Kansas Corporation Commission
One Point Stabilized Open Flow or Deliverability Test

Form G 2
(Rev. 7/03)

(See Instructions on Reverse Side)

Type Test:
☑ Open Flow
☐ Deliverability

Test Date: **11/21/2012** API No. **15081219890000**

Company	Lease	Well Number
OXY USA Inc	**PHOENIX A 1**	

County	Location	Section	TWP	RNG (E/W)	Acres Attributed
Haskell	**330' FNL & 620' FEL**	**23**	**30S**	**33W**	**640**

Field	Reservoir	Gas Gathering Connection
TICE	**Chester**	**Frontstreet**

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Completion Date	Plug Back Total Depth	Packer Set at
10/25/2012	**5,669'**	

Casing Size	Weight	Internal Diameter	Set at	Perforations	To
5 1/2"	**17.0#**	**4.892"**	**5,710'**	**5,403'**	**5,430'**

Tubing Size	Weight	Internal Diameter	Set at	Perforations	To

Type Completion (Describe)	Type Fluid Production	Pump Unit or Traveling Plunger? Yes / No
SINGLE-GAS	**WATER**	☐ Yes ☑ No

Producing Thru (Annulus / Tubing)	% Carbon Dioxide	% Nitrogen	Gas Gravity Gg
Annulus	**0.330%**	**10.198%**	**0.788**

Vertical Depth (H)	Pressure Taps	(Meter Run) (Prover) Size
5,417'	**Flange**	**3.068"**

Pressure Buildup: Shut in **11/17** 20 **12** at **9:00** ☑ AM ☐ PM Taken **11/20** 20 **12** at **9:00** ☑ AM ☐ PM

Well on Line: Started **11/20** 20 **12** at **9:00** ☑ AM ☐ PM Taken **11/21** 20 **12** at **9:00** ☑ AM ☐ PM

OBSERVED SURFACE DATA Duration of Shut in **72** Hours

Static / Dynamic Property	Orifice Size (inches)	*Circle one: Meter Prover Pressure* psig (Pm)	Pressure Differential in Inches H_2O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P_w) or (P_t) or (P_c) psig	Casing Wellhead Pressure (P_w) or (P_t) or (P_c) psia	Tubing Wellhead Pressure (P_w) or (P_t) or (P_c) psig	Tubing Wellhead Pressure (P_w) or (P_t) or (P_c) psia	Duration (Hours)	Liquid Produced (Barrels)
Shut In						**758.0**	**772.4**		**0**		**0**
Flow	**2.000**	**12.4**	**5**	**65**	**75**	**439.5**	**453.9**		**0.0**	**24**	**0**

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_{tt}	Deviation Factor F_{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/Barrel)	Flowing Fluid Gravity G_m
21.8600	**26.8**	**11.58**	**1.1265**	**0.9952**	**1.0029**	**285**	**None**	**0.717**

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_c)^2$ = **596.6** : $(P_w)^2$ = **206.0** : P_d = ____ % (Pc 14.4) + 14.4 = ____ : $(P_a)^2$ = **0.207** $(P_d)^2$ = **0**

(Pc)2 (Pa)2 or (Pc)2 (Pd)2	(Pc)2 (Pw)2	Choose Formula 1 or 2: 1. Pc2 Pa2 2. Pc2 Pd2 divided by: Pc2 Pw2	LOG of formula 1. or 2. *and divide by:* [Pc2 Pw2]	Backpressure Curve Slope = "n" or Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
596.4	**390.6**	**1.5269**	**0.1838**	**0.8005**	**0.1471**	**1.4031**	**400**

Open Flow **400** 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 **26** day of **November** , **2012**

Witness

OXY USA INC
For Company

For Commission

David Ogden - OXY USA Inc.
Checked by

State of Kansas - Corporation Commission
Multipoint Back Pressure Test

Form CG-1
(Rev. 10/96)

Type Test: ☑ Initial ☐ Annual ☐ Special Test Date: **11/21/2012**

Company	Lease	Well Number
OXY USA Inc	**PHOENIX A 1**	

County	Location	Section	TWP	RNG (E/W)	Acres Attributed
Haskell	**330' FNL & 620' FEL**	**23**	**30S**	**33W**	**640**

