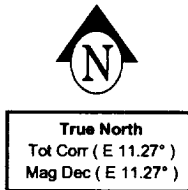
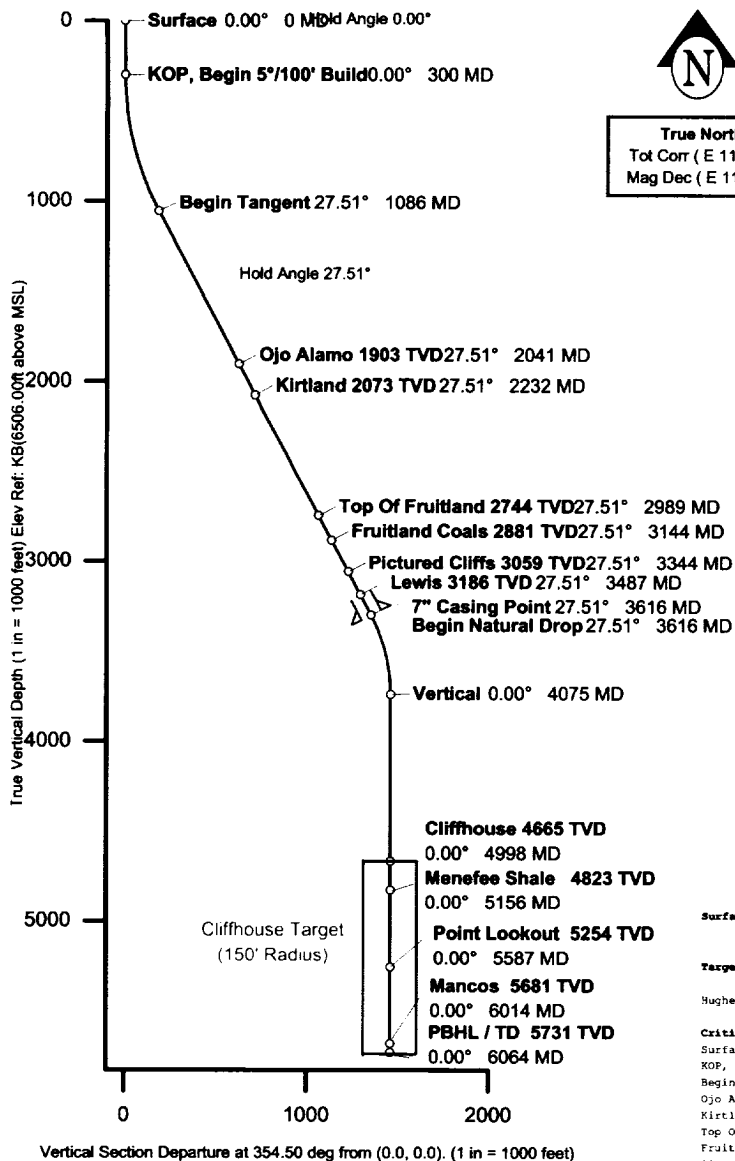


Schlumberger BP

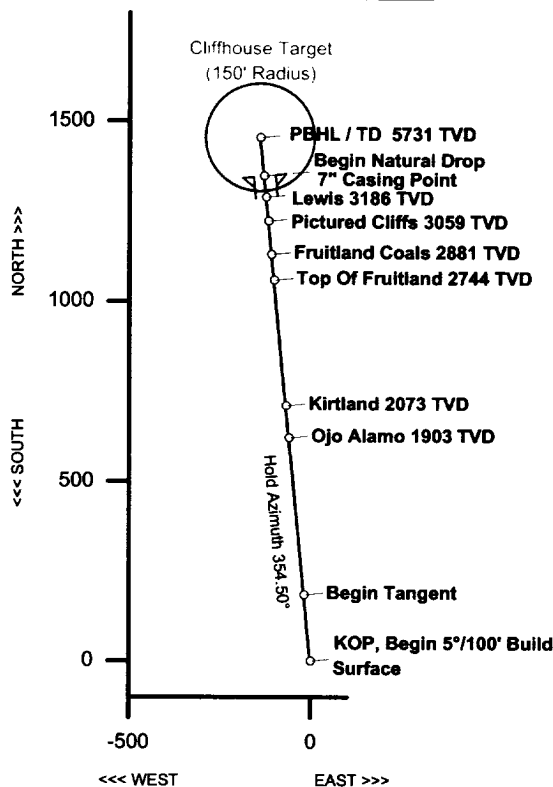
30-045-30937

WELL Hughes B 2B	FIELD NM, San Juan County	STRUCTURE BP 19 T29N R8W
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Vertical Section View



