KANSAS CORPORATION COMMISSION ONE POINT STABLIZED OPEN FLOW OR DELIVERABILITY TEST

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TYPE TEST:

⊠ Or	en	Flow
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TEST DATE: 2/	/13/02		API No. 15	-023-20396-0000
	Lease			Well Number
	Morrow			1-1
Location	Section	TWP	RNG (E/W)	Acres Attributed
NW SW	1-4s-41w			
Reservoir			Gas Gathering	Connection
Niobrara			Kinder-Mor	gan
Plug Back Total Depth			Packer Set at	
1266_				
Internal Diameter	Set at		Perforations	То
4.052	1309		1129	1164
Internal Diameter	Set at		Perforations	To
Type Fluid Production	/s		Pump Unit or	Traveling Plunger?
	A Comment		No	
% Carbon Dioxide	1000		% Nitrogen	Gas Gravity- Gg
.933	TER VE	<i>(</i> -	3.315	.589
Pressure Taps	Ka 25	J		Meter Run Size
Flange	100 10 2n			2
2-8-02@14:00	VICE.	TAKEN	2-12-0	2@13:00
2-12-02@13:00	17/7/2	TAKEN	2-13-0	2@9:10
	Location NW SW Reservoir Niobrara Plug Back Total Depth 1266 Internal Diameter 4.052 Internal Diameter Type Fluid Production % Carbon Dioxide .933	Lease Morrow Location Section NW SW 1-4s-41w Reservoir Niobrara Plug Back Total Depth 1266 Internal Diameter Set at 4.052 1309 Internal Diameter Set at Type Fluid Production Carbon Dioxide .933	Lease Morrow Location Section TWP NW SW 1-4s-41w Reservoir Niobrara Plug Back Total Depth 1266 Internal Diameter Set at 4.052 1309 Internal Diameter Set at Type Fluid Production Carbon Dioxide 933 Pressure Taps Flange 2-8-02@14:00	Lease Morrow Location Section TWP RNG(E/W) NW SW 1-4s-41w Reservoir Gas Gathering Niobrara Kinder-Morrow Plug Back Total Depth Packer Set at 1266 Internal Diameter Set at Perforations 4.052 1309 1129 Internal Diameter Set at Perforations Type Fluid Production Pump Unit or No % Carbon Dioxide .933

OBSERVED SURFACE DATA

Static/ Dynamic	Orifice Size	Meter Pressure	Pressure Diff.	Flowing Temp.	WellHead Temp.	_	lHead Press. P _t)(P _C)	-	lHead Press.	Duration	L
Property	in.	psig	In. H 20	t.	t.	psig	psia	psig	psia	(Hours)	Barrels
Shut-in						190	202			96.0	
Flow	.375	127.5	2.00	70		128	140			19.0	<u> </u>

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _b) Mcfd	(METER) PRESSURE psia	EXTENSION V m x H w	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR FPV	RATE OF FLOW R Mcfd	GOR	G m
.686	140.0	16.73	1.3030	.9905	1.0096	14		.589

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS $(Pa)^2 = 0.207$ $(Pd)^2 = 16.26$ (Pc - 14.4) + 14.4 =63.0 Open Flow Backpressure Deliverability = R x Antilog Curve Slope"n"
--- or --Assigned LOG n x LOG Mcfd Antilog Standard Slope 20 1.386 .2835 .500 .1418 1.921 40.85 21.27 1.079 16 .0329 .500 .0659 21.27 1.164 24.75

OPEN FLOW	20	Mcfd @ 14.65 psia	DELIVERABILITY	16	Mcfd @ 14.65 psia
		of the Company, states that he is dulind correct. Executed this the	y authorized to make the above	report and that he ha	as knowledge of the facts
			_	1 al X	
Witn	ess (if any)			F	or Company
For C	Commission	···		C	hecked by

	rjury under the laws of the state of kansas that I am authorized to request
exempt status under rule K.A.R	R. 82-3-304 on behalf of the operator
	ion and statements contained on this application form are true and correct to
	belief based upon gas production records and records of equipment installa-
	or upon use of the gas well herein named.
	t exemption from open flow testing for the Morrow
gas well on the grounds that sa	id well:
(check one)	
is a coalbed me	ethane producer
is cycled on plu	inger lift due to water
	natural gas for injection into an oil reservoir undergoing ER
	the present time; KCC approval Docket No
[X] is incapable of p	producing at a daily rate in exess of 150 mcf/D
Pate: 7-21-0Z	
	0100

Instructions:

All active gas wells must have at least an original G-2 form on file with the conservation division. If a gas well meets the eligibility criteria set out in KCC regulation K.A.R. 82-3-304, the operator may complete the statement provided above in order to obtain a testing exemption.

At some point during the succeeding calendar year, wellhead shut-in pressure shall be measured after a minimum of 24 hours shut-in/buildup time and shall be reported on the front side of this form under "observed surface data." Shut-in pressure shall thereafter be reported yearly in the same manner.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than thirty (30) days after the taking of the pressure reading. The form must be signed and dated on the front side as though it was a verified report of test results.

PRECISION MEASUREMENT, INC. P.O.Box 3659 745 North Circle Drive Casper, WY. 82602

GAS ANALYSIS REPORT

2/14/2002 5:02 PM Phone: 307-237-9327

800-624-7260 Fax: 307-577-4139

E Mail: pmi@trib.com

Analysis For: PRIORITY OIL & GAS

Field Name:

Well Name: 1-1 MORROW

Station Number:

Purpose:

Sample Deg. F: 49

Volume/Day:

Formation:

Line PSIG: 178

Line PSIA:

Run No: 5491-2

Date Run: 2/14/02

Date Sampled: 2/11/02

Producer:

County: State:

Sampled By: K. ANDREWS

Atmos Deg. F:

LOCATION : SEC. 1-45-41W

GAS COMPONENTS

MOL% GPM

Carbon Dioxide C02: 0.933 Nitrogen N2: 3.315

Hydrogen Sulfide H2s: 0.0000

Methane C1: 93.952

Ethane C2: 1.209 0.323 Propane C3: 0.343 0.094

 Iso-Butane
 IC4:
 0.085
 0.028

 Nor-Butane
 NC4:
 0.164
 0.051

 Iso-Pentane
 IC5:
 0.000
 0.000

Nor-Pentane NC5: 0.000 0.000 Hexane Plus C6+: 0.000 0.000

Totals 100.000 0.496

Pressure Base: 14.730

Real BTU Dry: 991.270

Real BTU Wet: 974.022 Calc. Ideal Gravity: 0.589

Calc. Real Gravity: 0.590

Field Gravity:

Standard Pressure: 14.696

BTU Dry: 988.996

BTU Wet: 971.787

Z Factor: 0.998

Avg Mol Weight: 17.071

Avg CuFt/Gal: 59.793

Ethane+ GPM 0.496

Propane+ GPM: 0.173

Butane+ GPM: 0.079

Pentane+ GPM: 0.000

Remarks:

KCC WICHITA

Analysis By: S.G. WALLACE

Approved By: