c/SF File

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

RECEIVED
APR 15 1991
ARTESIA, OFFICE

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 04-01-91	
Company: Oryx Energy Company		Connection: Well SI, Prep to build battery			
Pool: Grayburg-Morrow		Formation: Morrow			Unit:
Completion Date: 12-29-90	Total Depth: 10,950	Plug Back TD: 10,940	Elevation:		Farm or Lease Name: Delta Wing Federal
Csg. Size: 5½	Wt.: 17#	d:	Set At: 10,950	Perforations: From 10,654 To 10,778	Well No.: 1
Tbg. Size: 2 7/8"	Wt.: 8.7	d: 2.259	Set At: 10,606	Perforations: From OPEN To END	Unit: Sec.: 15 Twp.: 17 Rge.: 29
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 10,606		County: Eddy
Producing Thru: TBG	Reservoir Temp. °F:	Mean Annual Temp. °F:	Baro. Press. – P_a:		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
10,606	10,606	.746	2.95	.80	---		3.068	Flange

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
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	
SI						1950		PKR		72 hrs.
1.	3	X .750	58	14.00	100	90		PKR		24 hrs.
2.										
3.										
4.										
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	2.672	31.57	71.2	.9636	1.158	1.007	95
2.							
3.							
4.							
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.10	560	1.39	.986
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio: DRY GAS Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: DRY Deg.
Specific Gravity Separator Gas: .746 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: *675 P.S.I.A. P.S.I.A.
Critical Temperature: *402 R R

P_c 1963.2 P_c^2 3854.2

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1.04.2	10.9	3843.3
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 1.002 (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1.000

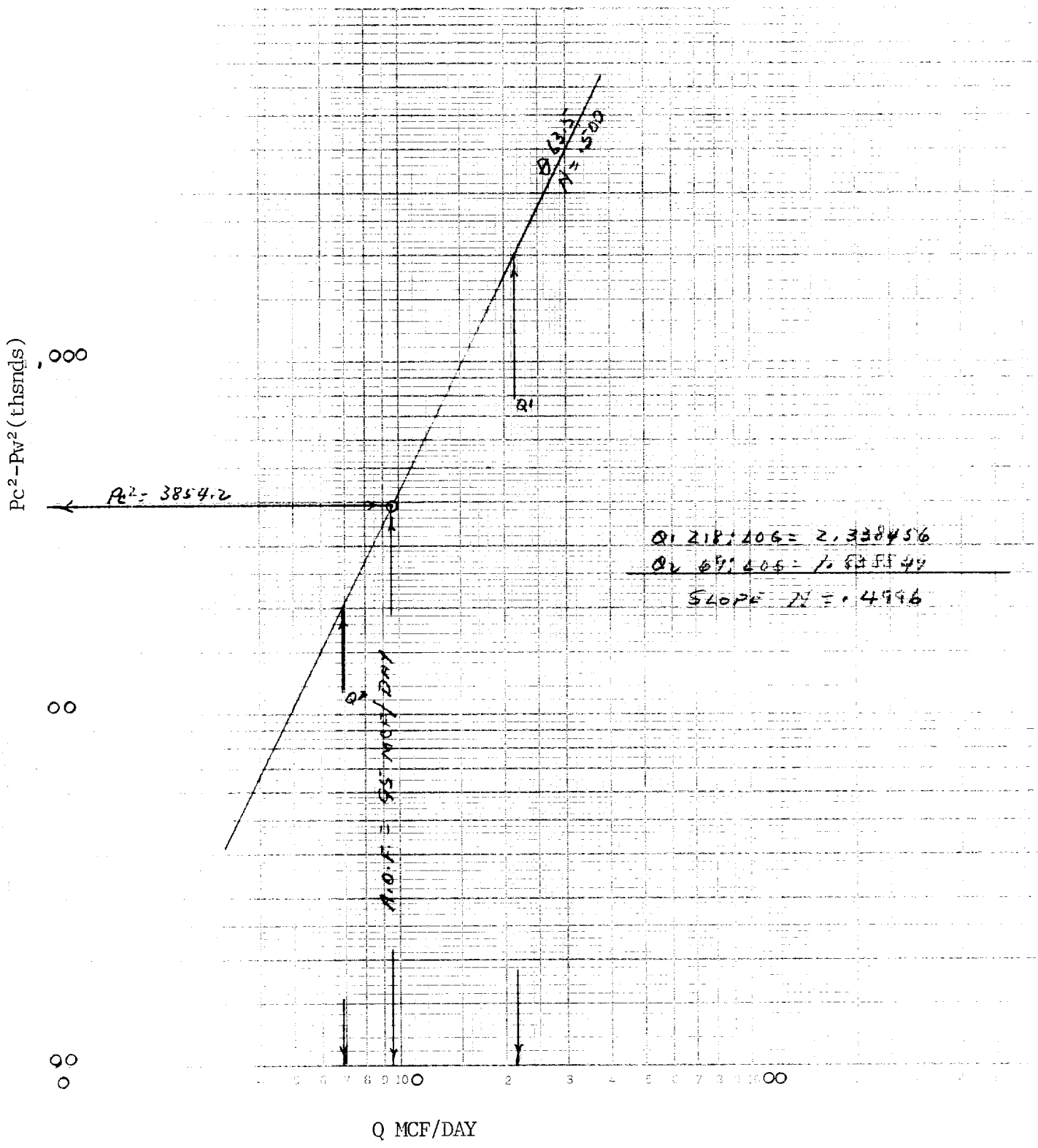
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = .095

