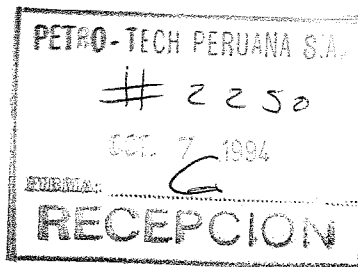




HUGHES CHRISTENSEN



Una compañía Baker Hughes



Lima, 07 de Octubre de 1994
No. 246/94

Señores
PETRO-TECH PERUANA S.A.
Lima 27.-

Att.: Ing. Rafael Samaniego
Gerente Adjunto

Dr. Amospe ?
?

De nuestra consideración:

Nos es grato dirigirnos a ustedes, a fin de alcanzarles el Programa Recomendado de Brocas para el pozo Lobitos L06-19 que en su oportunidad entregáramos a su Departamento de Perforación.

Sin otro particular, quedamos de Uds.

Muy atentamente,

HUGHES TOOL COMPANY
Sucursal del Perú
Amospe
Gerente General

mvr.

HUGHES TOOL COMPANY SUCURSAL DEL PERU

Francisco Masías N° 544 Of. 602 - San Isidro - Casilla N° 27-0075 - Lima-Perú Telf/Fax. (51-14)406843 - (51-14)400025

PROGRAMA RECOMENDADO
DE
BROCAS

Presentado a :

PETRO-TECH PERUANA S.A.

Para :

LOBITOS LO6-19



HUGHES CHRISTENSEN



A Baker Hughes company

Talara, 14 de Junio de 1,994

Sres.

PETRO-TECH PERUANA S.A.

Negritos.-

At. : Ing° Marcos Seminario S.
Sub Gerente Perforación y
Servicio de Pozos

Ref: Programa Recomendado de
Brocas
Lobitos LO6-1

De nuestra consideración :

Es grato dirigirnos a Uds. para saludarlos y hacerles llegar nuestro Programa Recomendado de Brocas para el Pozo de la referencia.

Sin otro particular, nos reiteramos de Uds. para cualquier consulta adicional y los saludamos muy atentamente.

Marco A. Cruz Calle
Ingeniero de Area
Perú/Bolivia

HUGHES TOOL COMPANY SUCURSAL DEL PERÚ

Francisco Masías N° 544 Of. 602 - San Isidro - Casilla N° 27-0075 - Lima 27 Perú Tel/Fax. 406843 - 400025
Centro Comercial Talara Of. 122 - Talara - Casilla N°56. Telef./Fax. 382955

Presentado por :



PROGRAMA RECOMENDADO DE BROCAS

PTP-PROG. LO6-19

- * Programa de Brocas
- * Carreras de Brocas
- * Análisis de Costos

BREC0002



PTP-PROG. LO6-19



Page 1 Of 1

SIZE	TYPE	SERIAL NUMBER	DEPTH OUT (feet)	DRILLED (feet)	HRS	R.O.P. (feet /hr)	W.O.B. (Klb)	RPM	VERT DEV (deg)	DULL GRADE	FORMATION
17	X3A		1800	1465	73.3	20.00	8 35	80 120			TA
12.1/4	ATJIS		1830	30	1.0	30.00	20 20	110 120			TA
12.1/4	ATM00		4830	3000	103.0	29.13	30 35	130 140			TA CA RV PG
12.1/4	ATJIS		5800	970	64.5	15.04	30 35	120 130			PG
8.1/2	ATJIS		5810	10	0.5	20.00	35 35	120 120			SB
8.1/2	ATJ05		7010	1200	85.3	14.08	30 35	120 140			SB
8.1/2	ATM11HG		7860	850	85.0	10.00	30 35	120 140			SB BN
8.1/2	ATM11HG		8600	740	92.5	8.00	30 35	120 140			BN BC

16/06/94

MARKETING REGION	COUNTRY	OPERATOR	CONTRACTOR	LOCATION	RIG COST \$ PER HOUR	TRIP TIME HRS/ 1000 feet								
LATIN AMERICA	PERU	PETRO-TECH	PEPESA	PTP-PROG. L06-19	424	13/10	ASGHAR KHAN							
SEQ NO.	SIZE	TYPE	DEPTH OUT feet	feet DRILLED	HOURS TAKEN	ROP feet PER HR	ACCUM DRILING HOURS	BIT COST					ACCUMULATIVE COSTS	
								BIT	DRLG.	TRIP	TOTAL	per ft.	TOTAL	per ft.
001	17	X3A	1800	1465	73.25	20.00	73.25	8620	31055	992	40667	27.76	40667	27.76
002	12.1/4	ATJ1S	1830	30	1.00	30.00	74.25	2748	424	1009	4181	139.35	44848	30.00
003	12.1/4	ATM00	4830	3000	103.00	29.13	177.25	11300	43668	2662	57630	19.21	102477	22.80
004	12.1/4	ATJ1S	5800	970	64.50	15.04	241.75	2748	27345	3197	33290	34.32	135767	24.84
005	8.1/2	ATJ1S	5810	10	0.50	20.00	242.25	1521	212	3202	4935	493.51	140702	25.70
006	8.1/2	ATJ05	7010	1200	85.25	14.08	327.50	4692	36142	3864	44698	37.25	185400	27.78
007	8.1/2	ATM11HG	7860	850	85.00	10.00	412.50	6222	36036	4332	46590	54.81	231991	30.83
008	8.1/2	ATM11HG	8600	740	92.50	8.00	505.00	6222	39216	4740	50178	67.81	282169	34.14

POZOS
REFERENCIALES

PM-LOBITOS LO6-20
PM-LOBITOS LO7-14
PM-LOBITOS LO7-15

- * Registros de Brocas
- * Carreras de Brocas
- * Análisis de Costos



HUGHES BIT RECORD



Page 1 Of 2

LOCATION / WELL NO. PM-LOBITOS LO6-20				SPUD DATE 13/08/93		BIT RECORD NO. 932014		ROTARY TYPE ABBREVIATIONS				GEOLOGY ABBREVIATIONS				DULL GRADE REASON PULLED ABBREVIATIONS															
OPERATOR PETROMAR S.A.				FIELD / AREA LOBITOS				RT - ROTARY SH - STEERABLE BENT HOUSING SD - STEERABLE DTU SS - STEERABLE OFFSET STABILIZER PD - POSITIVE DISPLACEMENT MOTOR SB - STEERABLE PDM & BENT SUB TB - TURBINE				TER - TERTIARY EOC - EOCENE BAL - BALDER PAL - PALEOCENE AND - ANDREW MAU - MAUREEN EKO - EKOFISK UCR - UPPER CRETACEOUS PLM - PLENUS MARL TUR - TURONIAN				LCR - LWR. CRETACEOUS UJR - UPPER JURASSIC MJR - MID. JURASSIC LJR - LWR. JURASSIC TRI - TRIASSIC BUN - BUNTER PRM - PERMIAN ZCH - ZECHSTEIN CAR - CARBONIFEROUS DEV - DEVONIAN				BHA - BOTTOM HOLE ASSEMBLY DMF - DOWN HOLE MOTOR FAILURE DSF - DRILL STRING FAILURE DST - DRILL STEM TEST DTF - DOWN HOLE TOOL FAILURE LOG - RUN LOGS CM - CONDITION MUD CP - CORE POINT DP - DRILL PLUG FM - FORMATION CHANGE HP - HOLE PROBLEMS HR - HOURS ON BIT PP - PUMP PRESSURE PR - PENETRATION RATE RIG - RIG REPAIRS TD - TOTAL / CASING DEPTH TQ - TORQUE TW - TWIST OFF WC - WEATHER CONDITIONS											
CONTRACTOR / RIG NO. SERPETRO # 6				COST / DAY (US \$) 14000																											
NO.	SIZE	MAKE	TYPE	NOZZLES 32ND IN □ TFA	SERIAL NO.	DEPTH OUT FEET □ METRES	DRILLED FEET □ METRES	HOURS	ROP FT / HR □ M / HR	KLB TONS □ KDNS	RPM	RT	PSI □ BARS □ KPAS	GPM □ LPM □ SPM	VERT DEV	GEOLOGY	MUD			IADC DULL GRADE											
																	WT	TYPE	PV / YP	I	O	D	L	B	G	O	R				
1RR	17	HTC	X3A	3x16	P79BY	411	25	3.0	8.33	10	80	RT	800	545			0.00	W	0/0	0	0				E	0					
2RR1	17	HTC	X3A	3x16	P79BY	462	51	8.5	6.00	5	0	RT	800	545			0.00	W	0/0	2	2				E	0					
3RR1	17	HTC	X3A	3x16	P79BY	440	0	6.0	0.00	8	80	RT	200	545			0.00		0/0												
RR2	12.1/4	HTC	ATJ1S	3x16	P04EF	462	22	2.0	11.00	10	80	RT	200	545			0.00		0/0												
3RR1	17	HTC	X3A	3x16	P79BY	514	52	3.0	17.33	25	120	RT	900	545			9.00	W	0/0												
3	12.1/4	HTC	ATJ1S	3x18	P74BR	810	296	11.3	26.31	10	0	RT	400	400			9.40		0/0												
4RR1	17	HTC	X3A	3x16	P79BY	810	0	10.5	0.00	10	100	RT	950	400			9.50		0/0	4	4				E	1					
4	17	HTC	X3A	3x16	R10BC	1276	466	13.0	35.85	35	110	RT	950	545			9.50		0/0	2	2				E	0					
5	12.1/4	HTC	ATJ1S	3x18	P38BY	1479	203	10.0	20.30	10	0	RT	400	545			9.50		0/0												
1RR4	17	HTC	X3A	3x16	R10BC	1622	143	3.5	40.86	38	110	RT	950	545			9.70		0/0												
1RR5	12.1/4	HTC	ATJ1S	3x18	P38BY	1652	30	1.0	30.00	20	110	RT	800	0			9.20	W	12/8	3	3				E	1					
6	12.1/4	HTC	ATJ1S	1x16 2x18	R11BL	2939	1287	28.5	45.16	34	140	RT	1200	550			10.30	W	27/18	2	2				E	0					
7	12.1/4	HTC	ATJ1S	1x13 2x14	R93BC	4010	1071	47.8	22.43	34	130	RT	1600	472			10.30	W	30/21	2	2				E	1					
8	12.1/4	HTC	ATJ1S	1x13 2x14	P08BL	4569	559	30.0	18.63	36	120	RT	1600	472			10.50	W	27/21	3	3				E	0					
9	12.1/4	HTC	ATJ1S	1x13 2x14	R06BL	5317	748	57.5	13.01	36	120	RT	1600	472			10.50	W	29/21	4	4				E	0					



