

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1471

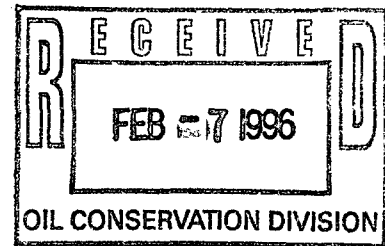
DHC 2-26-96

S. P. YATES  
CHAIRMAN OF THE BOARD  
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PEYTON YATES  
EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

1193

February 5, 1996

David Catanach  
State of New Mexico  
OIL CONSERVATION DIVISION  
2040 S. Pacheco Street  
Santa Fe, NM 87505-5472



Dear Mr. Catanach,

Enclosed are the necessary documents for obtaining approval for the downhole commingling of the Cedro APG St. Com #1 located in C of Section 36, Township 17 South, Range 30 East, Eddy County.

Should you have any questions, feel free to contact me at (505) 748-4182. Thank you.

Sincerely,

Brian Collins  
Engineer

BC/th

Enclosures

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TREASURER

February 5, 1996

Tim Gum  
State of New Mexico  
OIL CONSERVATION DIVISION  
Drawer DD  
Artesia, NM 88210

Dear Mr. Gum,

Enclosed are the necessary documents for obtaining approval for the downhole commingling of the Cedro APG St. Com #1 located in C of Section 36, Township 17 South, Range 30 East, Eddy County.

Should you have any questions, feel free to contact me at (505) 748-4182. Thank you.

Sincerely,

Brian Collins  
Engineer

BC/th

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**Application for Downhole Commingling**  
**Cedro APG State Com #1**  
**Unit C Sec. 36-T17S-R30E**  
**Eddy County, New Mexico**

Reason for Application: Yates Petroleum Corporation respectfully requests approval to commingle the Atoka and Morrow formations. Our intention is to maximize gas recovery from the Atoka and Morrow and prevent mineral resource waste. The Atoka zones in this area historically are limited in size and deplete rapidly and the Morrow zone in this well appears to be marginally economic. Additional oil and gas will be produced by commingling the two zones because the economic limit, per zone will be lower with both zones producing together.

1> Name and Address of the Operator:

Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, NM 88210  
ATTN: Brian Collins

2> Lease Name, Well Number, Well Location, Name of the Pools to be Commingled:

Cedro APG State Com #1  
Unit C Sec. 36-T17S-R30E  
660'FNL & 2230'FWL  
Pools: Undesignated Atoka  
Undesignated Morrow

3> A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.

See Attachment A (map).

4> A current (within 30 days) 24-hour productivity test on Division Form C-116 showing the amount of oil, gas, and water produced from each zone.

See Attachment B (chronological of Morrow and Atoka tests).  
Morrow capable of approximately 367 MCFD.  
Morrow perfs interval 11392' - 11423'.  
Atoka capable of approximately 45 MCFD.  
Atoka perf interval 10853' - 10858', 10992' - 11006'.

5> A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes. (This requirement may be dispensed within the case of a newly completed or recently completed well which has little or no production history. However, a complete description of treating testing, etc., of each zone, and a prognostication of future production from each zone shall be submitted.)

See Attachment B.

Morrow: Assume 50%/yr. exponential decline behavior (best engineering estimate).

$$Q_i = 367 \text{ MCFD}$$

$$Q_{\text{aban}} = 5 \text{ MCFD}$$

$$d = 50\%/yr.$$

$$N_{\text{gas}} = \frac{365 (5-367)}{\ln (1-.5)} = 190,623 \text{ MCF Morrow gas reserves.}$$

Atoka: Assume 75%/yr. exponential decline behavior (best engineering estimate).

$$Q_i = 45 \text{ MCFD}$$

$$Q_{\text{aban}} = 2 \text{ MCFD}$$

$$d = 75\%/yr.$$

$$N_{\text{gas}} = \frac{365 (2-45)}{\ln (1-.75)} = 11,321 \text{ MCF Atoka gas reserves}$$

- 6> Estimated bottom-hole pressure for each artificially lifted zone. A current (within 30 days) measured bottomhole pressure for each zone capable of flowing.

See Attachment C (Atoka DST report, Morrow static BHP summary).

Morrow: 4981 psi @ 11,250'.

Atoka: 3253 psi @ 10,861'.

- 7> A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the well-bore.

Both Atoka and Morrow will produce sweet gas. Don't anticipate any compatibility problems.

- 8> A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams.

Both Atoka and Morrow will produce sweet gas. The value of the gas will not be affected by commingling.

- 9> A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula.

$$\text{Gas: Atoka} = \frac{11,321}{11,321 + 190,623} = .0561 = 6\%$$

$$\text{Morrow} = 94\%$$

$$\text{Condensate: Atoka} = 6\%$$

$$\text{Morrow} = 94\%$$

10> A statement that all offset operators and, in the case of a well on federal land, the US BLM, have been notified in writing of the proposed commingling.

The offset operators for this area were notified of the proposed commingling of the Cedro APG State Com #1.

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TREASURER

February 5, 1996

Hondo Oil & Gas Company  
P. O. Box 2208  
Roswell, NM 88202-2208

Ladies and Gentlemen:

Yates Petroleum Corporation has submitted an application to the NMOCD to downhole commingle the Atoka and Morrow formations in the Cedro APG State Com #1 located in C of Section 36-T17S-R30E. This letter fulfills our requirement to notify offset operators per NMOCD Rule 303 D (10).

Should you have any questions, please feel free to contact me at (505) 748-4182.

Sincerely,

Brian Collins  
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BC/th

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February 5, 1996

Enron Oil & Gas Company  
P. O. Box 2267  
Midland, TX 79705

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February 5, 1996

Anadarko Petroleum Corporation  
P. O. Box 1330  
Houston, TX 77251-1330

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Texaco USA  
P. O. Box 3109  
Midland, TX 79702

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February 5, 1996

Anne Burnett Tandy  
c/o Trust Dept.-FNB-Fort Worth  
P. O. Box 2260  
Fort Worth, TX 76102

Ladies and Gentlemen:

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TREASURER

February 5, 1996

Anne W. Sowell  
c/o Trust Dept.-FNB-Fort Worth  
P. O. Box 2260  
Fort Worth, TX 76102

Ladies and Gentlemen:

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February 5, 1996

Ollie L. Burnett Testamentary Trust  
P. O. Box 2564  
Fort Worth, TX 76101

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February 5, 1996

R. F. Windfohr Testamentary Trust  
P. O. Box 2546  
Fort Worth, TX 76101

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February 5, 1996

Tenneco Gas  
P. O. Box 2511  
Houston, TX 77252-2511

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TREASURER

February 5, 1996

Conoco Inc.  
P. O. Box 2197  
Houston, TX 77079-1175

Ladies and Gentlemen:

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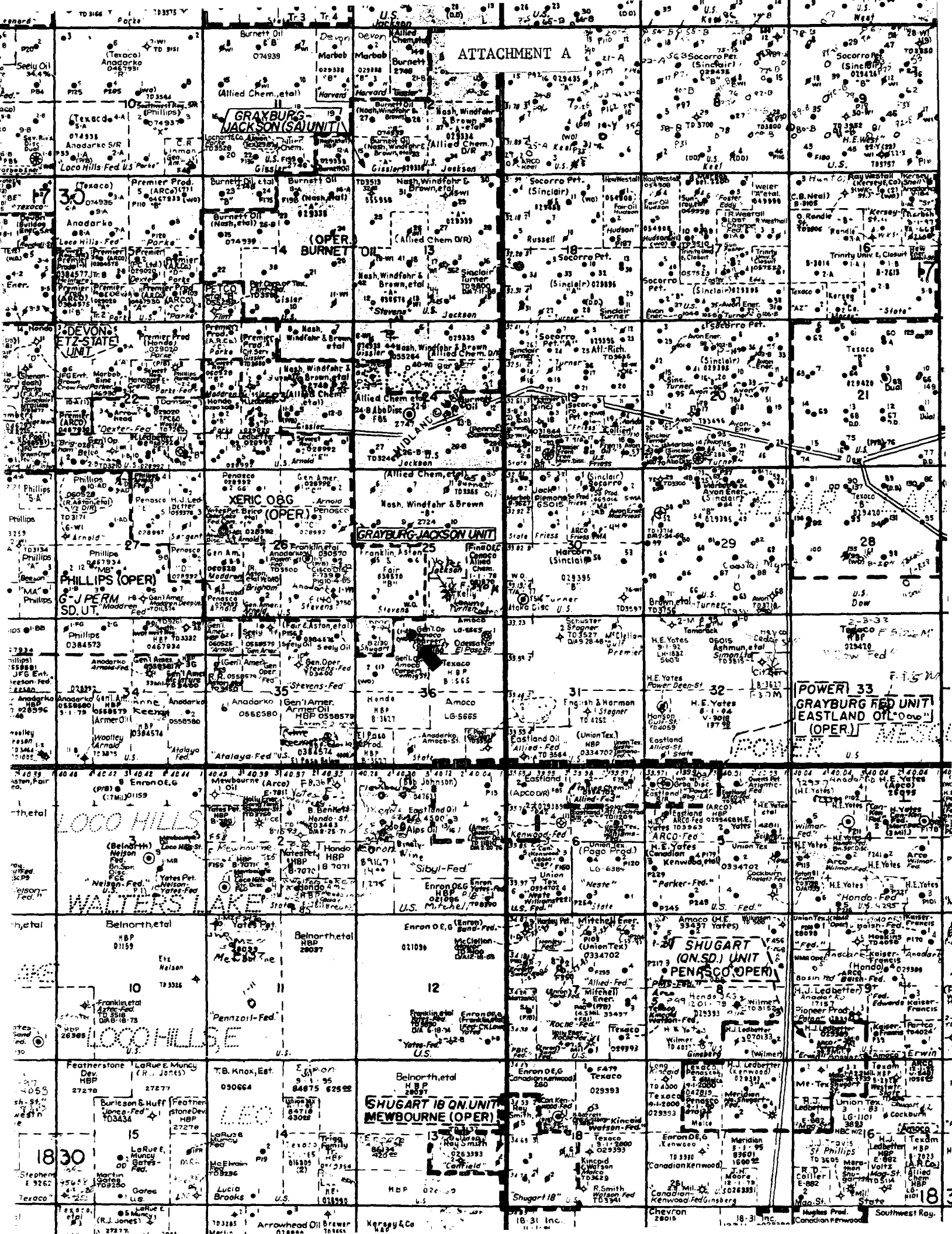
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ATTACHMENT A



GRAYBURG (SAUNIT)

GRAYBURG-JACKSON UNIT

POWER 33  
GRAYBURG FED UNIT  
EASTLAND OIL CO. (OPER.)

LOCO HILLS

WALTERS LAKE

LOCO HILLS

SHUGART 18 QN. UNIT  
MEWBOURNE (OPER.)

SHUGART  
(QN. SD.) UNIT  
PENSCO (OPER.)

