STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RECEIVED BY
DEC - 5 1986
O. C. D.
ARTESIA, OFFICE

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: 4POINT [X] Initial [ ] Annual [ ] Special			Test Date: 11-10-86	1980 FNL
Company: MCKAY OIL	Connection: TO AIR			1680 FEL
Pool: PECOS SLOPE ABO	Formation: ABO			Unit
Completion Date: 11-7-86	Total Depth: 3350		Plug Back TD: 3266	Elevation: 4178	Farm or Lease Name: SOUTH 4 MILE DRAW
Csg. Size: 4.500 / Wt.: 10.5 / d: 4.052 / Set At: 3339			Perforations: From 2819 To 2955	Well No.: 5
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 2785			Perforations: From OPEN To ENDED	Unit: G / Sec.: 23 / Twp.: 6S / Rge.: 22E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE			Packer Set At: NONE	County: CHAVES
Producing Thru: TUBING	Reservoir Temp. °F: 93°	Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2	State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
2887	2887	.623	.261	5.839	0	2.000	0	0

	FLOW DATA					TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI						890	47	890		72 HRS
1.	2.000	0.0625	858	0.00	36	858	36	858		60 MIN
2.	2.000	0.09375	790	0.00	34	790	34	792		60 MIN
3.	2.000	0.125	695	0.00	32	695	32	698		60 MIN
4.	2.000	0.1875	500	0.00	32	500	32	507		60 MIN
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	0.06405	0.00	871.2	1.024	1.267	1.088	79
2	0.1410	0.00	803.2	1.026	1.267	1.081	159
3	0.2648	0.00	708.2	1.028	1.267	1.073	262
4	0.6082	0.00	513.2	1.028	1.267	1.052	428
5							

NO.	P_t	Temp. °R	T_f	Z
1	1.32	496	1.42	.845
2	1.22	494	1.42	.856
3	2.07	492	1.41	.869
4	.78	492	1.41	.903
5				

Gas Liquid Hydrocarbon Ratio 0 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 0 Deg.
Specific Gravity Separator Gas .623 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX .623
Critical Pressure 660 P.S.I.A. 660 P.S.I.A.
Critical Temperature 348 R 348 R

P_c 903.2 P_c^2 816

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		871.2	759	57
2		805.2	648	168
3		711.2	506	310
4		520.2	271	545
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.4972$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.4075$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 602$

Absolute Open Flow 602 Mcfd @ 15.025 Angle of Slope θ 49.75 Slope, n 0.847

Remarks:

Approved By Division	Conducted By:	Calculated By:	Checked By:

