

Ing. M. Chavez.
E. Sopprani

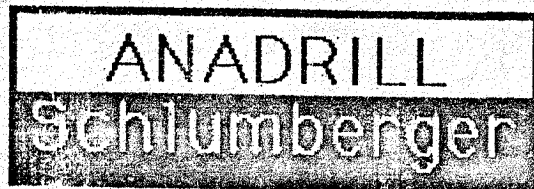
✓ 19 Ene 90

Petromar - Lima

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J. JER

19-ene-90



POZO DIRIGIDO

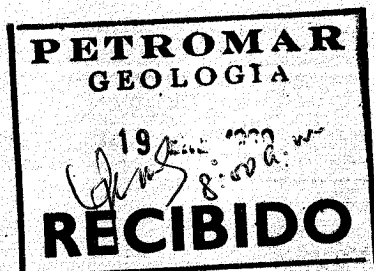
Nº OFICIAL : Z2A-21-781-D-L016

Nº PETROMAR : L016-21

NP:
KB: 50'
WD: 305'
Long. Cmd: 370' (Vertical)
Pth: 39
PF: 7800

OPERADOR DIRECCIONAL:

WADE MAINGOT



O.K.

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15-01-90

ANADRILL SCHLUMBERGER
AV. BOLOGNESI 279
TALARA-PERU

PETROMAR
WELL: L016-21

MAGNETIC SINGLE SHOT SURVEYS

Target TUD: 7000.00, South: 1168.39, West: 960.36

Plane of vertical section: S 40 .0 W
Declination: 3 0 E



ANADRILL / SCHLUMBERGER
Houston Directional Software Company - Survey Version 1.63

Hard Disk: L016-21

PETROMAR
WELL: L016-21

RADIUS OF CURVATURE CALCULATIONS

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MEASURED DEPTH Feet	BORE-HOLE INCLINATION Deg Min	HOLE DIRECTION Deg Min	COURSE LENGTH Feet	VERTICAL DEPTH Feet	RECTANGULAR COORDINATES Feet	VERTICAL SECTION Feet	CLOSURES DISTANCE Feet	DIRECTION Deg Min	DOGLEG SEVERITY Deg/100ft.
0.00	0 0	0 0	0.00	0.00	0.00 N 0.00 E	-0.00	0.00	0 0	
892.00	1 0	N 28 0 E	892.00	891.95	6.87 N 3.65 E	-7.61	7.78	N 28 0 E	0.11
1278.00	1 0	N 37 0 W	386.00	1277.90	13.23 N 3.15 E	-12.17	13.60	N 13 24 E	0.28
1748.00	1 0	N 32 0 W	471.00	1748.82	20.01 N 1.50 W	-14.36	20.06	N 4 17 W	0.02
2047.00	1 0	N 90 0 W	298.00	2046.78	22.42 N 5.86 W	-13.41	23.17	N 14 38 W	0.33
2109.00	2 0	S 5 0 W	62.00	2108.76	21.42 N 6.95 W	-11.95	22.52	N 17 58 W	3.48
2169.00	3 45	S 5 0 W	60.00	2168.68	18.43 N 7.21 W	-9.48	19.79	N 21 22 W	2.92
2231.00	5 0	S 5 0 W	63.00	2231.49	13.64 N 7.63 W	-5.54	15.63	N 29 13 W	1.98
2263.00	6 0	S 8 0 W	31.00	2262.35	10.69 N 7.96 W	-3.07	13.33	N 36 42 W	3.36
2294.00	6 45	S 10 0 W	31.00	2293.16	7.29 N 8.50 W	-0.12	11.20	N 49 24 W	2.52
2376.00	8 0	S 13 0 W	82.00	2374.48	3.03 S 10.60 W	9.13	11.03	S 74 4 W	1.50
2532.00	9 15	S 14 0 W	156.00	2528.71	25.77 S 16.06 W	30.07	30.37	S 31 56 W	0.81
2665.00	10 15	S 16 0 W	133.00	2659.79	47.53 S 21.89 W	50.48	52.33	S 24 44 W	0.79
2791.00	12 0	S 17 30 W	126.00	2783.42	70.81 S 28.90 W	72.82	76.48	S 22 12 W	1.41
2916.00	13 30	S 17 0 W	125.00	2905.33	97.15 S 37.08 W	98.26	103.99	S 20 53 W	1.20
3102.00	16 45	S 19 30 W	186.00	3084.86	143.23 S 52.27 W	143.32	152.47	S 20 3 W	1.78
3226.00	18 30	S 22 0 W	124.00	3203.04	178.34 S 65.57 W	178.77	190.01	S 20 11 W	1.54
3467.00	19 30	S 23 0 W	241.00	3430.91	250.83 S 95.60 W	253.60	268.43	S 20 52 W	0.44
3592.00	19 0	S 25 30 W	125.00	3548.92	268.40 S 112.52 W	293.26	309.57	S 21 19 W	0.77
3778.00	19 0	S 26 0 W	186.00	3724.78	342.94 S 138.83 W	351.95	369.98	S 22 2 W	0.09
3987.00	19 15	S 28 0 W	209.00	3922.25	403.95 S 169.92 W	418.66	438.23	S 22 49 W	0.34
4158.00	19 15	S 27 0 W	171.00	4083.69	453.96 S 195.95 W	473.70	494.44	S 23 21 W	0.19
4311.00	20 0	S 29 0 W	153.00	4227.80	499.33 S 220.07 W	523.97	545.67	S 23 47 W	0.66
4467.00	21 0	S 30 0 W	156.00	4373.92	546.87 S 246.97 W	577.68	600.06	S 24 18 W	0.68
4592.00	21 15	S 34 0 W	125.00	4490.52	585.07 S 270.84 W	622.28	644.72	S 24 50 W	1.17

