

Petrotech Peruana S.A.

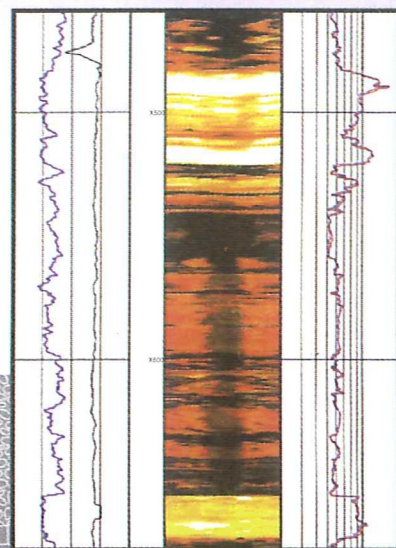
LO6-25 Sidetrack

GEOSCIENCES
Central File

Oct. 24, 2004

DATE

End of Well Report



Schlumberger

Anadrill



Petrotech Peruana S.A.

LO6-25 Sidetrack

GEOSCIENCES
Central File

Oct. 24, 2001

DATE

End of Well Report

PETRO-TECH PERUANA S.A.
DRILLING & WORKOVER DPT
RECEIVED

- 7 SET 2001

TIME

SIGNATURE

PETRO-TECH PERUANA S.A.
GERENCIA GEOLOGIA
24 SET 2001
Firma:
RECIBIDO



Index

SECTION	DESCRIPTION	PAGE
1.0	GENERAL	2
1.1	Coordinates	3
1.2	Rig Data	4
1.3	Casing Data	4
1.4	Well Plan Description	4
1.5	Geological Information-Formation Tops	5
1.6	Anadrill Personnel	5
1.7	Office Support	5
2.0	DIRECTIONAL DRILLING REPORTS	6
2.1	Survey File & Final Plot	7
2.2	BHA Comments	8
3.0	CONCLUSIONS & RECOMENDATIONS	9
Attached A	Motor Run Reports	12
Attached B	Daily Activity Report	13
Attached C	Slide Sheet Control	14

1. GENERAL DATA

WELL	LO6-25 SIDETRACK
PLATFORM	LO6
RIG	PEPESA 48

1.1 Coordinates

Magnetic Parameters

Model:	BGGM 2000	FS: 28866 nT
Dip: 14.831°	Magnetic Declination:	1.494° @ July 2001

Surface Coordinates

UTM:	UTM – Zone 17S, WGS84	
True Coordinates:	Lat. S: 4° 26' 42.813"	
	Long. W: 81° 22' 8.781"	
UTM Coordinates:	N: 9 508 648.86 mts.	E: 459 050.2 mts.
TVD reference:	50 Ft above MSL	

Target Coordinates

Target Formation Top	Basal Salina
Programmed TVD (Rev # 4)	7457 ft TVD
UTM Coordinates (Rev # 4):	N: 9 507 544 mts. E: 458 075 mts.

1.2 Rig Data

<u>Drawworks:</u>	OIME 750
<u>Traveling Block:</u>	IDECO Shorty / 265 Ton
<u>Mud Pump:</u>	
# 1	Ideco T-1000
# 2	Ideco T-1000

1.3 Casing Data

Casing 13 3/8" K-55 54.5 #/ft	2198 ft MD
Casing 9 5/8" N-80 43.5 #/ft	5980 ft MD

1.4 Well Plan Description

This is an sidetrack well from old LO6-25 abandoned w/ fish whose Main Targets is Basal Salina Reservoir. Secondary targets are Rio Bravo & Mogollon.

1.5 Geological information (in ft from RKB)

	TVD (proposal)	TVD (real)
Chacra	2250	
Rio Bravo	3150	3302
Palegreda	4450	4614
Mogollon	4950	5311
San Cristobal	5850	6134
Basal Salina	6950	7457
Balcones	7650	

1.6 Anadrill personnel involved

Ing. R. Torres	Leader Directional Drilling Engineer
Ing. O. Donoso	Leader Directional Drilling Engineer
Ing. L. Tenorio	Directional Drilling Engineer Trainee
Ing. G. Soto	MWD
Ing. P. Mejia	MWD

1.7 Office Suport

Ing. A. Martin	Perú FSM
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2. DIRECTIONAL DRILLING REPORTS

2.1. FINAL PLOT & SURVEY FILES

Proposed Well Profile

Report Date: July 16, 2001 Client: Petro-Tech Peruana S.A. Field: Lobitos Structure / Slot: Platform LO6 / Slot #25 Well: Well LO6-25 Borehole: Borehole LO6-25 Sidetrack UWI / API#: Survey Name / Date: LO6-25 Sidetrack Rev 4 / July 16, 2001 Tort / AHD / DDI / ERD ratio: 118.364° / 5031.42 ft / 5.865 / 0.633 Grid Coordinate System: UTM Zone 17S - WGS84, Meters Location Lat / Long: S 4 26 42.813, W 81 22 8.781 Location Grid N/E Y/X: N 9508648.860 m, E 459050.200 m Grid Convergence Angle: +0.02860833° Grid Scale Factor: 0.99962076	Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 221.930° Vertical Section Origin: N 0.000 ft, E 0.000 ft TVD Reference Datum: RKB TVD Reference Elevation: 50.0 ft relative to MSL Sea Bed / Ground Level Elevation: 0.000 ft relative to MSL Magnetic Declination: 1.494° Total Field Strength: 28865.815 nT Magnetic Dip: 14.831° Declination Date: July 13, 2001 Magnetic Declination Model: BGGM 2000 North Reference: True North Total Corr Mag North -> True North: +1.494° Local Coordinates Referenced To: Well Head
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Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N/-S (ft)	E/-W (ft)	Closure (ft)	at Azim (°)	DLS (°/100ft)	TF (°)
Tie-In(Start Sidetrack)	6000.00	28.37	223.86	4411.74	3681.48	-2633.43	-2577.45	3684.86	224.38	0.00	-147.8
	6100.00	26.29	220.86	4500.57	3727.38	-2667.31	-2608.41	3730.73	224.36	2.49	-145.1
	6200.00	24.29	217.40	4590.99	3770.03	-2700.40	-2635.40	3773.26	224.30	2.49	-142.0
End of Sidetrack	6300.00	22.37	213.36	4682.68	3809.57	-2733.68	-2657.52	3812.54	224.19	2.49	-159.0
	6400.00	22.25	213.24	4775.19	3847.11	-2765.41	-2678.37	3849.83	224.08	0.13	-158.9
	6500.00	22.13	213.12	4867.78	3884.44	-2797.03	-2699.04	3886.92	223.98	0.13	-158.8
	6600.00	22.02	213.00	4960.45	3921.57	-2828.52	-2719.54	3923.83	223.87	0.13	-158.7
	6700.00	21.90	212.88	5053.20	3958.51	-2859.91	-2739.88	3960.55	223.77	0.13	-158.5
	6800.00	21.78	212.75	5146.02	3995.24	-2891.17	-2760.03	3997.08	223.67	0.13	-158.4
	6900.00	21.66	212.62	5238.92	4031.77	-2922.32	-2780.02	4033.42	223.57	0.13	-158.3

	7000.00	21.55	212.50	5331.89	4068.10	-2953.35	-2799.84	4069.57	223.47	0.13	-158.2
	7100.00	21.43	212.37	5424.94	4104.23	-2984.27	-2819.48	4105.53	223.37	0.13	-158.1
	7200.00	21.31	212.24	5518.07	4140.15	-3015.07	-2838.96	4141.30	223.28	0.13	-158.0
	7300.00	21.19	212.11	5611.27	4175.87	-3045.75	-2858.26	4176.87	223.18	0.13	-157.8
	7400.00	21.08	211.97	5704.54	4211.40	-3076.32	-2877.39	4212.25	223.09	0.13	-157.7
	7500.00	20.96	211.84	5797.89	4246.71	-3106.76	-2896.35	4247.45	222.99	0.13	-157.6
	7600.00	20.84	211.70	5891.31	4281.83	-3137.09	-2915.13	4282.44	222.90	0.13	-157.5
	7700.00	20.73	211.57	5984.80	4316.74	-3167.30	-2933.74	4317.25	222.81	0.13	-157.3
	7800.00	20.61	211.43	6078.37	4351.46	-3197.40	-2952.18	4351.87	222.72	0.13	-157.2
	7900.00	20.49	211.29	6172.00	4385.96	-3227.37	-2970.45	4386.29	222.63	0.13	-157.1
	8000.00	20.38	211.15	6265.71	4420.27	-3257.23	-2988.55	4420.51	222.54	0.13	-156.9
	8100.00	20.26	211.00	6359.49	4454.37	-3286.97	-3006.47	4454.55	222.45	0.13	-156.8
	8200.00	20.14	210.86	6453.34	4488.27	-3316.59	-3024.22	4488.39	222.36	0.13	-156.7
	8300.00	20.03	210.71	6547.25	4521.96	-3346.09	-3041.79	4522.04	222.27	0.13	-156.5
	8400.00	19.91	210.56	6641.24	4555.45	-3375.48	-3059.20	4555.49	222.19	0.13	-156.4
	8500.00	19.79	210.41	6735.30	4588.73	-3404.74	-3076.43	4588.75	222.10	0.13	-156.2
	8600.00	19.68	210.26	6829.42	4621.82	-3433.89	-3093.49	4621.82	222.01	0.13	-156.1
	8700.00	19.56	210.11	6923.62	4654.69	-3462.91	-3110.37	4654.69	221.93	0.13	-156.0
	8800.00	19.45	209.95	7017.88	4687.37	-3491.82	-3127.08	4687.37	221.85	0.13	-155.8
	8900.00	19.33	209.80	7112.21	4719.83	-3520.61	-3143.62	4719.85	221.76	0.13	-155.7
	9000.00	19.22	209.64	7206.60	4752.10	-3549.27	-3159.98	4752.14	221.68	0.13	-155.5
	9100.00	19.10	209.48	7301.06	4784.15	-3577.82	-3176.17	4784.23	221.60	0.13	-155.4
	9200.00	18.99	209.32	7395.59	4816.01	-3606.25	-3192.19	4816.13	221.51	0.13	-155.2
Basal Salina Sidetrack	9264.93	18.91	209.21	7457.00	4836.58	-3624.65	-3202.50	4836.74	221.46	0.13	0.0
TD.	9781.83	18.91	209.21	7946.00	5000.01	-3770.88	-3284.26	5000.59	221.05	0.00	0.0

Survey Error Model: Wolff & deWardt 1.0000 sigma

Surveying Programme:

MD From (ft)

6000.00

MD To (ft) EOU Freq Survey Tool Type

9781.83 Act-Stns Anadrill MWD

Survey Report - Standard

Report Date: 07-Sep-2001	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: Petro-Tech Peruana S.A.	Vertical Section Azimuth: 221.930°
Field: Lobitos	Vertical Section Origin: N 0.000 ft, E 0.000 ft
Structure / Slot: Platform LO6 (WGS84) / Slot #25	TVD Reference Datum: RKB
Well: Well LO6-25	TVD Reference Elevation: 50.000 ft relative to MSL
Borehole: Borehole LO6-25 Sidetrack	Sea Bed / Ground Level Elevation: 0.000 ft relative to MSL
UWI / API#:	Magnetic Declination: +1.493°
Survey Name / Date: MWD Surveys LO6-25 Sidetrack / July 16, 2001	Total Field Strength: 28865.525 nT
Tort / AHD / DDI / ERD ratio: 140.030° / 4990.31 ft / 5.934 / 0.625	Magnetic Dip: 14.831°
Grid Coordinate System: UTM Zone 17S - WGS84, Meters	Declination Date: July 15, 2001
Location Lat / Long: S 4 26 42.813, W 81 22 8.781	Magnetic Declination Model: BGGM 2000
Location Grid N/E Y/X: N 9508648.860 m, E 459050.200 m	North Reference: True North
Grid Convergence Angle: +0.02860833°	Total Corr Mag North -> True North: +1.493°
Grid Scale Factor: 0.99962076	Local Coordinates Referenced To: Well Head

Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N/-S (ft)	E/-W (ft)	Closure (ft)	at Azim (°)	DLS (°/100ft)	TF (°)
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		145.7 M
18" cond set @ 565'	540.00	1.10	145.70	539.97	1.23	-4.28	2.92	5.18	145.70	0.20	-111.3 M
KOP 576'	601.00	2.30	248.70	600.95	2.47	-5.21	2.11	5.62	157.95	4.53	-116.6 M
	632.00	3.30	243.40	631.91	3.85	-5.84	0.73	5.88	172.84	3.33	-133.2 M
	694.00	6.90	226.80	693.66	9.23	-9.19	-3.58	9.86	201.29	6.22	-15.1 G
	757.00	11.20	220.90	755.86	19.12	-16.40	-10.35	19.39	212.24	6.97	-12.4 G
	820.00	15.50	217.40	817.15	33.63	-27.72	-19.47	33.88	215.08	6.94	-3.2 G
	883.00	19.80	216.70	877.17	52.66	-42.97	-30.97	52.97	215.78	6.83	1.9 G
	944.00	23.50	217.00	933.85	75.07	-60.97	-44.46	75.46	216.10	6.07	-1.4 G
	1007.00	27.20	216.80	990.78	101.94	-82.54	-60.65	102.43	216.31	5.87	31.8 G
	1070.00	29.80	220.00	1046.14	131.93	-106.07	-79.35	132.46	216.80	4.78	25.1 G
	1133.00	33.10	222.80	1099.88	164.79	-130.69	-101.10	165.23	217.73	5.73	15.2 G
	1196.00	35.00	223.70	1152.08	200.05	-156.38	-125.28	200.37	218.70	3.12	10.9 G
	1258.00	37.20	224.40	1202.17	236.55	-182.63	-150.68	236.76	219.52	3.61	30.2 G
	1321.00	39.40	226.40	1251.61	275.52	-210.03	-178.49	275.62	220.36	4.01	-39.7 G
	1385.00	41.00	224.40	1300.49	316.75	-239.04	-207.89	316.79	221.01	3.21	-14.1 G
	1448.00	42.90	223.70	1347.35	358.83	-269.31	-237.16	358.85	221.37	3.11	-16.1 G
	1479.00	44.60	223.00	1369.74	380.26	-284.90	-251.88	380.27	221.48	5.70	-4.4 G
	1510.00	46.50	222.80	1391.45	402.39	-301.11	-266.94	402.40	221.56	6.15	-23.9 G
	1573.00	49.80	220.90	1433.48	449.30	-336.07	-298.23	449.31	221.59	5.70	-15.4 G
	1604.00	51.80	220.20	1453.07	473.32	-354.32	-313.84	473.33	221.53	6.68	39.3 G
	1721.00	54.10	222.50	1523.56	566.68	-424.39	-375.54	566.69	221.51	2.51	172.3 G
	1815.00	51.20	223.00	1580.58	641.39	-479.26	-426.26	641.39	221.65	3.11	160.4 G
	1876.00	49.70	223.70	1619.43	688.40	-513.46	-458.54	688.41	221.77	2.61	0.0 G
	2002.00	51.70	223.70	1699.23	785.86	-583.95	-525.90	785.86	222.01	1.59	-76.5 G
	2096.00	52.20	221.20	1757.17	859.87	-638.57	-575.85	859.87	222.04	2.16	109.8 G
13 3/8" shoe @ 2198'	2217.00	51.00	225.80	1832.35	954.61	-707.34	-641.07	954.62	222.19	3.14	-6.5 G
	2279.00	52.40	225.60	1870.78	1003.16	-741.32	-675.89	1003.19	222.36	2.27	-13.4 G
	2342.00	54.10	225.10	1908.47	1053.55	-776.80	-711.80	1053.60	222.50	2.77	0.0 G

	2373.00	54.80	225.10	1926.49	1078.73	-794.60	-729.67	1078.80	222.56	2.26	21.2 G
	2430.00	56.30	225.80	1958.74	1125.64	-827.57	-763.16	1125.74	222.68	2.82	180.0 G
	2587.00	55.80	225.80	2046.42	1255.58	-918.37	-856.53	1255.80	223.00	0.32	155.6 G
	2743.00	54.90	226.30	2135.11	1383.58	-1007.43	-948.92	1383.97	223.29	0.63	-136.1 G
	2898.00	53.90	225.10	2225.34	1509.33	-1095.45	-1039.12	1509.89	223.49	0.90	180.0 G
	3055.00	53.30	225.10	2318.51	1635.51	-1184.65	-1128.63	1636.21	223.61	0.38	180.0 G
	3211.00	52.30	225.10	2412.83	1759.57	-1272.36	-1216.65	1760.43	223.72	0.64	171.1 G
	3369.00	51.30	225.30	2510.53	1883.54	-1359.85	-1304.75	1884.56	223.82	0.64	-172.7 G
	3526.00	50.10	225.10	2609.97	2004.83	-1445.45	-1390.96	2006.01	223.90	0.77	180.0 G
	3683.00	49.30	225.10	2711.52	2124.38	-1529.97	-1475.77	2125.73	223.97	0.51	167.9 G
	3840.00	48.60	225.30	2814.62	2242.59	-1613.40	-1559.78	2244.10	224.03	0.46	-146.5 G
	3998.00	47.60	224.40	2920.14	2360.03	-1696.77	-1642.72	2361.68	224.07	0.76	180.0 G
	4154.00	46.50	224.40	3026.43	2474.11	-1778.35	-1722.61	2475.86	224.09	0.71	180.0 G
	4342.00	46.10	224.40	3156.31	2609.90	-1875.46	-1817.71	2611.78	224.10	0.21	116.9 G
	4436.00	45.60	225.80	3221.79	2677.24	-1923.06	-1865.48	2679.21	224.13	1.19	140.6 G
	4562.00	45.00	226.50	3310.42	2766.56	-1985.11	-1930.06	2768.72	224.19	0.62	-129.3 G
	4657.00	44.60	225.80	3377.83	2833.31	-2031.48	-1978.34	2835.62	224.24	0.67	180.0 G
	4782.00	44.00	225.80	3467.29	2920.42	-2092.35	-2040.93	2922.89	224.29	0.48	-145.6 G
	4940.00	43.30	225.10	3581.61	3029.27	-2168.85	-2118.65	3031.93	224.33	0.54	-141.7 G
	5128.00	42.70	224.40	3719.11	3157.33	-2259.90	-2208.91	3160.14	224.35	0.41	113.1 G
	5316.00	42.50	225.10	3857.49	3284.42	-2350.28	-2298.50	3287.38	224.36	0.27	-169.8 G
	5477.00	40.00	224.40	3978.53	3390.44	-2425.65	-2373.24	3393.53	224.37	1.58	180.0 G
	5508.00	39.40	224.40	4002.38	3410.22	-2439.79	-2387.09	3413.33	224.37	1.94	180.0 G
	5602.00	37.20	224.40	4076.15	3468.42	-2481.42	-2427.85	3471.58	224.37	2.34	180.0 G
	5696.00	34.50	224.40	4152.33	3523.42	-2520.75	-2466.37	3526.63	224.38	2.87	169.4 G
Tie-In	5790.00	32.50	225.10	4230.71	3575.24	-2557.60	-2502.88	3578.51	224.38	2.17	-159.5 G
	5992.00	27.40	220.90	4405.70	3675.97	-2631.09	-2571.81	3679.25	224.35	2.73	-149.7 G
	6058.00	24.42	216.60	4465.07	3704.75	-2653.53	-2589.89	3707.93	224.30	5.34	-132.3 G
	6118.00	23.60	214.30	4519.87	3729.00	-2673.41	-2604.06	3732.05	224.25	2.07	-90.0 G
	6180.00	23.60	210.80	4576.69	3753.48	-2694.32	-2617.41	3756.35	224.17	2.26	7.7 G
	6244.00	23.90	210.90	4635.27	3778.78	-2716.45	-2630.62	3781.44	224.08	0.47	157.4 G
	6307.00	22.70	212.20	4693.13	3803.29	-2737.69	-2643.66	3805.77	224.00	2.07	106.4 G
	6369.00	22.40	215.10	4750.40	3826.81	-2757.48	-2656.82	3829.15	223.93	1.86	79.2 G
	6433.00	22.50	216.40	4809.55	3851.10	-2777.31	-2671.10	3853.34	223.88	0.79	-106.6 G
	6527.00	22.40	215.50	4896.42	3886.80	-2806.37	-2692.18	3888.90	223.81	0.38	131.4 G
	6590.00	22.30	215.80	4954.69	3910.62	-2825.84	-2706.14	3912.61	223.76	0.24	-149.4 G
	6652.00	21.80	215.00	5012.15	3933.74	-2844.81	-2719.62	3935.64	223.71	0.94	-109.0 G
	6715.00	21.70	214.20	5070.67	3956.90	-2864.02	-2732.88	3958.69	223.66	0.50	56.2 G
	6776.00	21.80	214.60	5127.33	3979.30	-2882.67	-2745.65	3981.01	223.61	0.29	106.8 G
	6839.00	21.60	216.50	5185.86	4002.45	-2901.63	-2759.19	4004.07	223.56	1.16	-151.3 G
	6933.00	21.40	216.20	5273.32	4036.74	-2929.37	-2779.61	4038.25	223.50	0.24	-114.4 G
	7026.00	21.10	214.30	5360.00	4070.21	-2956.89	-2799.07	4071.61	223.43	0.81	136.1 G
	7122.00	20.70	215.40	5449.68	4104.20	-2985.00	-2818.63	4105.47	223.36	0.58	59.6 G
	7182.00	21.00	216.80	5505.75	4125.44	-3002.25	-2831.21	4126.66	223.32	0.97	-25.9 G
	7245.00	21.30	216.40	5564.51	4148.07	-3020.50	-2844.77	4149.23	223.28	0.53	-90.0 G
	7308.00	21.30	215.90	5623.21	4170.84	-3038.98	-2858.27	4171.94	223.24	0.29	180.0 G
	7405.00	21.10	215.90	5713.64	4205.72	-3067.39	-2878.83	4206.73	223.18	0.21	-20.0 G
	7497.00	21.30	215.70	5799.42	4238.80	-3094.38	-2898.30	4239.73	223.13	0.23	-133.4 G
	7592.00	20.90	214.50	5888.05	4272.76	-3122.35	-2917.96	4273.59	223.06	0.62	176.7 G

