

NEW-TEX LAB

PHONE 505/393-3561

P. O. BOX 1161

611 W. SNYDER

HOBBS, NEW MEXICO 88240

ANALYSIS CERTIFICATE

CLIENT: JARREL WELL TESTING INC
ADDRESS: BOX 1457
CITY, STATE: HOBBS NM 88240

ANALYSIS NUMBER: 8104
DATE OF RUN: 08/25/82
DATE SECURED: 08/24/82

SAMPLE IDENT: POGO PRODUCTION CO - NBR #2
SAMPLING PRESS: SAMPLING TEMP:

***** GAS ANALYSIS *****

	MOLE PERCENT	GAL/ MCF
NITROGEN	1.176	
CARBON DIOXIDE	0.970	
METHANE	86.169	
ETHANE	7.086	1.890
PROPANE	2.833	0.778
ISO-BUTANE	0.463	0.151
NORMAL BUTANE	0.674	0.212
ISO-PENTANE	0.188	0.069
NORMAL PENTANE	0.165	0.060
HEXANES	0.097	0.040
HEPTANES PLUS	0.179	0.082
TOTAL	100.000	3.282

PROPANE GPM: 0.78 BUTANES GPM: 0.36
ETHANE GPM: 1.89 PENTANES PLUS GPM: 0.25

SPECIFIC GRAV (CALC): 0.6603
MOLE WEIGHT: 19.14

HHV-BTU/CU FT	PRESSURE (PSIA)	WET	DRY
14.696		1113	1133
14.650		1110	1129
14.730		1116	1135
14.735		1116	1136

ANALYZED BY:

R H HAMILTON

APPROVED BY



JARREL SERVICES, INC.

POST OFFICE BOX 1654

PHONES 505 393-5396 — 393-8274

HOBBS, NEW MEXICO 88240

COMPANY: Pogo Producing Company

WELL: NBR, No. 2

FIELD: BottLeg Ridge - Morrow

CHRONOLOGICAL PRESSURE DATA

DATE	STATUS OF WELL	TIME	ELAPSED TIME HRS.	MIN.	SURFACE PRESSURE TBG	CSG	BHP @ (-11191) 14822' PSIG
1982							
8/24	Shut in 72 hrs. Run						
	Static Gradient w/				DWT		
	Tandem Bombs & Set						
	Bombs cff @ 14595'	11:45 AM	0	00	4360	PKR	6878
	Started 1st Rate	1:15 PM	1	30	4360	-	6878
	Flowing					MCF/D	
	Finished 1st Rate &	2:15	1	00	3000	323.77	5467
	Started 2nd Rate						
	Finished 2nd Rate &	3:15	1	00	2372	446.35	4665
	Started 3rd Rate						
	Finished 3rd Rate &	4:15	1	00	1864	546.92	3897
	Started 4th Rate						
	Finished 4th Rate	5:15	1	00	1325	586.17	3153
	Shut in	5:25	0	10	-	-	3351
	"	5:35	0	20	-	-	3498
	"	5:45	0	30	-	-	3652
	"	5:55	0	40	-	-	3798
	"	6:05	0	50	-	-	3945
	"	6:15	1	00	-	-	4099
	"	6:45	1	30	-	-	4522
	"	7:15	2	00	-	-	4951
	"	8:15	3	00	-	-	5708
	"	9:15	4	00	-	-	6311
	"	10:15	5	00	-	-	6665
	"	11:15	6	00	-	-	6819
8/25	"	12:15 AM	7	00	-	-	6877
	"	1:15	8	00	-	-	6890
	"	2:15	9	00	-	-	6896
	"	3:15	10	00	-	-	6909
	"	4:15	11	00	-	-	6928
	"	5:15	12	00	-	-	6935
	"	6:15	13	00	-	-	6941
	"	7:15	14	00	-	-	6948
	"	8:15	15	00	-	-	6948
	"	9:15	16	00	-	-	6948
	"	10:15	17	00	-	-	6948
	"	11:15	18	00	-	-	6954
	"	12:15 PM	19	00	-	-	6954
	"	1:15	20	00	-	-	6954
	"	2:15	21	00	-	-	6954
	"	3:15	22	00	-	-	6954
	"	4:15	23	00	-	-	6961
	"	5:15	24	00	-	-	6961
	"	6:15	25	00	-	-	6961
	"	7:15	26	00	-	-	6961
	"	8:15	27	00	-	-	6967

