OIL CONSERVATION COMMISSION
Aztec DISTRICT

OIL CONSERVATION COMMISSION
BOX 871
SANTA FE, NEW MEXICO

DATE 4-6-64

Re: Proposed NSP _____
Proposed NWU _____
Proposed NSL _____
Proposed NFO _____
Proposed DC XXX

Gentlemen:

I have examined the application dated March 19, 1964
for the El Paso Natural Gas Co. Turner Hughes #15 (MD) A-3-27N-9W
Operator Lease and Well No. S-T-R
and my recommendations are as follows:

Approve

Yours very truly,

A. R. Kendrick

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO 7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name	County	Date
Blanco Mesa Verde & Basin Dakota	San Juan	March 19, 1964

Operator	Lease	Well No.
El Paso Natural Gas Company	Turner Engine	15 (MD)

Location of Well	Unit	Section	Township	Range
	A	3	27N	9W

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES X NO ____
2. If answer is yes, identify one such instance: Order No. MC-1075 ; Operator, Lease, and Well No.:

Tenneco Riddle #1 - MDR 9-27-9

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Mesa Verde	Dakota
b. Top and Bottom of Pay Section (Perforations)	4605 - 4662	6638 - 6816
c. Type of production (Oil or Gas)	Gas	Gas
d. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing

4. The following are attached. (Please mark YES or NO)

Yes a. Diagrammatic Sketch of the Dual Completion, showing all casing strings, including size and setting, top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.

Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.

No c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*

Yes d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Delhi Taylor Oil Corp., Fidelity Union Tower, 1507 Pacific Avenue, Dallas 1, Texas

Shelly Oil Company, Box 38, Hobbs, New Mexico

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6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO ____. If answer is yes, give date of such notification March 20, 1964.

CERTIFICATE: I, the undersigned, state that I am the Area Petroleum Engineer of the El Paso Natural Gas (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

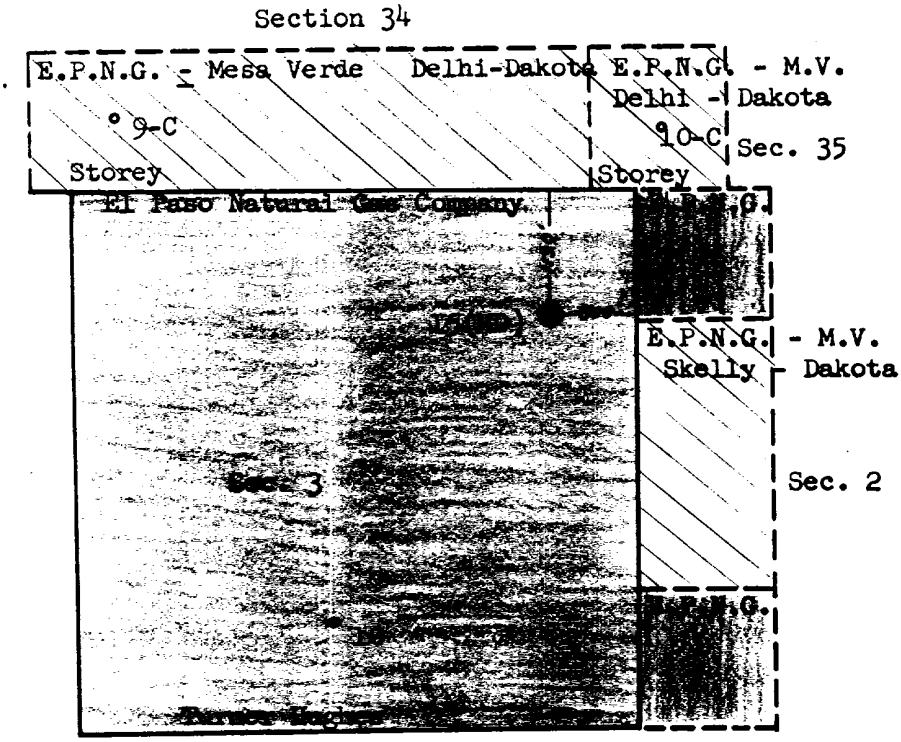
ORIGINAL SIGNED E. S. OBERLY
Signature

* Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard proration unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

PLAT SHOWING LOCATION OF DUALLY COMPLETED
El Paso Natural Gas Co. Turner Hughes #15 (MD)
and Offset Acreage

T-27-N, R-9-W



EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS

SCALE	DATE	No.
DRAWN BY	CHECKED BY	

FORM 29-SH REV. 1-61

EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

DATE February 1, 1964

Operator: El Paso Natural Gas Company		Lease: Turner Hughes No. 15 (DK)	
Location: 1190'N, 800'E, Sec. 3, T-27-N, R-9-W		County: San Juan	State: New Mexico
Formation: Dakota		Pool: Basin	
Casing: Diameter: 4.500	Set At: Feet: 6918	Tubing: Diameter: 2.0625	Set At: Feet: 6617
Pay Zone: From: 6700	To: 6816	Total Depth: 6921	Shut In: 1-25-64
Stimulation Method: Sand/Water Frac.		Flow Through Casing:	Flow Through Tubing: X

Choke Size, Inches: 0.750	Choke Constant: C: 12.365	Set Baker Model "D" Packer at 4875'.	
Shut-In Pressure, Casing, PSIG: 885 (MV)	+ 12 = PSIA: 897	Days Shut-in: 7	Shut-In Pressure, Tubing PSIG: 2186 (DK) + 12 = PSIA: 2198
Flowing Pressure P PSIG: 398	+ 12 = PSIA: 410		Working Pressure: Pw PSIG: Calc. + 12 = PSIA: 1161
Temperature: T = 73 °F	Ft = .9877	n: .75	Fpv (From Tables): 1.052
Gravity: 0.730	Fg = .9066		

Initial SIPT (MV) = 884 psig
Final SIPC (MV) = 891 psig

CHOKE VOLUME Q = C x P_t x F_t x F_g x F_{pv}

Q = (12.365)(410)(.9877)(.9066)(1.052) = 4776 MCF/D

OPEN FLOW Aof = Q $\left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$

Aof = $\left(\frac{4,831,204}{3,483,283} \right)^n$ $(4776)(1.3869)^{.75} = (4776)(1.2780)$

NOTE: Well produced a heavy spray of water and distillate throughout the test.

Aof = 6104 MCF/D

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TESTED BY H. E. McAnally

Checked by H. L. Kendrick

Lewis D. Galloway

Lewis D. Galloway

EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

DATE February 10, 196[illegible]

Operator: El Paso Natural Gas Company		Lease: Turner Hughes No. 15 (MV)	
Location: 1190'N, 800'E, Sec. 3, T-27-N, R-9-W		County: San Juan	State: New Mexico
Formation: Mesa Verde		Pool: Blanco	
Casing: Diameter: 5.500	Set At: Feet: 4919	Tubing: Diameter: 1.660	Set At: Feet: 4534
Pay Zone: From: 4595	To: 4644	Total Depth: 6921	Shut In: 1-25-64
Stimulation Method: Sand/Water Frac.		Flow Through Casing: X	Flow Through Tubing:

Choke Size, Inches: 0.750		Choke Constant: C: 12.365		Set Baker Model "D" Packer at 4875'.	
Shut-In Pressure, Casing, PSIG: 903 (MV)	+ 12 = PSIA: 915	Days Shut-In: 16	Shut-In Pressure, Tubing PSIG: 903 (MV)	+ 12 = PSIA: 915	
Flowing Pressure: P PSIG: 169	+ 12 = PSIA: 181		Working Pressure: P_w PSIG: 236	+ 12 = PSIA: 248	
Temperature: T= 66 °F	Ft= .9943	n = 0.75	Fpv (From Tables): 1.018	Gravity: .695	Fg = .9292

Initial SIPT (DK) = 2198 psig
Final SIPT (DK) = 2214 psig

CHOKE VOLUME = $Q = C \times P_t \times F_t \times F_g \times F_{pv}$

$Q = (12.365)(181)(.9943)(.9292)(1.018)$ = 2105 MCF/D

OPEN FLOW = $Aof = Q \left(\frac{P_c^2}{P_c^2 \quad P_w^2} \right)^n$

$Aof = \left(\frac{837,225}{775,721} \right)^n = (2105)(1.0792)^{.75} = (2105)(1.0588)$

Aof = 2229 MCF/D

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NOTE: The well produced a very heavy mist of distillate throughout the test.

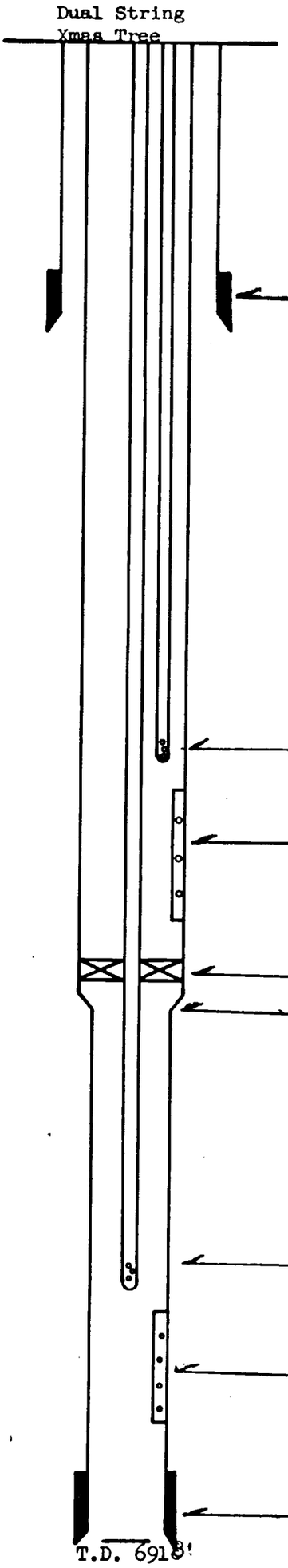
TESTED BY H. E. McAnally

WITNESSED BY

Lewis D. Galloway

Lewis D. Galloway

SCHEMATIC DIAGRAM OF DUAL COMPLETION
El Paso Natural Gas Co. Turner Hughes #15 (MD)
NE/4 Section 3, T-27-N, R-9-W



El Paso Natural Gas Company   Turner Hughes   15 (MD)

A   3   27   9   San Juan   2-10-64

Mesa Verde   Gas   Flowing   Casing

Dakota   Gas   Flowing   Tubing

1-25-64   7 days   885(C) 884(T)   XXXXXX

1-25-64   7 days   2198   XXXXXX

Lower   2-1-64

	Tbg.	Csg.			
15 min.	888	889		564	63
30 min.	890	890		516	66
45 min.	890	891		480	68
60 min.	891	891		453	69
120 min.	891	891		414	72
180 min.	891	891	Calc. 1149	398	73

4776   XXXXXX

Well produced a heavy spray of water and distillate throughout the test.

SHUT-IN PRESSURE DATA BEFORE FLOW TEST NO. 2

1-25-64   16 days   903 (C & T)   XXXXXX

2-1-64   9 days   2198   XXXXXX

Upper   2-10-64

			SHUT-IN ZONE PRESSURE, PSIG	
15 min.	206	343	2201	56
30 min.	220	308	2206	58
45 min.	216	302	2208	61
60 min.	208	290	2210	62
120 min.	183	256	2212	65
180 min.	169	236	2214	66

2229   XXXXXX

Very heavy mist of distillate throughout the test.

XXXXXXXXXXXX

... herein contained is true and complete ...

EL PASO NATURAL GAS COMPANY

H. L. Kendrick

Area Gas ... Engineer

February 10, 1964