HUGHES BIT RECORD



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LOCATION / WELL NO. PM-LOBITOS LO6-20				SPUD DATE 13/08/93		BIT RECORD NO. 932014		ROTARY TYPE ABBREVIATIONS				GEOLOGY ABBREVIATIONS				DULL GRADE REASON PULLED ABBREVIATIONS													
OPERATOR PETROMAR S.A.				FIELD / AREA LOBITOS		RT - ROTARY SH - STEERABLE BENT HOUSING SD - STEERABLE DTU SS - STEERABLE OFFSET STABILIZER PD - POSITIVE DISPLACEMENT MOTOR SB - STEERABLE PDM & BENT SUB TB - TURBINE				TER - TERTIARY EOC - EOCENE BAL - BALDER PAL - PALEOCENE AND - ANDREW MAU - MAUREEN EKO - EKOFISK UCR - UPPER CRETACEOUS PLM - PLENUS MARL TUR - TURONIAN				LCR - LWR. CRETACEOUS UJR - UPPER JURASSIC MJR - MID. JURASSIC LJR - LWR. JURASSIC TRI - TRIASSIC BUN - BUNTER PRM - PERMIAN ZCH - ZECHSTEIN CAR - CARBONIFEROUS DEV - DEVONIAN				BHA - BOTTOM HOLE ASSEMBLY DMF - DOWN HOLE MOTOR FAILURE DSF - DRILL STRING FAILURE DST - DRILL STEM TEST DTF - DOWN HOLE TOOL FAILURE LOG - RUN LOGS CM - CONDITION MUD CP - CORE POINT DP - DRILL PLUG FM - FORMATION CHANGE HP - HOLE PROBLEMS HR - HOURS ON BIT PP - PUMP PRESSURE PR - PENETRATION RATE RIG - RIG REPAIRS TD - TOTAL / CASING DEPTH TQ - TORQUE TW - TWIST OFF WC - WEATHER CONDITIONS											
CONTRACTOR / RIG NO. SERPETRO # 6				COST / DAY (US \$) 14000																									
NO.	SIZE	MAKE	TYPE	NOZZLES 32ND IN TFA	SERIAL NO.	DEPTH OUT FEET METRES	DRILLED FEET METRES	HOURS	ROP FT / HR M / HR	KLB TONS KDNS	RPM	RT	PSI BARS KPAS	GPM LPM SPM	VERT DEV	GEOLOGY	MUD			IADC DULL GRADE									
																	WT	TYPE	PV / YP	I	O	D	L	B	G	O	R		
1RR10	12.1/4	HTC	ATJ1S	1x13 2x14	P26BR	5609	292	33.3	8.78	38	80	RT	1600	472			10.60	W	28 19	2	2				3	0			
1RR11	8.1/2	HTC	ATJ1	3x14	P62BX	5619	10	0.5	20.00	35	120	RT	1600	470			10.20	W	0 0										
2RR11	8.1/2	HTC	ATJ1	3x14	P62BX	5679	60	3.5	17.14	35	120	RT	1600	472			10.70	W	0 0										
12	8.1/2	HTC	ATJ05	2x12 1x13	N81BV	6666	987	71.8	13.76	32	120	RT	1750	352			11.40	W	22 13	2	2				E	0			
13	8.1/2	HTC	ATJ11	2x12 1x13	N51BV	6825	159	19.0	8.37	37	90	RT	1750	352			12.10	W	31 17	7	7				E	0			
14	8.1/2	HTC	J3	2x12 1x13	W91TE	6833	8	1.0	8.00	35	80	RT	1850	396			12.10	W	32 17	1	1				E	0			
15	8.1/2	HTC	ATJ22	2x12 1x13	R02BC	7107	274	49.5	5.54	37	90	RT	1800	383			12.20	W	18 12	1	1				E	0			
16	8.1/2	HTC	ATJ11	2x12 1x13	N48BV	7442	335	48.0	6.98	37	80	RT	1700	371			12.10	W	31 17	6	6				E	0			
1RR15	8.1/2	HTC	ATJ22	2x12 1x13	R02BC	7638	196	30.0	6.53	38	90	RT	1700	371			12.10	W	30 16										
17	8.1/2	HTC	ATJ22	2x12 1x13	R45BK	7997	359	59.0	6.08	38	80	RT	1700	372			12.10	W	34 17	5	5				E	2			
18	8.1/2	HTC	ATJ11	2x12 1x13	T04ET	8176	179	22.0	8.14	38	80	RT	1700	372			12.20	W	0 0	0	0								



PM-LOBITOS LO6-20



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SIZE	TYPE	SERIAL NUMBER	DEPTH OUT (feet)	DRILLED (feet)	HRS	R.O.P. (feet /hr)	W.O.B. (Klb)		RPM	VERT DEV (deg)	DULL GRADE	FORMATION
17	X3A	P79BY	411	25	3.0	8.33	10	10	80	80	00	E 0/16
17	X3A	P79BY	462	51	8.5	6.00	5	5	0	0	22	E 0/16
17	X3A	P79BY	440	0	6.0	0.00	8	8	80	80		
12.1/4	ATJIS	P04EF	462	22	2.0	11.00	10	10	80	80		
17	X3A	P79BY	514	52	3.0	17.33	25	25	120	120		
12.1/4	ATJIS	P74BR	810	296	11.3	26.31	10	10	0	0		
17	X3A	P79BY	810	0	10.5	0.00	10	10	100	100	44	E 1/16
17	X3A	R10BC	1276	466	13.0	35.85	35	35	110	110	22	E 0/16
12.1/4	ATJIS	P38BY	1479	203	10.0	20.30	10	10	0	0		
17	X3A	R10BC	1622	143	3.5	40.86	38	38	110	110		
12.1/4	ATJIS	P38BY	1652	30	1.0	30.00	20	20	110	110	33	E 1/16
12.1/4	ATJIS	R11BL	2939	1287	28.5	45.16	34	34	140	140	22	E 0/16
12.1/4	ATJIS	R93BC	4010	1071	47.8	22.43	34	34	130	130	22	E 1/16
12.1/4	ATJIS	P08BL	4569	559	30.0	18.63	36	36	120	120	33	E 0/16
12.1/4	ATJIS	R06BL	5317	748	57.5	13.01	36	36	120	120	44	E 0/16



PM-LOBITOS LO6-20



Page 2 Of 2

SIZE	TYPE	SERIAL NUMBER	DEPTH OUT (feet)	DRILLED (feet)	HRS	R.O.P. (feet /hr)	W.O.B. (Klb)		RPM	VERT DEV (deg)	DULL GRADE	FORMATION
12.1/4	ATJ1S	P26BR	5609	292	33.3	8.78	38	38	80	80	22	3 0/16
8.1/2	ATJ1	P62BX	5619	10	0.5	20.00	35	35	120	120		
8.1/2	ATJ1	P62BX	5679	60	3.5	17.14	35	35	120	120		
8.1/2	ATJ05	N81BV	6666	987	71.8	13.76	32	32	120	120	22	E 0/16
8.1/2	ATJ11	N51BV	6825	159	19.0	8.37	37	37	90	90	77	E 0/16
8.1/2	J3	W91TE	6833	8	1.0	8.00	35	35	80	80	11	E 0/16
8.1/2	ATJ22	R02BC	7107	274	49.5	5.54	37	37	90	90	11	E 0/16
8.1/2	ATJ11	N48BV	7442	335	48.0	6.98	37	37	80	80	66	E 0/16
8.1/2	ATJ22	R02BC	7638	196	30.0	6.53	38	38	90	90		
8.1/2	ATJ22	R45BK	7997	359	59.0	6.08	38	38	80	80	55	E 2/16
8.1/2	ATJ11	T04ET	8176	179	22.0	8.14	38	38	80	80	00	

16/06/94

MARKETING REGION	COUNTRY	OPERATOR	CONTRACTOR	LOCATION	RIG COST \$ PER HOUR	TRIP TIME HRS/ 1000 feet								
LATIN AMERICA	PERU	PETROMAR	SERPETRO	PM-LOBITOS LO6-20	424	13/10	ASGHAR KHAN							
SEQ NO.	SIZE	TYPE	DEPTH OUT feet	feet DRILLED	HOURS TAKEN	ROP feet PER HR	ACCUM DRILLING HOURS	BIT COST					ACCUMULATIVE COSTS	
								BIT	DRLG.	TRIP	TOTAL	per ft.	TOTAL	per ft.
001	17	X3A	411	25	3.00	8.33	3.00	0	1272	227	1498	59.94	1498	59.94
002	17	X3A	462	51	8.50	6.00	11.50	0	3604	255	3858	75.65	5357	70.48
003	17	X3A	440	0	6.00	0.00	17.50	0	2544	243	2786	0.00	8143	107.14
004	12.1/4	ATJ1S	462	22	2.00	11.00	19.50	0	848	255	1103	50.12	9245	94.34
005	17	X3A	514	52	3.00	17.33	22.50	0	1272	283	1555	29.91	10801	72.00
006	12.1/4	ATJ1S	810	296	11.25	26.31	33.75	2748	4770	446	7963	26.90	18764	42.07
007	17	X3A	810	0	10.50	0.00	44.25	0	4452	446	4898	0.00	23662	53.05
008	17	X3A	1276	466	13.00	35.85	57.25	8620	5511	703	14834	31.83	38496	42.21
009	12.1/4	ATJ1S	1479	203	10.00	20.30	67.25	2748	4240	815	7802	38.43	46299	41.52
010	17	X3A	1622	143	3.50	40.86	70.75	0	1484	894	2378	16.63	48676	38.69
011	12.1/4	ATJ1S	1652	30	1.00	30.00	71.75	0	424	910	1334	44.48	50011	38.83
012	12.1/4	ATJ1S	2939	1287	28.50	45.16	100.25	2748	12083	1620	16450	12.78	66461	25.81
013	12.1/4	ATJ1S	4010	1071	47.75	22.43	148.00	2748	20244	2210	25202	23.53	91663	25.14
014	12.1/4	ATJ1S	4569	559	30.00	18.63	178.00	2748	12719	2518	17984	32.17	109647	26.08
015	12.1/4	ATJ1S	5317	748	57.50	13.01	235.50	2748	24378	2930	30056	40.18	139703	28.21
016	12.1/4	ATJ1S	5609	292	33.25	8.78	268.75	0	14097	3091	17188	58.86	156891	29.91
017	8.1/2	ATJ1	5619	10	0.50	20.00	269.25	1521	212	3097	4830	482.99	161721	30.77
018	8.1/2	ATJ1	5679	60	3.50	17.14	272.75	0	1484	3130	4614	76.90	166334	31.30
019	8.1/2	ATJ05	6666	987	71.75	13.76	344.50	4692	30419	3674	38785	39.30	205119	32.55
020	8.1/2	ATJ11	6825	159	19.00	8.37	363.50	4692	8055	3762	16509	103.83	221628	34.30
021	8.1/2	J3	6833	8	1.00	8.00	364.50	1481	424	3766	5671	708.87	227299	35.14
022	8.1/2	ATJ22	7107	274	49.50	5.54	414.00	4692	20986	3917	29595	108.01	256894	38.10
023	8.1/2	ATJ11	7442	335	48.00	6.98	462.00	4692	20350	4102	29144	87.00	286038	40.41
024	8.1/2	ATJ22	7638	196	30.00	6.53	492.00	0	12719	4210	16928	86.37	302966	41.65
025	8.1/2	ATJ22	7997	359	59.00	6.08	551.00	4692	25014	4408	34113	95.02	337079	44.16

16/06/94

MARKETING REGION		COUNTRY		OPERATOR		CONTRACTOR		LOCATION		RIG COST \$ PER HOUR		TRIP TIME HRS/ 1000 feet			
LATIN AMERICA		PERU		PETROMAR		SERPETRO		PM-LOBITOS L06-20		424		13/10		ASGHAR KHAN	
SEQ NO.	SIZE	TYPE	DEPTH OUT feet	feet DRILLED	HOURS TAKEN	ROP feet PER HR	ACCUM DRILLING HOURS	BIT COST					ACCUMULATIVE COSTS		
								BIT	DRLG.	TRIP	TOTAL	per ft.	TOTAL	per ft.	
026	8.1/2	ATJ11	8176	179	22.00	8.14	573.00	4692	9327	4506	18525	103.49	355604	45.52	



HUGHES BIT RECORD



Page 1 Of 2

LOCATION / WELL NO.				SPUD DATE		BIT RECORD NO.		ROTARY TYPE ABBREVIATIONS				GEOLOGY ABBREVIATIONS						DULL GRADE REASON PULLED ABBREVIATIONS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
PM-LOBITOS LO7-14				11/01/93		932004		RT - ROTARY SH - STEERABLE BENT HOUSING SD - STEERABLE DTU SS - STEERABLE OFFSET STABILIZER PD - POSITIVE DISPLACEMENT MOTOR SB - STEERABLE PDM & BENT SUB TB - TURBINE				TER - TERTIARY EOC - EOCENE BAL - BALDER PAL - PALEOCENE AND - ANDREW MAU - MAUREEN EKO - EKOFISK UCR - UPPER CRETACEOUS PLM - PLENUS MARL TUR - TURONIAN			LCR - LWR. CRETACEOUS UJR - UPPER JURASSIC MJR - MID. JURASSIC LJR - LWR. JURASSIC TRI - TRIASSIC BUN - BUNTER PRM - PERMIAN ZCH - ZECHSTEIN CAR - CARBONIFEROUS DEV - DEVONIAN			BHA - BOTTOM HOLE ASSEMBLY DMF - DOWN HOLE MOTOR FAILURE DSF - DRILL STRING FAILURE DST - DRILL STEM TEST DTF - DOWN HOLE TOOL FAILURE LOG - RUN LOGS CM - CONDITION MUD CP - CORE POINT DP - DRILL PLUG FM - FORMATION CHANGE HP - HOLE PROBLEMS HR - HOURS ON BIT PP - PUMP PRESSURE PR - PENETRATION RATE RIG - RIG REPAIRS TD - TOTAL / CASING DEPTH TQ - TORQUE TW - TWIST OFF WC - WEATHER CONDITIONS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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NO.	SIZE	MAKE	TYPE	NOZZLES		SERIAL NO.	DEPTH OUT		DRILLED	HOURS	ROP	KLB	RPM	RT	PSI	GPM	VERT	GEOLOGY	MUD			IADC DULL GRADE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
				32ND IN	TFA		FEET	METRES											FEET	METRES	FT / HR	TONS	BARS	LPM	WT	TYPE	PV / YP	I	O	D	L	B	G	O	R																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
1	17	HTC	X3A	3x16		N84BJ	420	33	33	6.8	4.89	8	70	RT	800	464			9.00		0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

