YATES PETROLEUM CORPORATION
207 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 746-3558

S. P. YATES
PRESIDENT
MARTIN YATES, III
VICE PRESIDENT
JOHN A. YATES
VICE PRESIDENT
B. W. HARPER
SEC.-TREAS.

January 4, 1978

DHC - 933
Due - 1/30/78

Mr. Joe D. Ramey, Secretary-Director
New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Downhole Commingling
Manseau EK #1 Com, C-35-17S-25E

Dear Sir:

Yates Petroleum Corporation seeks administrative approval to downhole commingle the Eagle Creek-Strawn and the Eagle Creek Permo-Penn as provided for in OCC Order No. R-5460 dated June 14, 1977. In compliance with Rule 2 of this order, the following information is submitted:

(a) Operator: Yates Petroleum Corporation, 207 S. 4th Artesia, New Mexico
(b) Lease: Manseau "EK", 660/N 1980/W Sec 35-17S-25E;
(c) Attached: Lease ownership map showing N/2 dedication, Yates Petroleum Corporation and Western Oil Field are the offset operators.
(d) Attached: Mechanical log of the well;
(e) Attached: Diagrammatic sketch of well with two packers, one tubing. To commingle, replace blanking plug with standing valve in lower packer allowing gas from the Strawn and Permo Penn completion to flow into the same tubing.
(f) Attached: Decline Curve or production history of Permo Penn showing established rate of decline and calculated reserves;
(g) Formula for allocation of production is based on direct proportion of remaining gas reserves and GOR history. There being no production history on the Strawn, a volumetric reserve of 1150 MMCF is estimated from DST parameters, log data and a recovery factor of 33 percent after Craze and Buckley statistics.

(h) Produced fluids are gas and condensate only and therefore, in compatibility is no problem. However, because of the sensitivity of the Strawn Sands, a standing valve will be installed in the on-off tool on the Strawn packer.
(i) Well is on a fee lease. Western Oilfield Company is notified of this proposal by copy of this application.

Commingling will enhance the ultimate recovery of hydrocarbans from both zones, thereby conserving a natural resource and will not interfere with the correlative rights of owners since owners of each zone are the same.

Yours very truly,

YATES PETROLEUM CORPORATION

Eddie M. Mahfood
Engineer

EMM/ob
Enclosures

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LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease
State [ ] Fee [X]

5. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT –" (FORM C-101) FOR SUCH PROPOSALS.)

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

7. Unit Agreement Name

2. Name of Operator
Yates Petroleum Corporation

8. Farm or Lease Name
Manseau "EK" Com

3. Address of Operator
207 South 4th Street, Artesia, New Mexico 88210

9. Well No.
1

4. Location of Well
UNIT LETTER C, 660 FEET FROM THE North LINE AND 1980 FEET FROM THE West LINE, SECTION 35 TOWNSHIP 17S RANGE 25E NMPM.

10. Field and Pool, or Wildcat
Eagle Creek PermoPenn

15. Elevation (*Show whether DF, RT, GR, etc.*)
3518 KB

12. County
Eddy

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

NOTICE OF INTENTION TO:

- PERFORM REMEDIAL WORK [ ]
- PLUG AND ABANDON [ ]
- TEMPORARILY ABANDON [ ]
- PULL OR ALTER CASING [ ]
- CHANGE PLANS [ ]
- OTHER Downhole Commingling [X]

SUBSEQUENT REPORT OF:

- REMEDIAL WORK [ ]
- ALTERING CASING [ ]
- COMMENCE DRILLING OPNS. [ ]
- PLUG AND ABANDONMENT [ ]
- CASING TEST AND CEMENT JOB [ ]
- OTHER [ ]

17. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

Propose to downhole commingle the Eagle Creek Strawn and the Eagle Creek Permo-Penn and to apportion the future production as follows:

