegible][illegible]

DAILY DRILLING REPORT

LEASER <i>Rockman Co. Field</i>		WELL NO. <i>2</i>	
OPERATOR <i>SATAFE ENERGY Co</i>		CONTRACTOR <i>CATCO RIGGING</i>	
SIGNATURE OF OPERATOR'S REPRESENTATIVE <i>[Signature]</i>		SIGNATURE OF CONTRACTOR'S TOOL PUSHER <i>[Signature]</i>	
D-P SIZE <i>012</i>	WT/LFT <i>20.0</i>	GRADE <i>E</i>	COOL J I O D <i>1 1/4</i>
TYPING TIME IN MIN <i>X-H</i>		STANDING NO.	
PUMP NO. <i>1</i>		PUMP MANUFACTURER <i>NATIONAL</i>	
TYPE <i>A-200</i>		BIRCH LENGTH <i>110</i>	
DATE <i>7-20-91</i>		DATE <i>15</i>	

[illegible]

TIME DISTRIBUTION - HOURS				
NO. OF DAYS	OPERATION	MOON	DAY	EVE
1	NO UP AND TEAL DOWN			
2	DEML ACTUAL	7 1/2	8 1/4	
3	REARROW			
4	COMING			
5	CONDITION AND CLOSURE			
6	WHS			
7	LUBRICATE AND			
8	REPAIR RIG			
9	CUT OFF			
10	DEWELLING LINE	4 1/2		
11	DEVALATION SURVEY		4 1/4	
12	WING LINE LOOKS			
13	RUN CASING			
14	2 CEMENT			
15	DRILL BIT UP			
16	TEST B O P			
17	DEML STEAM TEST			
18	PLUG BACK			
19	POURER CEMENT			
20	FISHING			
21	DRILL WORK			
22				
23				
COMPLETE				
TOTALS				
DAY WORKING TIME SUMMARY				
(OFFICE USE ONLY)				
WHS W/OUTS O P				
WHS WORK O P				
WHS WOLF O P				
WHS STANDBY				
TOTAL DAY WORK				
NO. OF DAYS				
MOON PERIOD				
CUMULATIVE				
CONTAINING				

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[illegible][illegible][illegible][illegible]

DAILY DRILLING REPORT

LEASE *Kachina* WELL NO. *2* DATE *9-23-97*
OPERATOR *Santa Fe Energy Co* CONTRACTOR *Chas. Drilling Co* RIG NO. *71*
SIGNATURE OF OPERATOR'S REPRESENTATIVE *[Signature]* SIGNATURE OF CONTRACTOR'S TOOL PUSHER *[Signature]*

DP SIZE	WT/LF	GRADE	TOOL JOG TYPE	STAND NO	PUMP NO	PUMP MANUFACTURER	TYPE	BLK/IN
<i>4 1/2</i>	<i>20</i>	<i>E</i>	<i>6 1/4 X-H</i>	<i>1</i>	<i>1</i>	<i>Dillman</i>	<i>K-20M</i>	<i>16"</i>
<i>4 1/2</i>	<i>16 1/2</i>	<i>E</i>	<i>6 1/4 X-H</i>	<i>2</i>	<i>2</i>	<i>Dillman</i>	<i>K-20M</i>	<i>15"</i>

FIELD OR DBI	COUNTY	STATE	WIRE LINE RECORD	FEET	NO LINES	FEET SHIPPED
<i>2 1/2</i>	<i>LEA</i>	<i>N.M.</i>	<i>1 1/2</i>	<i>3000</i>	<i>2</i>	<i>2</i>

TIME DISTRIBUTION - HOURS			
TIME	OPERATION	WORK	DAY
<i>1</i>	<i>1. REAM AND</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>2. DRILL ACTUAL</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>3. REAMING</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>4. CORING</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>5. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>6. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>7. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>8. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>9. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>10. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>11. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>12. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>13. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>14. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>15. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>16. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>17. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>18. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>19. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>20. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>21. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>22. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>23. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>24. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>25. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>26. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>27. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>28. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>29. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>30. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>31. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>32. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>33. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>34. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>35. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>36. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>37. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>38. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>39. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>40. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>41. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>42. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>43. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>44. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>45. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>46. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>47. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>48. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>49. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>50. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>51. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>52. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>53. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>54. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>55. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>56. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>57. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>58. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>59. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>60. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>61. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>62. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>63. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>64. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>65. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>66. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>67. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>68. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>69. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>70. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>71. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>72. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>73. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>74. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>75. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>76. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>77. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>78. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>79. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>80. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>81. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>82. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>83. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>84. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>85. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>86. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>87. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>88. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>89. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>90. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>91. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>92. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>93. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>94. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>95. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>96. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>97. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>98. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>99. CEMENT</i>	<i>2</i>	<i>1</i>
<i>1</i>	<i>100. CEMENT</i>	<i>2</i>	<i>1</i>

FOOTAGE			
FROM	TO	DEPT	DEPT
<i>5288</i>	<i>5300</i>	<i>0</i>	<i>0</i>
FORMATION			
<i>2010 - SAND</i>			
DEVIATION RECORD			
TIME LOG	DEPT	DEPT	DEPT
<i>11:00</i>	<i>7:00</i>	<i>2</i>	<i>2</i>
DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS			
<i>183000</i>			
<i>173000</i>			
<i>189000</i>			

DRILLING ASSEMBLY			
NO.	BIT NO.	BIT RECORD	MUD RECORD
<i>1</i>	<i>305</i>	<i>541</i>	<i>541</i>
FORMATION			
<i>2010 - SAND</i>			
DEVIATION RECORD			
TIME LOG	DEPT	DEPT	DEPT
<i>9:00</i>	<i>9:30</i>	<i>2</i>	<i>2</i>
DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS			
<i>183000</i>			
<i>173000</i>			
<i>189000</i>			

FOOTAGE			
FROM	TO	DEPT	DEPT
<i>5500</i>	<i>5191</i>	<i>0</i>	<i>0</i>
FORMATION			
<i>2010 - SAND</i>			
DEVIATION RECORD			
TIME LOG	DEPT	DEPT	DEPT
<i>9:00</i>	<i>9:30</i>	<i>2</i>	<i>2</i>
DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS			
<i>183000</i>			
<i>173000</i>			
<i>189000</i>			

DRILLING ASSEMBLY			
NO.	BIT NO.	BIT RECORD	MUD RECORD
<i>1</i>	<i>305</i>	<i>541</i>	<i>541</i>
FORMATION			
<i>2010 - SAND</i>			
DEVIATION RECORD			
TIME LOG	DEPT	DEPT	DEPT
<i>9:00</i>	<i>9:30</i>	<i>2</i>	<i>2</i>
DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS			
<i>183000</i>			
<i>173000</i>			
<i>189000</i>			

FOOTAGE			
FROM	TO	DEPT	DEPT
<i>5631</i>	<i>5116</i>	<i>0</i>	<i>0</i>
FORMATION			
<i>2010 - SAND</i>			
DEVIATION RECORD			
TIME LOG	DEPT	DEPT	DEPT
<i>9:00</i>	<i>9:30</i>	<i>2</i>	<i>2</i>
DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS			
<i>183000</i>			
<i>173000</i>			
<i>189000</i>			

[illegible]

FIELD ON DIST.		COUNT		STATE		WIRE LINE RECORD				NEEL NO	
SIZE	MAKE	WT. & GR.	NO. JOINS	FEET	NO. TIE CDS NO.	DEPT	SIZE	FT CUT OFF	NO LINES	PT. RIPPED	PRESIDENT LENGTH
LAST CANNING TURNING ON LINES	6/8		74			3000	1 1/4		8		

FOOTAGE		TO		DN D TIME CORE C	CORE NO	FORMATION (SHOW CORE RECOVERY)		MOJAVE MIN 1000	WT OM MIN 1000	PUMP PRESS	PUMP NO 1 INCH SIZE SPM	PUMP NO 2 INCH SIZE SPM	BEHIND PUMP PRESS PSI
FROM	TO												
16294	16264	11				LINE		65	60	1600	54	54	61
10090													
Cite. Son. pfr 6653													
#2 SPR-32.5M-5													
PUMP-2060													
30.0T-17M.000													
10.1T-10.000													
#2 SPR-32.5M-5													

FOOTAGE		TO		DN D TIME CORE C	CORE NO	FORMATION (SHOW CORE RECOVERY)		MOJAVE MIN 1000	WT OM MIN 1000	PUMP PRESS	PUMP NO 1 INCH SIZE SPM	PUMP NO 2 INCH SIZE SPM	BEHIND PUMP PRESS PSI
FROM	TO												
16864	1088	0				LINE		65	60	1600	54	54	61
10090													
Cite. Son. pfr 6653													
#2 SPR-32.5M-5													
PUMP-2060													
30.0T-17M.000													
10.1T-10.000													
#2 SPR-32.5M-5													

FOOTAGE		TO		DN D TIME CORE C	CORE NO	FORMATION (SHOW CORE RECOVERY)		MOJAVE MIN 1000	WT OM MIN 1000	PUMP PRESS	PUMP NO 1 INCH SIZE SPM	PUMP NO 2 INCH SIZE SPM	BEHIND PUMP PRESS PSI
FROM	TO												
1700	300	8				LINE		65	60	1600	54	54	61
10090													
Cite. Son. pfr 6653													
#2 SPR-32.5M-5													
PUMP-2060													
30.0T-17M.000													
10.1T-10.000													
#2 SPR-32.5M-5													

FOOTAGE		TO		DN D TIME CORE C	CORE NO	FORMATION (SHOW CORE RECOVERY)		MOJAVE MIN 1000	WT OM MIN 1000	PUMP PRESS	PUMP NO 1 INCH SIZE SPM	PUMP NO 2 INCH SIZE SPM	BEHIND PUMP PRESS PSI
FROM	TO												
1700	300	8				LINE		65	60	1600	54	54	61
10090													
Cite. Son. pfr 6653													
#2 SPR-32.5M-5													
PUMP-2060													
30.0T-17M.000													
10.1T-10.000													
#2 SPR-32.5M-5													

FOOTAGE		TO		DN D TIME CORE C	CORE NO	FORMATION (SHOW CORE RECOVERY)		MOJAVE MIN 1000	WT OM MIN 1000	PUMP PRESS	PUMP NO 1 INCH SIZE SPM	PUMP NO 2 INCH SIZE SPM	BEHIND PUMP PRESS PSI
FROM	TO												
1700	300	8				LINE		65	60	1600	54	54	61
10090													
Cite. Son. pfr 6653													
#2 SPR-32.5M-5													
PUMP-2060													
30.0T-17M.000													
10.1T-10.000													
#2 SPR-32.5M-5													

FOOTAGE		TO		DN D TIME CORE C	CORE NO	FORMATION (SHOW CORE RECOVERY)		MOJAVE MIN 1000	WT OM MIN 1000	PUMP PRESS	PUMP NO 1 INCH SIZE SPM	PUMP NO 2 INCH SIZE SPM	BEHIND PUMP PRESS PSI
FROM	TO												
1700	300	8				LINE		65	60	1600	54	54	61
10090													
Cite. Son. pfr 6653													
#2 SPR-32.5M-5													
PUMP-2060													
30.0T-17M.000													
10.1T-10.000													
#2 SPR-32.5M-5													

FOOTAGE		TO		DN D TIME CORE C	CORE NO	FORMATION (SHOW CORE RECOVERY)		MOJAVE MIN 1000	WT OM MIN 1000	PUMP PRESS	PUMP NO 1 INCH SIZE SPM	PUMP NO 2 INCH SIZE SPM	BEHIND PUMP PRESS PSI
FROM	TO												
1700	300	8				LINE		65	60	1600	54	54	61
10090													
Cite. Son. pfr 6653													
#2 SPR-32.5M-5													
PUMP-2060													
30.0T-17M.000													
10.1T-10.000													
#2 SPR-32.5M-5													

FOOTAGE</	
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DAILY DRILLING REPORT

LEASE: Richie & Ed WELL NO: 2 DATE: 7-25-91
 OPERATOR: Ed CONTRACTOR: Cactus Drilling RIG NO: 71

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [Signature]
 SIGNATURE OF CONTRACTOR'S TOOL PUSHER: [Signature]

TOOL JOG: 1 TYPE: THREADED STRING NO: 1
 OF 2: 1 GRADE: 1/4 TYPE: THREADED STRING NO: 1
 1/2: 1 GRADE: 1/4 TYPE: THREADED STRING NO: 1

TIME DESCRIPTION - HOURS	NO.	DRILLING ASSEMBLY	BIT RECORD	MUD RECORD
1. LUBRICATE PUMP	1	BIT NO. 1	SIZE 1/2	TIME 1.00
2. REPAIR PUMP	2	BIT NO. 2	SIZE 1/2	TIME 1.00
3. CUT OFF	3	BIT NO. 3	SIZE 1/2	TIME 1.00
4. DEVIATION SURVEY	4	BIT NO. 4	SIZE 1/2	TIME 1.00
5. WIRE LINE LOGS	5	BIT NO. 5	SIZE 1/2	TIME 1.00
6. RUN CASING	6	BIT NO. 6	SIZE 1/2	TIME 1.00
7. CEMENT	7	BIT NO. 7	SIZE 1/2	TIME 1.00
8. CLEANUP	8	BIT NO. 8	SIZE 1/2	TIME 1.00
9. SHUT IN	9	BIT NO. 9	SIZE 1/2	TIME 1.00
10. START UP	10	BIT NO. 10	SIZE 1/2	TIME 1.00
11. TEST BOP	11	BIT NO. 11	SIZE 1/2	TIME 1.00
12. DRILL STEEL TEST	12	BIT NO. 12	SIZE 1/2	TIME 1.00
13. FISHHOOK	13	BIT NO. 13	SIZE 1/2	TIME 1.00
14. BUCKER CHAMFER	14	BIT NO. 14	SIZE 1/2	TIME 1.00
15. FISHING	15	BIT NO. 15	SIZE 1/2	TIME 1.00
16. DRILL WORK	16	BIT NO. 16	SIZE 1/2	TIME 1.00
17. PREPARE	17	BIT NO. 17	SIZE 1/2	TIME 1.00
18. TWO TURNS	18	BIT NO. 18	SIZE 1/2	TIME 1.00
19. TREATING	19	BIT NO. 19	SIZE 1/2	TIME 1.00
20. SWABING	20	BIT NO. 20	SIZE 1/2	TIME 1.00
21. TESTING	21	BIT NO. 21	SIZE 1/2	TIME 1.00
22. ADJUSTING	22	BIT NO. 22	SIZE 1/2	TIME 1.00
23. TOTAL	23	BIT NO. 23	SIZE 1/2	TIME 1.00

FOOTAGE	FORMATION	WIRE LINE RECORD	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
FROM 10 TO 10	DRILLING ASSEMBLY	NO. 1	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 2	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 3	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 4	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 5	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 6	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 7	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 8	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 9	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 10	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 11	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 12	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 13	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 14	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 15	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 16	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 17	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 18	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 19	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 20	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 21	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 22	TIME 1.00
7315	DRILLING ASSEMBLY	NO. 23	TIME 1.00

[illegible]

[illegible]

DAILY DRILLING REPORT

LOGS DATE: 9-29-61 WELL NO.: 2 CONTRACTOR: LASTOS DRILLING CO. SIGNATURE OF OPERATOR'S REPRESENTATIVE: [Signature] SIGNATURE OF CONTRACTOR'S TOOL PUSHER: [Signature]		APR WELL NUMBER DATE: 9-29-61 RIG NO.: 71	
DRILLING PREPARATION - HOURLY NO. DRILLING ASSEMBLY BIT NO. 1 SIZE 1 1/2" x 1 1/2" WGT. 11.00 DEPTH IN 12.00 DEPTH OUT 12.00 TOTAL FTS 12.00 W. CC 8 SOLIDS % 10 MUD RECORD: TIME 11:00, WEIGHT 11.00, CONC. 10, SOLIDS % 10		DRILLING PREPARATION - HOURLY NO. DRILLING ASSEMBLY BIT NO. 1 SIZE 1 1/2" x 1 1/2" WGT. 11.00 DEPTH IN 12.00 DEPTH OUT 12.00 TOTAL FTS 12.00 W. CC 8 SOLIDS % 10 MUD RECORD: TIME 11:00, WEIGHT 11.00, CONC. 10, SOLIDS % 10	
DRILLING PREPARATION - HOURLY NO. DRILLING ASSEMBLY BIT NO. 1 SIZE 1 1/2" x 1 1/2" WGT. 11.00 DEPTH IN 12.00 DEPTH OUT 12.00 TOTAL FTS 12.00 W. CC 8 SOLIDS % 10 MUD RECORD: TIME 11:00, WEIGHT 11.00, CONC. 10, SOLIDS % 10		DRILLING PREPARATION - HOURLY NO. DRILLING ASSEMBLY BIT NO. 1 SIZE 1 1/2" x 1 1/2" WGT. 11.00 DEPTH IN 12.00 DEPTH OUT 12.00 TOTAL FTS 12.00 W. CC 8 SOLIDS % 10 MUD RECORD: TIME 11:00, WEIGHT 11.00, CONC. 10, SOLIDS % 10	

FOOTAGE FROM 10 TO 12 CORR. NO. 1 CORR. C. 1 FORMATION: [Blank] DEPTH 12.00 DIR. 12.00 DIRECTION: [Blank]		FOOTAGE FROM 10 TO 12 CORR. NO. 1 CORR. C. 1 FORMATION: [Blank] DEPTH 12.00 DIR. 12.00 DIRECTION: [Blank]	
FOOTAGE FROM 10 TO 12 CORR. NO. 1 CORR. C. 1 FORMATION: [Blank] DEPTH 12.00 DIR. 12.00 DIRECTION: [Blank]		FOOTAGE FROM 10 TO 12 CORR. NO. 1 CORR. C. 1 FORMATION: [Blank] DEPTH 12.00 DIR. 12.00 DIRECTION: [Blank]	
FOOTAGE FROM 10 TO 12 CORR. NO. 1 CORR. C. 1 FORMATION: [Blank] DEPTH 12.00 DIR. 12.00 DIRECTION: [Blank]		FOOTAGE FROM 10 TO 12 CORR. NO. 1 CORR. C. 1 FORMATION: [Blank] DEPTH 12.00 DIR. 12.00 DIRECTION: [Blank]	

DATE	9-30-91
AM WELL NUMBER	
WELL NO.	# 2
NAME	machina 8 Fed

[illegible][illegible][illegible][illegible]

NO. DRILLING ASSEMBLY H. (in ft.)				BIT RECORD				MUD RECORD			
BIT	FT	BIT NO.	SIZE					TIME			
SHA	00							WEIGHT			
O.B.	00	FT	W/D					PRESSURE			
SHA	00	FT	TYPE					CONCRETE			
O.B.	00	FT	UEB 131"					WBC-BAC			
O.B.	00	FT	UEB NO.					PVC/P			
SHA	00	FT	DEPTH OUT					UEB			
			DEPTH IN					WL CCS			
			TOTAL FIG.					PH			
			TOTAL HRS					SOLIDS %			
SLASH DP	FT	COND. W/S						MUD & CHEMICALS ADDED			
SLASH DP	FT	FLUID LOSS						TYPE	AMT.	TYPE	AMT.
SLASH DP	FT	DEPTH ADJ.									
SLASH DP	FT										
TOTAL	FT										
WT OF STRING				LBS. PER FT.							

[illegible]

DRILLING ASSEMBLY			BIT RECORD			MUD RECORD		
At end of Run								
NO.	BIT	FT	BIT NO.	SIZE	WGT	TIME		
	BLK	00		FT		WEIGHT		
	D.C.	00		W.G.		WINDING		
	00	00		TYPE		PROBING		
	BLK	00		FT	125' 132"	DOWN		
	D.C.	00		FT	BER NO.			
	BLK	00		FT	DEPTH OUT			
	D.C.	00		FT	DEPTH IN			
					TOTAL TO			
					TOTAL W.G.			
					MIN			
	STANDING DP	FT						
	BRICKLES DP	FT						
	KELLY DOWN	FT						
	TOTAL	FT						
	WT OF RETURN	WT						

FOOTAGE		ON D		FORMATION		NOTARY		WIT ON		PUMP NO.		PUMP NO.		PUMP NO.	
FROM	TO	ON D	ON D	FORMATION	NOTARY	WIT ON	PUMP	PUMP	PUMP	PUMP	PUMP	PUMP	PUMP	PUMP	PUMP
		ON D	ON D												
380	645	1	1	ON D	ON D	ON D	ON D	ON D	ON D	ON D	ON D	ON D	ON D	ON D	ON D
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DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS															
WAIT ON TOOLS															
PICK UP STRING REEMER TILL - FULL HIGH.															
MAYFLOW DOWN TO JOINT THEN TIGHT SPOT.															
11.5.51															

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DAILY DRILLING REPORT

WELL NO. 2 DATE 10-3-91

CONTRACTOR CONTRACT NO. 10-3-91

TOOL JOINT NO. 1114 X H STANDING NO. 1114 X H

WELL NO. 2 DATE 10-3-91

CONTRACTOR CONTRACT NO. 10-3-91

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WELL NO. 2 DATE 10-3-91

WELL NO.	DATE	CONTRACTOR	CONTRACT NO.	TOOL JOINT NO.	STANDING NO.
2	10-3-91	10-3-91	10-3-91	1114	X H

WELL NO.	DATE	CONTRACTOR	CONTRACT NO.	TOOL JOINT NO.	STANDING NO.
2	10-3-91	10-3-91	10-3-91	1114	X H

WELL NO.	DATE	CONTRACTOR	CONTRACT NO.	TOOL JOINT NO.	STANDING NO.
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WELL NO.	DATE	CONTRACTOR	CONTRACT NO.	TOOL JOINT NO.	STANDING NO.
2	10-3-91	10-3-91	10-3-91	1114	X H

DAILY DRILLING REPORT

DATE		WELL NO.		AP WELL NUMBER		CONTRACTOR		SIGNATURE OF CONTRACTOR'S TOOL PUSHER		DATE	
1964		8-10-64		2		ACTOS DRILLING CO.		R. E. F. F. F.		10-4-91	
OPERATOR		DRILLING OPERATOR'S REPRESENTATIVE		CONTRACTOR		SIGNATURE OF CONTRACTOR'S TOOL PUSHER		DATE		RIG NO.	
J. E. F. F. F.		J. E. F. F. F.		J. E. F. F. F.		J. E. F. F. F.		J. E. F. F. F.		J. E. F. F. F.	
DR. NO.		DR. NO.		DR. NO.		DR. NO.		DR. NO.		DR. NO.	
1		1		1		1		1		1	
2		2		2		2		2		2	
3		3		3		3		3		3	
4		4		4		4		4		4	
5		5		5		5		5		5	
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50		50		50		50		50		50	

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DAILY DRILLING REPORT

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FIELD ON DAY:		COUNTY	STATE	WIRE LINE RECORD		REF. NO.																																																										
LAST CASING ON LINE	SIZE	MAKE	WT & DR	NO JOINTS	FEET	MS TO CSD NO																																																										
6 7/8	5710	24	85	76	15	300																																																										
				TODAY ON THIS SUNDAY CUT COMPARISON FOR DR ON THIS		PRESENT LENGTH																																																										
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DATE	TIME	NO. OF	NO. OF	NO. OF	NO. OF
10/10/03	12:00	10	10	10	10
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UNITED STATES AIR FORCE									
REPORT OF OPERATIONS - MESSAGE									
DATE	TIME	GRADE	TO	FROM	THRU	STATION	IN	THRU	STATION
1964	16.0	1st Lt	1st Lt	1st Lt	1st Lt	1st Lt	1st Lt	1st Lt	1st Lt
1. MESSAGE NO. 1 2. MESSAGE NO. 2 3. MESSAGE NO. 3 4. MESSAGE NO. 4 5. MESSAGE NO. 5 6. MESSAGE NO. 6 7. MESSAGE NO. 7 8. MESSAGE NO. 8 9. MESSAGE NO. 9 10. MESSAGE NO. 10 11. MESSAGE NO. 11 12. MESSAGE NO. 12 13. MESSAGE NO. 13 14. MESSAGE NO. 14 15. MESSAGE NO. 15 16. MESSAGE NO. 16 17. MESSAGE NO. 17 18. MESSAGE NO. 18 19. MESSAGE NO. 19 20. MESSAGE NO. 20 21. MESSAGE NO. 21 22. MESSAGE NO. 22 23. MESSAGE NO. 23 24. MESSAGE NO. 24 25. MESSAGE NO. 25 26. MESSAGE NO. 26 27. MESSAGE NO. 27 28. MESSAGE NO. 28 29. MESSAGE NO. 29 30. MESSAGE NO. 30 31. MESSAGE NO. 31 32. MESSAGE NO. 32 33. MESSAGE NO. 33 34. MESSAGE NO. 34 35. MESSAGE NO. 35 36. MESSAGE NO. 36 37. MESSAGE NO. 37 38. MESSAGE NO. 38 39. MESSAGE NO. 39 40. MESSAGE NO. 40 41. MESSAGE NO. 41 42. MESSAGE NO. 42 43. MESSAGE NO. 43 44. MESSAGE NO. 44 45. MESSAGE NO. 45 46. MESSAGE NO. 46 47. MESSAGE NO. 47 48. MESSAGE NO. 48 49. MESSAGE NO. 49 50. MESSAGE NO. 50 51. MESSAGE NO. 51 52. MESSAGE NO. 52 53. MESSAGE NO. 53 54. MESSAGE NO. 54 55. MESSAGE NO. 55 56. MESSAGE NO. 56 57. MESSAGE NO. 57 58. MESSAGE NO. 58 59. MESSAGE NO. 59 60. MESSAGE NO. 60 61. MESSAGE NO. 61 62. MESSAGE NO. 62 63. MESSAGE NO. 63 64. MESSAGE NO. 64 65. MESSAGE NO. 65 66. MESSAGE NO. 66 67. MESSAGE NO. 67 68. MESSAGE NO. 68 69. MESSAGE NO. 69 70. MESSAGE NO. 70 71. MESSAGE NO. 71 72. MESSAGE NO. 72 73. MESSAGE NO. 73 74. MESSAGE NO. 74 75. MESSAGE NO. 75 76. MESSAGE NO. 76 77. MESSAGE NO. 77 78. MESSAGE NO. 78 79. MESSAGE NO. 79 80. MESSAGE NO. 80 81. MESSAGE NO. 81 82. MESSAGE NO. 82 83. MESSAGE NO. 83 84. MESSAGE NO. 84 85. MESSAGE NO. 85 86. MESSAGE NO. 86 87. MESSAGE NO. 87 88. MESSAGE NO. 88 89. MESSAGE NO. 89 90. MESSAGE NO. 90 91. MESSAGE NO. 91 92. MESSAGE NO. 92 93. MESSAGE NO. 93 94. MESSAGE NO. 94 95. MESSAGE NO. 95 96. MESSAGE NO. 96 97. MESSAGE NO. 97 98. MESSAGE NO. 98 99. MESSAGE NO. 99 100. MESSAGE NO. 100									

