KERR-McGEE NORTH SEA (U.K.) Ltd.

NINIAN FIELD

WELL
3/03-C71 (C03RD)

FINAL GEOLOGICAL REPORT

July 2002

Kerr-McGee North Sea (U.K.) Ltd.

KERR-McGEE NORTH SEA (UK) / CNR INTERNATIONAL
MURPHY PETROLEUM / AGIP (UK) / TALISMAN ENERGY (UK)

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Finalised By: _____

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Support Geologist

Approved By: _____

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I WELL DATA SUMMARY SHEET

NINIAN (Central) FIELD

Platform Reference Location:				
(Latitude/Longitude):	**60º 51' 24.420"**	**N**	**01º 28' 09.712"**	**E**
(UTM, Hayford Spheroid):	**6747965.290m**	**N**	**416842.853m**	**E**
Slot Number and Location:	**29**			
(m from reference):	**5.660m**	**S**	**0.633m**	**W**
RT to MSL:	**180ft**			
Water Depth:	**440ft**			
RT to Seafloor:	**620ft**			
Objectives:	**Brent Group**			
Well:	**3/03-C71 (C03RD)**			
Brent Group Entry Point:	**12,580 ft MD [9,257 ft TVDss]**			
Total Depth:	**13,315 ft MD [9,607 ft TVDss]**			
Spud Date:	**1st March 2002**			
TD Date:	**11th March 2002**			
Total Days on Contract:	**32**			
Casing details:				
13 3/8" shoe (original) at:	**3,908 ft MD**		**[3,488 ft TVDss]**	
9 5/8" casing at:	**7,313 ft MD**		**[6,228 ft TVDss]**	
5 ½" production liner at:	**13,305 ft MD**		**[9,607 ft TVDss]**	
Designation:	**Oil Producer**			

C71 was drilled to 13,315 ft MD using "Versaclean 2" Oil Based Mud (OBM) with a density of 12.4 ppg in the 8½" hole section.

Status:- Well 3/03-C71 was completed as an oil producer in March 2002.
At the time of this report C71 was producing 14,580 bbls fluid per day. (76% water cut) i.e. 3,500 bopd. To date, C71 has produced over 322,000bbls of oil.

II ABSTRACT

It was proposed to re-drill well C03 (slot 29) using an 8 ½" hole section to target oil adjacent to the Horst Fault in the central Main Field area with the objective of recovering approximately 1.3 mmstb of oil. The well was also planned to assist re-instating reservoir zonal management in the south-east region of the central main field adjacent to the Horst fault.

C03RD (C71) was expected to penetrate a full Brent sequence with the exception of the Tarbert and part of the F sand units. The primary oil zones were the A2 Broom, D & E Ness sands and potentially the Upper C2 Etive unit.

III OPERATIONAL INFORMATION

The rig was skidded to slot 29 and the abandonment of C03 began on 20th February 2002. Well C03 completion tubing (5 ½") was cut and retrieved by the 25th February. The 9 5/8" casing was cleaned out and Schlumberger set a casing bridge plug at 8,500ft MD. Schlumberger ran their UCIT log prior to the rig setting a "Trackmaster assembly" (whipstock).

The well was displaced to 12.3 ppg Versaclean OBM. A window was milled through the 9 5/8"casing from 7,317 to 7,330ft MD. New formation was drilled from 7,330 to 7,344ft MD. As an F.I.T. to 15.0ppg failed, a cement squeeze was done. This cement was then washed through and 36ft of new formation was drilled but with dynamic losses. Further cementing was needed, so a plug was set. On washing and reaming, firm cement was found at 7,315ft MD. This cement and new formation was drilled to 7,394ft MD. Dynamic losses were present so the mud weight was reduced to 11.2ppg.

On 5th March, the Autotrak drilling assembly was picked up and RIH. The 8 ½" hole was drilled to 12,449ft MD when a short trip to the shoe enabled mud chemicals to be taken onboard. Drilling resumed to TD at 13,315ft MD on 11th March 2002.

The 5 ½" production liner was hung at 6,805ft MD and shoe cemented at 13,305ft MD on 13th March. The well was displaced to sea water on 16th March and the completion run by 21st March. C71 was perforated with 3 3/8" guns and the well tested prior to skidding the rig on 23rd March when the well was handed over to Production Department.

Wellserve Ltd carried out further perforations using the mast towards the end of March and early April 2002.