	7686.00	20.30	214.60	5976.04	4305.56	-3149.59	-2936.72	4306.30	223.00	0.64	-175.1 G
	7749.00	19.90	214.50	6035.20	4327.03	-3167.43	-2949.00	4327.72	222.95	0.64	-149.1 G
	7857.00	19.51	213.80	6136.88	4363.11	-3197.56	-2969.44	4363.71	222.88	0.42	0.0 G
	7944.00	19.51	213.80	6218.88	4391.87	-3221.71	-2985.60	4392.40	222.82	0.00	-84.6 G
	8039.00	19.64	210.60	6308.39	4423.23	-3248.63	-3002.56	4423.68	222.75	1.14	-107.8 G
	8196.00	19.40	208.20	6456.37	4474.43	-3294.32	-3028.31	4474.73	222.59	0.53	-114.8 G
	8351.00	19.00	205.40	6602.75	4523.63	-3339.80	-3051.30	4523.79	222.42	0.65	-116.0 G
	8509.00	18.40	201.20	6752.42	4571.61	-3386.29	-3071.35	4571.66	222.21	0.93	-103.4 G
	8603.00	18.30	199.80	6841.64	4599.16	-3414.00	-3081.71	4599.17	222.07	0.48	-103.1 G
	8691.00	18.21	198.50	6925.21	4624.57	-3440.04	-3090.76	4624.57	221.94	0.47	50.0 G
Start Wireline Surveys	8700.00	18.30	198.84	6933.76	4627.16	-3442.71	-3091.66	4627.16	221.92	1.55	-103.8 G
	8730.00	18.24	198.04	6962.24	4635.79	-3451.63	-3094.63	4635.79	221.88	0.86	-57.7 G
	8760.00	18.34	197.54	6990.73	4644.38	-3460.60	-3097.51	4644.38	221.83	0.62	-158.0 G
	8790.00	18.17	197.32	7019.22	4652.93	-3469.56	-3100.32	4652.94	221.78	0.61	-50.8 G
	8820.00	18.33	196.70	7047.71	4661.45	-3478.55	-3103.07	4661.48	221.73	0.84	-75.9 G
	8850.00	18.44	195.37	7076.18	4669.96	-3487.64	-3105.69	4670.00	221.68	1.45	-64.2 G
	8880.00	18.65	194.04	7104.62	4678.44	-3496.87	-3108.11	4678.51	221.63	1.57	-83.0 G
	8910.00	18.70	192.86	7133.04	4686.89	-3506.21	-3110.34	4686.98	221.58	1.27	-97.9 G
	8940.00	18.66	191.90	7161.46	4695.25	-3515.60	-3112.40	4695.37	221.52	1.03	-120.6 G
	8970.00	18.49	190.98	7189.90	4703.48	-3524.96	-3114.30	4703.64	221.46	1.13	-153.4 G
	9000.00	18.10	190.35	7218.38	4711.53	-3534.22	-3116.04	4711.73	221.40	1.46	-47.7 G
	9030.00	18.24	189.86	7246.89	4719.48	-3543.43	-3117.68	4719.73	221.34	0.69	-130.1 G
	9060.00	18.12	189.40	7275.39	4727.39	-3552.66	-3119.25	4727.69	221.28	0.62	-62.8 G
	9090.00	18.17	189.09	7303.90	4735.25	-3561.88	-3120.75	4735.61	221.22	0.36	-44.0 G
	9120.00	18.37	188.48	7332.38	4743.13	-3571.17	-3122.18	4743.55	221.16	0.92	-57.3 G
	9150.00	18.51	187.80	7360.84	4751.01	-3580.57	-3123.53	4751.51	221.10	0.86	-148.6 G
	9180.00	18.33	187.45	7389.31	4758.84	-3589.96	-3124.79	4759.42	221.04	0.70	62.9 G
	9210.00	18.81	190.24	7417.75	4766.85	-3599.40	-3126.26	4767.51	220.98	3.37	69.1 G
	9240.00	19.02	191.87	7446.13	4775.19	-3608.94	-3128.12	4775.94	220.92	1.90	165.6 G
	9270.00	18.77	192.07	7474.51	4783.61	-3618.45	-3130.14	4784.44	220.86	0.86	179.3 G
	9300.00	18.52	192.08	7502.93	4791.93	-3627.82	-3132.14	4792.85	220.81	0.83	145.2 G
	9330.00	18.18	192.84	7531.41	4800.15	-3637.05	-3134.18	4801.17	220.75	1.39	25.7 G
	9360.00	18.39	193.16	7559.89	4808.39	-3646.22	-3136.30	4809.50	220.70	0.78	121.5 G
	9390.00	18.30	193.63	7588.37	4816.68	-3655.40	-3138.48	4817.89	220.65	0.58	180.0 G
	9420.00	17.52	193.63	7616.92	4824.81	-3664.37	-3140.66	4826.11	220.60	2.60	153.3 G
	9450.00	17.29	194.02	7645.54	4832.72	-3673.08	-3142.80	4834.12	220.55	0.86	-171.5 G
Finish Wireline Surveys	9480.00	16.77	193.75	7674.23	4840.48	-3681.61	-3144.91	4841.98	220.50	1.75	-141.9 G
T.D & Bottom Projection	9803.00	16.50	193.00	7983.71	4921.70	-3771.57	-3166.31	4924.45	220.01	0.11	---

Survey Error Model: Wolff & deWardt 1.0000 sigma

Surveying Programme:

MD From (ft)

0.00

MD To (ft) EOU Freq Survey Tool Type

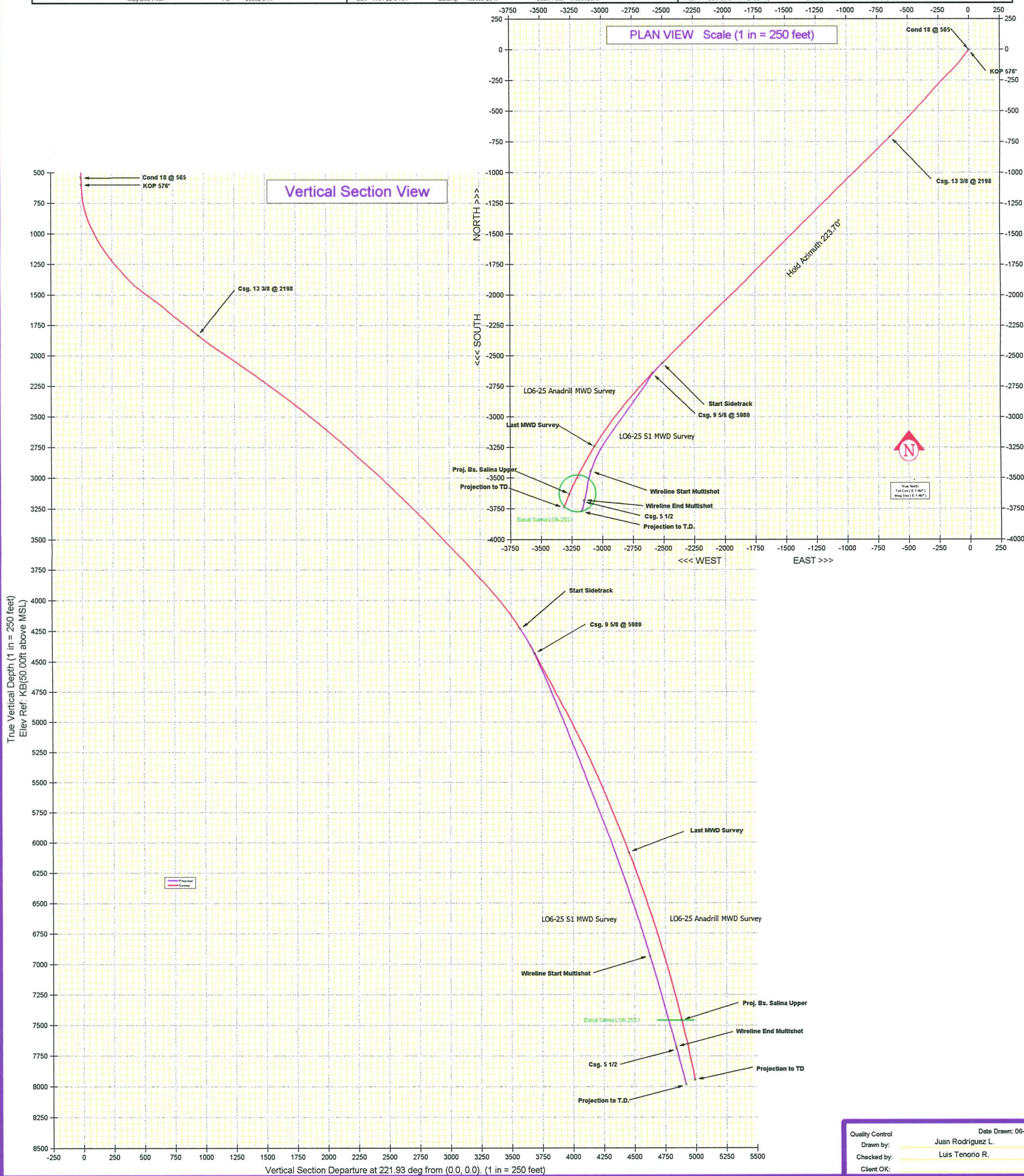
9803.00 Act-Stns Anadrill MWD

Schlumberger

Petro-Tech Peruana S.A.



WELL LO6-25S1		FIELD Lobitos		STRUCTURE Platform LO6 (WGS84)	
Magnetic Parameters Model: BGGM 2000 Dip: 14.932° Mag Dec: 1.487°		Surface Location Lat: S4 26 42 813 Lon: W81 22 8 781		Miscellaneous Skt: Slot #25 Plan #: LO6-25 S1 MWD Survey TVD Ref: KB (50.00ft above MSL) Date Drawn: 06.35.47PM 06-Sep-2001	
Date: August 02, 2001 PS: 28802.9 nT		UTM Zone 17S - WGS84, Meters Northing: 9500648.86 ft Easting: 459050.20 ft Grid Conv: +0.02860933° Scale Fact: 0.99962076			



ANTI-COLLISION REPORT

Analysis Method:	3D Least Distance	Distance Unit:	ft
Depth Interval:	Every 30.00ft Measured Depth	Azimuth Unit:	degrees
Step-down Survey:	Subject Survey	Azimuth Reference:	North
Date:	July 28, 2001		
NOTE: Measured Depth is referenced to individual borehole elevation			
TVD, NS, EW are referenced to the subject survey's wellhead location and borehole elevation.			
Subject Survey Summary			
Client:	Petro-Tech Peruana S.A.		
Field:	Lobitos	Well:	Well LO6-25
Structure:	Platform LO6	Borehole:	Borehole LO6-25 Sidetrack
Slot:	Slot #25	Survey:	MWD Surveys LO6-25 Sidetrack
Coordinate System:	UTM Zone 17S - WGS84, Meters		
Reference Point:			
Northing (m)		Easting (m)	Elevation (ft)
N 9508648.860		E 459050.200	50.00 above MSL
Survey Error Model: Wolff & deWardt 1.0000 sigma			
Surveying Programme:			
MD From (ft)	MD To (ft)	EOU Freq	Survey Tool Type
0.00	9800.00	Act-Stns	Anadrill MWD
Offset Surveys Summary			
Survey	Borehole	Well	Type
LO6-25 Anadrill MWD Survey	Borehole LO6-25	Well LO6-25	Definitive

Field:	Lobitos				Well:		Well LO6-25				
Structure:	Platform LO6				Borehole:		Borehole LO6-25				
Slot:	Slot #25				Survey:		LO6-25 Anadrill MWD Survey				
Coordinate System:		UTM Zone 17S - WGS84, Meters									
Reference Point:											
Northing (m)				Easting (m)				Elevation (ft)			
N 9508648.860				E 459050.200				50.00 above MSL			
Survey Error Model:		Wolff & deWardt 1.0000 sigma									
Surveying Programme:											
MD From (ft)				MD To (ft)		EOU Freq		Survey Tool Type			
0.00				9790.00		Act-Stns		Anadrill MWD			
Subject Survey				Offset Survey					Ct-Ct	EOU	Sep.
MD	TVD	NS	EW	MD	TVD	NS	EW	Azim	Dist	Dist	Factor
5760.00	4205.50	S 2546.10	W 2491.39	5760.00	4205.50	S 2546.10	W 2491.39	N/A	0.00	-194.04	0.00
5790.00	4230.71	S 2557.60	W 2502.88	5790.00	4230.71	S 2557.60	W 2502.88	N/A	0.00	-194.92	0.00
5820.00	4256.12	S 2568.91	W 2514.13	5820.00	4256.10	S 2568.90	W 2514.19	274.15	0.07	-195.63	0.00
5850.00	4281.74	S 2580.08	W 2525.03	5850.00	4281.65	S 2580.04	W 2525.29	274.06	0.28	-196.20	0.00
5880.00	4307.57	S 2591.12	W 2535.57	5880.00	4307.36	S 2591.04	W 2536.16	273.98	0.63	-196.62	0.00
5910.00	4333.59	S 2602.02	W 2545.76	5910.00	4333.23	S 2601.87	W 2546.82	273.90	1.13	-196.90	0.01
5940.00	4359.81	S 2612.78	W 2555.60	5940.01	4359.25	S 2612.55	W 2557.25	273.82	1.76	-197.04	0.01
5970.00	4386.22	S 2623.40	W 2565.08	5970.02	4385.43	S 2623.07	W 2567.47	273.74	2.53	-197.03	0.01
6000.00	4412.82	S 2633.87	W 2574.19	6000.02	4411.76	S 2633.43	W 2577.46	273.57	3.46	-196.85	0.02
6030.00	4439.70	S 2644.14	W 2582.66	6030.02	4438.22	S 2643.63	W 2587.23	272.31	4.82	-196.22	0.02
6060.00	4466.89	S 2654.19	W 2590.39	6059.94	4464.67	S 2653.76	W 2596.90	269.61	6.90	-194.88	0.03
6090.00	4494.25	S 2664.14	W 2597.60	6089.83	4491.08	S 2663.87	W 2606.57	267.41	9.51	-192.99	0.05
6120.00	4521.71	S 2674.07	W 2604.51	6119.70	4517.48	S 2673.98	W 2616.20	266.01	12.44	-190.78	0.06
6150.00	4549.20	S 2684.10	W 2611.11	6149.54	4543.87	S 2684.10	W 2625.80	265.40	15.63	-188.31	0.08
6180.00	4576.69	S 2694.32	W 2617.41	6179.36	4570.23	S 2694.23	W 2635.35	265.54	19.08	-185.57	0.09
6210.00	4604.17	S 2704.67	W 2623.58	6209.18	4596.60	S 2704.37	W 2644.88	266.05	22.60	-182.76	0.11
6240.00	4631.61	S 2715.06	W 2629.79	6239.04	4623.03	S 2714.55	W 2654.37	266.51	26.04	-180.05	0.13
6270.00	4659.09	S 2725.38	W 2636.02	6268.93	4649.50	S 2724.75	W 2663.78	266.78	29.38	-177.41	0.14
6300.00	4686.68	S 2735.40	W 2642.22	6298.89	4676.05	S 2735.00	W 2673.12	266.41	32.69	-174.81	0.16
6330.00	4714.36	S 2745.14	W 2648.44	6328.88	4702.65	S 2745.37	W 2682.32	265.52	35.85	-172.35	0.17
6360.00	4742.07	S 2754.66	W 2654.86	6358.92	4729.30	S 2755.84	W 2691.38	264.30	38.71	-170.19	0.19
6390.00	4769.81	S 2764.01	W 2661.45	6388.75	4755.78	S 2766.31	W 2700.28	262.81	41.35	-168.26	0.20
6420.00	4797.53	S 2773.30	W 2668.16	6418.42	4782.09	S 2776.73	W 2709.23	261.42	44.01	-166.30	0.21
6450.00	4825.25	S 2782.55	W 2674.95	6448.08	4808.34	S 2787.12	W 2718.31	260.12	46.76	-164.26	0.22
6480.00	4852.98	S 2791.82	W 2681.71	6477.84	4834.65	S 2797.55	W 2727.52	258.96	49.68	-162.05	0.23
6510.00	4880.71	S 2801.10	W 2688.41	6507.78	4861.09	S 2808.14	W 2736.74	257.83	52.64	-159.79	0.25
6540.00	4908.44	S 2810.40	W 2695.05	6537.73	4887.56	S 2818.73	W 2745.91	256.87	55.60	-157.53	0.26
6570.00	4936.19	S 2819.67	W 2701.70	6567.72	4914.11	S 2829.28	W 2755.05	256.05	58.53	-155.31	0.27
6600.00	4963.94	S 2828.91	W 2708.35	6597.83	4940.81	S 2839.82	W 2764.13	255.28	61.36	-153.18	0.29
6630.00	4991.74	S 2838.10	W 2714.90	6627.95	4967.58	S 2850.33	W 2773.11	254.55	64.19	-151.03	0.30
6660.00	5019.58	S 2847.24	W 2721.32	6658.09	4994.41	S 2860.80	W 2781.98	253.88	67.05	-148.87	0.31
6690.00	5047.44	S 2856.39	W 2727.66	6688.27	5021.34	S 2871.22	W 2790.75	253.30	69.87	-146.73	0.32
6720.00	5075.31	S 2865.55	W 2733.92	6718.48	5048.35	S 2881.60	W 2799.40	252.82	72.61	-144.67	0.33
6750.00	5103.18	S 2874.73	W 2740.18	6748.71	5075.45	S 2891.93	W 2807.95	252.45	75.21	-142.75	0.35
6780.00	5131.04	S 2883.90	W 2746.50	6778.82	5102.48	S 2902.18	W 2816.36	252.11	77.66	-140.98	0.36
6810.00	5158.91	S 2892.98	W 2752.89	6808.94	5129.56	S 2912.42	W 2824.71	251.77	79.98	-139.34	0.36
6840.00	5186.79	S 2901.92	W 2759.41	6839.08	5156.67	S 2922.65	W 2832.97	251.33	82.15	-137.85	0.37
6870.00	5214.69	S 2910.79	W 2765.96	6869.35	5183.94	S 2932.90	W 2841.18	250.76	84.22	-136.45	0.38

Subject Survey				Offset Survey					Ct-Ct	EOU	Sep.
MD	TVD	NS	EW	MD	TVD	NS	EW	Azim	Dist	Dist	Factor
6900.00	5242.60	S 2919.65	W 2772.48	6899.64	5211.29	S 2943.11	W 2849.29	250.23	86.20	-135.13	0.39
6930.00	5270.53	S 2928.49	W 2778.96	6929.95	5238.70	S 2953.27	W 2857.28	249.72	88.10	-133.90	0.40
6960.00	5298.47	S 2937.33	W 2785.38	6960.10	5266.01	S 2963.34	W 2865.15	249.23	89.96	-132.69	0.40
6990.00	5326.43	S 2946.21	W 2791.67	6990.21	5293.31	S 2973.34	W 2872.96	248.82	91.88	-131.44	0.41
7020.00	5354.40	S 2955.11	W 2797.85	7020.32	5320.64	S 2983.30	W 2880.74	248.49	93.84	-130.12	0.42
7050.00	5382.40	S 2964.00	W 2803.94	7050.63	5348.19	S 2993.27	W 2888.52	248.26	95.81	-128.80	0.43
7080.00	5410.42	S 2972.81	W 2810.05	7081.08	5375.93	S 3003.20	W 2896.21	248.03	97.65	-127.60	0.43
7110.00	5438.46	S 2981.53	W 2816.18	7111.54	5403.74	S 3013.05	W 2903.77	247.78	99.36	-126.54	0.44
7140.00	5466.52	S 2990.18	W 2822.34	7142.03	5431.63	S 3022.85	W 2911.22	247.51	100.91	-125.64	0.45
7170.00	5494.55	S 2998.81	W 2828.65	7172.54	5459.60	S 3032.66	W 2918.49	247.18	102.17	-125.01	0.45
7200.00	5522.55	S 3007.43	W 2835.08	7203.07	5487.62	S 3042.48	W 2925.60	246.75	103.16	-124.66	0.45
7230.00	5550.53	S 3016.12	W 2841.53	7233.43	5515.52	S 3052.23	W 2932.51	246.30	103.95	-124.51	0.46
7260.00	5578.49	S 3024.89	W 2848.00	7263.63	5543.32	S 3061.85	W 2939.36	245.95	104.64	-124.46	0.46
7290.00	5606.44	S 3033.69	W 2854.43	7293.83	5571.16	S 3071.35	W 2946.19	245.67	105.28	-124.45	0.46
7320.00	5634.39	S 3042.51	W 2860.82	7324.06	5599.06	S 3080.77	W 2953.02	245.47	105.89	-124.47	0.46
7350.00	5662.35	S 3051.31	W 2867.19	7354.31	5627.01	S 3090.17	W 2959.78	245.28	106.45	-124.54	0.46
7380.00	5690.32	S 3060.09	W 2873.55	7384.57	5654.98	S 3099.57	W 2966.47	245.07	106.97	-124.65	0.46
7410.00	5718.31	S 3068.85	W 2879.89	7414.83	5682.97	S 3108.96	W 2973.09	244.83	107.44	-124.80	0.46
7440.00	5746.29	S 3077.62	W 2886.23	7445.09	5710.99	S 3118.35	W 2979.62	244.59	107.83	-125.04	0.46
7470.00	5774.26	S 3086.43	W 2892.58	7475.30	5738.98	S 3127.72	W 2986.08	244.35	108.13	-125.36	0.46
7500.00	5802.21	S 3095.26	W 2898.93	7505.41	5766.88	S 3137.05	W 2992.47	244.12	108.36	-125.75	0.46
7530.00	5830.18	S 3104.11	W 2905.23	7535.53	5794.80	S 3146.37	W 2998.83	243.88	108.61	-126.12	0.46
7560.00	5858.17	S 3112.94	W 2911.44	7565.64	5822.73	S 3155.69	W 3005.15	243.66	108.93	-126.42	0.46
7590.00	5886.18	S 3121.77	W 2917.56	7595.75	5850.67	S 3165.00	W 3011.45	243.45	109.30	-126.66	0.46
7620.00	5914.22	S 3130.55	W 2923.60	7625.87	5878.62	S 3174.30	W 3017.72	243.26	109.73	-126.84	0.46
7650.00	5942.30	S 3139.26	W 2929.59	7655.99	5906.58	S 3183.60	W 3023.95	243.04	110.21	-126.97	0.46
7680.00	5970.41	S 3147.88	W 2935.54	7686.32	5934.76	S 3192.95	W 3030.17	242.79	110.72	-127.06	0.47
7710.00	5998.56	S 3156.42	W 2941.43	7716.64	5962.95	S 3202.28	W 3036.29	242.50	111.22	-127.15	0.47
7740.00	6026.74	S 3164.90	W 2947.26	7746.97	5991.17	S 3211.60	W 3042.33	242.18	111.73	-127.24	0.47
7770.00	6054.95	S 3173.31	W 2953.03	7777.29	6019.42	S 3220.89	W 3048.28	241.83	112.24	-127.32	0.47
7800.00	6083.18	S 3181.70	W 2958.75	7807.62	6047.69	S 3230.17	W 3054.14	241.47	112.73	-127.42	0.47
7830.00	6111.43	S 3190.06	W 2964.40	7837.94	6075.98	S 3239.43	W 3059.91	241.10	113.21	-127.53	0.47
7860.00	6139.70	S 3198.39	W 2970.00	7868.22	6104.26	S 3248.64	W 3065.59	240.74	113.66	-127.60	0.47
7890.00	6167.98	S 3206.72	W 2975.57	7898.49	6132.55	S 3257.81	W 3071.22	240.39	114.08	-127.70	0.47
7920.00	6196.26	S 3215.04	W 2981.15	7928.76	6160.86	S 3266.94	W 3076.79	240.05	114.43	-127.87	0.47
7950.00	6224.53	S 3223.37	W 2986.72	7959.03	6189.21	S 3276.02	W 3082.30	239.71	114.70	-128.10	0.47
7980.00	6252.81	S 3231.78	W 2992.19	7989.30	6217.58	S 3285.07	W 3087.76	239.38	114.95	-128.36	0.47
8010.00	6281.07	S 3240.29	W 2997.53	8019.58	6245.98	S 3294.07	W 3093.17	239.15	115.19	-128.63	0.47
8040.00	6309.33	S 3248.92	W 3002.73	8049.86	6274.41	S 3303.02	W 3098.52	239.01	115.42	-128.92	0.47
8070.00	6337.59	S 3257.61	W 3007.82	8080.15	6302.86	S 3311.94	W 3103.81	238.96	115.64	-129.21	0.47
8100.00	6365.86	S 3266.32	W 3012.83	8110.43	6331.34	S 3320.81	W 3109.05	238.94	115.84	-129.51	0.47
8130.00	6394.14	S 3275.05	W 3017.75	8140.71	6359.84	S 3329.63	W 3114.23	238.96	116.03	-129.82	0.47
8160.00	6422.42	S 3283.80	W 3022.60	8171.00	6388.37	S 3338.41	W 3119.36	239.01	116.21	-130.15	0.47
8190.00	6450.71	S 3292.56	W 3027.37	8201.28	6416.92	S 3347.15	W 3124.43	239.10	116.38	-130.49	0.47
8220.00	6479.01	S 3301.35	W 3032.04	8231.56	6445.49	S 3355.84	W 3129.44	239.21	116.53	-130.83	0.47
8250.00	6507.33	S 3310.14	W 3036.62	8261.85	6474.08	S 3364.49	W 3134.40	239.36	116.71	-131.15	0.47
8280.00	6535.65	S 3318.94	W 3041.10	8292.13	6502.70	S 3373.10	W 3139.31	239.55	116.89	-131.47	0.47
8310.00	6564.00	S 3327.75	W 3045.48	8322.41	6531.34	S 3381.66	W 3144.15	239.76	117.09	-131.76	0.47
8340.00	6592.35	S 3336.57	W 3049.75	8352.69	6560.00	S 3390.17	W 3148.94	240.01	117.30	-132.05	0.47
8370.00	6620.72	S 3345.39	W 3053.92	8382.97	6588.68	S 3398.64	W 3153.68	240.29	117.53	-132.30	0.47