PETROMAR
WELL: L016-21

RADIUS OF CURVATURE CALCULATIONS

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MEASURED DEPTH Feet	B O R E - H O L E INCLINATION Deg Min	D I R E C T I O N Deg Min	COURSE LENGTH Feet	VERTICAL DEPTH Feet	R E C T A N G U L A R C O O R D I N A T E S Feet	VERTICAL SECTION Feet	C L O S U R E S DISTANCE Feet	D I R E C T I O N Deg Min	DOGLEG SEVERITY Deg/100ft.
4755.00	21 30	S 35 30 W	173.00	4651.62	636.56 S	307.23 W	685.12	S 25 46 W	0.55
4932.00	20 45	S 38 0 W	217.00	4854.03	698.81 S	354.57 W	763.23	S 26 54 W	0.43
5157.00	21 0	S 42 0 W	185.00	5026.89	749.30 S	396.93 W	829.14	S 27 55 W	0.78
5351.00	20 30	S 48 0 W	194.00	5208.30	797.88 S	445.51 W	897.58	S 29 11 W	1.13
5440.00	20 0	S 41 0 W	79.00	5282.42	817.37 S	464.66 W	924.82	S 29 37 W	3.13
5541.00	19 0	S 34 30 W	101.00	5377.63	844.01 S	485.29 W	958.49	S 29 54 W	2.36
5726.00	18 0	S 38 0 W	185.00	5553.06	891.34 S	520.00 W	1017.06	S 30 16 W	0.81
5910.00	18 0	S 39 0 W	184.00	5728.06	935.84 S	555.39 W	1073.90	S 30 41 W	0.17
6126.00	18 15	S 42 0 W	216.00	5933.34	986.93 S	599.03 W	1141.08	S 31 15 W	0.45
6402.00	17 45	S 47 30 W	276.00	6195.83	1047.48 S	659.05 W	1226.04	S 32 11 W	0.64
6708.00	17 0	S 56 0 W	306.00	6487.87	1104.00 S	730.75 W	1315.43	S 33 30 W	0.86
6933.00	17 0	S 62 0 W	225.00	6703.03	1137.86 S	787.11 W	1377.60	S 34 40 W	0.78
7000.00	18 0	S 65 0 W	367.00	7053.04	1187.10 S	885.86 W	1478.79	S 36 44 W	0.37
7557.00	18 0	S 67 0 W	257.00	7297.47	1219.40 S	958.41 W	1550.17	S 38 10 W	0.24
7800.00	18 30	S 69 0 W	243.00	7528.24	1247.90 S	1028.96 W	1617.35	S 39 30 W	0.33

