

PALM VALLEY # 2

WELL TEST REPORT

CONDUCTED: SEPTEMBER 1995



W.R. Arnold
October, 1995

WRA720.rad

DEPT. OF MINES & ENERGY
DO NOT REMOVE



P01006

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INTRODUCTION

A flowing and static gradient survey was performed in September 1995 on Palm Valley #2 following the reconfiguration of the downhole flow path by perforating the drill collars in the completion string.

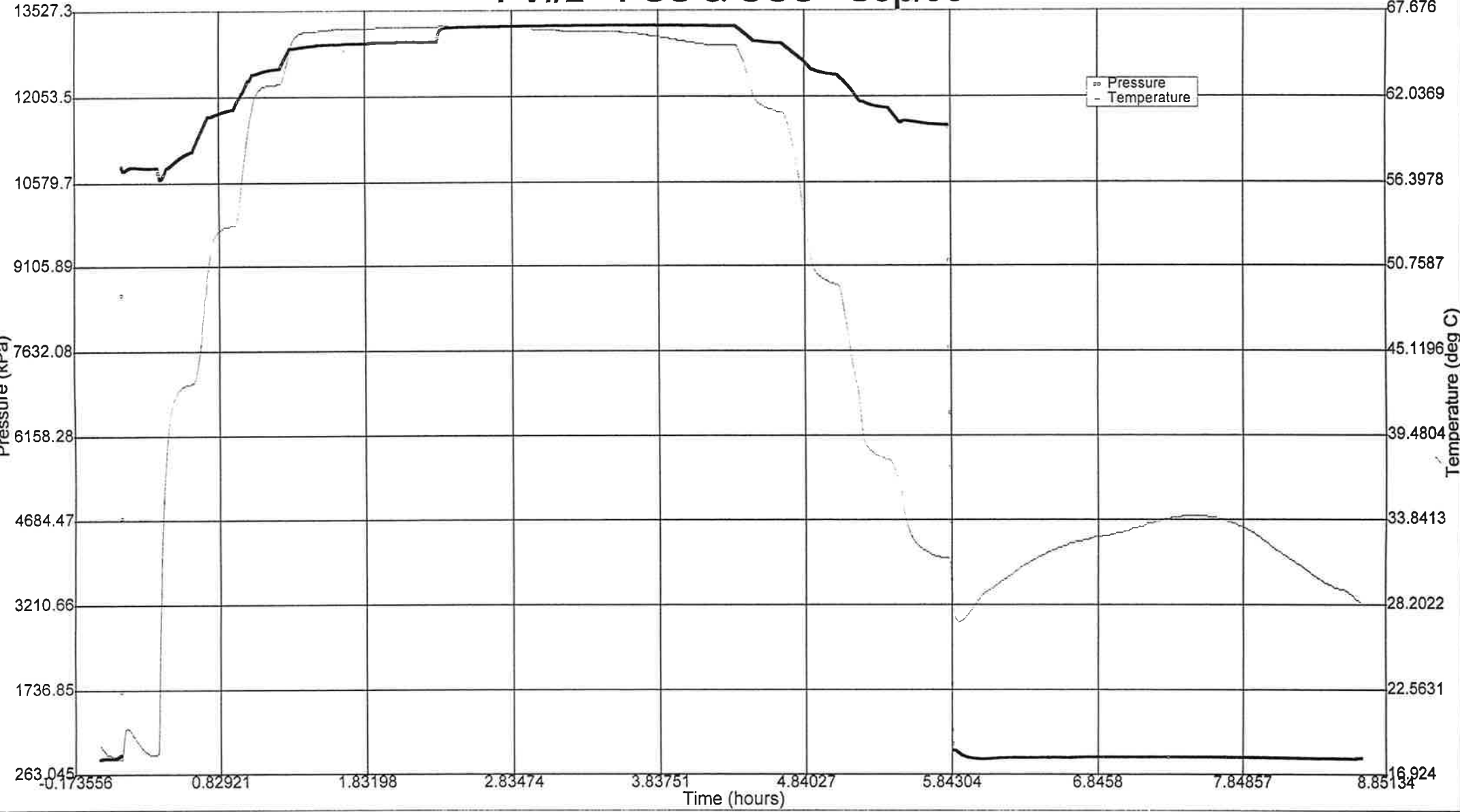
DISCUSSION

Because a 16 foot enerjet perforating strip was left stuck in the drill collars after perforating, the gradient survey was unable to measure data below 6200' MD. In addition, the well was shut in for only a short period prior to performing the static pressure readings; therefore, the static pressures should be used with caution.

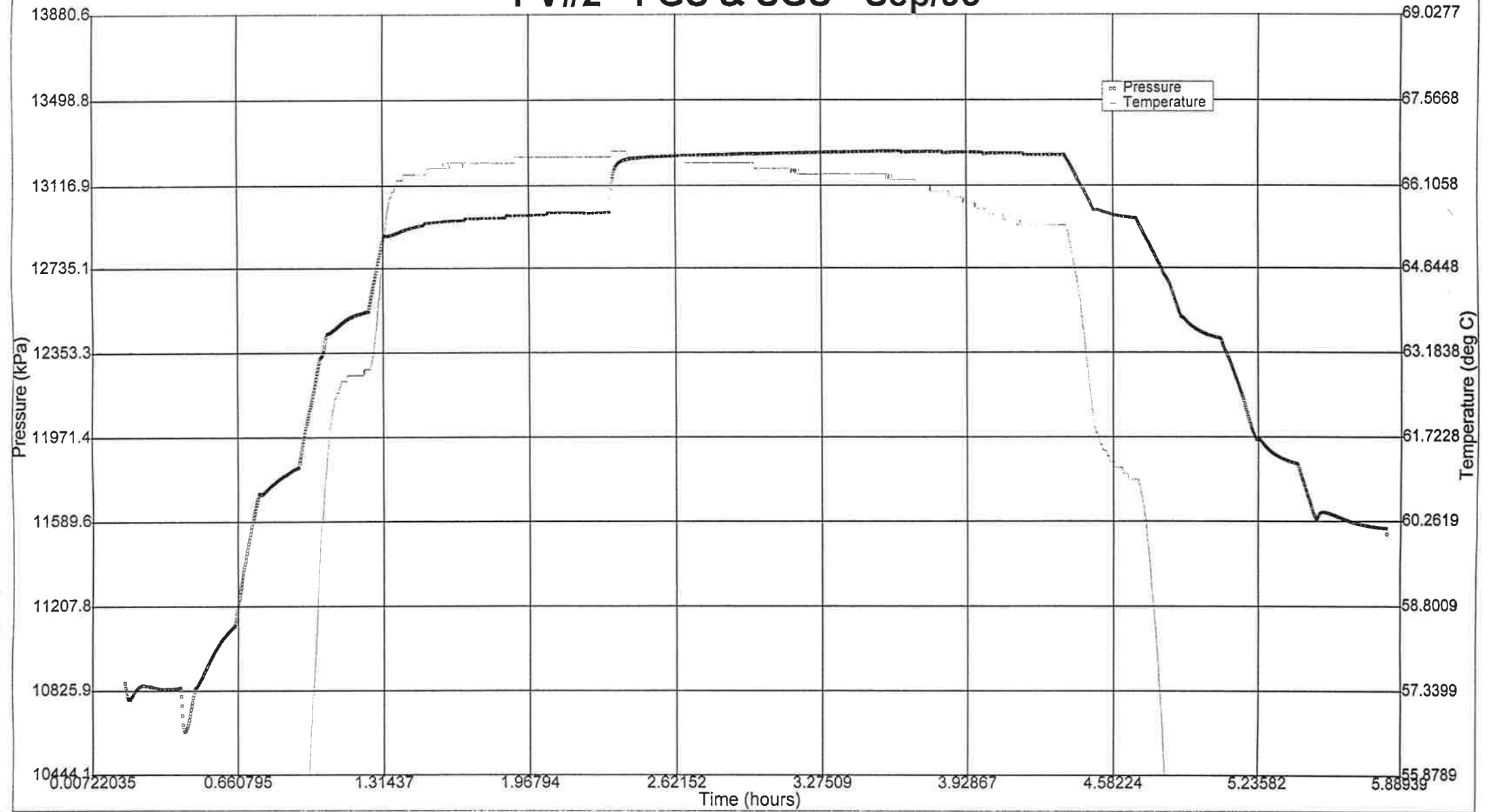
FIGURES



PV#2 - FGS & SGS - Sep/95



PV#2 - FGS & SGS - Sep/95



APPENDICES



OPERATIONS REPORT



22.09.95

0655 hrs ON LEASE - RIG UP FOR "DUMMY RUN" TO 1,889.8 m

0700 hrs PRESSURE UP LUBRICATOR - R.I.H.

0725 hrs @ 1,889.8 m KB - ALL OK
P.O.O.H.

