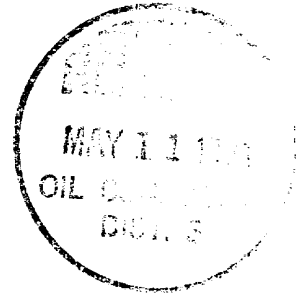




May 6, 1981

Mr. Frank Chavez  
District Engineer  
New Mexico Oil Conservation  
Commission  
1000 Rio Brazos Road  
Aztec, NM 87401



Dear Mr. Chavez:

The following information is that which is required for downhole commingling of the Chacra and Picture Cliffs Formation, under Rule 2, Paragraphs A-F, of NMOCE Order No. R-6564.

Paragraph A)

Cotton Petroleum Corporation  
717 17th Street, Suite 2200  
Denver, Colorado 80202

Paragraph B)

Apache #30  
1850' FSL & 1850' FEL, Section 3 T-24N-R4W  
Pools to be commingled; Chacra and Picture Cliffs

Paragraph C)

Copies of open hole logs, see Attachment No. 1

Paragraph D)

Wellbore sketches, see Attachment No. 2

Paragraph E)

Flow test and pressure, see Attachment No. 3

Paragraph F)

Formula for the allocation of production:  
This well has been dually completed in the Chacra and PC since October, 1980. The calculated allocation is based on average production from 1/1/81 to 3/31/81. The average Chacra production calculates 12 MCFD. The average PC production calculates 49 MCFD.

Picture Cliffs allocation =  $49/61 \times 100 = 80\%$   
Chacra allocation =  $12/61 \times 100 = 20\%$

Mr. Frank Chavez  
May 6, 1981  
Page 2

If any additional information is neccessary, please contact Mr. Dave Talbott of our office.

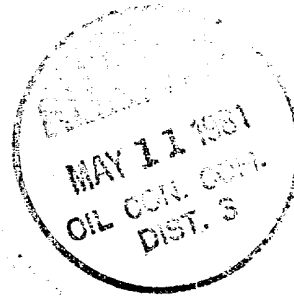
Sincerely,

COTTON PETROLEUM CORPORATION

*D. E. Wood*

D. E. Wood  
Division Production Manager

DMT/tg





COTTON  
PETROLEUM  
CORPORATION

COMPLETION  
SKETCH

WELL NAME: Apache #30 DFP: \_\_\_\_\_  
LOCATION: Section 3 T24N-R4W 1850' FSL & 1850' FEL  
FIELD: Wildcat COUNTY: Rio Arriba STATE: New Mexico  
PRDCG FM AND INTERVAL: 2976'-3043' Picture Cliffs  
3840'-3949' Chacra

KB \_\_\_\_\_  
GR 6819'

HOLE Ø  
12-1/4"

CASING					
O.D.	WT/FT	GRDE	CPLG	INTERVAL	N/U
8-5/8"	24#	K-55		308'	
4-1/2"	10.5#	K-55		4080'	

REMARKS:

PRIMARY CEMENT

250 sxs Class B w/3% CC - circ to surface 100 sxs  
65/35 poz Hallite - 12-1/4# gel, 6% gel, 600 sxs  
50/50 poz, 2% gel

PERFORATION

INTERVALS	DENSITY	DESCRIPTION
2976-85', 2988-92'	3840', 42', 44', 53', 55'	
2995-3008', 3020-23', 3039-43',	57', 69', 83', 86', 91',	
1 JSPF - Picture	96', 3908', 13', 16', 23',	
Cliffs	25', 28', 34', 43', 46',	
	49', Chacra	
REMARKS:		

STIMULATION HISTORY

INTERVAL	FRAC FLUID	SD VOL.	DATE
2976-3043'	26,400 g Foam	27,500#	8-3-80
3840-3946'	30,000 g	65,000#	5-3-80

ORIGINAL ROD STRING

CURRENT ROD STRING

No. RODS	SIZE	TYPE	No. RODS	SIZE	TYPE

TUBING TALLY

SIZE	DEPTH	WT/FT	GRDE	THD	CPLG
2-3/8"	3882'	EUE 8 md			
PACKER/ANCHOR: 3726'					

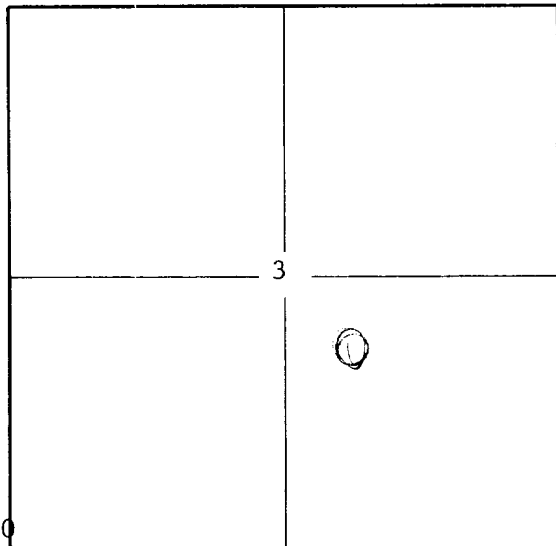
CEMENT TOP:  
1750'

TD  
TBG: \_\_\_\_\_

PB'D: 4044'

TD: 4080'

PERFORATED ZONE:

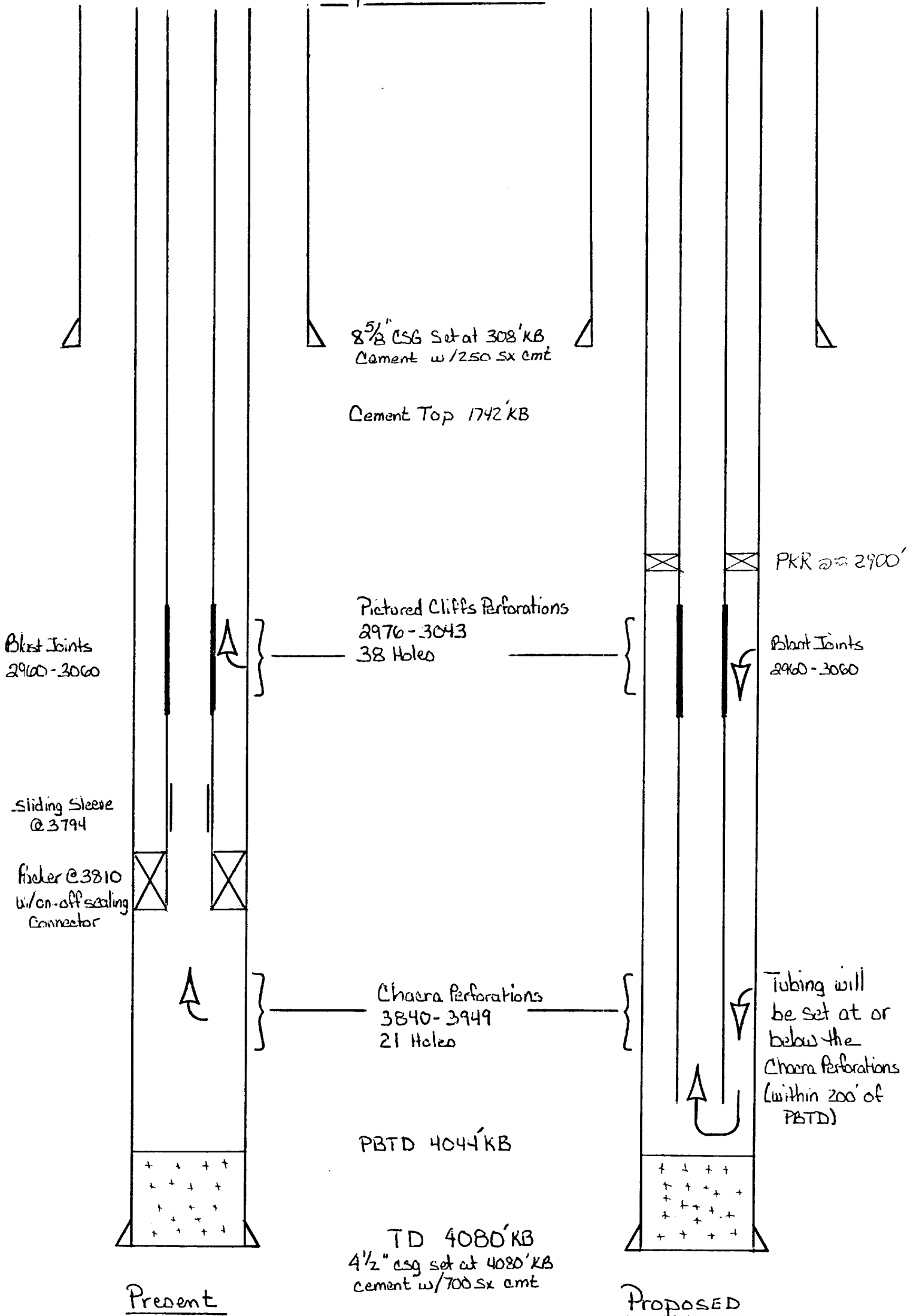


IP - PC 0 BO, 458 MCF, tr wtr, 24 hrs, FTP 25, FCP 0  
Chacra 0 BO, 60 MCF, tr wtr, 24 hrs, FTP 26, FCP 171