BREC0002



PM-LOBITOS LO7-14



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SIZE	TYPE	SERIAL NUMBER	DEPTH OUT (feet)	DRILLED (feet)	HRS	R.O.P. (feet /hr)	W.O.B. (Klb)	RPM	VERT DEV (deg)	DULL GRADE	FORMATION
17	X3A	N84BJ	420	33	6.8	4.89	8 8	70 70			
17	X3A	N84BJ	420	0	14.3	0.00	0 0	0 0			
12.1/4	ATJ1	U34EU	420	0	2.8	0.00	0 10	80 80			
12.1/4	ATJ1S	N83PD	546	126	4.0	31.50	10 10	0 0			
17	X3A	N84BJ	1114	568	18.3	31.12	30 30	90 90		33	E 1/16
12.1/4	ATJ1S	N83PD	1182	68	1.5	45.33	10 10	90 90		33	E 4/16
12.1/4	X3A	W41MC	1336	154	12.5	12.32	35 35	0 0		33	E 0/16
12.1/4	X3A	W40MC	2551	1215	36.3	33.52	38 38	90 90		66	E 1/16
12.1/4	ATJ1S	W83PA	3301	750	25.8	29.13	40 40	90 90		33	E 1/16
12.1/4	ATM00	T60PE	3566	265	24.5	10.82	38 38	100 100		11	E 1/16
12.1/4	ATJ1S	N83PD	3323	0	39.0	0.00	5 5	100 100			
12.1/4	X3A	W47MC	3571	5	0.3	20.00	5 5	100 100			
12.1/4	X3A	W45MC	3862	291	30.8	9.46	35 35	100 100		33	E 1/16
12.1/4	ATJ1S	W83PA	3780	0	46.8	0.00	0 0	0 0		33	E 1/16
12.1/4	ATJC1S	T61PE	3549	0	20.8	0.00	7 7	30 30			



PM-LOBITOS LO7-14



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SIZE	TYPE	SERIAL NUMBER	DEPTH OUT (feet)	DRILLED (feet)	HRS	R.O.P. (feet /hr)	W.O.B. (Klb)		RPM	VERT DEV (deg)	DULL GRADE	FORMATION
12.1/4	ATJIS	W83PA	3862	0	22.8	0.00	15	15	70	70		
8.1/2	ATJI	N90EH	3871	9	0.3	36.00	10	10	75	75	33	E 1/16
8.1/2	ATJ05	H80ET	4365	494	34.0	14.53	42	42	80	80	44	E 0/16
8.1/2	ATJI	G16ER	5351	986	56.8	17.37	40	40	110	110		
8.1/2	ATJI	Y53EP	6178	827	48.5	17.05	40	40	130	130	33	E 1/16
8.1/2	ATJI	Y50EP	6264	86	21.0	4.10	0	0	0	0	66	F 2/16
8.1/2	ATJ05	U05ET	6801	537	43.0	12.49	40	40	80	80	55	E 0/16
8.1/2	ATJ22	P20PY	7406	605	79.8	7.59	44	44	100	100	44	E 2/16
8.1/2	ATJ22	P78PX	7526	120	18.8	6.40	42	42	90	90	33	E 0/16
8.1/2	ATJ11H	T39FU	8089	563	78.3	7.19	35	35	120	120	33	E 0/16

16/06/94

MARKETING REGION	COUNTRY	OPERATOR	CONTRACTOR	LOCATION	RIG COST \$ PER HOUR	TRIP TIME HRS/ 1000 feet								
LATIN AMERICA	PERU	PETROMAR	PEPESA	PM-LOBITOS L07-14	424	13/10	ASGHAR KHAN							
SEQ NO.	SIZE	TYPE	DEPTH OUT feet	feet DRILLED	HOURS TAKEN	ROP feet PER HR	ACCUM DRILLING HOURS	BIT COST					ACCUMULATIVE COSTS	
								BIT	DRLG.	TRIP	TOTAL	per ft.	TOTAL	per ft.
001	17	X3A	420	33	6.75	4.89	6.75	8620	2862	231	11713	354.93	11713	354.93
002	17	X3A	420	0	14.25	0.00	21.00	0	6041	231	6273	0.00	17986	545.02
003	12.1/4	ATJ1	420	0	2.75	0.00	23.75	2748	1166	231	4145	0.00	22131	670.62
004	12.1/4	ATJ1S	546	126	4.00	31.50	27.75	2748	1696	301	4744	37.65	26875	169.02
005	17	X3A	1114	568	18.25	31.12	46.00	0	7737	614	8351	14.70	35226	48.45
006	12.1/4	ATJ1S	1182	68	1.50	45.33	47.50	0	636	651	1287	18.93	36513	45.93
007	12.1/4	X3A	1336	154	12.50	12.32	60.00	2748	5299	736	8783	57.03	45297	47.73
008	12.1/4	X3A	2551	1215	36.25	33.52	96.25	2748	15368	1406	19522	16.07	64819	29.95
009	12.1/4	ATJ1S	3301	750	25.75	29.13	122.00	2748	10917	1819	15484	20.65	80303	27.56
010	12.1/4	ATM00	3566	265	24.50	10.82	146.50	11300	10387	1965	23652	89.25	103955	32.70
011	12.1/4	ATJ1S	3323	0	39.00	0.00	185.50	0	16534	1831	18366	0.00	122321	38.48
012	12.1/4	X3A	3571	5	0.25	20.00	185.75	2748	106	1968	4822	964.33	127142	39.93
013	12.1/4	X3A	3862	291	30.75	9.46	216.50	2748	13037	2129	17913	61.56	145055	41.74
014	12.1/4	ATJ1S	3780	0	46.75	0.00	263.25	2748	19820	2083	24651	0.00	169706	48.84
015	12.1/4	ATJC1S	3549	0	20.75	0.00	284.00	2748	8797	1956	13501	0.00	183207	52.72
016	12.1/4	ATJ1S	3862	0	22.75	0.00	306.75	0	9645	2129	11774	0.00	194980	56.11
017	8.1/2	ATJ1	3871	9	0.25	36.00	307.00	0	106	2133	2239	248.83	197220	56.61
018	8.1/2	ATJ05	4365	494	34.00	14.53	341.00	4692	14415	2406	21512	43.55	218732	54.99
019	8.1/2	ATJ1	5351	986	56.75	17.37	397.75	1521	24060	2949	28530	28.93	247262	49.81
020	8.1/2	ATJ1	6178	827	48.50	17.05	446.25	1521	20562	3405	25488	30.82	272750	47.10
021	8.1/2	ATJ1	6264	86	21.00	4.10	467.25	1521	8903	3452	13877	161.35	286626	48.77
022	8.1/2	ATJ05	6801	537	43.00	12.49	510.25	4692	18230	3748	26671	49.67	313297	48.85
023	8.1/2	ATJ22	7406	605	79.75	7.59	590.00	4692	33811	4082	42584	70.39	355881	50.70
024	8.1/2	ATJ22	7526	120	18.75	6.40	608.75	4692	7949	4148	16789	139.91	372671	52.20
025	8.1/2	ATJ11H	8089	563	78.25	7.19	687.00	4692	33175	4458	42325	75.18	414996	53.88