WELL: NBR, No. 2

PAGE: 2

DATE	STATUS OF WELL	TIME	ELAPSED TIME		SURFACE PRESSURE		BHP @ (-11191)
			HRS.	MIN.	TBG	CSG	14822' PSIG
8/26	Shut in	9:15	28	00	-	-	6967
	"	10:15	29	00	-	-	6967
	"	11:15	30	00	-	-	6967
	"	12:15 AM	31	00	-	-	6967
	"	1:15	32	00	-	-	6973
	"	2:15	33	00	-	-	6973
	"	3:15	34	00	-	-	6973
	"	4:15	35	00	-	-	6973
	"	5:15	36	00	-	-	6973
	"	6:15	37	00	-	-	6980
	"	7:15	38	00	-	-	6980
	"	8:15	39	00	-	-	6980
	"	9:15	40	00	-	-	6980
	"	10:15	41	00	-	-	6986
	"	11:15	42	00	-	-	6986
	"	12:15 PM	43	00	-	-	6986
	"	1:15	44	00	-	-	6986
	"	2:15	45	00	-	-	6993
	"	3:15	46	00	-	-	6993
	"	4:15	47	00	-	-	6993
	"	5:15	48	00	-	-	6993
	"	6:15	49	00	-	-	6999
	"	7:15	50	00	-	-	6999
	"	8:15	51	00	-	-	6999
	"	9:15	52	00	-	-	7006
8/27	"	10:15	53	00	-	-	7006
	"	11:15	54	00	-	-	7006
	"	12:15 AM	55	00	-	-	7012
	"	1:15	56	00	-	-	7012
	"	2:15	57	00	-	-	7012
	"	3:15	58	00	-	-	7012
	"	4:15	59	00	-	-	7018
	"	5:15	60	00	-	-	7018
	"	6:15	61	00	-	-	7018
	"	7:15	62	00	-	-	7018
	"	8:15	63	00	-	-	7025
	"	9:15	64	00	-	-	7025
	Fished Bombs & Ran Static Gradient	10:15	65	00	4385	-	7025

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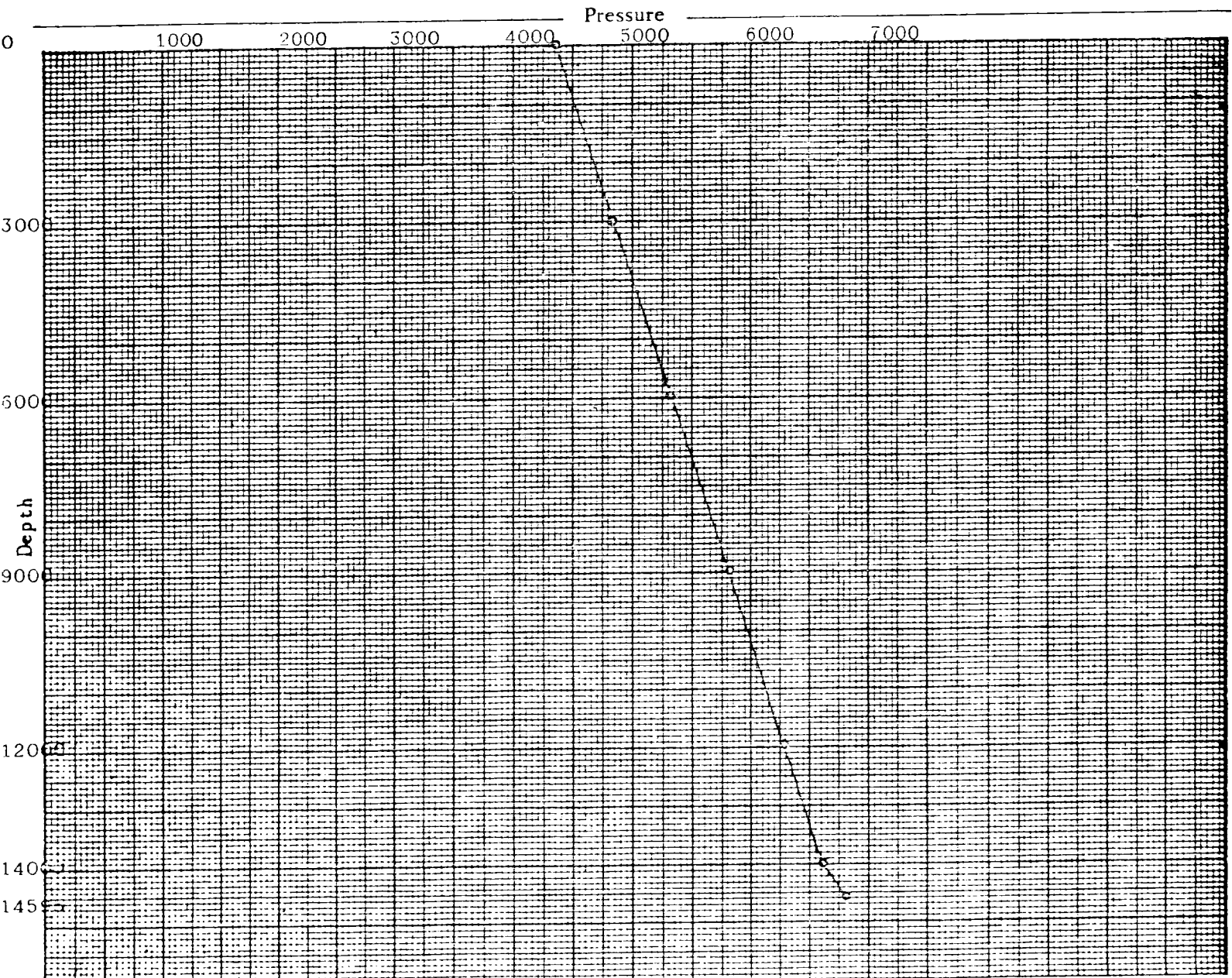
BOTTOM HOLE PRESSURE RECORD