IV FORMATION TOPS

Table 1 3/03-C71

Formation Top	Prognosed TVDss (ft)	Actual MD (ft)	Actual TVDss (ft)	Relative to prognosis	UTMs mN	UTMs mE
Kimmeridge (BCU)	9,220	12,398	9,173	47ft high	6747599.5	418768.8
Heather	N/A	12,554	9,245	N/A	6747558.4	418777.7
Top Brent Ness F1	9,265	Not present	Not present	Not present	Not present	Not present
E3	9,292	12,580	9,257	35ft high	6747551.6	418779.4
E2	9,322	12,619	9,274	48ft high	6747541.3	418781.8
E1	9,331	12,662	9,294	37ft high	6747530.0	418784.6
D2	9,338	12,689	9,306	32ft high	6747522.9	418786.4
D1	9,373	12,752	9,335	38ft high	6747506.3	418790.5
Etive C2	9,382	12775	9,346	36ft high	6747500.3	418792.0
C1b	9,400	12,841	9,378	22ft high	6747483.2	418796.5
C1a	9,425	12,872	9,393	32ft high	6747475.3	418798.6
Rannoch B	9,454	12,936	9,424	30ft high	6747458.8	418802.9
Broom A2	9,499	13,018	9,464	35ft high	6747437.7	418808.7
A1	9,523	13,061	9,485	38ft high	6747426.6	418811.8
Dunlin	9,545	13,115	9,511	34ft high	6747412.8	418815.7
TD	9,642	13,315	9,607	35ft high	6747361.5	418830.7

All formation tops are based on LWD logs and dependent on MD from the drill pipe tally. No independent wireline depth measurements/reference was made.

V RESERVOIR STRATIGRAPHY

A summary of the reservoir stratigraphy encountered in well 3/03-C71 is presented on the Composite log. (Attachment 1). Formation tops were based upon Baker Hughes INTEQ LWD logs. Any shows in the reservoir were masked by the presence of oil based mud.

VI FORMATION EVALUATION WHILE DRILLING (FEWD)

Baker Hughes INTEQ performed real-time FEWD as follows:

Table 2

LWD Toolstring Service Type	Run No.	Hole size	Operating Depths (ft MD)	Bit - Sensor offsets(ft)					
				DIR	GR	RES	ORD	CCN	MAP
DIR	1	8 ½"	7,317 to 7,344	68.39	-	-	-	-	-
ATK/APLS/MAP	2	8 ½"	7,394 to 13,315	33.76	17.36	18.66	45.90	53.63	58.47

MWD/LWD Abbreviation Listing:-

DIR = Directional MWD Service; MAP = Modular Advanced Pressure Service; ATK = Autotrak
MPR = Multiple Propagation Resistivity Service (with Gamma Ray)
TC = Triple Combo service comprising GR, Resistivity + Density & Porosity Nuclear Measurements

MWD Run 1:

BHI ran their directional tool with the Trackmaster whipstock-mill assembly.

A whipstock was set at 7,340ft MD and the well displaced to 12.5 ppg OBM prior to milling a window to 7,330ft MD. New formation was drilled to 7,344ft MD. An F.I.T suggested the need to carry out a cement squeeze. The MWD tool performed to specification throughout the run.

LWD Run 2:

An AutoTrak assembly provided realtime GR, Resistivity, Neutron Porosity, Density and Annular Pressure. The caliper calibrated inside the shoe against a known I.D. As the mud weight was 11.2ppg instead of 12.5ppg at TD, the caliper showed a smaller I.D. AutoTrak was used to build and turn the wellbore to the tangent section. The well was then turned and dropped into the target. The AutoTrak produced a good quality realtime log using a fast telemetry. Gaps in the realtime log were attributed to sending downlinks to the tool. At surface the memory data was downloaded to produce a continuous high quality memory log.

Maximum circulating BHT recorded was 210°F.

VII MUDLOGGING PROCEDURES

HRH Ltd provided Geo-logging services, beginning at the start of the 8½" hole section.

Two sets of bulk cuttings were collected at 30ft intervals from the start of the 8½" hole to above the reservoir. From thereon on, 10ft samples were collected to TD at 13,315ft MD.

A 1:500 scale measured depth lithology log was produced while geo-logging. This was integrated in the 1:500 scale measured depth composite log (Attachment 1).

VIII BIOSTRATIGRAPHY

No wellsite biostratigraphy was planned for or done during the drilling of the well.

IX PETROPHYSICS

Petrophysical analysis for C71 was carried out by Craig Peck of KMG - Oklahoma, using the Ninian Annex B model. The petrophysical report accompanies this Final Geological report on CD.

X WELL RESULTS

C71 was perforated in March and April 2002 with 3 3/8" TCP guns at 6 spf 60° phasing. The well was completed as an oil producer in March 2002.

At the time of this report C71 was producing approximately 14,580 bbls fluid per day. (76% water cut) i.e. 3,500 bopd. To date the well has produced in excess of 322,000bbls of oil.