0800 hrs @ 0 m SURFACE

0850 hrs CONNECT BATTERY - PACK TO MRO-1550 - SELF TESTED OK

0901 hrs PRESSURE UP LUBRICATOR
T.H.P - 9,875 kPa/FLOWRATE - 7,804 m³/h/CHOKE - 100%

0916 hrs R.I.H.

0921 hrs @ 304.8 m

0931 hrs R.I.H.

0938 hrs @ 914.4 m T.H.P. - 9,860 kPa/FLOWRATE - 7,770 m³/h

0948 hrs R.I.H.

0957 hrs @ 1,524 m

1007 hrs R.I.H.

1012 hrs @ 1,859.3 m T.H.P. - 9,835 kPa/FLOWRATE - 7,786 m³/h

1022 hrs R.I.H.

1023 hrs @ 1,866.9 m

1033 hrs R.I.H.

1034 hrs @ 1,874.5 m T.H.P. - 9,826 kPa/FLOWRATE - 7,755 m³/h

1044 hrs R.I.H.



Flowing Gradient/Static Gradient
MRO - 1550/VAETRIX #1

1045 hrs @ 1,882.1 m
1055 hrs R.I.H.
1056 hrs @ 1,889.8 m T.H.P. - 9,810 kPa/FLOWRATE - 7,715 m³/h
1110 hrs T.H.P. - 9,838 kPa/FLOWRATE - 7,740m³/h
1111 hrs SHUT WELL IN
ALLOW GAUGE TO STABLISE
1112 hrs T.H.P. - 10,409 kPa
1113 hrs T.H.P. - 10,480 kPa
1114 hrs T.H.P. - 10,497 kPa
1115 hrs T.H.P. - 10,516 kPa
1208 hrs T.H.P. - 10,529 kPa
1228 hrs T.H.P. - 10,532 kPa
1230 hrs P.O.O.H.
1231 hrs @ 1,882.1 m
1241 hrs P.O.O.H.
1242 hrs @ 1,874.5 m
1252 hrs P.O.O.H.
1253 hrs @ 1,866.9 m T.H.P. - 10,538 kPa
1303 hrs P.O.O.H.
1304 hrs @ 1,859.3 m
1314 hrs P.O.O.H.
1346 hrs @ 914.4 m T.H.P. - 10,540 kPa



1356 hrs P.O.O.H.

1407 hrs @ 304.8 m

1417 hrs P.O.O.H.

1424 hrs @ 0m SURFACE/T.H.P. - 10,554 kPa

 ALLOW GAUGE TO STABILISE

1440 hrs SHUT SWAB VALVE - DEPRESSURE LUBRICATOR - END OF TEST

1734 hrs DISCONNECT BATTERY PACK FROM MRO - 1550 - ALL OK

 END OF TEST

PRESSURE GRADIENT



Flowing Gradient - In - 21-Sep-95

Depth In TVD Surface (metres)	Calibrated Pressure (kPa(a))	Pressure Gradient (kPa/m)	Tubing Head Pressure (kPa (a))	Instantaneous Flow Rate (m ³ /h)
0.0	10,843		9,983	7,804
304.8	11,121	0.912		-
914.4	11,839	1.178	9,968	7,770
1,524.0	12,538	1.147		-
1,859.3	12,933	1.177	9,943	7,886
1,866.9	12,956	3.058		-
1,874.5	12,967	1.444	9,934	7,755
1,882.1	12,980	1.706		-
1,889.8	12,993	1.706	9,918	7,715

Static Gradient - Out - 23-Sep-95

Depth Out TVD Surface (metres)	Calibrated Pressure (kPa(a))	Pressure Gradient (kPa/m)	Tubing Head Pressure (kPa (a))	Instantaneous Flow Rate (m ³ /h)
1,889.8	13,272	0.262	10,644	-
1,882.1	13,270	0.525		-
1,874.5	13,266	0.525		-
1,866.9	13,262	0.787	10,650	-
1,859.3	13,256	0.865		-
1,524.0	12,966	0.902		-
914.4	12,416	0.925	10,652	-
304.8	11,852	0.965		-
0.0	11,558		10,666	-

Pressure Correction from Calibration :

Calibrated Pressure = MRO Pressure * 1.000000 + (0.00)

PRESSURE GRADIENT REPORT**PALM VALLEY No.****Flowing Gradient - In - 21-Sep-95****Datum : 6,145 ft TVD**