OPERATOR Pogo Producing Company
 FIELD Bootleg Ridge
 FORMATION Morrow
 LEASE NBR WELL # 2
 COUNTY Lea STATE New Mexico
 DATE 8/24/82 TIME 11:45 AM
 Status Shut in
 Test Depth 14595'
 Time S. I. 72.0 hrs Last test date -
 Tub Pres. 4360 DWT BHP last test -
 Cas. Pres. PKR BHP change -
 Elev. 3631' GL Fluid top 14000'
 Datum (-11191)** Water top -
 Temp. @ 204 Run by JSI #10
 Cal. No. A13676N Chart No. 1

Depth	Pressure	Gradient
0	4360	-
3000	4841	.160
6000	5321	.160
9000	5804	.161
12000	6287	.161
14000	6611	.162
14595	6804	.324
14822 (-11191)	6878 * **	(.324)

* EXTRAPOLATED PRESSURE

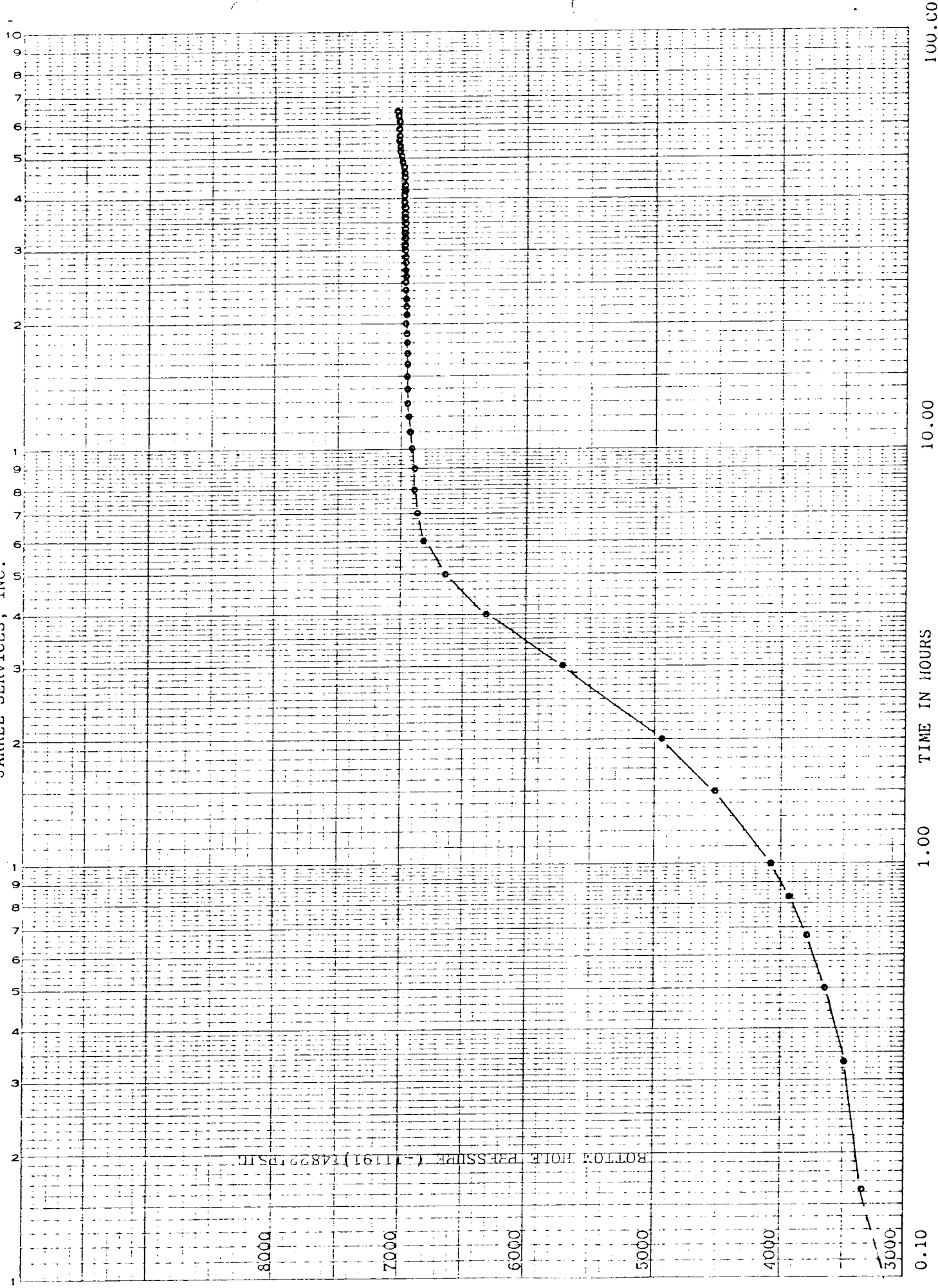
** MIDPOINT FO CASING PERFORATIONS



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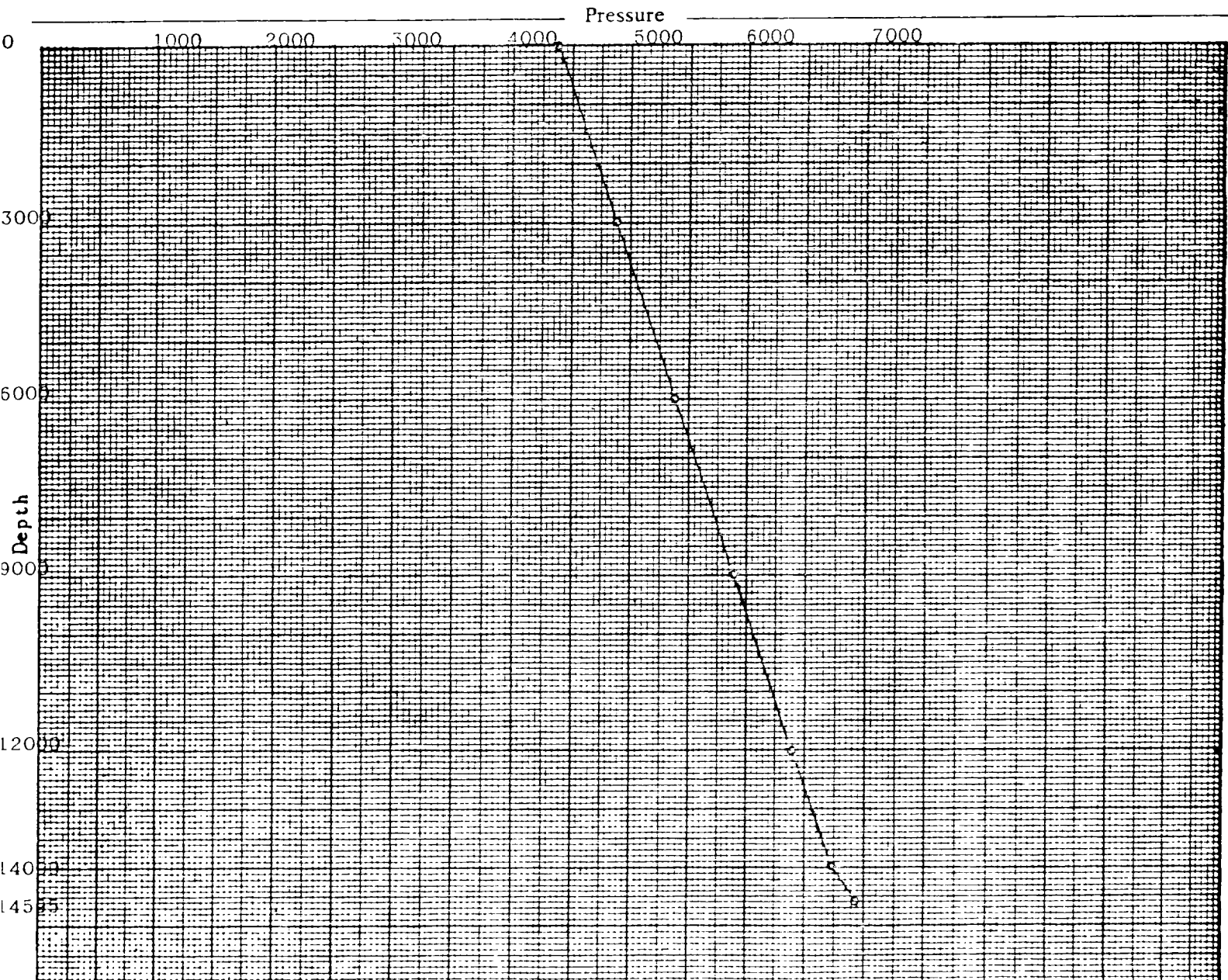
BOTTOM HOLE PRESSURE RECORD