IP: \_\_\_\_\_

T 24N R 4W

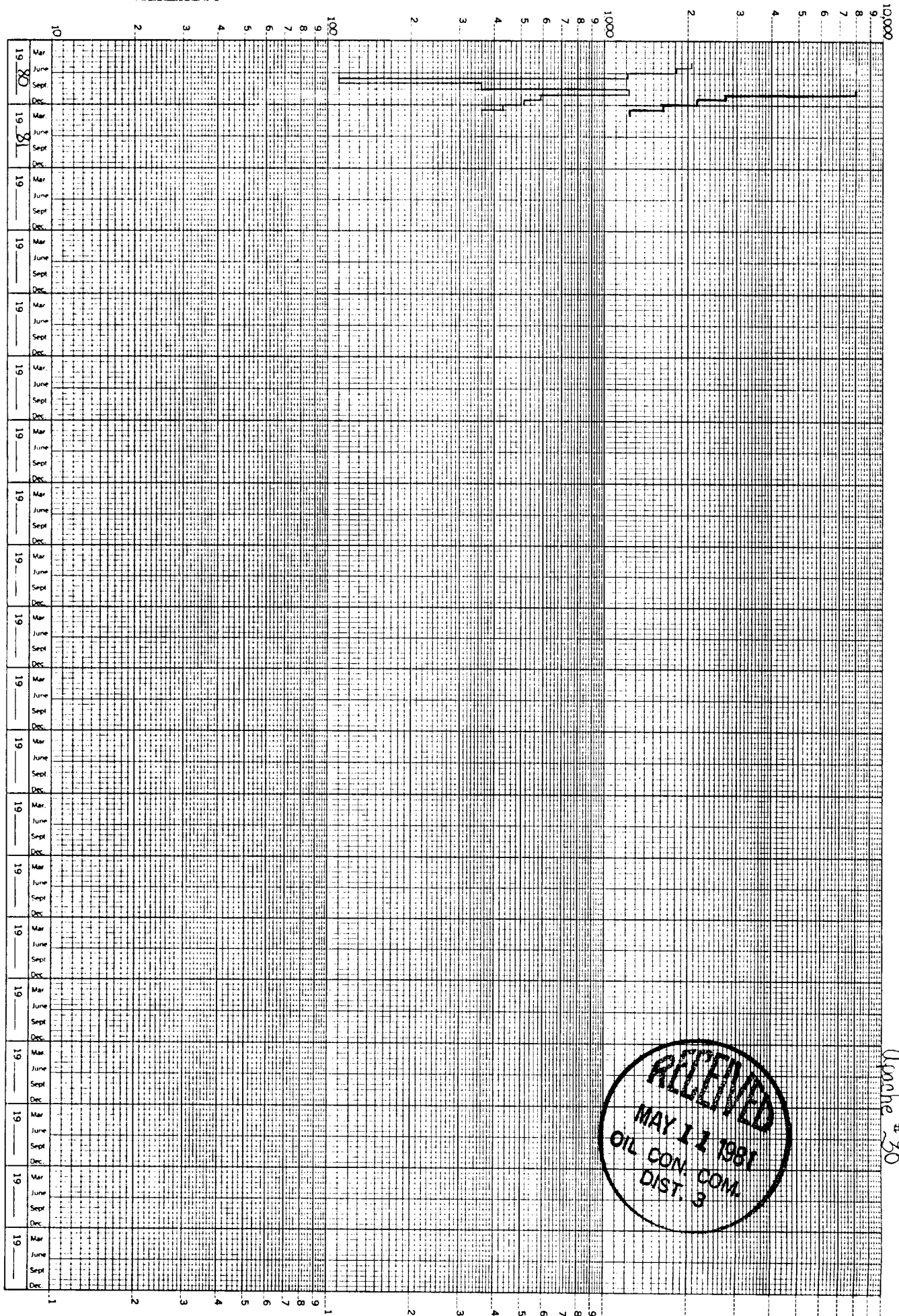
# Apache 30



Attachment No 2

Chacra

Pictured Climb



Drone # 30



**EFTELLER, INC.**

reservoir engineering data

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

P. O. Box 5247

Midland, Texas 79701

RECEIVED

June 12, 1980

JUN 16 1980

COTTON PETROLEUM CORP  
DENVER

Cotton Petroleum Corporation  
2200 Energy Center One  
717 17th Street  
Denver, Colorado 80202

WF

Subject: Build Up Measurement  
Apache No. 30  
~~Rio Arriba County, New Mexico~~  
Our File No. 2-10647-BU

Gentlemen:

Attached hereto are the results of a build up measurement which was made on the above captioned well May 8 thru May 15, 1980.

The data presented are in tabular and graphical form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

TEFTELLER, INC.

Neil Tefteller

NT/1w

Chacra Formation



*Serving the Permian Basin & Rocky Mountain Area*

Glacial formation

TEFTELLER, INC.  
RESERVOIR ENGINEERING DATA  
Midland, Texas

Well : APACHE NO. 30

Page 1 of 4

Field:

File 2-10647-BU

CHRONOLOGICAL PRESSURE AND PRODUCTION DATA

1980 Date	Status of Well	Time	Elapsed Time		Wellhead Pressure		BHP @
			Hrs.	Min.	Tbg	Csg	3850' Psig
5-8	Well flowing to pit					TSTM 100	
"	Tandem inst. @ 3850'	13:00					112
"	"	14:00					112
"	"	15:00					112
"	Shut-in for build up	15:00	0	00		100	
"	"	15:06	0	06			127
"	"	15:12	0	12			140
"	"	15:18	0	18			152
"	"	15:24	0	24			163
"	"	15:30	0	30			176
"	"	15:36	0	36			188
"	"	15:48	0	48			206
"	"	16:00	1	00			225
"	"	16:30	1	30			261
"	"	17:00	2	00			291
"	"	18:00	3	00			340
"	"	19:00	4	00			379
"	"	20:00	5	00			410
"	"	21:00	6	00			437
"	"	23:00	8	00			482
5-9	"	01:00	10	00			522
"	"	03:00	12	00			555
"	"	05:00	14	00			683
"	"	07:00	16	00			607
"	"	09:00	18	00			625
"	"	11:00	20	00			643
"	"	13:00	22	00			664
"	"	15:00	24	00			683
"	"	19:00	28	00			713
"	"	23:00	32	00			737
5-10	"	03:00	36	00			759
"	"	07:00	40	00			780
"	"	11:00	44	00			798
"	"	15:00	48	00			813
"	"	19:00	52	00			828
"	"	23:00	56	00			843



TEFTELLER, INC.  
RESERVOIR ENGINEERING DATA  
Midland, Texas

Well : APACHE NO. 30

Page 2 of 4

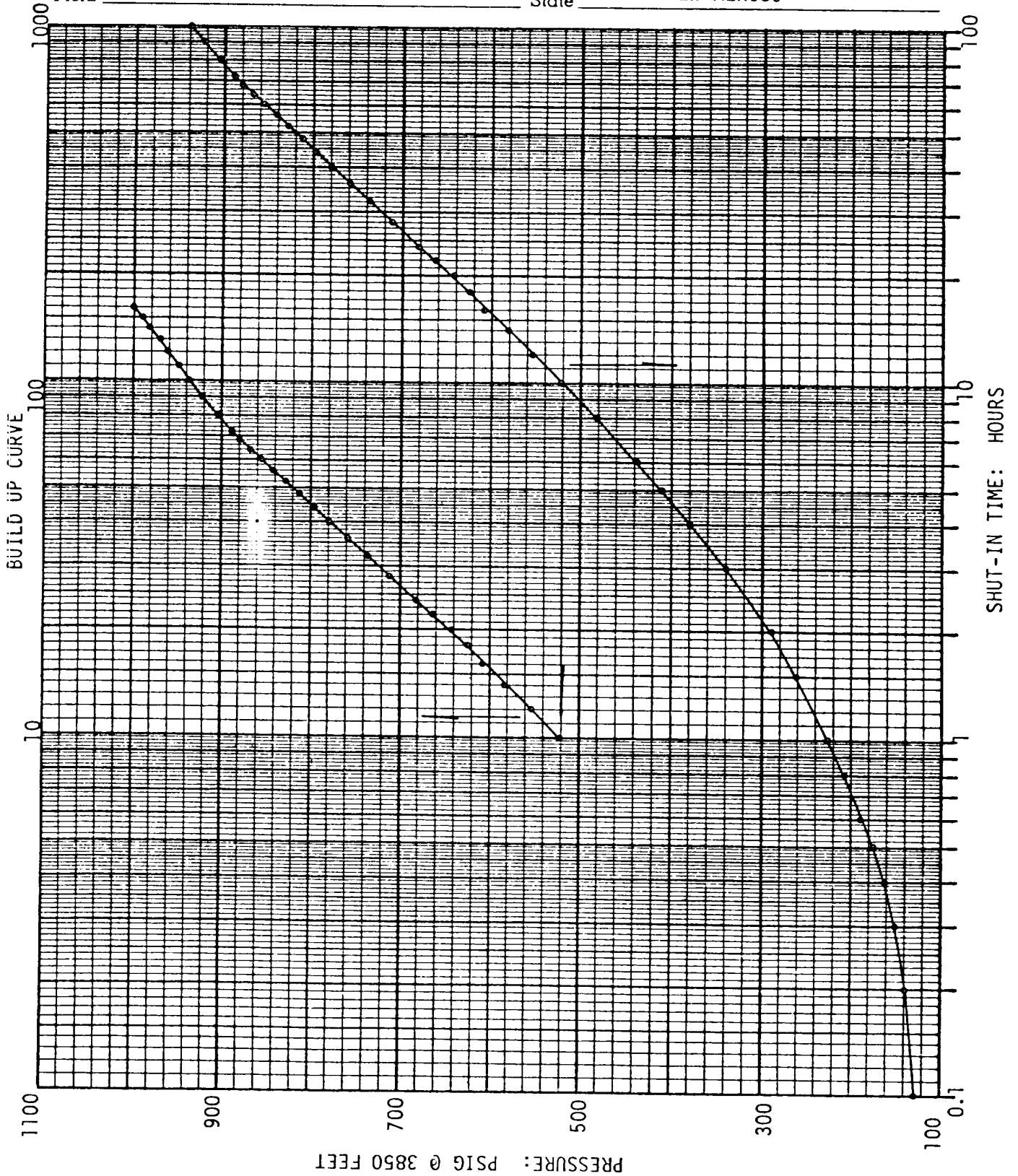
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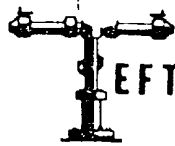
File 2-10647-BU