Absolute Open Flow: 95 Mcfd @ 15.025 Angle of Slope θ: 63.5 Slope, n: .500

Remarks: *=corrected to 2.95% CO^2
NO FLUID PRODUCED DURING TEST

Approved By Division	Conducted By: Pro Well Testers	Calculated By: BM	Checked By: BM

Oryx Energy Company
Delta Wing Federal, Well #1
Eddy County, New Mexico
15 - 17 - 29
04-01-91



Laboratory Services

1331 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Pro Well Testing & Wireline
Attention: Mr. Floyd R. Davis
P. O. Box 791
Hobbs, New Mexico 88241

SAMPLE IDENTIFICATION: Delta Wing Fed. #1
COMPANY: Oryx Energy
LEASE:
PLANT:

SAMPLE DATA:

DATE SAMPLED:	3/31/91 1:00PM	GAS (XX)	LIQUID ( )
ANALYSIS DATE:	04-01-91	SAMPLED BY:	Mr. Davis
PRESSURE - PSIG	100.00	ANALYSIS BY:	Rolland Perry
SAMPLE TEMP. °F	140.00		
ATMOS. TEMP. °F	60.00		

REMARKS:

COMPONENT ANALYSIS

COMPONENT		MOL PERCENT	GPM
Oxygen	(O2)		
Hydrogen Sulfide	(H2S)	0.00	
Nitrogen	(N2)	0.80	
Carbon Dioxide	(CO2)	2.95	
Methane	(C1)	80.68	
Ethane	(C2)	7.51	2.004
Propane	(C3)	3.30	0.907
I-Butane	(IC4)	0.48	0.157
N-Butane	(NC4)	1.09	0.343
I-Pentane	(IC5)	0.79	0.288
N-Pentane	(NC5)	0.91	0.329
Hexane	(C6)	1.49	0.611
Heptanes Plus	(C7+)	0.00	0.000
		100.00	4.639

BTU/CU.FT. - DRY	1221	MOLECULAR WT	21.6001
AT 14.650 DRY	1217		
AT 14.650 WET	1196	26# GASOLINE -	1.342
AT 15.025 DRY	1248		
AT 15.025 WET	1227		
SPECIFIC GRAVITY -			
CALCULATED	0.746		
MEASURED	0.000		

PRO WELL TESTING & WIRELINE, INC.