Table 3 Perforation Intervals

Formation	Date	Perforated Intervals (ft MD)
Etive C2	Early April 2002	12,775 to 12,795
Rannoch B	21st March 2002	12,952 to 12,982

APPENDIX A

DEFINITIVE SURVEY 3/03-C71

Depth	Incl	Azi	TVD	TVDSS	UTM N	UTM E	Rect	Co-ords	DLS	VS
(ft)	°	°	(ft)	(ft)	(m)	(m)	(ft)	(ft)	°/100ft	(ft)
0	0.0	0.0	0.0	-180.0	6747959.6	416842.2	18.57S	2.94E	0.0	0.0
620	0.0	0.0	620.0	440.0	6747959.6	416842.2	18.57S	2.94E	0.0	0.0
700	0.3	146.7	700.0	520.0	6747959.6	416842.3	18.73S	3.04E	0.3	0.2
800	0.3	125.4	800.0	620.0	6747959.5	416842.4	19.10S	3.42E	0.1	0.6
900	0.8	125.6	900.0	720.0	6747959.3	416842.6	19.65S	4.19E	0.4	1.4
1000	0.9	125.0	1000.0	820.0	6747959.1	416843.0	20.47S	5.35E	0.1	2.5
1100	0.9	123.8	1100.0	920.0	6747958.8	416843.3	21.34S	6.63E	0.0	3.6
1200	0.9	121.5	1200.0	1020.0	6747958.5	416843.8	22.20S	7.97E	0.1	4.8
1300	1.0	119.6	1299.9	1119.9	6747958.3	416844.2	23.07S	9.44E	0.1	6.0
1400	1.1	118.4	1399.9	1219.9	6747958.0	416844.7	23.94S	11.02E	0.1	7.3
1500	1.1	116.8	1499.9	1319.9	6747957.7	416845.2	24.81S	12.68E	0.0	8.6
1600	1.1	116.6	1599.9	1419.9	6747957.5	416845.7	25.68S	14.42E	0.1	9.8
1700	1.7	115.5	1699.9	1519.9	6747957.1	416846.4	26.76S	16.63E	0.5	11.5
1800	2.9	122.0	1799.8	1619.8	6747956.5	416847.4	28.71S	20.07E	1.2	14.2
1900	4.4	131.5	1899.6	1719.6	6747955.4	416849.0	32.59S	25.08E	1.7	19.3
2000	6.0	129.4	1999.2	1819.2	6747953.6	416851.1	38.46S	32.00E	1.6	26.7
2100	6.7	116.4	2098.6	1918.6	6747951.8	416853.9	44.37S	41.26E	1.6	34.8
2200	7.9	104.4	2197.8	2017.8	6747950.5	416857.5	48.67S	53.14E	1.9	42.1
2300	9.6	100.0	2296.6	2116.6	6747949.5	416862.0	51.81S	67.95E	1.8	48.9
2400	11.6	99.5	2394.9	2214.9	6747948.6	416867.5	54.91S	86.05E	2.1	56.6
2500	13.9	99.2	2492.4	2312.4	6747947.5	416874.2	58.50S	107.82E	2.3	65.7
2600	16.3	98.2	2589.0	2409.0	6747946.3	416882.0	62.41S	133.51E	2.4	76.1
2700	18.7	99.2	2684.3	2504.3	6747944.9	416891.1	66.95S	163.20E	2.5	88.2
2800	21.5	99.1	2778.2	2598.2	6747943.2	416901.4	72.41S	197.13E	2.8	102.3
2900	24.5	99.1	2870.3	2690.3	6747941.3	416913.1	78.60S	235.67E	3.0	118.2
3000	27.5	99.1	2960.2	2780.2	6747939.2	416926.3	85.55S	278.90E	3.0	136.1
3100	30.4	99.0	3047.7	2867.7	6747936.9	416940.9	93.15S	326.70E	3.0	155.8
3200	33.6	98.2	3132.5	2952.5	6747934.5	416956.8	101.02S	379.10E	3.1	177.0
3300	36.7	98.7	3214.3	3034.3	6747932.0	416974.2	109.44S	436.00E	3.2	199.9
3400	39.7	98.8	3292.9	3112.9	6747929.1	416992.8	118.82S	497.08E	3.0	224.7
3500	41.6	98.5	3368.8	3188.8	6747926.1	417012.4	128.60S	561.46E	2.0	250.8
3600	42.4	98.2	3443.1	3263.1	6747923.2	417032.6	138.30S	627.67E	0.8	277.3
3700	42.9	98.5	3516.6	3336.6	6747920.2	417053.0	148.12S	694.72E	0.5	304.2
3800	43.4	98.6	3589.6	3409.6	6747917.1	417073.6	158.28S	762.32E	0.5	331.5
3900	42.9	98.4	3662.6	3482.6	6747914.0	417094.2	168.39S	829.93E	0.5	358.8
4000	42.8	98.6	3735.9	3555.9	6747910.9	417114.7	178.44S	897.18E	0.2	385.9
4100	42.8	98.7	3809.3	3629.3	6747907.8	417135.2	188.67S	964.35E	0.1	413.1
4200	42.6	98.9	3882.8	3702.8	6747904.7	417155.6	199.03S	1031.33E	0.2	440.5
4300	42.1	99.3	3956.7	3776.7	6747901.4	417175.8	209.63S	1097.86E	0.5	467.9
4400	41.8	98.4	4031.0	3851.0	6747898.3	417196.0	219.91S	1163.95E	0.6	495.0
4500	41.3	98.8	4105.9	3925.9	6747895.3	417216.0	229.83S	1229.55E	0.6	521.5
4600	41.1	98.5	4181.1	4001.1	6747892.2	417235.8	239.74S	1294.69E	0.3	548.0
4700	40.8	98.3	4256.6	4076.6	6747889.3	417255.6	249.35S	1359.55E	0.3	574.0
4800	40.2	98.3	4332.7	4152.7	6747886.5	417275.2	258.74S	1423.79E	0.7	599.7
4900	39.6	98.6	4409.4	4229.4	6747883.6	417294.5	268.18S	1487.21E	0.6	625.3

