

SCHLUMBERGER

Survey report

Client..... Santos Limited
Field..... Otway

Well..... Henry-2
API number..... 08ASQ0011
Engineer..... Anagh Kohli

Rig..... Ocean Patriot
STATE..... Victoria

Spud date..... 25-Aug-08
Last survey date..... 13-Sep-08
Total accepted surveys... 72
MD of first survey..... 0.00 m
MD of last survey..... 2042.00 m

----- Survey calculation methods-----
Method for positions..... Minimum curvature
Method for DLS..... Mason & Taylor

----- Depth reference -----
Permanent datum..... MSL
Depth reference..... Driller's Depth
GL above permanent..... -67.00 m
KB above permanent..... 20.80 m
DF above permanent..... 20.80 m

----- Vertical section origin-----
Latitude (+N/S-)..... 0.00 m
Departure (+E/W-)..... 0.00 m

----- Platform reference point-----
Latitude (+N/S-).....
Departure (+E/W-).....

Azimuth from Vsect Origin to target: 119.01 degrees

----- Geomagnetic data -----
Magnetic model..... BGGM version 2008
Magnetic date..... 29-Aug-2008
Magnetic field strength... 1216.32 HCNT
Magnetic dec (+E/W-)..... 10.77 degrees
Magnetic dip..... -69.86 degrees

----- MWD survey Reference Criteria -----
Reference G..... 1000.07 mGal
Reference H..... 1216.32 HCNT
Reference Dip..... -69.86 degrees
Tolerance of G..... (+/-) 2.50 mGal
Tolerance of H..... (+/-) 6.00 HCNT
Tolerance of Dip..... (+/-) 0.45 degrees

----- Corrections -----
Magnetic dec (+E/W-)..... 10.77 degrees
Grid convergence (+E/W-).. -1.01 degrees
Total az corr (+E/W-)..... 11.78 degrees
(Total az corr = magnetic dec - grid conv)
Survey Correction Type ...:
I=Sag Corrected Inclination
M=Schlumberger Magnetic Correction
S=Shell Magnetic Correction
F=Failed Axis Correction
R=Magnetic Resonance Tool Correction
D=Dmag Magnetic Correction