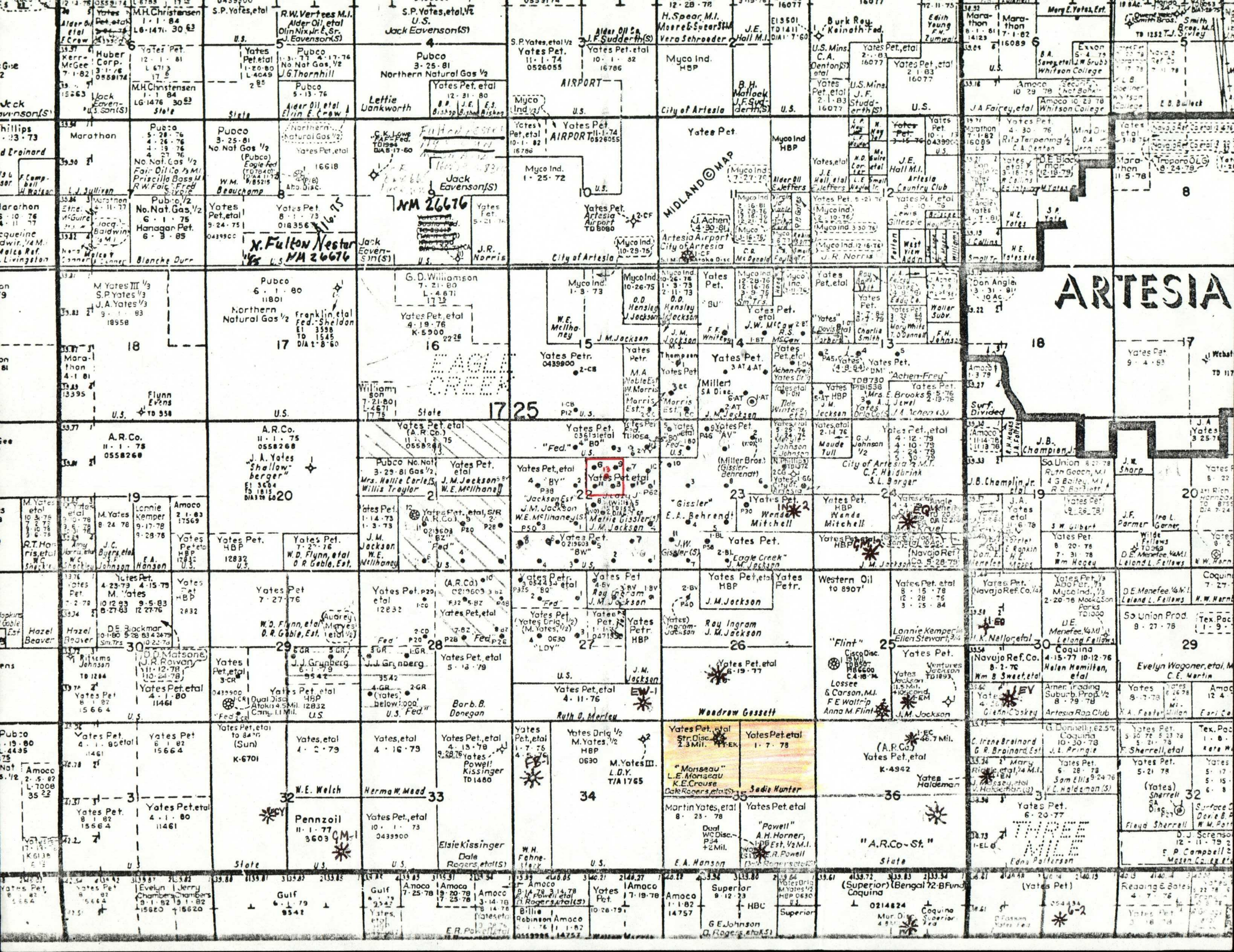
Eagle Creek-Permo Penn: Gas-15 MMCF = 1.3%; Cond.- 60b. = 1.3%
Eagle Creek-Strawn: Gas-1150 MMCF= 98.7%; Cond. - 4420 b. = 98.7%