Subject Survey				Offset Survey					Ct-Ct	EOU	Sep.
MD	TVD	NS	EW	MD	TVD	NS	EW	Azim	Dist	Dist	Factor
8400.00	6649.11	S 3354.21	W 3057.95	8413.24	6617.38	S 3407.07	W 3158.35	240.60	117.82	-132.49	0.47
8430.00	6677.52	S 3363.04	W 3061.83	8443.52	6646.10	S 3415.45	W 3162.97	240.95	118.17	-132.62	0.47
8460.00	6705.95	S 3371.87	W 3065.56	8473.79	6674.85	S 3423.79	W 3167.54	241.33	118.58	-132.69	0.47
8490.00	6734.39	S 3380.70	W 3069.15	8504.06	6703.61	S 3432.08	W 3172.04	241.75	119.06	-132.70	0.47
8520.00	6762.85	S 3389.52	W 3072.60	8534.33	6732.39	S 3440.32	W 3176.50	242.22	119.60	-132.64	0.47
8550.00	6791.32	S 3398.36	W 3075.96	8564.59	6761.19	S 3448.52	W 3180.89	242.72	120.14	-132.57	0.48
8580.00	6819.80	S 3407.21	W 3079.24	8594.85	6790.00	S 3456.68	W 3185.23	243.25	120.69	-132.49	0.48
8610.00	6848.28	S 3416.07	W 3082.45	8625.12	6818.85	S 3464.79	W 3189.51	243.80	121.24	-132.42	0.48
8640.00	6876.77	S 3424.94	W 3085.59	8655.38	6847.70	S 3472.85	W 3193.73	244.38	121.80	-132.34	0.48
8670.00	6905.26	S 3433.82	W 3088.65	8685.64	6876.58	S 3480.87	W 3197.90	244.97	122.36	-132.25	0.48
8700.00	6933.76	S 3442.71	W 3091.64	8715.89	6905.48	S 3488.84	W 3202.01	245.59	122.92	-132.15	0.48
8730.00	6962.26	S 3451.60	W 3094.56	8746.15	6934.39	S 3496.77	W 3206.07	246.23	123.50	-132.02	0.48
8760.00	6990.78	S 3460.48	W 3097.39	8776.40	6963.32	S 3504.66	W 3210.07	246.88	124.10	-131.87	0.48
8790.00	7019.30	S 3469.35	W 3100.15	8806.65	6992.27	S 3512.49	W 3214.01	247.54	124.72	-131.70	0.49
8820.00	7047.83	S 3478.22	W 3102.84	8836.90	7021.24	S 3520.28	W 3217.89	248.22	125.36	-131.51	0.49
8850.00	7076.38	S 3487.09	W 3105.44	8867.15	7050.23	S 3528.03	W 3221.72	248.91	126.02	-131.30	0.49
8880.00	7104.93	S 3495.95	W 3107.97	8897.39	7079.23	S 3535.73	W 3225.49	249.62	126.71	-131.06	0.49
8910.00	7133.48	S 3504.80	W 3110.42	8927.63	7108.25	S 3543.39	W 3229.21	250.34	127.42	-130.79	0.49
8940.00	7162.05	S 3513.65	W 3112.79	8957.87	7137.29	S 3551.00	W 3232.87	251.07	128.16	-130.50	0.50
8970.00	7190.63	S 3522.49	W 3115.09	8988.11	7166.35	S 3558.56	W 3236.47	251.81	128.93	-130.17	0.50
9000.00	7219.21	S 3531.33	W 3117.31	9018.35	7195.42	S 3566.08	W 3240.01	252.56	129.73	-129.82	0.50
9030.00	7247.80	S 3540.16	W 3119.46	9048.58	7224.50	S 3573.55	W 3243.50	253.32	130.56	-129.43	0.50
9060.00	7276.40	S 3548.99	W 3121.52	9078.81	7253.60	S 3580.97	W 3246.93	254.10	131.42	-129.02	0.50
9090.00	7305.00	S 3557.81	W 3123.51	9109.03	7282.72	S 3588.35	W 3250.31	254.88	132.31	-128.56	0.51
9120.00	7333.61	S 3566.62	W 3125.42	9139.26	7311.85	S 3595.69	W 3253.62	255.67	133.24	-128.07	0.51
9150.00	7362.23	S 3575.43	W 3127.26	9169.48	7341.00	S 3602.97	W 3256.88	256.47	134.21	-127.55	0.51
9180.00	7390.86	S 3584.24	W 3129.01	9199.70	7370.16	S 3610.21	W 3260.09	257.27	135.22	-126.98	0.52
9210.00	7419.49	S 3593.03	W 3130.69	9229.91	7399.34	S 3617.41	W 3263.23	258.08	136.26	-126.38	0.52
9240.00	7448.13	S 3601.82	W 3132.30	9260.12	7428.53	S 3624.56	W 3266.32	258.90	137.35	-125.73	0.52
9270.00	7476.77	S 3610.60	W 3133.82	9290.33	7457.73	S 3631.66	W 3269.36	259.72	138.48	-125.02	0.53
9300.00	7505.43	S 3619.36	W 3135.26	9320.53	7486.95	S 3638.70	W 3272.33	260.54	139.66	-124.23	0.53
9330.00	7534.10	S 3628.10	W 3136.62	9350.73	7516.18	S 3645.67	W 3275.26	261.37	140.89	-123.38	0.53
9360.00	7562.77	S 3636.83	W 3137.89	9380.91	7545.43	S 3652.57	W 3278.13	262.21	142.19	-122.48	0.54
9390.00	7591.46	S 3645.53	W 3139.08	9411.09	7574.69	S 3659.39	W 3280.96	263.06	143.53	-121.52	0.54
9420.00	7620.15	S 3654.21	W 3140.18	9441.27	7603.97	S 3666.15	W 3283.72	263.91	144.94	-120.50	0.55
9450.00	7648.86	S 3662.88	W 3141.21	9471.43	7633.26	S 3672.83	W 3286.44	264.77	146.41	-119.42	0.55
9480.00	7677.57	S 3671.52	W 3142.14	9501.59	7662.56	S 3679.43	W 3289.11	265.63	147.94	-118.27	0.56
9510.00	7706.29	S 3680.14	W 3143.00	9531.74	7691.88	S 3685.97	W 3291.72	266.50	149.53	-117.07	0.56
9540.00	7735.02	S 3688.75	W 3143.76	9561.88	7721.21	S 3692.43	W 3294.28	267.36	151.19	-115.79	0.57
9570.00	7763.76	S 3697.33	W 3144.45	9592.01	7750.55	S 3698.82	W 3296.79	268.23	152.91	-114.46	0.57
9600.00	7792.50	S 3705.90	W 3145.05	9622.14	7779.90	S 3705.14	W 3299.24	269.09	154.71	-113.05	0.58
9630.00	7821.25	S 3714.44	W 3145.57	9652.25	7809.27	S 3711.38	W 3301.65	269.96	156.57	-111.57	0.58
9660.00	7850.01	S 3722.97	W 3146.00	9682.36	7838.64	S 3717.55	W 3304.00	270.82	158.49	-110.03	0.59
9690.00	7878.78	S 3731.47	W 3146.35	9712.46	7868.03	S 3723.65	W 3306.30	271.68	160.49	-108.41	0.60
9720.00	7907.56	S 3739.96	W 3146.62	9742.55	7897.42	S 3729.68	W 3308.54	272.53	162.57	-106.73	0.60
9750.00	7936.34	S 3748.42	W 3146.80	9772.63	7926.82	S 3735.63	W 3310.74	273.38	164.71	-104.97	0.61
9780.00	7965.12	S 3756.86	W 3146.90	9790.00	7943.81	S 3739.04	W 3311.98	273.87	167.40	-102.58	0.62
9800.00	7984.32	S 3762.48	W 3146.92	9790.00	7943.81	S 3739.04	W 3311.98	273.86	171.57	-98.54	0.64

Survey Report - Geodetic

Report Date: 28-Jul-2001 Client: Petro-Tech Peruana S.A. Field: Lobitos Structure / Slope: Platform LO6 / Slot #25 Well: Well LO6-25 Borehole: Borehole LO6-25 Sidetrack UWI/API#: Survey Name / Date: MWD Surveys LO6-25 Sidetrack / July 15, 2001 Tort / AHD / DDI / ERD ratio: 5.084° / 4815.66 ft / 5.988 / 0.601 Grid Coordinate System: UTM Zone 17S - WGS84, Meters Location Lat/Long: S 4 26 42.813, W 81 22 8.781 Location Grid N/E Y/X: 9508648.860 m, E 459050.200 m Grid Convergence Angle: 0:02860833° Grid Scale Factor: 0.99962076	Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 11.930° Vertical Section Origin: 0.000 ft, E 0.000 ft TVD Reference Datum: KB TVD Reference Elevation: 66.000 ft relative to MSL Sea Bed / Ground Level Elevation: 66.000 ft relative to MSL Magnetic Declination: 1.493° Total Field Strength: 28865.525 nT Magnetic Dip: 14.831° Declination Date: July 15, 2001 Magnetic Declination Model: IGM 2000 North Reference: True North Total Corr Mag North -> True North: 1.493° Local Coordinates Reference: Well Head
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Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N/-S (ft)	E/-W (ft)	DLS (°/100ft)	Grid Coordinates		Geographic Coordinates	
									Northing (m)	Easting (m)	Latitude	Longitude
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00		9508648.86	459050.20	S 4 26 42.813	W 81 22 8.781
18" cond set @ 565'	540.00	1.10	145.70	539.97	1.23	-4.28	2.92	0.20	9508647.56	459051.09	S 4 26 42.856	W 81 22 8.752
KOP 576'	601.00	2.30	248.70	600.95	2.47	-5.21	2.11	4.53	9508647.27	459050.84	S 4 26 42.865	W 81 22 8.760
	632.00	3.30	243.40	631.91	3.85	-5.84	0.73	3.33	9508647.08	459050.42	S 4 26 42.871	W 81 22 8.774
	694.00	6.90	226.80	693.66	9.23	-9.19	-3.58	6.22	9508646.06	459049.11	S 4 26 42.905	W 81 22 8.817
	757.00	11.20	220.90	755.86	19.12	-16.40	-10.35	6.97	9508643.86	459047.05	S 4 26 42.976	W 81 22 8.884
	820.00	15.50	217.40	817.15	33.63	-27.72	-19.47	6.94	9508640.41	459044.27	S 4 26 43.088	W 81 22 8.974
	883.00	19.80	216.70	877.17	52.66	-42.97	-30.97	6.83	9508635.76	459040.77	S 4 26 43.240	W 81 22 9.087
	944.00	23.50	217.00	933.85	75.07	-60.97	-44.46	6.07	9508630.28	459036.66	S 4 26 43.418	W 81 22 9.221
	1007.00	27.20	216.80	990.78	101.94	-82.54	-60.65	5.87	9508623.70	459031.73	S 4 26 43.632	W 81 22 9.381
	1070.00	29.80	220.00	1046.14	131.93	-106.07	-79.35	4.78	9508616.53	459026.04	S 4 26 43.866	W 81 22 9.566
	1133.00	33.10	222.80	1099.88	164.79	-130.69	-101.10	5.73	9508609.02	459019.42	S 4 26 44.110	W 81 22 9.781
	1196.00	35.00	223.70	1152.08	200.05	-156.38	-125.28	3.12	9508601.19	459012.05	S 4 26 44.365	W 81 22 10.020
	1258.00	37.20	224.40	1202.17	236.55	-182.63	-150.68	3.61	9508593.19	459004.32	S 4 26 44.626	W 81 22 10.271
	1321.00	39.40	226.40	1251.61	275.52	-210.03	-178.49	4.01	9508584.84	458995.85	S 4 26 44.897	W 81 22 10.546
	1385.00	41.00	224.40	1300.49	316.75	-239.04	-207.89	3.21	9508576.00	458986.90	S 4 26 45.185	W 81 22 10.837
	1448.00	42.90	223.70	1347.35	358.83	-269.31	-237.16	3.11	9508566.77	458977.98	S 4 26 45.486	W 81 22 11.126
	1479.00	44.60	223.00	1369.74	380.26	-284.90	-251.88	5.70	9508562.02	458973.50	S 4 26 45.640	W 81 22 11.271
	1510.00	46.50	222.80	1391.45	402.39	-301.11	-266.94	6.15	9508557.08	458968.91	S 4 26 45.801	W 81 22 11.420
	1573.00	49.80	220.90	1433.48	449.30	-336.07	-298.23	5.70	9508546.42	458959.39	S 4 26 46.148	W 81 22 11.730

Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N-S (ft)	E-W (ft)	DLS (°/100ft)	Grid Coordinates		Geographic Coordinates	
									Northing (m)	Easting (m)	Latitude	Longitude
13 3/8" shoe @ 2198'	1604.00	51.80	220.20	1453.07	473.32	-354.32	-313.84	6.68	9508540.86	458954.63	S 4 26 46.329	W 81 22 11.884
	1721.00	54.10	222.50	1523.56	566.68	-424.39	-375.54	2.51	9508519.50	458935.84	S 4 26 47.025	W 81 22 12.494
	1815.00	51.20	223.00	1580.58	641.39	-479.26	-426.26	3.11	9508502.77	458920.40	S 4 26 47.569	W 81 22 12.995
	1876.00	49.70	223.70	1619.43	688.40	-513.46	-458.54	2.61	9508492.35	458910.57	S 4 26 47.908	W 81 22 13.315
	2002.00	51.70	223.70	1699.23	785.86	-583.95	-525.90	1.59	9508470.86	458890.06	S 4 26 48.608	W 81 22 13.981
	2096.00	52.20	221.20	1757.17	859.87	-638.57	-575.85	2.16	9508454.21	458874.84	S 4 26 49.150	W 81 22 14.474
	2217.00	51.00	225.80	1832.35	954.61	-707.34	-641.07	3.14	9508433.25	458854.98	S 4 26 49.832	W 81 22 15.119
	2279.00	52.40	225.60	1870.78	1003.16	-741.32	-675.89	2.27	9508422.89	458844.38	S 4 26 50.169	W 81 22 15.463
	2342.00	54.10	225.10	1908.47	1053.55	-776.80	-711.80	2.77	9508412.07	458833.44	S 4 26 50.521	W 81 22 15.819
	2373.00	54.80	225.10	1926.49	1078.73	-794.60	-729.67	2.26	9508406.65	458828.00	S 4 26 50.698	W 81 22 15.995
	2430.00	56.30	225.80	1958.74	1125.64	-827.57	-763.16	2.82	9508396.60	458817.80	S 4 26 51.025	W 81 22 16.326
	2587.00	55.80	225.80	2046.42	1255.58	-918.37	-856.53	0.32	9508368.92	458789.37	S 4 26 51.926	W 81 22 17.249
	2743.00	54.90	226.30	2135.11	1383.58	-1007.43	-948.92	0.63	9508341.77	458761.23	S 4 26 52.810	W 81 22 18.163
	2898.00	53.90	225.10	2225.34	1509.33	-1095.45	-1039.12	0.90	9508314.94	458733.76	S 4 26 53.683	W 81 22 19.055
	3055.00	53.30	225.10	2318.51	1635.51	-1184.65	-1128.63	0.38	9508287.75	458706.50	S 4 26 54.568	W 81 22 19.940
	3211.00	52.30	225.10	2412.83	1759.57	-1272.36	-1216.65	0.64	9508261.01	458679.70	S 4 26 55.439	W 81 22 20.810
	3369.00	51.30	225.30	2510.53	1883.54	-1359.85	-1304.75	0.64	9508234.34	458652.87	S 4 26 56.307	W 81 22 21.681
	3526.00	50.10	225.10	2609.97	2004.83	-1445.45	-1390.96	0.77	9508208.24	458626.62	S 4 26 57.156	W 81 22 22.533
	3683.00	49.30	225.10	2711.52	2124.38	-1529.97	-1475.77	0.51	9508182.48	458600.79	S 4 26 57.995	W 81 22 23.372
	3840.00	48.60	225.30	2814.62	2242.59	-1613.40	-1559.78	0.46	9508157.05	458575.20	S 4 26 58.823	W 81 22 24.202
	3998.00	47.60	224.40	2920.14	2360.03	-1696.77	-1642.72	0.76	9508131.63	458549.95	S 4 26 59.650	W 81 22 25.022
	4154.00	46.50	224.40	3026.43	2474.11	-1778.35	-1722.61	0.71	9508106.76	458525.62	S 4 27 0.460	W 81 22 25.812
	4342.00	46.10	224.40	3156.31	2609.90	-1875.46	-1817.71	0.21	9508077.16	458496.66	S 4 27 1.423	W 81 22 26.752
	4436.00	45.60	225.80	3221.79	2677.24	-1923.06	-1865.48	1.19	9508062.65	458482.11	S 4 27 1.896	W 81 22 27.225
	4562.00	45.00	226.50	3310.42	2766.56	-1985.11	-1930.06	0.62	9508043.73	458462.44	S 4 27 2.511	W 81 22 27.863
	4657.00	44.60	225.80	3377.83	2833.31	-2031.48	-1978.34	0.67	9508029.60	458447.74	S 4 27 2.971	W 81 22 28.340
	4782.00	44.00	225.80	3467.29	2920.42	-2092.35	-2040.93	0.48	9508011.04	458428.68	S 4 27 3.575	W 81 22 28.959
	4940.00	43.30	225.10	3581.61	3029.27	-2168.85	-2118.65	0.54	9507987.72	458405.01	S 4 27 4.335	W 81 22 29.728
	5128.00	42.70	224.40	3719.11	3157.33	-2259.90	-2208.91	0.41	9507959.97	458377.52	S 4 27 5.238	W 81 22 30.620
	5316.00	42.50	225.10	3857.49	3284.42	-2350.28	-2298.50	0.27	9507932.42	458350.24	S 4 27 6.135	W 81 22 31.506
Tie-In	5477.00	40.00	224.40	3978.53	3390.44	-2425.65	-2373.24	1.58	9507909.44	458327.48	S 4 27 6.883	W 81 22 32.245
	5508.00	39.40	224.40	4002.38	3410.22	-2439.79	-2387.09	1.94	9507905.13	458323.26	S 4 27 7.023	W 81 22 32.382
	5602.00	37.20	224.40	4076.15	3468.42	-2481.42	-2427.85	2.34	9507892.44	458310.85	S 4 27 7.436	W 81 22 32.785
	5696.00	34.50	224.40	4152.33	3523.42	-2520.75	-2466.37	2.87	9507880.45	458299.12	S 4 27 7.826	W 81 22 33.165
	5790.00	32.50	225.10	4230.71	3575.24	-2557.60	-2502.88	2.17	9507869.22	458288.00	S 4 27 8.192	W 81 22 33.526

Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N-S (ft)	E-W (ft)	DLS (%/100ft)	Grid Coordinates		Geographic Coordinates	
									Northing (m)	Easting (m)	Latitude	Longitude
	6118.00	23.60	214.30	4519.87	3729.00	-2673.41	-2604.06	2.07	9507833.92	458257.19	S 4 27 9.341	W 81 22 34.527
	6180.00	23.60	210.80	4576.69	3753.48	-2694.32	-2617.41	2.26	9507827.54	458253.13	S 4 27 9.549	W 81 22 34.659
	6244.00	23.90	210.90	4635.27	3778.78	-2716.45	-2630.62	0.47	9507820.80	458249.10	S 4 27 9.768	W 81 22 34.789
DD BHA 2 in: 6277 ft	6307.00	22.70	212.20	4693.13	3803.29	-2737.69	-2643.66	2.07	9507814.33	458245.14	S 4 27 9.979	W 81 22 34.918
	6369.00	22.40	215.10	4750.40	3826.81	-2757.48	-2656.82	1.86	9507808.30	458241.13	S 4 27 10.175	W 81 22 35.048
	6433.00	22.50	216.40	4809.55	3851.10	-2777.31	-2671.10	0.79	9507802.25	458236.78	S 4 27 10.372	W 81 22 35.190
	6527.00	22.40	215.50	4896.42	3886.80	-2806.37	-2692.18	0.38	9507793.39	458230.36	S 4 27 10.660	W 81 22 35.398
	6590.00	22.30	215.80	4954.69	3910.62	-2825.84	-2706.14	0.24	9507787.46	458226.11	S 4 27 10.854	W 81 22 35.536
	6652.00	21.80	215.00	5012.15	3933.74	-2844.81	-2719.62	0.94	9507781.68	458222.01	S 4 27 11.042	W 81 22 35.669
	6715.00	21.70	214.20	5070.67	3956.90	-2864.02	-2732.88	0.50	9507775.82	458217.97	S 4 27 11.233	W 81 22 35.800
	6776.00	21.80	214.60	5127.33	3979.30	-2882.67	-2745.65	0.29	9507770.14	458214.08	S 4 27 11.418	W 81 22 35.927
	6839.00	21.60	216.50	5185.86	4002.45	-2901.63	-2759.19	1.16	9507764.36	458209.96	S 4 27 11.606	W 81 22 36.060
	6933.00	21.40	216.20	5273.32	4036.74	-2929.37	-2779.61	0.24	9507755.90	458203.74	S 4 27 11.881	W 81 22 36.262
DD BHA 3 in: 7186 ft	7026.00	21.10	214.30	5360.00	4070.21	-2956.89	-2799.07	0.81	9507747.52	458197.82	S 4 27 12.154	W 81 22 36.455
	7122.00	20.70	215.40	5449.68	4104.20	-2985.00	-2818.63	0.58	9507738.95	458191.86	S 4 27 12.433	W 81 22 36.648
	7182.00	21.00	216.80	5505.75	4125.44	-3002.25	-2831.21	0.97	9507733.69	458188.03	S 4 27 12.604	W 81 22 36.773
	7245.00	21.30	216.40	5564.51	4148.07	-3020.50	-2844.77	0.53	9507728.13	458183.90	S 4 27 12.785	W 81 22 36.907
	7308.00	21.30	215.90	5623.21	4170.84	-3038.98	-2858.27	0.29	9507722.50	458179.79	S 4 27 12.969	W 81 22 37.040
	7405.00	21.10	215.90	5713.64	4205.72	-3067.39	-2878.83	0.21	9507713.84	458173.53	S 4 27 13.251	W 81 22 37.243
	7497.00	21.30	215.70	5799.42	4238.80	-3094.38	-2898.30	0.23	9507705.61	458167.61	S 4 27 13.518	W 81 22 37.436
	7592.00	20.90	214.50	5888.05	4272.76	-3122.35	-2917.96	0.62	9507697.08	458161.62	S 4 27 13.796	W 81 22 37.630
	7686.00	20.30	214.60	5976.04	4305.56	-3149.59	-2936.72	0.64	9507688.78	458155.91	S 4 27 14.066	W 81 22 37.816
	7749.00	19.90	214.50	6035.20	4327.03	-3167.43	-2949.00	0.64	9507683.35	458152.17	S 4 27 14.243	W 81 22 37.937
DD BHA 4 in: 7821 ft	7857.00	19.51	213.80	6136.87	4363.11	-3197.56	-2969.44	0.42	9507674.16	458145.94	S 4 27 14.542	W 81 22 38.139
DD BHA 5 in: 7916 ft	7944.00	19.51	213.80	6218.88	4391.87	-3221.70	-2985.60	0.00	9507666.80	458141.02	S 4 27 14.782	W 81 22 38.299
	8039.00	19.64	210.60	6308.39	4423.23	-3248.63	-3002.56	1.14	9507658.60	458135.86	S 4 27 15.049	W 81 22 38.467
	8196.00	19.40	208.20	6456.37	4474.43	-3294.32	-3028.31	0.53	9507644.67	458128.02	S 4 27 15.502	W 81 22 38.721
	8351.00	19.00	205.40	6602.75	4523.63	-3339.80	-3051.30	0.65	9507630.81	458121.03	S 4 27 15.954	W 81 22 38.948
	8509.00	18.40	201.20	6752.42	4571.61	-3386.29	-3071.35	0.93	9507616.64	458114.92	S 4 27 16.415	W 81 22 39.147
LAST SURVEY	8603.00	18.30	199.80	6841.64	4599.16	-3414.00	-3081.71	0.48	9507608.20	458111.77	S 4 27 16.690	W 81 22 39.249
DD BHA 6 in: 8691 ft	8691.00	18.21	198.50	6925.21	4624.57	-3440.04	-3090.76	0.47	9507600.26	458109.02	S 4 27 16.948	W 81 22 39.339
Bs. Salina Projection	9246.00	17.30	190.00	7453.86	4774.20	-3603.58	-3132.61	0.49	9507550.43	458096.29	S 4 27 18.571	W 81 22 39.752
T.D. Projection	9800.00	16.30	180.00	7984.32	4901.98	-3762.48	-3146.92	0.55	9507502.01	458091.96	S 4 27 20.148	W 81 22 39.894

Survey Error Model: Wolff & deWardt 1.0000 sigma
Surveying Programme:

2.2. BHA COMMENTS



Field	Lobitos
Structure	LO 6
Well	LO6-25
Borehole	LO6-25 ST

Date In	17/Jul/2001
Depth In	5990 ft MD
Date Out	19/Jul/2001
Depth Out	6277 ft MD

[illegible]

BHA Comments:	Sidetrack Well LO6-25 at 2.5deg/100 ft DLS from 6000ft to 6300ft MD.
BHA Results:	Sidetrack Well LO6-25 done & well distance center to center of 30' was reached. POOH to run PDC Bit

Stabilizer	Mid Point To Bit (ft)
Blade Length (ft)	

Bent Sub Angle (deg)	Bit To Bend (ft)
1.50	6.84

[illegible]

Bit Nozzles	
Count	Size
2	22
1	18
1	10

TFA	1.068
-----	-------

Quality Control	
Created By:	RT / LT
Checked By:	F. Cordova

CENTRAL FILE
GEOSCIENCES



Field	Lobitos
Structure	LO 6
Well	LO6-25
Borehole	LO6-25 ST

Date In	19/Jul/2001
Depth In	6277 ft MD
Date Out	21/Jul/2001
Depth Out	7186 ft MD

[illegible]

BHA Comments:	Continue Well track LO6-25 ST to get 100ft of separation from old well
BHA Results:	103 ft of separation from abandoned well was reached at the end of this run. POOH because poor ROP
	This BHA dropped at -0.30°/30m while rotary drilling. Sporadic slidings were needed to keep track desired

Stabilizer	Mid Point
Blade Length (ft)	To Bit (ft)
0.75	2.70
1.50	41.81

Bent Sub Angle (deg)	Bit To Bend (ft)
1.50	6.98

[illegible]

Bit Nozzles	
Count	Size
5	16
1	18

TFA	1.230
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Quality Control	
Created By:	RT / LT / OD
Checked By:	F. Cordova

CENTRAL FILE
GEOSCIENCES



Date In	21/Jul/2001
Depth In	7186 ft MD
Date Out	24/Jul/2001
Depth Out	7821 ft MD

CENTRAL FILE
GEOSCIENCES



Field	Lobitos
Structure	LO 6
Well	LO6-25
Borehole	LO6-25 ST

Date In	25/Jul/2001
Depth In	7821 ft MD
Date Out	26/Jul/2001
Depth Out	7916 ft MD

[illegible]

BHA Comments:	Continue Well track LO6-25 ST until hit Target
BHA Results:	Distance between our well & the abandoned one is 104 ft at the end of run. POOH because very poor ROP
	The only survey we got with this BHA showed us that this is a good hold BHA @ 20° Inc

[illegible]

TFA	1.154
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Bent Sub Angle (deg)	Bit To Bend (ft)

Quality Control	
Created By:	RT / LT
Checked By:	R. Gilbert

CENTRAL FILE
GEOSCIENCES



Date In	26/Jul/2001
Depth In	7916 ft MD
Date Out	29/Jul/2001
Depth Out	8691 ft MD

BHA Comments:	Continue Well track LO6-25 ST until hit Target with this Non- standard Undergauge assembly in order to reduce hole drag
BHA Results:	Drilled to 8691ft where was impossible to miss the target. Distance from this well to the abandoned one was 123ft at the end POOH because P/U string weight of 460 000 Klb is more than motors rig capacity. Lay down one stb, NMDC's & MWD This BHA dropped at -0.18° / 100ft and turned to left @ -2.12° / 100ft

TFA	1.178
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Quality Control	
Created By:	RT / LT
Checked By:	F. Cordova

CENTRAL FILE
GEOSCIENCES



BHA # 1	4 3/4" (9494' -9593')
Field / Area	Lobitos
Platform	LO6

Date	13-Aug-2001
Well	LO6-25 ST_Slimhole
Borehole	LO6-25

Item	Name	Vendor/ Model	Serial #	Fish. Neck OD (in)/ Length (ft)	OD (in)/ ID (in)	Max OD (in)	Bottom/ Top Connection	Length (ft)	Cum. Length (ft)
1	4 3/4" Rock Bit w/ 3 x 16" Jets	HTC STR-20	X84JP		4 3/4	4 3/4		0.35	0.35
2	3 1/2" Vector Motor w/ B.H= 0°	Griffith	1001	3 7/8 0.49	3 1/2 1 1/2	3 7/8	2 7/8 R P 2 7/8 R B	15.20	15.55
3	X/O	PTP			3 7/8 1 3/4	3 7/8	2 7/8 R P 2 7/8 H-90 B	1.61	17.16
4	24x 3 1/2" HWDP	PEPESA		3 3/4	3 1/8 2	3 3/4	2 7/8 H-90 P 2 7/8 H-90 B	724.78	741.94
5	FLEX JOINT	Anadrill	140005	3 13/16 2.01	3 13/16 1 1/2	3 13/16	2 7/8 H-90 P 2 7/8 H-90 B	7.25	749.19
6	GRIFFITH HYD JAR	Griffith	385-350.1401	3 7/8 1.07	3 7/8 1 7/8	3 7/8	2 7/8 H-90 P 2 7/8 H-90 B	7.73	756.92
7	6x 3 1/2" HWDP	PEPESA		3 3/4	3 1/8 2	3 3/4	2 7/8 H-90 P 2 7/8 H-90 B	181.31	938.23
8									
9									
10									
11									
12									
13									
14									
15									
					Total Weight (lb) Below Jar (lb)		19 000	Total Lth.	938.23

Stabilizer	
Blade Length (ft)	Mid-Pt. To Bit (ft)
	Bend To Bottom
Bent Housing Angle (deg)	Connection (ft)

[illegible]

Bit Nozzles	
Count	Size (1/32")
3	16
TFA (in2)	0.589

Quality Control	
Created By:	L.Tenorio
Checked By:	

CENTRAL FILE
GEOSCIENCES

Petro-Tech Peruana S.A.

BHA # 2	4 3/4" (9493'- 9667')
Field / Area	Lobitos
Platform	LO6

Date	13-Aug-2001
Well	LO6-25 ST_Slimhole
Borehole	LO6-25

Item	Name	Vendor/ Model	Serial #	Fish. Neck OD (in)/ Length (ft)	OD (in)/ ID (in)	Max OD (in)	Bottom/ Top Connection	Length (ft)	Cum. Length (ft)
1	4 3/4" Rock Bit w/ 3 x 16" Jets	HTC STR-20	X83JP		4 3/4	4 3/4		0.35	0.35
2	3 1/2" Vector Motor w/ B.H= 0°	Griffith	1001	3 7/8 0.49	3 1/2 1 1/2	3 7/8	2 7/8 R P 2 7/8 R B	15.20	15.55
3	X/O	PTP			3 7/8 1 3/4	3 7/8	2 7/8 R P 2 7/8 H-90 B	1.61	17.16
4	24x 3 1/2" HWDP	PEPESA		3 3/4	3 1/8 2	3 3/4	2 7/8 H-90 P 2 7/8 H-90 B	724.78	741.94
5	FLEX JOINT	Anadrill	140005	3 13/16 2.01	3 13/16 1 1/2	3 13/16	2 7/8 H-90 P 2 7/8 H-90 B	7.25	749.19
6	GRIFFITH HYD JAR	Griffith	385-350,1401	3 7/8 1.07	3 7/8 1 7/8	3 7/8	2 7/8 H-90 P 2 7/8 H-90 B	7.73	756.92
7	6x 3 1/2" HWDP	PEPESA		3 3/4	3 1/8 2	3 3/4	2 7/8 H-90 P 2 7/8 H-90 B	181.31	938.23
8									
9									
10									
11									
12									
13									
14									
15									
					Total Weight (lb)			Total Lth.	938.23
					Below Jar (lb)		19,000		

BHA Comments:	Continue drilling @ 10000' Basal Salina Formation
	POOH to change Assy, lay down Vector Motor

Stabilizer	
Blade Length (ft)	Mid-Pt. To Bit (ft)
	Bend To Bottom
Bent Housing Angle (deg)	Connection (ft)

[illegible]

Bit Nozzles	
Count	Size (1/32")
3	16
TFA (in2)	0.589

Quality Control	
Created By:	L.Tenorio
Checked By:	

CENTRAL FILE
GEO SCIENCES

4. CONCLUSIONS & RECOMENDATIONS

- 4.1 Sidetrack with PDM Powerpak A675 7:8 XP & tricone bit (BHA slick) & with ABH 1.50o was enough for our sidetracking purposes.
- 4.2 PDM A675 with 8 5/16" bearing stabilizer & 8 1/8" string stabilizer at 41' from bit showed drop tendencies while rotary drilling. We could try make up this stabilizer farer from bit or an 8 3/8" bearing stabilizer to counteract these tendencies.
- 4.3 Try to use tricone bits with low RPM PDM's for short correction runs. The differences between ROP's for PDC's & tricone's are not significative while sliding and the last ones are more effective while sliding & harder to generate stalling up pressures.
- 4.4 No good directional drilling experiences with PDM & PDC Bit DS110NSV Hycalog in this well and LO6-23 Well. Stalling up pressures & consequently downtime rig by pumps were frequent while sliding.
- 4.5 To survey well with MWD tool (or Non Real Time Log) as deeper as we could to avoid compare center to center distances between Sidetracks & hole tracks projections or trajectories supposed.
- 4.6 PDM Run's let us get DLS while drilling and to keep hole geometry in good shape.
- 4.7 Avoid as much we can well plans with strong Drop off Rates because these normally cause high drill string drag regardless if it is in or out casing. In our case we began this sidetrack with 90Klb of drag at 9 5/8" casing shoe.
- 4.8 A key seat wiper could be ran in drill string at beginning of drop off point and moved every short trip at this position (to ream it when necessary while drilling) to avoid form key seats while drilling & tripping.
- 4.9 Hole in sand is normally in gauge & STB's are in troubles to pass it while tripping.
- 4.10 To review minimum flow rate while drilling & before tripping out for improve hole cleaning conditions in order to minimize hole drag
- 4.11 To review well drillability according rig capacities.

ATTACHEMENTS

CENTRAL FILE
GEOSCIENCES

ATTACHED A. MOTOR RUN SUMMARIES

Reservoir Development

Job # 01019

Report #	Month	Location	District	BHA #	Service	DD	Run Type	Date In:	Date Out:	
1	Jul-2001	Lobitos	PCE	1	DD / MWD	Torres / Donoso / Tenorio	Steerable	17-Jul-2001	19-Jul-2001	
Client	Rig	Well	Motor Run #	Motor Type	Size	S / N	# Stalls			
Petrotech	Pepesa 48	LO6-25 Sidetrack	1	A675M 7:8 5.0	6 3/4"	02188	1			
Stator Configuration	Bent Hsg Angle	Stabilizer Type	Stabilizer Gauge	Hole Size	Circulating Hours	Rotary Drlg Hours	Steering Drlg Hours	Total Hours	ROP ft/hr	Maximum Inclination
7:8	1.50°	Slick	None	8 1/2"	4.00	7.50	12.50	24.00	14.50	27.4°
Depth In	Depth Out	Feet Drilled	Steering Feet	Max DLS (°/100 ft)	GPM	WOB Klb	RPM	PSI On Bottom	PSI Off Bottom	
5990	6277	287	97	5.34	428-490	7 (S) - 30 (R)	50	1300-2000	1200-1800	
Bit Make:	Smith	Bit Type:	MFDSSHC	IADC Code:	Tricone	Nozzles:	2 x 22 , 1 x 18 , 1x 10			
IADC CUTTING STRUCTURE :						TFA:	1.068			
Inner Rows	Outer Rows	Dull Characteristics	Location	Bearings / Seals		Gauge	Other Characteristics			
2	2					1/16"				
Mud Type	Wt (lb/gal)	Viscosity	PV	YP	Chlorides	pH	Hardness	% Solids	% Sand	Slim Temp(°F)
Polymer	9.5	53	21	26	24000		240	7.0	0.50	116
BHA:	8 1/2" bit	6 3/4" PP motor	X/O	Float Sub	pony NMDC	UBHO	NMDC	NMDC	6 1/2" DC x 3	X/O
9 HW 5"	Jar 6 1/2"	15 HW 5"								
Radial Bearing Play			OK	Thrust Bearing Play			0.5mm			
Objective:										
Sidetrack Well LO6-25 @ 2.5°/100ft DLS from 6000 ft										
Results:										
Objective reached with 97ft sliding at the beginning of sidetrack. After that rotary drilling all time										
Drag up average while run=105 Klb										
Formation: Rio Bravo										
Reason for Trip: BHA & poor ROP										
Problem or Failure Reported:			Failure:			Category :			Type :	
R & M Diagnosis:										
Action Follow Up:										

Schlumberger**MOTOR RUN SUMMARY****Reservoir Development****Job # 01019**

Report #	Month	Location	District	BHA #	Service	DD	Run Type	Date In:	Date Out:							
2	Jul-2001	Lobitos	PCE	2	DD / MWD	Torres / Donoso / Tenorio	Steerable	19-Jul-2001	22-Jul-2001							
Client	Rig	Well			Motor Run #	Motor Type	Size	S / N	# Stalls							
Petrotech	Pepesa 48	LO6-25 Sidetrack			2	A675M 4:5 7.0	6 3/4"	02234	12							
Stator Configuration	Bent Hsg Angle	Stabilizer Type	Stabilizer Gauge	Hole Size	Circulating Hours	Rotary Drlg Hours	Steering Drlg Hours	Total Hours	ROP ft/hr	Maximum Inclination						
4:5	1.50°	8 5/16"	8 1/8"	8 1/2"	7.25	24.25	16.25	47.75	17.84	22.7°						
Depth In	Depth Out	Feet Drilled	Steering Feet	Max DLS (°/100 ft)	GPM	WOB Klb	RPM	PSI On Bottom	PSI Off Bottom							
6277	7186	909	95	2.07	465	5 (S) - 10 (R)	50	2100	2000							
Bit Make:		Bit Type:	DS 110NSV			IADC Code:	PDC	Nozzles:	5 x 16 , 1 x 18							
IADC CUTTING STRUCTURE :								TFA:	1.068							
Inner Rows	Outer Rows	Dull Characteristics	Location	Bearings / Seals			Gauge	Other Characteristics								
								5 % wear								
Mud Type	Wt (lb/gal)	Viscosity	PV	YP	Chlorides	pH	Hardness	% Solids	% Sand	Slim Temp(°F)						
Polymer	9.5	53	21	26	24000	10.8	240	7.0	0.50	116						
BHA:		8 1/2" bit	6 3/4" PP motor	X/O	Float Sub	pony NMDC	Stg. STB 8 1/8"	UBHO	NMDC	NMDC 6 1/2" DC x 3						
		X/O	9 HW 5"	Jar 6 1/2"	15 HW 5"											
Radial Bearing Play				OK	Thrust Bearing Play				1mm							
Objective:																
To continue Well track LO6-25 Sidetrack until get 100 ft of separation from old well.																
Results:																
Done with sporadic feet sliding to counteract left turn tendencies. Drop tendencies while rotation with this PDC Bit.																
103 ft of separation from old well to sidetrack was reached at the end of run. Drag up average while run=125 Klb																
Formation:								Reason for Trip: Poor ROP								
Problem or Failure Reported:				Failure:			Category :	Type :								
R & M Diagnosis:																
Action Follow Up:																

Reservoir Development

Job # 01019

Report #	Month	Location	District	BHA #	Service	DD	Run Type	Date In:	Date Out:	
3	Jul-2001	Lobitos	PCE	3	DD / MWD	Torres / Tenorio	Steerable	22-Jul-2001	24-Jul-2001	
Client	Rig	Well	Motor Run #	Motor Type	Size	S / N	# Stalls			
Petrotech	Pepesa 48	LO6-25 Sidetrack	3	A675M 7:8 5.0	6 3/4"	02188	1			
Stator Configuration	Bent Hsg Angle	Stabilizer Type	Stabilizer Gauge	Hole Size	Circulating Hours	Rotary Drlg Hours	Steering Drlg Hours	Total Hours	ROP ft/hr	Maximum Inclination
7:8	1.50°	8 5/16"	8 1/8"	8 1/2"	5.00	32.50	1.00	38.50	15.65	21.3°
Depth In	Depth Out	Feet Drilled	Steering Feet	Max DLS (°/100 ft)	GPM	WOB Klb	RPM	PSI On Bottom	PSI Off Bottom	
7186	7821	635	11	0.64	400	30 (S) - 35 (R)	60	1900	1700	
Bit Make:	HTC	Bit Type:	GTM 09	IADC Code:	Tricone	Nozzles:	3 x24			
IADC CUTTING STRUCTURE :							TFA:	1.325		
Inner Rows	Outer Rows	Dull Characteristics	Location	Bearings / Seals		Gauge	Other Characteristics			
2	2					1/16"				
Mud Type	Wt (lb/gal)	Viscosity	PV	YP	Chlorides	pH	Hardness	% Solids	% Sand	Slim Temp (F°)
Polymer	11.2	55	27	29	28000	9.5	400	14.0	0.50	120
BHA:	8 1/2" bit	6 3/4" PP motor	X/O	Float Sub	pony NMDC	Stg. STB 8 1/8"	UBHO	NMDC	NMDC	6 1/2" DC x 3
	X/O	9 HW 5"	Jar 6 1/2"	15 HW 5"						
Radial Bearing Play				Slight	Thrust Bearing Play				2mm	
Objective:										
To continue Well track LO6-25 Sidetrack aiming to the center of the target										
Results:										
Done with 11 feet sliding up at the beginning of run. Sligh dropping tendencies while rotation with this Tricone Bit.										
112 ft of separation from old well to sidetrack was reached at the end of run. Drag up average while run=250 Klb										
Formation: Mogollon							Reason for Trip: Bit Hours			
Problem or Failure Reported:				Failure:		Category :		Type :		
R & M Diagnosis:										
Action Follow Up:										

Schlumberger Anadrill					MOTOR RUN SUMMARY Job # 01019				
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Report #	Month	Location	District	BHA #	Service	DD	Run Type	Date In:	Date Out:
1	23-aug-2001	Talara	PCE	1	DD	Tenorio	Slick	23-Aug-01	25-Aug-01

Client	Rig	Well	Motor Run #	Motor Type	Size	S / N	# Stalls
Petro-Tech	Pepesa 48	LO6-25 ST_Slimhole	1	Vector 7/8 M/L	3 1/2"	1001	0

Stator Configuration	Bent Hsg Angle	Stabilizer Type	Stabilizer Gauge	Hole Size	Circulating Hours	Rotary Drlg Hours	Steering Drlg Hours	Total Hours	ROP ft/hr	Maximum Inclination
7-8	0°	Slick	n/a	3 1/2	2.0	18.5	0	20.5	6.00	16.7

Depth In	Depth Out	Footage	Steering Ftg	Max DLS	GPM	WOB K lbs	RPM	PSI On Bottom	PSI Off Bottom
9494'	9593'	99'	0		110	10-15	245+60	2200	2100

Bit Make: Hughes Christ	Bit Type: STR-20	Tri-cone insert bit	IADC Code:	Nozzles: 3x16		
IADC CUTTING STRUCTURE :				TFA: 0.589		
Inner Rows	Outer Rows	Dull Characteristics	Location	Bearings / Seals	Gauge	Other Characteristics

Mud Type	Wt (lb/gal)	Viscosity	PV	YP	Chlorides	pH	Hardness	% Solids	% Sand	Slim Temp(F°)
gel / polymer	12.3	56	28	31	26000	10.0	200	19.0	0.40	n/a

BHA:	4 3/4" bit	Vector Motor	X/O	24x3 1/2HWDP	Flex Joint	6x3 1/2HWDP
------	------------	--------------	-----	--------------	------------	-------------

Radial Bearing Play		Thrust Bearing Play	
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Objective:	Hold angle while rotating in 4 3/4" hole size in Slimhole section to target @ 10000'.
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Results:	Low RPM, clearance 1 mm
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Formation: Basal Salina	Reason for Trip:
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Problem or Failure Reported:	Failure: No	Category :	Type :
No problems.			