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Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/ 100f)	Srvy tool type	Tool Corr (deg)
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	87.00	0.00	0.00	87.00	87.00	0.00	0.00	0.00	0.00	0.00	0.00	MS	None
3	100.54	0.86	166.76	13.54	100.54	0.07	-0.10	0.02	0.10	166.76	1.94	MS	None
4	121.29	0.69	181.46	20.75	121.29	0.23	-0.38	0.06	0.38	171.55	0.38	MS	None
5	139.00	0.44	330.20	17.71	139.00	0.22	-0.42	0.02	0.42	177.40	1.88	MS	None
6	168.19	0.76	319.12	29.19	168.19	-0.06	-0.18	-0.16	0.24	222.29	0.35	MS	None
7	196.26	0.86	317.61	28.07	196.25	-0.43	0.12	-0.43	0.44	285.32	0.11	MS	None
8	224.34	0.90	318.13	28.08	224.33	-0.84	0.44	-0.72	0.84	301.38	0.04	MS	None
9	252.42	0.82	320.95	28.08	252.41	-1.23	0.76	-0.99	1.25	307.41	0.10	MS	None
10	280.48	0.85	321.06	28.06	280.46	-1.61	1.07	-1.25	1.65	310.75	0.03	MS	None
11	309.36	0.90	321.89	28.88	309.34	-2.02	1.42	-1.52	2.08	313.01	0.05	MS	None
12	338.11	0.88	317.75	28.75	338.09	-2.44	1.76	-1.81	2.53	314.22	0.07	MS	None
13	366.97	0.91	337.60	28.86	366.94	-2.83	2.14	-2.05	2.96	316.24	0.33	MS	None
14	395.76	0.18	193.03	28.79	395.73	-2.99	2.30	-2.14	3.15	317.07	1.12	MS	None
15	424.60	0.23	186.43	28.84	424.57	-2.96	2.20	-2.16	3.09	315.56	0.06	MS	None
16	453.40	0.22	174.07	28.80	453.37	-2.90	2.09	-2.16	3.01	314.05	0.05	MS	None
17	482.27	0.28	178.70	28.87	482.24	-2.84	1.96	-2.15	2.92	312.37	0.07	MS	None
18	511.15	0.30	175.17	28.88	511.12	-2.76	1.82	-2.15	2.81	310.29	0.03	MS	None
19	540.11	0.32	168.39	28.96	540.08	-2.66	1.66	-2.12	2.70	308.09	0.04	MS	None
20	568.89	0.41	174.22	28.78	568.86	-2.55	1.48	-2.10	2.57	305.27	0.10	MS	None
21	597.83	0.27	181.06	28.94	597.80	-2.46	1.31	-2.09	2.47	302.14	0.15	MS	None
22	626.63	0.41	176.71	28.80	626.60	-2.37	1.14	-2.08	2.37	298.71	0.15	MS	None
23	634.07	0.47	178.32	7.44	634.04	-2.34	1.08	-2.08	2.35	297.52	0.25	MS	None
24	681.58	0.29	157.36	47.51	681.55	-2.15	0.78	-2.03	2.17	290.99	0.14	PUP	None
25	740.06	0.45	140.43	58.48	740.03	-1.82	0.46	-1.82	1.88	284.28	0.10	PUP	None
26	768.28	0.83	157.79	28.22	768.24	-1.56	0.19	-1.68	1.69	276.46	0.46	PUP	None
27	797.08	2.50	141.89	28.80	797.03	-0.82	-0.50	-1.21	1.31	247.65	1.82	PUP	None
28	826.15	3.39	139.33	29.07	826.06	0.57	-1.65	-0.26	1.67	188.93	0.94	PUP	None
29	854.44	3.40	141.08	28.29	854.30	2.13	-2.94	0.81	3.05	164.52	0.11	PUP	None
30	883.67	3.87	140.62	29.23	883.47	3.85	-4.37	1.98	4.80	155.60	0.49	PUP	None

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31	912.33	4.77	142.55	28.66	912.05	5.85	-6.07	3.32	6.92	151.30	0.97	PUP	None
32	940.43	6.91	146.93	28.10	940.01	8.41	-8.41	4.95	9.76	149.50	2.37	PUP	None
33	969.38	10.03	149.10	28.95	968.64	12.13	-12.03	7.20	14.02	149.11	3.30	PUP	None
34	998.24	13.64	148.11	28.86	996.88	17.28	-17.08	10.29	19.94	148.94	3.82	PUP	None
35	1026.48	16.66	146.70	28.24	1024.13	23.78	-23.29	14.27	27.32	148.50	3.28	PUP	None
36	1056.39	19.21	141.25	29.91	1052.59	32.13	-30.72	19.71	36.49	147.32	3.11	PUP	None