P.O. BOX 791 HOBBS, NEW MEXICO 88241 (505) 397-3590

COMPANY	LEASE NAME	WELL #	EQUIPMENT	DATE MO/DAY/YR	PAGE
Oryx Energy Company	Delta Wing Federal	1	¼MM stackpac	03 31 91	1

FIELD	FORMATION	SEC/TWP/RGE	COUNTY	STATE	REPORT TIME & PHONE #
			Eddy	New Mexico	

TEST BY	TYPE TEST	COMPANY REP	METER RUN	TAPS	PROVER	TANK SIZE
Floyd - Mark	Flow test	Boogie Armes	3.068"	Flange	-0-	210 BBL - 1.16 BBL/in

TIME DATE	ELAP. HR.	TBG. PRES	CSG. PRES	W/H TEMP	METER OR PROVER PRES	DIFF	TEMP	CHOKE ORIF	MCFD SCF	TOTAL FLUID TOP	BBLS	WATER CUT	BBLS	H2O P/H	OIL P/H	ACCUM H2O	ACCUM OIL
3/31/91 7:00	.00	1950	PKR		60	92	100	17/64 1.625	1347	1'1½"	15.66	Starting gauge					
8:00	1.00	1300	PKR		60	92	100	17/64 1.625	1347	1'1½"	15.66						
9:00	2.00	500	PKR		30	37	120	17/64 1.625	656	1'1½"	15.66						
10:00	3.00	180	Change out orifice plate		60	76	140	17/64 .750	247	1'1½"	15.66						
11:00	4.00	120	PKR		60	32	140	17/64 .750	160	1'1½"	15.66						
12:00	5.00	100	Shut down put back press.valve		58	35	140	17/64 .750	165	1'1½"	15.66						
1:00	6.00	100	PKR		58	22	140	17/64 .750	131	1'1½"	15.66						
2:00	7.00	100	PKR		58	22	100	17/64 .750	131	1'1½"	15.66						
3:00	8.00	90	PKR		58	22	100	17/64 .750	131	1'1½"	15.66						
4:00	9.00	90	PKR		58	22	100	17/64 .750	131	1'1½"	15.66						
5:00	10.00	90	PKR		58	20	100	17/64 .750	125	1'1½"	15.66						
6:00	11.00	90	PKR		58	20	100	17/64 .750	125	1'1½"	15.66						
7:00	12.00	90	PKR		58	20	100	17/64 .750	125	1'1½"	15.66						
8:00	13.00	90	PKR		58	19	100	17/64 .750	121	1'1½"	15.66						
9:00	14.00	90	PKR		58	18	100	17/64 .750	118	1'1½"	15.66						
10:00	15.00	90	PKR		58	16	100	17/64 .750	112	1'1½"	15.66						
11:00	16.00	90	PKR		58	16	100	17/64 .750	112	1'1½"	15.66	1'1½"	15.66	-0-	-0-	15.66	-0-

PRO WELL TESTING & WIRELINE, INC.

P.O. BOX 791 HOBBS, NEW MEXICO 88241 (505) 397-3590

COMPANY	LEASE NAME	WELL #	EQUIPMENT	DATE MO/DAY/YR	PAGE
Oryx Energy Co	Delta Wing Federal	1	¼MM stackpack	04 01 91	2

FIELD	FORMATION	SEC/TWP/RGE	COUNTY	STATE	REPORT TIME & PHONE #
			Eddy	New Mexico	

TEST BY	TYPE TEST	COMPANY REP	METER RUN	TAPS	PROVER	TANK SIZE
Floyd - Mark	Flow test	Boogie Armes	3.068"	Flange	-0-	210 BBL - 1.16 BBL/in.

TIME DATE	ELAP. HR.	TBG. PRES	CSG. PRES	W/H TEMP	METER OR PROVER PRES	DIFF	TEMP	CHOKE ORIF	MCFD SCF	TOTAL FLUID TOP	BBLS	WATER CUT	BBLS	H2O P/H	OIL P/H	ACCUM H2O	ACCUM OIL
4/1/91 12:00	17.00	90	PKR		58	16	100	17/64 .750	112	1'1½"	15.66						
1:00	18.00	90	PKR		58	14	100	17/64 .750	104	1'1½"	15.66						
2:00	19.00	90	PKR		58	14	100	17/64 .750	104	1'1½"	15.66						
3:00	20.00	90	PKR		58	14	100	17/64 .750	104	1'1½"	15.66						
4:00	21.00	90	PKR		58	12	100	17/64 .750	96	1'1½"	15.66	1'1½"	15.66	-0-	-0-	15.66	-0-
5:00	22.00	90	PKR		58	12	100	17/64 .750	96	1'2"	16.24	1'2"	16.24	.58	-0-	16.24	-0-
6:00	23.00	90	PKR		58	18	100	17/64 .750	118	1'3½"	17.40	1'3½"	17.40	1.16	-0-	17.40	-0-
7:00	24.00	90	PKR		58	14	100	17/64 .750	104	1'3½"	17.40	1'3½"	17.40	-0-	-0-	17.40	-0-

Shut well in - rig down test equipment.