R & M Diagnosis:	
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Action Follow Up:	
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Schlumberger

Anadrill

MOTOR RUN SUMMARY**Job # 01019**

Report #	Month	Location	District	BHA #	Service	DD	Run Type	Date In:	Date Out:
2	25-aug-2001	Talara	PCE	2	DD	Tenorio	Slick	25-Aug-01	27-Aug-01

Client	Rig	Well	Motor Run #	Motor Type	Size	S / N	# Stalls
Petro-Tech	Pepesa 48	LO6-25 ST Slimhole	2	Vector 7/8 M/L	3 1/2"	1001	0

Stator Configuration	Bent Hsg Angle	Stabilizer Type	Stabilizer Gauge	Hole Size	Circulating Hours	Rotary Drlg Hours	Steering Drlg Hours	Total Hours	ROP ft/hr	Maximum Inclination
7:8	0°	Slick	n/a	3 1/2	2.5	26.0	0	28.5	3.00	16.7

Depth In	Depth Out	Footage	Steering Ftg	Max DLS	GPM	WOB K lbs	RPM	PSI On Bottom	PSI Off Bottom
9593'	9667'	74'	0		110	10-15	254+35	2350	2000

Bit Make: Hughes Christ Bit Type: STR-20 Tri-cone insert bit IADC Code: Nozzles: 3x16

IADC CUTTING STRUCTURE :				TFA: 0.589	
Inner Rows	Outer Rows	Dull Characteristics	Location	Bearings / Seals	Gauge

Mud Type	Wt (lb/gal)	Viscosity	PV	YP	Chlorides	pH	Hardness	% Solids	% Sand	Slim Temp(F°)
gel / polymer	12.3	56	27	30	27000	10.0	200	19.0	0.50	n/a

BHA: 4 3/4" bit Vector Motor X/O 24x3 1/2HWD Flex Joint 6x3 1/2HWD

Radial Bearing Play

Thrust Bearing Play

Objective: Hold angle while rotating in 4 3/4" hole size in Slimhole section to target @ 10000'.

Results: Low RPM, clearance 1 mm

Formation: Basal Salina

Reason for Trip:

Problem or Failure Reported:

Failure: No

Category :

Type :

No problems.

R & M Diagnosis:

Action Follow Up:

ATTACHED B. DAILY ACTIVITY REPORTS

DAILY ACTIVITY REPORT

Pls Fax to Lima (1) 4219255 / Talara (74) 382845

15-Jul-01

Company		PETROTECH PERUANA S.A.		Report N°		1		Job number		01019		PDM hrs.today		0.0	
Well		LO6-25 ST		Depth @ 00:00 hrs (ft)		0		MWD / LWD		N / N					
Rig		PEPESA 48		Footage last 24 Hrs.		0									
PDM				BIT				FISH							
Type of Motor				Size				Bit 8 1/2"							
Serial No				Maker				HTC							
Bent Housing				Type				MX 1							
Pad/Stab OD				Serial Number				W 977 P							
Drig Hrs				Depth in											
Circ. Hrs.				Depth closed											
Cum. Drig Hrs				Footage				0.0				0.0			
Cum. Circ. Hrs				Hours				0.00				0.00			
PDM HRS RUN				ROP / Avg.				#DIV/0!				#DIV/0!			
Depth-In				Nozzles(TFA)											
Depth Out				T/B/G/R											
Cumm. Meters				0.0				0.0							
Drilling Parameters				MUD TYPE				POLYMER							
WOB (Ton)				Density				Funnel Viscosity				PV \ YP			
RPM/Motor				12.10				62				27 \ 28			
Torque (R/T)				Solid				PF / MF				pH			
Hook Load(RT)				16.0%				0.2 / 14							
P/U weight				Sand%				Cl-(ppm)				Ca++(ppm)			
L/O weight				0.4%				16,000				160			
13 3/8"Casing				Gels				LGS (%)				Slim Temp F°			
2198 ft				8 \ 18 \ 22											
9 5/8" Casing															
7" Liner															
Pumping				MWD/S LIM1				Run#				Run#			
SPM				Tools Hrs.today											
GPM				Circ.Hrs.today											
SPP off bottom				Tools hrs run											
Diff. Pressure				Circul.hrs Run											
Turbine rpm				Mode/Config											
STATISTICS - CUMULATIVE INFO				Engineers (days)				1							
MWD / GR operating				0 / 0											
Rotary Hours Jar HE				4 (25 hrs jarring)				SN 03376							
Jar HE operative				5 days											
Operation/Tools Notes				Top of fish 6140'				Bottom Fish 6163'							
Following Anadrill tools below rotary table since July 10th, 2001				(F.sub+ FV, NB STB, STG STB, SNMDC)				5 days Jar operative days before Anadrill arrive to Rig							
Office Notes															
Anadrill Personnel on the rig:				DD's											
				DD's											
				DD's											
G. Soto				MWD											
P. Mejia				MWD											
Operator Representatives:															
Franklin Cordova															
Time Breakdown with Comments				as of 00:00 AM 7/15/01											
Comments				0:00				Hrs				Code			
4:00				4:00				Tr				RIH drill string with diverter tool @ 6162' (Top of fish). Pull back to 6140'			
5:30				1:30				C				Circulate			
7:30				2:00				O				M/U Cementing Lines for cement job			
10:00				2:30				O				Pump cement plug			
10:30				0:30				Tr				Pull back to 5388' (08 stds)			
12:30				2:00				C				Circulate to clean drill string			
16:30				4:00				Tr				POOH to surface			
0:00				7:30				O				WOC			
TOTALS				24.00				24							
Drilling D				Reaming R				Surveying Sv				Circulating C			
0.00				0.00				0.00				3.50			
Survey MD				Inclination				Azimuth				TVD			
												North			
												East			

DAILY ACTIVITY REPORT

Pls Fax to Lima (1) 4219255 / Talara (74) 382845

16-Jul-01

[illegible]

DAILY ACTIVITY REPORT

Pls Fax to Lima (1) 4219255 / Talara (74) 382845

17-Jul-01

Company	PETROTECH PERUANA S.A.	Report N°	3	Job number	01019	PDM hrs.today	0.5
Well	LO6-25 ST	Depth @ 00:00 hrs (ft)	0	MWD / LWD	Y / N		
Rig	PEPESA 48	Footage last 24 Hrs.	0				

PDM		1	BIT		7		BHA		DD BHA NO.1	
Type of Motor		A675 78 XP	Size	8 1/2"	8 1/2"		Bit 8 1/2"	0.83	Tricone bit 8 1/2"	0.81
Serial No		02188	Maker	HTC	Smith		X/O	3.05	PDM A675 7:8 XP	25.25
Bent Housing		1.50	Type	GTM 1	MFDSSHC		03 DC 6 1/4"	85.20	X/O Sub	2.53
Pad/Stab OD		Slick	Serial Number	S050V	LW 4136		X/O	3.93	Float Sub w/ FV	1.84
Drlg Hrs		0.00	Depth in	5401	5990		03 HWDP 5"	89.56	NMSDC	7.57
Circ. Hrs.		0.50	Depth closed	5990	5990		Jar	32.32	UBHO	2.27
Cum. Drlg Hrs		0.00	Footage	589.0	0.0		11 HWDP	331.28	NMDC	30.57
Cum. Circ. Hrs		0.50	Hours	14.50	0.00				NMDC	30.62
PDM HRS RUN		0.00	ROP / Avg.	40.62	#DIV/0!				3 DC 6 1/2"	85.28
Depth In		5990.0	Nozzles(TFA)	2x22 / 1x24	2x22/1x18/1x10				X/O Sub	3.93
Depth Out		5990.0	T/B/G/R						9 HWDP 5"	272.97
Cumm. Meters		0.0	MUD TYPE		POLYMER				Jar 6 1/2" HE	32.27
Drilling Parameters			Density	Funnel Viscosity	PV \ YP				15 HWDP 5"	451.62
WOB (Ton)			9.80	48	17 \ 18					
RPM/Motor			Solid	PF / MF	pH					
Torque (R/T)			7.0%	2.6 / 3.2	13					
Hook Load(RT)		P/U weight	Sand%	Cl-(ppm)	Ca++(ppm)					
110		190	0.2%	21 M	320					
13 3/8"Casing		9 5/8" Casing	Gels	LGS (%)	Slim Temp F°					
2198 ft		5980 ft	5 \ 12 \ 18				Total	546.17	Total	947.53

Pumping			MWD/S LIM1	Run#	Run# 1	STATISTICS - CUMULATIVE INFO			
SPM			Tools Hrs.today		7	Engineers (days)	3		
GPM	0	400	Circ.Hrs.today			MWD / GR operating	1/ 0		
SPP off bottom		800	Tools hrs run		7	Rotary Hours Jar HE	18.5 (25 hrs jam)	SN 03376	
Diff. Pressure			Circul.hrs Run			Jar HE operative	7 days		
Turbine rpm		0.3 rev/ gln	Mode/Config		1239 / F7	Rotary Hours Jar HE	0 hrs	SN 03595	

as of 00:00 AM 7/17/01			Time Breakdown with Comments			
0:00	Hrs	Code	Comments			
0:30	0:30	Tr	RIH to 5780'			
1:00	0:30	C	Mud conditioning to 9.8 ppg			
7:00	6:00	D	Drilling cement at 10Klb 100 RPM ROP:50' / hr to 5990'			
8:00	1:00	C	Circulate to run Sidetrack assembly w/ PDM			
12:00	4:00	Tr	POOH drill string & L/D slick BHA			
15:30	3:30	Tr	M/U DD BHA No. 1			
17:30	2:00	O	Test Slim-1. Negative results. L/D Slim-1 & RIH again			
			SHT OK 490 GPM & 800 PSI			
23:30	6:00	Tr	RIH to 5956'			
0:00	0:30	C	Circulate to mud conditioning: 9.5 ppg			

DAILY ACTIVITY REPORT

Pls Fax to Lima (1) 4219255 / Talara (74) 382845

18-Jul-01

[illegible]

Company	PETROTECH PERUANA S.A.		Report N°	5		Job number	01019		PDM hrs.today	9.0	
Well	LO6-25 ST		Depth @ 00:00 hrs (ft)	6385		MWD / LWD	Y / N				
Rig	PEPESA 48		Footage last 24 Hrs.	115							

PDM	1	2	BIT	7	8	DD BHA NO.1		DD BHA NO.2	
Type of Motor	A675 78XP	A 675 45XP	Size	8 1/2"	8 1/2"	Tricone bit 8 1/2"	0.81	PDC bit 8 1/2"	0.95
Serial No	02188	02234	Maker	Smith	Hycalog	PDM A675 7:8 XP	25.25	PDM A675 4:5 XP	26.48
Bent Housing	1.50	1.50	Type	MFSSSHC	DS110NSV	X/O Sub	2.53	X/O Sub	2.53
Pad/Stab OD	Slick	8 5/16"	Serial Number	LW 4136	H47615	Float Sub w/ FV	1.84	Float Sub w/ FV	1.84
Drig Hrs	0.50	7.00	Depth in	5990	6276	NMSDC	7.57	NMSDC	7.57
Circ. Hrs.	1.00	0.50	Depth closed	6276	6385	UBHO	2.27	STG. STB 8 1/8"	5.63
Cum. Drig Hrs	24.00	7.00	Footage	286.0	109.0	NMDC	30.57	UBHO	2.27
Cum. Circ. Hrs	2.00	0.50	Hours	24.00	7.00	NMDC	30.62	NMDC	30.57
PDM HRS RUN	26.00	7.50	ROP / Avg.	11.92	15.57	3 DC 6 1/2"	85.28	NMDC	30.62
Depth In	5990.0	6276.0	Nozzles(TFA)	2x22/1x18/1x10	5x16 / 1x18	X/O Sub	3.93	3 DC 6 1/2"	85.28
Depth Out	6276.0	6485.0	T/B/G/R			9 HWDP 5"	272.97	X/O Sub	3.93
Cumm. Meters	286.0	209.0	MUD TYPE POLYMER			Jar 6 1/2" HE	32.27	9 HWDP 5"	272.97
Drilling Parameters			Density	Funnel Viscosity	PV \ YP	15 HWDP 5"	451.62	Jar 6 1/2" HE	32.27
WOB (Ton)	10 (S) - 30 (R)	5 (S) - 10 (R)	9.80	53	22 / 28			15 HWDP 5"	451.62
RPM/Motor	50 + 150	40 + 215	Solid	PF / MF	pH				
Torque (R/T)	180	200	8.0%	1.2 / 2.4	11.60				
Hook Load(RT)	P/U weight	L/O weight	Sand%	CI-(ppm)	Ca++(ppm)				
135	240	95	0.5%	24 M	280				
13 3/8"Casing	9 5/8" Casing	7" Liner	Gels	LGS (%)	Slim Temp F°				
2198 ft	5980 ft		7 \ 15 \ 24		110	Total	947.53	Total	954.53

Pumping			MWD/Slim1	Run# 1	Run# 2	STATISTICS - CUMULATIVE INFO		
SPM			Tools Hrs.today	6	16	Engineers (days)	5	
GPM	500	420	Circ.Hrs.today			MWD / GR operating	3 / 0	
SPP off bottom	1800	1750	Tools hrs run	37	16			
Diff. Pressure	200	200	Circul.hrs Run			Jar HE operative	9 days	
Turbine rpm	0.3 rev/gln	0.5 rev/gln	Mode/Config	1239 / F7	1239 / F7	Rotary Hours Jar HE	44.5 hrs	SN 03595

as of 00:00 AM 7/19/01			Time Breakdown with Comments			Operation/Tools Notes	
0:00	Hrs	Code	Comments			Top of fish 6140' Bottom Fish 6163'	
0:30	0:30	D	Rotary drilling f/ 6270' to 6276'			Anadrill tools below rotary table since July 10th, 2001	
1:30	1:00	C	Circulate & pump slug pipe			Bottom cement @ 6140'	
6:00	4:30	Tr	POOH to surface				
8:00	2:00	Tr	Change PDM & BHA. Test Slim-1 w/ tricone bit				
8:30	0:30	Tr	Slim-1 Test OK 490 GPM - 600 PSI				
9:00	0:30	O	Lubricate Rig				
15:00	6:00	Tr	M/U PDC Bit. RIH to 6276'				
15:30	0:30	C	Circulate & orient PDM				
16:00	0:30	D	Slide drilling f/ 6276' to 6283'				
17:30	1:30	O	Repair pumps				
0:00	6:30	D	Slide & rotary drilling f/ 6283' to 6385'				
TOTALS			24.00	24			

Anadrill Personnel on the rig:					
R. Torres	DD's				
O. Donoso	DD's				
L. Tenorio	DD's				
G. Soto	MWD				
P. Mejia	MWD				

Operator Representatives:					
Ricardo Gilabert					

Drilling D	Reaming R	Surveying Sv	Circulating C	Tripping Tr	Other O
7.50	0.00	0.00	1.50	13.00	2.00
Survey MD	Inclination	Azimuth	TVD	North	East
6307'	22.7	212.20	4693.13'	-2737.69'	-2643.66'

DAILY ACTIVITY REPORT

Pls Fax to Lima (1) 4219255 / Talara (74) 382845

20-Jul-01

Company	PETROTECH PERUANA S.A.	Report N°	6	Job number	01019	PDM hrs.today	22.0
Well	LO6-25 ST	Depth @ 00:00 hrs (ft)	6857	MWD / LWD	Y / N		
Rig	PEPESA 48	Footage last 24 Hrs.	472				

PDM	2		BIT	8		DD BHA NO.2			
Type of Motor	A675 45XP		Size	8 1/2"		PDC bit 8 1/2"	0.95		
Serial No	02234		Maker	Hycalog		PDM A675 4:5 XP	26.48		
Bent Housing	1.50		Type	DS110NSV		X/O Sub	2.53		
Pad/Stab OD	8 5/16"		Serial Number	H47615		Float Sub w/ FV	1.84		
Drlg Hrs	21.00		Depth in	6276		NMSDC	7.57		
Circ. Hrs.	1.00		Depth closed	6857		STG. STB 8 1/8"	5.63		
Cum. Drlg Hrs	45.00		Footage	581.0	0.0	UBHO	2.27		
Cum. Circ. Hrs	3.00		Hours	28.00		NMDC	30.57		
PDM HRS RUN	48.00	0.00	ROP / Avg.	20.75	#DIV/0!	NMDC	30.62		
Depth In	6276.0		Nozzles(TFA)	5x16 / 1x18		3 DC 6 1/2"	85.28		
Depth Out	6857.0		T/B/G/R			X/O Sub	3.93		
Cumm. Meters	581.0	0.0	MUD TYPE	POLYMER		9 HWDP 5"	272.97		
Drilling Parameters			Density	Funnel Viscosity	PV \ YP	Jar 6 1/2" HE	32.27		
WOB (Ton)	10 (S) - 15 (R)		10.80	54	24 / 28	15 HWDP 5"	451.62		
RPM/Motor	40 + 215		Solid	PF / MF	pH				
Torque (R/T)	200		12.0%	0.5 / 1.4	10.90				
Hook Load(RT)	P/U weight	L/O weight	Sand%	Cl-(ppm)	Ca++(ppm)				
144	270	95	0.5%	25 M	320				
13 3/8"Casing	9 5/8" Casing	7" Liner	Gels	LGS (%)	Slim Temp F°				
2198 ft	5980 ft		7 \ 17 \ 28		120	Total	954.53	Total	0.00

Pumping			MWD/Slim1	Run# 2	Run#	STATISTICS - CUMULATIVE INFO			
SPM			Tools Hrs.today	24		Engineers (days)	6		
GPM	420		Circ.Hrs.today			MWD / GR operating	4 / 0		
SPP off bottom	1900		Tools hrs run	40					
Diff. Pressure	150		Circul.hrs Run			Jar HE operative	10 days		
Turbine rpm	0.5 rev/aln		Mode/Config	1239 / F7		Rotary Hours Jar HE	65.5 hrs	SN 03595	

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DAILY ACTIVITY REPORT

Pls Fax to Lima (1) 4219255 / Talara (74) 382845

21-Jul-01

Company	PETROTECH PERUANA S.A.	Report N°	7	Job number	01019	PDM hrs.today	19.5
Well	LO6-25 ST	Depth @ 00:00 hrs (ft)	7159	MWD / LWD	Y / N		
Rig	PEPESA 48	Footage last 24 Hrs.	302				

PDM	2	
Type of Motor	A675 45XP	
Serial No	02234	
Bent Housing	1.50	
Pad/Stab OD	8 5/16"	
Drig Hrs	19.50	
Circ. Hrs.	0.00	
Cum. Drig Hrs	64.50	
Cum. Circ. Hrs	3.00	
PDM HRS RUN	67.50	0.00
Depth In	6276.0	
Depth Out	7159.0	
Cumm. Meters	883.0	0.0

Drilling Parameters		
WOB (Ton)	10 (S) - 15 (R)	
RPM/Motor	40 + 215	
Torque (R/T)	200	
Hook Load(RT)	P/U weight	L/O weight
150	275	95
13 3/8" Casing	9 5/8" Casing	7" Liner
2198 ft	5980 ft	

BIT	8	
Size	8 1/2"	
Maker	Hycalog	
Type	DS110NSV	
Serial Number	H47615	
Depth in	6276	
Depth closed	7159	
Footage	883.0	0.0
Hours	47.50	
ROP / Avg.	18.59	#DIV/0!
Nozzles(TFA)	5x16 / 1x18	
T/B/G/R		

MUD TYPE		POLYMER
Density 10.80	Funnel Viscosity 54	PV \ YP 25 / 28
Solid 13.0%	PF / MF 0.35 / 1.2	pH 10.80
Sand% 0.5%	Cl-(ppm) 28 M	Ca++(ppm) 280
Gels 7 \ 18 \ 29	LGS (%)	Slim Temp F° 120

DD BHA NO.2			
PDC bit 8 1/2"	0.95		
PDM A675 4:5 XP	26.48		
X/O Sub	2.53		
Float Sub w/ FV	1.84		
NMSDC	7.57		
STG. STB 8 1/8"	5.63		
UBHO	2.27		
NMDC	30.57		
NMDC	30.62		
3 DC 6 1/2"	85.28		
X/O Sub	3.93		
9 HWDP 5"	272.97		
Jar 6 1/2" HE	32.27		
15 HWDP 5"	451.62		
Total	954.53	Total	0.00

Pumping		
SPM		
GPM	420	
SPP off bottom	2000	
Diff. Pressure	100	
Turbine rpm	0.5 rev/aln	

MWD/SLIM1	Run# 2	Run#
Tools Hrs.today	24	
Circ.Hrs.today		
Tools hrs run	64	
Circul.hrs Run		
Mode/Config	1239 / F7	

STATISTICS - CUMULATIVE INFO			
Engineers (days)	7		
MWD / GR operating	5 / 0		
Jar HE operative	11 days		
Rotary Hours Jar HE	85 hrs	SN 03595	

<i>as of 00:00 AM 7/21/01</i>			Time Breakdown with Comments
0:00	Hrs	Code	Comments
12:00	12:00	D	Slide & Rotary drilling f/ 6857' to 7105'
15:30	3:30	Tr	POOH to 7003'. Repair wash pipe twice.
16:30	1:00	Tr	POOH to 6735'. Change wash pipe
0:00	7:30	D	Slide & Rotary drilling f/ 7105' to 7159'
TOTAL S	24.00	24	

Drilling D	Reaming R	Surveying Sv	Circulating C	Tripping Tr	Other O
19.50	0.00	0.00	0.00	4.50	0.00
Survey MD 7026'	Inclination 21.1	Azimuth 214.30	TVD 5360'	North -2956.89'	East -2799.07'

Operation/Tools Notes	
Top of fish 6140'	Bottom Fish 6163'
Anadrill tools below rotary table since July 10th, 2001	
Bottom cement @ 6140'	

Office Notes	

Anadrill Personnel on the rig:		
R. Torres	DD's	
O. Donoso	DD's	
L. Tenorio	DD's	
G. Soto	MWD	
P. Mejia	MWD	

Operator Representatives:	
Ricardo Gilabert	

DAILY ACTIVITY REPORT

Pls Fax to Lima (1) 4219255 / Talara (74) 382845

22-Jul-01

Company			PETROTECH PERUANA S.A.			Report N°			8			Job number			01019			PDM hrs.today			8.0								
Well			LO6-25 ST			Depth @ 00:00 hrs (ft)			7202			MWD / LWD			Y / N														
Rig			PEPESA 48			Footage last 24 Hrs.			43																				
PDM			2			3			BIT			8			9			DD BHA NO.2			DD BHA NO. 3								
Type of Motor			A675 45XP			A675 78XP			Size			8 1/2"			8 1/2"			PDC bit 8 1/2"			0.95			Tricone bit 8 1/2"			0.78		
Serial No			02234			02188			Maker			Hycalog			HTC			PDM A675 4:5 XP			26.48			PDM A675 7:8 XP			25.25		
Bent Housing			1.50			1.50			Type			DS110NSV			GTM 09			X/O Sub			2.53			X/O Sub			2.53		
Pad/Stab OD			8 5/16"			8 5/16"			Serial Number			H47615			R15DD			Float Sub w/ FV			1.84			Float Sub w/ FV			1.84		
Drig Hrs			3.50			2.00			Depth in			6276			7186			NMSDC			7.57			NMSDC			7.57		
Circ. Hrs.			1.00			1.50			Depth closed			7186			7202			STG. STB 8 1/8"			5.63			STG. STB 8 1/8"			5.63		
Cum. Drig Hrs			68.00			2.00			Footage			910.0			16.0			UBHO			2.27			UBHO			2.27		
Cum. Circ. Hrs			4.00			1.50			Hours			51.00			2.00			NMDC			30.57			NMDC			30.57		
PDM HRS RUN			72.00			3.50			ROP / Avg.			17.84			8.00			NMDC			30.62			NMDC			30.62		
Depth In			6276.0			7186.0			Nozzles(TFA)			5x16 / 1x18			3x24			3 DC 6 1/2"			85.28			3 DC 6 1/2"			85.28		
Depth Out			7186.0			7202.0			T/B/G/R			5 % wear						X/O Sub			3.93			X/O Sub			3.93		
Cumm. Meters			910.0			16.0			MUD TYPE			POLYMER						9 HWDP 5"			272.97			9 HWDP 5"			272.97		
Drilling Parameters									Density			Funnel Viscosity			PV \ YP			Jar 6 1/2" HE			32.27			Jar 6 1/2" HE			32.27		
WOB (Ton)			10 (S) - 15 (R)			30 (S) - 30 @			10.90			56			26 / 28			15 HWDP 5"			451.62			15 HWDP 5"			451.62		
RPM/Motor			40 + 215			50 + 115			Solid			PF / MF			pH														
Torque (R/T)			200			150			13.0%			0.30 / 1.2			10.40														
Hook Load(RT)			P/U weight			L/O weight			Sand%			Cl-(ppm)			Ca++(ppm)														
150			275			95			0.5%			27 M			400														
13 3/8"Casing			9 5/8" Casing			7" Liner			Gels			LGS (%)			Slim Temp F°														
2198 ft			5980 ft						7 \ 19 \ 28						110			Total			954.53			Total			953.13		
Pumping									MWD/SLIM1			Run# 2			Run# 3			STATISTICS - CUMULATIVE INFO											
SPM									Tools Hrs.today			10.5			12			Engineers (days)			8								
GPM			420			400			Circ.Hrs.today									MWD / GR operating			6 / 0								
SPP off bottom			2050			1650			Tools hrs run			74.5			12														
Diff. Pressure			100			200			Circul.hrs Run									Jar HE operative			12 days								
Turbine rpm			0.5 rev/gln			0.3 rev/gln			Mode/Config			1239 / F7			1239 / F7			Rotary Hours Jar HE			90.5 hrs			SN 03595					
as of 00:00 AM 7/22/01									Time Breakdown with Comments									Operation/Tools Notes											
0:00			Hrs			Code			Comments									Top of fish 6140' Bottom Fish 6163'											
3:30			3:30			D			Slide & Rotary drilling f/ 7159' to 7186'									Anadrill tools below rotary table since July 10th, 2001											
4:30			1:00			Tr			Circulate to POOH to change bit.									Bottom cement @ 6140'											
11:00			6:30			Tr			POOH to surface. MOP= 280 Klb. Change PDM & Bit																				
12:30			1:30			Tr			M/U PDM + tricone Bit used to Test Slim-1. OK. 420 GPM & 850 PSI																				
17:30			5:00			Tr			POOH to surface. M/U new bit. RIH to casing shoe. Filled up pipe																				
18:00			0:30			O			Lubricate Rig									Office Notes											
19:30			1:30			O			Slip 85' of drilling line. Cut off 80'																				
20:30			1:00			Tr			Continue RIH with pipe protectors																				
22:00			1:30			R			Ream f/ 7161' to 7186'																				
0:00			2:00			D			Slide & Rotary drilling f/ 7186' to 7202'																				
						</																							

23-Jul-01

Company		PETROTECH PERUANA S.A.		Report N°		9		Job number		01019		PDM hrs.today		21.5	
Well		L06-25 ST		Depth @ 00:00 hrs (ft)		7562		MWD / LWD		Y / N					
Rig		PEPESA 48		Footage last 24 Hrs.		360									

PDM			3			BIT			9			DD BHA NO. 3					
Type of Motor			A675 78XP			Size			8 1/2"			Tricone bit 8 1/2"			0.78		
Serial No			02188			Maker			HTC			PDM A675 7:8 XP			25.25		
Bent Housing			1.50			Type			GTM 09			X/O Sub			2.53		
Pad/Stab OD			8 5/16"			Serial Number			R15DD			Float Sub w/ FV			1.84		
Drig Hrs			21.50			Depth in			7186			NMSDC			7.57		
Circ. Hrs.			0.00			Depth closed			7562			STG. STB 8 1/8"			5.63		
Cum. Drig Hrs			23.50			Footage			376.0			UBHO			2.27		
Cum. Circ. Hrs			1.50			Hours			23.50			NMDC			30.57		
PDM HRS RUN			25.00			ROP / Avg.			16.00			NMDC			30.62		
			0.00						#DIV/0!								
Depth In			7186.0			Nozzles(TFA)			3x24			3 DC 6 1/2"			85.28		
Depth Out			7562.0			T/B/G/R						X/O Sub			3.93		
Cumm. Meters			376.0									9 HWDP 5"			272.97		
			0.0														
Drilling Parameters						MUD TYPE						POLYMER					
WOB (Ton)						35 (R)		Density		Funnel Viscosity		PV \ YP					
RPM/Motor						60 + 130		11.00		55		27 / 28					
Torque (R/T)						150		Solid		PF / MF		pH					
								13.0%		0.30 / 1.2		10.00					
Hook Load(RT)						P/U weight		Sand%		Cl-(ppm)		Ca++(ppm)					
						155		0.5%		27 M		400					
13 3/8"Casing						9 5/8" Casing		Gels		LGS (%)		Slim Temp F°					
2198 ft						5980 ft		7 \ 20 \ 28				115					

Pumping						MWD/S LIM1			Run# 3			Run#			STATISTICS - CUMULATIVE INFO					
SPM									Tools Hrs.today			24			Engineers (days)			9		
GPM						420			Circ.Hrs.today						MWD / GR operating			7 / 0		
SPP off bottom						1750			Tools hrs run			36								
Diff. Pressure						200			Circul.hrs Run						Jar HE operative			13 days		
Turbine rpm						0.3 rev/gln			Mode/Config			1239 / F7			Rotary Hours Jar HE			112 hrs		
															SN 03595					

as of 00:00 AM 7/23/01				Time Breakdown with Comments						Operation/Tools Notes					
0:00		Hrs		Code		Comments						Top of fish 6140' Bottom Fish 6163'			
12:00		12:00		D		Rotary drilling f/ 7202' to 7380' with PDM						Anadrill tools below rotary table since July 10th, 2001			
12:30		0:30		O		Lubricate Rig						Bottom cement @ 6140'			
21:00		8:30		D		Rotary drilling f/ 7380' to 7538' with PDM									
23:00		2:00		Tr		Short trip to 6974'. MOP=280000 Lb									
0:00		1:00		D		Rotary drilling f/ 7538' to 7562' with PDM									
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DAILY ACTIVITY REPORT

Pls Fax to Lima (1) 4219255 / Talara (74) 382845

24-Jul-01

[illegible]

Company	PETROTECH PERUANA S.A.	Report N°	11	Job number	01019	PDM hrs.today	0.0
Well	LO6-25 ST	Depth @ 00:00 hrs (ft)	7832	MWD / LWD	Y / N		
Rig	PEPESA 48	Footage last 24 Hrs.	12				

PDM	3		BIT	9	10	DD BHA NO. 3	DD BHA NO. 4
Type of Motor	A675 78XP		Size	8 1/2"	8 1/2"	Tricone bit 8 1/2"	PDC bit 8 1/2"
Serial No	02188		Maker	HTC	Hycalog	PDM A675 7-8 XP	NB STB 8 1/2" FG
Bent Housing	1.50		Type	GTM 09	DS110NSV	X/O Sub	Float Sub w/ FV
Pad/Stab OD	8 5/16"		Serial Number	R15DD	H47615	Float Sub w/ FV	NMSDC
Drig Hrs	17.00		Depth in	7186	7820	NMSDC	STG. STB 8 1/8"
Circ. Hrs.	1.00		Depth closed	7820	7838	STG. STB 8 1/8"	UBHO
Cum. Drig Hrs	40.50		Footage	634.0	18.0	UBHO	NMDC
Cum. Circ. Hrs	2.50		Hours	40.50	4.50	NMDC	NMSDC
PDM HRS RUN	43.00	0.00	ROP / Avg.	15.65	4.00	NMDC	STG. STB 8 15/32"
Depth In	7186.0		Nozzles(TFA)	3x24	5x16 / 1x15	3 DC 6 1/2"	NMDC
Depth Out	7820.0		T/B/G/R			X/O Sub	3 DC 6 1/2"
Cumm. Meters	634.0	0.0	MUD TYPE	POLYMER		9 HWDP 5"	X/O Sub
Drilling Parameters			Density	Funnel Viscosity	PV \ YP	Jar 6 1/2" HE	9 HWDP 5"
WOB (Ton)	35 (R)	25 (R)	11.20	54	28 / 30	15 HWDP 5"	Jar 6 1/2" HE
RPM/Motor	60 + 130	100	Solid	PF / MF	pH		15 HWDP 5"
Torque (R/T)	170	150 - 180	14.0%	0.12 / 0.7	9.20		
Hook Load(RT)	P/U weight	L/O weight	Sand%	CI-(ppm)	Ca++(ppm)		
156	300	105	0.5%	27 M	400		
13 3/8"Casing	9 5/8" Casing	7" Liner	Gels	LGS (%)	Slim Temp F°		
2198 ft	5980 ft		7 \ 22 \ 30		110	Total	953.13
						Total	948.58

Pumping		MWD/SIM1	Run# 3	Run# 4	STATISTICS - CUMULATIVE INFO		
SPM		Tools Hrs.today	0.75	21.75	Engineers (days)	11	
GPM	400	Circ.Hrs.today			MWD / GR operating	9 / 0	
SPP off bottom	1750	Tools hrs run	60.75	21.75			
Diff. Pressure	200	Circul.hrs Run			Jar HE operative	15 days	
Turbine rpm	0.3 rev/gln	Mode/Config	1239 / F7	1202 / F7	Rotary Hours Jar HE	133.5 hrs	SN 03595

as of 00:00 AM 7/25/01	Time Breakdown with Comments					Operation/Tools Notes
0:00	Hrs	Code	Comments			Top of fish 6140' Bottom Fish 6163'
1:00	1:00	Tr	Continue POOH to surface			Anadrill tools below rotary table since July 10th, 2001
3:00	2:00	Tr	L/D PDM, M/U new BHA w/ PDC bit & MWD. RIH to 300'			Bottom cement @ 6140'
3:30	0:30	Tr	MWD Test @ 418 GPM & 550 PSI			
8:30	5:00	Tr	RIH. Install corrosion Rings. Filled up pipe @ 3000'			
			Continue RIH to 6132'. BHA sit down			
11:00	2:30	R	Ream f/ 6032' to 6895'			
11:30	0:30	Tr	RIH std by std to 7245'			
13:00	1:30	R	Ream f/ 7245' to 7343'			
15:00	2:00	Tr	POOH 21 dp's & RIH 07 stds			
19:30	4:30	R	Ream f/ 7398' to bottom. The last 10 joints RIH with circulation & without			
			rotary was really necessary to get bottom			
0:00	4:30	D	Drilling f/ 7820' to 7832'. Work pipe to improve ROP several times			
TOTALS	24.00	24				
Drilling D	Reaming R	Surveying Sv	Circulating C	Tripping Tr	Other O	
4.50	8.50	0.00	0.00	11.00	0.00	
Survey MD	Inclination	Azimuth	TVD	North	East	
7749'	19.9	214.50	6035.20'	-3167.43'	-2949.00'	

Anadrill Personnel on the rig:		
R. Torres	DD's	
	DD's	
L. Tenorio	DD's	
G. Soto	MWD	
P. Mejia	MWD	

Operator Representatives:
Ricardo Gilabert

Company PETROTECH PERUANA S.A.		Report N° 12		Job number 01019		PDM hrs.today 0.0	
Well LO6-25 ST		Depth @ 00:00 hrs (ft) 7916		MWD / LWD Y / N			
Rig PEPESA 48		Footage last 24 Hrs. 84					

PDM			BIT			DD BHA NO. 4			DD BHA NO. 5		
Type of Motor			Size	10	11	PDC bit 8 1/2"	0.95	PDC bit 8 1/2"	0.92		
Serial No			Maker	Hycalog	Smith	NB STB 8 1/2" FG	6.06	NB STB 8 3/8" UG	4.72		
Bent Housing			Type	DS110NSV	MA89PX	Float Sub w/ FV	1.84	Float Sub w/ FV	1.84		
Pad/Stab OD			Serial Number	H47615	JS2239	NMSDC	10.36	Pony DC	4.97		
Drig Hrs			Depth in	7820	7916	STG. STB 8 1/8"	5.63	NMSDC	10.36		
Circ. Hrs.			Depth closed	7916	7916	UBHO	2.27	STG. STB 8 1/8"	5.63		
Cum. Drig Hrs			Footage	96.0	0.0	NMDC	30.57	UBHO	2.27		
Cum. Circ. Hrs			Hours	14.50	0.00	NMSDC	7.57	NMDC	30.57		
PDM HRS RUN	0.00	0.00	ROP / Avg.	6.62	#DIV/0!	STG. STB 8 15/32"	6.64	NMSDC	7.57		
Depth In			Nozzles(TFA)	5x16 / 1x15	6x16	NMDC	30.62	STG. STB 8 5/16"	4.54		
Depth Out			T/B/G/R			3 DC 6 1/2"	85.28	NMDC	30.62		
Cumm. Meters	0.0	0.0	MUD TYPE			POLYMER					
Drilling Parameters			Density	Funnel Viscosity	PV \ YP						
WOB (Ton)	35 (R)		11.40	58	29 / 30						
RPM/Motor	100		Solid	PF / MF	pH						
Torque (R/T)	180		15.0%	0.10 / 0.8	9.60						
Hook Load(RT)	P/U weight	L/O weight	Sand%	Cl-(ppm)	Ca++(ppm)						
156	300	105	0.5%	29 M	400						
13 3/8"Casing	9 5/8" Casing	7" Liner	Gels	LGS (%)	Slim Temp F°						
2198 ft	5980 ft		7 \ 25 \ 35		110						

Pumping			MWD/SLIM1			Run# 4			Run# 5		
SPM			Tools Hrs.today	16	7.75						
GPM	420		Circ.Hrs.today								
SPP off bottom	1700		Tools hrs run	76.75	7.75						
Diff. Pressure			Circul.hrs Run								
Turbine rpm			Mode/Config	1202 / F7	1202 / F7						

Statistics - CUMULATIVE INFO		
Engineers (days)	12	
MWD / GR operating	10 / 0	
Jar HE operative	16 days	
Rotary Hours Jar HE	143.5 hrs	SN 03595

as of 00:00 AM 7/26/01			Time Breakdown with Comments		
0:00	Hrs	Code	Comments		
10:00	10:00	D	Drilling f/ 7832' to 7916'.		
11:00	1:00	C	Circulate to POOH to change bit because poor ROP. Pump baritone plug		
16:30	5:30	Tr	POOH . L/D bit & stab's FG		
17:30	1:00	Tr	M/U new PDC bit & stb's UG & 2 DC 6 1/2"		
18:00	0:30	Tr	Test MWD Slim-1 @ 350'		
22:30	4:30	Tr	RIH to 7866'. Filled up pipe @ 3000' & 5780'		
23:30	1:00	R	M/U kelly & Ream f/ 7866' to 7916'		
0:00	0:30	C	Flow check.		
TOTALS			24.00	24	

Operation/Tools Notes					
Top of fish 6140' Bottom Fish 6163'					
Anadrill tools below rotary table since July 10th, 2001					
Bottom cement @ 6140'					
Office Notes					

Anadrill Personnel on the rig:					
R. Torres	DD's				
	DD's				
L. Tenorio	DD's				
G. Soto	MWD				
P. Mejia	MWD				

Operator Representatives:					
Franklin Cordova					

Drilling D	Reaming R	Surveying Sv	Circulating C	Tripping Tr	Other O
10.00	1.00	0.00	1.50	11.50	0.00
Survey MD	Inclination	Azimuth	TVD	North	East
7857'	19.51	213.80	6136.87'	-3197.56'	-2969.44'

DAILY ACTIVITY REPORT

Pls Fax to Lima (1) 4219255 / Talara (74) 382845

27-Jul-01

[illegible]

Company	PETROTECH PERUANA S.A.	Report N°	14	Job number	01019	PDM hrs.today	0.0
Well	LO6-25 ST	Depth @ 00:00 hrs (ft)	8691	MWD / LWD	Y / N		
Rig	PEPESA 48	Footage last 24 Hrs.	356				

PDM		
Type of Motor		
Serial No		
Bent Housing		
Pad/Stab OD		
Drig Hrs		
Circ. Hrs.		
Cum. Drig Hrs		
Cum. Circ. Hrs		
PDM HRS RUN	0.00	0.00
Depth In		
Depth Out		
Cumm. Meters	0.0	0.0

Drilling Parameters		
WOB (Ton)	40 (R)	
RPM/Motor	100	
Torque (R/T)	120-150	
Hook Load(RT)	P/U weight	L/O weight
191	440	110
13 3/8"Casing	9 5/8" Casing	7" Liner
2198 ft	5980 ft	

BIT	11	
Size	8 1/2"	
Maker	Smith	
Type	MA89PX	
Serial Number	JS2239	
Depth in	7916	
Depth closed	8691	
Footage	775.0	0.0
Hours	39.00	0.00
ROP / Avg.	19.87	#DIV/0!
Nozzles(TFA)	6x16	
T/B/G/R		

MUD TYPE POLYMER		
Density	Funnel Viscosity	PV \ YP
11.40	58	27 / 29
Solid	PF / MF	pH
15.0%	0.20 / 1.0	9.60
Sand%	Cl-(ppm)	Ca++(ppm)
0.5%	30 M	400
Gels	LGS (%)	Slim Temp F°
8 \ 25 \ 35		125

DD BHA NO. 5			
PDC bit 8 1/2"	0.92		
NB STB 8 3/8" UG	4.72		
Float Sub w/ FV	1.84		
Pony DC	4.97		
NMSDC	10.36		
STG. STB 8 1/8"	5.63		
UBHO	2.27		
NMDC	30.57		
NMSDC	7.57		
STG. STB 8 5/16"	4.54		
NMDC	30.62		
6 DC 6 1/2"	143.82		
X/O Sub	3.93		
9 HWDP 5"	272.97		
Jar 6 1/2" HE	32.27		
15 HWDP 5"	451.62		
Total	1,008.62	Total	0.00

Pumping		
SPM		
GPM	435	
SPP off bottom	2200	
Diff. Pressure		
Turbine rpm		

MWD/Slim1	Run# 5	Run#
Tools Hrs.today	24	
Circ.Hrs.today		
Tools hrs run	55.75	
Circul.hrs Run		
Mode/Config	1202 / F7	

STATISTICS - CUMULATIVE INFO			
Engineers (days)	14		
MWD / GR operating	12 / 0		
Jar HE operative	18 days		
Rotary Hours Jar HE	182.5 hrs	SN 03595	

as of 00:00 AM 7/28/01			Time Breakdown with Comments		
0:00	Hrs	Code	Comments		
3:30	3:30	D	Drilling f/ 8335' to 8439'. Change out Martin Decker		
4:30	1:00	C	Circulate for short trip		
6:00	1:30	Tr	Short trip to 7839' (06 stds). OK. Max Wup=440Mlb		
10:30	4:30	D	Drilling f/ 8439' to 8565'.		
11:00	0:30	O	Lubricate Rig		
12:30	1:30	D	Drilling f/ 8565' to 8596'.		
13:30	1:00	C	Circulate for clean hole. Increase mud weight to 11.4 ppg & Mud lubricity		
19:00	5:30	D	Drilling f/ 8596' to 8691'.		
20:30	1:30	C	Circulate for short trip. Pump slug pipe pill		
0:00	3:30	Tr	POOH string to change BHA (L/D 1 stb, NMDC's & MWD in order to lower hole drag)		
TOTALS	24.00	24			

Operation/Tools Notes	
Top of fish 6140' Bottom Fish 6163'	
Anadrill tools below rotary table since July 10th, 2001	
Bottom cement @ 6140'	

Office Notes

Anadrill Personnel on the rig:		
R. Torres	DD's	
	DD's	
L. Tenorio	DD's	
G. Soto	MWD	
P. Mejia	MWD	