37	1084.97	21.95	138.51	28.58	1079.34	41.52	-38.39	26.19	46.47	145.69	3.10	PUP	None
38	1112.81	24.41	135.23	27.84	1104.94	51.95	-46.37	33.69	57.32	144.00	3.04	PUP	None
39	1141.90	25.91	132.79	29.09	1131.27	63.90	-54.95	42.59	69.53	142.23	1.91	PUP	None
40	1169.55	27.21	130.42	27.65	1156.00	75.96	-63.16	51.83	81.71	140.62	1.85	PUP	None
41	1198.94	28.27	128.23	29.39	1182.01	89.42	-71.82	62.42	95.15	139.01	1.52	PUP	None
42	1228.12	29.96	126.70	29.18	1207.50	103.46	-80.45	73.69	109.10	137.51	1.93	PUP	None
43	1257.97	31.15	125.30	29.85	1233.21	118.52	-89.37	85.97	124.00	136.11	1.42	PUP	None
44	1287.26	34.00	121.48	29.29	1257.89	134.24	-98.03	99.14	139.42	134.68	3.66	PUP	None
45	1315.37	36.85	115.74	28.11	1280.80	150.51	-105.79	113.44	155.12	133.00	4.75	PUP	None
46	1344.58	38.72	112.58	29.21	1303.89	168.34	-113.11	129.77	172.14	131.08	2.81	PUP	None
47	1374.02	39.86	112.30	29.44	1326.67	186.86	-120.22	147.00	189.90	129.28	1.19	PUP	None
48	1402.09	40.08	111.24	28.07	1348.18	204.75	-126.91	163.74	207.17	127.78	0.78	PUP	None
49	1431.69	39.39	110.89	29.60	1370.95	223.49	-133.71	181.40	225.36	126.39	0.75	PUP	None
50	1460.30	38.67	109.79	28.61	1393.17	241.30	-139.98	198.29	242.72	125.22	1.06	PUP	None
51	1488.25	37.49	109.07	27.95	1415.17	258.29	-145.71	214.55	259.35	124.18	1.37	PUP	None
52	1519.61	38.21	109.48	31.36	1439.93	277.26	-152.06	232.71	277.99	123.16	0.74	PUP	None
53	1537.83	38.05	110.01	18.22	1454.27	288.36	-155.86	243.30	288.94	122.64	0.61	PUP	None
54	1548.79	38.12	110.29	10.96	1462.89	295.04	-158.19	249.65	295.55	122.36	0.52	PUP	None
55	1577.82	39.48	111.06	29.03	1485.52	313.04	-164.62	266.66	313.38	121.69	1.52	PUP	None
56	1606.72	41.45	112.42	28.90	1507.50	331.64	-171.57	284.08	331.87	121.13	2.28	PUP	None
57	1634.98	43.80	113.39	28.26	1528.30	350.67	-179.02	301.71	350.82	120.68	2.63	PUP	None
58	1663.98	45.65	114.57	29.00	1548.90	371.00	-187.31	320.35	371.10	120.32	2.13	PUP	None
59	1692.29	47.20	115.52	28.31	1568.41	391.46	-196.00	338.93	391.52	120.04	1.83	PUP	None
60	1720.65	49.49	115.31	28.36	1587.26	412.61	-205.09	358.07	412.64	119.80	2.47	PUP	None

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61	1751.15	52.16	116.21	30.50	1606.53	436.21	-215.37	379.36	436.23	119.58	2.76	PUP	None
62	1779.21	54.97	116.68	28.06	1623.19	458.76	-225.42	399.57	458.77	119.43	3.08	PUP	None
63	1807.62	57.42	116.67	28.41	1638.99	482.34	-236.02	420.66	482.35	119.30	2.63	PUP	None
64	1836.56	59.33	117.70	28.94	1654.17	506.97	-247.28	442.58	506.98	119.19	2.21	PUP	None
65	1865.80	59.29	117.83	29.24	1669.09	532.11	-258.99	464.83	532.11	119.13	0.12	PUP	None
66	1895.54	59.36	118.49	29.74	1684.27	557.69	-271.06	487.38	557.69	119.08	0.59	PUP	None
67	1924.23	60.08	118.95	28.69	1698.73	582.46	-282.97	509.11	582.46	119.07	0.87	PUP	None
68	1952.67	60.05	119.47	28.44	1712.92	607.11	-295.00	530.62	607.11	119.07	0.48	PUP	None
69	1980.36	59.99	119.22	27.69	1726.76	631.09	-306.75	551.53	631.09	119.08	0.25	PUP	None
70	2007.97	60.08	118.21	27.61	1740.55	655.01	-318.24	572.50	655.01	119.07	0.97	PUP	None
71	2022.07	60.26	118.69	14.10	1747.57	667.24	-324.07	583.26	667.24	119.06	0.98	PUP	None
72	2042.00	60.35	118.42	19.93	1757.44	684.55	-332.35	598.47	684.55	119.04	0.38	Proj.	To TD

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