Depth	Incl	Azi	TVD	TVDSS	UTM N	UTM E	Rect	Co-ords	DLS	VS
(ft)	°	°	(ft)	(ft)	(m)	(m)	(ft)	(ft)	°/100ft	(ft)
5000	39.3	98.5	4486.6	4306.6	6747880.7	417313.6	277.64S	1550.06E	0.3	650.7
5100	38.9	98.3	4564.2	4384.2	6747877.9	417332.6	286.85S	1612.42E	0.5	675.7
5200	37.8	98.5	4642.6	4462.6	6747875.1	417351.3	295.91S	1673.80E	1.0	700.3
5300	37.2	98.5	4721.9	4541.9	6747872.4	417369.7	304.88S	1734.07E	0.6	724.6
5400	36.7	98.9	4801.8	4621.8	6747869.6	417387.8	313.97S	1793.53E	0.6	748.8
5500	36.6	99.4	4882.1	4702.1	6747866.7	417405.8	323.45S	1852.45E	0.4	773.2
5600	36.4	99.9	4962.5	4782.5	6747863.7	417423.6	333.43S	1911.05E	0.4	798.0
5700	36.4	100.3	5043.0	4863.0	6747860.5	417441.4	343.88S	1969.46E	0.2	823.2
5800	36.1	100.1	5123.6	4943.6	6747857.3	417459.2	354.37S	2027.67E	0.3	848.4
5900	36.0	101.0	5204.4	5024.4	6747854.0	417476.8	365.15S	2085.53E	0.6	873.8
6000	35.6	102.1	5285.5	5105.5	6747850.5	417494.3	376.85S	2142.85E	0.7	899.9
6100	35.5	103.0	5366.9	5186.9	6747846.6	417511.5	389.47S	2199.59E	0.6	926.8
6200	35.4	104.4	5448.4	5268.4	6747842.4	417528.7	403.20S	2255.89E	0.8	954.6
6300	35.1	105.5	5530.1	5350.1	6747837.9	417545.7	418.06S	2311.64E	0.7	983.4
6400	34.3	106.1	5612.3	5432.3	6747833.2	417562.4	433.52S	2366.44E	0.9	1012.5
6500	33.8	107.3	5695.1	5515.1	6747828.3	417578.7	449.58S	2420.10E	0.8	1041.9
6600	32.7	108.6	5778.8	5598.8	6747823.2	417594.6	466.44S	2472.28E	1.4	1071.7
6700	32.1	109.7	5863.2	5683.2	6747817.8	417610.1	484.02S	2522.91E	0.8	1101.8
6800	31.5	110.7	5948.2	5768.2	6747812.3	417625.1	502.22S	2572.38E	0.8	1132.2
6900	31.0	111.3	6033.7	5853.7	6747806.6	417639.9	520.81S	2620.78E	0.6	1162.7
7000	31.1	112.2	6119.4	5939.4	6747800.8	417654.5	539.92S	2668.66E	0.5	1193.5
7100	31.8	112.8	6204.6	6024.6	6747794.7	417669.2	559.89S	2716.88E	0.8	1225.3
7200	32.7	113.1	6289.2	6109.2	6747788.4	417684.1	580.69S	2766.05E	0.9	1258.1
7300	33.1	113.3	6373.2	6193.2	6747781.8	417699.4	602.04S	2815.94E	0.4	1291.7
7313	33.1	113.3	6384.1	6204.1	6747781.0	417701.3	604.85S	2822.45E	0.4	1296.1
7350	35.5	112.5	6414.7	6234.7	6747778.5	417707.2	612.96S	2841.66E	6.6	1308.9
7375	35.7	112.3	6435.0	6255.0	6747776.8	417711.3	618.50S	2855.11E	0.9	1317.7
7400	36.0	111.4	6455.2	6275.3	6747775.2	417715.4	623.95S	2868.70E	2.7	1326.5
7425	36.6	109.3	6475.4	6295.4	6747773.6	417719.7	629.09S	2882.59E	5.4	1335.0
7450	37.3	107.1	6495.4	6315.4	6747772.2	417724.0	633.78S	2896.87E	6.1	1343.3
7475	38.1	105.5	6515.1	6335.1	6747770.9	417728.5	638.07S	2911.55E	4.9	1351.2
7500	38.8	103.8	6534.7	6354.7	6747769.7	417733.1	642.00S	2926.60E	5.2	1358.9
7525	39.5	102.1	6554.1	6374.1	6747768.6	417737.8	645.52S	2941.98E	4.9	1366.3
7550	40.1	100.3	6573.3	6393.3	6747767.7	417742.5	648.62S	2957.66E	5.2	1373.3
7575	40.5	98.7	6592.4	6412.4	6747766.8	417747.4	651.28S	2973.60E	4.5	1380.0
7600	40.8	97.3	6611.4	6431.4	6747766.2	417752.3	653.54S	2989.72E	3.8	1386.4
7625	41.1	95.8	6630.3	6450.3	6747765.6	417757.3	655.40S	3005.98E	4.0	1392.4
7650	41.6	94.2	6649.0	6469.0	6747765.2	417762.3	656.84S	3022.43E	4.8	1398.0
7675	42.1	92.3	6667.7	6487.7	6747764.9	417767.3	657.77S	3039.07E	5.5	1403.2
7700	42.8	90.6	6686.1	6506.1	6747764.7	417772.5	658.19S	3055.93E	5.2	1408.0
7725	43.3	89.4	6704.4	6524.4	6747764.7	417777.7	658.18S	3072.99E	4.0	1412.4
7750	43.9	88.2	6722.5	6542.5	6747764.9	417782.9	657.82S	3090.21E	3.9	1416.5
7775	44.6	86.7	6740.4	6560.4	6747765.1	417788.2	657.04S	3107.62E	5.1	1420.3
7800	45.4	85.5	6758.1	6578.1	6747765.5	417793.6	655.84S	3125.25E	4.7	1423.7
7825	46.3	84.8	6775.6	6595.6	6747765.9	417799.0	654.32S	3143.12E	4.3	1426.8
7850	47.3	84.2	6792.7	6612.7	6747766.5	417804.6	652.58S	3161.26E	4.3	1429.8
7875	48.4	83.7	6809.4	6629.4	6747767.0	417810.2	650.62S	3179.68E	4.6	1432.7
7900	49.3	83.2	6825.9	6645.9	6747767.7	417815.9	648.46S	3198.38E	4.1	1435.5
7925	50.1	82.8	6842.1	6662.1	6747768.4	417821.7	646.13S	3217.31E	3.5	1438.1
7950	50.9	82.4	6858.0	6678.0	6747769.2	417827.5	643.65S	3236.44E	3.1	1440.7
7975	51.6	82.0	6873.6	6693.6	6747770.0	417833.4	641.01S	3255.75E	3.3	1443.1

Depth	Incl	Azi	TVD	TVDSS	UTM N	UTM E	Rect	Co-ords	DLS	VS
(ft)	°	°	(ft)	(ft)	(m)	(m)	(ft)	(ft)	°/100ft	(ft)
8000	52.3	81.7	6889.0	6709.0	6747770.8	417839.3	638.21S	3275.23E	2.8	1445.5
8025	53.1	81.4	6904.2	6724.2	6747771.7	417845.3	635.28S	3294.89E	3.4	1447.7
8050	53.8	81.0	6919.1	6739.1	6747772.7	417851.3	632.20S	3314.73E	3.1	1449.9
8075	54.5	80.8	6933.7	6753.7	6747773.6	417857.4	628.98S	3334.73E	3.2	1451.9
8100	55.2	80.6	6948.1	6768.1	6747774.7	417863.6	625.66S	3354.91E	2.6	1454.0
8125	55.4	80.4	6962.4	6782.4	6747775.7	417869.8	622.25S	3375.17E	1.0	1455.9
8150	55.0	80.3	6976.7	6796.7	6747776.7	417875.9	618.81S	3395.40E	1.7	1457.8
8175	54.9	80.1	6991.0	6811.0	6747777.8	417882.1	615.33S	3415.56E	0.9	1459.7
8200	55.2	79.9	7005.4	6825.3	6747778.9	417888.2	611.77S	3435.73E	1.3	1461.5
8225	55.3	79.7	7019.6	6839.6	6747780.0	417894.4	608.13S	3455.94E	0.9	1463.2
8250	55.4	79.5	7033.8	6853.8	6747781.1	417900.5	604.40S	3476.17E	0.8	1464.8
8275	55.4	79.2	7048.0	6868.0	6747782.3	417906.7	600.60S	3496.40E	1.2	1466.4
8300	55.0	78.9	7062.3	6882.3	6747783.5	417912.8	596.69S	3516.54E	1.8	1467.8
8325	54.6	78.5	7076.7	6896.7	6747784.7	417918.9	592.69S	3536.57E	1.8	1469.1
8350	54.7	78.2	7091.2	6911.2	6747786.0	417925.0	588.57S	3556.55E	1.2	1470.3
8375	54.8	77.9	7105.6	6925.6	6747787.2	417931.1	584.33S	3576.53E	1.1	1471.4
8400	55.2	77.6	7119.9	6939.9	6747788.6	417937.2	579.98S	3596.53E	1.9	1472.4
8425	55.3	77.3	7134.2	6954.2	6747789.9	417943.3	575.51S	3616.59E	1.1	1473.3
8450	55.5	77.0	7148.4	6968.4	6747791.3	417949.4	570.94S	3636.65E	1.1	1474.0
8475	55.3	76.9	7162.6	6982.6	6747792.7	417955.5	566.29S	3656.69E	0.9	1474.7
8500	55.1	76.7	7176.8	6996.8	6747794.2	417961.6	561.60S	3676.67E	1.0	1475.4
8525	54.9	76.8	7191.2	7011.2	6747795.6	417967.7	556.90S	3696.61E	1.0	1476.0
8550	54.6	77.1	7205.6	7025.6	6747797.0	417973.8	552.30S	3716.49E	1.6	1476.7
8575	54.5	77.3	7220.1	7040.1	6747798.4	417979.8	547.80S	3736.35E	0.7	1477.5
8600	54.7	77.3	7234.6	7054.6	6747799.7	417985.9	543.31S	3756.22E	1.1	1478.3
8625	54.9	77.2	7249.0	7069.0	6747801.1	417991.9	538.78S	3776.16E	0.8	1479.1
8650	54.9	77.2	7263.4	7083.4	6747802.5	417998.0	534.24S	3796.11E	0.1	1479.8
8675	54.9	77.3	7277.7	7097.7	6747803.9	418004.1	529.72S	3816.06E	0.5	1480.6
8700	54.6	77.5	7292.2	7112.2	6747805.2	418010.2	525.26S	3835.98E	1.5	1481.5
8725	54.2	77.8	7306.7	7126.7	6747806.6	418016.2	520.90S	3855.83E	1.7	1482.4
8750	54.3	78.0	7321.3	7141.3	6747807.9	418022.3	516.65S	3875.68E	0.7	1483.4
8775	54.7	78.0	7335.9	7155.9	6747809.2	418028.3	512.42S	3895.58E	1.5	1484.5
8800	54.5	78.2	7350.3	7170.3	6747810.4	418034.4	508.22S	3915.52E	0.8	1485.6
8825	54.4	78.3	7364.9	7184.9	6747811.7	418040.5	504.07S	3935.43E	0.3	1486.8
8850	54.7	78.3	7379.4	7199.4	6747813.0	418046.5	499.92S	3955.38E	1.0	1487.9
8875	54.8	78.3	7393.8	7213.8	6747814.2	418052.6	495.77S	3975.37E	0.6	1489.1
8900	54.8	78.5	7408.2	7228.2	6747815.5	418058.7	491.65S	3995.38E	0.6	1490.3
8925	54.6	78.6	7422.6	7242.6	6747816.7	418064.8	487.58S	4015.38E	0.7	1491.5
8950	54.3	78.5	7437.2	7257.2	6747818.0	418070.9	483.55S	4035.31E	1.5	1492.8
8975	54.4	78.4	7451.7	7271.7	6747819.2	418077.0	479.50S	4055.22E	0.7	1494.0
9000	54.6	78.2	7466.3	7286.3	6747820.4	418083.0	475.38S	4075.15E	1.0	1495.2
9025	54.6	78.1	7480.7	7300.7	6747821.7	418089.1	471.20S	4095.09E	0.5	1496.3
9050	54.4	78.0	7495.3	7315.3	6747823.0	418095.2	466.98S	4115.00E	0.7	1497.4
9075	54.4	77.9	7509.8	7329.8	6747824.3	418101.2	462.72S	4134.88E	0.4	1498.4
9100	54.4	77.5	7524.4	7344.4	6747825.6	418107.3	458.39S	4154.74E	1.0	1499.4
9125	54.4	77.2	7538.9	7358.9	6747827.0	418113.3	453.94S	4174.57E	1.3	1500.2
9150	54.5	76.9	7553.5	7373.5	6747828.4	418119.4	449.37S	4194.39E	1.0	1501.0
9175	54.4	76.6	7568.0	7388.0	6747829.8	418125.4	444.70S	4214.18E	0.9	1501.6
9200	54.5	76.3	7582.6	7402.6	6747831.2	418131.4	439.94S	4233.95E	1.2	1502.1
9225	54.7	76.1	7597.0	7417.0	6747832.7	418137.5	435.08S	4253.73E	0.9	1502.5
9250	54.4	76.4	7611.5	7431.5	6747834.2	418143.5	430.24S	4273.52E	1.2	1503.0