Operator Representatives:	
Franklin Cordova	

Drilling D	Reaming R	Surveying Sv	Circulating C	Tripping Tr	Other O
15.00	0.00	0.00	3.50	5.00	0.50
Survey MD	Inclination	Azimuth	TVD	North	East
8603'	18.3	199.80	6841.64'	-3414'	-3081.71'

DAILY ACTIVITY REPORT

Pls Fax to Lima (1) 4219255 / Talara (74) 382845

29-Jul-01

Company		PETROTECH PERUANA S.A.		Report N°		15		Job number		01019		PDM hrs.today		0.0	
Well		LO6-25 ST		Depth @ 00:00 hrs (ft)		8691		MWD / LWD		Y / N					
Rig		PEPESA 48		Footage last 24 Hrs.											
PDM				BIT				11				12			
Type of Motor				Size				8 1/2"				8 1/2"			
Serial No				Maker				Smith				Smith			
Bent Housing				Type				MA89PX				MA89PX			
Pad/Stab OD				Serial Number				JS2239				JS2239			
Drig Hrs				Depth in				7916				8691			
Circ. Hrs.				Depth closed				8691				8691			
Cum. Drig Hrs				Footage				775.0				0.0			
Cum. Circ. Hrs				Hours				39.00				0.00			
PDM HRS RUN				0.00				0.00							
Depth In				ROP / Avg.				19.87				#DIV/0!			
Depth Out				Nozzles(TFA)											
Cumm. Meters				0.0				0.0							
Drilling Parameters				MUD TYPE				POLYMER							
WOB (Ton)				Density				Funnel Viscosity				PV \ YP			
RPM/Motor				11.40				58				27 / 29			
Torque (R/T)				Solid				PF / MF				pH			
				15.0%				0.20 / 1.0				9.60			
Hook Load(RT)				Sand%				Cl-(ppm)				Ca++(ppm)			
				0.5%				30 M				400			
13 3/8"Casing				Gels				LGS (%)				Slim Temp F°			
2198 ft				8 \ 25 \ 35				125							
9 5/8" Casing															
7" Liner															
Pumping				MWD/Slim1				Run# 5				Run#			
SPM				Tools Hrs.today				4.25							
GPM				Circ.Hrs.today											
SPP off bottom				Tools hrs run				57							
Diff. Pressure				Circul.hrs Run											
Turbine rpm				Mode/Config				1202 / F7							
STATISTICS - CUMULATIVE INFO				Engineers (days)				15							
MWD / GR operating				13 / 0											
Jar HE operative				19 days											
Rotary Hours Jar HE				hrs				SN 03595							
Operation/Tools Notes				Top of fish 6140'				Bottom Fish 6163'							
				Anadrill tools below rotary table since July 10th, 2001											
				Bottom cement @ 6140'											
				Anadrill released today											
Office Notes															
Anadrill Personnel on the rig:				R. Torres				DD's							
				L. Tenorio				DD's							
				G. Soto				MWD							
				P. Mejia				MWD							
Operator Representatives:															
Franklin Cordova															
Time Breakdown with Comments				as of 00:00 AM 7/29/01											
0:00				Hrs				Code				Comments			
5:30				5:30				Tr				Continue POOH			
6:30				1:00				Tr				M/U BHA NO. 6 without Survey Directional Control			
TOTALS				6.50				7							
Drilling D				Reaming R				Surveying Sv				Circulating C			
0.00				0.00				0.00				0.00			
Survey MD				Inclination				Azimuth				TVD			
8603'				18.3				199.80				6841.64'			
												North			
												-3414'			
												East			
												-3081.71'			

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report	Report #:	1	TD @ 2400 Hrs:	9494'
Rig:	Pepesa Rig #48	as of 2400 hrs.	Spud Date:	13-Mar	Ftg Last 24 Hrs:	
Well:	LO6-25ST-Slimhole	Job # 01019	Kick-off Date:	18-Mar	Total Footage:	

BHA Run Data	BHA #1	BHA #	Slim-1 Run Data		BHA # 1	BHA #
3 1/2" 7/8 vector	# 1001		Run #2	Run #	4 3/4" Bit	0.35
Bent Housing °	0°		Daily Hours		Vector Motor	15.20
Motor Stb OD	-		Cumm Hours		X/O	1.61
Drlg Hrs	0.00		Tool Mode		24 HWDP	724.78
Circ Hrs	0.50		Pulser Config		Flex Joint	7.25
Cumm Drlg Hrs	0.00		Assembly Part Code		Hyd Jar Griffith	7.73
Cumm Circ Hrs	0.50		SMA		6 HWDP	181.31
Total PDM Hrs	0.50		SMC			
Depth In	9494'		SEA			
Depth Out	9593'		SMC			
Cumm Ftg	-		SBA			
PSI on / off	2200 / 2100		SGR			
Rotary Torque	60		SMC			
WOB	10-15 K		SSL			
RPM	55		Comments			
GPM	110					
Hook Load	85 K					
P/U Weight	150 K					
S/O Weight	60 K					
			Total Slim-1 Hours for Well:		Total	938.23
					Total	0.00

Properties for FLO-DRILL Mud			Bit# / BHA #	EW / BHA #1	Resume for this Well		
Weight	Funnel Visc.	Plastic Visc.	Size	4 3/4"	Anadrill P/U tools	18-Mar	Engineer days 1
12.3	56	25	Make	Hughes Christ	9 5/8" PDM hrs	0.00	Slim S'by days
Yield Point	Water Loss	pH	Type	STR-20	8" PDM hrs	0.00	Slim Oper days N/A
28	5.6	10.00	Depth in	9494'	6 3/4" PDM hrs	0.00	GR S'by days N/A
Solids %	MBT	Gels	Depth out	9593'	3 1/2" PDM hrs	0.50	GR Oper days N/A
19.0	18.00	8 / 28 / 38	Footage	99'			
Sand %	Cl	Hardness Ca++	Hours	18.0			
0.40	26,000	200	ROP / Avg.	5.50			
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	3 x 16			
1 /	.09 / .18	-	T-B-G	4 , 3 , 5			

Time Breakdown with Comments				Comments
Time	Hrs	Code	Comments	
0000-0130	1.50	T	Run junk basket to fish make up tong slips	Schlumberger DD Arrived to Rig 48 on 23-Aug-01 <u>Motors on Location</u> 3 1/2" Vector Motor 7:8 # 1001(in hole) 3 1/2" Vector Motor 7:8 # 1007(stand by) <u>Jars on Location</u> 3 1/2" Griffith Hyd Jar # 385-350.1401 (in hole)
0130-0600	4.50	D	Drilling Cement and float collar @ 9494'	
0600-0730	1.50	C	Circulate prior to POOH, pump Viscosity pill	
0730-1330	6.00	T	POOH and laying down DC's and Junk Basket, it retrieve slips	
1330-1430	1.00	M	Make up BHA, Vector motor, 24Hwdp, flexjoint, Grif. Jar, 6Hwdp	
1430-1500	0.50	M	Shallow motor test OK, 500 psi @ 110 gpm	
1500-1930	4.50	T	RIH up to 9494'	
1930-2000	0.50	C	It got break stand pipe out while circulating prior to start drilling	
2000-2400	4.00	S	Waiting for stand pipe back up	
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc	
Last Survey:				<u>Anadrill Personnel on Location</u> DD Luis Tenorio DD MWD Eng MWD Eng <u>Operator Representatives</u> Franklin Cordova
Next Operation:				
Drilling Basal Salina formation with Vector Motor				

Anadrill

Client: **Petro-Tech Peruana S.A.**
 Rig: **Pepesa Rig #48**
 Well: **LO6-25ST-Slimhole**

Peru Morning Report

as of 2400 hrs.

Job # 01019

Report #: **2** TD @ 2400 Hrs: **9590'**
 Spud Date: 13-Mar Ftg Last 24 Hrs:
 Kick-off Date: 18-Mar Total Footage:

BHA Run Data	BHA #1	BHA #
3 1/2" 7/8 vector	# 1001	
Bent Housing °	0°	
Motor Stb OD	-	
Drlg Hrs	16.50	
Circ Hrs	1.00	
Cumm Drlg Hrs	16.50	
Cumm Circ Hrs	1.50	
Total PDM Hrs	18.00	
Depth In	9494'	
Depth Out	9593'	
Cumm Ftg	-	
PSI on / off	2200 / 2100	
Rotary Torque	60	
WOB	10-15 K	
RPM	55	
GPM	110	
Hook Load	85 K	
P/U Weight	150 K	
S/O Weight	60 K	

Slim-1 Run Data		
	Run #2	Run #
Daily Hours		
Cumm Hours		
Tool Mode		
Pulser Config		
Assembly Part Code		
SMA		
SMC		
SEA		
SMC		
SBA		
SGR		
SMC		
SSL		
Comments		
Total Slim-1 Hours for Well:		

BHA # 1	BHA #
4 3/4" Bit	0.35
Vector Motor	15.20
X/O	1.61
24 HWDP	724.78
Flex Joint	7.25
Hyd Jar Griffith	7.73
6 HWDP	181.31
Total	938.23
Total	0.00

Properties for FLO-DRILL Mud		
Weight	Funnel Visc.	Plastic Visc.
12.3	57	28
Yield Point	Water Loss	pH
31	5.4	10.00
Solids %	MBT	Gels
19.0	18.00	8 / 24 / 32
Sand %	Cl	Hardness Ca++
0.40	26,000	200
Cake 1/32"	Pf / Mf	Slim Temp °F
1 /	.04 / 1.4	-

Bit# / BHA #	EW / BHA #1
Size	4 3/4"
Make	Hughes Christ
Type	STR-20
Depth in	9494'
Depth out	9593'
Footage	99'
Hours	18.0
ROP / Avg.	5.50
Nozzles	3 x 16
T-B-G	

Resume for this Well			
Anadrill P/U tools	18-Mar	Engineer days	2
9 5/8" PDM hrs	0.00	Slim S'by days	
8" PDM hrs	0.00	Slim Oper days	N/A
6 3/4" PDM hrs	0.00	GR S'by days	N/A
3 1/2" PDM hrs	18.00	GR Oper days	N/A

Drilling Jar	
Size & Type	3 1/2" Griffith Hyd Jar # 385-350.1401 (in hole)
Daily Rotation	
Cumm Rotation	

Time Breakdown with Comments			
Time	Hrs	Code	Comments
0000-0300	3.00	S	Waiting for stand pipe back up
0300-0600	3.50	M	Finish to install new stand pipe
0600-0730	1.00	C	Circulate prior to Start drilling
0730-2400	16.50	D	Drilling from 9494' to 9590'
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc

Comments
Motors on Location
3 1/2" Vector Motor 7:8 # 1001(in hole)
3 1/2" Vector Motor 7:8 # 1007(stand by)
Jars on Location
3 1/2" Griffith Hyd Jar # 385-350.1401 (in hole)

Anadrill Personnel on Location	
DD	Luis Tenorio
DD	
MWD Eng	
MWD Eng	
Operator Representatives	
Franklin Cordova	

Last Survey:
 Next Operation: Drilling Basal Salina formation with Vector Motor

Anadrill

Client: **Petro-Tech Peruana S.A.**

Peru Morning Report

Report #: **3**

TD @ 2400 Hrs: **9617'**

Rig: **Pepesa Rig #48**

as of 2400 hrs.

Spud Date: 13-Mar

Ftg Last 24 Hrs:

Well: **LO6-25ST-Slimhole**

Job # 01019

Kick-off Date: 18-Mar

Total Footage:

BHA Run Data	BHA #1	BHA #2	Slim-1 Run Data			BHA # 1		BHA #2	
3 1/2" 7/8 vector	# 1001	# 1001		Run #2	Run #	4 3/4" Bit	0.35	4 3/4" Bit	0.35
Bent Housing °	0°	0°	Daily Hours			Vector Motor	15.20	Vector Motor	15.20
Motor Stb OD	-	-	Cumm Hours			X/O	1.61	X/O	1.61
Drlg Hrs	2.00	8.00	Tool Mode			24 HWDP	724.78	24 HWDP	724.78
Circ Hrs	0.50	1.00	Pulser Config			Flex Joint	7.25	Flex Joint	7.25
Cumm Drlg Hrs	18.50	8.00	Assembly Part Code			Hyd Jar Griffith	7.73	Hyd Jar Griffith	7.73
Cumm Circ Hrs	2.00	1.00	SMA			6 HWDP	181.31	6 HWDP	181.31
Total PDM Hrs	20.50	9.00	SMC						
Depth In	9494'	9593'	SEA						
Depth Out	9593'	-	SMC						
Cumm Ftg	-	-	SBA						
PSI on / off	2200 / 2100	2350 / 2200	SGR						
Rotary Torque	60	50	SMC						
WOB	10-15 K	10-15 K	SSL						
RPM	55	25-60	Comments						
GPM	110	110							
Hook Load	85 K	85 K							
P/U Weight	150 K	150 K							
S/O Weight	60 K	60 K	Total Slim-1 Hours for Well:			Total	938.23	Total	938.23

Properties for FLO-DRILL Mud			Bit# / BHA #	EW / BHA #	EW / BHA #2	Resume for this Well			
Weight 12.3	Funnel Visc. 56	Plastic Visc. 27	Size	4 3/4"	4 3/4"	Anadrill P/U tools	18-Mar	Engineer days	3
Yield Point 30	Water Loss 5.4	pH 10.00	Make Type	Hughes Christ STR-20	Hughes Christ STR-20	9 5/8" PDM hrs	0.00	Slim S'by days	
			Depth in	9494'		8" PDM hrs	0.00	Slim Oper days	N/A
Solids % 19.0	MBT 18.00	Gels 8 / 23 / 30	Depth out	9593'		6 3/4" PDM hrs	0.00	GR S'by days	N/A
			Depth out	9593'		3 1/2" PDM hrs	29.50	GR Oper days	N/A
			Footage	99'					
Sand % 0.50	Cl 27,000	Hardness Ca++ 200	Hours	18.0		Drilling Jar			
			ROP / Avg.	5.50	5.50	Size & Type		3 1/2" Griffith Hyd Jar # 385-350.1401 (in hole)	
Cake 1/32" 1 /	Pf/ Mf .035 / 1.2	Slim Temp °F -	Nozzles	3 x 16	3 x 16	Daily Rotation			
			T-B-G			Cumm Rotation			

Time Breakdown with Comments				Comments	
Time	Hrs	Code	Comments		
0000-0200	2.00	D	Drilling from 9490' to 9593'		
0200-0230	0.50	C	Circulate prior to POOH		
0230-0900	6.50	T	POOH and change bit		
0900-1500	6.00	T	RIH up to 9494'		
1500-1600	1.00	C	Circulating and cleaning bottom		
1600-2400	8.00	D	Drilling from 9493' to 9617'		
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc		
Last Survey:				Anadrill Personnel on Location	
Next Operation:				DD Luis Tenorio	
				DD	
				MWD Eng	
				MWD Eng	
				Operator Representatives	
				Franklin Cordova	

Motors on Location

3 1/2" Vector Motor 7:8 # 1001(in hole)

3 1/2" Vector Motor 7:8 # 1007(stand by)

Jars on Location

3 1/2" Griffith Hyd Jar # 385-350.1401 (in hole)

Anadrill

Client: **Petro-Tech Peruana S.A.**

Peru Morning Report

Report #: **4** TD @ 2400 Hrs: **9665'**

Rig: **Pepesa Rig #48**

as of 2400 hrs.

Spud Date: 13-Mar

Ftg Last 24 Hrs:

Well: **LO6-25ST-Slimhole**

Job # 01019

Kick-off Date: 18-Mar

Total Footage:

BHA Run Data	BHA #2	BHA #	Slim-1 Run Data			BHA # 2	BHA #
3 1/2" 7/8 vector	# 1001	-	Run #2	Run #		4 3/4" Bit	0.35
Bent Housing °	0°	-	Daily Hours			Vector Motor	15.20
Motor Stb OD	-	-	Cumm Hours			X/O	1.61
Drlg Hrs	18.00	-	Tool Mode			24 HWDP	724.78
Circ Hrs	1.50	-	Pulser Config			Flex Joint	7.25
Cumm Drlg Hrs	26.00	-	Assembly Part Code			Hyd Jar Griffith	7.73
Cumm Circ Hrs	2.50	-	SMA			6 HWDP	181.31
Total PDM Hrs	28.50	0.00	SMC				
Depth In	9494'	-	SEA				
Depth Out	9593'	-	SMC				
Cumm Ftg	-	-	SBA				
PSI on / off	2200 / 2100	-	SGR				
Rotary Torque	60	-	SMC				
WOB	10-15 K	-	SSL				
RPM	55	-	Comments				
GPM	110	-					
Hook Load	85 K	-					
P/U Weight	150 K	-					
S/O Weight	60 K	-	Total Slim-1 Hours for Well:			Total	938.23
						Total	0.00

Properties for FLO-DRILL Mud			Bit# / BHA #	EW / BHA #	NEW / BHA #	Resume for this Well		
Weight	Funnel Visc.	Plastic Visc.	Size	4 3/4"		Anadrill P/U tools	18-Mar	Engineer days 4
12.3	56	27	Make	Hughes Christ		9 5/8" PDM hrs	0.00	Slim S'by days
Yield Point	Water Loss	pH	Type	STR-20		8" PDM hrs	0.00	Slim Oper days
30	5.4	10.00	Depth in	9593'		6 3/4" PDM hrs	0.00	GR S'by days
Solids %	MBT	Gels	Depth out	9665'		3 1/2" PDM hrs	49.00	GR Oper days
19.0	18.00	8 / 23 / 30	Footage	72'				
Sand %	Cl	Hardness Ca++	Hours			Drilling Jar		
0.50	27,000	200	ROP / Avg.			Size & Type	3 1/2" Griffith Hyd Jar # 385-350.1401 (in hole)	
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	3 x 16		Daily Rotation		
1 /	.035 / 1.2	-	T-B-G			Cumm Rotation		

Time Breakdown with Comments				Comments	
Time	Hrs	Code	Comments		
0000-1800	18.00	D	Drilling from 9617' to 9667'		
1800-1900	1.00	C	It detect drop pressure on the system, pump module washed		
1900-1930	0.50	C	Decide POOH, pump visc. Pill		
1930-2400	4.50	T	Start POOH		
			</		

Anadrill

Client: **Petro-Tech Peruana S.A.**

Peru Morning Report

Report #: **5** TD @ 2400 Hrs: **9667'**

Rig: **Pepesa Rig #48**

as of 2400 hrs.

Spud Date: 13-Mar Ftg Last 24 Hrs:

Well: **LO6-25ST-Slimhole**

Job # 01019

Kick-off Date: 18-Mar Total Footage:

BHA Run Data	BHA #3	BHA #	Slim-1 Run Data			BHA # 3	BHA #
3 1/2" 7/8 vector	# 1001	-	Run #2	Run #		4 3/4" Bit	0.35
Bent Housing °	-	-	Daily Hours			X/O	1.61
Motor Stb OD	-	-	Cumm Hours			24 HWDP	724.78
Drlg Hrs	-	-	Tool Mode			Flex Joint	7.25
Circ Hrs	-	-	Pulser Config			Hyd Jar Griffith	7.73
Cumm Drlg Hrs	-	-	Assembly Part Code			6 HWDP	181.31
Cumm Circ Hrs	-	-	SMA				
Total PDM Hrs	-	0.00	SMC				
Depth In	9667'	-	SEA				
Depth Out	-	-	SMC				
Cumm Ftg	-	-	SBA				
PSI on / off	-	-	SGR				
Rotary Torque	-	-	SMC				
WOB	-	-	SSL				
RPM	-	-	Comments				
GPM	-	-					
Hook Load	-	-					
P/U Weight	-	-					
S/O Weight	-	-	Total Slim-1 Hours for Well:			Total	923.03
						Total	0.00

Properties for FLO-DRILL Mud			Bit# / BHA #	EW / BHA #	NEW / BHA #	Resume for this Well		
Weight	Funnel Visc.	Plastic Visc.	Size	4 3/4"		Anadrill P/U tools	18-Mar	Engineer days
12.3	56	27	Make	Smith		9 5/8" PDM hrs	0.00	Slim S'by days
Yield Point	Water Loss	pH	Type	STR-20		8" PDM hrs	0.00	Slim Oper days
30	5.4	10.00	Depth in	9593'		6 3/4" PDM hrs	0.00	GR S'by days
Solids %	MBT	Gels	Depth out	9667		3 1/2" PDM hrs	49.00	GR Oper days
19.0	18.00	8 / 23 / 30	Footage	-				
Sand %	Cl	Hardness Ca++	Hours			Drilling Jar		
0.50	27,000	200	ROP / Avg.			Size & Type	3 1/2" Griffith Hyd Jar # 385-350.1401 (in hole)	
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	3 x 16		Daily Rotation		
1 /	.035 / 1.2	-	T-B-G			Cumm Rotation		

Time Breakdown with Comments				Comments
Time	Hrs	Code	Comments	
0000-0400	4.00	T	Finish POOH, lay down Vector Motor	
0400-5000	1.00	M	Make BHA without motor	
5000-1000	5.00	T	RIH, Schlumberger DD's is released	

ATTACHED C. SLIDE SHEET CONTROL

ANADRILL DRILLING CONTROL SHEET

Nov/30/00 9:42

Schlumberger

Company : PETROTECH PERUANA S.A.
 Location : Lobitos Field - Talara - Peru
 Well : LO6-25 Sidetrack