CHRONOLOGICAL PRESSURE AND PRODUCTION DATA

1980 Date	Status of Well	Time	Elapsed Time Hrs. Min.	Wellhead Pressure Tbq Csg	BHP @ 3850' Psig
5-11	Continued shut-in	03:00	60 00		856
"	"	07:00	64 00		868
"	"	11:00	68 00		880
"	"	15:00	72 00		889
"	"	23:00	80 00		904
5-12	"	09:00	90 00		922
"	"	19:00	100 00		938
5-13	"	05:00	110 00		950
"	"	15:00	120 00		962
5-14	"	01:00	130 00		972
"	"	11:00	140 00		983
"	"	21:00	150 00		992
5-15	"	07:00	160 00		1001
"	Gradient Traverse	09:00	162 00	886 889	1001

Company COTTON PETROLEUM CORPORATION Formation CHACRA  
 Well APACHE NO. 30 County RIO ARRIBA  
 Field \_\_\_\_\_ State NEW MEXICO





**TELLER, INC.**

reservoir engineering data

MIDLAND, TEXAS

Page 4 of 4

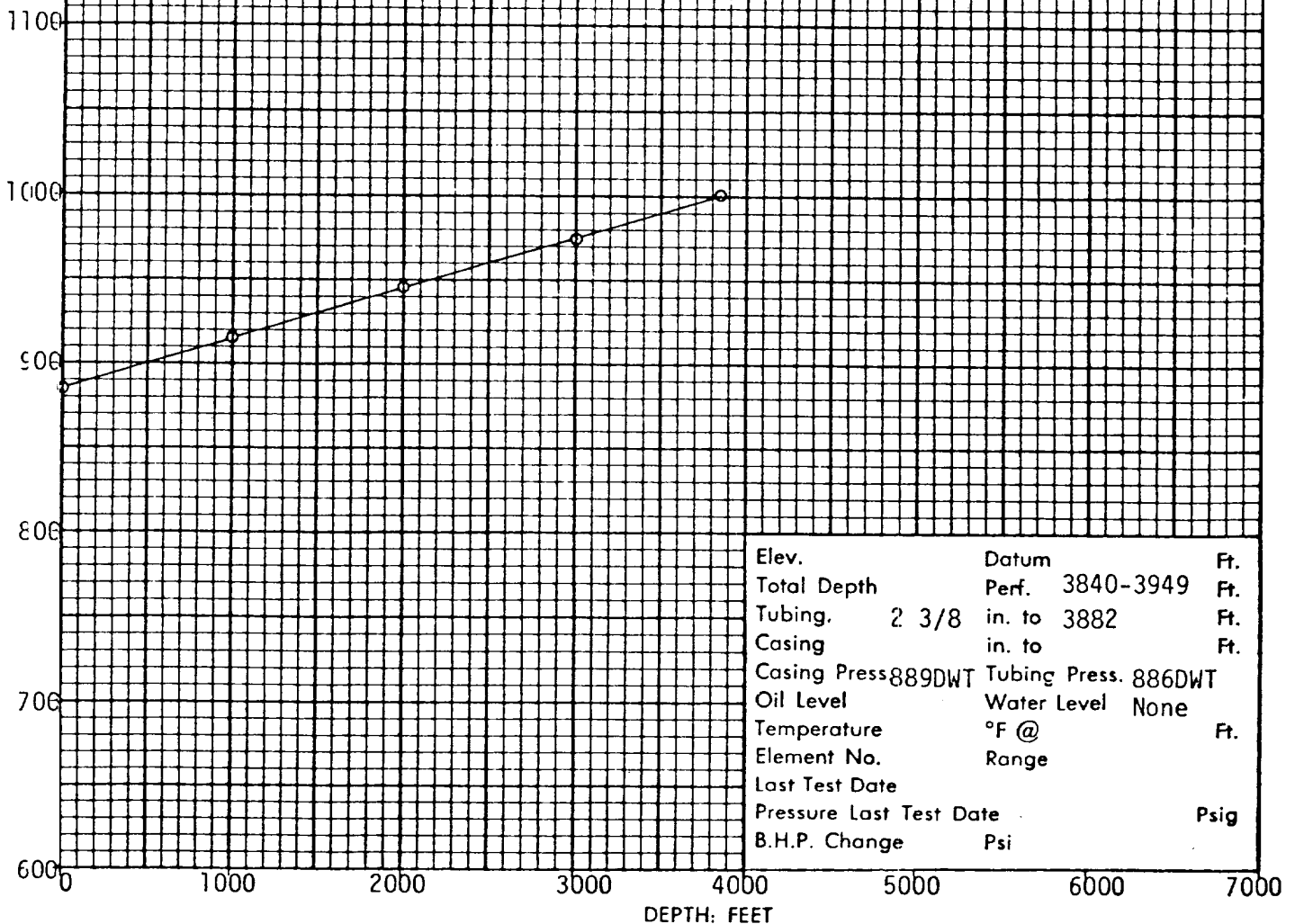
File 2-10647-BU

Company COTTON PETROLEUM CORPORATION Lease APACHE Well No. 30  
Field \_\_\_\_\_ County RIO ARRIAB State NEW MEXICO  
Formation CHACRA Test Date MAY 15, 1980

Status of Well Shut-in 162 hours

DEPTH Feet	PRESSURE Psig	GRADIENT Psi/Ft.
0	886	
1000	916	0.030
2000	947	0.031
3000	974	0.027
3850	1001	0.027

Datum Pressure \_\_\_\_\_ Psig



Elev.	Datum	Ft.
Total Depth	Perf. 3840-3949	Ft.
Tubing, 2 3/8	in. to 3882	Ft.
Casing	in. to	Ft.
Casing Press 889DWT	Tubing Press. 886DWT	
Oil Level	Water Level None	
Temperature	°F @	Ft.
Element No.	Range	
Last Test Date		
Pressure Last Test Date		Psig
B.H.P. Change	Psi	

Apache #30

Lindrith Pictured Cliff-Chacra Field  
Rio Arriba County, New MexicoRECOMPLETION HISTORY

- 8-1-80 MI & RU Flint #1437. Moved 2 jts tubing from Apache #29 measuring 62.69'. SICP 425, SITP 260. Bled well down. Nipple down tree and nipple up BOP. Strap out of hole with 123 jts 2 3/8" tubing measuring 3867.34' and seating nipple 1.0'. On location 125 jts measuring 3930.03'. SI well for night.
- 8-2-80 SICP 450 psi. Rig up Jetronics and set Baker Model 43-A retrieva- "D" packer with expendable plug in place at 3810' KB. Dumped 5 gal sand on packer. (23½' above top Chacra perf) Pressured to 3900 psi, zero bleed off, 5 minutes. Ran gamma-ray correlation log from 3150 to 2850. Perforated Pictured Cliffs 1 JSPF 2976-85, 2988-92, 2995-3008, 3020-23, 3039-43 for total of 38 holes. Rig up Western and acidized with 3800 gallons Spearhead acid and 72 balls. BPD 1700 psi, at 10 bpm. Balled off with 20 BA left in casing at 4000 psi. Bled pressure to 500 psi, ran junk basket and recovered 39 balls with 20 hits in 2 runs. Total LW 120 bbls. Rig up Nowsco and foam fracked with 26,400 gallons 70 quality foam and 27,500# 20/40 sand as per prognosis. AIR 25 bpm. Max trt pressure 1800 psi, Min trt pressure 1600 psi, Avg trt pressure 1700 psi. ISIP 1500 psi, 5 min SIP 1450 psi, 10 min & 15 min SIP 1400 psi. Open well to pit through 3/4" choke for ½ hr. Closed in and broke out fittings. Replaced all fittings due to sand cut. Flared gas after flowing 2½ hrs. Left well with night watchman. Flared gas continuously all night.
- 8-3-80 On arrival flaring gas at FCP 30 psi, rate 519 MCFPD, only drops of water out flowline. SI well for 1 hr at 10 a.m., 1 hr SICP 400 psi. Open well thru 3/4", no liquid unloaded. Left well flowing at 30 psi, 519 MCFPD with occasional show of condensate.
- 8-4-80 On arrival flaring gas at FCP 25 psi, 458 MCFPD. Dry. Removed choke, bled well down and ran 119 jts tubing and string float all measuring 3744.95' and tagged sand at 3748' KB (62' of fill). Cleaned out with nitrogen to packer at 3810 with 121 jts all measuring 3807.58'. Blew hole 45 minutes. Waited 10 minutes and had 2' of fill. POOH laying down 29 jts tubing. RIH with tubing as follows:
- |    |     |                  |             |
|----|-----|------------------|-------------|
| 1  | jt  | 2 3/8"           | 31.70'      |
|    |     | SN               | 1.00'       |
| 93 | jts | 2 3/8"           | 2927.38'    |
|    |     | 2 3/8" sub       | 4.00'       |
| 94 | jts |                  | 2964.08'    |
|    |     | landed below KB  | 6.00'       |
|    |     | tubing landed at | 2970.08' KB |
- Set tubing in rented spider and slips. Installed master valve and SI well. B&R will blow well down and run bomb in the a.m. for BHP buildup. Left on location 31 jts measuring 970.95'. Too windy to rig down.