Depth	Incl	Azi	TVD	TVDSS	UTM N	UTM E	Rect	Co-ords	DLS	VS
(ft)	°	°	(ft)	(ft)	(m)	(m)	(ft)	(ft)	°/100ft	(ft)
9275	54.3	76.6	7626.1	7446.1	6747835.6	418149.5	425.49S	4293.27E	0.8	1503.5
9300	54.4	76.8	7640.7	7460.7	6747837.1	418155.5	420.81S	4313.04E	0.7	1504.1
9325	54.5	77.1	7655.2	7475.2	6747838.5	418161.6	416.22S	4332.85E	1.2	1504.8
9350	54.4	77.4	7669.8	7489.8	6747839.8	418167.6	411.74S	4352.68E	1.0	1505.6
9375	54.6	77.6	7684.3	7504.3	6747841.2	418173.7	407.32S	4372.55E	1.2	1506.4
9400	54.4	77.8	7698.8	7518.8	6747842.5	418179.7	402.97S	4392.44E	1.2	1507.4
9425	54.3	77.7	7713.4	7533.4	6747843.8	418185.8	398.66S	4412.29E	0.3	1508.4
9450	54.7	77.5	7727.9	7547.9	6747845.2	418191.8	394.30S	4432.17E	1.4	1509.3
9475	54.9	77.6	7742.3	7562.3	6747846.5	418197.9	389.90S	4452.11E	1.1	1510.2
9500	54.5	77.8	7756.7	7576.7	6747847.8	418204.0	385.56S	4472.06E	1.7	1511.2
9525	54.3	77.7	7771.3	7591.3	6747849.1	418210.0	381.25S	4491.92E	1.1	1512.2
9550	54.4	77.7	7785.9	7605.9	6747850.4	418216.1	376.91S	4511.77E	0.5	1513.1
9575	54.6	77.6	7800.4	7620.4	6747851.8	418222.1	372.55S	4531.65E	1.1	1514.0
9600	54.2	77.5	7814.9	7634.9	6747853.1	418228.2	368.16S	4551.50E	1.9	1514.9
9625	54.0	77.3	7829.6	7649.6	6747854.5	418234.2	363.75S	4571.25E	1.2	1515.8
9650	54.3	77.0	7844.3	7664.3	6747855.8	418240.2	359.25S	4591.00E	1.7	1516.5
9675	54.4	76.7	7858.8	7678.8	6747857.2	418246.2	354.62S	4610.78E	1.3	1517.2
9700	54.2	76.5	7873.4	7693.4	6747858.7	418252.3	349.90S	4630.53E	1.3	1517.8
9725	54.3	76.3	7888.0	7708.0	6747860.1	418258.3	345.13S	4650.24E	0.8	1518.2
9750	54.6	75.9	7902.6	7722.6	6747861.6	418264.3	340.24S	4669.98E	1.7	1518.6
9832	54.1	76.4	7950.4	7770.4	6747866.5	418284.0	324.31S	4734.66E	0.8	1520.0
9927	54.5	76.7	8005.8	7825.8	6747871.9	418306.9	306.39S	4809.72E	0.5	1522.1
10019	54.6	76.3	8059.1	7879.1	6747877.3	418329.1	288.89S	4882.61E	0.4	1524.1
10110	54.1	76.2	8112.2	7932.2	6747882.6	418351.0	271.31S	4954.45E	0.6	1525.7
10202	54.5	75.9	8165.8	7985.8	6747888.1	418373.1	253.33S	5026.97E	0.5	1527.1
10294	54.4	76.6	8219.3	8039.3	6747893.5	418395.2	235.54S	5099.69E	0.6	1528.7
10387	53.5	81.1	8274.1	8094.1	6747898.0	418417.7	220.96S	5173.41E	4.1	1533.7
10482	52.7	85.8	8331.1	8151.1	6747900.6	418440.7	212.25S	5248.84E	4.0	1544.8
10578	52.0	91.0	8389.8	8209.8	6747901.3	418463.8	210.07S	5324.80E	4.4	1562.4
10670	52.5	95.2	8446.1	8266.1	6747900.1	418485.9	213.98S	5397.42E	3.6	1584.9
10761	52.3	99.7	8501.6	8321.6	6747897.3	418507.7	223.28S	5468.90E	4.0	1612.4
10855	52.1	104.3	8559.2	8379.2	6747892.6	418529.8	238.73S	5541.52E	3.9	1646.2
10945	52.3	108.4	8614.4	8434.4	6747886.4	418550.6	258.78S	5609.70E	3.6	1683.2
11037	52.3	113.0	8670.7	8490.7	6747878.6	418571.4	284.49S	5677.75E	3.9	1725.6
11129	52.4	117.5	8727.0	8547.0	6747869.2	418591.4	315.51S	5743.61E	3.9	1772.6
11220	53.1	121.7	8782.1	8602.1	6747858.3	418610.6	351.29S	5806.56E	3.8	1823.5
11316	54.4	125.7	8838.8	8658.8	6747845.2	418630.2	394.24S	5870.93E	3.6	1881.6
11411	55.3	131.2	8893.6	8713.6	6747830.5	418648.8	442.46S	5931.74E	4.8	1943.9
11504	55.7	135.4	8946.3	8766.3	6747814.5	418665.7	495.01S	5987.51E	3.8	2009.1
11596	57.1	139.8	8997.2	8817.2	6747797.2	418681.5	551.60S	6039.14E	4.2	2077.2
11689	58.6	143.7	9046.7	8866.7	6747778.4	418696.3	613.40S	6087.86E	3.9	2149.5
11784	61.0	147.4	9094.5	8914.5	6747757.8	418710.5	681.08S	6134.28E	4.2	2226.8
11880	62.2	151.8	9140.2	8960.2	6747735.6	418723.5	753.87S	6176.99E	4.2	2308.2
11975	64.6	156.2	9182.8	9002.8	6747712.3	418734.8	830.17S	6214.20E	4.8	2391.5
12070	66.5	160.0	9222.2	9042.2	6747687.9	418744.6	910.37S	6246.45E	4.2	2477.4
12163	68.4	163.3	9257.9	9077.9	6747663.1	418752.9	991.87S	6273.45E	3.9	2563.1
12255	67.9	165.4	9292.2	9112.2	6747638.0	418759.9	1074.09S	6296.45E	2.2	2648.4
12348	64.3	167.7	9329.8	9149.8	6747612.8	418765.9	1156.76S	6316.25E	4.4	2733.4
12443	61.2	168.3	9373.3	9193.3	6747587.7	418771.3	1239.35S	6333.85E	3.4	2817.7
12539	63.2	167.0	9418.1	9238.1	6747562.4	418776.8	1322.27S	6352.02E	2.4	2902.5
12630	62.7	166.1	9459.6	9279.6	6747538.4	418782.5	1401.08S	6370.84E	1.0	2983.5