1830

1830

# Attachment B

CDR

Page 7:

Yates Petroleum - Cedro "APG" State Com #1 (Unit C) 36-17S-30E Eddy Co.,  
\*\*\*\*\*NM\*\*\*\*\*

14 joints 5-1/2" 17# S-95 8R LT&C 581.47'  
Float shoe set at 11,775'. Float collar set at 11,688.02'.  
DV tool with ECP set at 8483.85'. Cemented in 2 stages.  
Stage I: 500 gals mud flush, 500 gals Super Flush 102 + 475  
sacks Super "H" with 5/10% Halad 344 + 5# gilsonite + 1# salt  
+ 4/10% CFR-3 + 1/10% HR-7 (yield 1.67, weight 13.0). PD at  
8:15 PM 12-15-95. Circulated 75 sacks. Circulated thru DV  
tool 6 hours. Stage II: 550 sacks Howco Prem "H" Lite with  
5# gilsonite + 1/4# flocele + 4/10% Halad 322 (yield 2.01,  
weight 12.5). Tailed in with 100 sacks "H" Neat (yield 1.18,  
weight 15.6). PD at 4:30 AM 12-16-95. Bumped plug to 3000  
psi for 3 mins. Circulated 0 sacks cement. Cement  
calculated to 4000'. Float and casing held. Rig released at  
8:30 AM 12-16-95. NOTE: Marker collars at 7734-7736' and  
10,944-10,946'. Sandblasted casing 7322-8483' and  
10,287-11,775'. Did not pump plug on 1st stage. First stage  
differential = 1460#.

12-19-95 Waiting on completion unit.  
12-20-95 Waiting on completion unit.  
12-21-95 Cleaned location. Set anchors. Moved in and rigged up  
pulling unit. Unloaded tubing and reverse equipment. TIH  
with 4-3/4" bit, stabilizer, 6 - 3-1/2" drill collars, 2-7/8"  
L-80 tubing. Tagged DV tool. Nippled up BOP. Rigged up  
swivel. Shut down. Prep to drill out and log. DC \$4835  
12-22-95 Drilled out DV tool. Tested 2000 psi. TIH and tagged PBTD  
11,681' tubing measurement. Displaced hole with 2% KCL.  
TOH. Laid down drill collars. TIH with bit and scraper thru  
DV tool at 8560'. TOH. Rigged up wireline. Logged GR/CBL  
11,673-4300' with 1000 psi. TOH with tools. Shut in for  
holiday. DC \$7936; CC \$12,771  
12-23-27-95 Prep to perforate Morrow.  
12-28-95 Rigged up wireline. TIH with 5-1/2" CIBP. Correlated on  
depth. Perf'd 11,392-96', 11,403-06' and 11,420-23' (4 SPF)  
with 52 - .42" holes. TOH with guns. GIH with 5-1/2" 17-20#  
10K Uni VI with 1.875" XL on/off tool on 2-7/8" L-80 tubing  
(358 joints). Set packer at 11,318'. Nippled down BOP.  
Nippled up tree. Swabbed tubing down to 11,000', no gas.  
Shut in. Prep to acidize with 2000 gals with N2. DC \$6706  
Overnight SITP 220 psi. Bled off gas (flared). Rigged up  
swab. Fluid level 10,000' scattered. Recovered 4 bbls.  
Rigged up tree saver and Halliburton acid equipment.  
Acidized Morrow perfs 11,392-11,423' with 2000 gals 7-1/2%  
Morrow acid with 1000 SCF N2 per bbl. Break down at 6684  
psi. Avg 3.3 BPM, avg 6200 psi. ISDP 5800#, 15 mins 5500#.  
Nippled down treesaver. Opened well on 16/64" choke with  
5000 psi. Died in 2 hours with intermittent gas. Rigged up  
swab. Made 2 runs to seat nipple. Tubing dry. Put on  
16/64" positive choke at 3:00 PM, no pressure. Shut in  
overnight. DC \$10,643 THIS AM: SITP 1000 psi. Flow down.  
Prep to test Morrow today and move to Atoka next week.

12-30-95 Overnight SITP 1000#. Flare to pit on 1/4" positive choke.  
Stabilized at 28 psi - 60 MCFD. Bled off. Made 2 swab runs.  
Well is dry. Put on 1/4" choke at 28#. Rigged up JSI. Ran  
72 hour pressure buildup. Flow 1 hour. Shut in. DC \$1619  
12-31-95 Shut in for pressure buildup.  
1-1-2-96 Shut in for pressure buildup.  
1-3-96 Shut in.  
1-4-96 SITP 1200#. Flowed well down to 0 psi. Did not unload any  
fluid. Put on 1/4" positive choke. Flowed all day and night  
as follows: (Put on 1/4" choke)

| TIME  | TP | MCF |
|-------|----|-----|
| 10 AM | 50 | 95  |
| 11 AM | 55 | 102 |
| 12 PM | 60 | 110 |
| 1 PM  | 60 | 110 |
| 2 PM  | 60 | 110 |
| 3 PM  | 55 | 102 |
| 4 PM  | 55 | 102 |
| 5 PM  | 50 | 102 |
| 6 PM  | 50 | 102 |

# Attachment B

CDR  
 Page 8:  
 Yates Petroleum - Cedro "APG" State Com #1 (Unit C) 36-17S-30E Eddy Co.,  
 \*\*\*\*\*NM\*\*\*\*\*

|       |    |     |
|-------|----|-----|
| 7 PM  | 50 | 102 |
| 8 PM  | 50 | 102 |
| 9 PM  | 50 | 102 |
| 10 PM | 50 | 102 |
| 11 PM | 45 | 88  |
| 12 AM | 45 | 88  |
| 1 AM  | 45 | 88  |
| 2 AM  | 45 | 88  |
| 3 AM  | 45 | 88  |
| 4 AM  | 45 | 88  |
| 5 AM  | 45 | 88  |
| 6 AM  | 45 | 88  |

DC \$3018

1-5-96

Flowing at 45 psi on 1/4" positive choke. Bled down. Rigged up swab. Initial fluid level 7500' scattered. Recovered approx 5 bbls. On 2nd run FL 9500' scattered. Pulled from seating nipple. Recovered 1000' gas cut fluid (approx 3 bbls). On 3rd run dry. Put on 1/4" positive choke. Flow rest of day and night as follows:

| TIME  | TP | MCF |
|-------|----|-----|
| 11 AM | 40 | 80  |
| 12 PM | 45 | 88  |
| 1 PM  | 45 | 88  |
| 2 PM  | 45 | 88  |
| 3 PM  | 45 | 88  |
| 4 PM  | 45 | 88  |
| 5 PM  | 45 | 88  |
| 6 PM  | 45 | 88  |
| 7 PM  | 45 | 88  |
| 8 PM  | 45 | 88  |
| 9 PM  | 40 | 80  |
| 10 PM | 40 | 80  |
| 11 PM | 40 | 80  |
| 12 AM | 40 | 80  |
| 1 AM  | 40 | 80  |
| 2 AM  | 40 | 80  |
| 3 AM  | 40 | 80  |
| 4 AM  | 40 | 80  |
| 5 AM  | 40 | 80  |
| 6 AM  | 40 | 80  |

Morrow

1-6-96

Plan to frac Monday/Tuesday with Halliburton. DC \$2619  
 Flowing 40# on 1/4" positive choke. Flowed 4 hours. Shut well in. Prep to frac 1-8-96. DC \$1185

1-7-8-96

Shut in.

1-6-96

SITP 3100#. Rigged up Halliburton frac equipment, Guardian tree saver. Test lines 12000 psi. Frac'd Morrow perfs 11,392-11,423' with 36000 gals 65 Quality CO2 with 40,000# 20/40 Interprop I. Avg 11 BPM at 10,600#. ISDP 6000#, 15 mins 5500#. Shut in 4 hours. Rigged up choke manifold. Opened on 1/4" positive choke at 4:00 PM. Flowed well all night as follows:

| TIME  | PSI  |
|-------|------|
| 4 PM  | 4600 |
| 5 PM  | 2500 |
| 6 PM  | 1100 |
| 7 PM  | 1000 |
| 8 PM  | 600  |
| 9 PM  | 600  |
| 10 PM | 600  |
| 11 PM | 600  |
| 12 AM | 600  |
| 1 AM  | 600  |
| 2 AM  | 550  |
| 3 AM  | 550  |
| 4 AM  | 500  |
| 5 AM  | 475  |
| 6 AM  | 450  |

burning gas with mist

DC \$51,374

Attachment B

CDR

Page 9:

Yates Petroleum - Cedro "APG" State Com #1 (Unit C) 36-17S-30E Eddy Co.,  
\*\*\*\*\*NM\*\*\*\*\*

1-10-96      Flowing well on 1/4" positive choke for cleanup. After frac, flowing 325 psi with mist of condensate, small stream of water. Flowed as follows:

| TIME  | PSI | MCF |                              |
|-------|-----|-----|------------------------------|
| 8 AM  | 350 |     | w/mist & small stream of fld |
| 9 AM  | 350 |     | w/mist & small stream of fld |
| 10 AM | 325 | 477 | w/mist & small stream of fld |
| 11 AM | 325 | 477 | w/mist & small stream of fld |
| 12 PM | 325 | 477 | w/mist & small stream of fld |
| 1 PM  | 325 | 477 | w/mist & small stream of fld |
| 2 PM  | 325 | 477 | w/mist & small stream of fld |
| 3 PM  | 325 | 477 | w/mist & small stream of fld |
| 4 PM  | 325 | 477 | w/mist & small stream of fld |
| 5 PM  | 325 | 477 | w/mist & small stream of fld |
| 6 PM  | 325 | 477 | w/mist & small stream of fld |
| 7 PM  | 300 | 441 | w/mist & small stream of fld |
| 8 PM  | 300 | 441 | w/mist & small stream of fld |
| 9 PM  | 300 | 441 | w/mist & small stream of fld |
| 10 PM | 300 | 441 | w/mist & small stream of fld |
| 11 PM | 300 | 441 | w/mist & small stream of fld |
| 12 AM | 300 | 441 | w/mist & small stream of fld |
| 1 AM  | 250 | 367 | w/mist & small stream of fld |
| 2 AM  | 250 | 367 | w/mist & small stream of fld |
| 3 AM  | 250 | 367 | w/mist & small stream of fld |
| 4 AM  | 250 | 367 | w/mist & small stream of fld |
| 5 AM  | 250 | 367 | w/mist & small stream of fld |
| 6 AM  | 250 | 367 | w/mist & small stream of fld |

Well stabilized at 367 MCFD, 250 psi on 1/4" choke. Prep to move to Atoka. DC \$2660

Flowing well 250 psi on 1/4" positive choke (400 MCFD) with slight mist. Got OK at 9:00 AM to set 1.875 standing valve in packer at 11,318'. TOH with wireline. Bled well down. Loaded tubing with 61 bbls. Released on/off tool. Reverse out 70 bbls. Nipped up BOP. TOH with tubing. Rigged up wireline. TIH with 4" casing gun. Correlated on depth. Perforated Atoka 10,992-11,006' with 30 - .42" holes. TOH with wireline. TIH with 10K RBP and 10K HDCH packer, set RBP at 11,197'. Pulled up. Nipped down BOP. Nipped up tree. Set packer at 10,945'. Flanged up tree. Tested annulus to 1000 psi. Swab tubing down, slight show of gas last 2 runs. Prep to acidize with 1000 gals. This AM - SITP 50#. FL 9200'. DC \$7004

Overnight SITP 50#. Bled down. Fluid level 9200'. Made 2 runs, dry. Rigged up tree saver and BJ stimulation equipment. Acidized 1st Atoka sand at 10,992-11,006' with 1000 gals 7-1/2% Morrow acid with 1000 scf N2/bbl. Broke at 6000 psi. Avg 4 BPM at 6000#. ISDP 5800#, 15 mins 5000#. Nipped down tree saver. Flowed well to pit on 16/64" choke. Flowed 3 hours, 2' flare. Rigged up swab. Initial fluid level 7200'. Swabbed dry in 4 runs. Put on 3/16" choke 15 psi - 25 MCFD. Flowed overnight. DC \$11,870

(L. Atoka zone) Flowing 15# on 12/64" choke = 12 MCFD.