12-3-80 Dual completed  
CH flowed 58 MCF, 0 BW, FTP 145, 25/64 ch.  
PC flowed 183 MCF, 0 BW, FCP 150, 32/64 ch.

12-4-80 Dual completed  
CH FL 50 MCF, 0 BW, FTP 145, 26/64 ch.  
PC FL 178 MCF, 0 BW, FCP 150, 32/64 ch.

12-5-80 CH - 58 MCF, 0 BW, FTP 145, 25/64" ch.  
PC 190 MCF, 0 BW, FCP 150, 32/64 ch.

12-6-80- CH flowed 42 MCF, 0 BW, FTP 145, 25/64 ch.  
12-8-80 Same rate per day.

12-6-80- PC flowed 168 MCF, 0 BW, FCP 150, 32/64 ch.  
12-8-80 Same rate per day.

12-9-80 Dual completed  
CH flowed 38 MCF, 0 BW, FTP 145, 26/64 ch.  
PC flowed 146 MCF, 0 BW, FCP 150, 32/64 ch.

12-10-80 CH flowed 38 MCF, 0 BW, FTP 145, 26/64 ch.  
PC flowed 163 MCF, 0 BW, FCP 150

12-11-80 CH flowed 38 MCF, 0 BW, FTP 145, 26/64 ch.  
PC flowed 163 MCF, 0 BW, FCP 150, 23/64 ch.

12-12-80 Drop from report.



APACHE #30

11-22-80 Dual completed.  
CH flowed 62 MCF, 0 BW, FTP 145, 26/64 ch.  
PC flowed 218 MCF, 0 BW, FCP 150, 32/64 ch.

11-23-80 CH flowed 62 MCF, 0 BW, FTP 145, 26/64 ch.  
PC flowed 218 MCF, 0 BW, FCP 150, 32/64 ch.

11-24-80 CH flowed 62 MCF, 0 BW, FTP 145, 26/64 ch.  
PC flowed 218 MCF, 0 BW, FCP 150, 32/64 ch.

11-25-80 Dual completed.  
CH flowed 75 MCF, 0 BW, FTP 145, 25/64 ch.  
PC flowed 208 MCF, 0 BW, FCP 150, 32/64 ch.

11-26-80 Dual completed.  
CH flowed 62 MCF, 0 BW, FTP 145, 25/64 ch.  
PC flowed 204 MCF, 0 BW, FCP 150, 32/64 ch.

11-27-80-  
12-1-80 CH flowed 61 MCF, 61 BC, 0 BW, FTP 145, 25/64 ch.  
PC flowed 204 MCF, 0 BW, FCP 150, 32/64 ch.

12-2-80 Dual completed  
CH flowed 62 MCF, 0 BW, FTP 145, 25/64 ch.  
PC flowed 196 MCF, 0 BW, FCP 150, 32/64 ch.

11-4-80 Dual completed  
CH flowed 56 MCF, 1 BW, FTP 150, 20/64 ch.  
PC flowed 267 MCF, 0 BW, FCP 150, 23/64 ch.

11-5-80 CH flowed 51 MCF, 0 BW, FTP 150, 20/64 ch.  
11-6-80 CH flowed 51 MCF, 0 BW, FTP 150, 20/64 ch.

11-5-80 PC flowed 260 MCF, 0 BW, FCP 150, 23/64 ch.  
11-6-80 PC flowed 260 MCF, 0 BW, FCP 150, 23/64 ch.

11-7-80 CH flowed 78 MCF, 0 BW, FTP 150, 23/64 ch.  
11-8-80 CH flowed 78 MCF, 0 BW, FTP 150, 23/64 ch.  
11-9-80 CH flowed 78 MCF, 0 BW, FTP 150, 23/64 ch.  
11-10-80 CH flowed 78 MCF, 0 BW, FTP 150, 23/64 ch.

11-11-80 Dual completed  
CH flowed 78 MCF, 0 BW, FTP 150, 23/64 ch.  
PC SI State Deliverability Test, SICP 500 psi.

11-12-80 Dual completed.  
CH flowed 78 MCF, 0 BW, FTP 150, 23/64 ch.  
PC SI, State Deliverability Test. SICP 550 psi.

11-13-80 Dual completed  
CH flowed 78 MCF, 0 BW, FTP 150, 23/64 ch.  
PC SI, State Deliverability Test. CP 600#.

11-14-80 Dual completed.  
CH flowed 67 MCF, 0 BW, FTP 145, 20/64 ch.  
PC on line after State Deliverability Test 11-13-80, CP 600#.

11-15-80 CH flowed 65 MCF, 0 BW, FTP 150, 20/64 ch.  
PC flowed 198 MCF, 0 BW, FCP 150, 23/64 ch.

11-16-80 CH flowed 65 MCF, 0 BW, FTP 150, 20/64 ch.  
PC flowed 198 MCF, 0 BW, FCP 150, 23/64 ch.

11-17-80 CH flowed 65 MCF, 0 BW, FTP 150, 20/64" ch.  
PC flowed 198 MCF, 0 BW, FCP 150, 23/64" ch.

11-18-80 Dual completed.  
CH flowed 65 MCF, 0 BW, FTP 150, 20/64 ch.  
PC flowed 205 MCF, 0 BW, FCP 150, 23/64 ch.

11-19-80 Dual completed.  
CH flowed 62 MCF, 0 BW, FTP 145, 26/64 ch.  
PC flowed 218 MCF, 0 BW, FCP 150, 20/64 ch.

11-20-80 Dual completed.  
CH flowed 15 MCF, 0 BW, FTP 145, 23/64 ch.  
PC flowed 68 MCF, 0 BW, FCP 150, 20/64 ch.

11-21-80 Dual completed.  
CH flowed 52 MCF, 0 BW, FTP 150, 20/64 ch.  
PC flowed 248 MCF, 0 BW, FCP 105, 23/64 ch.

10-16-80 Dual completed as a Chacra and Pictured Cliffs.  
CH 50 MCF, 0 BW, FTP 150, 20/64 ch.  
PC 386 MCF, 0 BW, FCP 150, 25/64 ch.

10-17-80 Dual completed as a Chacra & Pictured Cliffs  
CH 72 MCF, 0 BW, FTP 150, 20/64 ch.  
PC 278 MCF, 0 BW, FCP 150, 23/64 ch.

10-18-80 Dual completed as Chacra & Pictured Cliffs.  
CH 44 MCF, 0 BW, FTP 150, 20/64 ch.

10-19-80 CH 44 MCF, 0 BW, FTP 150, 20/64 ch.

10-20-80 CH 44 MCF, 0 BW, FTP 150, 20/64 ch.

10-18-80 PC 267 MCF, 1 BW, FCP 160, 25/64 ch.

10-19-80 PC 267 MCF, 0 BW, FCP 160, 25/64 ch.

10-10-80 PC 238 MCF, 0 BW, FCP 150, 25/64 ch.

10-21-80 CH 45 MCF, 1 BW, FTP 150, 20/64 ch.  
PC 238 MCF, 0 BW, FCP 150, 25/64 ch.

10-22-80 CH 24 MCF, 1 BW, 150 FTP, 23/64 ch.  
PC 266 MCF, 0 BW, 150 FCP, 25/64 ch.

10-23-80 Dual completed as Pictured Cliffs & Chacra  
CH flowed 24 MCF, 0 BW, FTP 150, 23/64 ch.  
PC flowed 266 MCF, 0 BW, FCP 160, 25/64 ch.

10-24-80 Dual completed. Chacra flowed 24 MCF, 1/2 BW, FTP 150,  
20/64" ch, PC flowed 290 MCF, 0 BW, FCP 160, 25/64" ch.

10-25-80 Dual completed  
CH flowed 72 MCF, 0 BW, FTP 150, 25/64 ch.

10-26-80 CH flowed 72 MCF, 0 BW, FTP 150, 25/64 ch.

10-27-80 CH flowed 72 MCF, 0 BW, FTP 150, 25/64 ch.

10-25-80 PC flowed 268 MCF, 0 BW, FCP 150, 25/64 ch.

10-26-80 PC flowed 268 MCF, 0 BW, FCP 150, 25/64 ch.

10-27-80 PC flowed 268 MCF, 0 BW, FCP 150, 25/64 ch.

10-28-80 Dual completed  
CH flowed 73 MCF, 0 BW, FCP 150, 24/64 ch.

10-29-80 CH flowed 73 MCF, 0 BW, FTP 150, 24/64 ch

10-28-80 PC flowed 287 MCF, 0 BW, FCP 150, 23/64 ch.

10-29-80 PC flowed 287 MCF, 0 BW, FCP 150, 23/64 ch.

10-30-80 CH flowed 78 MCF, 1 BW, FTP 150, 23/64 ch.  
PC flowed 236 MCF, 0 BW, FCP 160, 30/64 ch.

10-31-80 Dual completed: Chacra  
flowed 58 MCF, 1 BW, FTP 150, 20/64 ch.

11-1-80 flowed 58 MCF, 1 BW, FTP 150, 20/64 ch.

11-2-80 flowed 58 MCF, 1 BW, FTP 150, 20/64 ch.