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED [signature] TITLE Engineer DATE January 4, 1978

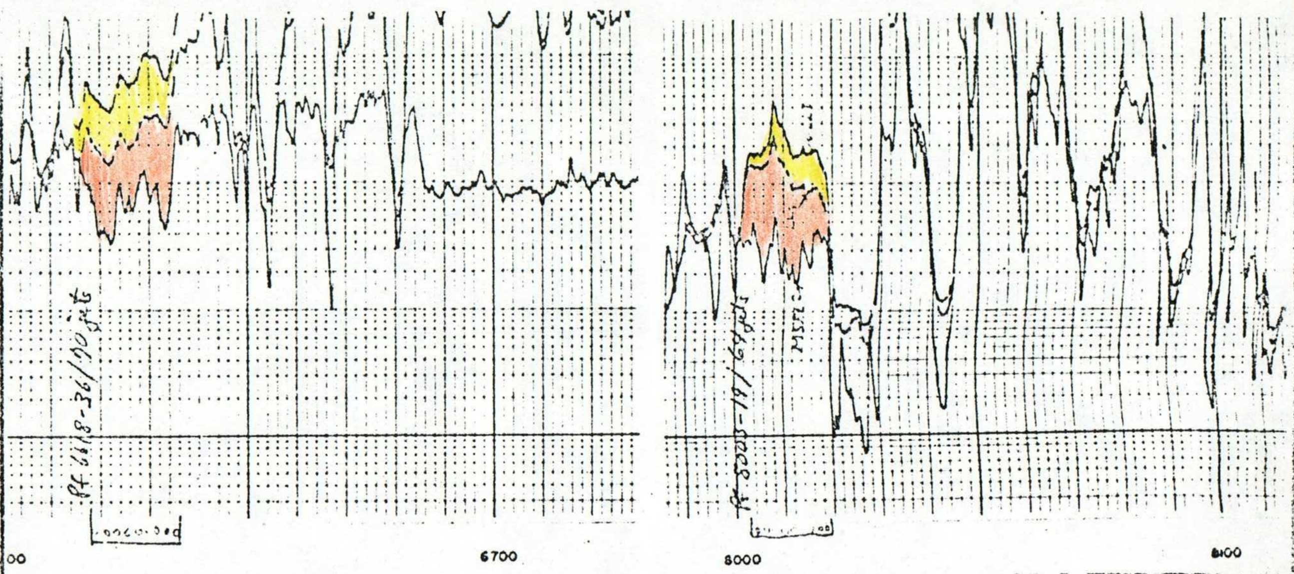
APPROVED BY ______ TITLE ______ DATE ______

CONDITIONS OF APPROVAL, IF ANY:



ARTESIA
MIDLAND © MAP
AIRPORT
City of Artesia
EAGLE CREEK
Woodrow Gossett
"A.R.Co-St."
"Flint"
Pennzoil
Yates Pet.
Myco Ind.
N. Fulton Nestor NM 26676