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Chicago, who is both honest and widely respected.

NAME	CHURCHMAN, JAMES L.	DATE	12/1/54
ADDRESS	1000 1/2 N. 10TH ST.	TELEPHONE	2-1000

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WELL NO. 2 DATE 10-1-91
CONTRACTOR C. F. HENRY CO.
SIGNATURE OF CONTRACTOR'S TOOL PUSHER
PUMP NO. 1
TYPE GRADE

TABLE WITH 10 COLUMNS: NO., INCHES, FEET, PUMP NO., TYPE, GRADE, etc.

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NOVA MUD INC.

P.O. Box 979 Hobbs, NM 88240

Telephone 505-393-8786



DRILLING MUD REPORT NO. (15) WEDNESDAY

DATE 10-9-91 DEPTH 10019'

SPUD DATE 9-12 PRESENT ACTIVITY DRILG

OPERATOR Sante Fe Energy CONTRACTOR CACTUS RIG NO. 71

REPORT FOR DAZEL ROBERTS REPORT FOR GLEN HOGUE SECTION TOWNSHIP, RANGE 8, 18S, 32E

WELL NAME AND NO. KICANA 8 Fed Com #2 FIELD OR BLOCK NO. COUNTY, PARISH OR OFFSHORE AREA LEA STATE/PROVINCE NM

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	JET SIZE	SURFACE	HOLE	PITS	PUMP SIZE	INL	ANNUAL VEL (ft/min)	
7 7/8	ATJSS	12, 13, 12	13 3/4 in. 422 ft.	600	650	5 1/2 x 16/15		DP 179+	DC 325/378
DRILL PIPE SIZE	TYPE	LENGTH	INTERMEDIATE	TOTAL CIRCULATING VOLUME		PUMP MAKE, MODEL	ASSUMED EFF	CIRCULATION PRESSURE (psi)	
4 1/2	6.642"	9116'	8 5/8 in. 3080 ft.	1250		NATL K700A	90%	1600	
DRILL PIPE SIZE	TYPE	LENGTH	INTERMEDIATE	IN STORAGE	WEIGHT	bb/min	stk/min	BOTTOMS UP (min)	
						129 (121)	60	62+	
DRILL COLLAR SIZE	LENGTH	PRODUCTION OR LINER	MUD TYPE					TOTAL CIRC TIME (min)	
6 1/4 x 6 1/2	903'		Cut Brine / PAC				7.26 x 304	172+	

18H4		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
Sample From		☒ FL ☐ PIT	☐ FL ☐ PIT	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken	(11 ³⁰ AM) (1 ⁰⁰ PM)	12 ³⁰ AM	1 ⁴⁵ PM	8.8-9.1	30-32	15-28 cc
Flowline Temperature (°F)			89°	RECOMMENDED TREATMENT		
Depth (ft)		9990'	10019'	FOURIN (w/DRIL)		
Weight ☒ (ppg) ☐ (lb/cu ft) ☐ sp gr		8.8+	8.8+			
Funnel Viscosity (sec/100) API @ 1000EC		30	30	1. CAUSTIC THEN CHEM. BR. @ 90° F TO MAINT. 9.5-10 PH.		
Plastic Viscosity cp @ °F		2	2	2. FRESHWATER: ADD SMALL "FRESH" (U-2600) @ SHAKER W/DRIL		
Yield Point (lb/100 ft²)		1	2	3. FOR VOLUME ADD PRE-MIX 1/2 INO PIT (AS NEEDED)		
Gel Strength (lb/100 ft²) 10 sec/10 min		6.6	0.1			
Filtrate API (cm³/30 min) (1.8) (16.8)		17.2	16.2			
API HTHP Filtrate (cm³/30 min) @ °F				REMARKS		
Cake Thickness (32nd in. API HTHP)		Film	Film			
Solids Content (% by Vol) ☒ calculated ☐ retort			1.2	RECORD 1/2 INO PIT		
Liquid Content (% by Vol) Oil/Water			96.2	Hankal Crews, Full 34's Full Cut Brine 5%		
Sand Content (% by Vol)		TRACE	TRACE	Chris, Add: 7.5 x 5.5 x 1.5 in. 5.5		
Methylene Blue Capacity ☐ lb/bbl equiv ☐ gm/kg mud				2.5 x 5.5 x 1.5 (PAC) 30		
pH ☒ Strip ☐ Meter @ °F		9.5	10.0	Allow to sit 60-90 min		
Alkalinity Mud (P _m)			.72	Bleed INTO System AS NEEDED		
Alkalinity Filtrate (P _f /M _f)			.3168	WOB - 55K		
Chloride (mg/L)		40,000	40,000	RPM - 65		
Total Hardness as Calcium (mg/L)			320	DRIL - 22.75 @ 1.0 710.275 @ 1.5 DER - 1.0 9865		
2.5% Volume NALCO (10) -			2.6	SOLIDS EQUIPMENT RUN LAST 24 HOURS (Please Fill In)		
(2.5% Volume) (10) (1.8) -			11.0			
				-16 SHAKER #1 60 / 80 mesh CENTRIFUGE _____ hours		
				SHAKER #2 60 / 80 mesh DESANDER underflow / DESILTER underflow:		
				MUD CLEANER _____ mesh _____ DOG / DOG		

PRODUCT INVENTORY								BIT HYDRAULICS	
STARTING INVENTORY	28	33	14	23	22	3		AP	SV
RECEIVED		50				27		HHP	IF
USED LAST 24 hr	6	52	2	6	6	15		CRITICAL VELOCITY	
CLOSING INVENTORY	28	31	12	23	22	3	12	DP	DO
COST LAST 24 hr	62457			3186			50K	EQUIVALENT CIRC DENSITY	
								Csg. Shoe	TD

NOVA REPRESENTATIVE	PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
CHRIS VAN DOUREN	397-2849	393-8786	4377	8391

DIVISION OFFICE

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Telephone 505-393-8786

DATE	10-9-91	DEPTH	10154'
SPUD DATE	9-12	PARENT ACTIVITY	DKLG.