Depth In TVD Surface (Feet)	Calibrated Pressure (psi(a))	Pressure Gradient (psi/ft)	Tubing Head Pressure (psi(a))	Instantaneous Flow Rate (Mcfpd)
	1,573		1,448	6,614
1,000	1,613	0.040		-
3,000	1,717	0.052	1,446	6,585
5,000	1,819	0.051		-
6,100	1,876	0.052	1,442	6,684
6,125	1,879	0.135		-
6,150	1,881	0.064	1,441	6,573
6,175	1,883	0.075		-
6,200	1,884	0.075	1,438	6,539

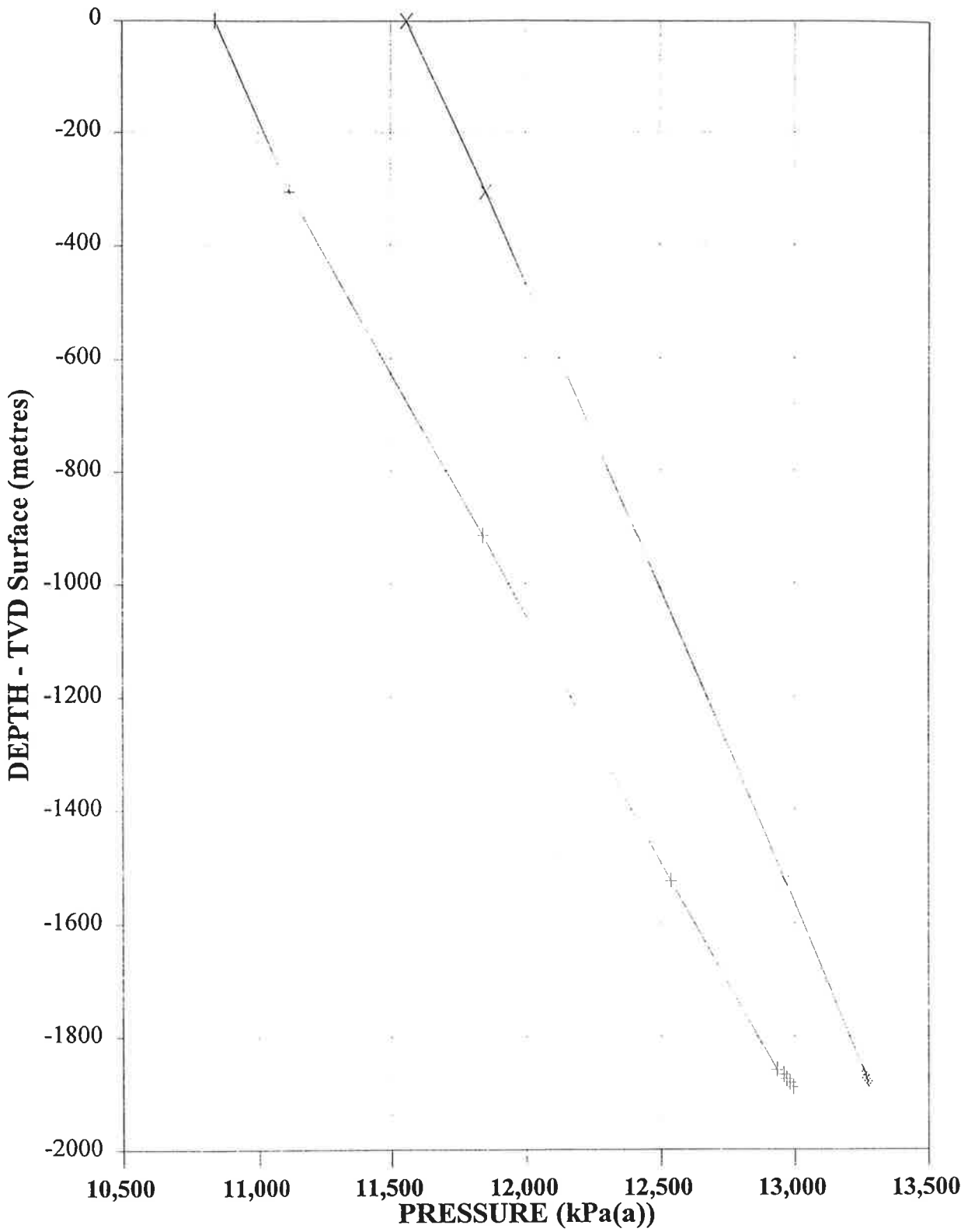
Static Gradient - Out - 23-Sep-95

Depth Out TVD Surface (Feet)	Calibrated Pressure (psi(a))	Pressure Gradient (psi/ft)	Tubing Head Pressure (psi(a))	Instantaneous Flow Rate (Mcfpd)
6,200	1,925	0.012	1,544	-
6,175	1,925	0.023		-
6,150	1,924	0.023		-
6,125	1,923	0.035	1,545	-
6,100	1,923	0.038		-
5,000	1,881	0.040		-
3,000	1,801	0.041	1,545	-
1,000	1,719	0.043		-
	1,676		1,547	-