11-3-80 flowed 58 MCF, 1 BW, FTP 150, 20/64 ch.

10-31-80 Dual completed: Pictured Cliffs  
flowed 276 MCF, 0 BW, FCP 150, 23/64 ch.

11-1-80 flowed 276 MCF, 0 BW, FCP 150, 23/64 ch.

11-2-80 flowed 276 MCF, 0 BW, FCP 150, 23/64 ch.

11-3-80 flowed 276 MCF, 0 BW, FCP 150, 23/64 ch.



717 17th St.  
Denver, Colo 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LIL Rig #2

10-11-80 Dual completed Chacra & Pictured Cliffs.  
CH44 MCF, 0 BW, FTP 150, 24/64 ch.  
PC 280 MCF, 0 BW, FCP 160, 25/64 ch.

10-12-80 CH 44 MCF, 0 BW, FTP 150, 20/64 ch.  
PC 250 MCF, 0 BW, FCP 160, 25/64 ch.

10-13-80 CH 45 MCF, 0 BW, FTP 150, 20/64 ch.  
PC 239 MCF, 0 BW, FCP 160, 25/64 ch.

10-14-80 Dual completed as Chacra & Pictured Cliffs.  
CH 50 MCF, 1 BW, FTP 150, 20/64 ch.  
PC 385 MCF, 0 BW, FCP 160, 25/64 ch.

10-15-80 TD 4080', PBTD 4044', Perf's Chacra, 3840',  
42, 44, 53, 55, 57, 69, 83, 86, 91, 96, 3908,  
13, 16, 23, 25, 28, 34, 43, 46, 49 w/ 1 JSPF  
PC, 2976-85', 2988-92', 2955-3008', 3020-23',  
3039-43', w/ 1 JSPF, IPF Chacra 0 BO, 476 MCF,  
tr wtr, 24 hrs, FTP 26, FCP 171, 6 hr, 3/4" ch.  
PC, 0 BO, 458 MCF, tr wtr, FTP 25 24 hrs, 3/4"  
ch, well dual comp as a flowing gas well.  
FINAL REPORT!!

2200 Energy Center One  
717 17th St.  
Denver, Colo 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LLL Rig #2

10-4-80	Dual Completed Pictured Cliff & Chacra. CH 50 MCF, 0 BW, 170 FTP, 20/64 ch. PC 723 MCF, 0 BW, 200 FCP, 25/64 ch.
10-5-80	CH 48 MCF, 0 BW, 170 FTP, 20/64 ch. PC 596 MCF, 0 BO, 160 FCP, 25/64 ch.
10-6-80	Dual Completed Pictured Cliff & Chacra CH 44 MCF, 0 BW, 160 FTP, 20/64 ch. PC 445 MCF, 0 BW, 170 FCP, 25/64 ch.
10-7-80	CH 47 MCF, 0 BW, 160 FTP, 20/64 ch. PC 456 MCF, 0 BW, 170 FCP, 23.64 ch.
10-8-80	Dual Completed Pictured Cliff & Chacra. CH 50 MCF, 0 BW, FTP 160, 20/64 ch. PC 421 MCF, 0 BW, FCP 170, 24/64 ch.
10-9-80	Dual Completed Pictured Cliff & Chacra. CH 50 MCF, 1/2 BW, FTP 160, 20/64 ch. PC 386 MCF, 0 BW, FCP 160, 24/64 ch.
10-10-80	Dual completed Chacra and Pictured Cliffs. CH 57 MCF, 0 BW, FTP 150, 20/64 ch. PC 415 MCF, 0 BW, FCP 160, 25/64 ch.

717 17th St.  
Denver, Colo. 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LLL Rig #2

9-27-80	Well dual completed at Pictured Cliff and Chacra. CH 85 MCF, 0 BW, FTP 400, 20/64" ch. PC well 1st delivered at 9:30 AM, 9-26-80
9-28-80	CH 105 MCF, 0 BW, 400 FTP, 20/64" ch. PC 110 MCF, 0 BW, 900 FTP, 30/64" ch.
9-29-80	CH 105 MCF, 0 BW, 400 FTP, 20/64" ch. PC 110 MCF, 0 BW, 900 FTP, 30/64" ch.
9-30-80	Dual completed Pictured Cliff & Chacra. CH - 88 MCF, 1 BW, FTP 250, 20/64 ch. PC - 111 MCF, 0 BW, FCP 800, 23/64 ch.
10-1-80	Dual completed Pictured Cliff & Chacra. CH - 85 MCF, 0 BW, FTP 190, 20/64 ch. PC - 90 MCF, 0 BW, FCP 800, 23/64 ch.
10-2-80	Dual completed Pictured Cliff and Chacra. CH - 88 MCF, 0 BW, 180 FTP, 20/64 ch. PC- 919 MCF, 0 BW, 450 FCP, 23/64 ch.
10-3-80	Dual completed Pictured Cliff and Chacra. CH - 92 MCF, 0 BW, 20/64 ch, 160 TP. PC - 60 MCF, 0 BW, 23/64 ch, 500 CP.

2200 Energy Center One  
717 17th St.  
Denver, Colo 80202

DRILLING REPORT

APACHE #30	9-20-80	No report.
Rio Arriba County, NM		
4100' Chacra	9-21-80	No report.
CPC 100% WI		
\$228,830	9-22-80	No report.
ILL Rig #2	9-23-80	No report.
	9-24-80	No report.
	9-25-80	No report.
	9-26-80	Turned Chacra zone at 12 noon, SITP 850 psi, left well flowing at 600 psi, on tbg, 20/64" ch, The Picture Cliff; well SI, waiting first delivery will first deliver at 9 AM 9-26-80.

2100 Energy Center, One  
717 17th St.  
Denver, Colo 80202

DRILLING REPORT

APACHE #30	9-13-80	WO permission to 1st deliver fr O&G Commission.
Rio Arriba County, NM		
4000' Chacra	9-14-80	WO permission to 1st deliver fr O&G Commission.
CPC 100% WI		
\$228,830	9-15-80	WO permission to 1st deliver fr O&G Commission.
LLL Rig #2	9-16-80	WO permission to 1st deliver fr O&G Commission.
	9-17-80	WO permission to 1st deliver fr O&G Commission. will 1st deliver today.
	9-18-80	WO permission to 1st deliver fr O&G Commission
	9-19-80	WO permission to 1st deliver fr O&G Commission.

COTTON PETROLEUM CORP.  
2200 Energy Center One  
717 17th St.  
Denver, Colo 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LLL Rig #2

9-6-80	Dual completed Chacra & PC, WO permission to 1st deliver fr O&G Commission.
9-7-80	Dual completed Chacra & PC, WO permission to 1st deliver fr O&G Commission.
9-8-80	Dual completed Chacra & PC, WO permission to 1st deliver fr O&G Commission.
9-9-80	WO permission to 1st deliver fr O&G Commission
9-10-80	WO permission to 1st deliver fr O&G Commission.
9-11-80	WO permission to 1st deliver fr O&G Commission.
9-12-80	WO permission to 1st deliver fr O&G Commission.

2200 E. 17th St.,  
717 17th St,  
Denver, Colo 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LIL Rig #2

8-30-80	WSI for 2nd phase of State pkr leakage test.
8-31-80	WSI for 2nd phase of State pkr leakage test.
9-1-80	WSI for 2nd phase of State pkr leakage test.
9-2-80	WSI for 2nd phase of State pkr leakage test.
9-3-80	WSI for 2nd phase of State pkr leakage test.
9-4-80	Dual Completed PC & Chacra, State pkr leakage test, Chacra 7-day SI 710 psi, PC 14-day SI 862 psi, open PC to atmos through 3/4" ch, 15 min 361, 1/2 hr 332, 45 min 300, 1 hr 204, 2 hrs 160, 3 hrs 123, FCP 123 psi, FR 1520 MCFPD, final Chacra press 710, indicates no pkr leakage.
9-5-80	WSI, w/file pkr leakage paper work today.

717 17th St.  
Denver, Colo 80202

ILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LLL Rig #2

8-23-80	WSI, 1st phase State pkr leakage test.
8-24-80	WSI, 1st phase State pkr leakage test.
8-25-80	WSI, 1st phase State pkr leakage test.
8-26-80	WSI, State pkr leakage test.
8-27-80	WSI, 1st phase State pkr leakage test.
8-28-80	SI Chacra press 700, SI PC press 860, conducted 1st phase of State pkr leakage test, flow Chacra 3 hrs through 2", aft 15 min TP 132 psi, aft 30 min 60 psi, 45 min 40 psi, 1 hr 30 psi, 2 hrs 30 psi, 3 hrs 20 psi, aft 3 hr flow PC remained 860 psi, no pkr leakage, WSI for 2nd phase of State pkr leakage test.
8-29-80	Dual completed Chacra & PC, SWI for 2nd phase of pkr leakage test.



2200 Energy Center One  
717 17th St,  
Denver, Colo 80202

RILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
ULL Rig #2

8-16-80	WSI, WO continuation of completion.
8-17-80	
8-18-80	
8-19-80	WSI, WO continuation of completion.
8-20-80	MIRU Flint #1437, SITP 880, SICP 880, bled press off csg & tbg to atmosphere, POOH w/tbg, PU 14 stands & hung in derrick, prep to RU Newsco & clean out pkr & run prod string this am. TWCTD \$212,279.
8-21-80	Released 800# SICP, ran prod string as follows: expendable ck, 2 1/16 spacer sub, anchor & seal units, Tocator sub, extension sub, Baker FL on-off sealing connector, 2 3/8 EUE 8 round sub, 1.87 Model L sliding sleeve, 23 jnts 2 3/8 tbg, 1-10' 2 3/8 sub, 1-8' 2 3/8 sub, 5-20' blast jnts, 92 jnts 2 3/8 tbg, 1-6', 1-4', & 1-2' 2 3/8 subs, 1 jnt 2 3/8 tbg, total 116 jnts, total 3807.83, top of sliding sleeve @ 3794' KB, btm of blast jnts @ 3060' 17' below btm perfs of 3043', top of blast jnt @ 2960' 16' above top perfs, install donut & land w/4000# compression, ND BOP & install nut & master valve, drop ball, pmp expendable ck out using N <sub>2</sub> , released rig, prep to move to Apache #116 this am. TWCTD \$229,729.
8-22-80	WSI, State pkr leakage test.

COTTON PETROLEUM CORP.  
2200 Energy Center One  
717 17th St.  
Denver, Colo 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LLL Rig #2

8-9-80	WSI w/btm hole press bomb for build up in Pictured Cliff Fm.
8-10-80	WSI w/btm hole press bomb for build up in Pictured Cliff Fm.
8-11-80	WSI w/btm hole press bomb for build up in Pictured Cliff Fm.
8-12-80	WSI w/btm hole bomb in place. - - - - -
8-13-80	WSI, using B & R Services pull btm hole press bomb on 8-12-80, no info @ this time.
8-14-80	WSI, <u>WO continuation of completion.</u>
8-15-80	WO continuation of completion.

COTTON PETROLEUM CORP.  
2200 Energy Center One  
717 17th St,  
Denver, Colo 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LLL Rig #2

8-7-80

WSI w/press bomb @ 3:00 pm on 8-6-80, SITP 732  
psi, open well to pit, flowed for 1 hr, CP  
stabilized @ 36 psi for 15 min, @ 4:00 pm SWI  
to con't build up.

8-8-80

WSI w/btm hole press bomb.

DRILLING REPORT

APACHE #30

Rio Arriba County, NM

4100' Chacra

CPC 100% WI

\$228,830

LLL Rig #2

8-2-80

Picture Cliff completion, MIRU Flint #1437, SICP 425, SITP 260, bled well dwn, NU tree, NU BOP & stripping head, POOH w/tbg, strap-OOH w/123 jnts 2 3/8 tbg measuring 3867' & SN, SDFN. TWCTD \$171,987.

8-3-80

SICP 450, RU Jetronics, ran & set Baker pkr w/ expendable check in place @ 3810', got 5 gal sd on pkr, press test to 3900, 5 min OK, ran GR/ Corr log fr 3150-2850' & perf Picture Cliff Zone w/1 JSPF fr 2976-85, 2988-92, 2995-3008, 3020-23, 3039-43, total of 38 holes, RU Western & acidized w/3800 gals 15% Spearhead acid, & 72 ball sealers, break dwn 1700, AIR 10 bpm @ 1700,

8-3-80

w/20 BA left in csg, bled press to 500, ran junk basket & rec 39 balls w/20 hits, total load 120 bbls, frac Picture Cliff Fm w/26,400 gal 70-quality foam & 27,500# 20-40 sd, AIR 25 bpm, max treat press 1800, mini treat press 1600, avg treat press 1700, ISIP 1500, 5 min 1450, 10 min & 15 min 1400, open well to pit through 3/4" ch 1/2 hr, SI to ck fitting, replaced same due to sd cutting, flare gas aft 2 1/2 hrs flowing, left well w/night watchman, well flared continuously all night, TWCTD \$202,953.

8-4-80

Well flaring gas on arrival @ 8:30 am w/30 psi on csg, FARO 519 MCF, slight trace wtr @ flow line, SWI 1 hr, 400 psi, open well through 3/4" ch, unloaded no liquid, flaring continuously, SWI @ 3:00 pm for 1 hr, 1 hr SI 380 psi, open well on 3/4" ch, unloaded no liquid, left WF @ 30 psi 519 MCF w/occasional show of condensate, TWCTD \$203,788.

8-5-80

Well flaring gas on arrival @ 8:30 am on 3/4" ch, 25 psi; FARO 458 MCFPD, no show wtr, remove 3/4" ch, blew well dwn, RIH w/119 jnts tbg & string float measuring 3744.95' & tag sd @ 3748, 62' fill, RU Nowco, clean out w/N<sub>2</sub> to pkr @ 3810' w/121 jnts all measuring 3807.58, circ hole 45 min, pull 1 stand, wait 10 min, reran 1 stand, had 2' fill, POOH w/tbg, LD 29 jnts, RIH w/tbg as follows: 1 jnt 2 3/8, SSN, 93 jnts, 1-4' sub, total 94 jnts landed @ 2970.08', landed tbg & slips, install master valve, w/run press build up this am. too windy to RD, w/RD this am & move to Apache #126. TWCTD \$207,856.

8-6-80

Using B&R WL Service, ran Amerida RPM-3 0-1000 press bomb to press build up. SITP @ time of rng bomb was 700 psi.

COTTON PETROLEUM CORP.  
2200 Energy Center One  
717 17th St.  
Denver, Colo 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LLL Rig #2

7-12-80	WF 55 MCF, 0 BW, FTP 130, FCP 280, 25/64" ch.
7-13-80	WF 55 MCF, 0 BW, FTP 130, FCP 300, 25/64" ch.
7-14-80	WF 58 MCF, 0 BW, FTP 130, FCP 380, 25/64" ch.
7-15-80	WF 45 MCF, 0 BW, TP 130, CP 400, 25/64" ch.
7-16-80	WSI 24 hrs for build up, TP 450, CP 510. <u>TEMPORARILY DROPPED FROM REPORT UNTIL FURTHER ACTIVITY!!!!</u>

COTTON PETROLEUM CORP.  
2200 Energy Center One  
717 17th St,  
Denver, Colo 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LLL Rig #2

7-4-80	WSI for State deliverability test.
7-5-80	WSI for State deliverability test.
7-6-80	SITP 620, SICP 640, put well on line.
7-7-80	WF 94 MCF, 0 BW, TP 280, CP 300, 20/64" ch.
7-8-80	WF 72 MCF, 0 BW, FTP 160, FCP 330, 30/64" ch.
7-9-80	WF 54 MCF, 0 BW, FTP 150, FCP 380, 20/64" ch. on 6-8-80 ch reported as 30/64" ch, correct ch is 20/64".
7-10-80	WF 63 MCF, 0 BW, FTP 140, FCP 380, 25/64" ch.
7-11-80	WF 55 MCF, 0 BW, FTP 130, FCP 300, 25/64" ch.

COTTON PETROLEUM CORP.  
2200 Energy Center One  
717 17th St,  
Denver, Colo 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LLL Rig #2

6-28-80	WF 68 MCF, 0 BW, FTP 160, FCP 280, 25/64" ch.
6-29-80	WF 61 MCF, 0 BW, FTP 160, FCP 280, 25/64" ch.
6-30-80	WSI for initial state deliverability test.
7-1-80	WSI, State deliverability test.
7-2-80	WSI for State deliverability test.
7-3-80	WSI for State deliverability test.

COTTON PETROLEUM CORP.  
2200 Energy Center One  
717 17th St,  
Denver, Colo 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LLL Rig #2

6-21-80	WF 69 MCF, 0 BW, FTP 130, FCP 240, 25/64" ch.
6-22-80	WF 69 MCF, 3 BW, FTP 130, FCP 260, 25/64" ch.
6-23-80	WF 61 MCF, 0 BW, FTP 130, FCP 260, 25/64" ch.
6-24-80	WF 55 MCF, 0 BW, FTP 130, FCP 280, 25/64" ch.
6-25-80	WF 51 MCF, 0 BW, FTP 130, FCP 280, 25/64" ch.
6-26-80	WF 53 MCF, 0 BW, FTP 130, FCP 280, 25/64" ch.
6-27-80	WF 51 MCF, 0 BW, FTP 130, FCP 280, 25/64" ch.



COTTON PETROLEUM CORP.  
2200 Energy Center One  
717 17th St.  
Denver, Colo 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LLL Rig #2

6-14-80	68 MCF, TP 140, CP 270, 25/64" ch, 1 BW.
6-15-80	SI 24 hrs to unload well, SITP 480 psi, SICP 520.
6-16-80	90 MCF, TP 140, CP 330, 25/64" ch, 2 BW.
6-17-80	78 MCF, 25/64" ch, 0 BW, TP 140, CP 260.
6-18-80	55 MCF, 25/64" ch, 0 BW, TP 160, CP 300.
6-19-80	65 MCF, 25/64" ch, 1 BW, TP 140, CP 200.
6-20-80	71 MCF, 25/64" ch, 0 BW, TP 150, CP 230.