OPERATOR	SANTECH ENERGY	CONTRACTOR	CACTUS	RIG NO.	71
REPORT FOR	DUGAN DOUGLAS	REPORT FOR	Green House	SECTION, TOWNSHIP, RANGE	8, 18, 32E
WELL NAME AND NO.	KICUNA 8" FED. Com. #2	FIELD OR BLOCK NO.		COUNTY, PARISH OR OFFSHORE AREA	LEA
				STATE OR PROVINCE	NM

DRILLING ASSEMBLY			CASING	MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	JET SIZE	SURFACE	HOLE	PITS	PUMP SIZE	IN	ANNULAR VEL (ft/min)
7 7/8	AT-55	12, 13, 13	13 3/4 in. 422 ft	6 1/2	450	5 1/2 x 15		DP 1794 DC 325/1378
DRILL PIPE SIZE	X TYPE	LENGTH	INTERMEDIATE	TOTAL CIRCULATING VOLUME		PUMP MAKE, MODEL	ASSUMED EFF %	CIRCULATION PRESSURE (psi)
4 1/2	6 L 120	9251'	8 5/8 in. 3080 ft	1065		NAI L K 700A	90	1600
DRILL PIPE SIZE	TYPE	LENGTH	INTERMEDIATE	IN STORAGE	WEIGHT	bbwt/lb	gk/min	BOTTOMS UP (min)
			in. ft	200 - BBL	8.8	121	60	463
DRILL COLLAR SIZE		LENGTH	PRODUCTION OR LINER	MUD TYPE				TOTAL CIRC TIME (min)
6 1/4 x 6 1/2		903'	in. ft	CUI-BRME/PAC		7.26 - 3044		142

(BHA) MUD PROPERTIES MUD PROPERTIES DEFINITIONS

Sample From	☒ F.L. ☐ MT	☐ F.L. ☐ MT	WEIGHT	VISCOUS	FILTRATE
Time Sample Taken	10:30		8.9.1	32.31	15.9cc

Flowline Temperature (°F)	92°	RECOMMENDED GOURT TREATMENT
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Depth (ft)	10154	10154 (41016)
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Funnel Viscosity (sec/qt) API	°F	30	1) CAUSTIC: INH. CHE. RES. 90% T ₄₀₀ 70 MAMT. 9.5-10 PH
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Yield Point (lb/100 ft ²)	2. Fresh Nic. Ad. Small 5-250m 2.54x1.27 (1-1/4 x 1/2)
---------------------------------------	--

Gel Strength (lb/100 ft ²) 10 sec/10 min	611
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Filtrate API (cm ³ /30 min)	16.8	2). Pre-Aliv: Add Iron Sample (As Required) To Aliv
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API HTHP Filtrate (cm/30 min) ●	°F				REMARKS

Cake Thickness (32nd In API HTHP)	fidm	1.5	Volume.
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Liquid Content (% by Vol) Oil/Water	96.1	1
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Sand Content (% by Vol)	Trace	Handwritten	File # 104-32-105-2000
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Methylene Blue Capacity	☐ libbl equiv ☐ on/ft ³ mud				<i>Chin</i>	Add: 75% Soda Ash / 1 lb Plastic
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pH	☒ Strip	☐ Meter	°F	9.0			3/27/20
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Alkalinity Mud (P _m)	.50	KOP-15-22 60/100	Amount to be used 10.0 LBS SUM
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Alkalinity Filtrate (P _f /M _f)	21.44	1	NOB - 55K	Before Adding To Active System
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Chloride (mg/L)	3400	APR 65	OPEN 2 1/2 HOURS
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Total Hardness as Calcium (mg/L)	320		AP-6.15 C-2.0	72 P-6	774 - 8	Det N/A
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10. Dry Volume NACE (3414) -	2.6	11. Solids Equipment Run Last 24 Hours (Please Fill In)
11. Fuel Oil = (400)	11.8	

(H.C.) SLIMS (S.A.) (F.P.) -	11.0	216	SHAKER #1	63 / 05	mesh	CENTRIFUGE	_____	hours
			SHAKER #2	63 / 83		DECANDER underflow (COLLECTED underflow)		

			SHAKER #2	700	mesh	DESANDER UNDERFLOW / DESILLER UNDERFLOW
			MUD CLEANER		mesh	700 / 100

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COST LAST 24 hr	72 = 85		#295				EQUIVALENT CIRC DENSITY
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NOVA REPRESENTATIVE	PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
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Captain Van Doren 397-2849 393-8786 526- 8911

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Telephone 505-393-8786



DATE <u>10-10</u> 19 <u>91</u>		DEPTH <u>10,330'</u>
SPUD DATE <u>9-12</u>	PRESENT ACTIVITY <u>DRIL</u>	

OPERATOR SANTA FE ENERGY

CONTRACTOR *Cactus*

RIG NO. 27

REPORT FOR DUGAN DOUGLAS

REPORT FOR GLEN HOGUE

SECTION, TOWNSHIP, RANGE
8, 18, 32G

WELL NAME AND NO. KACHINA 8 FED. COM. #2

FIELD OR BLOCK NO.

COUNTY, PARISH OR OFFSHORE AREA STATE/PROVINCE

DRILLING ASSEMBLY (10747) CASING				MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE 7 7/8	TYPE AT-44C	JET SIZE 3 x 13	SURFACE 13 3/8 in. 422 ft.	HOLE 625	PITS 550	PUMP SIZE 5 1/2 x 15	IN. K	ANNUAL VEL (ft/min) DP 1824 DC 3271	
DRILL PIPE SIZE 4 1/2	TYPE 6 6725	LENGTH 9454	INTERMEDIATE 8 5/8 in. 5083 ft.	TOTAL CIRCULATING VOLUME 1175		PUMP MAKE, MODEL WATL K700A	ASSUMED EFF 90 %	CIRCULATION PRESSURE (psi) 1600	
DRILL PIPE SIZE	TYPE	LENGTH	INTERMEDIATE in. 0 ft.	IN STORAGE 200 BBLs	WEIGHT 8.8 lb	bbl/stk 121	stk/min 61	BOTTOMS UP (min) 647	
DRILL COLLAR SIZE 6 1/4		LENGTH 876	PRODUCTION OR LINER in. 0 ft.	MUD TYPE OUT BRINE/PAC		bbl/min 7.380 3104		TOTAL CIRC. TIME (min) 1584	

(3333)

MUD PROPERTIES

MUD PROPERTY SPECIFICATIONS

Sample From	☒ F.L. ☐ M.T. ☐ F.L. ☐ M.T.	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken	8:40 AM	9.8-9.1	30-32	15-18 cc
Flowline Temperature (°F)	89°	RECOMMENDED TREATMENT		
Depth (ft)	10330	100% (W/D 210)		
Weight ☒ (ppg) ☐ (lb/cu ft) ☐ sp gr	8.8+	1. CAUSTIC: 7.124 Chem. 3BL @ 40% = 2.8" to 4.5" - 10 PH		
Funnel Viscosity (sec/qt) API	30	2. F.L. WATER: Run Small Screen @ 50% (1 1/2 opm)		
Plastic Viscosity cp @ °F	2	3. For 15 min (As Needed) Add Mud / 1/2 qt.		
Yield Point (lb/100 ft²)	2	REMARKS		
Gel Strength (lb/100 ft²) 10 sec/10 min	0 1 1	Recirculate Mud		
Filtrate API (cm³/30 min)	15.6	Fine 40 mesh. 40% Reserve		
API HTHP Filtrate (cm³/30 min) @ °F	/	Add: 10 Sys. Soda Ash / 1 in. Chem.		
Cake Thickness (32nd in. API HTHP)	Film	3 Sys. Soda Ash @ 20% = 1.5" - 2.0" - 2.5" - 3.0" - 3.5" - 4.0" - 4.5" - 5.0" - 5.5" - 6.0" - 6.5" - 7.0" - 7.5" - 8.0" - 8.5" - 9.0" - 9.5" - 10.0"		
Solids Content (% by Vol) ☒ calculated ☐ retort	1.3	Allow to settle good 1/2 least 30 min.		
Liquid Content (% by Vol) Oil/Water	96.2	Before adding active system		
Sand Content (% by Vol)	Trace	Over 2 1/2" - 3" - 4" - 5" - 6" - 7" - 8" - 9" - 10"		
Methylene Blue Capacity ☐ lb/bbl equiv ☐ cm³/cm³ mud	/	RSP - 15-18 ft/hr		
pH ☒ Strip ☐ Meter @ °F	8.5	NAB - 50K		
Alkalinity Mud (P _m)	.20	2.1m = 65		
Alkalinity Filtrate (P _f /M _f)	1 1.32	3.1m = 10.75 @ 1.5 17.25 @ 8.75 @ 1.5 3.1m = 1.5		
Chloride (mg/L)	38,000	SOLIDS EQUIPMENT RUN LAST 24 HOURS (Please Fill In)		
Total Hardness as Calcium (mg/L)	620	SHAKER #1 60 1.80 mesh CENTRIFUGE _____ hours		
2. By Volume (Add Water)	2.5	SHAKER #2 60 1.80 mesh DESANDER underflow / DESILTER underflow		
Chloride Solids (Calc. @ 8.8)	11.8	MUD CLEANER _____ mesh 7 ppg / 1.5 ppg		