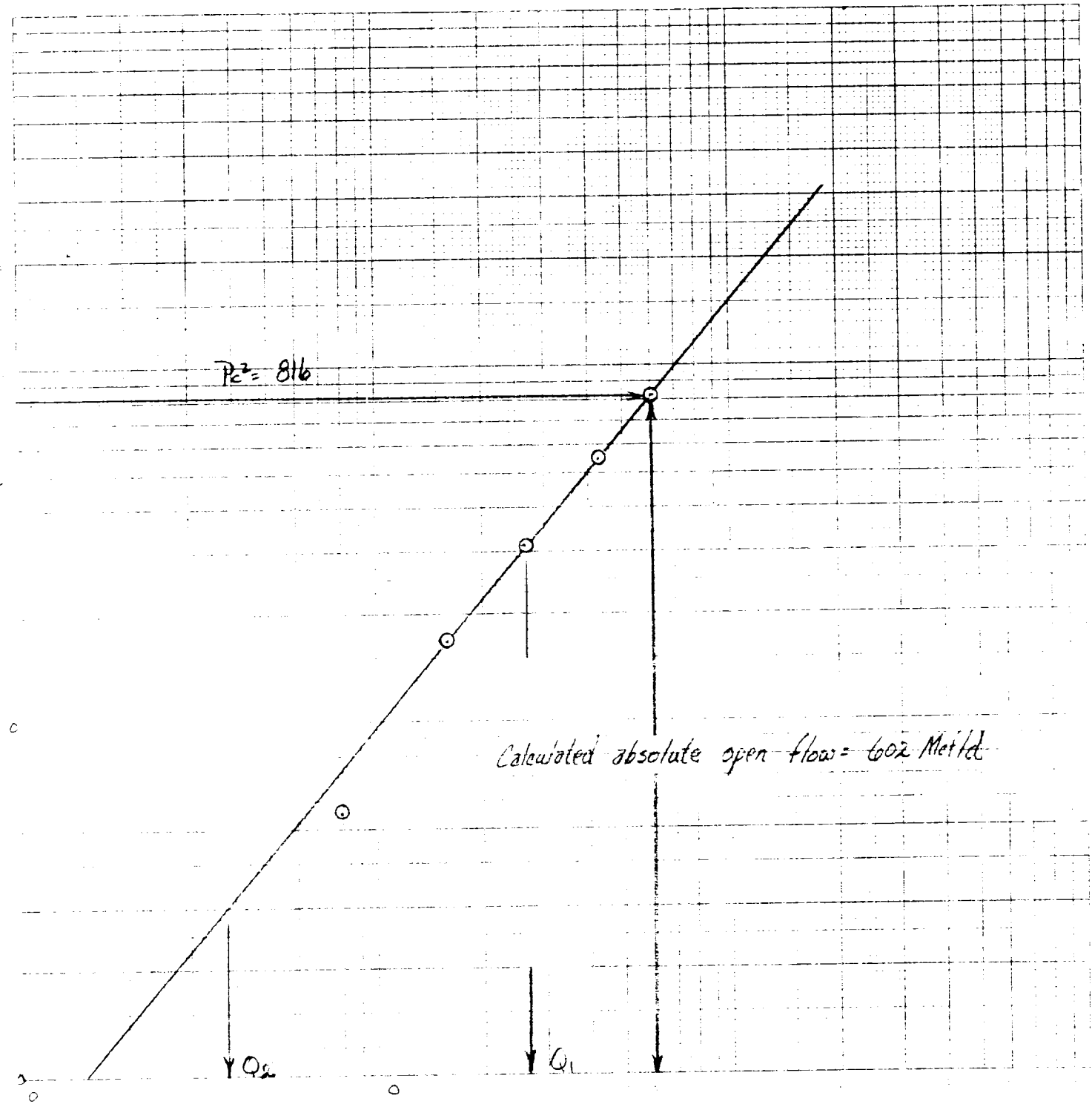
BACK PRESSURE C. .VE

Operator McKay Oil Lease South 4 Mile Draw Fed Well No. 5

County Chaves Field Pecos Slope Location G 23 6S 22E

Date of Test 11-10-86 Slope "n" 0.847 Angle of Slope 49.75

Calc. Abs. Potential 602 MCF/D



$\overline{\Delta P_1^2}$ $Pc^2 - Pw^2 =$ 300

$\overline{\Delta P_2^2}$ $Pc^2 - Pw^2 =$ 30

$Q_1 =$ 267

$Q_2 =$ 38

LOG $Q_1 =$ 2.4265

LOG $Q_2 =$ 1.5797

$n =$ 0.8468 = .84

Form No. 1131

...t your Interest in Measurement be our Concern.

PRECISION SERVICE INC.

Flow Measurement Engineers
Analysis Results Summary
Casper, WY 82601

Run No. 1112-3
Date Run 11/12/86
Date Sampled 11/10/86

Analysis For: BENNETT & CATHEY WRLN.
Lease: South Four Mile Draw #5 — Producer McKay Oil Corp.
Location China Draw — County Chaves — State New Mexico
Purpose Well Test — Sampled By B & C WRLN.
Sampling Temp. 60 °F — Atmos Temp. 55 °F
Volume/day — Formation ABO
Pressure on Bomb 700 — PSIG; Line Pressure 713.2 PSIA PSIG

Gas Component Analysis — Press. Base: 14.73

	Mol. %	Liq. %	GPM Per MCF
Carbon Dioxide CO_2	.261		
Oxygen O_2			
Nitrogen N_2	5.839		
Hydrogen Sulfide H_2S			
Methane C1	89.501		15.170
Ethane C2	2.378		.636
Propane C3	.928		.256
Iso-Butane IC4	.140		.046
Nor-Butane NC4	.430		.135
Iso-Pentane IC5	.102		.037
Nor-Pentane NC5	.179		.065
Hexanes plus	.242		.111
Hexanes C6			
Heptanes			
Heptanes Plus C7+			
Total	100.000		16.457
Pentane + G.P.M.			.214
Propane + GPM			.651
26-lb Gasoline			.332

BTU Dry 1017
BTU Wet 999
Calc. Specific Gravity .623

@ Std. Press. 14.696
BTU Dry 1015
BTU Wet 997

Calc. Vap. Press. #/Sq.In.
Reid Vap. Press. #/Sq.In.

