

DHC 8.3.95

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



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

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

July 10, 1995

David Catanach
State of New Mexico
OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, NM 87501

Dear Mr. Catanach,

Enclosed are the necessary documents for obtaining approval for the downhole commingling of the Zinnia Federal Unit #1 located in E of Section 27, Township 20 South, Range 29 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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July 10, 1995

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 Zinnia Federal Unit #1 located in E of Section 27, Township 20 South, Range 29 East, Eddy County.

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

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TREASURER

July 10, 1995

Richard Manus
Bureau of Land Management
P. O. Box 1778
Carlsbad, NM 88220

Dear Mr. Manus,

Enclosed for your information is the data necessary to obtain approval for the downhole commingling of the following well:

Zinnia Federal Unit #1
Unit E Sec. 27-T20S-R29E
Eddy County, New Mexico
Operator: Yates Petroleum Corporation

This application has been submitted to the NMOCD in Santa Fe and Artesia. If you have any questions, please contact me at 505-748-4182. Thank you.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Brian Collins', written in black ink.

Brian Collins
Engineer

BC/th

Enclosures

**Application for Downhole Commingling
Zinnia Federal Unit #1
Unit E Sec. 27-T20S-R29E
Eddy County, New Mexico**

Reason for Application: Yates Petroleum Corporation respectfully requests approval to commingle the Strawn and Wolfcamp formations. Our intention is to maximize gas recovery from the Strawn and Wolfcamp and prevent mineral resource waste.

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:

Zinnia Federal Unit #1
Unit E Sec. 27-T20S-R29E
1980'FNL & 910'FWL
Pools: Undesignated Strawn
Undesignated Wolfcamp

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 (tabular production data).
Strawn capable of approximately 10 BOPD/50 MCFD.
Strawn perms: 10965' - 10988' MD.
Proposed Wolfcamp perms: 9902' - 9909', 10188' - 10216' MD (Not tested yet)

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.

Best engineering estimate exponential decline curve analysis results in a remaining ultimate recovery of 4213 BO/21,063 MCF for the Strawn.

$d = 50\%/yr$

$Q_i = 50 \text{ MCFD}, 10 \text{ BOPD}$

$Q_{aban} = 10 \text{ MCFD}, 2 \text{ BOPD}$

$N_R \text{ gas} = \frac{365 (10-50)}{1n (1-.5)} = 21,063 \text{ MCF}$

$N_R \text{ oil} = \frac{365 (2-10)}{1n (1-.5)} = 4213 \text{ BO}$

We propose to test the Wolfcamp from 9902' to 10216' until commercial production is established and commingle with the Strawn. We want to commingle the Strawn with the Wolfcamp to maximize drainage from the Strawn and prevent the waste of mineral resources. We can't determine the Wolfcamp reserves until we've tested it.

- 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 (Mud weight required for Wolfcamp from drilling chronological)
(DST in Strawn on Trigg AIN Fed. #1 Sec. 28-20S-29E).

A reasonable estimate of the Strawn BHP is 4766 psi @ 10685' TVD taken from a drill stem test on the Trigg AIN Fed. #1 located in Sec. 28-20S-29E which had a pressure gradient of 0.446 psi/ft. A reasonable estimate of the Wolfcamp BHP is 5272 psi taken from the 10.2 ppg MW necessary to control the Wolfcamp @ 9939' TVD.

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

Both Strawn and Wolfcamp 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 Strawn and Wolfcamp will produce sweet gas. The value of the gas will not be affected by commingling. By commingling, an estimated additional 4213 BO/ 21,063 MCF will be produced from the well.

- 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.

We propose to test the Wolfcamp before recommending an allocation formula. As soon as the Wolfcamp has been tested, we will submit an allocation formula.

- 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 and the BLM were notified of the proposed commingling of the Zinnia Federal Unit #1.

ENGR502 INTERNAL PRODUCTION REPORT
PRODUCTION DATE... June, 1995

PAGE 1
9:52:14 7/10/95

WELL.....060105-001-S1 GAS ZINNIA FEDERAL UNIT #1
FIELD..... 928 UNDESIGNATED (EDDY)
LOCATION...
PUMPER...

OPENING STOCK... 81.61
CLOSING STOCK... 201.42

										WATER		OIL		REMARKS	
DAY	TP	CP	CHOKE	METER	DRP	STATIC	DIFF	WATER	OIL	GAS	PULLED	SOLD			
01	100/	0	26/64	3.000	1.500	100.0	.3	3.00	14.00	80					
02	110/	0	26/64	3.000	1.500	110.0	.1	.00	14.00	48					
03	80/	0	26/64	3.000	1.500	80.0	.1	.00	14.00	41					
04	80/	0	26/64	3.000	1.500	80.0	.2	.00	11.00	58					
05	80/	0	26/64	3.000	1.500	80.0	.4	9.00	14.00	83					
06	80/	0	26/64	3.000	1.500	80.0	.4	3.00	14.00	83					
07	80/	0	26/64	3.000	1.500	80.0	.5	9.00	16.00	92					
08	80/	0	26/64	3.000	1.500	80.0	.5	6.00	20.00	92					
09	80/	0	26/64	3.000	1.500	80.0	.2	3.00	14.00	58					
10	80/	0	26/64	3.000	1.500	80.0	.2	.00	14.00	58					
11	70/	0	26/64	3.000	1.500	70.0	.2	.00	11.70	55					
12	80/	0	26/64	3.000	1.500	80.0	.2	6.00	8.19	58					
13	80/	0	26/64	3.000	1.500	80.0	.2	18.00	9.36	58					
14	80/	0	26/64	3.000	1.500	80.0	.8	3.00	14.00	117					
15	75/	0	26/64	3.000	.875	75.0	1.0	.00	8.19	41					
16	80/	0	26/64	3.000	.875	80.0	1.0	3.00	14.00	43			183.76		
17	75/	0	26/64	3.000	.875	75.0	1.0	.00	7.00	41					
18	175/	0	26/64	3.000	.875	80.0	.8	.00	8.19	38					
19	100/	0	26/64	3.000	.875	80.0	.5	.00	7.02	30					
20	80/	0	26/64	3.000	.875	80.0	.5	.00	2.32	30					
21	80/	0	26/64	3.000	.875	80.0	.5	.00	7.00	30					
22	80/	0	26/64	3.000	.875	80.0	1.0	11.00	12.00	43					
23	80/	0	26/64	3.000	.875	80.0	.5	10.00	8.00	30					
24	80/	0	26/64	3.000	.875	80.0	.5	6.00	7.00	30					
25	80/	0	26/64	3.000	.875	80.0	.2	.00	7.02	20					
26	165/	0	26/64	3.000	.875	80.0	.5	19.00	2.32	30					
27	200/	0	26/64	3.000	.875	85.0	.5	3.00	9.36	31					
28	150/	0	26/64	3.000	.875	85.0	.3	.00	8.19	24					
29	100/	0	26/64	3.000	.875	80.0	.3	.00	7.02	24					
30	100/	0	26/64	3.000	.875	100.0	1.0	8.00	3.51	48					
TOTALS...										1514		183.76	PRODUCED 30 DAYS		

Avg. Daily Prod. = 10 bopd
4 bwpd
50 mcf/d

Strawn



BAKER SERVICE TOOLS

DRILL STEM TESTING OPERATION REPORT

Pg. 4

Strawn

Lyness District Hobbs NM 84765 Date 6-2 1991 Field Ticket 258-78184
 Operator Kates Petroleum Corp
 Address 103 South 4th Street
Ocala NM 88210
 Well Name & Number Trigg AIN Federal #1 DST No. 4 Est. Porosity 8%
 Contractor Ziadrigg Net Fl. Pay 9
 Rig No. 2 Top Choke 1" Bottom Choke 3/4" Flow No. 1 5 Min.
 Spot 1880 FUL + 400 FEL Size Hole 7 7/8" Size Rat Hole --- Shut-in No. 1 60 Min.
 Sec. 28 Casing Size & Wt. 8 5/8" Flow No. 2 66 Min.
 Twp. 20S North Size & Wt. D. P. or Tubing 4 1/2 x 14 16,600 Shut-in No. 2 180 Min.
 Rng. 29 East Size Wt. Pipe --- Flow No. 3 66 Min.
 Field Broken Flats I. D. of D. O. 2 1/4" Shut-in No. 3 --- Min.
 County Eddy Length of D. O. above Tool 660' Bottom Hole Temp. 178°
 State New Mexico Total Depth 10657 Mud Weight 9.3
 K. B. Elevation --- Interval Tested 10260 - 10657 Gravity ---
 Formation Strawn Interval Perforated --- Viscosity 31
 Type of Test Bottom Hole Conv. Tool Opened @ 0612

Caliper Log Run Prior to Test: Yes ☐ No ☒
 Calipered Hole Size @ Top Pkr. --- @ Bottom Pkr. ---
 Did well flow gas yes in 32 mins.
 Did well flow oil no in --- mins.
 Did well flow water no in --- mins.

If well did flow, during which flow or shut-in period did gas/luid reach surface?

2nd Flow Period

BOTTOM HOLE SAMPLER

Pressure in Sampler: 250 PSIG
 Total Volume of Sampler: 2600 cc.
 Total Volume of Sample: 950 cc.
 Where was Sample drained? Rig Floor
 Oil: 500 cc.
 Water: 450 cc.
 Mud: --- cc.
 Gas: 1.25 cu. ft.
 Other: ---
 Sample R. W.: 0.68 at 60° 87,000 PPM/cbl
 Gravity --- Gas/Oil Ratio ---
 Make Up Water R. W.: ---
 Mud Pit Sample R. W.: 0.62 at 60° 109,000 PPM/cbl

Bottom of Top Packer 10551
 Bottom of Second Packer 10560
 Top of Straddle Packer ---
 Top of Fourth Packer ---
 Length of Test Interval 97'
 Test Interval: Anchor 37 Collars 59.79 DP ---
 Below Straddle: Anchor --- Collars --- DP ---
 Was tool plugged? no Was anchor plugged? no
 Did straddle pkr. hold? --- Press. below straddle ---
 REMARKS:

Good Mechanical Test

Gate 25178 ran above
shut in Tool

Recorder No. --- Ran Under Straddle Pkr. ---

RECORDER READINGS

Type <u>K3</u>	No. <u>22723</u>	Clock	Type <u>K3</u>	No. <u>22719</u>	Clock	Type <u>DMR</u>	No. <u>1754</u>	Clock
Cap. <u>6235</u>	Loc. <u>10540</u>	No. <u>26508</u>	Cap. <u>6725</u>	Loc. <u>10571</u>	No. <u>20182</u>	Cap. <u>10000</u>	Loc. <u>10571</u>	No.
Inside <u>X</u>	Outside	Mrs. <u>24</u>	Inside	Outside <u>X</u>	Mrs. <u>24</u>	Inside	Outside <u>X</u>	Mrs. <u>1K</u>
Press.	Field	Corrected	Press.	Field	Corrected	Press.	Field	Corrected
IH	A	5013	IH	5040		IH	5050	
PH	K	5006	PH	5040		PH	5062	
IF-1	B	496	IF-1	516		IF-1	520	
FF-1	C	523	FF-1	540		FF-1	542	
IF-2	E	380	IF-2	397		IF-2	406	
FF-2	F	462	FF-2	480		FF-2	490	
IF-3	H	413	IF-3	435		IF-3	440	
FF-3	I	462	FF-3	490		FF-3	500	
SIP-1	D	4562	SIP-1	4613		SIP-1	4622	
SIP-2	G	4573	SIP-2	4620		SIP-2	4642	
SIP-3	J		SIP-3			SIP-3		

BST TECHNICIAN

RESERVOIR ANALYSIS? yes

WELL OWNERS REPRESENTATIVE (Please Print Legibly)

Benny Fisher
 FORM 60 - 8/87 (4/87)

No. Final Copies 12

Craig Huber

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BAKER SERVICE TOOLS

DRILL STEM TESTING SEQUENCE REPORT

DST #4

Strawn

Lyness District Hobbs NM Date 6-2 1991 Field Ticket 258-78184
 Operator Yates
 Address _____

GAS MEASUREMENTS				DATE	TIME	SEQUENCE OPERATIONS
Measured with				0601	0830	On Location
Critical well tester						
Orifice well tester				0602	0915	PU DST 4
Side static					0129	DMR Battery
Pilot tube						
Floor manifold with chokes					0612	Open tool for 5 min Pre Flow
Riser size						Tool opened with weak 1/2" Blow
Pressure gauge - PSI						Increased to 2" Blow
TIME	PSI	CHOKES	MOF/D			
0758	18 1/2	1/4	49	0618		Shut in for 60 min 1ST
0808	20 1/2	1/4	51	0718		Open tool for 60 min 2nd Flow
0818	21 1/2	1/4	52			Tool opened with good Blow
0824	23	1/4	55			808 in 1 min
						10 02 in 5 min
						8 psi in 10 min
						14 psi in 15 min
						16 1/4 psi in 20 min
						16 1/2 psi in 30 min
						Final Flow
1124	202	1/2	—	0750		Gas to Surface in 32 min
1129	402	1/2	—	0824		Shut in for 180 min FST
1134	2 psi	1/2	106	1124		Open Tool for 60 min Final Flow
1139	7 psi	1/2	138	1230		Shut in Tool unseat PKRS
1144	11 psi	1/2	161			Bled off well & start out of Hole
1149	11 1/2	1/2	159	1730		out of Hole Lay down Tools
1154	10	1/2	156			Do reports
1159	6	1/2	131			
1204	5 1/2	1/2	128			
1209	5	1/2	125			
1214	5 1/2	1/2	128			
1219	5 1/2	1/2	128			
1224	5 1/2	1/2	128			
1229	5 1/2	1/2	128			

Cushion 1036 Fresh Water Amount 1036 Ft.
 Cushion _____ Amount _____ Ft.
 Total Fluid Recovered 1318 Ft. Consisting of:
1036 Ft. of Fresh Water Cushion
209 Ft. of Water Cut Mud
73 Ft. of Oil
 _____ Ft. of _____
 _____ Ft. of _____
 _____ Ft. of Gas Recovered in Drill Pipe
 Test was/was not reverse circulated? was not
 Recovery
 Top Sample R.W. 1.8 at 60° 2600 PPM/chl
 Middle Sample R.W. 400 PPM chlorides
 Bottom Sample R.W. 1073 at 60° 77000 PPM Chloride

BST TECHNICIAN

RESERVOIR ANALYSIS? yes

WELL OWNERS REPRESENTATIVE (Please Print Legibly)

Benny Fisher

No. Final Copies 12

Craig Huber

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** PRELIMINARY ANALYSIS **

Strawn

T E S T P A R A M E T E R S

RECORDER NUMBER	312	HOLE SIZE	7.875 IN
RECORDER DEPTH	<u>10571 FT</u>	TEMPERATURE	638 DEG R
ELEVATION	3284 FT (KB)	COMPRESSIBILITY	0.85
DATUM	-7287 FT	1ST FLOW TIME	4 MIN
PAY THICKNESS	9 FT	1ST SHUT-IN TIME	62 MIN
VISCOSITY	0.015 CP	2ND FLOW TIME	64 MIN
POROSITY FRACTION	0.08	2ND SHUT-IN TIME	180 MIN
		3RD FLOW TIME	66 MIN
		3RD SHUT-IN TIME	1 MIN

C A L C U L A T I O N S

Gradient = $4710 / 10571$
 $= .446 \text{ psi/ft.}$

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI)	<u>4709.9</u>
NUMBER OF POINTS USED	3
SLOPE (PSI SQUARED/LOG CYCLE)	30135792.0
EXTRAPOLATED SECOND SHUT-IN PRESSURE (PSI)	4685.0
NUMBER OF POINTS USED	8
SLOPE (PSI SQUARED/LOG CYCLE)	2736895.3
EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI)	INDETERMINATE
NUMBER OF POINTS USED	
SLOPE (PSI SQUARED/LOG CYCLE)	
 AVERAGE PRODUCTION RATE (MCF/DAY)	 128.00
TRANSMISSIBILITY (MD.-FT./CP.)	41.52
FLOW CAPACITY (MD.-FT.)	0.62
PERMEABILITY (MD.)	0.0692
PRODUCTIVITY INDEX (MCF/DAY/PSI)	0.031
ESTIMATED DAMAGE RATIO (EDR)	1.8
SKIN FACTOR (S)	4.3
PRESSURE DROP DUE TO SKIN (PSI)	1277.0
APPROXIMATE RADIUS OF INVESTIGATION (FT.)	18.0
DRAWDOWN FACTOR (%)	0.5
POTENTIOMETRIC SURFACE (FT.)	3629.0

DRILLING REPORT

Page 6

Yates Pet. - Minn. Federal Unit #1 (Unit E) 27-208-29E Eddy

Co., NM

2-2-95

surveys. Hydro-test BOP, rams and accessories to 5000 psi and Hydril to 2500 psi. WIH and inspected BHA. Washed 82' to bottom and displaced hole with 10#/gal brine. CMC \$4398; DC \$17,121; CC \$561,577

Drilling 9845' sand, shale and lime. Made 250' in 22-1/4 hours, 11.2'/hr. MW 10, Vis 32, PV 3, YP 5, Gels 4/1, pH 10.5, WL 26, FC film, Cl 178,000, Solids .75%, Sand trace, Calcium 240, KCl 3.4%. BGG 20, Max 80. WOB 40M, RPM 65, SPM 106, PP 1600#. Installed rotating assembly. Survey: closure 1308' S87 deg E; Inclination and drift 20.75 deg N 88 deg E. DMC \$3991; CMC \$8560; DC \$15,941; CC \$577,518

2-3-95

Drilling 10,030' lime and shale. Made 185' in 20 hours, 9.1'/hr. MW 10, Vis 36, PV 4, YP 8, Gels 6/1, pH 10, WL 20, FC film, Cl 178,000, Solids .75%, Calcium 200, KCL 3.4%. BGG 45, Max 175. Survey: closure 1361' S 87 deg E; MD 9835' inclination and drift 18.5 deg N 90 deg E. WOB 48M, RPM 65, SPM 106, PP 1500#. Pulled 5 stands. Repaired swivel and WIH. DMC \$1486; CMC \$10,046; DC \$9666; CC \$587,184

2-4-95

TD 10,206' shale and lime. Circulate on choke. Made 176' in 19-1/2 hours, 9.02'/hr. MW 10.2, Vis 35, PV 5, YP 8, Gels 6/1, pH 10, WL 10, FC film, Cl 176M, Calcium 260, KCL 3.4%. BGG 50, Max 1600. WOB 48M, RPM 65, SPM 96, PP 2250#. Drilled to 10,260', 9938 TVD. Check flow at 10,199' - no flow, and 10,260' - flowed. SIDP 126 psi. 31 bbl pit gain. Increased MW from 10 to 10.2#/gal and circ on choke. DMC \$3712; CMC \$13,758

2-5-95

Drilling 10,410' shale and lime. Made 204' in 17-3/4 hours, 11.5'/hr. MW 10.2, Vis 34, PV 9, YP 5, Gels 5/8, pH 10, WL 14, FC film, Cl 176M, Solids 1, Sand trace, Calcium 260, KCL 3.4. BGG 250, Max 1800, CG trace. WOB 48M, RPM 65, SPM 92, PP 2050#. Circulated on choke at 10,249' and 10,252' (gas cut mud). DMC \$3656; CMC \$17,414; DC \$11,836; CC \$610,912

2-6-95

Drilling 10,680' shale and lime. Made 270' in 23-1/4 hours, 11.6'/hr. MW 10.3 Vis 35, PV 6, YP 5, Gels 6/3, pH 10.5, WL 14, FC film, Cl 176M, Solids 1-1/2, Sand trace, Calcium 140, KCl 3%. BGG 100, Max 240. WOB 48M, RPM 65, SPM 94, PP 2200#. Survey MD 10,434' inclination and drift 11 deg S 86 deg E, Closure 1513' S 87 deg E. DMC \$2884; CMC \$20,298; DC \$11,523; CC \$622,435

2-7-95

Drilling 10,838' shale and lime. Made 158' in 19-1/4 hours, 8.2'/hr. MW 10.3, Vis 36, PV 5, YP 8, Gels 5/4, pH 10, WL 15, FC film, Cl 146M, Solids 1-3/4%, Sand trace, Calcium 140, KCL 3%. BGG 125, Max 700, TG 850. WOB 48M, RPM 65, SPM 94, PP 2200#. Made 20 stand short trip. Survey MD 10,718', inclination drift 7.25 deg S 80' E; Closure 1558' S 87 deg E. DMC \$1795; CMC \$19,209; DC \$10,675; CC \$633,110

2-8-95

TD 10,854' shale and lime. Reaming. Made 16' in 4-1/2 hours, 3.8'/hr. MW 10.3, Vis 36, PV 6, YP 7, Gels 5/3, pH 10, WL 10, FC film, Cl 175M, Solids 2%, Calcium 140, KCL 3%. BGG 250, Max 620, TG 625. SPM 100, PP 1350#. Circulated and POOH. Changed BHA. WIH. Slip and cut drilling line. Stuck pipe at 7342' and jarred free. Reamed tight hole from 7260-7450'. DMC \$4594; CMC \$23,803; DC \$21,775; CC \$654,885

2-9-95

Drilling 11,017' lime and shale. Made 163' in 19-1/2 hours, 8.3'/hr. MW 10.2, Vis 35, PV 6, YP 7, Gels 5/3, pH 10, WL 10, FC film, Cl 175M, Solids 2, Calcium 140, KCL 3%. BGG 140, Max 300,

Attachment C

Wolfcamp

Wolfcamp Pressure

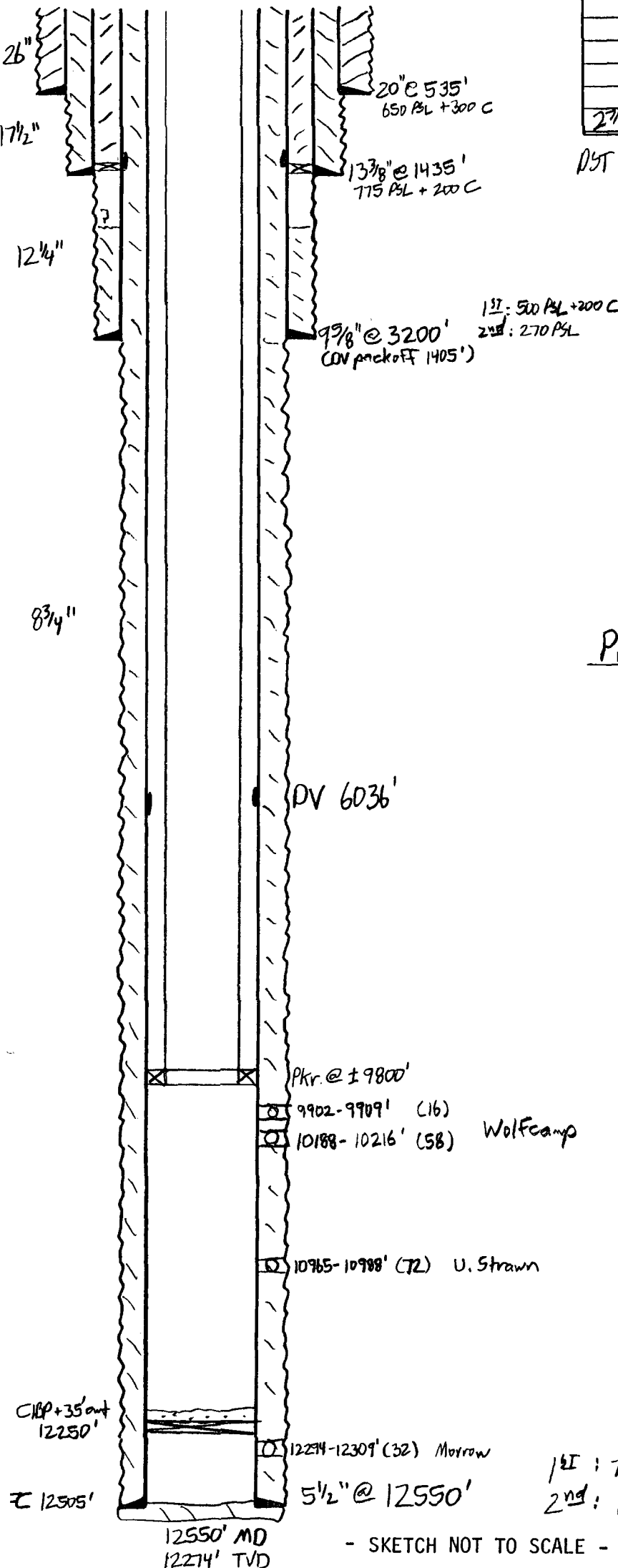
(10.2 mg)(.052)(.993) TVD
= 5272 psi

WELL NAME: Zinnia Fed. Unit 1 FIELD AREA: Burton Flat
 LOCATION: 1980' FNL, 910' FWL (Surface), 2114' FNL, 2563' FWL (BH) 27-20s-29e Edely NM
 GL: 3273' ZERO: 27' AGL:
 KB: 330' ORIG. DRLG./COMPL. DATE:
 COMMENTS:

CASING PROGRAM:

SIZE/WT./GR./CONN.	DEPTH SET
20 94 J55 STC	535'
13 3/8 54.5? J55 STC	1435'
9 5/8 40 J55 STC	3200'
5" 20 S95 LTC	1156'
20 N80 LTC	3487'
17 N80 LTC	6862'
17 L80 LTC	7633'
20 N80 LTC	12550'
2 7/8 6.5 N80 EVE	

DST #1 3867-3952' Rec. 15.6 Bd / 32.2 BW 38° API
 Sampler: 400 cc oil / 2100 cc wtr / 0.2 cc Fg
 1500 C1- ISIP 1651, FSIP 1631 BHT=95°F
 BHP* = 1746 psi



Proposed Wellbore Schematic

1st: 750 Super H + 1250 H Circ.
 2nd: 1550 Super H Circ.

- SKETCH NOT TO SCALE -

REVISED: HBCollins

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



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

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SECRETARY
DENNIS G. KINSEY
TREASURER

July 10, 1995

Marathon Oil Company
P. O. Box 552
Midland, TX 79702

Ladies and Gentlemen:

Yates Petroleum Corporation has submitted an application to the NMOCD to downhole commingle the Strawn and Wolfcamp formations in the Zinnia Federal Unit #1 located in E of Section 27-T20S-R29E. 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,

A handwritten signature in cursive script, appearing to read 'Brian Collins'.

Brian Collins
Engineer

BC/th

Enclosures