

NEW MEXICO OIL CONSERVATION CO. MISSION
SANTA FE, NEW MEXICO

Form C-110
Revised 7/1/55

(File the original and 4 copies with the appropriate district office)

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

Company or Operator Western Oil Fields, Inc. Lease Gulf State

Well No. 1 Unit Letter A S 36 T 22S R 37E Pool Tubb

County Lea Kind of Lease (State, Fed. or Patented) State

If well produces oil or condensate, give location of tanks: Unit A S 36 T 22S R 37E

Authorized Transporter of Oil or Condensate _____

Address _____
(Give address to which approved copy of this form is to be sent)

Authorized Transporter of Gas Western Oil Fields, Inc.

Address P. O. Box 1147, Hobbs, New Mexico
(Give address to which approved copy of this form is to be sent)

If Gas is not being sold, give reasons and also explain its present disposition:

Gas is presently being transported by the Permian Basin Pipeline Co.

Reasons for Filing: (Please check proper box) New Well _____ ()

Change in Transporter of (Check One): Oil () Dry Gas () C'head () Condensate ()

Change in Ownership _____ () Other X _____

Remarks: _____ (Give explanation below)

We are using some of the gas from this well to drill the Amanda Sims #2 located 990'/S, 660'/E, Sec. 25, T22S, R37E. Measurements will be taken and royalty paid to the state for use of the fuel.

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the _____ day of _____ 19 _____

By Paul White

Approved _____ 19 _____

Title Engineer

OIL CONSERVATION COMMISSION

Company Western Oil Fields, Inc.

By E. P. Fisher

Address P. O. Box 1147

Title _____

Hobbs, New Mexico

N MEXICO OIL CONSERVATION COMMISSION
One-point Back Pressure Test for Gas Wells
 (Deliverability)

Form C-122-C

4-1-54

Pool Tubb MAIN OFFICE OCC Formation Tubb County Lea
 Initial Annual Special I Date of test January 6-14, 1956
 Company Western Oil Fields, Inc. Lease Gulf State 1955 APR 18 AM 10 No. 16
 Unit 1A Sec. 36 Twp. 28S Rge. 37E Purchaser Permian Basin Pipeline Company
 Casing 5-1/2" Wt. 15.5 I.D. 4.950 Set at 6136' Perf. 6004' To 6040'
 Tubing 2" Wt. 4.7 I.D. 1.995 Set at 6105' Perf. 6004' To 6040'
 Gas Pay: From 5987' To 6167' L 6004' x G Mix 0.740 = GL 4443' Bar. Press. 13.2
 Producing Thru: Casing Tubing x Type Well Single Completion
 Single-Bradenhead-G.C. or G.O. Dual

FLOW DATA

FLOW DATA										
Started		Taken		Duration Hours	Type Taps	Line Size	Orifice Size	Static Press.	Differ- ential	Flow Temp.
Date	time	Date	time							
1-9-56	10:15 AM	1-11-56	9:15 AM	47	Pipe	4	1.50	471.5	4.0	60°
	PM		PM							

FLOW CALCULATIONS

Static Pressure	Differ-	Meter	24-Hour	Gravity	Temp.	Compress-	Rate of Flow
P _f	ential	Extension	Coeff-	Factor	Factor	ability	MCF/Da. @ 15.025 psia
	h _w	P _f P _w	icient	F _g	F _t	F _{pv}	Q
484.7	4.0	44.03	15.26	0.9225	1.0000	1.061	658

SHUT-IN DATA

FLOW DATA

SHUT-IN DATA					FLOW DATA			
Shut-in		Press. Taken		Duration Hours	Wellhead Pressure (P_c) psia		W.H. Working Pressure (P_w) and (P_t) psia	
Date	Time	Date	Time		Tubing	Casing	Tubing	Casing
1-11-56	9:15 AM	1-14-56	8:15 AM	71	1664.2	—	1022.2	—
	PM		PM					

FRICTION CALCULATIONS (if necessary)

SUMMARY

$$1023.0 = \left[1044.9 / (9.936 \times .658)^2 (.269) \right]^{1/2}$$

P_c = 1664.2 psia

Q = 658 MCF/Da.

P_w = 1023.0 psia

P_d = 1331.4 psia

D = 436.6 MCF/Da.

x = 9.821840-10 +

log = 2.818226

log = 2.610066

log = 436.6 = D

DELIVERABILITY CALCULATIONS

P_w 1023.0 P_c 1664.2 P_w + P_c 0.6147
 $1 - \frac{P_w}{P_c} = 0.3853$
 $1 - \frac{P_w}{P_c} = 0.5787$
 $\log 9.762453-10$
 $x (n) = 0.75$

COMPANY Western Oil Fields, Inc.
 ADDRESS P. O. Box 1147, Hobbs, New Mexico
 AGENT and TITLE
 WITNESSED
 COMPANY Permian Basin Pipeline Company

REMARKS

G Mix of 0.740 used in the above calculations is an estimate based on known values of nearby wells in the Tubb Pool.

NEW MEXICO OIL CONSERVATION COMMISSION
One-point Back Pressure Test for Gas Wells
(Deliverability)

Form C-122-C

4-1-54

Pool Tubb Formation Tubb County Lea
Initial X Annual Special Date of test October 1-9, 1954
Company Western Oil Fields, Inc. Lease Gulf State Well No. 1
Unit A Sec. 36 Twp. 22-S Rge. 37-E Purchaser Permian Basin Pipeline Company
Casing 5-1/2" Wt. 15.5# I.D. 4.950" Set at 6166' Perf. 6004' To 6040'
Tubing 2" Wt. 4.7# I.D. 1.995" Set at 6105' Perf. To
Gas Pay: From 5987' To 6167' L 6105' x GMix 0.688 = GL 4200' Bar. Press. 13.2
Producing Thru: Casing Tubing X Type Well Single Completion
Single- Bradenhead-G.G. or G.O. Dual

FLOW DATA

Started		Taken		Duration Hours	Type Taps	Line Size	Orifice Size	Static Press.	Differ- ential	Flow Temp.
Date	Time	Date	Time							
10-4-54	AM	10-6-54	10:00 AM	4 1/2	Pipe	4	1.00	430	1.0	60°
	1:30 PM		PM							

FLOW CALCULATIONS

Static Pressure Pr	Differ- ential h _w	Meter Extension $\sqrt{P_f h_w}$	24-Hour Coeff- icient	Gravity Factor F _g	Temp. Factor F _t	Compress- ability F _{pv}	Rate of Flow MCF/Da. @ 15.025 psia Q
423	1.0	20.57	6.376	0.9527	1.0000	1.045	131

SHUT-IN DATA

Shut-in		Press. Taken		Duration Hours	Wellhead Pressure (P _c) psia		W.H. Working Pressure (P _w) and (P _t) psia	
Date	Time	Date	Time		Tubing	Casing	Tubing	Casing
10-6-54	10:00 AM	10-9-54	9:15 AM	71 1/4	1664	Packer	914	Packer
	PM		PM					

FRICTION CALCULATIONS (if necessary)

Separator Gas Gravity 0.661

Friction Negligible

DELIVERABILITY CALCULATIONS

$$P_w = 914 \quad P_c = 1664 \quad P_w + P_c = 0.5492$$

$$1 - \frac{P_w}{P_c} = 0.4508 \quad 1 + \frac{P_w}{P_c} = 1.5492 \quad \left(1 - \frac{P_w}{P_c}\right) \left(1 + \frac{P_w}{P_c}\right) = M = 0.6984$$

$$.36 + M = 0.5155 \quad \log 9.712229 \cdot 10^6 \quad x(n) = 0.75$$

SUMMARY

P_c = 1664 psia

Q = 131 MCF/Da.

P_w = 914 psiaP_d = 1331 psia

D = 80 MCF/Da.

= 9.784172 · 10⁻¹⁰ +

Log Q = 2.117271

Log D = 1.901443

Antilog = 80 = D

COMPANY Western Oil Fields, Inc.
ADDRESS 117 Green Acres Drive, Hobbs, New Mexico
AGENT and TITLE
WITNESSED
COMPANY Permian Basin Pipeline Company

REMARKS