Anadrill / MWD Slim-1
 Torres / Donoso / Tenorio
 G. Soto / P. Mejia

D&I 56 ft
 BHA 947.53
 Kelly 40

BHA # 1
 From 5990 ft to 6277 ft

Drilling			Time			ROP	TF	Survey				SWOB	RPM	Torque	4.08	4.08	0	Pump Control			TALLY CONTROL					Result/Comments	
From/To	Ftg	D/S	Start	Finish	Mins.	Avg	set	Depth	ncination	Azimuth	DLS	Klb	rotary	R/T	# 1	# 2	# 3	GPM	psi off	diff.	joint	dp	dp+bha	Kelly D	ck	date/Midnight depth	
5990.0		C	0:15	0:30	15		90L	5790.00	32.50	225.1		TIE IN POINT			104				1200		31.31	5008.52	5,956.05	5,996.05	X	Circ oriented Wdn=95 Klb	
5991.00	1		0:30	1:00	30	2.0		5992.00	27.40	220.9	2.73										31.25	5039.77	5,987.30	6,027.30	X	Flow check Wup=200Klb	
5996.00	5	S	1:00	2:30	90	3.3	96L					5			104			424	1200	0	29.42	5069.19	6,016.72	6,056.72	X	Time drilling: 1in to 1min	
6001.00	5	S	2:55	4:05	70	4.3	99L					3			104			424	1200	0	31.50	5100.69	6,048.22	6,088.22	X	Time drilling: 1in to 1min	
6031.00	30	S	4:05	7:30	205	8.8	106L					3-10			104			424	1200	50/100	31.50	5132.19	6,079.72	6,119.72	X	Time drilling: 1in to 1/2min Wup=210 Klb	
6047.00	16	S	7:40	9:40	120	8.0	135L					5-10			104			424	1200	100	31.62	5163.81	6,111.34	6,151.34	X	Time drilling: 1in to 1min	
6054.00	7	S	9:40	11:05	85	4.9	135L					5			104			424	1200	50	31.52	5195.33	6,142.86	6,182.86	X		
6057.00	3	S	11:05	12:10	65	2.8	157L					8-9			104			424	1200	50	31.35	5226.68	6,174.21	6,214.21	X	Wup=205 Klb	
6057.00	0	C	12:10	13:12	62	0.0		6058.00	24.42	216.6	5.34				104			424	1200	0	31.38	5258.06	6,205.59	6,245.59	X	Time drilling: 1in to 1/2min	
6067.00	10	S	13:12	14:10	58	10.3	130L					8-10			104			424	1200	150	31.25	5289.31	6,236.84	6,276.84	X		
6075.00	8	S	14:10	14:40	30	16.0	150L					8-14				105		428	1300	100	31.35	5320.66	6,268.19	6,308.19		Circ before conx	
6075.00	0	C	14:40	14:54	14	0.0										105		428	1300	0	31.25	5351.91	6,299.44	6,339.44			
6088.00	13	S	14:54	15:12	18	43.3	100L					15-20				105		428	1300	150	31.56	5383.47	6,331.00	6,371.00			
6088.00	0	C	15:12	15:38	26	0.0										105		428	1300	0	31.58	5415.05	6,362.58	6,402.58		Cnx & svy	
6119.00	31	D	15:38	17:08	90	20.7		6118.00	23.60	214.3	2.07	18-20	40	160		105		428	1300	00/150	31.50	5446.55	6,394.08	6,434.08		Wdown=95Klb Wup=225Klb	
6119.00	0	C	17:08	17:30	22	0.0										104		424	1300	0	31.35	5477.90	6,425.43	6,465.43		Ws=120Klb. Reciprocate twice & sv	
6151.00	32	D	17:30	18:42	72	26.7						25	50	170		104		424	1350	200	31.55	5509.45	6,456.98	6,496.98			
6151.00	0	C	18:42	19:04	22	0.0										104		424	1350	0	31.55	5541.00	6,488.53	6,528.53		Cnx	
6183.00	32	D	19:40	20:15	35	54.9		6180.00	23.60	210.8	2.26	25	50	180		120		490	1800	200	31.55	5572.55	6,520.08	6,560.08			
6214.00	31	D	20:15	21:23	68	27.4						30	50	180		120		490	1800	200	31.25	5603.80	6,551.33	6,591.33			
6245.00	31	D	21:23	22:55	92	20.2		6244.00	23.90	210.9	0.47	30	50	180		120		490	1800	200	31.60	5635.40	6,582.93	6,622.93			
6277.00	32	D	22:55	0:20	85	22.6						30	50	180		120		490	1800	200	31.55	5666.95	6,614.48	6,654.48		Wup=225Klb	
6277.00	0	C	0:20	1:30	70	0.0															31.43	5698.38	6,645.91	6,685.91			
																					30.91	5729.29	6,676.82	6,716.82			
																					31.55	5760.84	6,708.37	6,748.37			
																					31.57	5792.41	6,739.94	6,779.94			
																					31.13	5823.54	6,771.07	6,811.07			
																					31.55	5855.09	6,802.62	6,842.62			
																					31.22	5886.31	6,833.84	6,873.84			
																					31.55	5917.86	6,865.39	6,905.39			
																					31.20	5949.06	6,896.59	6,896.59			
																					31.72	5980.78	6,928.31	6,928.31			

Sliding Feet	97.00
Sliding percent	34%

Sliding Time	741.0
ROP m/hr	7.854251012

Rotating feet	189
Rotating percent	66%

Rotating time	442
ROP m/hr	25.66

Ream Hrs	0
Ream Meters	0

Circulating Time (minutes)	231
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ANADRILL DRILLING CONTROL SHEET

Nov/30/00 9:42

Schlumberger

Company : PETROTECH PERUANA S.A.
 Location : Lobitos Field - Talara - Peru
 Well : LO6-25 Sidetrack

Anadrill / MWD Slim-1
 Torres / Donoso / Tenorio
 G. Soto / P. Mejia

D&I 63 ft
 BHA 954.53
 Kelly 40

BHA # 2
 From 6277 ft to

Drilling			Time			ROP	TF	Survey				SWOB	RPM	Torque	4.08	4.08	0	Pump Control			TALLY CONTROL					Result/Comments date/Midnight depth
From/To	Ftg	D/S	Start	Finish	Mins.	Avg	set	Depth	inclination	Azimuth	DLS	Klb	rotary	R/T	# 1	# 2	# 3	GPM	psi off	diff.	joint	dp	dp+bha	Kelly D	ck	
6253.0								6244.00	23.90	210.9	0.47										31.31	5008.52	5,963.05	6,003.05	X	
6276.00	23	R	15:20	15:52	32	43.1										120		490	1950		31.25	5039.77	5,994.30	6,034.30	X	Ream & Connct
6284.00	8	S	15:40	16:00	20	24.0	90R					3-5				120		490	1950	50	29.42	5069.19	6,023.72	6,063.72	X	
6284.00	0	C	16:00	17:32	92	0.0															31.50	5100.69	6,055.22	6,095.22	X	Repair pump 4 stalling up press
6287.00	3	S	17:40	17:52	12	15.0	110R					2-3				115		469	1950	50	31.50	5132.19	6,086.72	6,126.72	X	while drilling
6287.00	0	C	17:52	17:55	3	0.0															31.62	5163.81	6,118.34	6,158.34	X	
6303.00	16	S	17:55	19:18	83	11.6	100R/120R	6307.00	22.70	212.2	2.07	2-3			110			449	1550	50	31.52	5195.33	6,149.86	6,189.86	X	
6315.00	12	D	19:18	19:55	37	19.5						5-7	50	70-200	110			449	1450	150	31.35	5226.68	6,181.21	6,221.21	X	
6315.00	0	C	19:55	20:25	30	0.0															31.38	5258.06	6,212.59	6,252.59	X	Circ, svy & connect
6346.00	31	D	20:25	21:35	70	26.6						5-7	50	70-200	110			449	1450	100	31.25	5289.31	6,243.84	6,283.84	X	
6357.00	11	S	21:45	23:00	75	8.8	80R/100R	6369.00	22.40	215.1	1.86	3-5			110			449	1700	100	31.35	5320.66	6,275.19	6,315.19	X	
6378.00	21	D	23:00	23:24	24	52.5						7-10	50	200	110			449	1750	200	31.25	5351.91	6,306.44	6,346.44	X	Ws=90Klb (w/o rot) / Wup=240
6410.00	32	D	23:49	0:37	48	40.0		6433.00	22.50	216.4	0.79	7-10	50	200	110			449	1800	200	31.56	5383.47	6,338.00	6,378.00	X	dn=130 / Ws=135 Svy & Conx
6441.00	31	D	0:57	1:25	28	66.4						7-10	50	200	110			449	1800	200	31.58	5415.05	6,369.58	6,409.58	X	
6472.00	31	D	1:40	2:05	25	74.4						10	40	90-205	110			449	1800	250	31.50	5446.55	6,401.06	6,441.06	X	
6504.00	32	D	2:15	2:45	30	64.0		6527.00	22.40	215.5	0.38	10	40	90-205	110			449	1800	250	31.35	5477.90	6,432.43	6,472.43	X	Fix pressure gauge 30 min
6535.00	31	D	3:20	4:00	40	46.5						9-10	40	200	110			449	1900	200	31.55	5509.45	6,463.98	6,503.98	X	Wup=250 / Wdn=90 (no rot)
6567.00	32	D	4:15	4:50	35	54.9		6590.00	22.30	215.8	0.24	8-10	40	200	110			449	1900	200	31.55	5541.00	6,495.53	6,535.53	X	
6598.00	31	D	5:05	5:44	39	47.7						9-11	45	200	110			449	1900	200	31.55	5572.55	6,527.08	6,567.08	X	
6606.00	8	S	6:15	7:35	80	6.0	60R/80R					5			110			449	1850	150	31.25	5603.80	6,558.33	6,598.33	X	
6630.00	24	D	7:35	8:17	42	34.3		6652.00	21.80	215.0	0.94	8	50	80-200	110			449	1950	150	31.60	5635.40	6,589.93	6,629.93	X	
6661.00	31	D	8:30	10:00	90	20.7						5	50	200	110			449	1900	200	31.55	5666.95	6,621.48	6,661.48	X	
6693.00	32	D	10:00	11:26	86	22.3						5-7	50	90-230		120		490	1900	200	31.43	5698.38	6,652.91	6,692.91	X	
6693.00	0	C	11:26	11:33	7	0.0															30.91	5729.29	6,683.82	6,723.82	X	
6723.00	30	D	11:33	12:00	27	66.7		6715.00	21.70	214.2	0.50	8-10	50	00-230		120		490	1950	200	31.55	5760.84	6,715.37	6,755.37	X	Cnx & Svy
6755.00	32	D	12:17	12:47	30	64.0						10-12	55	00-230	120			490	1950	200	31.57	5792.41	6,746.94	6,786.94	X	
6786.00	31	C	12:56	13:31	35	53.1		6776.00	21.80	214.6	0.29	8-10	55	00-230		120		490	2000	200	31.13	5823.54	6,778.07	6,818.07	X	Cnx & Svy
6786.00	0	C	13:45	15:45	120	0.0															31.55	5855.09	6,809.62	6,849.62	X	Circ to Short trip
6800.00	14	S	17:15	19:16	121	6.9	70R					4-5				120		490	1850	150	31.22	5886.31	6,840.84	6,880.84		
6818.00	18	D	19:17	19:47	30	36.0		6839.00	21.60	216.50	1.16	8-10				118		481	2000	200	31.55	5917.86	6,872.39	6,912.39		
6850.00	32	D	20:00	20:48	48	40.0						10				115		469	2000	200	31.20	5949.06	6,903.59	6,903.59		
6852.00	2	S	21:15	21:36	21	5.7	20R					10				118		481	2000	100	31.72	5980.78	6,935.31	6,935.31		

Sliding Feet	62.00
Sliding percent	11%

Sliding Time	412.0
ROP m/hr	9.029126214

Rotating feet	483
Rotating percent	89%

Rotating time	729
ROP m/hr	39.75

Ream Hrs	1
Ream Meters	23

Circulating Time (minutes)	287
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ANADRILL DRILLING CONTROL SHEET

Nov/30/00 9:42

Company : PETROTECH PERUANA S.A.
Location : Lobitos Field - Talara - Peru
Well : LO6-25 Sidetrack

Anadrill / MWD Slim-1
Torres / Donoso / Tenorio
G. Soto / P. Mejia

D&I 63 ft
BHA 954.53
Kelly 40

BHA # 2
From 6277 ft to 7186 ft

Drilling			Time			ROP	TF	Survey				SWOB	RPM	Torque	4.08	4.08	0	Pump Control			TALLY CONTROL					Result/Comments
From/To	Ftg	D/S	Start	Finish	Mins.	Avg	set	Depth	inclination	Azimuth	DLS	Klb	rotary	R/T	# 1	# 2	# 3	GPM	psi off	diff.	joint	dp	dp+bha	Kelly D	ck	date/Midnight depth
6852.0																					31.22	5886.31	6,840.84	6,880.84	X	
6860.00	8	S	21:40	0:24	164	2.9	65R					5-10				115		469	1900	100	31.55	5917.86	6,872.39	6,912.39	X	6 stalling up pressures
6881.00	21	D	0:39	2:11	92	13.7						10-12	40	175-200	115			469	1900	150	31.20	5949.06	6,903.59	6,943.59	X	Ws=145 Wrdn=140 Ream once
6912.00	31	D	2:30	3:21	51	36.5		6933.00	21.40	216.2	0.24	10-12	40	175-200	115			469	1900	150	31.72	5980.78	6,935.31	6,975.31	X	Wdn no rot=90 / Wup=270
6944.00	32	D	3:45	5:00	75	25.6						15-20	40	190-200		115		469	1900	100	31.55	6012.33	6,966.86	7,006.86	X	
6975.00	31	D	5:18	6:10	52	35.8						15	40	190-200		115		469	1900	100	31.25	6043.58	6,998.11	7,038.11	X	
7007.00	32	D	6:23	7:20	57	33.7						10	40	190-200		115		469	1900	100	30.02	6073.60	7,028.13	7,068.13	X	
7038.00	31	D	7:38	8:45	67	27.8		7026.00	21.10	214.3	0.81	5-10	40	190-200		115		469	1900	100	31.13	6104.73	7,059.26	7,099.26	X	
7068.00	30	D	8:55	9:34	39	46.2						10-12	40	190-200		115		469	1900	200	31.66	6136.39	7,090.92	7,130.92	X	
7099.00	31	D	9:42	10:42	60	31.0						4-5	40	190-200	115			469	1950	200	31.09	6167.48	7,122.01	7,162.01	X	
7105.00	6	S	11:12	12:00	48	7.5	75R					3-4				115		469	1900	150	31.19	6198.67	7,153.20	7,193.20		
7105.00	0		12:00	16:37	277	0.0															31.53	6230.20	7,184.73	7,224.73		Fixed wash pipe. Rig service
7105.00	0	R	16:37	16:55	18	0.0															30.76	6260.96	7,215.49	7,255.49		Ream & circulate
7115.00	10	S	16:55	19:06	131	4.6	45R	7122.00	20.70	215.4	0.58	10				115		469	2000	150	31.60	6292.56	7,247.09	7,287.09		
7131.00	16	D	19:07	19:50	43	22.3						10	45	190-200		115		469	2000	200	31.22	6323.78	7,278.31	7,318.31		
7151.00	20	D	20:03	20:38	35	34.3						10	45	190-200		115		469	2000	150	31.58	6355.36	7,309.89	7,349.89		Wdn=95Klb (no rot)
7157.00	6	S	20:45	23:00	135	2.7	100R					5-10				115		469	2000	100	31.48	6386.84	7,341.37	7,381.37		2 stalling up pressures
7160.00	3	S	23:00	0:20	80	2.3	20R					15-20				115		469	2000	100	31.55	6418.39	7,372.92	7,412.92		Ream once
7162.00	2	D	0:30	0:35	5	24.0						15-20	50	190-200		115		469	2000	100	31.60	6449.99	7,404.52	7,444.52		Ws=145
7186.00	24	D	0:50	3:10	140	10.3						15-20	50	150-200	115			469	2100	200	31.50	6481.49	7,436.02	7,476.02		
7186.00	0	C	3:10	4:30	80	0.0															31.68	6513.17	7,467.70	7,507.70		Circ. To POOH to change Bit
																					31.58	6544.75	7,499.28	7,539.28		
																					31.43	6576.18	7,530.71	7,570.71		
																					31.55	6607.73	7,562.26	7,602.26		
																					31.60	6639.33	7,593.86	7,633.86		
																					31.62	6670.95	7,625.48	7,665.48		
																					31.20	6702.15	7,656.68	7,696.68		
																					31.50	6733.65	7,688.16	7,728.16		
																					31.48	6765.13	7,719.66	7,759.66		
																					31.16	6796.29	7,750.82	7,790.82		
																					31.20	6827.49	7,782.02	7,782.02		

Sliding Feet	33.00
Sliding percent	10%

Sliding Time	558.0
ROP m/hr	3.548387097

Rotating feet	301
rotating percent	90%

otating time	716
ROP m/hr	25.22

Ream Hrs	0
Ream Meters	0

Circulating Time (minutes)	80
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ANADRILL DRILLING CONTROL SHEET

Nov/30/00 9:42



Company : PETROTECH PERUANA S.A.
 Location : Lobitos Field - Talara - Peru
 Well : LO6-25 Sidetrack

Anadrill / MWD Slim-1
 Torres / Tenorio
 G. Soto / P. Mejia

D&I 61 ft
 BHA 953.13
 Kelly 40

BHA # 3
 From 7186 ft to 7821 ft

Drilling			Time			ROP	TF	Survey				SWOB	RPM	Torque	3.48	3.48	0	Pump Control			TALLY CONTROL					Result/Comments date/Midnight depth
From/To	Ftg	D/S	Start	Finish	Mins.	Avg	set	Depth	inclination	Azimuth	DLS	Klb	rotary	R/T	# 1	# 2	# 3	GPM	psi off	diff.	joint	dp	dp+bha	Kelly D	ck	
7161.0		R	20:55	21:30	35			7182.00	21.00	216.8	0.97				112				1750		31.22	5886.31	6,839.44	6,879.44	X	Hard reaming
7186.00	25	C	21:30	22:00	30	50.0															31.55	5917.86	6,870.99	6,910.99	X	Flow check
7192.00	6	D	22:00	22:10	10	36.0						25	45	150	112			390	1700		31.20	5949.06	6,902.19	6,942.19	X	Ws=148 Klb Wdn=130 (with rot)
7197.00	5	S	22:10	22:35	25	12.0	25L					25			112			390	1700	200	31.72	5980.78	6,933.91	6,973.91	X	Hole in better conditions now
7203.00	6	S	22:35	22:55	20	18.0	25R					20			112			390	1600	200	31.55	6012.33	6,965.46	7,005.46	X	Ream once before conexion
7203.00	0		23:55	0:20	25	0.0															31.25	6043.58	6,996.71	7,036.71	X	Change pump & Ream
7223.00	20	D	0:20	1:30	70	17.1						25	55	150		112		390	1600	200	30.02	6073.60	7,026.73	7,066.73	X	
7254.00	31	D	1:41	3:37	116	16.0						25	55	150	112			390	1600	200	31.13	6104.73	7,057.86	7,097.86	X	
7254.00	0		3:37	4:12	35	0.0		7245.00	21.30	216.4	0.53										31.66	6136.39	7,089.52	7,129.52	X	
7285.00	31	D	4:12	6:10	118	15.8						25	50	150	112			390	1600	200	31.09	6167.48	7,120.61	7,160.61	X	Cnx / Slow pump rate
7317.00	32	D	6:18	8:25	127	15.1		7308.00	21.30	215.9	0.29	25	50	150	112			390	1600	200	31.19	6198.67	7,151.80	7,191.80	X	
7348.00	31	D	8:45	10:03	78	23.8						25	60	170	112			390	1600	200	31.53	6230.20	7,183.33	7,223.33	X	Ream always once before conexion
7380.00	32	D	10:15	11:50	95	20.2						30	60	170	112			390	1650	200	30.76	6280.96	7,214.09	7,254.09	X	Ream once before cnx. Switch pump 20mi
7411.00	31	D	12:25	13:25	60	31.0		7405.00	21.10	215.9	0.27	30	60	170	112			390	1700	200	31.60	6292.56	7,245.69	7,285.69	X	Ws=150 Klb S/O=125Klb WOB=
7443.00	32	D	13:47	14:50	63	30.5						30	60	170	112			390	1700	200	31.22	6323.78	7,276.91	7,316.91	X	Wup=285Klb
7475.00	32	D	15:13	16:50	97	19.8						30	60	170	112			390	1700	250	31.58	6355.36	7,308.49	7,348.49	X	
7506.00	31	D	17:13	18:55	102	18.2		7497.00	21.30	215.7	0.23	35	60	170	112			390	1750	250	31.48	6386.84	7,339.97	7,379.97	X	
7537.00	31	D	19:10	20:45	95	19.6						35	60	170	112			390	1700	250	31.55	6418.39	7,371.52	7,411.52	X	
7537.00	0	R	20:45	22:49	124	0.0															31.60	6449.99	7,403.12	7,443.12	X	Fix washpipe
7568.00	31	D	22:49	0:40	111	16.8						35	60	170		112		390	1750	250	31.50	6481.49	7,434.62	7,474.62	X	Pumps off 10 min
7600.00	32	D	1:06	2:47	101	19.0		7592.00	20.90	214.5	0.62	35	60	170	112			390	1750	250	31.68	6513.17	7,466.30	7,506.30	X	
7632.00	32	D	3:02	5:06	124	15.5						30	55	170	112			390	1750	150	31.58	6544.75	7,497.88	7,537.88	X	
7664.00	32	D	5:17	7:11	114	16.8						30	55	170	112			390	1750	150	31.43	6576.18	7,529.31	7,569.31	X	
7695.00	31	D	7:30	9:00	90	20.7		7686.00	20.30	214.6	0.64	35	60	150-170	112			390	1750	200	31.55	6607.73	7,560.86	7,600.86	X	Wdn=125Klb Wup=290Klb Ws=1
7727.00	32	D	9:25	11:08	103	18.6						35	60	170	112			390	1750	250	31.60	6639.33	7,592.46	7,632.46	X	
7758.00	31	D	11:25	13:00	95	19.6		7749.00	19.90	214.5	0.64	35	60	170	112			390	1750	250	31.62	6670.95	7,624.08	7,664.08	X	
7789.00	31	D	13:20	14:38	78	23.8						40	60	170	112			390	1800	250	31.20	6702.15	7,655.28	7,695.28	X	Ws=150 Klb S/O=130Klb WOB u
7821.00	32	D	14:56	16:45	109	17.6						40	60	170	112			390	1800	250	31.50	6733.65	7,686.78	7,726.78	X	Pumps off 10 min
7821.00	0	C	17:00	18:00	60	0.0															31.48	6765.13	7,718.26	7,758.26	X	Svy 3 times. Circ 1 hr before PO
																					31.16	6796.29	7,749.42	7,789.42	X	
																					31.20	6827.49	7,780.62	7,820.62	X	

Sliding Feet	11.00
Sliding percent	2%

Sliding Time	45.0
ROP m/hr	14.66666667

Rotating feet	624
rotating percent	98%

otating time	1956
ROP m/hr	19.14

Ream Hrs	3
Ream Meters	0

Circulating Time (minutes)	90
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Schlumberger

Company : PETROTECH PERUANA S.A.
Location : Lobitos Field - Talara - Peru
Well : LO6-25 Sidetrack Slimhole

D&I ft

BHA	938.23
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Kelly	35
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BHA # 1
From ft to ft

[illegible]

Sliding Feet	0.00
Sliding percent	0%

Sliding Time	0.0
ROP ft/hr	0.0

Rotating feet	99
Rotating perce	100%

Rotating time	3197
ROP ft/hr	1.86

Ream Hrs	0
Ream Ft	0

Circulating Time (minutes)
0

Schlumberger

Company : PETROTECH PERUANA S.A.
Location : Lobitos Field - Talara - Peru
Well : LO6-25 Sidetrack Slimhole

Kelly
35

BHA # 2
From ft to

[illegible]

Sliding Feet	0.00
Sliding percent	0%

Sliding Time	0.0
ROP ft/hr	0.0

Rotating feet	72
Rotating perce	100%

Rotating time	1448
ROP ft/hr	2.98

Ream Hrs	0
Ream Meters	0

Circulating Time (minutes)
0