OPERATOR Pogo Producing Company
 FIELD Bootleg Ridge
 FORMATION Morrow
 LEASE NBR WELL #2
 COUNTY Lea STATE New Mexico
 DATE 8/27/82 TIME 10:15 AM
 Status Shut in
 Test Depth 14595'
 Time S. I. 65.0 hrs. Last test date 8/24/82
 Tub Pres. 4385 BHP last test 6878
 Cas. Pres. PKR BHP change 155# Gain
 Elev. 3631' GL Fluid top 14000'
 Datum (-11191)** Water top -
 Temp. @ 204 Run by JSI #16
 Cal. No. A13676N Chart No. 2

Depth	Pressure	Gradient
0	4385	-
3000	4883	.166
6000	5381	.166
9000	5879	.166
12000	6380	.167
14000	6714	.167
14595	6939	.378
14822 (-11191)	7025 * **	(.378)

* EXTRAPOLATED PRESSURE

** MIDPOINT OF CASING PERFORATIONS



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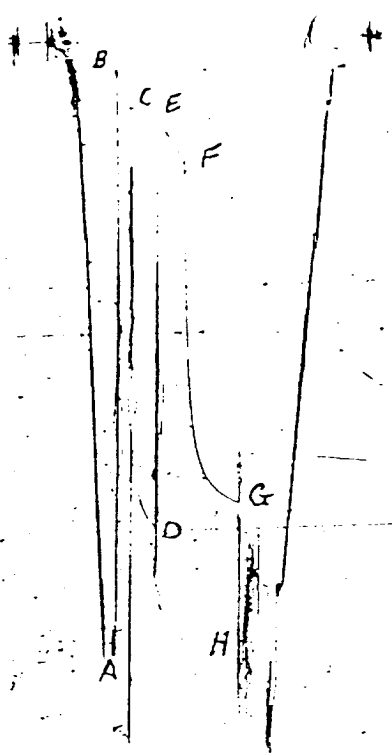


TICKET NO. 01947000
14-MAY-82
HOBBS

FORMATION TESTING SERVICE REPORT

ST. NO.	2	TEST NO.	1	TESTED INTERVAL	4821.1 - 5153.1	POGO PRODUCING COMPANY
LEASE NAME		WELL NO.				LEASE OWNER/COMPANY NAME
LEGAL LOCATION	18-22S-33E	FIELD AREA	NORTH OF BOOTLEG RIDGE	COUNTY	LEA	STATE NEW MEXICO
SEC. - TWP. - RMC.						BJBC

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019470 - 3407

67

GAUGE NO: 3407 DEPTH: 4802.0 BLANKED OFF: NO HOUR OF CLOCK: 48

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		2468.2			
B	INITIAL FIRST FLOW		111.3			
C	FINAL FIRST FLOW		257.1	30.0	30.6	F
C	INITIAL FIRST CLOSED-IN		257.1			
D	FINAL FIRST CLOSED-IN		1992.7	60.0	57.1	C
E	INITIAL SECOND FLOW		296.7			
F	FINAL SECOND FLOW		491.6	60.0	62.3	F
F	INITIAL SECOND CLOSED-IN		491.6			
G	FINAL SECOND CLOSED-IN		1898.2	120.0	120.0	C
H	FINAL HYDROSTATIC		2470.5			

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