API No.	Reservoir	Pipeline Connection
15081219890000	**Chester**	**Frontstreet**

Completion Date	Plug Back Total Depth	Packer Set at
10/25/2012	**5,669'**	

Casing Size	Weight	Internal Diameter	Set at	Perforations	To
5 1/2"	**17.0#**	**4.892"**	**5,710'**	**5,403'**	**5,430'**

Tubing Size	Weight	Internal Diameter	Set at	Perforations	To

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Type Completion (Describe)	Type Fluid Production
SINGLE-GAS	**WATER**

Producing Thru (Annulus / Tubing)	Reservoir Temperature °F	BAR PRESS -P_a
Annulus	**133**	**14.4 Psia**

Gas Gravity - G_g	% Carbon Dioxide	% Nitrogen
0.788	**0.330%**	**10.198%**

Vertical Depth (H)	Type Meter Connection	(Meter Run) (Prover) Size
5,417'	**Flange**	**3.068"**

OBSERVED DATA Duration of Shut-in **72** Hours

Rate No	Orifice Size (inches)	*Circle One: Meter Prover Pressure psig (Pm)*	Pressure Differential in Inches H_2O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P_w) or (P_t) or (P_c) psig	Casing Wellhead Pressure psia	Tubing Wellhead Pressure (P_w) or (P_t) or (P_c) psig	Tubing Wellhead Pressure psia	Duration (Hours)	Liquid Produced (Barrels)
Shut-In					**75**	**758.0**	**772.4**	**0.0**	**0.0**	**72**	
1	**2.000**	**11.4**	**1.1**	**66**	**75**	**731.0**	**745.4**	**0.0**	**0.0**	**1**	**0**
2	**2.000**	**12.1**	**3.8**	**70**	**75**	**698.8**	**713.2**	**0.0**	**0.0**	**1**	**0**
3	**2.000**	**13.6**	**10.2**	**75**	**75**	**640.5**	**654.9**	**0.0**	**0.0**	**1**	**0**
4	**2.000**	**15.6**	**20.6**	**75**	**75**	**549.3**	**563.7**	**0.0**	**0.0**	**1**	**0**
5											

RATE OF FLOW CALCULATIONS

Rate No	Plate Coefficient (F_b) (F_p) Mcfd	*Circle One: Meter Prover Pressure psia*	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F_g	Flowing Temperature Factor F_{tt}	Deviation Factor F_{pv}	Rate of Flow Q Mcfd	GOR (Cubic Feet/Barrel)	Flowing Fluid Gravity G_m
1	**21.86**	**25.8**	**5.33**	**1.1265**	**0.9943**	**1.003**	**131**		**0.788**
2	**21.86**	**26.5**	**10.03**	**1.1265**	**0.9905**	**1.003**	**245**		**0.788**
3	**21.86**	**28.0**	**16.90**	**1.1265**	**0.9859**	**1.003**	**411**		**0.788**
4	**21.86**	**30.0**	**24.86**	**1.1265**	**0.9859**	**1.003**	**605**		**0.788**
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PRESSURE CALCULATIONS

Rate No	P_t Psia	P_c Psia	P_w Psia	$(P_c)^2$ Thousands	$(P_w)^2$ Thousands	Plotting Points $(P_c)^2 - (P_w)^2$ Thousands	Plotting Points Q Mcfd	% Shut-In $100 \frac{(Pw - Pa)}{(P_c - P_a)}$
1		**772.4**	**745.4**	**596.6**	**555.6**	**41.0**	**131**	**96.4%**
2		**772.4**	**713.2**	**596.6**	**508.7**	**87.9**	**245**	**92.2%**
3		**772.4**	**654.9**	**596.6**	**428.9**	**167.7**	**411**	**84.5%**
4		**772.4**	**563.7**	**596.6**	**317.8**	**278.8**	**605**	**72.5%**
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Indicated Wellhead Open Flow **1,111** Mcfd @ 14.65 psia "n" = **0.799**

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 **25** day of **November** **2012**

Witness (If any)

OXY USA INC.
For Company

For Commission

David Ogden - OXY USA Inc
Checked by

PHOENIX A 1 Section 23, T30S, R33W Haskell County, Kansas