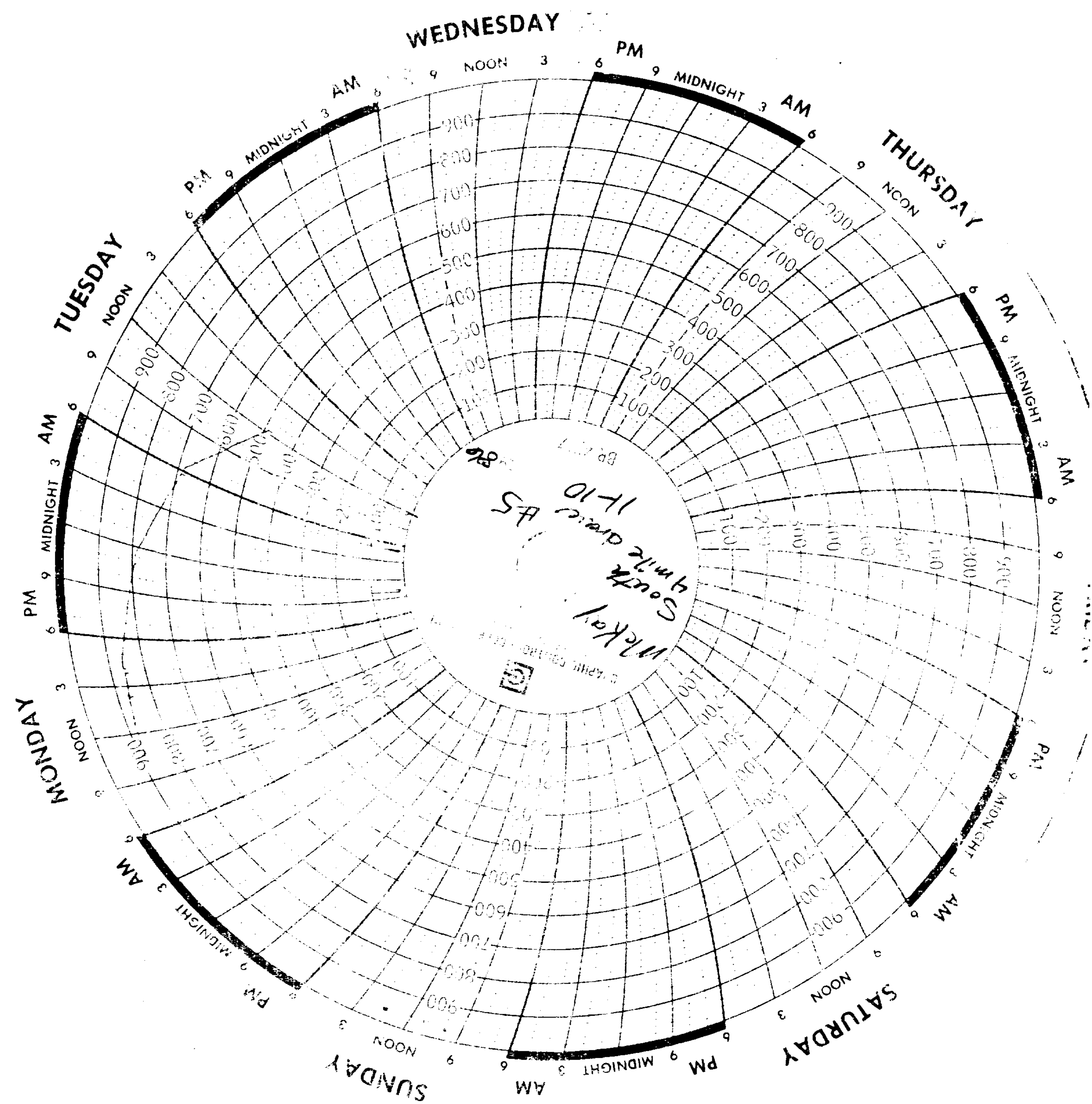
Z Factor .9979
N Value 1.3057
Ave Mol Wt 18.0098
Ave Cu Ft/Gal

Run by Jeffrey A. Propp
Calculated By Jeffrey A. Propp

Ethane + GPM 1.287

Remarks:

Distribution:


WEDNESDAY
THURSDAY
SATURDAY
SUNDAY
MONDAY
TUESDAY
AM
PM
NOON
MIDNIGHT
100
200
300
400
500
600
700
800
900
McKay
South
4 mile draw
#5
11-10