COTTON PETROLEUM CORP.  
2200 Energy Center One  
717 17th St.  
Denver, Colo 80202

DRILLING REPORT

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LLL Rig #2

6-7-80	WF 44 MCF, 1 BW, 12 hr flow, wtr dump stuck open caused treater to SI, FTP 160, FCP 260 on 25/64" ch.
6-8-80	WF 80 MCF, 1 BW, 24 hr flow, FTP 130, FCP 270 on 25/64" ch.
6-9-80	WF 12 MCF, 1 BW, 4 hr flow, wtr dupm stuck open caused treater to SI, FTP 140, FCP 260 on 25/64" ch.
6-10-80	WF 70 MCF, 0 BW, FTP 140, FCP 240 on 25/64" ch.
6-11-80	WF 71 MCF, 2 BW, FTP 140, FCP 240 in 24 hrs, 25/64" ch.
6-12-80	WF 70 MCF, 2 BW est, wtr meter not working, w/replace same today, FTP 140, FCP 240 on 25/64" ch.
6-13-80	WF 67 MCF, meter not working, est 1 BW, FTP 140, FCP 240 on 25/64" ch

HE #30  
Arriba County, NM  
4100' Chacra  
CPC 100% WI\$228.830  
LLL Rig #2

5-24-80	WSI, TP 800, CP 800.
5-25-80	WF 101 MCF, FTP 145, FCP 220 on 20/64" ch, well unloading only wtr.
5-26-80	WF 101 MCF, FTP 145, FCP 220 on 20/64" ch, well unloading only wtr.
5-27-80	WF 173 MCF, FTP 130, FCP 230 on 20/64" ch, -well unloading only wtr, using soap sticks in well.
5-28-80	WF 101 MCF, FTP 145, FCP 220 on 20/64" ch, well unloading wtr.
5-29-80	WF 101 MCF, TP 145, CP 220 on 20/64" ch, still unloading soapy frac wtr.
5-30-80	WF 101 MCF, FTP 135, FCP 240 on 20/64" ch, -well still making wtr.
5-31-80	WF 102 MCF, FTP 130, FCP 240 on 25/64" ch, well still unloading wtr.
6-1-80	WF 72 MCF, FTP 160, FCP 270, drip & meter run full of wtr.
6-2-80	WF 83 MCF, FTP 170, FCP 270 on 25/64" ch, drip & meter run full of wtr, pumper blew meter run dwn, put well back on, this am setting sep to knock wtr out to pit.
6-3-80	WF 82 MCF, FTP 160, FCP 240, 25/64" ch, well still making wtr, will turn through sep w/ wtr meter this am.
6-4-80	WF 82 MCF, FTP 160, FCP 240 on 25/64" ch, put well through sep @ 2:00 pm on 6-3-80 with Flowco meter on wtr dump, w/have metered wtr report tomorrow.
6-5-80	WF 67 MCF, FTP 160, FCP 300 on 25/64" ch.
6-6-80	WF 67 MCF, 20 hr flow, FTP 170, FCP 340 on 25/64" ch, using flowco wtr meter, 3 BW.

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
LL Rig #2

5-8-80

Aft 24 hr SI, press 680/680, open well up @ 9:30 am on 5-7-80, well flowing to pit ARO 642 MCF/DPD, no evid wtr prod, prep to run tamdon press bomb this am.

5-9-80

WF @ 10# on tbq, 100 on csg, WF on 3/4" ch, Tiffeler, Inc., ran btm hole press bomb.

5-10-80

WSI w/btm hole press bombs.

5-11-80

WSI w/btm hole press bombs.

5-12-80

WSI w/btm hole press bombs.

5-13-80

WSI w/btm hole press bombs.

5-14-80

WSI w/btm hole press bombs.

5-15-80

WSI w/btm hole press bombs.

5-16-80

7 day SITP 886, 7 day SICP 889, dead weight tester, blew well 3 hrs through 3/4" ch, FTP 26 psi, FCP 171 psi, flowing temp 54°, flow rate 76 MCF/DPD, AOF 491 MCF/DPD, ball flowing well, well flared w/ slight show wtr & cond. Tefteller btm hol press bomb.

5-17-80

24 hr SI press 740/740.

5-18-80

SI press 760/760.

5-19-80

SI press 830/816.

5-20-80

SI press 850/890, unable to 1st deliver well due to insufficient paper work by Aztec, w/deliver paper work this am.

5-21-80

1st delivered well @ 3:30 pm on 5-20-80, TP 885, CP 900, aft flowing 2 hrs on 20/64" ch TP 420, CP 450, FARO 372 MCF/DPD.

5-22-80

WF 184 MCF in 24 hrs, FTP 200, FCP 300 on 20/64" ch, well - loading quite/bit wtr.

5-23-80

WF 173 MCF, FTP 130, FCP 160 on 20/64" ch well still unloading wtr, caught wtr sample on 5-22-80, will have analysis this ai

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$228,830  
L Rig #2

5-3-80

RU Smith Energy & Nowco & Huc Chacra zone as follows: Using 70-quality foam in all fluid & 2% KCl, pmpd 8000# pad, 10,000 gal stage 1 w/10,000# of 12/20 sd @ 1# concentration, stage 2 pmpd 10,000 gals w/15,000# 12/20 sd @ 1 1/2# concentration, stage 3 pmpd 20,000 gals w/40,000 #'s of 12/20 sd @ 2# concentration & flushed w/2600 46 gals, no break dwn, began pmpg in, ave treat press 2850, max treat press 3000, AIR 38 bpm, 795 HHP, ISIP 1700 5 min, 1700 10 min, 1700 15 min, well tagged by tec survey using 75 milli curries, operator: Brent, total fluid pmpd 383 bbls, open well on 3/4" ch aft 15 min SI @ 5:15 pm, aft 1/2 hr change out fittings, all badly cut, put well back on, aft flowing 1 1/4 hr, well flared gas @ 4:30 am on 5-3-80, FCP 75 psi ARO 1076 MMCF, left well flowing 3/4" ch. TWCTD \$163,635.

5-4-80

@ 8:30 am well flaring gas @ 50 psi on csg on 3/4" pos ch ARO 767 MCFGPD w/1/2" cont stream wtr out 2" fluid line, SWI & RU Blue Jet, ran gamma ray tracer log, LTD 3954', indicated 90' sd fill, entire interval took frac, aft 1 1/2 hr SI during logging CP built fr 50 psi - 300 psi, RU 7" blue line, open well on 3/4" ch, left well flowing ON. TWCTD \$166,432.

5-5-80

No report, mix-up on person in charge of cking well.

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
CPC 100% WI  
\$223,830  
LLL Rig #2

5-6-80

8:30 am FCP 40 psi ARO 643 MCFGPD, blowing 1/2" stream wtr out 2" blewie line, remove 3/4" pos ch & bled csg dwn through 2", ran bit, bit-sub w/string float in place, 126 jnts 2 3/8" tbg, measuring 3963 & tag sd @ 3954', RU Nowco, clean out sd to 4044' KB w/129 jnts measuring 4059.55, POOH w/tbg & ran prod tbg as follows: 1 jnt 2 3/8" tbg, SSN, 122 jnts 2 3/8" tbg, total 123 jnts, landed 12' below KB w/mandrel, tbg landed @ 3882' KB, SN @ 3850' KB, ND BOP, NU tree, left well flowing to pit on 3/4" ch, FTP 20 psi, CP 50 psi, well flowing ARO 390 MCFGPD, unable to RD due to high winds. TWCTD \$170,132.

5-7-80

APACHE #30  
Rio Arriba County, NM  
4100' Chacra  
PC 100% WI  
\$228,830  
LLL Rig #2

WF @ 40 psi on tbg, 100 psi on csg ARO 496 MCFGPD, making heavy spray wtr, RD Flint #1437, left well flaring, moved rig to APACHE #128.

APACHE #30  
Rio Arriba County, NM  
10' Chacra  
CPC 100% WI  
\$283,830  
LLL Rig #2

4-29-80

Well csd, WO comp. TWCTD \$119,429.

4-30-80

Well csd, WO comp. TWCTD \$119,429.

5-1-80

MIRU Flint Rig #1437, received 123 jnts 2 3/8" tbg measuring 3869.50' fr BF Walker, received 5 jnts measuring 157.48' fr APACHE #29, & 8 jnts fr APACHE #118, + moved over 2 bits & jnts fr APACHE #118, rabbited & PU 129 jnts 2 3/8" tbg measuring 4057.30' w/3 7/8" bit & bit sub measuring 2.25', total 4059.55', tag PBTD @ 4044' KB, RU Smith Inter., & press test csg to 4000 psi for 5 min, no bleed off, roll hole to 2% KCl wtr w/65 bbls, pull 3 jnts of tbg in prep to spot acid this am, install stabbing valve & SWIFN. DC \$6185. TWCTD \$125,658.

5-2-80

Raised btm of tbg to 3954#, spotted 250 gal of 7 1/2% acetic acid up to 3578, POOH w/tbg, RU Blue Jet, Inc., ran gamma ray corr log fr 4044'-3500', perf Chacra w/1 JS @ following: 3840', 42', 44', 53', 55', 57', 69', 83', 86', 91', 96', 3908', 13', 16', 23', 25', 28', 34', 43', 46', & 49', n/reaction aft perf, ran Baker pkr & unloader w/SSN, 118 jnts 2 3/8" tbg, set pkr @ 3726' KB, RU Western, acidize w/2000 gal 15% HCl & 52 ball sealers, had good ball action but no ball off, RD, -----max treat press 4000#, min treat press 1200#, ave treat press 3200#, AIR 7 bpm, ISIP 700# 5 min, 700# 10 min, 600# 15 min, PU 8 jnts, total 126 jnts in hole & lowered pkr through perf's to knock off balls, POOH w/tbg & pkr, SDFN, prep to frac this am w/Smith Energy, TWCTD \$134,372.