COMPANY :	ORYX ENERGY	LEASE :	DELTA WING	WELL NO. :	1	Pc = 1963.2	Pc2 = 3854.2
UNIT :		SECTION :	15	TOWNSHIP :	17		
L :	10606	H :	10606	L/H :	1	G/GMIX : 0.746	Pt2 = 10.7	Pw = 104.2
%CO2 :	2.95	%N2 :	0.8	H2S :		DATE : 4 1 91	0.0	ERR
d :	2.259	Fr :	0.013177	GH :	7912.1	RANGE : 29	0.0	ERR
							0.0	ERR

VOL 1 :	95	PSIA 1 :	103.2	RESV.TEMP	180.1	Pc2-Pw2= 3843.3	Pw2 = 10.9
VOL 2 :		PSIA 2 :				ERR	ERR
VOL 3 :		PSIA 3 :		SHUT-IN PR=	1963.2	ERR	ERR
VOL 4 :		PSIA 4 :				ERR	ERR

PCR : 675

TCR : 402

n = 0.500

Pc2/(Pc2-Pw2) = 1.003

ERR

ERR

ERR

[Pc2/Pc2-Pw2]n = 1.001

ERR

ERR

ERR

AOF= Q 0.095

ERR

ERR

ERR

	LINE	RATE 1		RATE 2		RATE 3		RATE 4	
		1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND
1	QM	0.095	0.095	0.000	0.000	0.000	0.000	0.000	0.000
2	TW	534	534	534	534	534	534	534	534
3	Ts	640.1	640.1	640.1	640.1	640.1	640.1	640.1	640.1
4	T	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	PR (est)	0.15		0.00		0.00		0.00	
5	Z(est)	0.959	0.957	ERR	ERR	ERR	ERR	ERR	ERR
6	TZ	563.1	561.6	ERR	ERR	ERR	ERR	ERR	ERR
7	GH/TZ	14.050	14.087	ERR	ERR	ERR	ERR	ERR	ERR
8	eS	1.694	1.696	ERR	ERR	ERR	ERR	ERR	ERR
9	1-e-S	0.410	0.410	ERR	ERR	ERR	ERR	ERR	ERR
10	Pt	103.2	103.2	0.0	0.0	0.0	0.0	0.0	0.0
11	Pt2 /1000	10.7	10.7	0.0	0.0	0.0	0.0	0.0	0.0
12	Fr	0.013177	0.013177	0.013177	0.013177	0.013177	0.013177	0.013177	0.0131775
13	Fc=FrTZ	7.421	7.401	ERR	ERR	ERR	ERR	ERR	ERR
14	FcQm	0.70	0.70	ERR	ERR	ERR	ERR	ERR	ERR
15	L/H(FcQm)	0.5	0.5	ERR	ERR	ERR	ERR	ERR	ERR
16	Fw	0.203543	0.202874	ERR	ERR	ERR	ERR	ERR	ERR
17	Pw2	10.9	10.9	ERR	ERR	ERR	ERR	ERR	ERR
18	Ps2	18.4	18.4	ERR	ERR	ERR	ERR	ERR	ERR
19	Ps	135.6	135.7	ERR	ERR	ERR	ERR	ERR	ERR
20	P	119.4	119.4	ERR	ERR	ERR	ERR	ERR	ERR
21	Pr	0.18	0.18	ERR	ERR	ERR	ERR	ERR	ERR
22	Tr	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46
23	Z	0.957	0.957	ERR	ERR	ERR	ERR	ERR	ERR

FORM C122-D