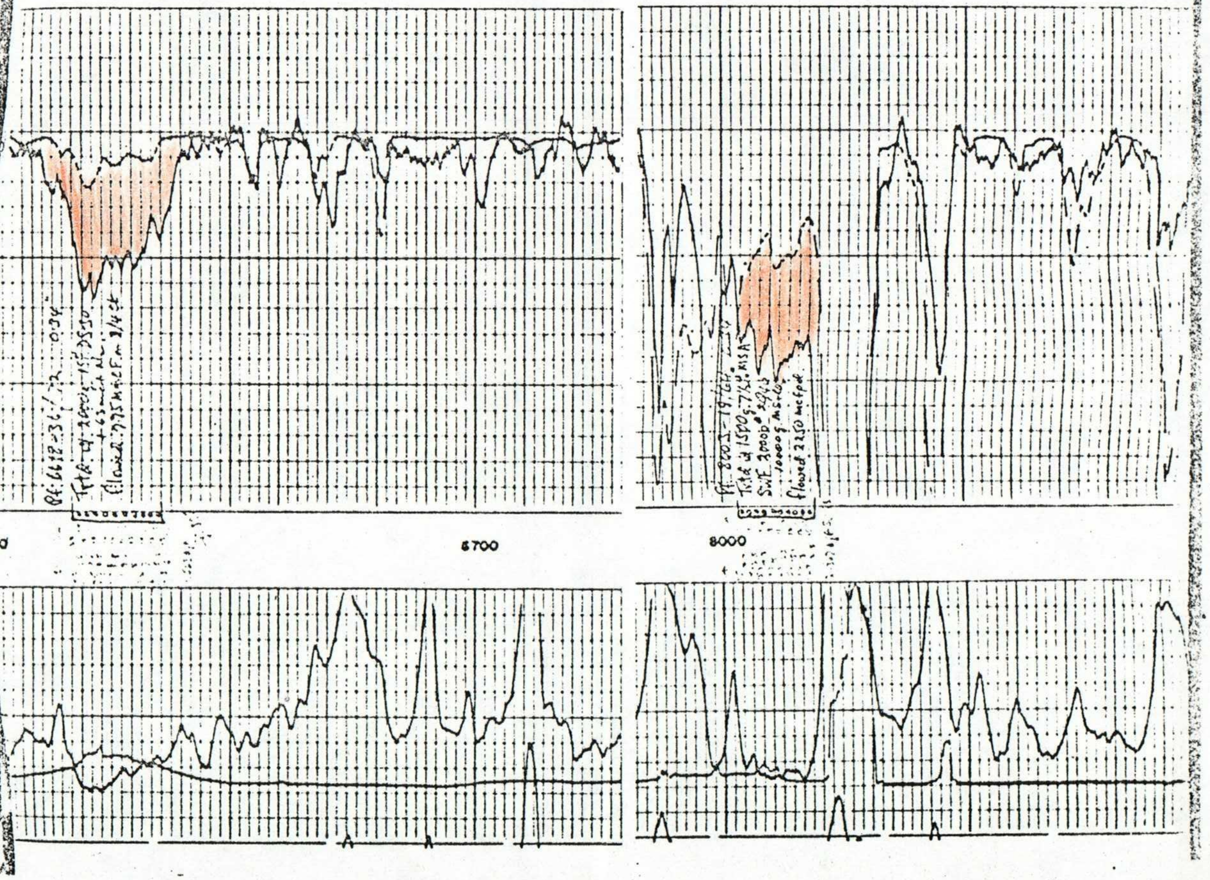
COMPANY	Yates Pete Corp
WELL	Manseau EK No. 1
FIELD	Wildcat
COUNTY	Eddy
STATE	N.M.
Location	660' FNL, 1980' FWL
Sec.	35
Twp.	17S
Range	25E
Other Services	CNL FDC GL
Permanent Datum	GL
Log Measured From	KB, 17 Ft. Above Perm. Datum
Drilling Measured From	KB
Elev.: KB	3516
GL	3500
Date	6-12-75
Run No.	ONE
Depth – Driller	8455
Depth – Logger (Schl.)	8461
Btm. Log Interval	8459
Top Log Interval	1225
Casing – Driller	8 5/8 @ 1225
Casing – Logger	1225