Rigged up swab. Initial fluid level 9500' scattered. Recovered 5 bbls with 20% oil. On 2nd run FL 10,500'. Recovered 1/2 bbl with 5% oil. Put on 1/8" positive choke for 3 hours. Loaded tubing. Nipped down tree. Nipped up BOP. Released packer and RBP. Reset RBP at 10,945'. Tested to 1500 psi. TOH with packer. Shut well in. Prep to perforate Atoka #2. DC \$2155

Rigged up wireline. TIH with 4" casing gun. Correlated on depth. Perforated 2nd Atoka 10,853-58' with 24 - .42" holes. TOH with guns. TIH with 10K HDCH packer, set at 10,787'. Nipped down BOP, nipped up tree. Swabbed tubing down. Slight show of gas. Rigged up tree saver and Halliburton. Acidized with 1000 gals 7-1/2% Morrow acid with 1000 scf N2/bbl. Break at 8200 psi. Avg 4.5 BPM at 6900#. ISDP 6125#, 15 mins 4950#. Nipped down treesaver. Flowed well to pit as follows - (67 BLTR)

| TIME | FL | # | SR | BW | PSI |
|------|----|---|----|----|-----|
| 7 PM |    |   |    |    | 260 |

Morrow  
Flowrate  
1-11-96

Morrow

Atoka 1  
10992-11006'  
1-12-96

Atoka 1 Flowrate  
1-13-96

1-16-96

Atoka 2  
10853-10858'

# Attachment B

CDR  
Page 10:  
Yates Petroleum - Cedro "APG" State Com #1 (Unit C) 36-17S-30E Eddy Co.,  
\*\*\*\*\*NM\*\*\*\*\*

8 PM 180  
9 PM 100  
10 PM 6500' scattered, started swabbing  
11 PM 3 12  
12 AM 50, slt mist w/gas  
1 AM 30, slt mist w/gas  
2 AM 6500' scattered 15, slt mist w/gas, rigged up  
swab.  
3 AM 3 12 50, slt mist w/gas. Pull swab  
from 10000'  
4 AM 40  
5 AM 20  
6 AM 20 started swabbing

Plan to swab well dry Tuesday morning and test on 1/4" choke.  
DC \$12,593

1-17-96 Rigged up swab. Fluid level 9000' scattered. Pulled from  
seating nipple. Recovered approx 5 bbls with 30% oil, 2nd  
run fluid level 10,300'. Recovered 1/2 bbl. Put on 1/4"  
positive choke (50 MCFD) 5 hours. Pressure up to 20 psi then  
dropped to 10 psi. Made swab run. Fluid level 9000'  
scattered. Pull from seating nipple. Recovered approx 5  
bbls with 30% oil. Put on 1/4" choke 2 hours. Shut well in  
(10 psi). DC \$1736

1-18-96 Overnight SITP 350#. Bled down. Rigged up swab. FL 8300'  
scattered. Pulled from 10000'. Rec 5 bbls at 80% oil. On  
2nd run FL 9800'. Pulled from seating nipple. Rec 2 bbls  
with 30% oil cut at wellhead. Put on 1/8" choke for 6 hours.  
Made swab runs as follows:

TIME PSI MCF

9 AM 20  
10 AM 30  
11 AM 40  
12 PM 50 17  
1 PM 50 17  
2 PM 50 17

3 PM FL 9800' scattered - 2 BO and 1/2 BW. Made 1 run then  
shut in. Plan to frac Monday. DC \$1766

WATER ANALYSIS: 1-16-96

|              |            |              |           |
|--------------|------------|--------------|-----------|
| Spec Gravity | 1.050 @ 60 | Resistivity  | .095 @ 75 |
| pH           | 6          | Sulfate      | 1524      |
| Iron         | 500        | Tot Hardness | 28571     |
| Calcium      | 4571       | Bicarbonate  | 349       |
| Magnesium    | 4166       | Sod Chloride | 54821     |
| Chloride     | 33326      | Tot Diss Sol | 73123     |
| Sod & Pot    | 9353       |              |           |

1-19-96 Shut in.

1-20-22-96 Prep to foam frac top Atoka with 25,000# proppant.

1-23-96 Rigged up Treesaver and Halliburton frac equipment. Tested  
lines to 12000 psi. Prep to frac Atoka perfs 10,852-58' (via  
2-7/8" L-80 tubing) with 22,000 gals 65 Quality CO2 with  
25000# 20/40 DC TM sand. TP 8700# until 1/2 of sand was on  
formation. Pressure climbed to 11500 psi. Cut sand CO2  
flush with slick water, 62 bbls at 8400# prop in formation.  
ISDP 7000#, 15 mins 5000#. Shut in. Rig down Treesaver.  
Shut in 4 hours. SITP 2700#. Opened to pit on 1/4" positive  
choke, 0 psi in 5 mins, indicating tubing bridged off.  
Called out Cudd coiled tubing unit. TIH with 1-1/4" C.T.  
Washed down 1/4 BPM at 6000', hit sand bridge. Recovered CO2  
and water. Washed down thru perfs to RBP at 10,945'. TOH  
with coil tubing. Well died with coil tubing at 2000'.  
Nipped down CTU. Rigged up swab.

1-24-96

Rigged up swab to pit as follows:

| TIME  | BBLS     | # SR | FL                    |
|-------|----------|------|-----------------------|
| 6:30  | IFL 500' |      |                       |
| 7:30  | 16       | 4    | 2800'                 |
| 8:30  | 15       | 3    | 4200' interm. gas     |
| 9:30  | 15       | 3    | 4800' interm. gas     |
| 10:30 | 10       | 2    | 5200' scattered       |
| 11:30 | 10       |      | 6200' scatt, skim oil |
| 12:30 | 5        | 1    | 7500' scatt, 10% oil  |

Atoka 2

CDR

# Attachment B

Page 11:

Yates Petroleum - Cedro "APG" State Com #1 (Unit C) 36-17S-30E Eddy Co.,

\*\*\*\*\*NM\*\*\*\*\*

|                           |     |   |        |                             |
|---------------------------|-----|---|--------|-----------------------------|
| 1:30                      | 5   | 1 | 8500'  | scatt, 10% oil              |
| 2:30                      | 3   | 1 | 9800'  | scatt-SN, 3' flare constant |
| after swab, 15% oil       |     |   |        |                             |
| 3:30                      | 2   | 1 | 10200' | scatt-SN, 3' flare constant |
| after swab, 20% oil       |     |   |        |                             |
| 4:30                      | 1   | 1 | 10400' | scatt-SN, 3' flare constant |
| after swab, 20% oil       |     |   |        |                             |
| Put on 1/8" choke 2 hours |     |   |        |                             |
| 6:00                      | 60# |   |        |                             |
| 7:00                      | 85# |   |        | = 27 MCFD                   |

Overnight SI 650#. Will test zone today. DC \$1973

1-25-96

Overnight SITP 650#. Bled down. Rigged up swab. Initial fluid level 5600' scattered -

| TIME                                                             | BBLS | # SR | OIL | FL                             |
|------------------------------------------------------------------|------|------|-----|--------------------------------|
| 8:30                                                             | 10   | 2    | 30% | 9000'-SN                       |
| 9:30                                                             | 5    | 2    | 30% | SN - 10,775' Put on 1/8" choke |
| 10:30                                                            | 60#  |      |     |                                |
| 11:30                                                            | 85#  |      |     |                                |
| 12:30                                                            | 95#  |      |     | = 33 MCFD                      |
| 1:30                                                             | 95#  |      |     | = 33 MCFD                      |
| Rigged up swab. FL 9000'. Rec 5 bbls, 30% oil. Put on 1/8" choke |      |      |     |                                |
| 3:30                                                             | 60#  |      |     |                                |
| 4:30                                                             | 85#  |      |     |                                |
| 5:30                                                             | 95#  |      |     | = 33 MCFD. Shut in.            |

Atoka 2  
Flowrate →

Attachment C  
Morrow BHP  
GRADIENT RUN REPORT

COMPANY NAME : Yates Petroleum Corp  
FIELD : Undesignated  
WELL NAME : Cedro APG St Com #1  
LOCATION : Eddy County  
PERF. INTERVAL : 11392 11423  
ELEVATION :  
GAUGE DEPTH : 11250 feet  
GAUGE MODEL : II  
GAUGE S/N : 20494  
TEST TYPE : STATIC GRADIENT  
COMMENTS :

TECHNICIAN : E. Jarrel  
REPORT DATE : 01/01/96

By:

Jarrel Services Inc.  
HOBBS, NEW MEXICO

GRADIENT RUN REPORT

Page: 1

COMPANY : Yates Petroleum Corp  
FIELD : Undesignated  
WELL : Cedro APG St Com III  
LOCATION : Eddy County

