Beals property

STATE OF KANSAS — CONSERVATION COMMISSION

FORM C-2
8-7-58

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

TYPE TEST: ☐ Deliverability ☒ Open Flow TEST DATE: 11-27-63

COMPANY	LEASE	WELL NO.
Continental Oil Company	Huck & Jobe	Gas Unit No. 1

COUNTY	LOCATION	SECTION	TWP	RNG	ACRES
Comanche		33	33S	17W	640

FIELD	RESERVOIR	PIPELINE CONNECTION
Beals	Marmaton	Coldwater Gas Co.

COMPLETION DATE	PLUG BACK TOTAL DEPTH	PACKER SET AT
2-26-63	5,580'	4,985'

CASING SIZE	WT.	I.D.	SET AT	PERF.	TO
5½	14		5,594'	4,895' 4,903'	4,900' 4,906'

TUBING SIZE	WT.	I.D.	SET AT	PERF.	TO
2 3/8					

TYPE COMPLETION (Describe)	TYPE FLUID PRODUCTION
Dual - Producing Casing	

PRODUCING THRU	RESERVOIR TEMPERATURE F	BAR. PRESS – P_a
Casing	110°	14.4 Psia

GAS GRAVITY – G_g	% CARBON DIOXIDE	% NITROGEN	API GRAVITY OF LIQUID
.652	0	4%	

VERTICAL DEPTH (H)	TYPE METER CONN.	(METER RUN) SIZE
4,900'	Flange	3

SHUT-IN PRESSURE: SHUT IN 11-23 19 63 AT 10:45 (AM) TAKEN 11-26 19 63 AT 10:45 (AM)

FLOW TEST: STARTED 11-26 19 63 AT 10:45 (AM) TAKEN 11-27 19 63 AT 10:45 (AM)

OBSERVED DATA

DURATION OF SHUT-IN ____ HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) PRESSURE psig	DIFF. in. (h_w)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS. psig	CASING WELLHEAD PRESS. (P_c) psia	TUBING WELLHEAD PRESS. psig	TUBING WELLHEAD PRESS. $(P_w)(P_t)(P_c)$ psia	DURATION HOURS	LIQUID PROD. Bbls.
SHUT-IN						1506	1520.4	-	-	72	
FLOW	.750	610	25.5	81		1105	1119.4	-	-	24	0

RATE OF FLOW CALCULATIONS * P_W^2 Calculated

COEFFICIENT $(F_b)(F_p)$ Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m x h_w}$	GRAVITY FACTOR F_g	FLOWING TEMP. FACTOR F_t	DEVIATION FACTOR F_{pv}	RATE OF FLOW R Mcfd	GOR	G_m
2.740	624.4	126.2	1.238	.9804	1.051	441	-	-

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_c)^2$= 2311.6 ; $(P_w)^2$= 1253.2 ; P_d= ____ % $(P_c - 14.4) + 14.4$ = ____ ; $(P_a)^2$=0.207 $(P_d)^2$= ____

$(P_c)^2-(P_a)^2$ or $(P_c)^2-(P_d)^2$	$(P_c)^2-(P_w)^2$	$\left[\frac{P_c^2-P_a^2}{P_c^2-P_w^2}\right]$	LOG [ ]	"n"	n x LOG [ ]	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
2311.4	1058.2	2.184	.3393	.659	.2236	1.673	738

OPEN FLOW 738 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 14.65 psia

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Executed this the 3rd day of December, 19 63.

Warren Kirpatrick
Witness (If any)

W. E. Gray
For Company

For Commission

Checked by

STATE OF KANSAS – CORPORATION COMMISSION

FORM C-2
8-7-58

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

TYPE TEST: ☐ Deliverability ☒ Open Flow TEST DATE: 11-19-63

COMPANY	LEASE	WELL NO.
Continental Oil Company	Huck & Jobe	Gas Unit No. 1

COUNTY	LOCATION	SECTION	TWP	RNG	ACRES
Comanche	1,980' f NL & 1,980' f WL	33	33S	17W	640

FIELD	RESERVOIR	PIPELINE CONNECTION
Beals	Mississippi	Coldwater Gas Co.

COMPLETION DATE	PLUG BACK TOTAL DEPTH	PACKER SET AT
	5,580'	4,985'

CASING SIZE	WT.	I.D.	SET AT	PERF.	TO
5½	14#		5,594'	5,070'	5,074'
				5,060'	5,065'

TUBING SIZE	WT.	I.D.	SET AT	PERF.	TO
2	4.7	1.995	4,985'	Open ended	

TYPE COMPLETION (Describe)	TYPE FLUID PRODUCTION
Dual completion	None

PRODUCING THRU	RESERVOIR TEMPERATURE F	BAR. PRESS – P_a
Tubing	120°	14.4 Psia

GAS GRAVITY – G_g	% CARBON DIOXIDE	% NITROGEN	API GRAVITY OF LIQUID
.630	0	5%	

VERTICAL DEPTH (H)	TYPE METER CONN.	(METER RUN) (PROVER) SIZE
4,985'	Flange	3.068

SHUT-IN PRESSURE: SHUT IN 11-15 19 63 AT 10:15 (AM) (PM) TAKEN 11-18 19 63 AT 10:00 (AM) (PM)

FLOW TEST: STARTED 11-18 19 63 AT 10:00 (AM) (PM) TAKEN 11-19 19 63 AT 10:00 (AM) (PM)

OBSERVED DATA

DURATION OF SHUT-IN 72 HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. $(h_w)(h_d)$	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS. psig	CASING WELLHEAD PRESS. $(P_w)(P_t)(P_c)$ psia	TUBING WELLHEAD PRESS. psig	TUBING WELLHEAD PRESS. (P_t) psia	DURATION HOURS	LIQUID PROD. Bbls.
SHUT-IN								1600	1614.4	72	
FLOW	.750	607	18	78				1290	1304.4	24	0

RATE OF FLOW CALCULATIONS* P_W^2 Calculated

COEFFICIENT $(F_b)(F_p)$ Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m x h_w}$	GRAVITY FACTOR F_g	FLOWING TEMP. FACTOR F_t	DEVIATION FACTOR F_{pv}	RATE OF FLOW R Mcfd	GOR	G_m
2.740	621.4	105.8	1.260	.9831	1.047	376		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_c)^2$= 2606.3 ; $(P_w)^2$= 1703.7 ; P_d= ____ % $(P_c - 14.4) + 14.4$ = ____ ; $(P_a)^2$=0.207 $(P_d)^2$= ____

$(P_c)^2-(P_a)^2$ or $(P_c)^2-(P_d)^2$	$(P_c)^2-(P_w)^2$	$\frac{P_c^2-P_a^2}{P_c^2-P_w^2}$	LOG [ ]	"n"	n x LOG [ ]	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
2606.1	902.6	2.887	.4605	.645	.2970	1.982	745

OPEN FLOW 745 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 14.65 psia

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Executed this the 3rd day of December, 19 63.

Warren Kirpatrick
Witness (if any)

W. E. Gray
For Company

For Commission

Checked by

STATE OF KANSAS – CORPORATION COMMISSION

FORM G-2
8-7-58

D

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

TYPE TEST: ☐ Deliverability ☒ Open Flow TEST DATE: 12-15-67

COMPANY	LEASE	WELL NO.
Continental Oil Company	Huck & Jobe Gas Unit	1

COUNTY	LOCATION	SECTION	TWP	RNG	ACRES
Comanche	1980' FNL & 1980' FWL	33	33S	17W	640

FIELD	RESERVOIR	PIPELINE CONNECTION
Beals	Marmaton	Coldwater Gas Gathering System

COMPLETION DATE	PLUG BACK TOTAL DEPTH	PACKER SET AT
10-23-64	5576'	4985'

CASING SIZE	WT.	I.D.	SET AT	PERF.	TO
5½"	14#	5.012	5594'	4895-4900'	4903-06'

TUBING SIZE	WT.	I.D.	SET AT	PERF.	TO
2 3/8"	4.7	1.995	4979'		

TYPE COMPLETION (Describe)	TYPE FLUID PRODUCTION
Dual (Producing Casing)	None

PRODUCING THRU	RESERVOIR TEMPERATURE F	BAR. PRESS – P_a
Casing	110°	14.4 Psia

GAS GRAVITY – G_g	% CARBON DIOXIDE	% NITROGEN	API GRAVITY OF LIQUID
.651		4%	

VERTICAL DEPTH (H)	TYPE METER CONN.	(METER RUN)(PROVER) SIZE
4900'	Flange	3.068

SHUT-IN PRESSURE: SHUT IN 12-11 19 67 AT 11:15 (AM) TAKEN 12-14 19 67 AT 11:15 (AM)

FLOW TEST: STARTED 12-14 19 67 AT 11:15 (AM) TAKEN 12-15 19 67 AT 11:15 (AM)

OBSERVED DATA

DURATION OF SHUT-IN ____ HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. $(h_w)(h_d)$	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS. psig	CASING WELLHEAD PRESS. $(P_w)(P_t)(P_c)$ psia	TUBING WELLHEAD PRESS. psig	TUBING WELLHEAD PRESS. $(P_w)(P_t)(P_c)$ psia	DURATION HOURS	LIQUID PROD. Bbls.
SHUT-IN						870	884.4			72	
FLOW	.625	474	36	61		529	543.4			24	

RATE OF FLOW CALCULATIONS $(P_W)^2$ Calc.

COEFFICIENT $(F_b)(F_p)$ Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m x h_w}$	GRAVITY FACTOR F_g	FLOWING TEMP. FACTOR F_t	DEVIATION FACTOR F_{pv}	RATE OF FLOW R Mcfd	GOR	G_m
1.897	488.4	132.6 → 172.6	1.239	.9990	1.045	325 → 424		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_c)^2$= 782.16 ; $(P_w)^2$= 295.37 ; P_d= 62.5 % $(P_c - 14.4) + 14.4$ = ____ ; $(P_a)^2$=0.207 $(P_d)^2$= ____

$(P_c)^2-(P_a)^2$ or ~~$(P_c)^2-(P_a)^2$~~	$(P_c)^2-(P_w)^2$	$\left[\frac{P_c^2-P_a^2}{P_c^2-P_w^2}\right]$	LOG [ ]	"n"	n x LOG [ ]	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
781.95	486.79	1.606	.2057	.659	.1356	1.366	579 → 444

OPEN FLOW 579 → 444 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 14.65 psia

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Executed this the 16th day of December, 1967.

N. Kirkpatrick
Witness (If any)

For Commission

SCC(2)
Union Oil Co.(2)
File(2)

/s/ W. E. Gray
For Company

Checked by

STATE OF KANSAS – CORPORATION COMMISSION

FORM G-2
8-7-58

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

TYPE TEST: ☐ Deliverability ☒ Open Flow TEST DATE: 12-15-67

COMPANY	LEASE	WELL NO.
Continental Oil Company	Huck & Jobe Gas Unit	1

COUNTY	LOCATION	SECTION	TWP	RNG	ACRES
Comanche	1980' FNL & 1980' FWL	33	33S	17W	640

FIELD	RESERVOIR	PIPELINE CONNECTION
Beals	Mississippi	Coldwater Gas Gathering System

COMPLETION DATE	PLUG BACK TOTAL DEPTH	PACKER SET AT
10-23-64	5576'	4985'

CASING SIZE	WT.	I.D.	SET AT	PERF.	TO
5½"	14#	5.012	5594'	5014'	5016'

TUBING SIZE	WT.	I.D.	SET AT	PERF.	TO
2 3/8"	4.7#	1.995	4979'	Open Ended	

TYPE COMPLETION (Describe)	TYPE FLUID PRODUCTION
Dual Completion	

PRODUCING THRU	RESERVOIR TEMPERATURE F	BAR. PRESS – P_a
Tubing	110°	14.4 Psia

GAS GRAVITY – G_g	% CARBON DIOXIDE	% NITROGEN	API GRAVITY OF LIQUID
0.631		5%	

VERTICAL DEPTH (H)	TYPE METER CONN.	(METER RUN) (PROVER) SIZE
5015' (Avg.)	Flange	3.068

SHUT-IN PRESSURE: SHUT IN 12-11 19 67 AT 11:15 (AM) TAKEN 12-14 19 67 AT 11:15 (AM)

FLOW TEST: STARTED 12-14 19 67 AT 11:15 (AM) TAKEN 12-15 19 67 AT 11:15 (AM)

OBSERVED DATA

DURATION OF SHUT-IN 72 HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. $(h_w)(h_d)$	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS. psig	CASING WELLHEAD PRESS. $(P_w)(P_t)(P_c)$ psia	TUBING WELLHEAD PRESS. psig	TUBING WELLHEAD PRESS. $(P_w)(P_t)(P_c)$ psia	DURATION HOURS	LIQUID PROD. Bbls.
SHUT-IN								1107	1121.4	72	
FLOW	.750	478	22	39				764	778.4	24	

RATE OF FLOW CALCULATIONS

$(P_w)^2$ Calc.

COEFFICIENT $(F_b)(F_p)$ Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m x h_w}$	GRAVITY FACTOR F_g	FLOWING TEMP. FACTOR F_t	DEVIATION FACTOR F_{pv}	RATE OF FLOW R Mcfd	GOR	G_m
2.740	492.4	104.1	1.259	1.021	1.048	384		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_c)^2$= 1257.5 ; $(P_w)^2$= 608.22 ; P_d= 69.2 % $(P_c - 14.4) + 14.4$ = ; $(P_a)^2$=0.207 $(P_d)^2$=

$(P_c)^2-(P_a)^2$ or $(P_c)^2-(P_d)^2$	$(P_c)^2-(P_w)^2$	$\frac{P_c^2-P_a^2}{P_c^2-P_d^2}$ or $\frac{P_c^2-P_w^2}{P_c^2-P_w^2}$	LOG [ ]	"n"	n x LOG [ ]	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
1257.3	649.3	1.936	.2869	.645	.18505	1.531	588

OPEN FLOW 588 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 14.65 psia

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Executed this the 16th day of December, 1967.

W. Rick Sotarik
Witness (if any)

For Commission

SCC(2)
Union Oil Co.(2)
File(2)

/s/ W. E. Gray
For Company

Checked by