COMPENSATED NEUTRON FORMATION DENSITY

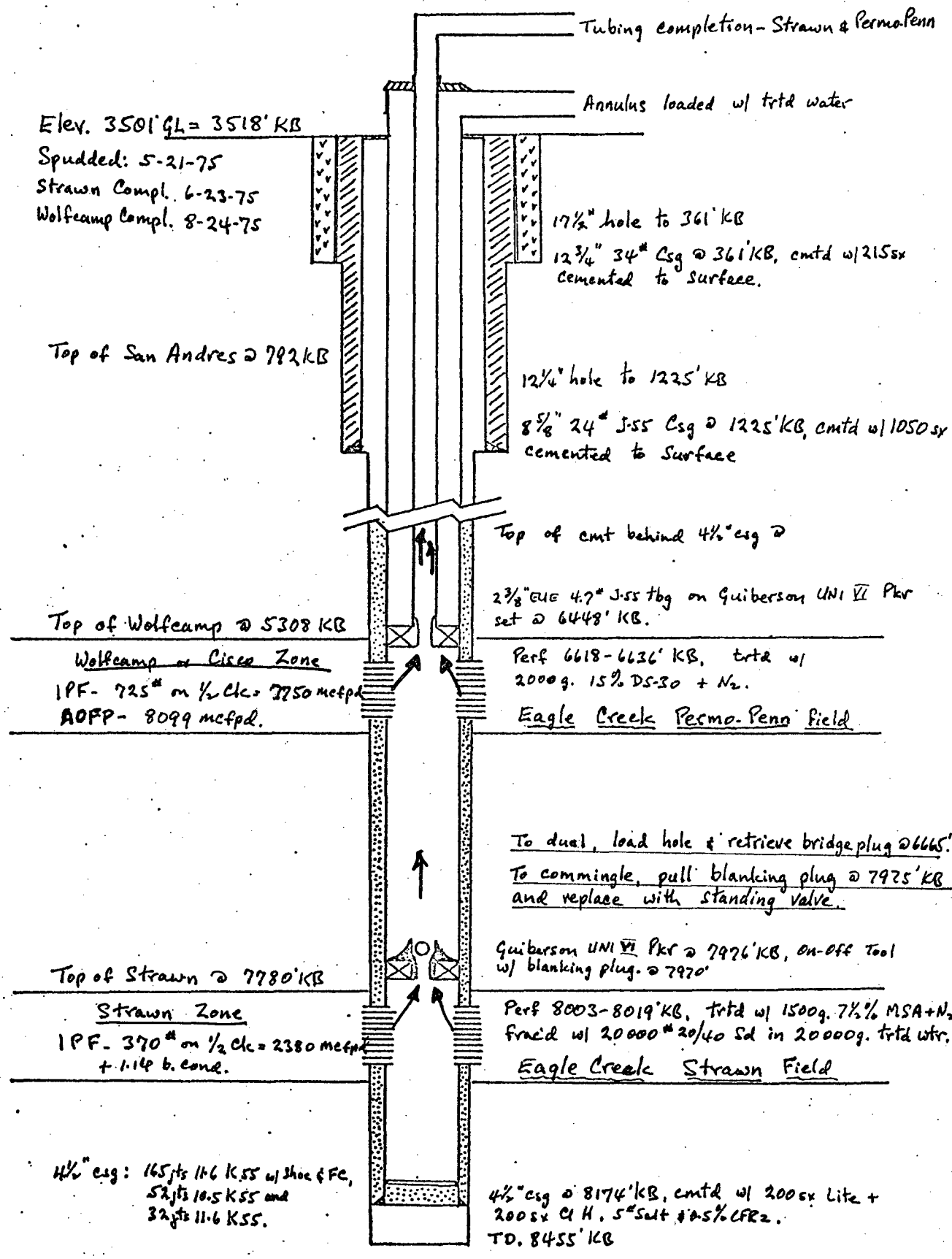
COMPANY	Yates Petroleum Corp
WELL	Manseau EK No. 1
FIELD	Wildcat
COUNTY	Eddy
STATE	N.M.
Location	660' FNL, 1980' FWL
Sec.	35
Twp.	17S
Range	25E
Other Services	DLL, GRO
Permanent Datum	GL
Log Measured From	KB, 17 Ft. Above Perm. Datum
Drilling Measured From	KB
Elev.: KB	3516
GL	3500