Pressure Correction from Calibration :

Calibrated Pressure = MRO Pressure * 1.000000 + (0.0)

PALM VALLEY No. 2 - PRESSURE GRADIENT



—+— Flowing Gradient - In - 21-Sep-95 -x- Static Gradient - Out - 23-Sep-95

CALIBRATION REPORT



21 Sep 1995 (Before Test)

Dead Weight Test

Barometric Pressure (mb) : 916.2				
D.W.T. (kPa)	Vaetrix Gauge (kPa(g))		MRO - 1550 Gauge (kPa(g))	
	RUN UP	RUN DOWN	RUN UP	RUN DOWN
0			121	118
1,000	995	1,015	1,119	1,115
2,000	1,996	2,018	2,116	2,113
3,000	2,996	3,020	3,114	3,110
4,000	3,994	4,021	4,111	4,107
5,000	4,994	5,022	5,109	5,104
6,000	5,992	6,020	6,106	6,101
7,000	6,989	7,017	7,104	7,096
8,000	7,986	8,013	8,101	8,094
9,000	8,980	9,008	9,097	9,090
10,000	9,975	10,002	10,094	10,087
11,000	10,968	10,995	11,088	11,084
12,000	11,960	11,988	12,084	12,082
13,000	12,952	12,977	13,081	13,078
14,000	13,942	13,965	14,078	14,076
15,000	14,933	14,953	15,074	15,074
16,000	15,922	15,940	16,070	16,072
17,000	16,910	16,924	17,066	17,068
18,000	17,897	17,908	18,063	18,065
19,000	18,884	18,889	19,061	19,061
20,000	19,870	19,870	20,058	20,058

23 Sep 1995 (After Test)

Barometric Pressure (mb) : 912.6				
D.W.T. (kPa)	Vaetrix Gauge (kPa(g))		MRO - 1550 Gauge (kPa(g))	
	RUN UP	RUN DOWN	RUN UP	RUN DOWN
0			107	112
1,000	996	1,016	1,105	1,108
2,000	1,996	2,020	2,104	2,105
3,000	2,995	3,021	3,102	3,102
4,000	3,993	4,020	4,099	4,099
5,000	4,991	5,018	5,096	5,096
6,000	5,988	6,014	6,093	6,093
7,000	6,985	7,009	7,090	7,090
8,000	7,979	8,001	8,087	8,088
9,000	8,975	8,989	9,083	9,084
10,000	9,971	9,982	10,079	10,080
11,000	10,969	10,978	11,076	11,077
12,000	11,962	11,970	12,074	12,074
13,000	12,955	12,958	13,069	13,069
14,000	13,946	13,948	14,067	14,067
15,000	14,936	14,940	15,063	15,036
16,000	15,927	15,934	16,060	16,061
17,000	16,921	16,926	17,056	17,058
18,000	17,918	17,921	18,054	18,055
19,000	18,909	18,914	19,052	19,052
20,000	19,900	19,900	20,048	20,048

TUBING HEAD PRESSURE CALIBRATION

Measured Depth (m)	Vaetrix Pressure kPa (g)	Calibrated Pressure kPa (a)	Instantaneous Flow Rate (m ³ /h)	Instantaneous Flow Rate (Mcfpd)
0.0	9,875	9,983	7,804	6,614
304.8			-	-
914.4	9,860	9,968	7,770	6,585
1,524.0			-	-
1,859.3	9,835	9,943	7,786	6,599
1,866.9			-	-
1,874.5	9,826	9,934	7,755	6,573
1,882.1			-	-
1,889.8	9,810	9,918	7,715	6,539
1,889.8	10,532	10,644	-	-
1,882.1			-	-
1,874.5			-	-
1,866.9	10,538	10,650	-	-
1,859.3			-	-
1,524.0			-	-
914.4	10,540	10,652	-	-
304.8			-	-
0.0	10,554	10,666	-	-

MRO GAUGE PRESSURE CALIBRATION

Calibrated Pressure = MRO Gauge Pressure * 1.003202 + (-25.21)
 (Using a linear regression)