TEST INT. : 11392 11423  
GAUGE DEPTH : 11250 feet  
GAUGE S/N : 20494

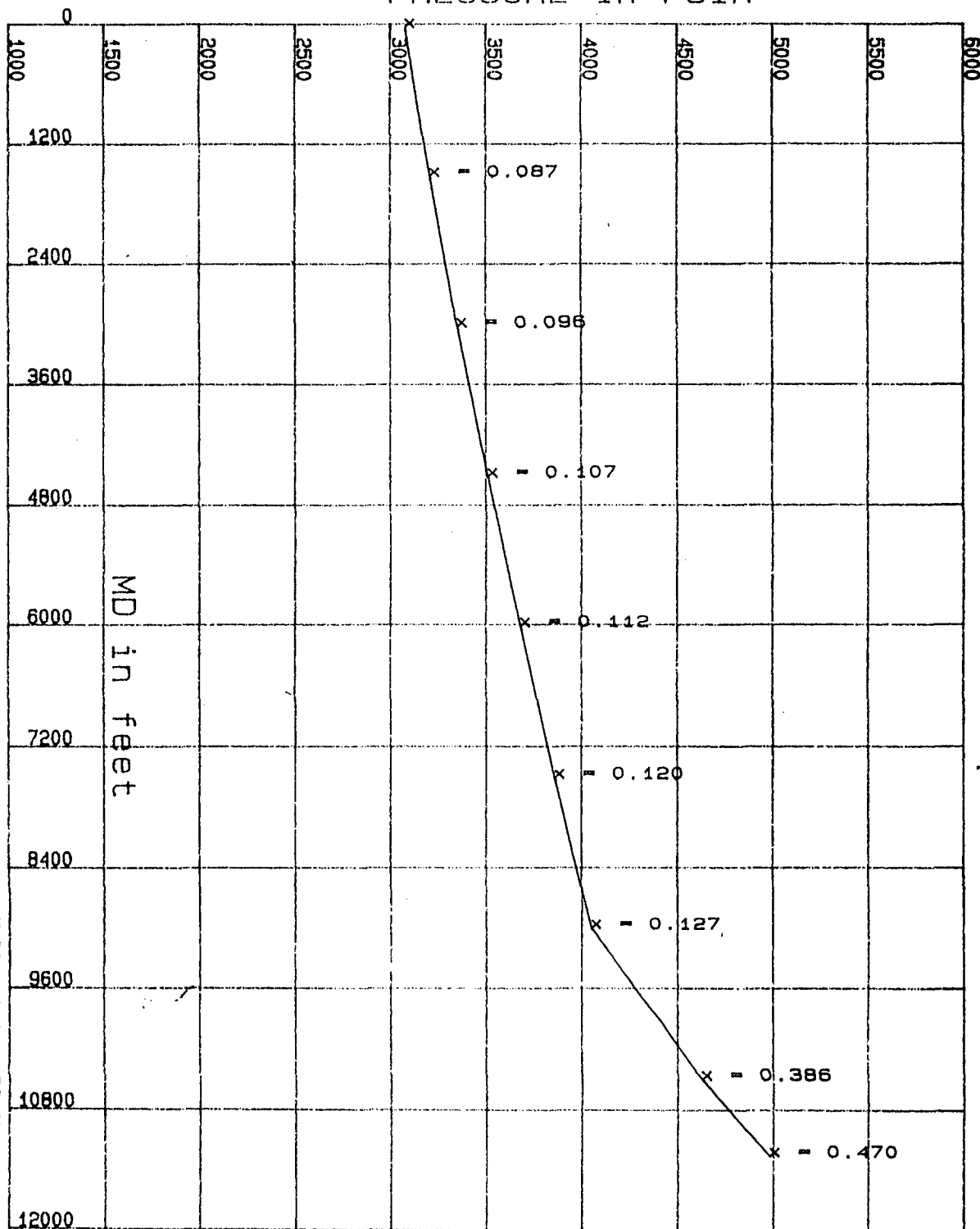
| Measured<br>Depth<br>feet | Delta<br>Depth<br>feet | Pressure<br>PSIA | Delta<br>Press | Gradient<br>PSIA/<br>feet | Temp<br>'F | Gradient<br>'F /<br>feet |
|---------------------------|------------------------|------------------|----------------|---------------------------|------------|--------------------------|
| 0.0                       |                        | 3075.07          |                |                           | 64.2       |                          |
| 1500.0                    | 1500.0                 | 3207.01          | 131.14         | 0.087                     | 72.4       | 0.005                    |
| 3000.0                    | 1500.0                 | 3350.90          | 143.89         | 0.096                     | 79.2       | 0.010                    |
| 4500.0                    | 1500.0                 | 3511.77          | 160.47         | 0.107                     | 101.9      | 0.025                    |
| 6000.0                    | 1500.0                 | 3679.80          | 168.41         | 0.112                     | 114.7      | 0.034                    |
| 7500.0                    | 1500.0                 | 3859.68          | 179.88         | 0.120                     | 128.9      | 0.043                    |
| 9000.0                    | 1500.0                 | 4050.17          | 190.49         | 0.127                     | 144.0      | 0.053                    |
| 10500.0                   | 1500.0                 | 4628.52          | 578.35         | 0.386                     | 155.1      | 0.061                    |
| 11250.0                   | 750.0                  | 4981.25          | 352.73         | 0.470                     | 156.7      | 0.123                    |

Jarrel Services Inc.

PRESSURE in PSIA

# GRADIENT PLOT

Yates Petroleum Corp



Field: Undesignated  
Start time: 12:29:55/16:30:00  
Comments: STATIC GRADIENT

Test Interval: 11392 11423  
Stop time: 01:01:56/17:16:30

Well: Cadro APG St Com #1

Jarrel Services Inc.

# Attachment C

## Atoka BHP

Brian

50

12/05/1995 23:16 303-522-9873

DATA REPORTING

PAGE 01



**BAKER**  
OIL TOOLS

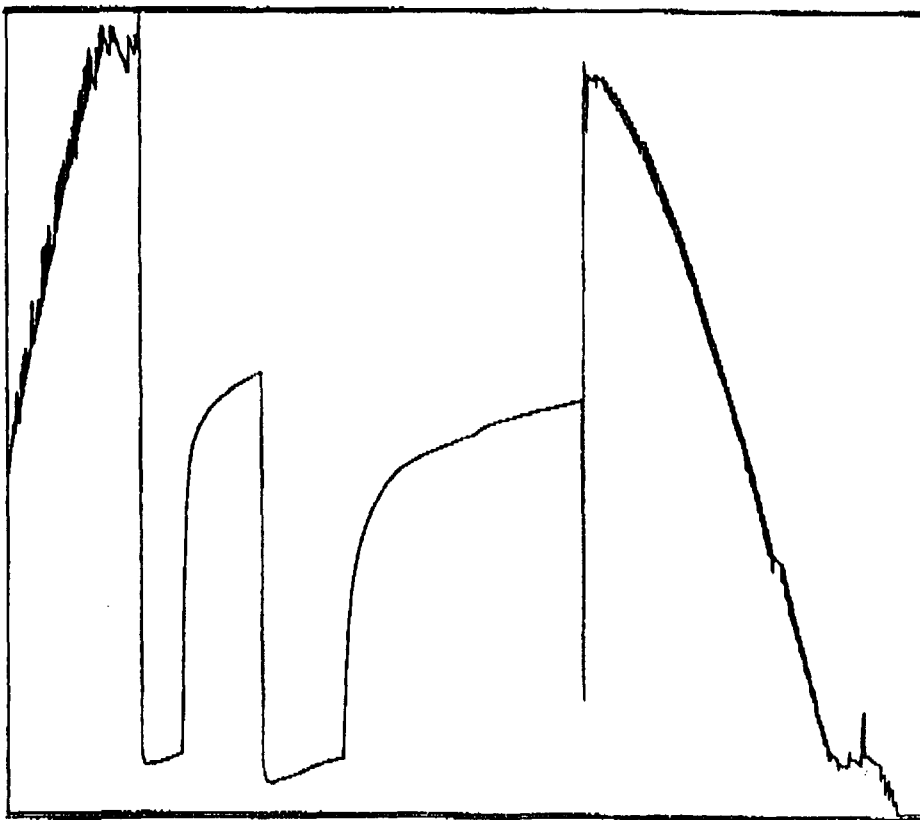
56 Inverness Drive East  
Englewood, CO 80112

Phone (303) 790-2705

Contractor **Ziadrill**  
Rig No. **3**  
Spot **660' FNL & 2230' FWL**  
Sec **36**  
Twp. **17 S**  
Rng. **30 E**  
Field **Wildcat**  
County **Eddy**  
State **New Mexico**  
Elevation **3620' KB**  
Formation **Atoka**

Surface Choke **1/8" & 1/4"**  
Bottom Choke **3/4"**  
Hole Size **7 7/8"**  
Core Hole Size **--**  
DP Size & Wt. **4 1/2" 16.60**  
Wt. Pipe **4 1/2" 22.82**  
I.D. of DC **2 1/4"**  
Length of DC **808'**  
Total Depth **10881'**  
Type Test **Conventional**  
Interval **10850' - 10881'**

Mud Type **--**  
Weight **9.1**  
Viscosity **49**  
Water Loss **--**  
Filter Cake **--**  
Resistivity **.27 @ 60 °F**  
**17,000 Ppm. NaCl**  
B.H.T. **147.3 °F**  
Co. Rep. **Tim Russell**  
Tester **Berry Fisher**  
Baker Dist. **Hobbs NM**



|               | REPORTED   | CORRECTED |      |
|---------------|------------|-----------|------|
| Opened Tool @ | 05:56      |           | hrs. |
| Flow No. 1    | 30         | 30        | min. |
| Shut-in No. 1 | 60         | 60        | min. |
| Flow No. 2    | 60         | 60        | min. |
| Shut-in No. 2 | 180        | 178       | min. |
| Flow No. 3    | None Taken |           | min. |
| Shut-in No. 3 | "          | "         | min. |

Recorder Type **STI 8000**  
No. **01097** Cap. **6500 psi**  
Depth **10861 feet**  
Inside **Clock**  
Outside **x Range** hrs.

|                     |   |      |
|---------------------|---|------|
| Initial Hydrostatic | A | 5118 |
| Final Hydrostatic   | K | 5024 |
| Initial Flow        | B | 337  |
| Final Initial Flow  | C | 422  |
| Initial Shut-In     | D | 3024 |
| Second Initial Flow | E | 210  |
| Second Final Flow   | F | 387  |
| Second Shut-In      | G | 2837 |
| Third Initial Flow  | H |      |
| Third Final Flow    | I |      |
| Third Shut-In       | J |      |

Pipe Recovery

Reverse circulated:  
808' Total fluid = 3.9 bbl., consisting of:  
388' Oil = 1.9 bbl.  
420' Mud = 2.0 bbl.

Gravity:  
Top: 44.0 Deg API @ 60 Deg F  
Middle: 44.0 Deg API @ 60 Deg F  
Chlorides:  
Bottom: .32 @ 60 Deg F/14,000 ppm Cl. titrated.

YATES PETROLEUM CORP.  
TICKET #012276

CEDRO "APG" STATE COM. #1  
ATOKA - 10850' - 10881'