Date	6-12-75
Run No.	ONE
Depth – Driller	8455
Depth – Logger	8459
Btm. Log Interval	8458
Top Log Interval	0
Casing – Driller	8 5/8 @ 1225
Casing – Logger	1225
Bit Size	7 7/8
Type Fluid in Hole	Flosal-Drispac
Dens. / Visc.	8.9 / 41
pH / Fluid Loss	11 / 8 ml
Source of Sample	Pit
R_m @ Meas. Temp.	0.20 @ 70 F
R_{mf} @ Meas. Temp.	0.17 @ 70 F
R_{mc} @ Meas. Temp.	0.25 @ 70 F
Source: R_{mf} / R_{mc}	M / C
R_m @ BHT	0.11 @ 136 F
Circulation Stopped	12 0530
Logger on Bottom	12
Max. Rec. Temp.	136 F
Equip. / Location	1646 / Hobbs
Recorded By	Wilson
Witnessed By	Beck & Barker



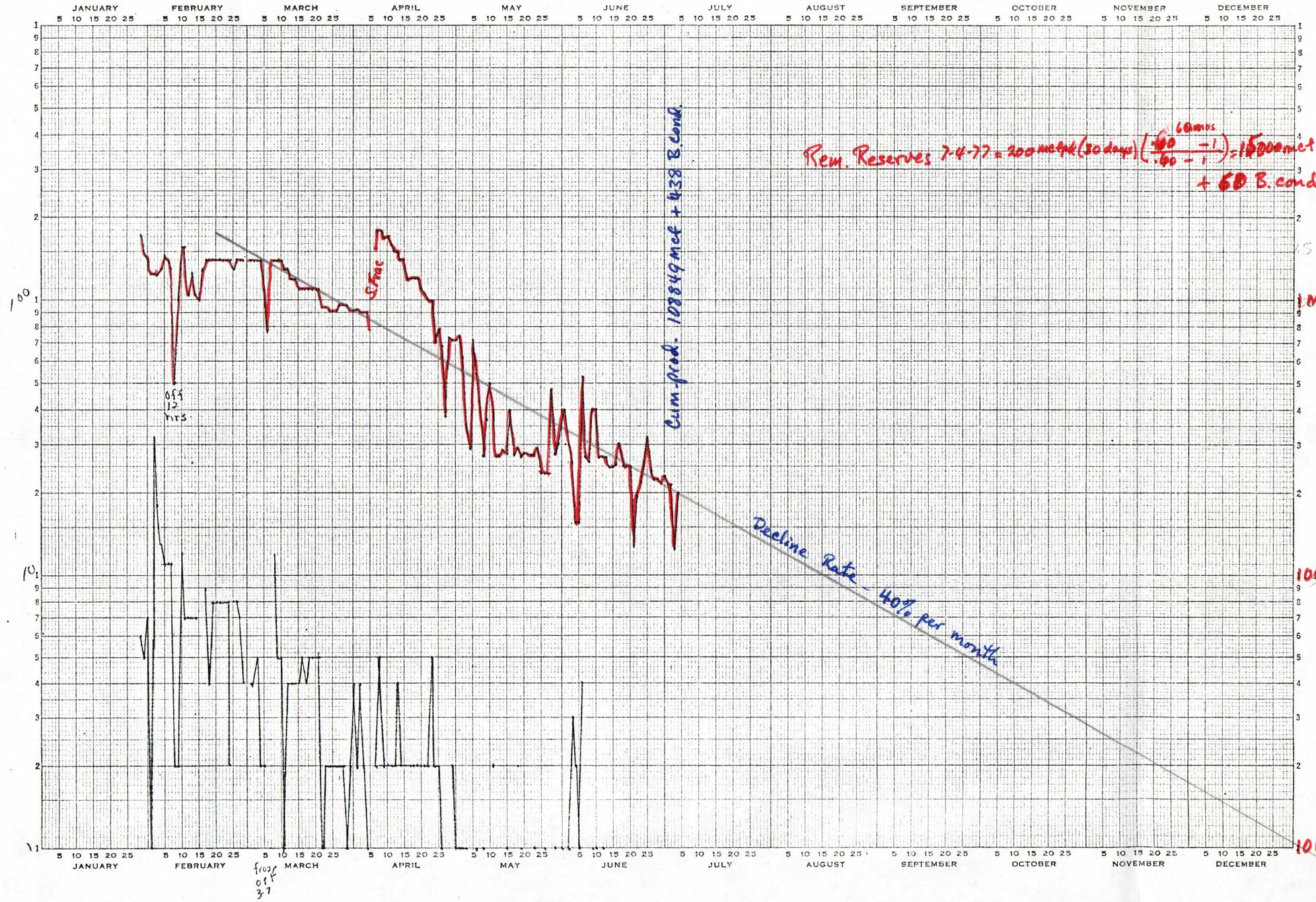
Diagrammatic Sketch of Proposed Commingling in Dual Completion