HUGHES BIT RECORD



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LOCATION / WELL NO. PM-LOBITOS LO7-15				SPUD DATE 28/04/93		BIT RECORD NO. 932009		ROTARY TYPE ABBREVIATIONS				GEOLOGY ABBREVIATIONS				DULL GRADE REASON PULLED ABBREVIATIONS															
OPERATOR PETROMAR S.A.				FIELD / AREA LOBITOS		RT - ROTARY SH - STEERABLE BENT HOUSING SD - STEERABLE DTU SS - STEERABLE OFFSET STABILIZER PD - POSITIVE DISPLACEMENT MOTOR SB - STEERABLE PDM & BENT SUB TB - TURBINE				TER - TERTIARY EOC - EOCENE BAL - BALDER PAL - PALEOCENE AND - ANDREW MAU - MAUREEN EKO - EKOFISK UCR - UPPER CRETACEOUS PLM - PLENUS MARL TUR - TURONIAN				LCR - LWR. CRETACEOUS UJR - UPPER JURASSIC MJR - MID. JURASSIC LJR - LWR. JURASSIC TRI - TRIASSIC BUN - BUNTER PRM - PERMIAN ZCH - ZECHSTEIN CAR - CARBONIFEROUS DEV - DEVONIAN				BHA - BOTTOM HOLE ASSEMBLY DMF - DOWN HOLE MOTOR FAILURE DSF - DRILL STRING FAILURE DST - DRILL STEM TEST DTF - DOWN HOLE TOOL FAILURE LOG - RUN LOGS CM - CONDITION MUD CP - CORE POINT DP - DRILL PLUG FM - FORMATION CHANGE HP - HOLE PROBLEMS HR - HOURS ON BIT PP - PUMP PRESSURE PR - PENETRATION RATE RIG - RIG REPAIRS TD - TOTAL / CASING DEPTH TQ - TORQUE TW - TWIST OFF WC - WEATHER CONDITIONS													
CONTRACTOR / RIG NO. PEPESA # 48				COST / DAY (US \$) 10300																											
NO.	SIZE	MAKE	TYPE	NOZZLES 32ND IN TFA	SERIAL NO.	DEPTH OUT FEET METRES	DRILLED FEET METRES	HOURS	ROP FT / HR M / HR	KLB TONS KDNS	RPM	RT	PSI BARS KPAS	GPM LPM SPM	VERT DEV	GEOLOGY	MUD			IADC DULL GRADE											
																	WT	TYPE	PV / YP	I	O	D	L	B	G	O	R				
1	17	HTC	X3A	3x16	9317EK	410	60	2.0	30.00	10	60	RT	400	451			9.30		0 0												
1RR1	17	HTC	X3A	3x16	9317EK	464	54	1.8	30.86	15	80	RT	500	451			9.60	W	0 0	2	2				E	1					
2RR	17	HTC	X3A	3x16	N82BJ	1523	1059	41.3	25.67	35	80	RT	1400	533			9.60	W	0 0	4	4				E	1					
3RR	17	HTC	X3A	3x16	P38BC	1523	0	0.0	0.00	0	0	RT	533	533			9.60		0 0												
4RR	12.1/4	HTC	ATJIS	2x18 1x14	P61BH	1596	73	4.5	16.22	10	70	RT	700	410			9.00	W	18 20	2	2				E	0					
5	12.1/4	HTC	ATJIS	3x18	P22BJ	1769	173	17.5	9.89	10	0	TB	700	410			9.10	W	26 11	2	2				E	0					
6	12.1/4	HTC	ATJIS	3x18	P07BF	1895	126	16.8	7.52	10	0	TB	700	410			9.10	W	25 13	2	2				E	0					
7RR	12.1/4	HTC	ATJIS	2x14 1x18	PE01BH	2669	774	19.5	39.69	35	120	RT	2000	533			10.50	W	29 17												
1RR7	12.1/4	HTC	ATJIS	2x15 1x18	PE01BH	3164	495	15.0	33.00	40	120	RT	2000	553			10.80	W	25 10	4	4				E	1					
8RR	12.1/4	HTC	ATJIS	2x15 1x18	P08BF	3733	569	27.8	20.50	45	120	RT	2000	454			11.40	W	38 18	3	3				E	0					
9RR	12.1/4	HTC	ATJIS	2x16 1x18	P06BF	4105	372	26.8	13.91	42	120	RT	1950	500			11.80	W	36 19	4	4				E	0					
1RR6	12.1/4	HTC	ATJIS	3x18	P07BF	4374	269	23.0	11.70	45	120	RT	2100	518			12.50	W	36 24	3	3				E	0					
10RR	12.1/4	HTC	ATJIS	3x18	PZ02BI	4758	384	43.3	8.88	45	120	RT	2100	476			12.50	W	43 24	4	4				E	1					
11RR	12.1/4	HTC	ATJIS	3x18	W83PA	5075	317	35.3	8.99	42	120	RT	2100	500			12.50	W	38 23	0	0										
2RR11	12.1/4	HTC	ATJIS	3x18	W83PA	5084	9	1.0	9.00	38	120	RT	2100	500			12.60	W	45 24												

BREC0002



HUGHES BIT RECORD



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LOCATION / WELL NO.				SPUD DATE	BIT RECORD NO.		ROTARY TYPE ABBREVIATIONS					GEOLOGY ABBREVIATIONS					DULL GRADE REASON PULLED ABBREVIATIONS																
PM-LOBITOS LO7-15				28/04/93	932009		RT - ROTARY SH - STEERABLE BENT HOUSING SD - STEERABLE DTU SS - STEERABLE OFFSET STABILIZER PD - POSITIVE DISPLACEMENT MOTOR SB - STEERABLE PDM & BENT SUB TB - TURBINE					TER - TERTIARY EOC - EOCENE BAL - BALDER PAL - PALEOCENE AND - ANDREW MAU - MAUREEN EKO - EKOFISK UCR - UPPER CRETACEOUS PLM - PLENUS MARL TUR - TURONIAN					LCR - LWR. CRETACEOUS UJR - UPPER JURASSIC MJR - MID. JURASSIC LJR - LWR. JURASSIC TRI - TRIASSIC BUN - BUNTER PRM - PERMIAN ZCH - ZECHSTEIN CAR - CARBONIFEROUS DEV - DEVONIAN					BHA - BOTTOM HOLE ASSEMBLY DMF - DOWN HOLE MOTOR FAILURE DSF - DRILL STRING FAILURE DST - DRILL STEM TEST DTF - DOWN HOLE TOOL FAILURE LOG - RUN LOGS CM - CONDITION MUD CP - CORE POINT DP - DRILL PLUG FM - FORMATION CHANGE HP - HOLE PROBLEMS HR - HOURS ON BIT PP - PUMP PRESSURE PR - PENETRATION RATE RIG - RIG REPAIRS TD - TOTAL / CASING DEPTH TQ - TORQUE TW - TWIST OFF WC - WEATHER CONDITIONS											
OPERATOR				FIELD / AREA																													
PETROMAR S.A.				LOBITOS																													
CONTRACTOR / RIG NO.				COST / DAY (US \$)																													
PEPESA # 48				10300																													
NO.	SIZE	MAKE	TYPE	NOZZLES	SERIAL NO.	DEPTH OUT	DRILLED	HOURS	ROP	KLB	RPM	RT	PSI	GPM	VERT	GEOLOGY	MUD			IADC DULL GRADE													
				32ND IN		FEET											FT / HR	TONS	BARS	LPM	DEV	WT	TYPE	PV / YP	I	O	D	L	B	G	O	R	
12RR	8.1/2	HTC	ATJ1	3x16	P57BT	5155	71	6.5	10.92	30	80	RT	1000	356			11.00	W	20/10	4	4				E	0							
13	8.1/2	HTC	ATJ1	3x16	P73BH	5257	102	12.5	8.16	35	100	RT	1750	363			11.70	W	20/10	2	2				E	0							
14	8.1/2	HTC	ATJ05	3x13	T39ET	5703	446	25.5	17.49	40	90	RT	1700	363			11.80	W	19/11														
1RR14	8.1/2	HTC	ATJ05	3x13	T39ET	6265	562	49.5	11.35	42	90	RT	2000	356			12.10	W	25/14	1	1				E	0							
15	8.1/2	HTC	ATJ1	3x13	P70BH	6689	424	49.3	8.61	38	120	RT	1900	349			12.50	W	30/15	2	2				E	0							
16	8.1/2	HTC	ATJ11H	3x13	U55BV	7165	476	66.0	7.21	40	100	RT	1800	349			12.50	W	31/20	3	3				E	1							
17	8.1/2	HTC	ATJ11	3x13	G69ET	7362	197	28.3	6.97	38	90	RT	1800	349			12.80	W	35/25	6	6				F	1							
18	8.1/2	HTC	ATJ33	3x13	P49BP	7486	124	28.3	4.39	38	80	RT	1950	338			12.80	W	34/22	2	2				E	0							
19	8.1/2	HTC	ATJ22	3x13	M53BH	7557	71	16.8	4.24	40	90	RT	1950	339			12.80	W	34/19	1	1				E	0							
20	8.1/2	HTC	ATJ11H	3x13	U53EH	7557	0	0.0	0.00	0	0	RT	0	338			0.00		0/0	1	1				E	1							
1RR20	8.1/2	HTC	ATJ11H	3x13	U53EH	7557	0	0.0	0.00	0	0	RT	0	338			0.00		0/0														
1RR18	8.1/2	HTC	ATJ33	3x14	P49BP	7557	0	0.0	0.00	0	0	RT	0	338			0.00		0/0														
21RR	8.1/2	HTC	ATJ1S	3x14	P73BH	7557	0	0.0	0.00	0	0	RT	0	338			0.00		0/0														
22	8.1/2	HTC	ATJ11H	2x13 1x14	X88EV	8071	514	72.3	7.11	40	100	RT	1900	320			13.00	W	38/13	2	2				E	1							