DST #4  
12-05-1995

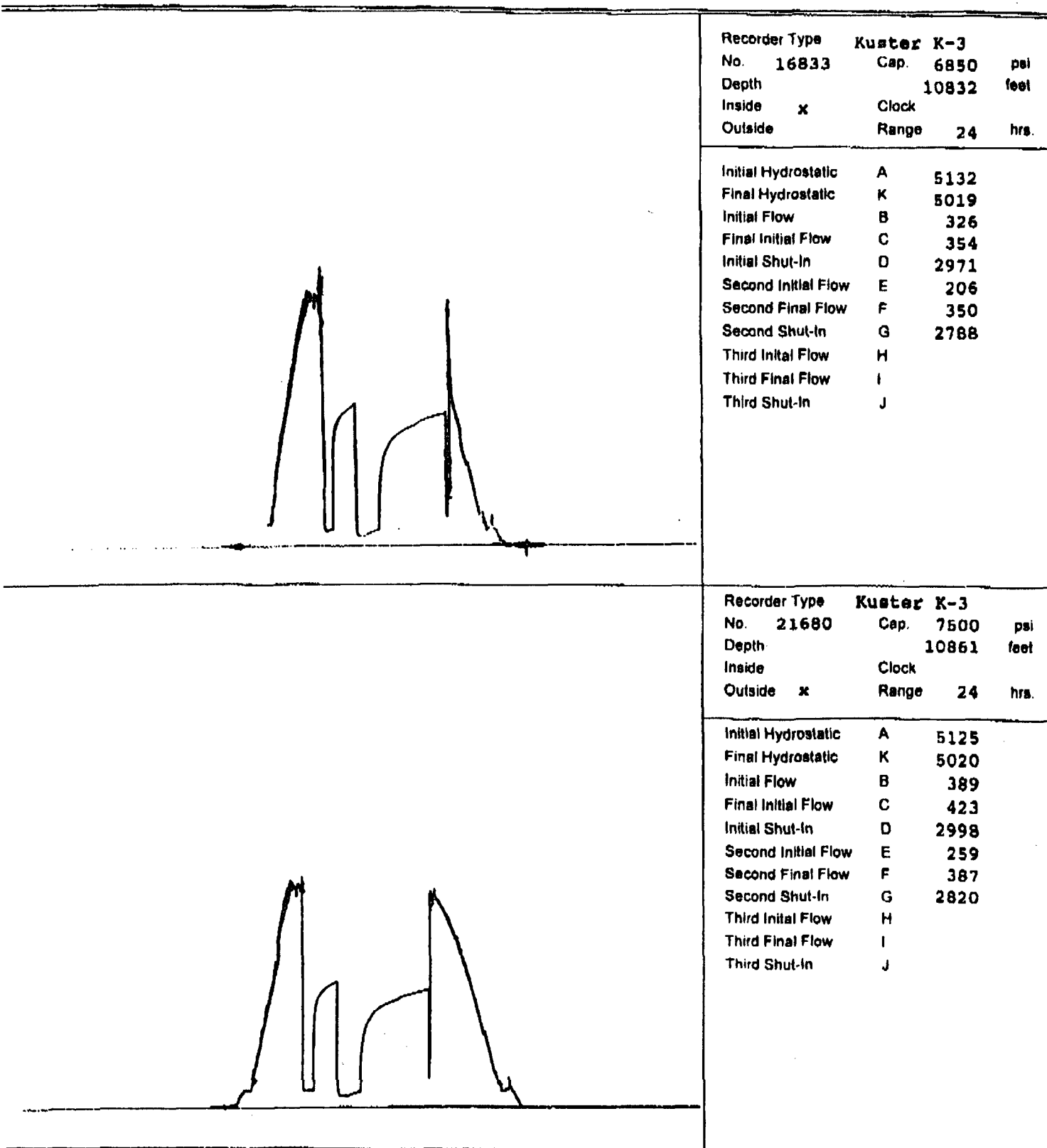
12/05/1995 23:16 303-522-9073

DATA REPORTING

PAGE 02

Yates Petroleum Corp.  
Cedro "APG" State Com #1, DST #4

12-05-1995



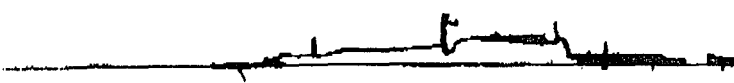
12/05/1995 23:16 303-522-9073

DATA REPORTING

PAGE 03

Yates Petroleum Corp.  
Cadro "APG" State Com #1, DST #4

12-05-1995

|                                                                                     |                     |                 |               |
|-------------------------------------------------------------------------------------|---------------------|-----------------|---------------|
|  | Recorder Type       | Kuster K-3      |               |
|                                                                                     | No.                 | 18079           | Cap. 4075 psi |
|                                                                                     | Depth               | Above Tool feet |               |
|                                                                                     | Inside              | x               | Clock         |
|                                                                                     | Outside             | Range           | 24 hrs.       |
|                                                                                     | Initial Hydrostatic | A               |               |
|                                                                                     | Final Hydrostatic   | K               |               |
|                                                                                     | Initial Flow        | B               | 44            |
|                                                                                     | Final Initial Flow  | C               | 96            |
|                                                                                     | Initial Shut-In     | D               |               |
|                                                                                     | Second Initial Flow | E               | 84            |
|                                                                                     | Second Final Flow   | F               | 127           |
|                                                                                     | Second Shut-In      | G               |               |
|                                                                                     | Third Initial Flow  | H               |               |
|                                                                                     | Third Final Flow    | I               |               |
|                                                                                     | Third Shut-In       | J               |               |
|                                                                                     | Recorder Type       | ---             |               |
|                                                                                     | No.                 | Cap.            | psi           |
|                                                                                     | Depth               | feet            |               |
|                                                                                     | Inside              | Clock           |               |
|                                                                                     | Outside             | Range           | hrs.          |
|                                                                                     | Initial Hydrostatic | A               |               |
|                                                                                     | Final Hydrostatic   | K               |               |
|                                                                                     | Initial Flow        | B               |               |
|                                                                                     | Final Initial Flow  | C               |               |
|                                                                                     | Initial Shut-In     | D               |               |
|                                                                                     | Second Initial Flow | E               |               |
|                                                                                     | Second Final Flow   | F               |               |
|                                                                                     | Second Shut-In      | G               |               |
|                                                                                     | Third Initial Flow  | H               |               |
|                                                                                     | Third Final Flow    | I               |               |
|                                                                                     | Third Shut-In       | J               |               |

12/05/1995 23:16 303-522-9073

DATA REPORTING

PAGE 04

Yates Petroleum Corp.  
Cedro "APG" State Com #1, DST #4

12-05-1995

| Real      | TIME  | Dt | CHOKE SIZE | SURFACE<br>PRESSURE | FLOWRATE<br>MCF/D | REMARKS                     |
|-----------|-------|----|------------|---------------------|-------------------|-----------------------------|
| 05:56 Hrs | 0 Min |    | 1/8"       | Strong Blow         |                   | Opened for initial flow:    |
|           | 5     |    |            | 56.0 psi            |                   |                             |
|           | 10    |    | 1/4"       | 104                 |                   |                             |
|           | 14    |    |            |                     |                   | Gas to surface:             |
|           | 15    |    |            | 146.0               | 236.0             |                             |
|           | 20    |    |            | 176.0               | 280.0             |                             |
|           | 25    |    |            | 210.0               | 330.0             |                             |
| 06:26     | 30    |    |            | 230.0               | 360.0             | Closed for initial shut-in: |
| 07:26     | 0     |    |            | 10.0                | 37.0              | Opened for final flow:      |
|           | 5     |    |            | 60.0                | 110.0             |                             |
|           | 10    |    |            | 85.0                | 147.0             |                             |
|           | 15    |    |            | 105.0               | 176.0             |                             |
|           | 20    |    |            | 120.0               | 198.0             |                             |
|           | 25    |    |            | 125.0               | 206.0             |                             |
|           | 30    |    |            | 130.0               | 213.0             |                             |
|           | 35    |    |            | 136.0               | 222.0             |                             |
|           | 40    |    |            | 142.0               | 231.0             |                             |
|           | 45    |    |            | 145.0               | 235.0             |                             |
|           | 50    |    |            | 148.0               | 239.0             |                             |
|           | 55    |    |            | 150.0               | 242.0             |                             |
| 08:26     | 60    |    |            | 154.0               | 248.0             | Closed for final shut-in:   |
| 11:26     |       |    |            |                     |                   | Pulled tool:                |
| 14:45     |       |    |            |                     |                   | Reverse circulated:         |

12/05/1995 23:16 303-522-9073

DATA REPORTING

PAGE 05

Yates Petroleum Corp.  
Cedro "APG" State Com #1, DST #4

12-05-1995

SAMPLER REPORT

|                          |      |         |
|--------------------------|------|---------|
| Pressure in Sampler:     | 525  | psig    |
| Total Volume of Sampler: | 2600 | cc.     |
| Total Volume of Sample:  | 500  | cc.     |
| Oil:                     | 300  | cc.     |
| Water:                   | None | cc.     |
| Mud:                     | 200  | cc.     |
| Gas:                     | 3.32 | cu. ft. |
| Other:                   | None |         |

Sample: 14,000 ppm Cl. titrated.

Resistivity

|                 |                    |                        |                   |
|-----------------|--------------------|------------------------|-------------------|
| Make up Water   | @                  | %F of Chloride Content | ppm.              |
| Mud Pit Sample  | .27 @ 60           | %F of Chloride Content | 17,000 ppm.       |
| Gas / Oil Ratio | 1771/1 cu.ft./bbl. | Gravity                | 44.0 °API @ 60 °F |

Where was sample drained On location.

Remarks:

Company: Yates Petroleum Corp.  
Well: Cedro "APG" State Com #1, DST #4  
Field: Wildcat

12-05-1995

Gauge Depth ..... 10861.0 feet

[ INPUT PARAMETERS ]  
(Build-Up Analysis)

|                          |           |      |           |
|--------------------------|-----------|------|-----------|
| Well Type - OIL          |           |      |           |
| Reservoir Pressure       | psia      | P    | 3253      |
| Reservoir Temperature    | Deg F     | T    | 147       |
| Final Shut-in Pressure   | psia      | Psi  | 2837      |
| Final Flowing Pressure   | psia      | Pwf  | 387       |
| Gas Flow Rate            | mcf       | Qg   | 248       |
| Oil Flow Rate            | STB/D     | Qo   | 85        |
| Sand Thickness           | feet      | hnet | 10        |
| Wellbore Radius          | feet      | rw   | 0.3280    |
| Formation Porosity       | %         | POR  | 8         |
| Extrapolated Pressure    | psia      | P*   | 3253      |
| Extrapolated Press @ 1hr | psia      | P1hr | 2319      |
| Semi-Log Slope           | psi/cycle | M    | -2340.615 |
| Production Time          | hrs       | tp   | 1.50      |
| Shut-in Time             | hrs       | tai  | 3.00      |

|            |            |             |            |
|------------|------------|-------------|------------|
| Uo (cp)    | 3.8872E-01 | Bo (RB/STB) | 1.5028E+00 |
| Co (1/psi) | 7.7348E-05 | Ct (1/psi)  | 7.8804E-05 |

[ TYPE CURVE MATCH POINTS ]

|    |          |             |             |
|----|----------|-------------|-------------|
| dP | 1692.668 | Pd          | 1.524       |
| dt | 0.232    | Cde25 1E +0 | tD/Cd 8.640 |

[ CALCULATED RESULTS ]

(Semi-Log) Analysis

Pressure Method

|                           |          |      |         |
|---------------------------|----------|------|---------|
| Transmissibility          | md-ft/cp | kh/u | 8.874   |
| Flow Capacity             | md-ft    | kh   | 3.449   |
| Permeability              | md       | k    | 0.345   |
| Skin Damage               | total    | S    | -2.38   |
| Pressure Drop due to Skin | psia     | dP   | +0.00   |
| Flow Efficiency           | %        | FE   | +100.00 |
| Drainage Radius           | feet     | rd   | 19      |

Type Curve (Log-Log) Analysis

|                           |          |      |         |
|---------------------------|----------|------|---------|
| Transmissibility          | md-ft/cp | kh/u | 16.239  |
| Flow Capacity             | md-ft    | kh   | 6.313   |
| Permeability              | md       | k    | 0.631   |
| Skin Damage               | total    | S    | -1.42   |
| Pressure Drop due to Skin | psia     | dP   | +0.00   |
| Flow Efficiency           | %        | FE   | +100.00 |

Yates Petroleum Corp.  
Cedro "APG" State Com #1, DST #4

12-05-1995

This analysis has been made on the basis of the liquid recovery and equations applicable to liquid recovery tests, the Horner extrapolation method and comparative log/log analysis.