PRODUCT INVENTORY	WHEEL S.A.H. PLASTIC C.F. FINE M.M.C. H.W.C. J.B.D.S. T.M.C.								BIT HYDRAULICS	
	STARTING INVENTORY	68	25	11	23	22	3	10		
RECEIVED										HHP. _____ IF. _____
USED LAST 24 hr	6	15	6	6	6	7	8			CRITICAL VELOCITY
CLOSING INVENTORY	28	10	11	23	22	3	2			DP _____ DG _____
COST LAST 24 hr	180⁻						1699³⁰			EQUIVALENT CIRC DENSITY
										Cog. Shoe _____ TD _____

NOVA REPRESENTATIVE W. VAN DOOREN	PHONE 347-2849	WAREHOUSE PHONE 343-8786	DAILY COST \$1879=	CUMULATIVE COST \$10796=
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Telephone 505-393-8786



DRILLING MUD REPORT NO. 29 Sunday

DATE 10-13-91 DEPTH 71216

SPUD DATE	9-12	PRESENT ACTIVITY	DRIG.
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RIG NO. 27

SECTION, TOWNSHIP, RANGE
8 145 731

STATE/PROVINCE

DRILLING ASSEMBLY			CASING	MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	JET SIZE	SURFACE	HOLE	PITS	PUMP SIZE	IN.	ANNULAR VEL (ft/min)
7 1/8"	ATJ49C	3 x 13	13 3/8" in. @ 422 ft	680	600	5 1/2"	15	DP 179+ DC 225+
DRILL PIPE SIZE	TYPE	LENGTH	INTERMEDIATE	TOTAL CIRCULATING VOLUME		PUMP MAKE, MODEL	ASSUMED EFF.	CIRCULATION PRESSURE (psi)
6 1/2"	LC 720	10340'	8 5/8" in. @ 3280 ft	1280 ±		NATEL F 7002	90 %	1600
DRILL PIPE SIZE	TYPE	LENGTH	INTERMEDIATE	IN STORAGE	WEIGHT	bbl/stk	stk/min	BOTTOMS UP (min)
—	—	—	— in. @ — ft	6	—	121	60	20+
DRILL COLLAR SIZE		LENGTH	PRODUCTION OR LINER	MUD TYPE		bbl/min	gal/min	TOTAL CIRC TIME (min)
6 1/4"		876'	— in. @ — ft	Cut 32me/PAC		7.26 @ 30 ft	—	126 ±

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
Sample From	☒ F.L. ☐ PIT	☐ F.L. ☐ PIT	WEIGHT	VISCOSITY	FILTRATE	
Time Sample Taken	8:45 AM		8.8-9.0	30-32	15-18 cc	
Flowline Temperature (°F)	43°		RECOMMENDED TREATMENT			
Depth (ft)	11,216'		TOUR 1 (1000)			
Weight ☒ (ppg) ☐ (lb/cu ft) ☐ sp gr	8.9		1. Cause: Thick Chem. BBL @ 60' to 80' in 10° PH			
Funnel Viscosity (sec/qt) API @ °F	30		2. Fr WATER: Emulsion (1-2 gal) @ 50' in 10° PH			
Plastic Viscosity cp @ °F	2		3. Pre-Mix: Begin adding a small amount of LAM to the mud			
Yield Point (lb/100 ft²)	2		Add approx. 1' (one foot) to system over 2-3 hours			
Gel Strength (lb/100 ft²) 10 sec/10 min	0.11	1	REMARKS			
Filtrate API (cm³/30 min)	17.2		Recipe: 1/2 lb of 100 mesh per 100 gal of mud			
API HTHP Filtrate (cm³/30 min) @ °F			Add: 1/2 lb (100 mesh) per 100 gal of mud			
Cake Thickness (32nd in. API/HTHP)	1/4 in	1	4 lbs of 100 mesh per 100 gal of mud			
Solids Content (% by Vol) ☒ calculated ☐ retort	1.9		Allow to sit (concentrate)			
Liquid Content (% by Vol) Of (Water)	95.7	1	R-17-14-1/2			
Sand Content (% by Vol)	7.4000		W.R. - 55K			
Methylene Blue Capacity ☐ (lb/bbl equiv) ☐ (cm³/lbm mud)			R-17-65			
pH ☒ Strip ☐ Meter @ °F	8.5		3-16-17-75 (4 CED) SH P.T. Over HMC Fluids (P. 1000)			
Alkalinity Mud (P _m)	.24		SOLIDS EQUIPMENT RUN LAST 24 HOURS (Please Fill In)			
Alkalinity Filtrate (P _f /M _f)	.101.30	1	SHAKER #1 80/100 mesh CENTRIFUGE _____ hours			
Chloride (mg/L)	36,000		SHAKER #2 80/100 mesh DESANDER underflow / DESILTER underflow			
Total Hardness as Calcium (mg/L)	400		MUD-CLEANER 7.100 mesh _____ DOG / _____ DOG			
2.3. 1/2 lb of 100 mesh per 100 gal of mud	2.4					
1/2 lb of 100 mesh per 100 gal of mud	17.3					

PRODUCT INVENTORY	1-662 1-664 1-666 1-668 1-670 1-672 1-674 1-676 1-678 1-680												BIT HYDRAULICS	
STARTING INVENTORY	28	30	18	23	22	3	4							ΔP. _____ IN _____
RECEIVED		10					7							HHP. _____ IN _____
USED LAST 24 hr	5	6	4	6	6	6	1							CRITICAL VELOCITY DP _____ DC _____
CLOSING INVENTORY	28	34	14	23	22	3	10							
COST LAST 24 hr		22 =	115 =				212 =							EQUIVALENT CIRC DENSITY Csg. _____ Shoe _____ TD _____

CUMULATIVE COST
\$13867

DIVISION OFFICE

NOTICE: ANY OPINION AND/OR RECOMMENDATION, EXPRESSED ORALLY OR WRITTEN HEREIN, HAS BEEN PREPARED CAREFULLY AND

P

DATE _____

10-14 91

DEPT.

17481

SPUD DATE

9-12

PRESENT ACTIVITY

1068

OPERATOR *SANTEFE ENERGY*

CONTRACTOR *Cactus*

RIG NO. 21

REPORT FOR DUGAN DOUGLAS

REPORT FOR *61-11-10*

SECTION, TOWNSHIP, RANGE
8, 18S, 32E

WELL NAME AND NO. KACHINA "8" Fed. Com "2"

FIELD OR BLOCK NO.

COUNTY, PARISH OR OFFSHORE AREA LEH

STATE/PROVINCE MM

DRILLING ASSEMBLY			CASING	MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	JET SIZE	SURFACE	HOLE	PITS	PUMP SIZE	X IN.	ANNULAR VEL (ft/min)
7 7/8	J44C	3 x 13	13 3/8 in. 422 ft	690	600	5 1/2	15	DP 179+ DC 325+
DRILL PIPE SIZE	TYPE	LENGTH	INTERMEDIATE	TOTAL CIRCULATING VOLUME		PUMP MAKE, MODEL	ASSUMED EFF	CIRCULATION PRESSURE (psi)
4 1/2	16.6720	10605'	8 1/2 in. 3080 ft	1290		NAT'L K700A	90 %	1600
DRILL PIPE SIZE	TYPE	LENGTH	INTERMEDIATE	IN STORAGE	WEIGHT	bbl/stk	stk/min	BOTTOMS UP (min)
—	—	—	in. ft	50' RB	8.8+ lb	121	60	72+
DRILL COLLAR SIZE		LENGTH	PRODUCTION OR LINER	MUD TYPE				TOTAL CIRC TIME (min)
6 1/4		876'	in. ft	PUT BE.NE/PAC		7.26° 304+		127±

		MUD PROPERTY SPECIFICATIONS	
		MUD PROPERTY SPECIFICATIONS	
Sample From	☒ F.L. ☐ PIT	☐ F.L. ☐ PIT	WEIGHT
Time Sample Taken	8:45 Am		88-90
Flowline Temperature (°F)	42°		VISCOSITY
Depth (ft)	11451'		30-32
Weight ☒ (ppg) ☐ (lb/100 ft) ☐ sp gr	8.84		FILTRATE
Funnel Viscosity (sec/10) API @ °F	30		15-18 cc
Plastic Viscosity cp @ °F	2		RECOMMENDED TREATMENT
Yield Point (lb/100 ft)	1		NONE
Gel Strength (lb/100 ft) 10 sec/10 min	0 11	1	
Filtrate API (cm ³ /30 min)	19.6		
API HTHP Filtrate (cm ³ /30 min) @ °F			REMARKS
Cake Thickness (32nd In. API HTHP)	Film	1	
Solids Content (% by Vol) ☒ Calculated ☐ retort	1.8		
Liquid Content (% by Vol) Oil/Water	951.9	1	
Sand Content (% by Vol)	7.1% E		
Methylene Blue Capacity ☐ lb/bbl equiv ☐ gm/lbm mud			
pH ☒ Strip ☐ Meter @ °F	8.5		
Alkalinity Mud (P _m)	.2		
Alkalinity Filtrate (P _f /M _f)	.11.25	1	
Chloride (mg/L)	35,000		
Total Hardness as Calcium (mg/L)	440		
7 By Volume NaOCl (Wt %)	2.3		
C.I.C. Solids Cont. (PPS)	16.4		
		SOLIDS EQUIPMENT RUN LAST 24 HOURS (Please Fill In)	
		SHAKER #1 80 1 -	mesh CENTRIFUGE _____ hours
		SHAKER #2 60 1 80	mesh DESANDER underflow / DESILTER underflow
		MUD CLEANER 700 -	mesh DOD T _____ DOD

PRODUCT INVENTORY	FW BEL S. ICH CAUSTIC CH. RES PI SOL LMG S. S. PLO										BIT HYDRAULICS					
STARTING INVENTORY	28	34	14	23	22	3	10							AP _____	AV _____	
RECEIVED														HHP _____	IP _____	
USED LAST 24 hr	6	9	6	6	6	6	2							CRITICAL VELOCITY		
CLOSING INVENTORY		25	8				8							DP _____	DC _____	
COST LAST 24 hr	121 = 1732							4242							EQUIVALENT CIRC DENSITY	
														Cap _____	TD _____	
														Shoe _____		

NOVA REPRESENTATIVE CHRIS VAN DOOREN	PHONE 397-2849	WAREHOUSE PHONE 393-8786	DAILY COST \$706.-	CUMULATIVE COST \$14573.-
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DIVISION OFFICE

NOTICE: ANY OPINION AND/OR RECOMMENDATION, EXPRESSED ORALLY OR WRITTEN HEREIN, HAS BEEN PREPARED CAREFULLY AND MAY BE USED IF THE USER SO ELECTS. HOWEVER, NO REPRESENTATION OR WARRANTY IS MADE BY OURSELVES OR OUR AGENTS AS TO ITS CORRECTNESS OR COMPLETENESS, AND NO LIABILITY IS ASSUMED FOR ANY DAMAGES RESULTING FROM THE USE OF SAME.

CONTROL

Audit Exception No. 7

2 7/8" Tubing

The joint account was charged for 11,462.4' of 2 7/8" N-80 tubing. Per the New Mexico Conservation Report C-104 dated 2/7/92, 11,027' was run in the hole. Allowing a .0059 thread make up loss, gross tubing in the hole is 11,092.4'. The joint account needs to be credited for 370' of unused tubing, at an average price of \$3.64/ft, totaling \$1,346.80.

Credit due the joint account \$1,346.80

Santa Fe Energy Resources, Inc.'s (SFER) response dated June 10, 1993

Auditors Claim: Overcharged for 2 7/8" tubing.

Credit requested \$1,346.80

A copy of the Morning Completion Report is attached showing a total of 357 joints were used, 1 joint remains on the well site and 12 joints were returned on MT 32112. This leaves 4 joints unaccounted for. The Morning Completion Report also notes that a average joint is 31.49', therefore we are granting a total of 125.96' @ \$3.64 per foot per your request.

$(4 \times 31.49) = 125.96'$

$(125.96 \times 3.64/\text{ft})$

Denied	\$888.31
Granted	\$458.49

Hanley Petroleum Inc.'s 6/17/93 Response:

The SFER 6/10/93 response does not appear to reconcile what was billed to what was run per the Morning Completion Report. Further, it does not reconcile what was used on the Morning Completion Report to what was reported to the State of New Mexico on the New Mexico Conservation Report C-104 dated 2/7/92 (copy attached).

SFER indicates in their 6/10/93 response that they ran and the joint account was properly charged for 357 joints of 2 7/8" @ 31.49' per joint, or 11,241.93 total feet of 2 7/8". This is 214.93' feet more than the 11,027' of 2 7/8" that they reported on their very own "CORRECTED" C-104. We maintain that since the C-104 is "CORRECTED", and is reported to the State of New Mexico, it should reflect the most accurate and correct information in SFER's files.

(continued on next page)

HANLEY 10
10513

Audit Exception No. 7 (Continued)

Page 2

SFER says in their 6/10/93 response that 12 joints were returned on MT 32112. Our 2 7/8" reconciliation also indicates that 12 joints (383') were returned on MT32112 (copy attached). However, our reconciliation also indicates that 313 joints (9898.4') were charged (Vantage Tubulars copy attached) to the joint account along with another 61 joints (1,947') on MT10978 (copy attached), for a total of 374 joints (11,845.4'). The 374 joints (11,845.4') charged to the joint account less the 12 joints (383') credited to the joint account leaves 362 joints (11,462.4') charged to the account. The C-104 report says only 11,027' was run.

Grossing up the 11,027' by a .0059 thread loss factor yields $(11,027' / (1 - .0059) = 11,092.4'$ actual feet run. Actual charged of 11,462.4' less 11,092.4' = 370' for which credit is due. 370' times \$3.64 per foot = \$1,346.80.

Using the exception amount of \$1,346.80, less 1 additional joint (31.64') of pipe on the surface at the location multiplied by \$3.64 per foot or \$115.17, yields a revised net exception of \$1,231.63. We request that the joint account receive credit for \$1,231.63.

RICLII
Private Office, Hobbs, NM 88210
RICLII
Rio Union Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

*CORRECTED

REQUEST FOR ALLOWABLE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

Operator Santa Fe Energy Operating Partners, L.P.	Well API No. 30-025-31371
Address 550 W. Texas, Suite 1330, Midland, Texas 79701	
Reason for Filing (Check proper box) ☒ Well Completion ☐ Change in Transporter of: ☐ Oil ☐ Dry Gas ☐ ☐ Change in Operator ☐ Casinghead Gas ☐ Condensate ☐	
Name of operator give name Address of previous operator	

DESCRIPTION OF WELL AND LEASE

Well Name Achacha 8 Federal	Well No. 2	Pool Name, including Formation Corbin Wolfcamp, South	Kind of Lease State, Federal or Fee	Lease No. NM-84731
Location Unit Layer E : 1830 Feet From The North Line and 660 Feet From The West Line Section 8 Township 18S Range 33E, NMPM, Lea County				

DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☒ or Condensate ☐ * Texaco Trading and Transportation	Address (Give address to which approved copy of this form is to be sent) P. O. Box 6196, Midland, Texas 79711
Name of Authorized Transporter of Casinghead Gas ☒ or Dry Gas ☐ Monoco, Inc.	Address (Give address to which approved copy of this form is to be sent) 10 Desta Drive, Suite 627, Midland, TX 79705
Well produces oil or liquids, or location of tanks.	Unit Sec. Twp. Rge. Is gas actually connected? When? E 8 18S 33E No Est. 2-7-92

If this production is commingled with that from any other lease or pool, give commingling order number:

VI. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well ☒	Gas Well	New Well ☒	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
Date Spudded 9-12-91	Date Compl. Ready to Prod. 1-9-92	Total Depth 11,480'		P.B.T.D. * 11,270'				
Deviation (DF, RKB, RT, GR, etc.) 3904' GR	Name of Producing Formation Wolfcamp	Top Oil/Gas Pay 11,315'		Tubing Depth 11,027'				
Perforations * 11,131'-11,194 (2 JSPF) 61 holes		Depth Casing Shoe 11,480'						
TUBING, CASING AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE	DEPTH SET		SACKS CEMENT				
17-1/2"	13-3/8"	422'		450 sx C1 C				
12-1/4"	8-5/8"	3080'		1300 sx BJ Lite + 200 sx C				
7"	5-1/2"	11,480'		1st: 860 sx H 2nd: 800				
	2-7/8"	11,027'		sx BJ Lite + 410 sx H				

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)			
Date First New Oil Run To Tank 1-9-92	Date of Test 1-30-92	Producing Method (Flow, pump, gas lift, etc.) Flowing	
Length of Test 24 hrs	Tubing Pressure FTP 330	Casing Pressure pkr	Choke Size 22/64"
Actual Prod. During Test	Oil - Bbls. 455	Water - Bbls. 0	Gas - MCF 392

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MNCF	Gravity of Condensate
Testing Method (pucl, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature
Terry McCullough, Sr. Production Clerk
Printed Name
Feb. 7, 1992
Date
915/687-3551
Telephone No.