BREC0002



PM-LOBITOS LO7-15



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SIZE	TYPE	SERIAL NUMBER	DEPTH OUT (feet)	DRILLED (feet)	HRS	R.O.P. (feet /hr)	W.O.B. (Klb)		RPM	VERT DEV (deg)	DULL GRADE	FORMATION
17	X3A	9317EK	410	60	2.0	30.00	10	10	60	60		
17	X3A	9317EK	464	54	1.8	30.86	15	15	80	80	22	E 1/16
17	X3A	N82BJ	1523	1059	41.3	25.67	35	35	80	80	44	E 1/16
17	X3A	P38BC	1523	0	0.0	0.00	0	0	0	0		
12.1/4	ATJIS	P61BH	1596	73	4.5	16.22	10	10	70	70	22	E 0/16
12.1/4	ATJIS	P22BJ	1769	173	17.5	9.89	10	10	0	0	22	E 0/16
12.1/4	ATJIS	P07BF	1895	126	16.8	7.52	10	10	0	0	22	E 0/16
12.1/4	ATJIS	PE01BH	2669	774	19.5	39.69	35	35	120	120		
12.1/4	ATJIS	PE01BH	3164	495	15.0	33.00	40	40	120	120	44	E 1/16
12.1/4	ATJIS	P08BF	3733	569	27.8	20.50	45	45	120	120	33	E 0/16
12.1/4	ATJIS	P06BF	4105	372	26.8	13.91	42	42	120	120	44	E 0/16
12.1/4	ATJIS	P07BF	4374	269	23.0	11.70	45	45	120	120	33	E 0/16
12.1/4	ATJIS	PZ02BI	4758	384	43.3	8.88	45	45	120	120	44	E 1/16
12.1/4	ATJIS	W83PA	5075	317	35.3	8.99	42	42	120	120	00	
12.1/4	ATJIS	W83PA	5084	9	1.0	9.00	38	38	120	120		



PM-LOBITOS LO7-15



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SIZE	TYPE	SERIAL NUMBER	DEPTH OUT (feet)	DRILLED (feet)	HRS	R.O.P. (feet /hr)	W.O.B. (Klb)		RPM	VERT DEV (deg)	DULL GRADE	FORMATION
8.1/2	ATJ1	P57BT	5155	71	6.5	10.92	30	30	80	80	44	E 0/16
8.1/2	ATJ1	P73BH	5257	102	12.5	8.16	35	35	100	100	22	E 0/16
8.1/2	ATJ05	T39ET	5703	446	25.5	17.49	40	40	90	90		
8.1/2	ATJ05	T39ET	6265	562	49.5	11.35	42	42	90	90	11	E 0/16
8.1/2	ATJ1	P70BH	6689	424	49.3	8.61	38	38	120	120	22	E 0/16
8.1/2	ATJ11H	U55BV	7165	476	66.0	7.21	40	40	100	100	33	E 1/16
8.1/2	ATJ11	G69ET	7362	197	28.3	6.97	38	38	90	90	66	F 1/16
8.1/2	ATJ33	P49BP	7486	124	28.3	4.39	38	38	80	80	22	E 0/16
8.1/2	ATJ22	M53BH	7557	71	16.8	4.24	40	40	90	90	11	E 0/16
8.1/2	ATJ11H	U53EH	7557	0	0.0	0.00	0	0	0	0	11	E 1/16
8.1/2	ATJ11H	U53EH	7557	0	0.0	0.00	0	0	0	0		
8.1/2	ATJ33	P49BP	7557	0	0.0	0.00	0	0	0	0		
8.1/2	ATJ1S	P73BH	7557	0	0.0	0.00	0	0	0	0		
8.1/2	ATJ11H	X88EV	8071	514	72.3	7.11	40	40	100	100	22	E 1/16

16/06/94

MARKETING REGION	COUNTRY	OPERATOR	CONTRACTOR	LOCATION	RIG COST \$ PER HOUR	TRIP TIME HRS/ 1000 feet								
LATIN AMERICA	PERU	PETROMAR	PEPESA	PM-LOBITOS L07-15	424	13/10	ASGHAR KHAN							
SEQ NO.	SIZE	TYPE	DEPTH OUT feet	feet DRILLED	HOURS TAKEN	ROP feet PER HR	ACCUM DRILLING HOURS	BIT COST					ACCUMULATIVE COSTS	
								BIT	DRLG.	TRIP	TOTAL	per ft.	TOTAL	per ft.
001	17	X3A	410	60	2.00	30.00	2.00	8620	848	226	9693	161.56	9693	161.56
002	17	X3A	464	54	1.75	30.86	3.75	0	742	256	998	18.48	10691	93.78
003	17	X3A	1523	1059	41.25	25.67	45.00	0	17488	839	18328	17.31	29019	24.74
004	17	X3A	1523	0	0.00	0.00	45.00	0	0	839	839	0.00	29858	25.45
005	12.1/4	ATJ1S	1596	73	4.50	16.22	49.50	0	1908	880	2787	38.18	32646	26.20
006	12.1/4	ATJ1S	1769	173	17.50	9.89	67.00	2748	7419	975	11142	64.40	43787	30.86
007	12.1/4	ATJ1S	1895	126	16.75	7.52	83.75	2748	7101	1044	10893	86.45	54681	35.39
008	12.1/4	ATJ1S	2669	774	19.50	39.69	103.25	0	8267	1471	9738	12.58	64419	27.78
009	12.1/4	ATJ1S	3164	495	15.00	33.00	118.25	0	6359	1744	8103	16.37	72522	25.77
010	12.1/4	ATJ1S	3733	569	27.75	20.50	146.00	0	11765	2057	13822	24.29	86344	25.52
011	12.1/4	ATJ1S	4105	372	26.75	13.91	172.75	0	11341	2262	13603	36.57	99948	26.62
012	12.1/4	ATJ1S	4374	269	23.00	11.70	195.75	0	9751	2411	12162	45.21	112109	27.86
013	12.1/4	ATJ1S	4758	384	43.25	8.88	239.00	0	18336	2622	20959	54.58	133068	30.19
014	12.1/4	ATJ1S	5075	317	35.25	8.99	274.25	0	14945	2797	17742	55.97	150810	31.92
015	12.1/4	ATJ1S	5084	9	1.00	9.00	275.25	0	424	2802	3226	358.44	154035	32.54
016	8.1/2	ATJ1	5155	71	6.50	10.92	281.75	0	2756	2841	5597	78.83	159632	33.22
017	8.1/2	ATJ1	5257	102	12.50	8.16	294.25	1521	5299	2897	9718	95.27	169350	34.51
018	8.1/2	ATJ05	5703	446	25.50	17.49	319.75	4692	10811	3143	18646	41.81	187996	35.12
019	8.1/2	ATJ05	6265	562	49.50	11.35	369.25	0	20986	3453	24439	43.49	212435	35.91
020	8.1/2	ATJ1	6689	424	49.25	8.61	418.50	1521	20880	3687	26088	61.53	238523	37.63
021	8.1/2	ATJ11H	7165	476	66.00	7.21	484.50	4692	27981	3949	36622	76.94	275145	40.37
022	8.1/2	ATJ11	7362	197	28.25	6.97	512.75	4692	11977	4058	20726	105.21	295871	42.20
023	8.1/2	ATJ33	7486	124	28.25	4.39	541.00	4692	11977	4126	20795	167.70	316666	44.38
024	8.1/2	ATJ22	7557	71	16.75	4.24	557.75	4692	7101	4165	15958	224.76	332624	46.15
025	8.1/2	ATJ11H	7557	0	0.00	0.00	557.75	4692	0	4165	8857	0.00	341481	47.38

16/06/94

MARKETING REGION		COUNTRY		OPERATOR		CONTRACTOR		LOCATION		RIG COST \$ PER HOUR		TRIP TIME HRS/ 1000 feet			
LATIN AMERICA		PERU		PETROMAR		PEPESA		PM-LOBITOS L07-15		424		13/10		ASGHAR KHAN	
SEQ NO.	SIZE	TYPE	DEPTH OUT feet	feet DRILLED	HOURS TAKEN	ROP feet PER HR	ACCUM DRILLING HOURS	BIT COST					ACCUMULATIVE COSTS		
								BIT	DRLG.	TRIP	TOTAL	per ft.	TOTAL	per ft.	
026	8.1/2	ATJ11H	7557	0	0.00	0.00	557.75	0	0	4165	4165	0.00	345646	47.96	
027	8.1/2	ATJ33	7557	0	0.00	0.00	557.75	0	0	4165	4165	0.00	349811	48.54	
028	8.1/2	ATJ1S	7557	0	0.00	0.00	557.75	0	0	4165	4165	0.00	353976	49.12	
029	8.1/2	ATJ11H	8071	514	72.25	7.11	630.00	4692	30631	4448	39771	77.38	393748	51.00	

GRAFICOS COMPARATIVOS

PROGRAMA RECOMENDADO VS. POZOS REFERENCIALES

- * Profundidad vs. Costo Total Acumulativo
- * Profundidad vs. Rate de Penetración
- * Profundidad vs. Días Acumulados

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HUGHES TOOL COMPANY
Version 4.00