The semi-log plots indicate a maximum initial reservoir pressure of 3323 psi and a maximum final reservoir pressure of 3253 psi which is equivalent to a subsurface pressure gradient of 0.300 psi/ft at gauge depth. The difference between the extrapolated initial and final reservoir pressures (70 psi) is probably due to the presence of multiple porosity systems within the tested interval which is indicated by the character of the build-up curves on the various plots.

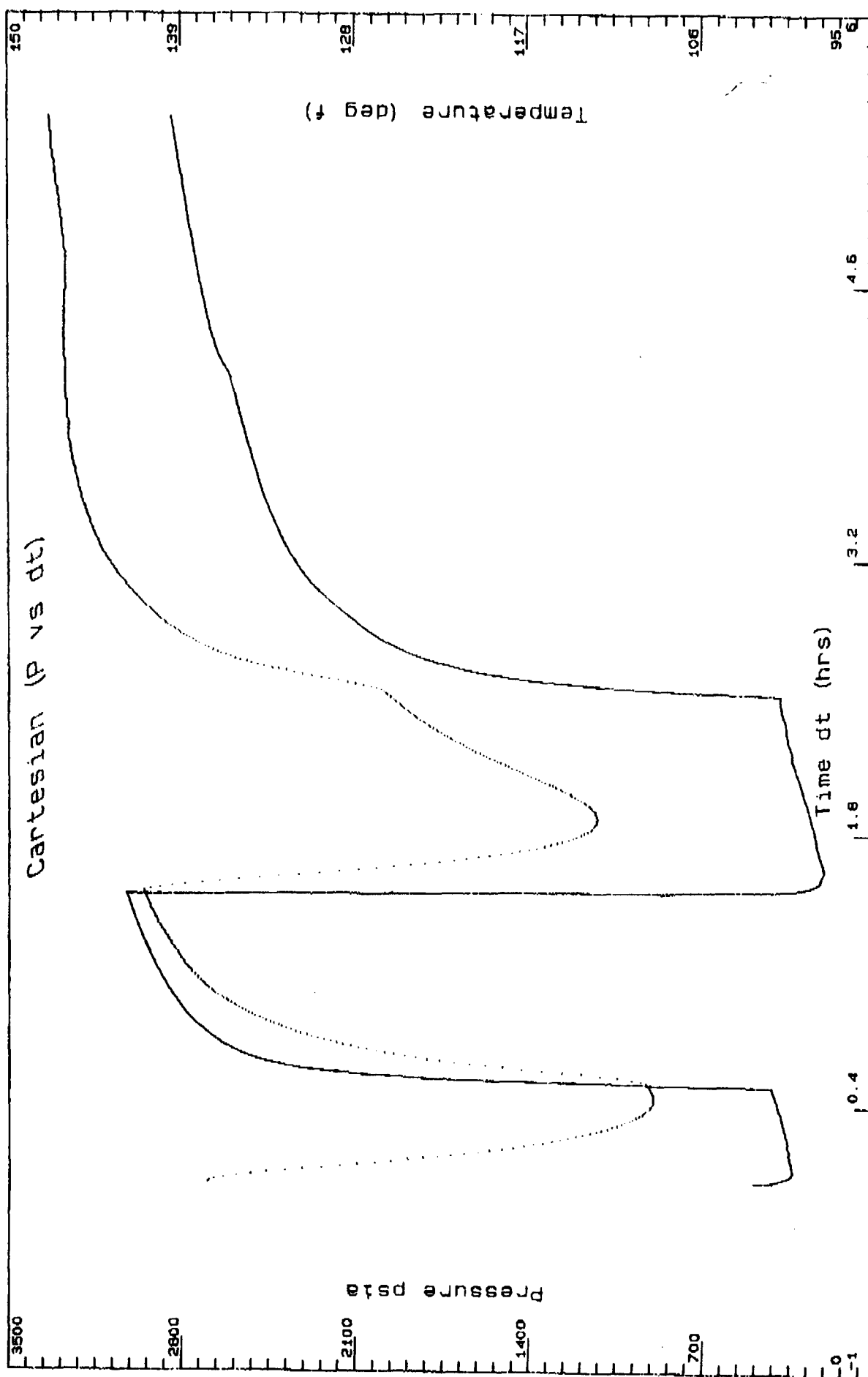
The Average Production Rate which was used in this analysis has been calculated from analysis of the flow pressure curves using a liquid gradient for the recovered oil of 0.349 psi/ft.

For purposes of this analysis a pay thickness of 10 feet and an Average porosity of 8% has been estimated.

The calculated Skin Factors indicate no well-bore damage was present at the time of this formation test.

The evaluation criteria used in the drillstem test analysis system indicate this is a good mechanical test and the results obtained in this analysis should be reliable within reasonable limits relative to the assumptions which have been made.

18



Company: Yates Petroleum Corp.  
Well: Cedro "APG" State Com #1, DST #4  
Field: Wildcat  
Date: 12-05-1995

— Pressure  
... Temperature

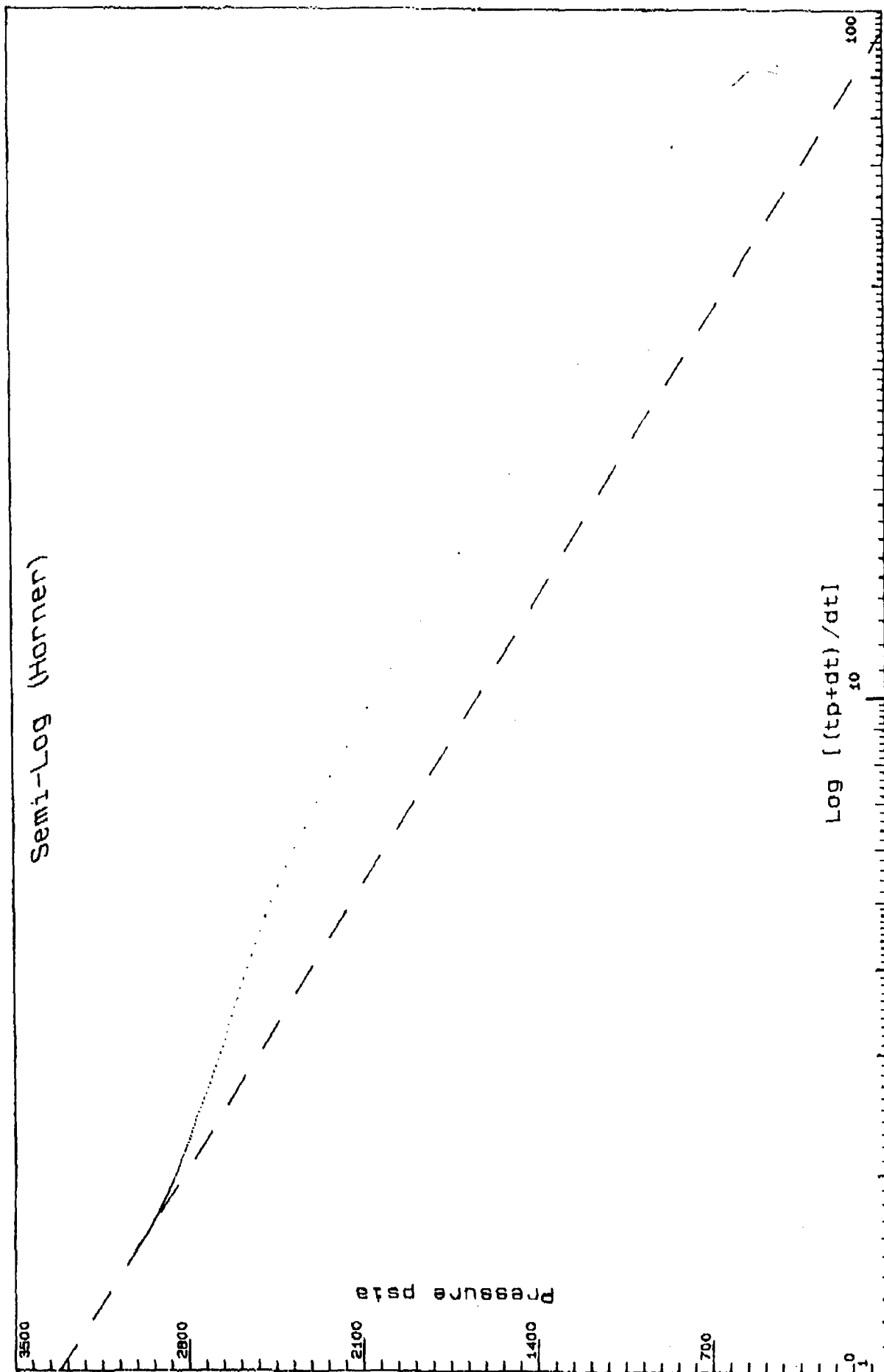
12/05/1995 23:16

303-522-9073

DATA REPORTING

PAGE 09

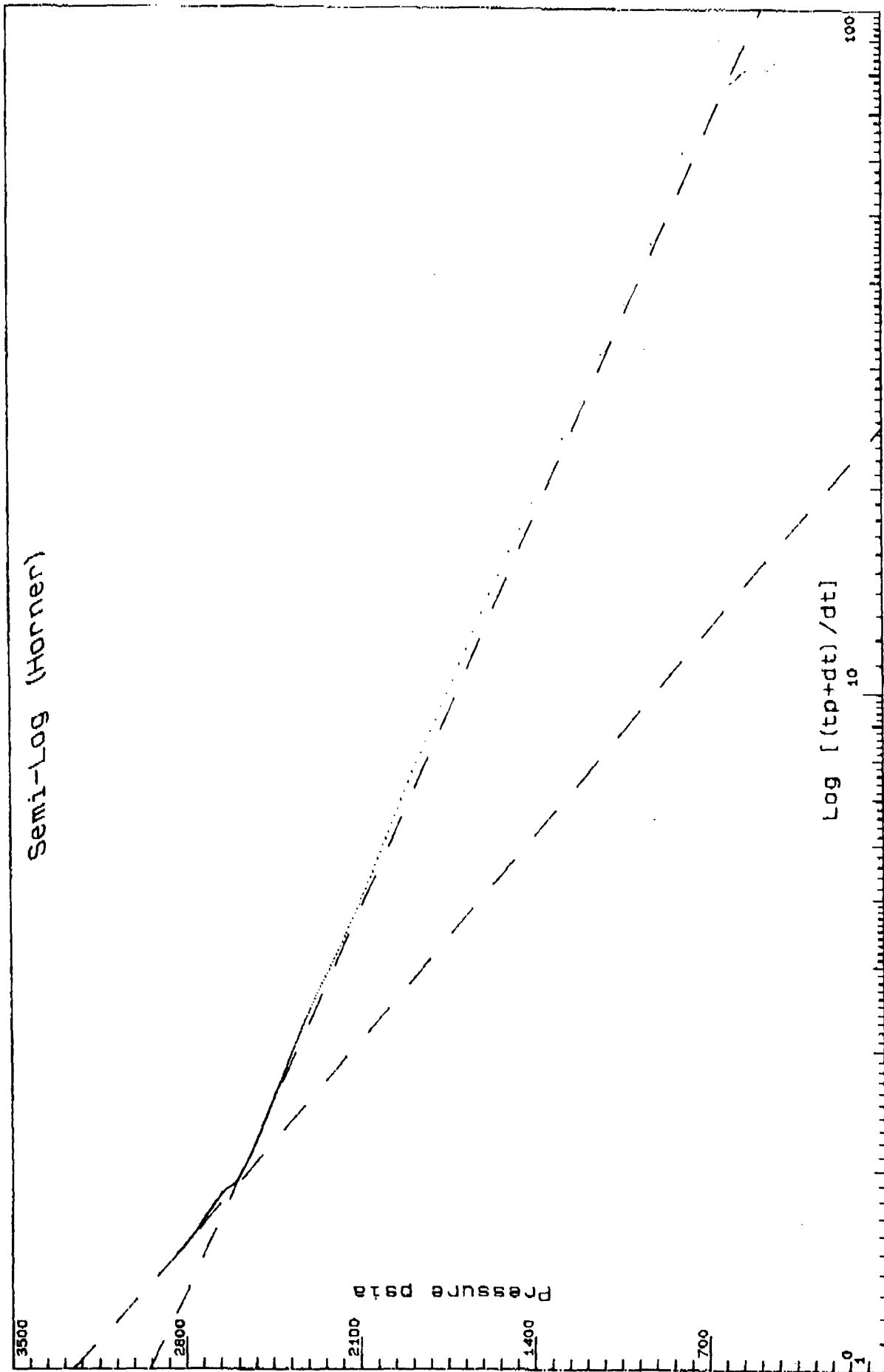
19



Shut-in #1:  
P\* = 3323 psi  
M = -1686.917 psi/cycle

Company: Yates Petroleum Corp.  
Well: Cedro "APG" State Com #1, DST #4  
Field: Wildcat