PLAN VIEW Scale (1 in = 500 feet)

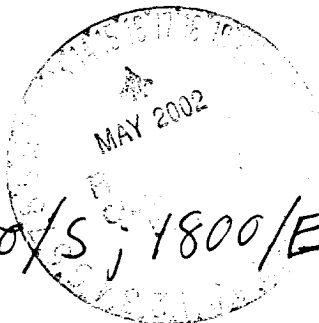


Surface Location: North:2007835.00 ftUS, East:2561475.60 ftUS NAD83 New Mexico State Planes, Western Zone, US Feet

Target Name	Grid Coord		TVD ft	VSEC ft	Local Coord		Shape	Major Axis
	N(+) / S(-) ftUS	E(+) / W(-) ftUS			N(+) / S(-) ft	E(+) / W(-) ft		
Hughes B 2B Cliff	2009290.70	2561343.92	4665.00	1461.72	1455.00	-140.00	Circle	300.0
Critical Points								
Surface	0.00	0.00	354.50	0.00	0.00	0.00		0.00
KOP, Begin 5°/100	300.00	0.00	354.50	300.00	0.00	0.00		0.00
Begin Tangent	1086.02	27.51	354.50	1056.17	185.11	184.26	-17.73	3.50
Ojo Alamo 1903 TV	2040.82	27.51	354.50	1903.00	626.15	623.27	-59.97	0.00
Kirtland 2073 TVD	2232.50	27.51	354.50	2073.00	714.68	711.40	-68.45	0.00
Top Of Fruitland	2989.04	27.51	354.50	2744.00	1064.14	1059.25	-101.92	0.00
Fruitland Coals 2	3143.51	27.51	354.50	2881.00	1135.49	1130.27	-108.75	0.00
Pictured Cliffs 3	3344.20	27.51	354.50	3059.00	1228.20	1222.55	-117.63	0.00
Lewis 3186 TVD	3487.39	27.51	354.50	3186.00	1294.34	1288.39	-123.97	0.00
7\" Casing Point	3615.93	27.51	354.50	3300.00	1353.71	1347.49	-129.66	0.00
Begin Natural Dro	3615.99	27.51	354.50	3300.05	1353.74	1347.52	-129.66	0.00
Vertical	4074.50	0.00	354.50	3741.15	1461.72	1455.00	-140.00	6.00
Cliffhouse 4665 T	4998.35	0.00	354.50	4665.00	1461.72	1455.00	-140.00	0.00
Menefee Shale 4	5156.35	0.00	354.50	4823.00	1461.72	1455.00	-140.00	0.00
Point Lookout 52	5587.35	0.00	354.50	5254.00	1461.72	1455.00	-140.00	0.00
Mancos 5681 TVD	6014.35	0.00	354.50	5681.00	1461.72	1455.00	-140.00	0.00
PBHL / TD 5731 T	6064.35	0.00	354.50	5731.00	1461.72	1455.00	-140.00	0.00

Quality Control
Date Drawn: 04-Apr-2002
Drawn by: John O'Keefe
Checked by: Allen Starkey
Client OK: _____