Yates Petroleum Corp - Manseau "EK" Com. No. 1, C-35-17s-25E



Black - Oil
Red - Gas

MANSEAU EK 1977
Yates Pet. Corp.
1 C 35-17S-25E-Undesignated Cisco



KE 1 YEAR BY DAYS 47 6593
X 3 LOG CYCLES MADE IN U.S.A.
KEUFFEL & ESSER CO.

Manseau EK

Bennett Wire Line Service

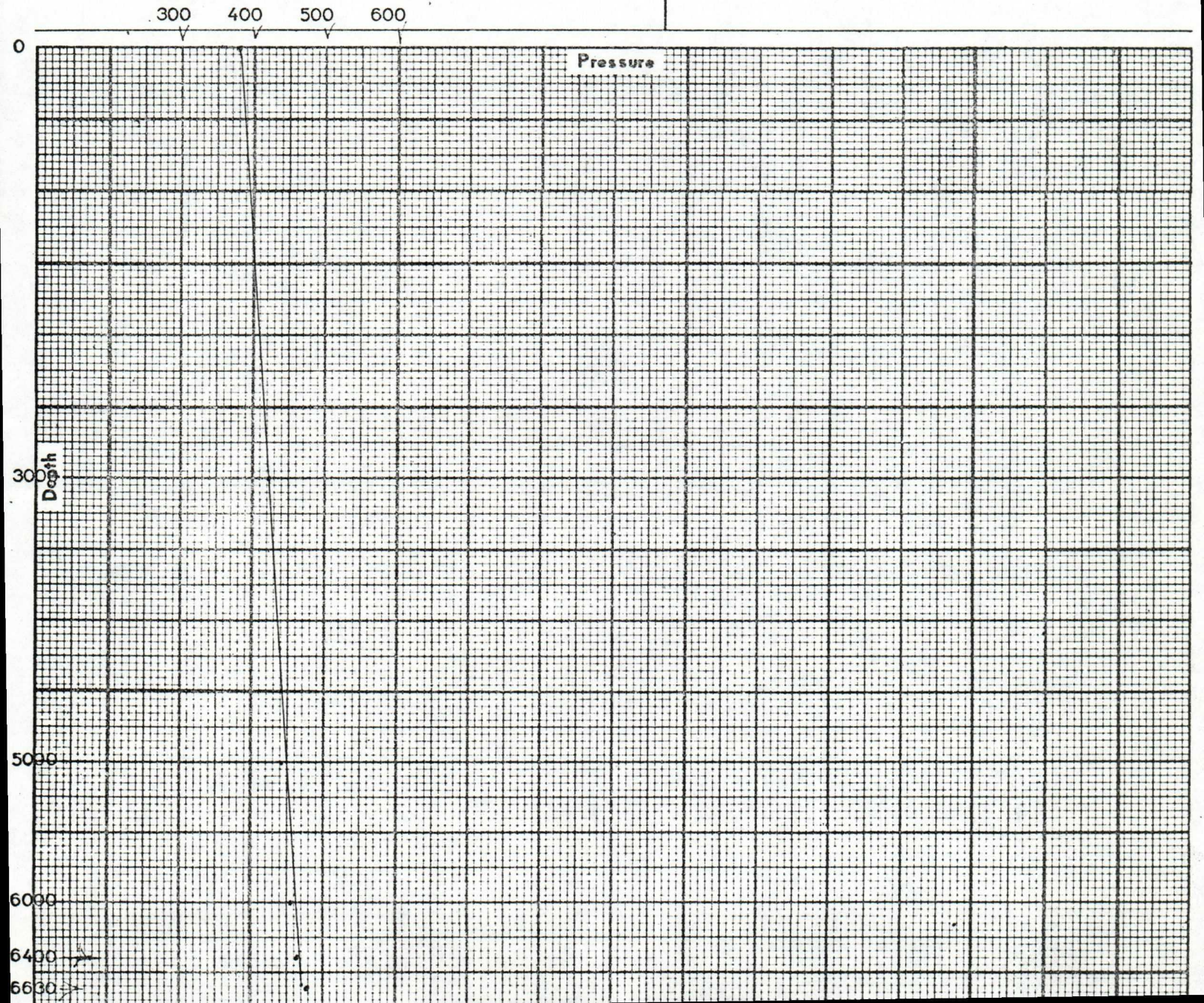
305 McArthur Ave. Ph. (505) 746 - 3281
Artesia, New Mexico - 88210