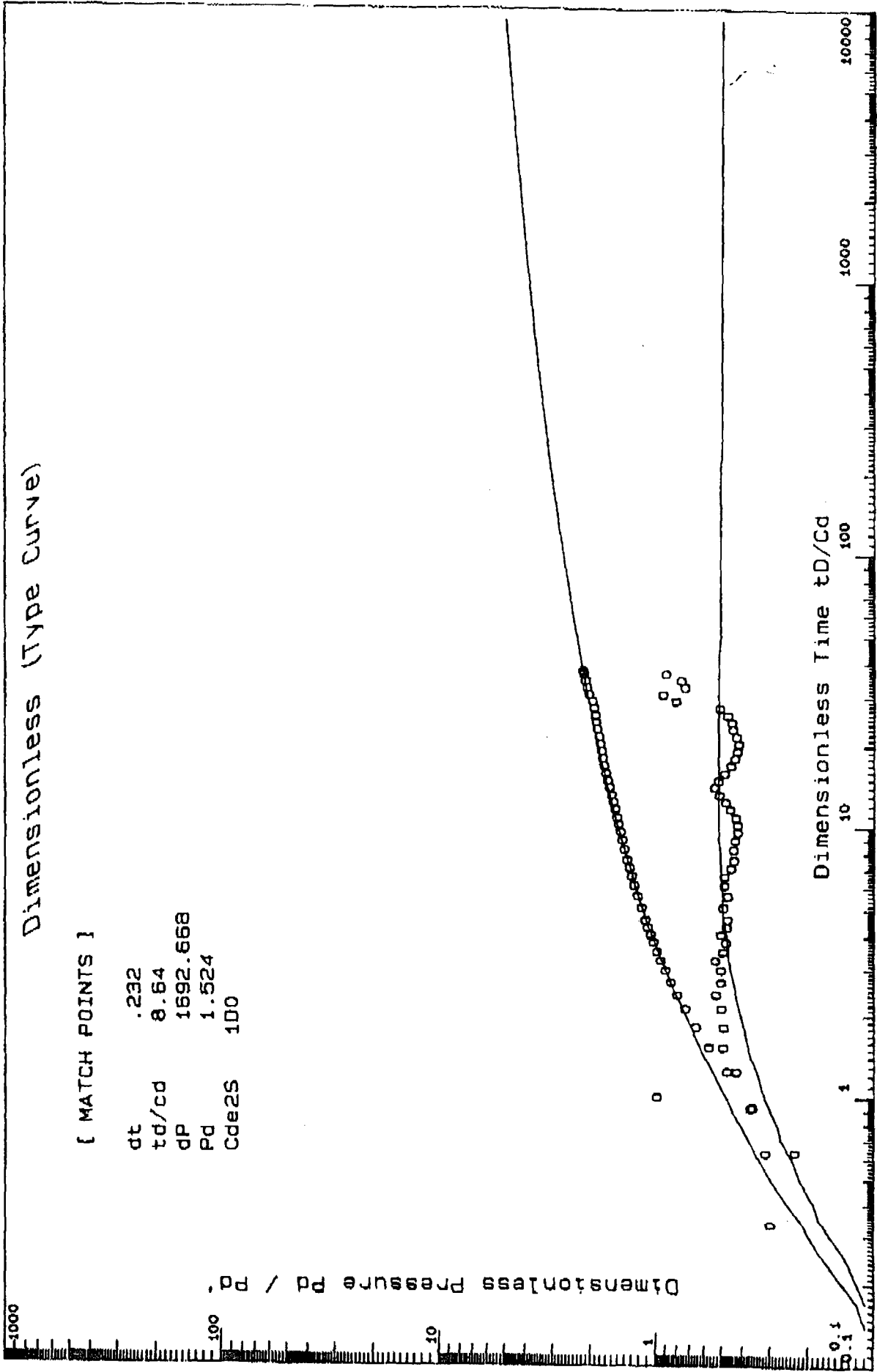
Date: 12-05-1995



Shut-in #2:  
M1 = -1232.933 psi/cycle - P\* = 2945 psi  
M2 = -2340.615 psi/cycle - P\* = 3253 psi

Company: Yates Petroleum Corp.  
Well: Cedro "APG" State Com #1, DST #4  
Field: Wildcat

Date: 12-05-1995



Company: Yates Petroleum Corp. Shut-in #2:  
Well: Cedro "APG" State Com #1, DST #4  
Field: Wildcat  
Date: 12-05-1995

COMPANY: Yates Petroleum Corporation

WELL: Cedro 'APG' State Com #1

FIELD: Cedar Lake (Morrow)

COUNTY: Eddy STATE: New Mexico

COUNTY: Eddy  
Field: Cedar Lake (Morrow)  
Location: 660' FNL and 2230' FWL  
Well: Cedro 'APG' State Com #1  
Company: Yates Petroleum Corporation

LithoDensity  
Compensated Neutron  
Gamma Ray

| LOCATION                |         |               |                          |
|-------------------------|---------|---------------|--------------------------|
| 660' FNL and 2230' FWL  |         | Elev:         | K.B. 3620 F              |
| Permanent Datum:        |         | Ground Level  | G.L. 3602 F              |
| Log Measured From:      |         | Kelly Bushing | D.F. 3619 F              |
| Drilling Measured From: |         | Kelly Bushing | 18.0 F above Perm. Datum |
| API Serial No.          | SECTION | TOWNSHIP      | RANGE                    |
| 30-015-28487            | 36      | 17S           | 30E                      |

|                               |                         |
|-------------------------------|-------------------------|
| Logging Date                  | 14-Dec-1995             |
| Run Number                    | One                     |
| Depth Driller                 | 11775 F                 |
| Schlumberger Depth            | 11770 F                 |
| Bottom Log Interval           | 11770 F                 |
| Top Log Interval              | 200 F                   |
| Casing Driller Size @ Depth   | 8.625 IN @ 4489 F       |
| Casing Schlumberger           | 4480 F                  |
| Bit Size                      | 7.875 IN                |
| Type Fluid In Hole            | Driscap / XCD Polymer   |
| Density                       | 9.4 LB/G 52 S           |
| Fluid Loss                    | 7.6 C3 10.5             |
| Source Of Sample              | Circulation Tank        |
| RM @ Measured Temperature     | 0.188 OHMM @ 75 DEGF    |
| RMF @ Measured Temperature    | 0.188 OHMM @ 75 DEGF    |
| RMC @ Measured Temperature    | @                       |
| Source RMF                    | Measured                |
| RM @ MRT                      | 0.098 @ 150 0.098 @ 150 |
| Maximum Recorded Temperatures | 150 DEGF                |
| Circulation Stopped           | 13-Dec-1995 1830        |
| Logger On Bottom              | 14-Dec-1995 0315        |
| Unit Number                   | 3005 Roswell NM         |
| Recorded By                   | Tony DeRubeis           |
| Witnessed By                  | Brent May               |

|                               |       |       |       |       |
|-------------------------------|-------|-------|-------|-------|
|                               | Run 1 | Run 2 | Run 3 | Run 4 |
| Logging Date                  |       |       |       |       |
| Run Number                    |       |       |       |       |
| Depth Driller                 |       |       |       |       |
| Schlumberger Depth            |       |       |       |       |
| Bottom Log Interval           |       |       |       |       |
| Top Log Interval              |       |       |       |       |
| Casing Driller Size @ Depth   |       |       |       |       |
| Casing Schlumberger           |       |       |       |       |
| Bit Size                      |       |       |       |       |
| Type Fluid In Hole            |       |       |       |       |
| Density                       |       |       |       |       |
| Fluid Loss                    |       |       |       |       |
| Source Of Sample              |       |       |       |       |
| RM @ Measured Temperature     |       |       |       |       |
| RMF @ Measured Temperature    |       |       |       |       |
| RMC @ Measured Temperature    |       |       |       |       |
| Source RMF                    |       |       |       |       |
| RM @ MRT                      |       |       |       |       |
| Maximum Recorded Temperatures |       |       |       |       |
| Circulation Stopped           |       |       |       |       |
| Logger On Bottom              |       |       |       |       |
| Unit Number                   |       |       |       |       |
| Recorded By                   |       |       |       |       |
| Witnessed By                  |       |       |       |       |