OIL CONSERVATION DIVISION

Date Approved FEB 1 1992
By _____ Orig. Signed by Paul Kautz, Geologist
Title _____

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- 1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- 2) All sections of this form must be filled out for allowable on new and recompleted wells.
- 3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- 4) Separate Form C-104 must be filed for each pool in multiply completed wells.

HPI/SEER
 Santa Fe Haspin "8" Federal #2
 4/17 - 8/21/42

PREPARED BY	DATE
REVIEWED BY	WP NO.

		1 Actual per Tour reports	2 Actual per HPI Drilling Reports	3 Actual Billed	4 AFE \$52,000 Supp #39,100 11,500' @ 4.52/ft	5	
2 7/8" 6.5# N-80 EUE							1
9898.4' / 313pts				9898.4'	32899.01	VANTAGE TUBULARS 11-4-91	2
Journal Voucher MT's				1564'	4395.23		4
Journal voucher FmV adjustments					4444.82		5
11/9/91 report 355 joints 355 fts @ 31.624'/ft			① 11226.5'				6
Perishable due to New Mexico C-104			(199.5')				7
Exception & DISCOUNT NOT TAKEN					3197		8
			11027'	41462.4'	41771.02	3.64/ft	9
Note: Per New Mexico conservation report C-104, 11,027' of 2 7/8" was ultimately run in the well. The C-104 was dated 2/7/92.							
① - HPI report appeared to not give the final amount of 2 7/8" used. See note above regarding N Mexico C-104.							
Note 1: Make-up loss Make-up loss for 2 7/8" (2.5' x 3.5' length joints) pipe is .0059 Gross Hg in Well @ 11027' = 9941' 11092.4' 11462.4' - 11092.4' = 370' x avg cost of 3.64/ft = 1346.80							
Total footage per completion report							

Vantage Tubulars, Inc.



57199A INVOICE

SOLD TO
SANTA FE ENERGY
1616 S. Voss Rd., Suite 825
Houston, TX 77057-2698
Attn: Connie Redwine

SHIP TO
SAME
Kachina "8" Fed No. 2
Lea County, New Mexico

INVOICE NO. 11-1496-91	DATE 11-04-91	CUSTOMER'S ORDER NO. 110163	F.O.B. Destination Lea Co., NM	TERMS 2%-10 Net 30
ORDER NO. VT-2869	DATE SHIPPED 11-01-91	SHIPPED FROM Houston, TX Texas Steel Conversion	SHIPPED VIA Trucks-McClatchy	
QUANTITY	DESCRIPTION			
9898.4' (313 jts)	2-7/8" 6.50# N-80 EUE T&C R-2 MAVERICK ERW Q&T Plus 5% New Mexico State Sales Tax		\$3.23/ft	\$31,971.83
				1,598.59
				\$33,570.42
				32930.98
501-42	W#257-1 J91009		57.2% Discount	
TALLIES ATTACHED		RECEIVED ACCOUNTS PAYABLE NOV 7 1991 HOUSTON		
AMAAEQGA BA- 57199A				
SHF: 14				
COMPANY: 14		5/8 32,844.01 Overpaid \$31.97		
Less 2% cash discount amounting to \$639.44 if paid by 11-14-91.				

Journal Vouchers

HPI / SFER
Santa Fe Machine '8" Federal #2
8/17 - 8/21/92

PREPARED BY	DATE
REVIEWED BY	WP N

2 7/8'	6.5# N-80 EVE ERW R-2	2	3	4	5
Date	ID #	Description	Footage	Amount	
9111	RJV-AME10978	TA035V MT DTD 11/1/41 61 STS (8 Cans)	1947'	② \$547145	
9112	RJV-AME14036	FMV 10978 1947'		① 1006581	
9112	RJV-AME14036	FMV 10978 (1947')		① (547145)	
9202	RJV-AME32112	TA035V MT DTD 01/21/42 12 JOINTS (8 Cans)	(383')	② (107623)	
9203	RJV-AME43329	FMV 32112 (383')		① (122577)	
9203	RJV-AME43329	MT 32112 383'		① 107623	
Total Journal Vouchers			1564'	\$884004	
TOTAL FMV Adjustments			①	\$444482	
Total MT's			②	439522	
				\$884004	

Abstract

DOCUMENTATION

KACHINA 8 FED #2
TUBULAR RECONCILIATION
MAY 31, 1992

Exception # 7

MATERIAL -----	SOURCE -----	ACTUAL FEET BILLED -----	FOOTAGE PER NMCC REPORTS -----	THREAD LOSS -----	DIFFERENCE -----
13 3/8" 48# H-40	MT-AMI31607 (9/91)	<u>430.87'</u>	422'	3.08'	5.79'
8 5/8" 24# J&K-55	CENTRAL PIPE & SUPPLY	332.9'			
	MT-AMI31608 (10/91)	2879'			
	MT-AMI31609 (11/91)	<u>(124')</u>			
		3087.9'	3080'	21.61'	(13.71')
5 1/2" 17# N-80	BOVAIRD SUPPLY	2671.48'			
5 1/2" 17# N-80	VANTAGE TUBULARS	3498.00'			
5 1/2" 17# L-80	MT-AMI31609 (11/91)	(295')			
5 1/2" 17# K-55	MT-AMI10812 (10/91)	1252'			
	MT-AMI10812 (10/91)	364'			
	MT-AMI10812 (10/91)	121'			
	MT-AMI10813 (11/91)	164'			
	MT-AMI10813 (11/91)	245'			
	MT-AMI10813 (11/91)	573'			
5 1/2" 17# J-55	MT-AMI10812 (10/91)	122'			
5 1/2" 15.5# K-55	VANTAGE TUBULARS	<u>2819.2'</u>			
		11534.68'	11480'	83.80'	(29.12')
2 7/8" 6.5# N-80	VANTAGE TUBULARS	9898.4'			
	MT-AMI10978 (11/91)	1947'			
	MT-AMI32112 (2/92)	<u>(383')</u>			
		11462.4'	11027'	65.40'	370.00'

MAKE-UP LOSS MULTIPLICATION FACTORS

TUBING

SIZE OD INCHES	<u>EUE</u>		<u>NUE</u>		<u>BUTTRESS</u>	
	RANGE	RANGE	RANGE	RANGE	RANGE	RANGE
	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>
2.375	.0073	.0054	.0062	.0045	.0161	.0107
2.875	.0080	.0059	.0078	.0058	.0161	.0107
3.500	.0090	.0066	.0087	.0065	.0161	.0107
4.000	.0095	.0070	.0090	.0066	.0172	.0014
4.500	.0099	.0074	.0097	.0072	.0183	.0121

CASING

SIZE OD INCHES	<u>SHORT T&C</u>		<u>LONG T&C</u>		<u>BUTTRESS T&C</u>	
	RANGE	RANGE	RANGE	RANGE	RANGE	RANGE
	<u>2</u>	<u>3</u>	<u>2</u>	<u>3</u>	<u>2</u>	<u>3</u>
4.500	.0073	.0055	.0083	.0062	.0109	.0082
5.000	.0076	.0057	.0094	.0070	.0113	.0085
5.500	.0080	.0060	.0097	.0073	.0114	.0086
6.625	.0087	.0065	.0108	.0081	.0120	.0090
7.000	.0087	.0065	.0111	.0083	.0125	.0094
7.625	.0090	.0068	.0115	.0086	.0130	.0098
8.625	.0094	.0070	.0125	.0094	.0134	.0100
9.625	.0094	.0070	.0132	.0099	.0134	.0100
10.750	.0097	.0073	-----	-----	.0134	.0100
11.750	.0097	.0073	-----	-----	.0134	.0100
13.375	.0097	.0073	-----	-----	.0134	.0100
16.000	.0111	.0083	-----	-----	.0134	.0100
18.625	.0111	.0083	-----	-----	.0134	.0100
20.000	.0111	.0083	.0146	.0109	.0134	.0100

Surface Equ

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