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR YATES PETROLEUM CORPORATION
LEASE Manseau EK Com
WELL NO. 1
FIELD
DATE 11/1/77 TIME

STATUS Shut-in TEST DEPTH 6630 Ft.
TIME S.I. 92 days LAST TEST DATE
CAS. PRES. BHP LAST TEST
TUB. PRES. 380 Lbs. BHP CHANGE
ELEV. FLUID TOP None
DATUM WATER TOP
TEMP RUN BY Bennett
CLOCK NO. GAUGE NO.
ELEMENT NO. 37882

DEPTH	PRESSURE	GRADIENT Lbs./100 Ft
0 Ft.	380 Lbs.	
3000 "	423 "	1.4
5000 "	442 "	1.9
6000 "	455 "	1.3
6400 "	462 "	3.5
6630 "	468 "	2.6



DRILL STEM TESTS

Yates Petroleum Corporation
Manseau "EK" Fee Com #1
660' FNL & 1980' FWL of
Section 35-17S-25E
Eddy County, New Mexico

DST #1 6392-6680' - (Cisco) - TO 30", SI 75", TO 60", SI 120". OP w/good blow. GTS in 22". Reopened, GTS immediately - 265 MCFPD. Recovered: - 540' HGCM, 390' DM. Sampler: - 400#, 7.0 cfg and no fluid. Pressures: HP 3009-2939, IFP 297-402, ISIP 2360, FFP 350-524, FSIP 2360. Office readings: HP=2986-2923 IFP=281-413 ISIP=2370* FFP=374-507 FSIP=2370*

DST #2 7939-8028' (~~Atoka~~ Strawn) - TO 30", SI 75", TO 60", SI 120". Op w/fair blow, increasing, GTS 22" w/15# on 1/4" choke, 18# in 30". Re-op, GTS immediately, 47# in 2" on 1/4" choke. Stabilized flow 47# on 1/4" choke. Recovered: - 510' SGCDM. Sampler:- 200#, 1.1 cfg, no fluid. Pressures: - HP 3713-3713; IFP 105-70; ISIP 2868; FFP 105-110; FSIP 2868. BHT 140 deg. Office readings: HP=3771-3748 IFP=212-157 ISIP=3003* FFP=121-170 FSIP=2998*

* Extrapolated pressures.

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500