BHL: 2350/S; 1800/E



Proposed Well Profile

Report Date: April 4, 2002 Client: BP Field: NM, San Juan County Structure / Slot: BP 19 T29N R8W (Hughes B 2B) / Hughes B 2B Well: Hughes B 2B Borehole: Original Hole UWI / API#: 30 045 30937 Survey Name / Date: Rev6 jok 02-Apr-02 (3300 Csg) / April 4, 2002 Tort / AHD / DDI / ERD ratio: 55.022° / 1461.72 ft / 4.930 / 0.255 Grid Coordinate System: NAD83 New Mexico State Planes, Western Zone, US Feet Location Lat / Long: N 36 31 0.000, W 108 23 0.001 Location Grid N/E Y/X: N 2007835.000 ftUS, E 2561475.600 ftUS Grid Convergence Angle: -0.32728780° Grid Scale Factor: 0.99994655	Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 354.500° Vertical Section Origin: N 0.000 ft, E 0.000 ft TVD Reference Datum: KB TVD Reference Elevation: 6506.0 ft relative to MSL Sea Bed / Ground Level Elevation: 6492.000 ft relative to MSL Magnetic Declination: 11.270° Total Field Strength: 51555.570 nT Magnetic Dip: 63.366° Declination Date: November 16, 2001 Magnetic Declination Model: BGGM 2001 North Reference: True North Total Corr Mag North -> True North: +11.270° 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 (°)
Surface	0.00	0.00	354.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-5.5MTF
KOP, Begin 5°/100' Build	300.00	0.00	354.50	300.00	0.00	0.00	0.00	0.00	0.00	0.00	-5.5MTF
	400.00	3.50	354.50	399.94	3.05	3.04	-0.29	3.05	354.50	3.50	-5.5MTF
	500.00	7.00	354.50	499.50	12.20	12.15	-1.17	12.20	354.50	3.50	0.0
	600.00	10.50	354.50	598.32	27.41	27.29	-2.63	27.41	354.50	3.50	0.0
	700.00	14.00	354.50	696.03	48.63	48.40	-4.66	48.63	354.50	3.50	0.0
	800.00	17.50	354.50	792.26	75.77	75.42	-7.26	75.77	354.50	3.50	0.0
	900.00	21.00	354.50	886.66	108.73	108.23	-10.41	108.73	354.50	3.50	0.0
	1000.00	24.50	354.50	978.86	147.40	146.72	-14.12	147.40	354.50	3.50	0.0
Begin Tangent	1086.02	27.51	354.50	1056.17	185.11	184.26	-17.73	185.11	354.50	3.50	0.0
Ojo Alamo 1903 TVD	2040.82	27.51	354.50	1903.00	626.15	623.27	-59.97	626.15	354.50	0.00	0.0
Kirtland 2073 TVD	2232.50	27.51	354.50	2073.00	714.68	711.40	-68.45	714.68	354.50	0.00	0.0

Top Of Fruitland 2744 TVD	2989.04	27.51	354.50	2744.00	1064.14	1059.25	-101.92	1064.14	354.50	0.00	0.0
Fruitland Coals 2881 TVD	3143.51	27.51	354.50	2881.00	1135.49	1130.27	-108.75	1135.49	354.50	0.00	0.0
Pictured Cliffs 3059 TVD	3344.20	27.51	354.50	3059.00	1228.20	1222.55	-117.63	1228.20	354.50	0.00	0.0
Lewis 3186 TVD	3487.39	27.51	354.50	3186.00	1294.34	1288.39	-123.97	1294.34	354.50	0.00	0.0
7" Casing Point	3615.93	27.51	354.50	3300.00	1353.71	1347.49	-129.66	1353.71	354.50	0.00	0.0
Begin Natural Drop	3615.99	27.51	354.50	3300.05	1353.74	1347.52	-129.66	1353.74	354.50	0.00	180.0
	3700.00	22.47	354.50	3376.17	1389.22	1382.83	-133.06	1389.22	354.50	6.00	180.0
	3800.00	16.47	354.50	3470.41	1422.54	1416.00	-136.25	1422.54	354.50	6.00	180.0
Vertical	3900.00	10.47	354.50	3567.62	1445.82	1439.17	-138.48	1445.82	354.50	6.00	180.0
	4000.00	4.47	354.50	3666.72	1458.82	1452.11	-139.72	1458.82	354.50	6.00	-5.5MTF
Cliffhouse 4665 TVD	4074.50	0.00	354.50	3741.15	1461.72	1455.00	-140.00	1461.72	354.50	6.00	-5.5MTF
	4998.35	0.00	354.50	4665.00	1461.72	1455.00	-140.00	1461.72	354.50	0.00	-5.5MTF
Menefee Shale 4823 TVD	5156.35	0.00	354.50	4823.00	1461.72	1455.00	-140.00	1461.72	354.50	0.00	-5.5MTF
Point Lookout 5254 TVD	5587.35	0.00	354.50	5254.00	1461.72	1455.00	-140.00	1461.72	354.50	0.00	-5.5MTF
Mancos 5681 TVD	6014.35	0.00	354.50	5681.00	1461.72	1455.00	-140.00	1461.72	354.50	0.00	-5.5MTF
PBHL / TD 5731 TVD	6064.35	0.00	354.50	5731.00	1461.72	1455.00	-140.00	1461.72	354.50	0.00	0.0MTF

Survey Error Model: Wolf & deWardt 1.0000 sigma

Surveying Programme:

<u>MD From (ft)</u>	<u>MD To (ft)</u>	<u>EOU Freq</u>	<u>Survey Tool Type</u>
0.00	6064.35	Act-Stns	Anadrill MWD (none assigned-default tool used)