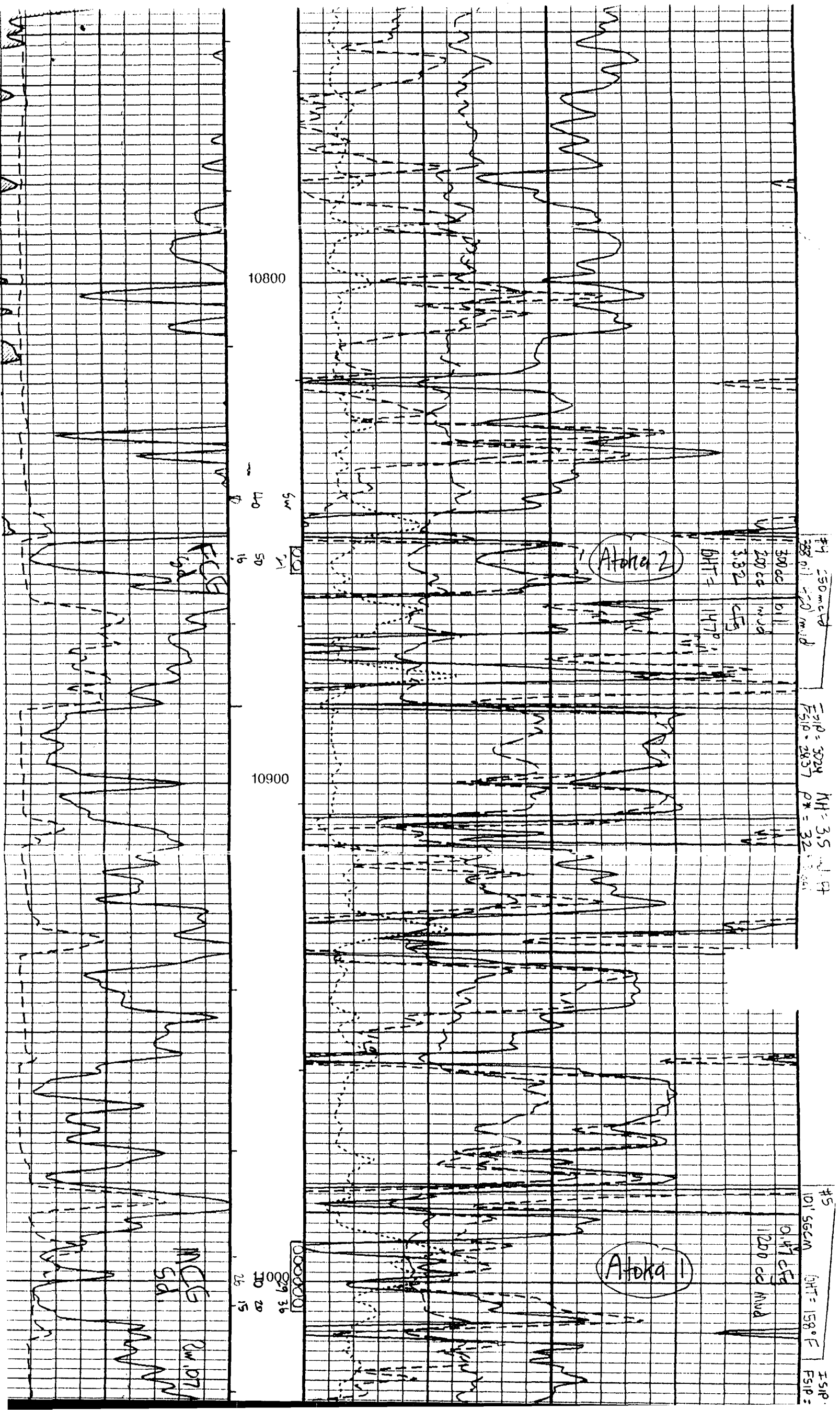
ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT, AND DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFUL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS, DAMAGES OR EXPENSES INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS, AGENTS OR EMPLOYEES. THESE INTERPRETATIONS ARE ALSO SUBJECT TO CLAUSE 4 OF OUR GENERAL TERMS AND CONDITIONS AS SET OUT IN OUR CURRENT PRICE SCHEDULE.

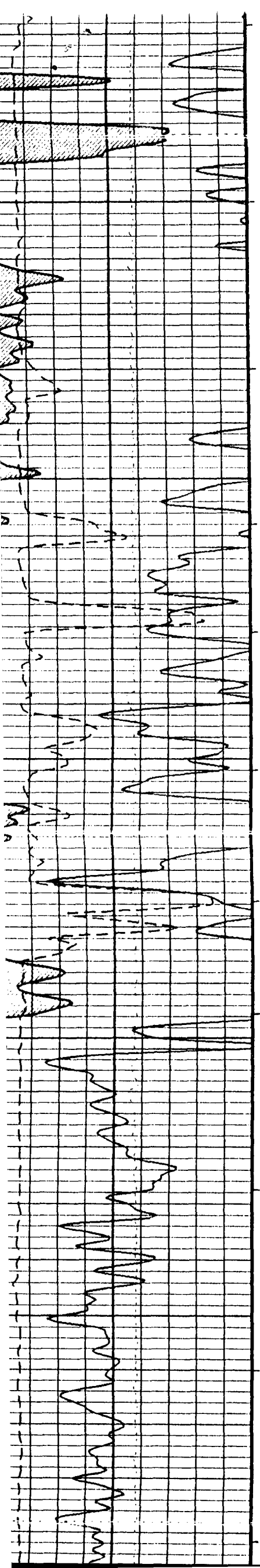
OTHER SERVICES1

OS1: DLL/MSFL  
OS2: LDT/CNL/GR  
OS3: LS Sonic

OTHER SERVICES2

OS1:  
OS2:  
OS3:

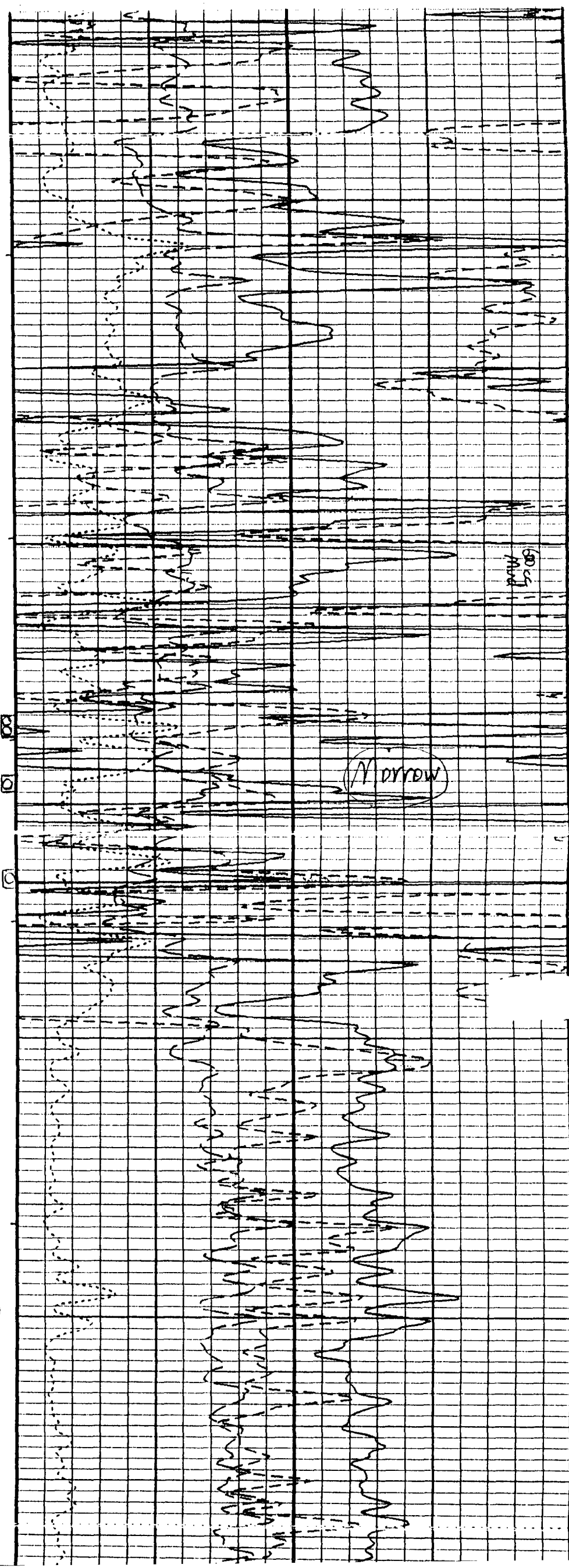




11300

11400

11500



SOCS  
Mud

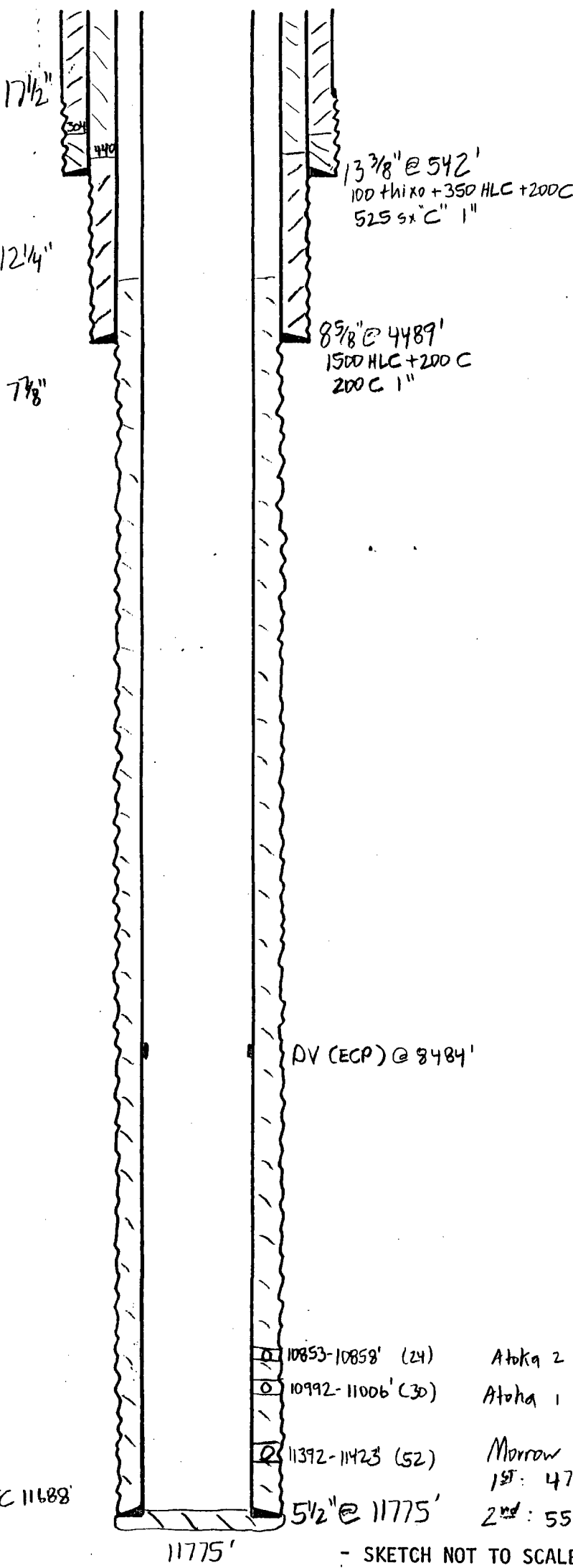
DRYDRW

#6  
187' mud  
TSIP = 1836  
FSIP = 3266  
DHT = 1610'

WELL NAME: Cedro APG Sl. Com. 1 FIELD AREA: Cedar Lake  
LOCATION: 660' FNL, 2230' FWL C-36-17s-30e Eddy NM  
GL: 3602' ZERO:            AGL:             
KB:            ORIG. DRLG./COMPL. DATE:             
COMMENTS:             
            
          

CASING PROGRAM:

| SIZE/WT./GR./CONN. |      |     |         | DEPTH SET |
|--------------------|------|-----|---------|-----------|
| 13 3/8             | 54.5 | J55 | STC     | 542'      |
| 8 5/8              | 32   | HCB | J55 STC | 4489'     |
| 5 1/2              | 17   | S95 | LTC     | 576'      |
|                    | 17   | L80 | LTC     | 10581'    |
|                    | 17   | S95 | LTC     | 11775'    |
| 2 7/8              | 6.5  | L80 | EVE     |           |
|                    |      | N80 |         |           |
|                    |      |     |         |           |
|                    |      |     |         |           |
|                    |      |     |         |           |



- SKETCH NOT TO SCALE -

REVISED: