

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow
 Deliverability

Test Date:
7/24 to 7/25/14

API No. 15
007-24,137-00-00

Company LB Exploration, Inc.		Lease Hopkins Ranch		Well Number 33	
County Barber	Location W/2NENWNE	Section 33	TWP 32S	RNG (E/W) 13W	Acres Attributed
Field		Reservoir Miss		Gas Gathering Connection Oneok	
Completion Date 3/06/14		Plug Back Total Depth		Packer Set at none	
Casing Size 5.5	Weight	Internal Diameter	Set at 4645	Perforations 4506	To 4554
Tubing Size 2.875	Weight	Internal Diameter	Set at 4496	Perforations	To
Type Completion (Describe) single		Type Fluid Production Oil/SW		Pump Unit or Traveling Plunger? Yes / No no	
Producing Thru (Annulus / Tubing) annulus		% Carbon Dioxide .1246		% Nitrogen 7.6164	
Vertical Depth(H)		Pressure Taps flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 7/20		20 14 at 8:30 am (AM) (PM)		Taken 7/24 20 14 at 8:30 am (AM) (PM)	
Well on Line: Started 7/24		20 14 at 8:30 am (AM) (PM)		Taken 7/25 20 14 at 9:00 am (AM) (PM)	

OBSERVED SURFACE DATA

Duration of Shut-in 96 Hours

Static / Dynamic Property	Orifice Size (Inches)	Circle one: Meter Prover Pressure psig (Pm)	Pressure Differential in Inches H ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P _i) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _i) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						659	673.4	659	673.4	96	
Flow	1.250	78	27.8	82		568	582.4	225	239.4	24.5	184

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _b) (F _p) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F _g	Flowing Temperature Factor F _t	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
8.329	92.4	50.68	1.199	.9795	-----	496		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

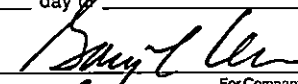
(P_c)² = 453.467 : (P_w)² = 339.189 : P_d = _____ % (P_c - 14.4) + 14.4 = _____ : (P_a)² = 0.207
(P_d)² = _____

(P _c) ² - (P _w) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _d ² 2. P _c ² - P _w ² divided by: P _c ² - P _w ²	LOG of formula 1. or 2. and divide by: $\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG []	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
453.260	114.278	3.966	.5983	.850	.5085	3.22	1597
				assigned			

Open Flow **1597** Mcfd @ 14.65 psia X .50 = Deliverability **798.5** 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 7th day of November, 20 14.

Witness (if any)



For Company

Received
KANSAS CORPORATION COMMISSION

For Commission



Checked by

NOV 12 2014

CONSERVATION DIVISION
WICHITA, KS

FIELD DATA SHEET

Pumper:

Phone#:

 Type Test: Initial Annual Special Test Date: 7/24-7/25/14

Company: LB EXPLORATION Connection:

Field: Reservoir Location:

Completion Date: Total Depth: Plug Back TD: Elevation: Form or Lease Name: HOPKINS RANCH

Csg. Size: Wt. d Set At Perforations: From To Well No. 33

Tbg. Size: Wt. d Set At Perforations: From To Sec. Top - Blk Rgs - Swr

Type Completion (Describe): Packer Set At County or Parish: BARBER

 Producing Thru: Reservoir Temp. F: Mean Annual Temp. F: 60 Baro. Press. - P_a: 14.4 State:

 G_v: .695 % CO₂: .1246 % N₂: 7.6164 % H₂S: Prover Motor Run Taps: 7 170

DATE	ELAP. TIME	WELLHEAD WORKING PRESSURE			METER OR PROVER				REMARKS	
		Tbg. Psig	Csg. Psig	ΔP	Pressure Psig	Diff.	Temp. F	Orifice		
8:30	96									
8:30		654	654				1.250		COMMENCE TEST	
8:45		533	652		35	4	78			
9:00		371	642		36	24.4	74		2.5% 642	
9:15		240	630		41	13.0	75		TRAP FLOW 5.0% 624	
9:30									7.5% 609	
9:45		OPENED GLOBE FOR 2ND FLOW								METER FLOW 10.0% 593
10:00		LATE TURBINE METERING TO 100 STD								12.5% 577
10:15		METER / CONTINUOUS FLOW - CORP								15.0% 560
10:30		NOT METERING FLOW RATE FOR								17.5% 544
10:45		4-POINT TEST. TYPICAL FLOW								20.0% 527
11:00		PRODUCTION - 100 BBL WATER &								25.0% 494
11:15		10 BBL OIL								
11:00		260	615		68	18.5	85		SFT CHOKED FOR 1PT TEST	
9:00		225	568		78	27.8	82		184 BBL > 7/25/14	
	0.0									
	0.5								Begin 30 minute wellhead buildup	
	1.0									
	1.5									
	2.0									
	3.0									
	4.0									
	5.0									
	6.0									
	7.0									
	8.0									
	9.0									
	10.0									
	15.0									
	20.0									
	25.0									
	30.0									

Received
 KANSAS CORPORATION COMMISSION
NOV 12 2014
 CONSERVATION DIVISION
 WICHITA, KS