Depth	Incl	Azi	TVD	TVDSS	UTM N	UTM E	Rect	Co-ords	DLS	VS
(ft)	°	°	(ft)	(ft)	(m)	(m)	(ft)	(ft)	°/100ft	(ft)
12722	63.1	166.1	9501.5	9321.5	6747514.2	418788.5	1480.57S	6390.52E	0.4	3065.4
12816	60.8	165.3	9545.7	9365.7	6747489.7	418794.8	1560.94S	6411.05E	2.5	3148.4
12912	60.8	165.3	9592.5	9412.5	6747465.0	418801.3	1642.01S	6432.32E	0.1	3232.2
13006	61.3	164.5	9638.0	9458.0	6747440.8	418807.8	1721.42S	6453.73E	0.9	3314.4
13097	61.2	164.1	9681.8	9501.8	6747417.4	418814.4	1798.20S	6475.34E	0.5	3394.2
13189	61.1	163.6	9726.2	9546.2	6747393.8	418821.2	1875.57S	6497.80E	0.5	3474.7
13271	61.4	163.7	9765.7	9585.7	6747372.8	418827.4	1944.53S	6518.08E	0.4	3546.6
13315	61.4	163.4	9786.8	9606.8	6747361.5	418830.7	1981.57S	6529.02E	0.4	3585.2

APPENDIX B

SAMPLES FOR 3/03 - C71

Unwashed Samples Set A

Located at HAYS Storage – Aberdeen 7,420 – 12,220ft & 12,230 – 12,315ft (TD)

Washed / Dried Samples Set B

Located at DTI Core Store – Edinburgh 7,420 – 12,220ft & 12,230 – 12,315ft (TD)

ATTACHMENTS

Composite Log 3/03-C71 (C03RD)