Final Station Closure - Distance: 1617.41 Feet
- Direction: S 39 30 W

PETROMAR EQUIPO-8
ANADRILL SCHLUMBERGER

RADIUS OF CURVATURE CALCULATIONS

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MEASURED DEPTH Feet	BORE-HOLE INCLINATION Deg Min	DIRECTION Deg Min	COURSE LENGTH Feet	VERTICAL DEPTH Feet	RECTANGULAR COORDINATES Feet	RECTANGULAR COORDINATES Feet	CLOSURES DISTANCE Feet	DIRECTION Deg Min	DOGLEG SEVERITY Deg/100ft.
0.00	0 0	0 0	0.00	0.00	0.00 N	0.00 E	0.00	0 0	
500.00	0 0	0 0	500.00	500.00	0.00 N	0.00 E	0.00	0 0	0.00
1000.00	0 0	0 0	500.00	1000.00	0.00 N	0.00 E	0.00	0 0	0.00
1500.00	0 0	0 0	500.00	1500.00	0.00 N	0.00 E	0.00	0 0	0.00
2000.00	0 0	0 0	500.00	2000.00	0.00 N	0.00 E	0.00	0 0	0.00
2091.09	0 0	0 0	91.09	2091.09	0.00 N	0.00 E	0.00	0 0	0.00
2191.09	2 0	S 40 0 W	100.00	2191.07	1.34 S	1.12 W	1.75	S 40 0 W	2.00
2291.09	4 0	S 40 0 W	100.00	2290.93	5.35 S	4.49 W	6.98	S 40 0 W	2.00
2391.09	6 0	S 40 0 W	100.00	2390.54	12.02 S	10.09 W	15.69	S 40 0 W	2.00
2491.09	8 0	S 40 0 W	100.00	2489.79	21.36 S	17.92 W	27.68	S 40 0 W	2.00
2591.09	10 0	S 40 0 W	100.00	2588.56	33.34 S	27.98 W	43.52	S 40 0 W	2.00
2691.09	12 0	S 40 0 W	100.00	2686.71	47.96 S	40.24 W	62.60	S 40 0 W	2.00
2791.09	14 0	S 40 0 W	100.00	2784.15	65.19 S	54.70 W	85.10	S 40 0 W	2.00
2891.09	16 0	S 40 0 W	100.00	2880.73	85.01 S	71.33 W	110.98	S 40 0 W	2.00
2991.09	18 0	S 40 0 W	100.00	2976.36	107.41 S	90.13 W	140.21	S 40 0 W	2.00
3041.09	19 0	S 40 0 W	50.00	3023.78	119.56 S	100.32 W	156.08	S 40 0 W	2.00
3541.09	19 0	S 40 0 W	500.00	3496.53	244.27 S	204.96 W	318.86	S 40 0 W	0.00
4041.09	19 0	S 40 0 W	500.00	3969.29	368.97 S	309.59 W	481.65	S 40 0 W	0.00
4541.09	19 0	S 40 0 W	500.00	4442.05	493.67 S	414.22 W	644.43	S 40 0 W	0.00
5041.09	19 0	S 40 0 W	500.00	4914.81	618.37 S	518.86 W	807.21	S 40 0 W	0.00
5541.09	19 0	S 40 0 W	500.00	5387.57	743.07 S	623.49 W	970.00	S 40 0 W	0.00
6041.09	19 0	S 40 0 W	500.00	5860.33	867.77 S	728.12 W	1132.78	S 40 0 W	0.00
6541.09	19 0	S 40 0 W	500.00	6333.09	992.48 S	832.76 W	1295.57	S 40 0 W	0.00
7041.09	19 0	S 40 0 W	500.00	6805.85	1117.18 S	937.39 W	1458.35	S 40 0 W	0.00
7246.43	19 0	S 40 0 W	205.34	7000.00	1168.39 S	980.36 W	1525.20	S 40 0 W	0.00

PETROMAR EQUIPO-8
ANADRILL SCHLUMBERGER

RADIUS OF CURVATURE CALCULATIONS

Tuesday, January 2, 1990 Page 9

MEASURED DEPTH Feet	BORE-HOLE INCLINATION Deg Min	DIRECTION Deg Min	COURSE LENGTH Feet	VERTICAL DEPTH Feet	RECTANGULAR COORDINATES Feet	Feet	CLOSURES DISTANCE Feet	DIRECTION Deg Min	DOGLE SEVERITY Deg/100ft.
8515.57	19 0	S 40 0 W	1269.14	8200.00	1484.92 S	1245.95 W	1938.39	S 40 0 W	0.00

Final Station Closure - Distance: 1938.39 Feet
- Direction: S 40 0 W