BIT PERFORMANCE
D A T A B A S E
GRAPHS DATA DETAILS

DATE :- 17/06/94
TIME :- 17/06/94

PROGRAMMED WELL	PTP-PROG. LO6-19
OFFSET ONE	PM-LOBITOS LO6-20
OFFSET TWO	PM-LOBITOS LO7-14
OFFSET THREE	PM-LOBITOS LO7-15
OFFSET FOUR	
OFFSET FIVE	
OFFSET SIX	
ACTUAL WELL	
RIG COST PER DAY	10175.00
TRIP TIME	13/10
CURRENCY is in	DOLLARS
UNITS OF MEASURE IS IN	FEET
NAME OF THE DATA FILE IS	PTPLO619.GPH



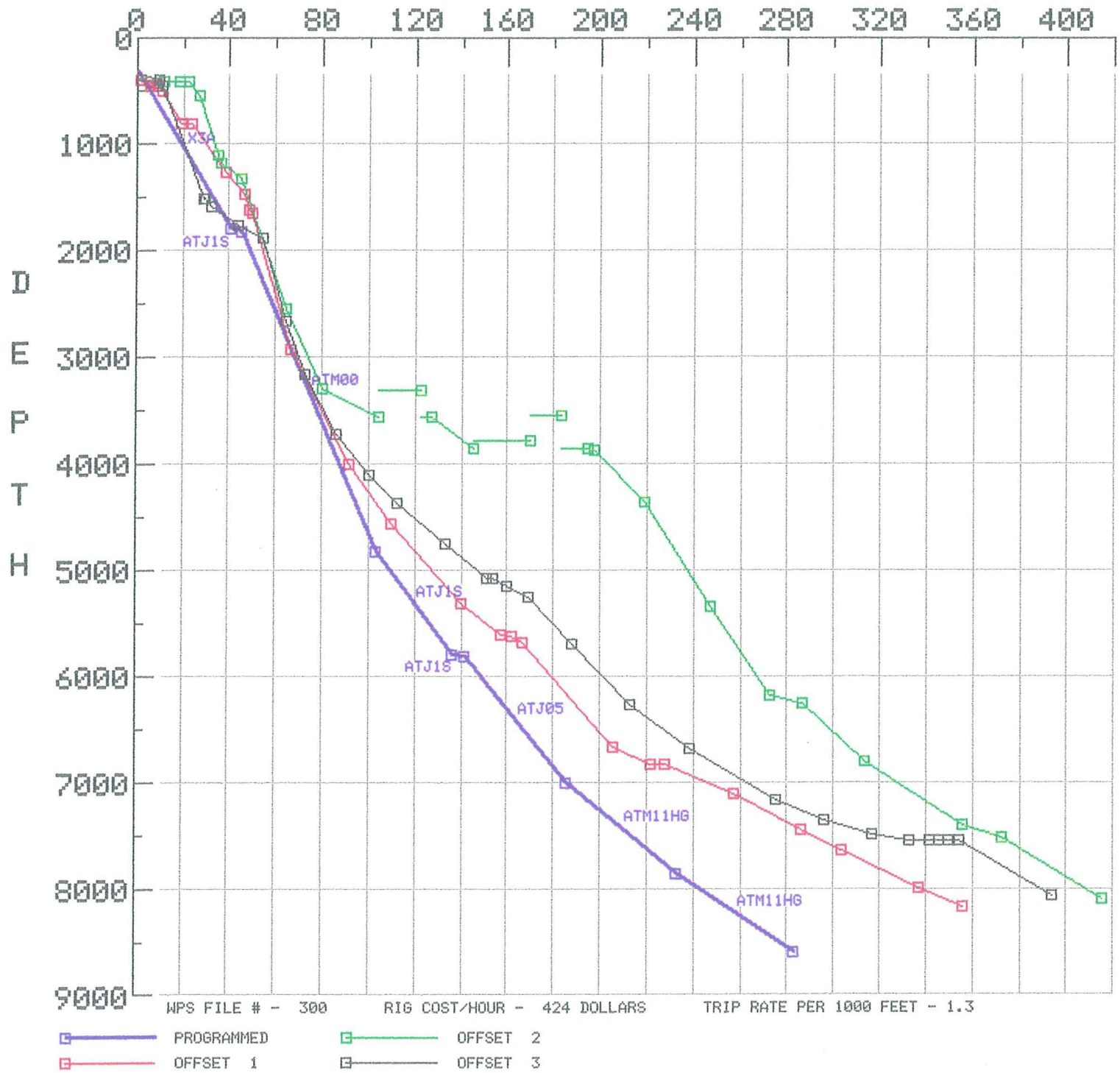
PTP-PROG. L06-19

PROFUNDIDAD VS. COSTO TOTAL ACUMULATIVO

HUGHES TOOL COMPANY

A Baker Hughes company

ACCUM. TOTAL COST (DOLLARS $\times 1,000$)





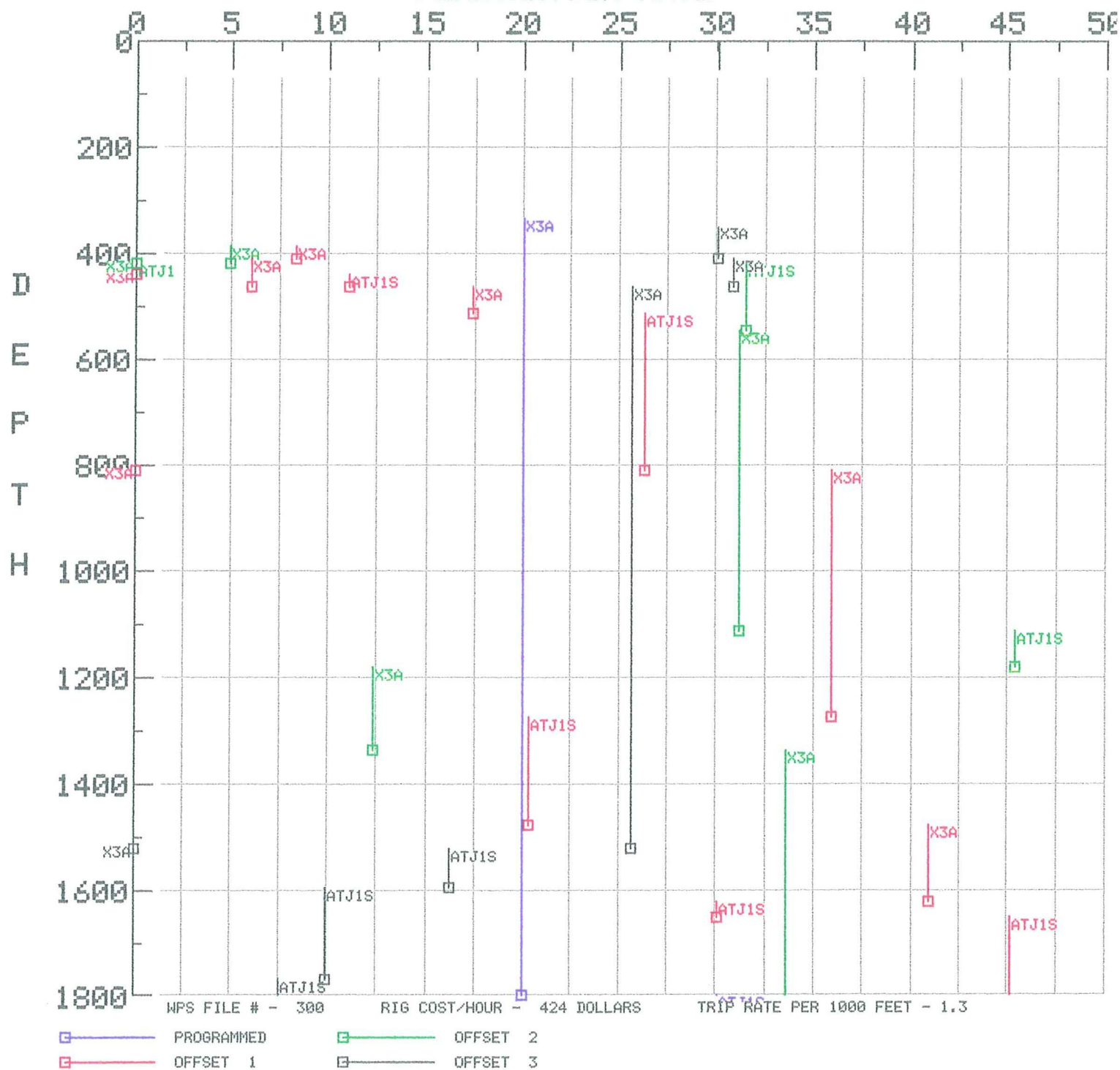
PTP-PROG. LOBITOS L06-19

PROFUNDIDAD VS. RATE DE PENETRACION
SECCION 17"