APACHE #30  
Rio Arriba Co., N.M.  
4100' Chacra  
C  
100% WI  
\$228,830  
LLL Rig #2

4-11-80

Dpt 4080 TD, chacra, prog 0, 6 days, hole cond good, Md 9.1, vis 50, Circ waiting on orders 4 hrs, lay down drill pipe 3 3/4, runing csg 3 3/4 hrs, cementing 1 3/4, setting slips & cut off 1, RD 3 3/4, dry watch 6. Circ 4 hrs waiting on orders, pulled out of hole laying down drill pipe & collars RU Basin power tongs & ran 94 jts 4 1/2" 10.5# K55 range 3, longstring w/ 1503' of sandblasted csg on btm w/ 1 centralized on btm jt & every other jt for 22 centralizers. Ran Halliburton differential fill float shoe @ 4080, ran Halliburton latch in baffle @ 4044, landed csg @ 4080 KB w/ 4' over KB. RU Hallibuton cemented w/ 100 sx 65-35. Hallibuton light w/ 12 1/2# gilsonite, 6% gel followed 600 sx 50/50 pause, 2% gel, plug down @ 7:10 p.m. 4-10-80. pressure test plug 1800 PSI, 5 min. good test no flow back, Estimated cement top 1600' using Big Red Tool co. personnel. set slips & cut off csg. set slips w/ 47000# weight, had 16' cut off, released LLL rig #2 @ 10:00 p.m., will run temp surv this a.m. using Technical Surveys, CUM w/ exception of cement cost \$111,529.

4-12-80

Moved off RT, RU Technical Surveys, Operator Mike Larson. Ran temp surv, showed top of cemen @ 1742 from surf, WOCR.

4-13-80

4-14-80

4-15-80

well csd WOCR

4-16-80

well csd, WOCR, no production report.

4-17-80

Well cased, WO completion rig, TWCTD \$119,429.

4-18-80

WC WOCR. CWC \$ 119,429.

4-19-80

Well cased, WOC. TWCTD \$119,429.

4-20-80

" "

4-21-80

" "

4-22-80

Well csd, WO comp. TC \$119,429.

4-23-80

Well csd, WO comp. TWCTD \$119,429.

4-24-80

Well csd, WO comp. TWCTD \$119,429.

4-25-80

Well csd, WO comp. TWCTD \$119,429.

4-26-80

Well csd, WO comp. TWCTD \$119,429.

4-27-80

Well csd, WO comp. TWCTD \$119,429.

4-28-80

Well csd, WO comp. TWCTD \$119,429.

APACHE #30  
Rio Arriba Co., N.M.  
4'30' Chacra

100% W.I.  
\$228,830  
LLI Rig #2

4-6-80 Spud 12½ hole 7:30 p.m. 4-5-80, Days 1,  
12½ hole @ 310' kb, Bit 12½ in @ 0 cut 310'  
in 2 hrs. WOB 40000, RPM 80, pp 1800, SPM 110,  
oper spud 12½ hole, 310' kb, Rigged up casers  
run 7 jts of 8 5/8 24# st&c landed @ kb @ 308',  
cement w/ 250 sacks of class B 3% calcium, plug  
down @ 12:45 a.m., had good circ throughout job,  
circ appx 10 sx to pit. Cement stayed @ surface  
did not fall. Drlng 2 hrs, run casing 2 hrs,  
cement 1½, WOC 5, CUM \$14,500.

4-7-80 Dpt-2158, sd & sh, prog-1848', day-2, hole  
cond good, dev ½ @ 1200, ½ @ 1880, ½ @ 1942,  
md 8.6, vis 34, wl 7, fc 2/32, pH 8, Bit #2  
Smith 7-7/8 STS in @ 310', cut 1790 in 12½ hrs,  
Bit #3 Hughes 7-7/8 OSC3, cut 60' in ½ hr.  
WOC 7, drl 12 3/4, rig serv 1, wash to btm  
1½, trps 3;  
CUM #21,000

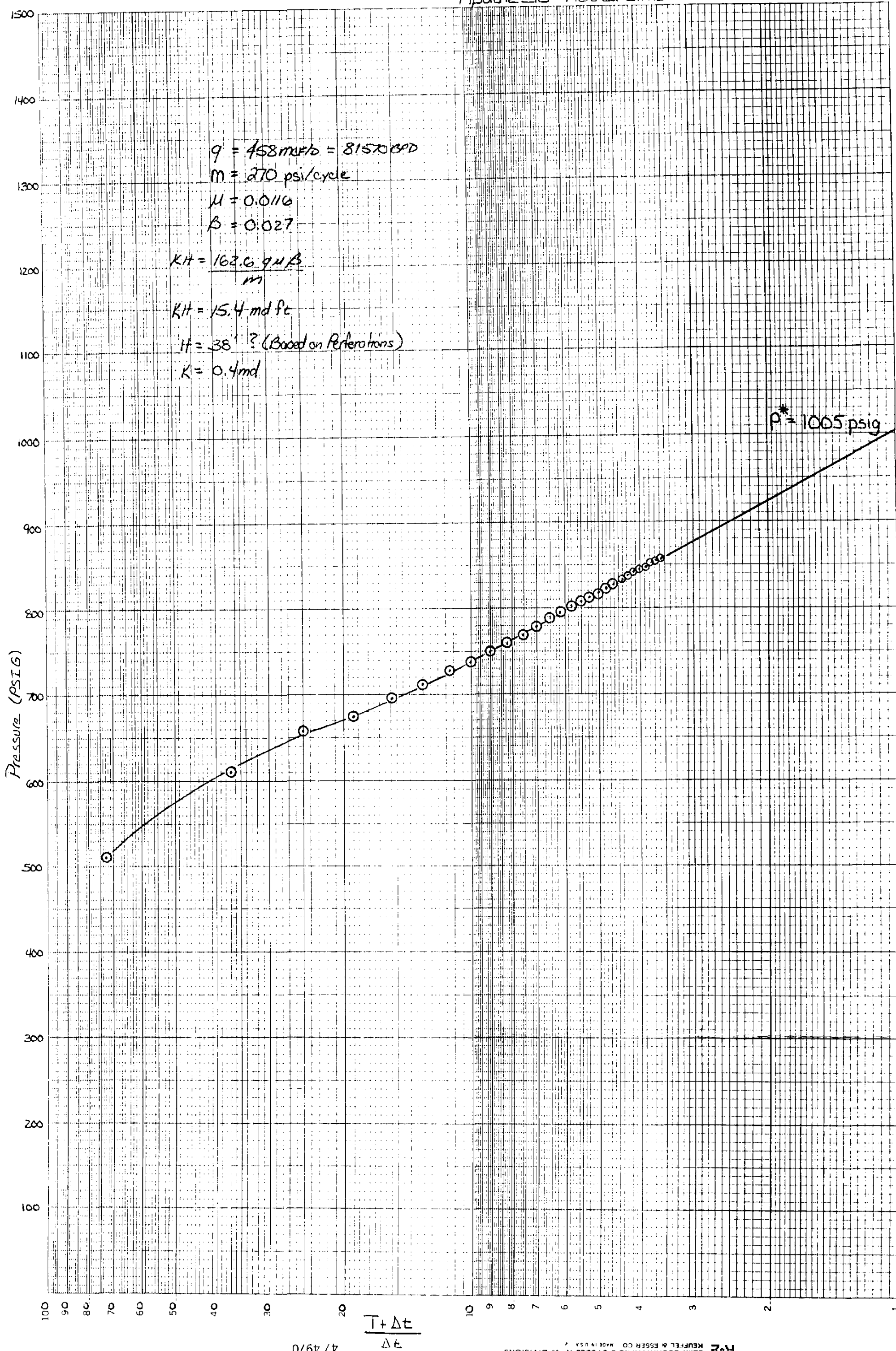
4-8-80 Dpt 3436', sd & sh, prog 1278', 3 days,  
hole cond good. drlng 43 FPH. md 8.9,  
vis 33, wl 4.5, fc 2/32 pH9. Bit #3  
Hughes OSC3 7-7/8 in @ 2098 out @ 3013,  
cut 915' in 10 hrs. Bit # 4 Security 7-7/8,  
F84 in @ 3013 incomplete, cut 423' in 9 3/4 hrs.  
WOB 40000, RPM 55, pmp press 1850, SPM 102,  
Drlng 19½, trp 3½, washed 75' to btm 3/4 hrs,  
rig serv ½. CUM \$46,451.

4-9-80 Dpt 4045', chacra, prog 609, 4 days, hole  
cond good, dev 10 @ 3777, drlng 31 FPH w/  
Security 7 7/8 md 9.1, vis 58, wl 4.7, fc 2/32  
pH 9, Bit #4 Security S84F in @ 3013 cut 1032  
in 32 hrs. WOB 40000, RPM 55, pp 1900, SPM 102  
Drlng; 22½, totco ½, rig rep 1, rig serv ½  
CUM \$68,233

4-10-80 Dpt 4080 td, chacra, 5 days, hole cond good,  
md 9.1, vis 50, wl 4 fc 2/32, pH 9. Bit #4  
7 7/8 Security S84F, in @ 3013 out @ 4080  
cut 1067 in 34½ hrs, pp 1450, SPM 94. Drlng 1½,  
trp 10, logging 5½, knocking out bridges ½,  
2 3/4 circ waiting on orders, 4 circ for  
logs. Using Schlumberger ran CNLFDC w/  
gamma ray & calipher & IES logs, first attempt  
at logging hit a bridge @ 2100. Spudding w/  
Schlumberger could not get down, pulled out of  
hole w/ Schlumberger, ran in w/ bit on drill  
pipe to 2430 pulled out of hole w/ bit, ran in  
Schlumberger got to 2469 hit another bridge,  
could not spud through, pulled out of hole  
ran to btm w/ bit on drill pipe, circ 2 hrs,  
pulled out of hole, ran in w/ Schlumberger to  
td. CUM \$70,369



# Apache 3D Pictured Cliffs



# Apache 30 Chacra