HUGHES TOOL COMPANY

A Baker Hughes company

PENETRATION RATE



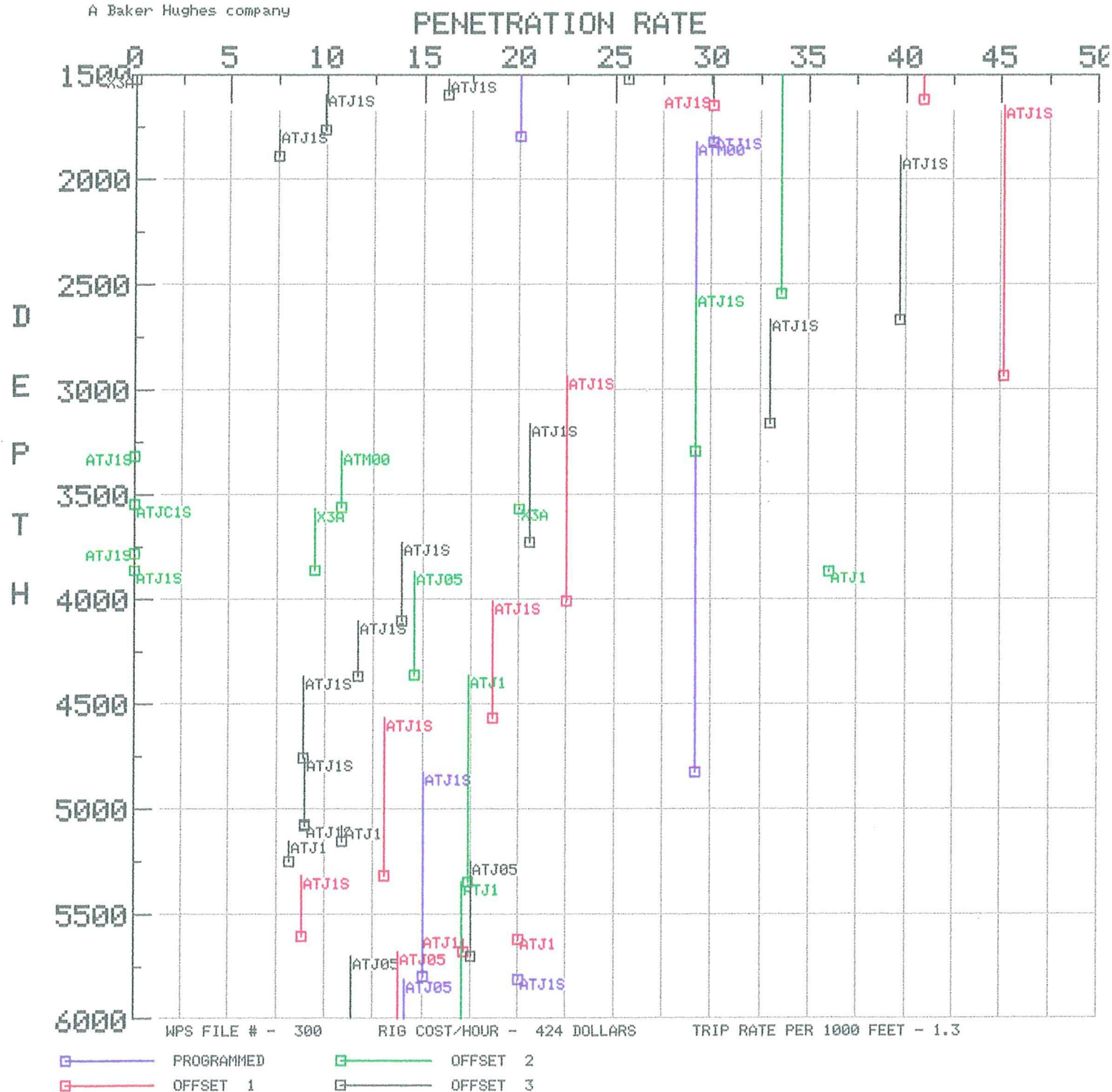


PTP-PROG. LOBITOS L06-19

PROFUNDIDAD VS. RATE DE PENETRACION
SECCION 12 1/4"

HUGHES TOOL COMPANY

A Baker Hughes company





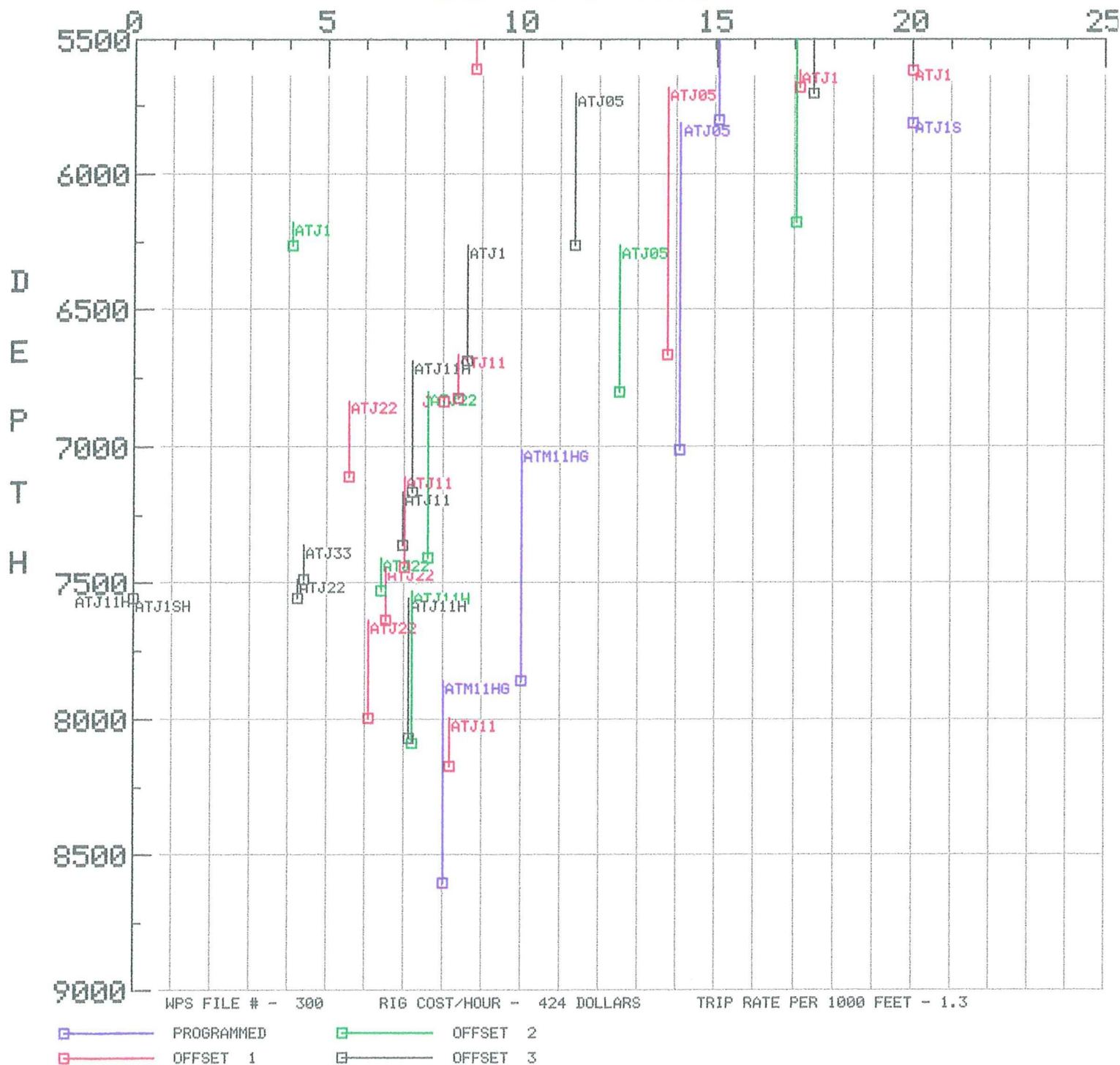
PTP-PROG. LOBITOS L06-19

PROFUNDIDAD VS. RATE DE PENETRACION
SECCION 8 1/2"

HUGHES TOOL COMPANY

A Baker Hughes company

PENETRATION RATE





PTP-PROG. L06-19

PROFUNDIDAD VS. DIAS ACUMULADOS

HUGHES TOOL COMPANY

A Baker Hughes company

ACCUMULATED DAYS

